



**NORTH MARIN WATER DISTRICT**  
**AGENDA - REGULAR MEETING**  
 May 15, 2018 – 6:00 p.m.  
 District Headquarters  
 999 Rush Creek Place  
 Novato, California

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Est. Time	Item	Subject
6:00 p.m.		<b>CALL TO ORDER</b>
	1.	<b>APPROVE MINUTES FROM REGULAR MEETING</b> , May 1, 2018
	2.	<b>PUBLIC HEARING</b>  <i>Consider Proposed Increase in Water Rates for Novato Service Area and Resulting Revisions to District Regulation 54, Water Rates</i>
		Resolution
	3.	<b>GENERAL MANAGER'S REPORT</b>
	4.	<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.
	5.	<b>STAFF/DIRECTORS REPORTS</b>
	6.	<b>MONTHLY PROGRESS REPORT</b>
		<b>CONSENT CALENDAR</b>  The General Manager has reviewed the following items. To his knowledge, there is no opposition to the action. The items can be acted on in one consolidated motion as recommended or may be removed from the Consent Calendar and separately considered at the request of any person.
	7.	<b>Consent – Approve:</b> Text for Spring 2018 Novato <i>WaterLine</i> , Volume 19, Issue 40
	8.	<b>Consent – Approve:</b> Text for Spring 2018 West Marin's <i>WaterLine</i> , Volume 15
		<b>INFORMATION ITEMS</b>
	9.	FY 17/18 Third Quarterly Progress Report – Operations/Maintenance
	10.	Bulk Chemical Purchases
	11.	Second Review – Proposed FY 2018/19 Novato Water Equipment Budget
	12.	Second Review – Proposed FY 19 & FY 20 Novato Capital Improvement Projects Budget
	13.	Second Review – Proposed FY 2018/19 Novato Operations Budget

All times are approximate and for reference only.

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

(Continued)

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<b>Est. Time</b>	<b>Item</b>	<b>Subject</b>
	14.	Second Review – Proposed FY 2018/19 Novato Recycled Water System Budget
	15.	NBWA – May 4, 2018 Meeting – Wetlands Tour Recap
	16.	<b>MISCELLANEOUS</b> Disbursements – Dated May 3, 2018 Disbursements – Dated May 10, 2018 NBWRA – May 21, 2018 Agenda Sanitary district head leaving for position in SF Where Water is Scarce, Communities Turn to Reusing Wastewater Novato’s 23 Annual Clean & Green Day Letter Evacuation Drill- NMWD staffed a table Incumbents seek to hold off bids of challengers Novato Chamber Leadership Novato 2018 Graduation Ceremony– Rocky Vogler  <u>News Articles:</u> Sewer Agency mergers need leadership
7:30 p.m.	17.	<b>ADJOURNMENT</b>

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**DRAFT**  
**NORTH MARIN WATER DISTRICT**  
**MINUTES OF REGULAR MEETING**  
**OF THE BOARD OF DIRECTORS**  
May 1, 2018

**CALL TO ORDER**

President Fraites called the regular meeting of the Board of Directors of North Marin Water District to order at 6:00 p.m. at the District Headquarters and the agenda was accepted as presented. Present were Directors Jack Baker, Rick Fraites, Michael Joly, James Grossi, and Stephen Petterle. Also present were General Manager Drew McIntyre, District Secretary Terrie Kehoe, Auditor-Controller David Bentley and Chief Engineer Rocky Vogler.

District employees, Robert Clark (Maintenance/Operations Superintendent), and Julie Blue (incoming Auditor-Controller) were also in attendance. Carol Bentley, Chris DeGabriele, Martin Rauch, Supervisor Dennis Rodoni, and Frank Soriano were also in the audience.

**MINUTES**

On motion of Director Baker, seconded by Director Petterle the Board approved the minutes from the April 17, 2018 meeting as presented by the following vote:

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

NOES: None

ABSENT: None

ABSTAIN: None

**GENERAL MANAGER'S REPORT**

During the General Manager's report, Mr. McIntyre stated that Mr. Lemos and Mr. Bentley's retirement celebration on April 20<sup>th</sup> was well attended. Mr. McIntyre mentioned that on Saturday, May 5<sup>th</sup> there will be many local community activities with Water Conservation staff supporting the Garden Tour and Tour Novato and Mr. Clark and Mr. McIntyre participating in a residential evacuation drill exercise coordinated by the Novato Fire Protection District in select areas in town. Mr. McIntyre also reminded the Board of the Novato rate increase public hearing scheduled for the May 15 meeting. The General Manager also reported that there are several upcoming meetings, FCZ 1, SBWA Wetlands Tour and a WAC/TAC.

**OPEN TIME**

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

1 **QUARTERLY FINANCIAL STATEMENT – March 31, 2018**

2 Mr. Bentley presented the Novato, West Marin Oceana Marin, and Recycled Water budgets  
3 and net income review. For the first nine months, the District generated a net income of \$1.8M and  
4 saw a net cash increase of \$7.6M. He stated that Operating Revenue came in 11% over budget  
5 and Operating Expense can in 2% under budget. At month end, the ratio of total cash to budgeted  
6 annual operating expenses stood at 114%. He advised the Board that Novato water consumption  
7 was 14% more than the prior during the same period and total Operating Revenue for Novato water  
8 increased 19% due to the consumption increase and the 5% rate increase effective June 1, 2017.  
9 Director Joly commended Mr. Bentley for the Financial Statement format and accuracy.

10 **STAFF/DIRECTORS REPORTS**

11 President Fraites asked if staff or Directors wished to bring up an item not on the agenda  
12 and the following items were discussed:

13 Mr. Vogler announced major construction work will begin on May 14<sup>th</sup> for the Ridge Road  
14 Pipeline Replacement project. Director Baker inquired about the number of residents affected and  
15 Mr. Vogler responded that the Ridge Road Project is affecting 75-80 residents.

16 Director Fraites had a question in reference to whether or not a map of the District's  
17 Recycled Water distribution system is available on our website. Mr. McIntyre replied that the  
18 Recycled Water Map is available to view on our website.

19 Director Joly inquired about when North Marin Water District letterhead will be updated.  
20 District Secretary Kehoe stated that new letterhead will be available starting May 2<sup>nd</sup> and from now  
21 on we will be creating letterhead in house so that any changes can be made immediately without  
22 waste.

23 **CONSENT CALENDAR**

24 On the motion of Director Pettele, and seconded by Director Joly the Board approved the  
25 following items on the consent calendar by the following vote:

26 AYES: Director Baker, Fraites, Grossi, Joly and Pettele

27 NOES: None

28 ABSENT: None

29 ABSTAIN: None

30 **WATER AGREEMENT- 5300 REDWOOD HWY**

31 The Board approved the water service agreement for 5300 Redwood Hwy. The project  
32 consists of lowering 60 feet of exiting parallel 2-inch size PVC main and 2-inch PVC conduit (120

1 feet total), and relocation of a 1-inch service located 14 feet from the existing 8,000 gallon  
2 Windhaven concrete tank to 130 feet west of the new home driveway entrance on Cloud Lane  
3 (Referred to as 5300 Old Redwood Hwy. South).

4 **WATER AGREEMENT – COLLEGE OF MARIN (IVC) BUILDING NO. 11 FIRE SERVICE**

5 The Board approved the water service agreement for College of Marin (IVC) Building No. 11  
6 Fire Service. The Indian Valley Campus (IVC) anticipates five separate improvement projects  
7 requiring water facility improvement. The initial project, Building No 11 Renovation, requires  
8 installation of automatic fire protection systems requiring a dedicated 4-inch fire service.

9 **MILLER PAIFIC ENGINEERING FROUP- CONSULITING SERVICES AGREEMENT**

10 The Board authorized the General Manager to execute a new General Engineering Services  
11 agreement for Consulting Geotechnical Services between NMWD and Miller Pacific Engineering  
12 Group.

13 **RATE INCREASE LETTER TO WEST MARIN WATER AND OCENANA MARIN SEWER**  
14 **CUSTOMERS**

15 The Board approved the Rate Increase Letter to West Marin Water and Oceana Marin  
16 Sewer Customers. A public hearing is scheduled for Tuesday, June 26, 2018 at 6:00 at the Dance  
17 Palace in Point Reyes Station. The June 26 Public Hearing date requires that the notification letters  
18 be postmarked no later than May 13, 2018. A 4.5% rate increase is proposed West Marin Water  
19 customers and a 5% rate increase is proposed for Oceana Marin Sewer customers.

20 **AUTHORIZED SINATORIES ON DISTRICT ACCOUNTS**

21 The Board authorized the General Manager Drew McIntyre, Auditor-Controller Julie Blue and  
22 Senior Accountant Nancy Holton to be authorized to perform purchase and sale of financial  
23 securities for the District's investment portfolio.

24 **AUDITOR-CONTROLLER APPOINTMENT**

25 The Board authorized the appointment of Julie Blue as Auditor-Controller effective May 2,  
26 2018.

27 **ACTION CALENDAR**

28 **RESOLUTION OF APPRECIATION FOR KERRY LEMOS**

29 Mr. McIntyre announced that after 31 years of employment with the North Marin Water  
30 District, Kerry Lemos was retiring. A resolution is recommended to convey appreciation to Mr.  
31 Lemos for his many years of service to the District. Drew McIntyre commented that Kerry provided

1 many years of dedicated service and his skills will be missed. Robert Clark provided the Board with  
2 a review staffing changes that have occurred over the last year in anticipation of Kerry's retirements.  
3 Chris DeGabriele, former NMWD General Manager was in the audience and stated that Kerry was a  
4 good man and the District was lucky to have him.

5 On the motion of Director Petterle, and seconded by Director Grossi, the Board approved  
6 the Resolution of Appreciation for Kerry Lemos by the following vote:

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

8 NOES: None

9 ABSENT: None

10 ABSTAIN: None

11 **RESOLUTION OF APPRECIATION FOR DAVID BENTLEY**

12 Mr. McIntyre announced today was Mr. Bentley's last year of service after 31 years of  
13 employment to the District. Mr. McIntyre read some of the resolution of appreciation, wished Mr.  
14 Bentley well and thanked him for his exemplary service. The Directors commented on Mr. Bentley's  
15 value to this District. Members of the audience, former General Manager Chris DeGabriele, and  
16 Frank Soriano also expressed their gratitude and wished him well. Also in the audience, Supervisor  
17 Rodoni thanked Mr. Bentley for his professional dedication and presented him with a resolution of  
18 appreciation from Marin County.

19 On the motion of Director Petterle, and seconded by Director Joly, the Board approved the  
20 Resolution of Appreciation for David Bentley by the following vote:

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

22 NOES: None

23 ABSENT: None

24 ABSTAIN: None

25 **PRE TANK 4A REPLACEMENT PROJECT – REQUEST FOR AUTHORIZATION TO CONDUCT**  
26 **CEQA PUBLIC REVIEW**

27 Mr. Vogler provided information supporting staff's request to receive authorization from the  
28 Board to initiate the CEQA 30-Day Public Review Period for the project and to schedule a public  
29 hearing for the June 26, 2018 Board Meeting at which time the Board will consider adoption of the  
30 Mitigated Negative Declaration (MND). Mr. Vogler provided a brief history of the PRE project and  
31 explained that this project will be to build a new concrete tank to replace an old redwood tank.

1 Director Grossi wanted to know if we had other redwood tanks, and Director Baker has concerns  
2 with fire. Mr. Vogler did confirm that we do have other redwood tanks, but that they are in good  
3 shape and we do not have plans to replace them in the next five years. Mr. Vogler also commented  
4 that we have the ability to cascade water from the upper to lower tanks in PRE for improved flexibility  
5 in the event of an emergency in any one zone.

6 On the motion of Director Joly, and seconded by Director Baker the Board approved the  
7 PRE Tank 4A Replacement Project –Request for Authorization to Conduct CEQA Public Review by  
8 the following vote:

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

10 NOES: None

11 ABSENT: None

12 ABSTAIN: None

13 **REVISION OF BOARD POLICY 45 –FINANCIAL RESERVES**

14 Mr. Bentley provided a review of the history behind the District’s Financial Reserves Policy  
15 and that it serves two purposes, one to comply with legal requirements and the other to provide  
16 reserves for extraordinary expenses such as disaster response, drought or a major liability claim.  
17 He then reviewed the various updates that staff is recommending to the Policy originally adopted in  
18 2009. A discussion followed.

19 On the motion of Director Baker, and seconded by Director Joly, the Board approved the  
20 Revision of Board Policy 45- Financial Reserves by the following vote:

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

22 NOES: None

23 ABSENT: None

24 ABSTAIN: None

25 **AMI OPT-OUT, BOARD POLICY No. 48**

26 Ms. Blue reported that the AMI meter installation project is underway. Currently 25  
27 customers have requested to opt-out of installing AMI meters. She stated that a survey was  
28 conducted by staff to learn how other agencies address this issue. Five of the seven agencies did  
29 not allow customers to opt-out, one agency had established an opt-out policy and one was  
30 considering a policy. Ms. Blue commented that per the proposed policy, those customers that wish  
31 to opt-out must submit an application and will be charged \$10 per billing cycle to pay for the Field



1 Services Representative to read the meter. The customer will be notified approximately 10 days  
2 prior to meter installation allowing sufficient time to call-in with questions or opt-out requests.  
3 Additionally, when an opt-out customer calls to discontinue service, at that time an AMI meter will be  
4 installed. Staff recommends that once a meter is installed there be no opt-out option.

5 On the motion of Director Petterle, and seconded by Director Grossi, the Board approved  
6 the AMI Opt-Out Policy by the following vote:

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

8 NOES: None

9 ABSENT: None

10 ABSTAIN: None

11 **EXCEPTION TO CALPERS 180-DAY WAIT PERIOD REQUIREMENT FOR RETIRING**  
12 **EMPLOYEE**

13 Mr. McIntyre explained that the retiring Auditor-Controller David Bentley is needed to  
14 perform a Cost of Service Study to ensure continued compliance of the District's water rates with  
15 California Constitution Article XIID., Section 6 (commonly referred to as Proposition 218). The  
16 District would benefit in utilizing Mr. Bentley's expertise to complete the Draft Cost of Service Study.  
17 Additional tasks include support work related to negotiations of a new MOU with the Employee's  
18 Association. Due to CalPERS many restrictions pertaining to employment of retired employees,  
19 there is 180-day separation in service; unless an exception is made by resolution of the Board.

20 On the motion of Director Baker, and seconded by Director Joly, the Board approved the  
21 Resolution for Exception to CalPERS 180-Day Wait Period for Hiring Retiree David Bentley and  
22 authorized the General Manager to utilize Mr. Bentley on an as-needed basis by the following vote:

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

24 NOES: None

25 ABSENT: None

26 ABSTAIN: None

27 **INFORMATION ITEMS**

28 **DRAFT 2018 STRATEGIC PLAN PRESENTATION BY RAUCH COMMUNICATIONS**

29 Martin Rauch from Rauch Communications provided a presentation of the Draft 2018  
30 Strategic Plan. Mr. Rauch stated that the Strategic Plan is the District's highest-level planning  
31 document, and represents the Board's direction for the future and the staff's work plan for

1 implementing it. The Plan identifies the District's mission, vision and values, while providing a set of  
2 goals and objectives that becomes the framework for all critical decision making. Staff worked with  
3 Mr. Rauch on preparation of the draft 2018 Strategic Plan based on the input from Board members  
4 and senior staff during two previous all day workshops conducted in February. Mr. McIntyre asked  
5 the Board to review the Plan and get back to him with any changes on or before May 15. A final  
6 version of the report will return to the Board for review at a subsequent meeting after incorporation  
7 of draft comments.

8 **QUARTERLY PROGRESS REPORT – WATER CONSERVATION (JULY-MARCH 2017/2018)**

9 Mr. Vogler presented the Quarterly Progress Report – Water Conservation (July-March  
10 2017/2018) on behalf of Mr. Grisso. Water conservation participation has trended down this fiscal  
11 year in the post drought period and staff is planning on returning to the Board in the future with  
12 conservation program re-tooling and program adjustment options. Public outreach continues with  
13 publications and outreach events.

14 **FY 17-18 THIRD QUARTER PROGRESS REPORT – ENGINEERING DEPARTMENT**

15 Mr. Vogler presented the District's performance in completing budgeted FY 17-18 Capital  
16 Improvement Projects. Mr. Vogler stated the Capital Improvement Projects are on track. Director  
17 Baker wanted to know the sense of the housing market. Mr. Vogler commented that Novato is built  
18 out and most of what we currently see are Tenant Improvement projects. Director Grossi stated that  
19 there seems to be a new focus mixed use projects for future construction.

20 **INITIAL REVIEW- INITIAL REVIEW FY 2018/19 PROPOSED NOVATO OPERATIONS BUDGET**

21 Ms. Blue summarized the proposed Novato Operations Budget. A 4.5% rate increase was factored  
22 into the budget effective June 1, 2018. Water sales volume is budgeted at 2.6 BG, and other  
23 revenue including connection fees, MMWD wheeling charge and miscellaneous revenue was  
24 discussed. Staffing level includes 54 full-time equivalent employees and the temporary staffing  
25 budget is proposed to increase by 250 hours. In addition, a 3% cost-of-living salary increase was  
26 factored into the budget. Staff will return with further review at the May 15<sup>th</sup> meeting.

27 **INITIAL REVIEW FY 2018/19 NOVATO RECYCLED WATER SYSTEM BUDGET**

28 Ms. Blue summarized the Novato Recycled Water System Budget. The budget projects that  
29 demand is increasing by 25% due to the Recycled Water Central Expansion Project and operating  
30 expenses are budgeted to increase 11%. Staff will return with further review at the May 15<sup>th</sup>  
31 meeting.

32 **MISCELLANEOUS**

1           The Board received the following miscellaneous items: Disbursements-Dated April 19, and  
2 April 26, 2018, Proof of Publication, and Notice of West Marin Salinity Intrusion 4/17/2018, Press  
3 Release-NMWD Water Quality Supervisor Recognized for Outstanding Service.

4           The Board also received the following news articles: Forums set on plans for housing,  
5 Hayward fault big threat to Marin, Crucial talks set for housing in West Marin, Scientists predict  
6 greater frequency of severe weather, New call for fusion of sewer agencies, North Bay Water Reuse  
7 Authority to Host Public Meetings to Review Phase 2 Recycled Water Projects.

8           **ADJOURNMENT**


9           President Fraites adjourned the meeting at 7:48 p.m.

10    Submitted by

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14    Theresa Kehoe  
15    District Secretary  
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## MEMORANDUM

To: Board of Directors  
From: Julie Blue, Auditor-Controller   
Subj: Public Hearing – Proposed Novato Water Rate Increase  
t:\aclword\budget\19\public hearing - rate increase fy19.docx

May 11, 2018

**RECOMMENDED ACTION:** Approve  
**FINANCIAL IMPACT:** Additional \$880,000 in FY19 Revenue

A public hearing to consider adoption of a proposed 4.5% increase in the cost of water, effective June 1, 2018, is scheduled for May 15 at 6:00 PM. Customers were noticed individually of the proposed increase by letter (Attachment A) and a notice of the Public Hearing was published in the May 11 edition of the Marin Independent Journal (Attachment B).

Under law, a customer protest of 50% plus one would invalidate the proposed increase. Through May 10, the District received seven official protests against the proposed increase. In addition to the protests there was one request from a customer requesting a change in the tier rates for larger lot sizes, an email from a customer asking about the increasing rates and inquiring about the operations and capital plan, and two letters received in favor of the increase. The customer letters received are included as Attachment C.

Staff also received nine calls related to the rate increase. Two customers were in support of the increase. Two customers wanted to know how to protest the rate increase. One customer was against the increase and was inquiring about the District's operating costs. Another customer wanted to know which rate zone they were located in. Lastly, three calls were inquiring about how the increase would impact their individual bill and were directed to the NMWD website's annual water cost calculator.

The General Manager will make a presentation on the need for the proposed water cost increase at the meeting, after which the Board can accept public comment. Attachment D is a draft of Regulation 54 incorporating the proposed changes.

**Staff Recommendation**

After closing the public hearing, approve Resolution 18-XX (Attachment E) amending Regulation 54 pertaining to Water Rates and Charges to reflect an increase of 4.5% for the customers in the Novato Service Area effective June 1 of 2018.



March 30, 2018  
NMWD Account # <AccountNo>

<SCpostal Info> <BreakLine>  
<FullName>  
<Company>  
<Add2>  
<Add1>  
<<City> <State> <Zip>  
<BarCode>

999 Rush Creek Place  
P.O. Box 146  
Novato, CA 94948

**PHONE**  
415.897.4133

**EMAIL**  
info@nmwd.com

**WEB**  
www.nmwd.com

**Re: Notice of Proposed Water Rate Increase**

Dear Customer:

The mission of North Marin Water District (NMWD) is to provide an adequate supply of safe, reliable and high-quality water to our customers at reasonable cost consistent with good conservation practices and minimum environmental impact. To fulfill this mission, NMWD must generate revenue sufficient to cover its cost of operations.

Accordingly, North Marin Water District is proposing an increase in the cost of water which averages \$2.50 per month (4.5%) for the typical Novato customer, effective June 1 of 2018.

This letter provides details on the need for the increase and information about the public hearing where public comment will be taken prior to a vote by the District Board of Directors on the proposed water rate increase.

**You can determine the increase in your annual water cost based on your personal water use over the past year from our website. Insert your NMWD account number and the name on your account into the Rate-Increase Model on NMWD's website at [https://www.nmwd.com/account\\_balance.php](https://www.nmwd.com/account_balance.php)**

**REASON FOR THE PROPOSED INCREASE**

**Higher Water Cost:** The Sonoma County Water Agency (SCWA), which provides 80% of Novato's water supply, is increasing the rate it charges NMWD for Russian River water by 4% effective July 1, 2018.

**Water System Infrastructure Maintenance:** The Novato water system includes 333 miles of pipeline, 38 million gallons of finished water storage distributed across 33 tanks, 26 pump stations, 13 pressure regulating stations, 2,656 fire hydrants and a multitude of valves, all of which require ongoing maintenance. The District is now 70 years old and much of the pipeline installed in the early years is nearing the end of its useful life, thus requiring future replacement.

**RATE COMPARISON**

NMWD's rates remain reasonable as demonstrated by the "Urban Area Water Cost Comparison" (page 4 of this letter) which compares NMWD's cost of water service to 16 counterpart water providers in the San Francisco Bay Area. This chart shows that the typical cost of service for a Novato single-family residence is just above the median of these comparison agencies.

DIRECTORS: JACK BAKER • RICK FRAITES • JAMES GROSSI • MICHAEL JOLY • STEPHEN PETERLE  
OFFICERS: DREW MCINTYRE, General Manager • TERRIE KEHOE, District Secretary  
DAVID L. BENTLEY, Auditor-Controller • ROCKY VOGIER, Chief Engineer

### **PROPOSED RATE INCREASE**

A table showing the existing and proposed rates and charges is included on page 3 of this letter.

**Residential Accounts:** It is proposed that a 4.5% increase in the commodity rate and the bimonthly service charge be implemented effective June 1, 2018. For the typical Novato single-family residence, the proposed increase in the total cost of water (commodity charge plus bimonthly service charge) would add \$2.50 per month (\$5.00 per bimonthly bill) to the cost of water beginning June 2018.

**Non-Residential Accounts (Commercial, Institutional & Irrigation):** It is proposed that a 4.5% increase in the commodity rate and the bimonthly service charge be implemented effective June 1, 2018. The increase for non-residential customers will vary based upon water use. In Novato the median non-residential account uses more water than the median residential account, but would still see an increase in the total cost of water (commodity charge plus bimonthly service charge) of 4.5%. You can determine the increase in your annual water cost based on your consumption over the past year from our website. See the boxed area above for instructions.

### **WATER RATE PUBLIC HEARING**

**A public hearing will be held at the NMWD office (999 Rush Creek Place, Novato) at 6:00 p.m. on Tuesday, May 15, 2018, to consider enactment of an increase of up to 4.5% effective June 1, 2018.**

### **HOW TO PARTICIPATE**

You are invited to present oral or written testimony on these proposals at the public hearing. You have the right to protest these proposed rate increases. If you do, you must submit your protest in writing, even if you plan to attend the public hearing. If written protests are submitted by a majority of the affected property owners or customers, the proposed increases will not be imposed.

Your written protest must be received prior to the close of the May 15, 2018 public hearing. Written protests must be signed by the property owner or customer of record and must include a description of the parcel (parcel number) or NMWD account number. Send or deliver written protests to:

District Secretary  
North Marin Water District  
PO Box 146  
Novato, CA 94948

For more information visit NMWD's website at [www.nmwd.com](http://www.nmwd.com) or call the District Secretary at (415) 897-4133.

Sincerely,

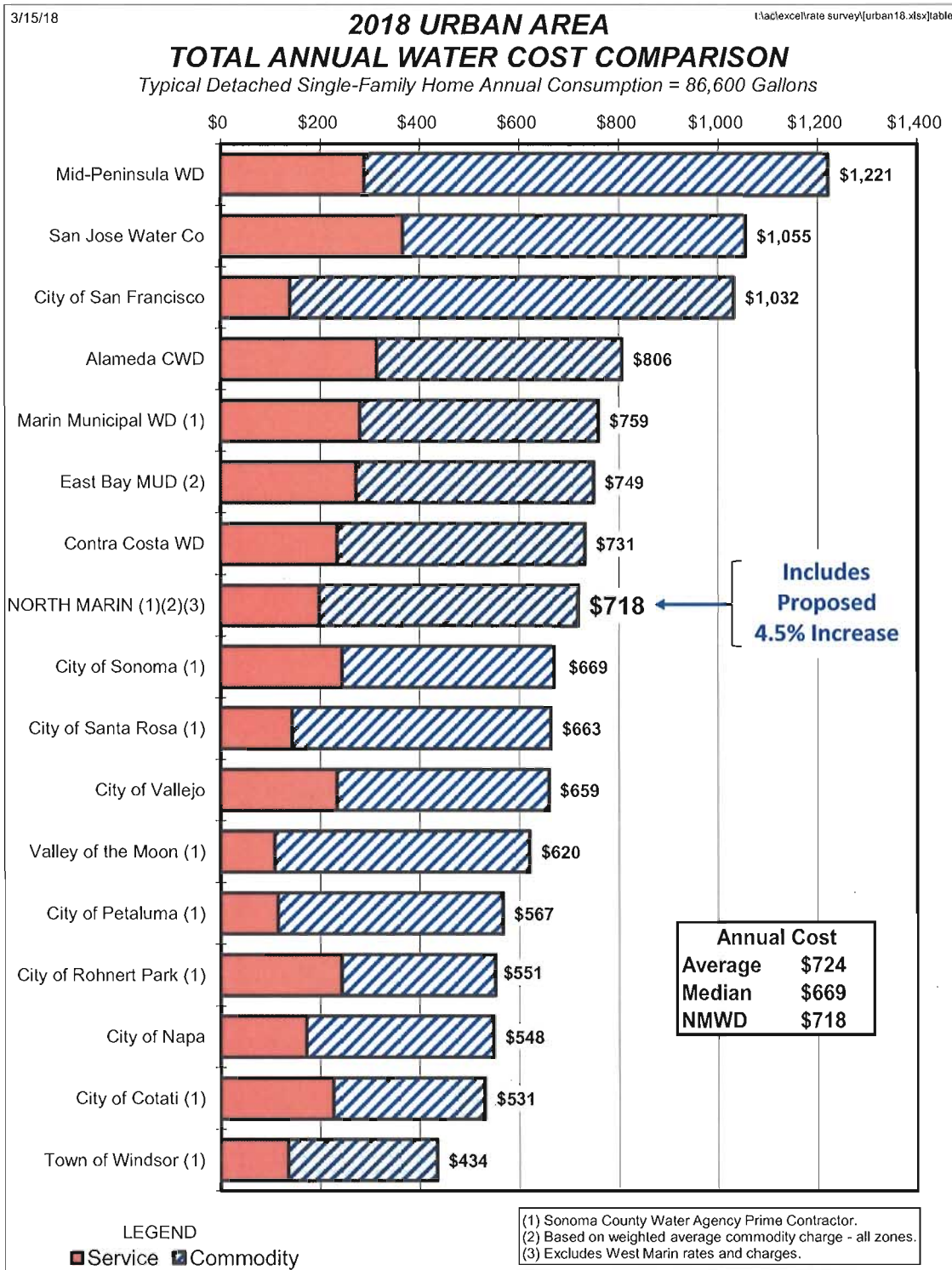


Drew McIntyre  
General Manager

**NOVATO WATER CHARGES**

	Existing	Proposed	%
	6/1/17	6/1/18	Increase
<b>ABI-MONTHLY SERVICE CHARGE OF:</b>			
STANDARD 5/8-INCH METER .....	\$31.50	\$33.00	4.5%
1 -inch residential meter for fire sprinklers .....	\$35.70	\$37.50	4.5%
1 -inch meter .....	\$63.00	\$66.00	4.5%
1.5 -inch meter .....	\$77.00	\$80.50	4.5%
2 -inch meter .....	\$120.00	\$125.50	4.5%
3 -inch meter .....	\$238.00	\$248.50	4.5%
4 -inch meter .....	\$382.00	\$399.00	4.5%
6 -inch meter .....	\$799.00	\$835.00	4.5%
8 -inch meter .....	\$1,191.00	\$1,244.50	4.5%
<b>PLUS A QUANTITY RATE OF:</b>			
<u>Residential rate for each 1,000 gallons</u>			
First 615 gallons per day .....	Rate \$5.01	Rate \$5.24	4.5%
616 - 1,845 gallons per day .....	\$7.99	\$8.35	4.5%
Use in excess of 1,845 gallons per day.....	\$13.91	\$14.54	4.5%
<u>Rate for each 1,000 gallons for all other potable water accounts</u>			
Commercial, institutional & irrigation accounts - 11/1-5/31...	\$5.52	\$5.77	4.5%
Commercial, institutional & irrigation accounts - 6/1-10/31....	\$5.93	\$6.20	4.5%
<u>Rate for each 1,000 gallons for non-potable water</u>			
Recycled Water .....	\$5.52	\$5.77	4.5%
Raw (Untreated) Water .....	\$2.28	\$2.38	4.5%
<b>PLUS AN ELEVATION ZONE RATE FOR EACH 1,000 GALLONS OF:</b>			
<u>Zone Elevation</u>	<u>Rate</u>	<u>Rate</u>	
A 0 through 60 feet.....	\$0.00	\$0.00	-
B 60 feet - 200 feet.....	\$0.60	\$0.63	4.5%
C 200 feet +.....	\$1.92	\$2.01	4.5%
<b>Hydrants or Temporary Service.....</b>	<b>\$7.85</b>	<b>\$8.21</b>	<b>4.5%</b>





PUBLISHED  
MARIN IJ  
MAY 11, 2018

**North Marin Water District  
WATER RATE HEARING** ✓

Purpose: Consider Proposed Rate Increase  
Impact Area: Greater Novato Area  
Date and Time: Tues, May 15, 2018 at 6:00 p.m.  
Place: 999 Rush Creek Place, Novato

**PROPOSAL**

NMWD is proposing an increase in water rates and charges of 4.5% for Novato customers. The increase is proposed to be effective June 1 of 2018.

**REASON FOR THE PROPOSED INCREASE**

**Higher Water Cost:** The Sonoma County Water Agency (SCWA), which provides 80% of Novato's water supply, is increasing the rate it charges NMWD for Russian River water by 4% effective July 1, 2018.

**Water System Infrastructure Maintenance:**

The Novato water system includes 333 miles of pipeline, 38 million gallons of finished water storage distributed across 33 tanks, 26 pump stations, 13 pressure regulating stations, over 2,656 fire hydrants and a multitude of valves, all of which require ongoing maintenance. The District is now 70 years old, and much of the pipeline installed in the early years is nearing the end of its useful life, thus requiring future replacement.

NMWD's rates remain reasonable. You can assess this for yourself by comparing NMWD's cost of water service to 16 counterpart Bay Area water agencies (see Urban Area Water Cost Comparison at <http://www.nmwd.com>). This chart shows that the typical cost of service for a Novato single-family residence is just above the median for these companion agencies.

**IMPACT**

**Residential Accounts:** For the typical Novato single-family residence, the proposed increase in the total cost of water (commodity charge plus bimonthly service charge) is 4.5%. The proposed increase would add \$2.50 per month (\$5.00 per bimonthly bill) to the cost of water for a typical single-family residence beginning June 1, 2018.

**Non-Residential Accounts (Commercial, Institutional & Irrigation):** The increases for non-residential customers will vary based upon water use. Non-residential accounts would see a 4.5% increase commencing June 1, 2018.

**Customers can determine the increase in their annual water cost based on their water use over the past year from NMWD's website. Insert your NMWD account number and the name on your account into the Rate-Increase Model on NMWD's website at <http://www.nmwd.com/accountbalance.php>.**

**PUBLIC HEARING**

A public hearing will be held at the NMWD office (999 Rush Creek Place, Novato) at 6:00 p.m. on Tuesday, May 15, 2018, to consider enactment of the proposed increases. You are cordially invited to attend the hearing, or mail or email your comments ([info@nmwd.com](mailto:info@nmwd.com)). For more information visit NMWD's website or call the District Secretary at (415) 897-4133.  
No. 611 May 10, 2018



**NORTH MARIN  
WATER DISTRICT**

March 30, 2018  
NMWD Account # 811204

*Please consider this written statement  
as my written protest to proposed rate increases.*

\*\*\*\*\*ECRWSS\*\*C 088

11215 P2 T45 45  
Marcia & Ralph Montes  
370 San Luis Way  
Novato CA 94945-1649



*Montes  
marci montes  
acct # 811204*

199 Rush Creek Place  
P.O. Box 146  
Novato, CA 94949

**Re: Notice of Proposed Water Rate Increase**

Carrie Gray  
8 Guisela Court  
Novato, CA 94945

April 6, 2018

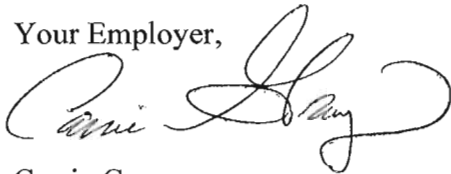
District Secretary  
North Marin Water District  
PO Box 146  
Novato, CA 94948

RE: NMWD Account # 1527803

District Secretary:

I protest the proposed rate increase.

Your Employer,

A handwritten signature in black ink, appearing to read "Carrie Gray", written over the typed name.

Carrie Gray

RECEIVED  
APR 10 2018  
North Marin Water District

April 6, 2018

Dear Board members,

I am writing concerning your proposed water cost increase. It seems to me that you are overly increasing and taking advantage of this situation. If Sonoma water district is increasing the cost of water then raise the rater cost only. don't stick me with another meter increase.

Therefore I am against your proposed increase and suggest you repackage something a little less of a financial hardship on the common people who live in this area.

Sincerely,



Chris J. Miller  
&08 Alice St.  
Novato, Ca. 94945  
Acct.# 55005

RECEIVED

APR 10 2018

North Marin Water District

708 Alice St.

District Secretary  
North Marin Water District  
P. O. Box 146  
Novato, CA 94948

April 17, 2018

We protest the proposed rate increases.

Christel Martin  
(Mrs. L. Martin)  
NMWD # 720401

RECEIVED

APR 20 2018

North Marin Water District

APRIL 21, 2018

Re: Protest Rate Increase

I protest the proposed rate increase of 4.5%. Rates have been increasing faster than inflation for years.

Stop! No more rate increases.

Tim Kenney  
NmWD Acct# 4212703

RECEIVED

APR 25 2018

North Marin Water District

4-10-18

District Secretary  
North Marin Water District PO Box 146  
Novato, CA 94948

Dear Sir:

Please note that I am OPPOSED to the raise in price that you are proposing.

These are the same old reasons you used last time there was an increase. Why not budget appropriately for infrastructure maintenance! Perhaps your salaries and annual increases are too high. Raises, where I work were 2%.

I also find it interesting that SCWA supposedly is increasing their rates by 4% effective July 1, 2018. But you are asking to increase the rates by 4.5% a month before the supposed increase from SCWA is due.

All of you need to do a better job!

Very truly yours,



Ellen Shannahan  
601 Indian Way  
Novato, CA 94949

RECEIVED

APR 13 2018

North Marin Water District



RECEIVED

MAY 10 2018

North Marin Water District

Korhan Bircan

78 Pizarro Ave  
Novato, CA 94949  
408-221-6767  
korhanbircan@gmail.com

May 6, 2018

District Secretary  
North Marin Water District  
PO Box 146  
Novato, CA 94948

I have received the "Notice of Proposed Water Rate Increase" dated March 30, 2018 and hereby present my written protest to the proposed rate increases.

The premise of the proposal is that the cost of water needs to be increased by 4.5% per month to generate revenue sufficient to cover its cost of operations. The explanation is that SCWA, which provides 80% of Novato's water supply, is increasing the rate it charges NMWD for by 4%.

I'm opposing the proposal for a number of reasons.

1. With the provided information, I see a gap in your arithmetic. SCWA rate increase impacts Novato users rates by 3.2% (80% of Novato's water comes from that source, and their increase is 4% which means Novato users rate will be impacted by  $0.8 \times 0.04 = 0.032$  which is 3.2%). Therefore, your proposal unjustly incurs an additional 1.3% rate increase on Novato users.
2. It's clear from the Total Annual Water Cost Comparison graph that the service charges between counties vary considerably. It's not clear what NMWD is doing to improve their methods, processes, infrastructure, training etc. so that service can be provided more efficiently at a lower cost which could then compensate for this rate increase.
3. Similarly, what are the main reasons NMWD's service costs are not the lowest and what can be done to close those gaps?

4. Has SCWA rates ever dropped in its history? If so, was this ever reflected as lowered rates for NMWD users? I'm hoping these proposal are not unidirectional eg. only requesting increases.

Unfortunately I will not be able to participate in the May 15th hearing. I am hoping, however, that my voice will be among the many others who will help keep our already high rates in check.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "K. Bircan".

Korhan Bircan

NMWD Account # 4026905

4/17/18

Dear Mr. McIntyre and the Marin Municipal Water District,

Parcel Number: 146-262-05

I'm writing regarding the proposed water rate increase.

I respectfully request consideration for a tiered system for properties that are outside the normal suburban users. We have livestock, and while I take military showers, their water needs, especially during the hotter months, cannot be so regulated.

I realized that cutting back was important and we eagerly participated in the lawn removal program. We removed two thirds of the grass here at Thistledew Ranch and appreciated the program very much. We use timed drip irrigation and sprinklers in the garden and both my vehicles and the horses would definitely look better if they were washed more than they are. It's quite possible our dogs get bathed more often.

I wish putting in a well here was practical; regrettably we remain beholden to a city water supply.

Would you please consider an adjusted fee for those properties such as ours, with horses (5) and larger lot sizes (we are an acre), during this upcoming rate increase? The properties in the Indian Valley area are different than those in the city neighborhoods and I feel there should be some way of adjusting the fees to reflect that reality.

Very Sincerely Yours,



Kim Vogee

RECEIVED

APR 20 2018

North Marin Water District

JOSHUA W. THOMAS  
10 TAFT COURT  
NOVATO, CA 94947  
415-897-3674

OK

April 22, 2018

North Marin Water District  
P.O. Box 146  
Novato, CA 94948

ATTENTION: TERRIE KEHOE

Re: Proposed Water Rate Increase

Dear Ms. Kehoe:

I received your Notice of Proposed Water Rate Increase and wish to state my support of said increase, as necessary and reasonable, due to the increased charges by Sonoma County Water Agency and Water System Infrastructure Maintenance.

My wife Dorothy and I have resided in Novato since 1964 and have been very satisfied with the services provided by your agency, including the rates charged for our water.

Very truly yours,

  
JOSH THOMAS

RECEIVED

APR 30 2018

North Marin Water District

**Terrie Kehoe**

---

**From:** Craig N Jansen <JansenCraig@msn.com>  
**Sent:** Tuesday, April 03, 2018 6:24 PM  
**To:** Info NMWD  
**Subject:** Rate Increase

Hello,

Just as with last year, I am ok with the rate increase. The fact that others have a lower annual water cost may just mean that they are not dealing with infrastructure costs (new plant), delivery equipment, and repairs to old water lines.

If you want to talk about high water costs go to Sacramento!!

Craig Jansen

## Terrie Kehoe

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**From:** Drew McIntyre  
**Sent:** Thursday, April 12, 2018 11:16 AM  
**To:** Terrie Kehoe  
**Subject:** FW: Proposed NMWD Water Rate Increase

**Importance:** High

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**From:** Craig Maffei [<mailto:cmaffei@daiscorp.com>]  
**Sent:** Thursday, April 12, 2018 11:04 AM  
**To:** Drew McIntyre  
**Cc:** cnyman@levi.com  
**Subject:** Proposed NMWD Water Rate Increase  
**Importance:** High

Drew -

I recently received your letter regarding the proposed water increase to Novato residents.

My wife and I have been residents of Novato for close to 15 years and have been receiving the same letter every year from NMWD for several years now.

Every year you point to SCWA as the reason for the increased rates and every year you highlight that North Marin Water District is lower than x number of other counties in the Bay Area. The same letter is getting old and statistics can be deceiving.

Aside from Marin Municipal, we are the highest on the list in the North Bay. We are rapidly moving up your comparison chart each and every year and now are above the 50% line for most expensive water in the Bay Area. The irony is we live in a part of the Bay Area that historically gets more rain than other areas every year.

I was born and raised in Santa Rosa and have been here my whole life and know water availability is not an issue in the North Bay.

I would hope that North Marin Water District is well below the City of San Francisco since they have to pay to transport their water from hundreds of miles away at Hetch Hetchy Reservoir.

When is North Marin going to be more proactive and develop ways to become more self-sufficient ?

I would rather pay increases for projects that would give North Marin new access to underground water in North Marin County and holding systems and dams locally to eliminate the dependency on Sonoma County Water resources. Just passing the increased bill onto the water using residents is not the proper annual fix.

In comparison, my sister lives in Surprise, AZ where they get very little rain every year. Their water has to be piped in from hundreds/thousands of miles away every day for most of that state.

Her monthly water bill is a fraction of what we pay in an area that gets practically no rain at all. Politics ? Absolutely !!

My point is simple. Take control of the situation and the inevitable increases every year and create an action plan to stabilize the situation by becoming more self-sufficient !

There is a high probability your annual increase letters would actually be accepted with open arms by local residents if you had a proactive game plan to becoming more self sufficient and stop the increases in the future versus the same old story of handcuffed increases.

BTW, Novato lives on the Bay. When are we getting a desalinization plant for irrigation water use ? Seems like a practical request and a good use of NMWD funds.

Definition of Insanity: Continue to do the same things over and over again and expect different/better results.

I am very interested in hearing what you have to say in reply.

Best -  
Craig



**Craig Maffei | VoIP Consultant**  
**DAIS Technology Partners**  
**100 Galli Drive #16 | Novato, CA 94949**  
**o: 415.506.7900 | f: 877.304.2055 | c: 415.378.8302**  
**[cmaffei@daiscorp.com](mailto:cmaffei@daiscorp.com) | [www.daiscorp.com](http://www.daiscorp.com)**

# DRAFT

## NORTH MARIN WATER DISTRICT REGULATION 54 WATER RATES

a. Rates for Domestic, Commercial and Industrial Users, Novato Service Area

(1) The following minimum service charge and water quantity rates shall be paid for domestic, commercial and industrial water service for each meter once every two months:

<b><u>A BI-MONTHLY SERVICE CHARGE OF:</u></b>	Rate Effective <u>6/1/17</u> <u>6/1/18</u>
Standard 5/8 inch meter.....	\$ <del>31.50</del> <u>33.00</u>
For 1-inch meter* .....	\$ <del>63.00</del> <u>66.00</u>
1.5-inch meter*.....	\$ <del>77.00</del> <u>80.50</u>
2-inch meter.....	\$ <del>120.00</del> <u>125.50</u>
3-inch meter.....	\$ <del>238.00</del> <u>248.50</u>
4-inch meter.....	\$ <del>382.00</del> <u>399.00</u>
6-inch meter.....	\$ <del>799.00</del> <u>835.00</u>
8-inch meter.....	\$ <del>1,191.00</del> <u>1,244.50</u>
*(see paragraph f)	

<b><u>PLUS A QUANTITY CHARGE OF:</u></b>	Rate Effective <u>6/1/17</u> <u>6/1/18</u>
<u>Residential Rate for Each 1,000 Gallons Per Dwelling Unit</u>	
First 615 gallons per day (gpd) .....	\$ <del>5.01</del> <u>5.24</u>
616 up to 1,845 gpd.....	\$ <del>7.99</del> <u>8.35</u>
Use in excess of 1,845 gpd.....	\$ <del>13.91</del> <u>14.54</u>

<u>Rate for 1,000 Gal for All Other Potable Water Accounts</u>	
Commercial, Institutional & Irrigation Accounts - 11/1 – 5/31	\$ <del>5.52</del> <u>5.77</u>
Commercial, Institutional & Irrigation Accounts - 6/1 – 10/31	\$ <del>5.93</del> <u>6.20</u>

<u>Rate For 1,000 Gallons For Non-Potable Water</u>	
Recycled Water.....	\$ <del>5.52</del> <u>5.77</u>
Raw (Untreated) Water from Stafford Lake.....	\$ <del>2.28</del> <u>2.38</u>

**PLUS AN ELEVATION ZONE CHARGE FOR EACH 1,000 GALLONS**

<u>Zone</u> <u>Elevation</u>	Rate Effective <u>6/1/17</u> <u>6/1/18</u>
A    0 through 60 feet.....	\$0.00
B    60 feet – 200 feet.....	\$ <del>0.60</del> <u>0.63</u>
C*    200 feet +.....	\$ <del>1.92</del> <u>2.01</u>

\*Any consumer receiving water through a District owned and maintained hydro-pneumatic system shall be assigned to Zone C irrespective of said consumer's actual elevation.

(2) Consumers outside the Improvement District boundary shall pay the Elevation Zone C Rate.

NMWD Regulation 54, adopted 1/65

Revised: 1/67, 6/67, 1/71, 3/72, 2/74, 5/74, 6/74, 8/75, 3/75, 4/76, 5/77, 7/77, 6/78, 7/78, 7/78, 7/79, 3/80, 7/78, 7/21/81, 11/81, 12/82, 4/84, 2/87, 5/88, 7/89, 9/89, 7/90, 8/90, 3/91, 4/92, 6/92, 7/92, 9/92, 10/92, 3/93, 7/93, 7/94, 8/94, 11/94, 3/95, 4/95, 7/95, 2/96, 5/96, 6/96, 2/97, 6/97, 2/98, 6/98, 7/99, 6/00, 7/00, 12/00, 06/01, 07/01, 1/02, 06/02, 7/02, 06/03, 01/04, 06/04, 07/04, 6/05, 7/05, 06/06, 07/06, 12/06, 07/07, 6/08, 7/08, 7/09, 6/10, 7/10, 6/11, 7/11, 9/11, 7/12, 6/13, 7/14, 5/15, 6/15, 5/16, 6/16, 5/17, 6/17



(3) In the event a mandatory reduction in water use is triggered under the District's Water Shortage Contingency Plan for the Greater Novato Area, a Drought Surcharge will be implemented simultaneous with enactment of the mandatory stage. The Drought Surcharge will serve to mitigate the revenue loss resulting from a reduction in water use, as well as the liquidated damages assessed by the Sonoma County Water Agency pursuant to the water shortage and apportionment provisions of the Restructured Agreement for Water Supply. The Drought Surcharge shall be a quantity charge for each 1,000 gallons of potable water use as follows:

Residential Accounts: Use in excess of 300 gallons per day .....\$1.00  
 Commercial, Institutional and Irrigation Accounts: All Use .....\$1.00

b. Rates for Service to Privately Owned Fire Protection Systems, All Service Areas

The rates for service through detector check assemblies owned by the District to privately owned and maintained systems supplying sprinklers, hydrants or other facilities exclusively for firefighting shall be paid once every two months as follows:

Size of Detector Assembly

	Rate Effective <u>6/1/17 6/1/18</u>
2 inches or less.....	<del>\$16.00</del> 16.50
4 inches.....	<del>\$29.00</del> 30.50
6 inches.....	<del>\$57.00</del> 59.50
8 inches.....	<del>\$87.00</del> 91.00
10 inches.....	<del>\$114.00</del> 119.00

c. Rates for Domestic, Commercial and Industrial Users, West Marin Service Area

(1) The following minimum service charge and water quantity rates shall be paid for domestic, commercial and industrial water service for each meter once every two months:

<u>BI-MONTHLY SERVICE CHARGE</u>	Rate Effective <u>7/1/17</u>
For 5/8 x 3/4-inch meter.....	\$31.50
For 1-inch meter*.....	\$63.00
For 1 1/2-inch meter*.....	\$77.00
For 2-inch meter.....	\$120.00
For 3-inch meter.....	\$238.00
For 4-inch meter.....	\$382.00
For all meters in Paradise Ranch Estates.....	\$47.50

\*(see paragraph f)

PLUS A QUANTITY CHARGE OF:

<u>Residential Rate for Each 1,000 Gallons Per Dwelling Unit</u>	Rate Effective <u>7/1/17</u>
First 400 gallons per day (gpd).....	\$8.55
401 up to 900 gpd.....	\$11.84
Use in excess of 900 gpd.....	\$18.99

Rate Per 1,000 Gallons for All Other Accounts

Commercial, Industrial and Irrigation Accounts Nov 1 – May 31	\$8.64
Commercial, Industrial and Irrigation Accounts June 1 – Oct 31	\$11.95

**PLUS A HYDRAULIC ZONE CHARGE FOR EACH 1,000 GALLONS**

<u>Zone</u>	<u>Hydraulic Zone</u>	Rate Effective <u>7/1/17</u>
1	Point Reyes Station .....	\$0.00
2	Bear Valley, Silver Hills, Inverness Park & Lower Paradise Ranch Estates (Elevation 0'–365').....	\$0.22
3	Olema .....	\$0.84
4	Upper Paradise Ranch Estates (Elevation 365'+) .....	\$5.71

(2)

(2) Effective July 1, 2016 consumers outside the Improvement District boundary shall pay an additional \$3.42 per 1,000 gallons.

(3) In the event a mandatory reduction in water use is triggered under the District's Water Shortage Contingency Plan for the West Marin Service Area, a Drought Surcharge will be implemented simultaneous with enactment of the mandatory stage. The Drought Surcharge will serve to mitigate the revenue loss resulting from a reduction in water use, as well as the cost of water purchased from Marin Municipal Water District for release into Lagunitas Creek, pursuant to the Interconnection Agreement between Marin Municipal and NMWD. The Drought Surcharge shall be a quantity charge for each 1,000 gallons as follows:

Residential Accounts: Use in excess of 200 gallons per day ..... \$2.50

Commercial, Institutional and Irrigation Accounts: All Use ..... \$2.50

d. Rates for Water Service from Hydrants or Other Temporary Service

The following rates shall be paid for water delivered via hydrant meter or pursuant to permit issued by the District from hydrants or for any temporary service as authorized in Regulation 5 or for use through a fire service meter.

<u>Novato Service Area</u>	Rate Effective <u>6/1/17</u> <u>6/1/18</u>
For each 1,000 gallons .....	<del>\$7.85</del> <u>8.21</u>

<u>West Marin Service Area</u>	Rate Effective <u>7/1/17</u>
For each 1,000 gallons .....	\$17.66

The quantity of water delivered as aforesaid shall be determined by the District.

e. Service Arrangements Requiring Assessment of Additional Service Charge, All Service Areas

A minimum service charge established by this regulation, equal to ~~\$15.75~~16.50 bi-monthly shall be paid for each dwelling unit which includes a kitchen and which is metered pursuant to Regulation 4.b.(5).

f. Minimum Service Charge for Residential Connections with Fire Fighting Equipment

	Rate Effective <u>6/1/17</u> <u>6/1/18</u>
Where a meter larger than is otherwise required is installed solely to provide capacity for private fire sprinklers or other firefighting equipment in single-family residential connections the minimum bi-monthly service charge shall be:	<del>\$35.70</del> <u>37.50</u>

g. Charges for Testing & Maintenance of Backflow Preventers Performed by District

(1) Each consumer having a backflow prevention device serviced by the District shall pay a bimonthly fee for servicing the device as shown below.

District Owned DCV Devices:

Services Performed by District	Size	Rate Effective <u>6/1/17</u> <u>6/1/18</u>
Testing, Repair, Replacement	3/4" + 1" .....	<del>\$13.00</del> <u>13.50</u>
Testing, Repair, Replacement	1 1/2" .....	<del>\$17.00</del> <u>18.00</u>

Privately Owned DCV Devices:

Services Performed by District	Size	Rate Effective <u>6/1/17</u> <u>6/1/18</u>
Testing	3/4" + 1" .....	<del>\$7.00</del> <u>7.50</u>
Testing	1 1/2" .....	<del>\$13.00</del> <u>13.50</u>
Testing	2" .....	<del>\$20.00</del> <u>21.00</u>
Testing	3" + 4" .....	<del>\$29.00</del> <u>30.50</u>

District Owned RPP Devices:

Services Performed by District	Size	Rate Effective <u>6/1/17</u> <u>6/1/18</u>
Testing, Repair, Replacement	3/4" + 1" .....	<del>\$22.00</del> <u>23.00</u>
Testing, Repair, Replacement	1 1/2" + 2" .....	<del>\$27.00</del> <u>28.00</u>
Testing, Repair, Replacement	3" + 4" .....	<del>\$120.00</del> <u>125.50</u>
Testing, Repair, Replacement	6" + 8" .....	<del>\$259.00</del> <u>270.50</u>

Privately Owned RPP Devices:

Services Performed by District	Size	Rate Effective <u>6/1/17</u> <u>6/1/18</u>
Testing	3/4" + 1" .....	<del>\$14.00</del> <u>14.50</u>
Testing	1 1/2" + 2" .....	<del>\$26.00</del> <u>27.00</u>
Testing	3" + 4" .....	<del>\$55.00</del> <u>57.50</u>
Testing	6" + 8" .....	<del>\$106.00</del> <u>111.00</u>

If any customer requires that testing or maintenance be performed outside of normal work hours of the District, an additional charge equivalent to the overtime charges incurred by the District will be assessed.

(2) Exemptions

Exemptions from the testing program are permitted on a case-by-case basis as may be approved by the District and the California Department of Public Health, Office of Drinking Water, District Sanitary Engineer. All such exemptions are conditioned on periodic inspection to ensure that exemption criteria are still being met.

	Rate Effective <u>6/1/17</u> <u>6/1/18</u>
Each consumer that applies for and receives such an exemption shall pay a bimonthly fee of:	\$3.00

**RESOLUTION 18-XX**

**RESOLUTION OF THE BOARD OF DIRECTORS OF  
NORTH MARIN WATER DISTRICT  
AMENDING REGULATION 54 – WATER RATES**

WHEREAS, the Board of Directors hereby finds and determines that certain of the water rates and charges adjusted herein or previously adopted by the Board are imposed based on the supply of water to be used or consumed by the customer. The Board of Directors also finds and determines that these rates and charges are not imposed upon real property or upon a person as an incident of property ownership, and such rates or charges may be reduced or avoided by a customer by reducing or discontinuing water use; and

BE IT RESOLVED by the Board of Directors of North Marin Water District that Regulation 54 of the North Marin Water District is adopted as follows, effective June 1, 2018:

a. Rates for Domestic, Commercial and Industrial Users, **Novato Service Area**

(1) The following minimum service charge and water quantity rates shall be paid for domestic, commercial and industrial water service for each meter once every two months:

<b><u>A BI-MONTHLY SERVICE CHARGE OF:</u></b>	Rate Effective <u>6/1/18</u>
Standard 5/8 inch meter.....	\$33.00
For 1-inch meter* .....	\$66.00
1.5-inch meter* .....	\$80.50
2-inch meter .....	\$125.50
3-inch meter .....	\$248.50
4-inch meter .....	\$399.00
6-inch meter .....	\$835.00
8-inch meter .....	\$1,244.50
*(see paragraph f)	

<b><u>PLUS A QUANTITY CHARGE OF:</u></b>	Rate Effective <u>6/1/18</u>
<u>Residential Rate for Each 1,000 Gallons Per Dwelling Unit</u>	
First 615 gallons per day (gpd) .....	\$5.24
616 up to 1,845 gpd.....	\$8.35
Use in excess of 1,845 gpd .....	\$14.54
<u>Rate for 1,000 Gal for All Other Potable Water Accounts</u>	
Commercial, Institutional & Irrigation Accounts - 11/1 – 5/31	\$5.77
Commercial, Institutional & Irrigation Accounts - 6/1 – 10/31	\$6.20
<u>Rate For 1,000 Gallons For Non-Potable Water</u>	
Recycled Water .....	\$5.77
Raw (Untreated) Water from Stafford Lake .....	\$2.38

**PLUS AN ELEVATION ZONE CHARGE FOR EACH 1,000 GALLONS**

<u>Zone</u>	<u>Elevation</u>	Rate Effective <u>6/1/18</u>
A	0 through 60 feet .....	\$0.00
B	60 feet – 200 feet.....	\$0.63
C*	200 feet + .....	\$2.01

\*Any consumer receiving water through a District owned and maintained hydro-pneumatic system shall be assigned to Zone C irrespective of said consumer's actual elevation.

- (2) Consumers outside the Improvement District boundary shall pay the Elevation Zone C Rate.
- (3) In the event a mandatory reduction in water use is triggered under the District's Water Shortage Contingency Plan for the Greater Novato Area, a Drought Surcharge will be implemented simultaneous with enactment of the mandatory stage. The Drought Surcharge will serve to mitigate the revenue loss resulting from a reduction in water use, as well as the liquidated damages assessed by the Sonoma County Water Agency pursuant to the water shortage and apportionment provisions of the Restructured Agreement for Water Supply. The Drought Surcharge shall be a quantity charge for each 1,000 gallons of potable water use as follows:

Residential Accounts: Use in excess of 300 gallons per day ..... \$1.00

Commercial, Institutional and Irrigation Accounts: All Use ..... \$1.00

b. Rates for Service to Privately Owned Fire Protection Systems, All Service Areas

The rates for service through detector check assemblies owned by the District to privately owned and maintained systems supplying sprinklers, hydrants or other facilities exclusively for firefighting shall be paid once every two months as follows:

Size of Detector Assembly

	Rate Effective <u>6/1/18</u>
2 inches or less.....	\$16.50
4 inches .....	\$30.50
6 inches .....	\$59.50
8 inches .....	\$91.00
10 inches .....	\$119.00

c. Rates for Domestic, Commercial and Industrial Users, West Marin Service Area

- (1) The following minimum service charge and water quantity rates shall be paid for domestic, commercial and industrial water service for each meter once every two months:

<u>BI-MONTHLY SERVICE CHARGE</u>	Rate Effective <u>7/1/17</u>
For 5/8 x 3/4-inch meter .....	\$31.50
For 1-inch meter* .....	\$63.00
For 1 1/2-inch meter* .....	\$77.00
For 2-inch meter .....	\$120.00
For 3-inch meter .....	\$238.00
For 4-inch meter .....	\$382.00
For all meters in Paradise Ranch Estates .....	\$47.50

\*(see paragraph f)

PLUS A QUANTITY CHARGE OF:

<u>Residential Rate for Each 1,000 Gallons Per Dwelling Unit</u>	Rate Effective <u>7/1/17</u>
First 400 gallons per day (gpd) .....	\$8.55

401 up to 900 gpd.....	\$11.84
Use in excess of 900 gpd.....	\$18.99

Rate Per 1,000 Gallons for All Other Accounts

Commercial, Industrial and Irrigation Accounts Nov 1 – May 31	\$8.64
Commercial, Industrial and Irrigation Accounts June 1 – Oct 31	\$11.95

**PLUS A HYDRAULIC ZONE CHARGE FOR EACH 1,000 GALLONS**

<u>Zone</u>	<u>Hydraulic Zone</u>	Rate Effective <u>7/1/17</u>
1	Point Reyes Station .....	\$0.00
2	Bear Valley, Silver Hills, Inverness Park & Lower Paradise Ranch Estates (Elevation 0'–365').....	\$0.22
3	Olema .....	\$0.84
4	Upper Paradise Ranch Estates (Elevation 365'+) .....	\$5.71

(2)

(2) Effective July 1, 2016 consumers outside the Improvement District boundary shall pay an additional \$3.42 per 1,000 gallons.

(3) In the event a mandatory reduction in water use is triggered under the District's Water Shortage Contingency Plan for the West Marin Service Area, a Drought Surcharge will be implemented simultaneous with enactment of the mandatory stage. The Drought Surcharge will serve to mitigate the revenue loss resulting from a reduction in water use, as well as the cost of water purchased from Marin Municipal Water District for release into Lagunitas Creek, pursuant to the Interconnection Agreement between Marin Municipal and NMWD. The Drought Surcharge shall be a quantity charge for each 1,000 gallons as follows:

Residential Accounts: Use in excess of 200 gallons per day .....\$2.50

Commercial, Institutional and Irrigation Accounts: All Use .....\$2.50

d. Rates for Water Service from Hydrants or Other Temporary Service

The following rates shall be paid for water delivered via hydrant meter or pursuant to permit issued by the District from hydrants or for any temporary service as authorized in Regulation 5 or for use through a fire service meter.

<u>Novato Service Area</u>	Rate Effective <u>6/1/18</u>
For each 1,000 gallons .....	\$8.21

<u>West Marin Service Area</u>	Rate Effective <u>7/1/17</u>
For each 1,000 gallons .....	\$17.66

The quantity of water delivered as aforesaid shall be determined by the District.

e. Service Arrangements Requiring Assessment of Additional Service Charge, All Service Areas

A minimum service charge established by this regulation, equal to \$16.50 bi-monthly shall be paid for each dwelling unit which includes a kitchen and which is metered pursuant to Regulation 4.b.(5).

f. Minimum Service Charge for Residential Connections with Fire Fighting Equipment

Rate Effective  
6/1/18

Where a meter larger than is otherwise required is installed solely to provide capacity for private fire sprinklers or other firefighting equipment in single-family residential connections the minimum bi-monthly service charge shall be: \$37.50

g. Charges for Testing & Maintenance of Backflow Preventers Performed by District

(1) Each consumer having a backflow prevention device serviced by the District shall pay a bimonthly fee for servicing the device as shown below.

District Owned DCV Devices:

Services Performed by District	Size	Rate Effective <u>6/1/18</u>
Testing, Repair, Replacement	3/4" + 1" .....	\$13.50
Testing, Repair, Replacement	1 1/2" .....	\$18.00

Privately Owned DCV Devices:

Services Performed by District	Size	Rate Effective <u>6/1/18</u>
Testing	3/4" + 1" .....	\$7.50
Testing	1 1/2" .....	\$13.50
Testing	2" .....	\$21.00
Testing	3" + 4" .....	\$30.50

District Owned RPP Devices:

Services Performed by District	Size	Rate Effective <u>6/1/18</u>
Testing, Repair, Replacement	3/4" + 1" .....	\$23.00
Testing, Repair, Replacement	1 1/2" + 2" .....	\$28.00
Testing, Repair, Replacement	3" + 4" .....	\$125.50
Testing, Repair, Replacement	6" + 8" .....	\$270.50

Privately Owned RPP Devices:

Services Performed by District	Size	Rate Effective <u>6/1/18</u>
Testing	3/4" + 1" .....	\$14.50
Testing	1 1/2" + 2" .....	\$27.00
Testing	3" + 4" .....	\$57.50
Testing	6" + 8" .....	\$111.00

If any customer requires that testing or maintenance be performed outside of normal work hours of the District, an additional charge equivalent to the overtime charges incurred by the District will be assessed.

(2) Exemptions

Exemptions from the testing program are permitted on a case-by-case basis as may be approved by the District and the California Department of Public Health, Office of Drinking Water, District Sanitary Engineer. All such exemptions are conditioned on periodic inspection to ensure that exemption criteria are still being met.

	Rate Effective <u>6/1/18</u>
Each consumer that applies for and receives such an exemption shall pay a bimonthly fee of:	\$3.00

\* \* \* \* \*

I hereby certify that the foregoing is a true and complete copy of a resolution duly and regularly adopted by the Board of Directors of NORTH MARIN WATER DISTRICT at a regular meeting of said Board held on the fifteenth of May 2018, by the following vote:

AYES:  
NOES:  
ABSENT:  
ABSTAINED:

---

Theresa Kehoe, District Secretary  
North Marin Water District

(SEAL)



3

**4**

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6

**NORTH MARIN WATER DISTRICT**  
**MONTHLY PROGRESS REPORT FOR April 2018**  
 May 15, 2018

1.

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

Month	FY17/18	FY16/17	FY15/16	FY14/15	FY13/14	18 vs 17 %
July	331	310	227	319	385	7%
August	303	300	235	301	360	1%
September	292	302	210	276	332	-3%
October	274	203	299	221	313	35%
November	164	144	145	173	229	14%
December	152	148	145	129	182	3%
January	131	121	130	137	168	8%
February	135	119	111	121	119	14%
March	130	146	149	195	154	-11%
April	167	136	152	217	177	23%
<b>FYTD Total</b>	<b>2,079</b>	<b>1,928</b>	<b>1,804</b>	<b>2,089</b>	<b>2,419</b>	<b>8%</b>

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

Month	FY17/18	FY16/17	FY15/16	FY14/15	FY13/14	18 vs 17 %
July	9.5	7.9	6.6	8.6	9.3	19%
August	8.8	7.4	7.0	8.5	9.3	19%
September	8.4	6.4	6.4	7.8	8.5	31%
October	7.9	5.2	6.5	5.4	8.0	52%
November	5.4	4.2	4.7	4.6	6.8	29%
December	5.1	3.7	3.9	4.7	6.4	37%
January	4.5	3.6	3.7	4.4	5.9	28%
February	4.5	3.3	3.8	3.9	4.4	35%
March	5.1	4.4	4.2	5.2	5.0	18%
April	5.1	4.8	4.9	4.7	5.0	6%
<b>FYTD Total</b>	<b>64.3</b>	<b>50.8</b>	<b>51.7</b>	<b>57.8</b>	<b>68.5</b>	<b>26%</b>

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

Month	FY17/18	FY16/17	FY15/16	FY14/15	FY13/14	18 vs 17 %
July	113	70	108	83	98	61%
August	81	90	79	61	83	-10%
September	123	97	38	26	56	27%
October	102	94	50	0	82	9%
November	54	64	58	8	5	-16%
December	0	0	0	0	2	-
January	0	0	0	0	0	-
February	0	0	0	24	0	-
March	0	39	0	95	0	-
April	5	61	49	104	0	-91%
<b>FYTD Total</b>	<b>478</b>	<b>514</b>	<b>382</b>	<b>401</b>	<b>326</b>	<b>-7%</b>

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

Month	FY17/18	FY16/17	FY15/16	FY14/15	FY13/14	18 vs 17 %
July	27.7	27.1	21.3	21.8	27.6	2%
August	26.1	26.0	26.2	26.0	26.2	0%
September	25.0	23.5	15.7	19.2	18.6	6%
October	19.1	8.3	15.8	9.4	15.8	130%
November	2.5	1.2	3.2	3.7	6.4	111%
December	0.8	0.4	0.8	1.6	1.6	123%
January	1.0	0.3	0.2	0.8	1.2	218%
February	3.3	0.0	0.6	0.8	1.8	-
March	1.7	0.5	0.3	9.5	1.2	212%
April	5.1	2.7	11.0	14.1	8.3	89%
<b>FYTD Total*</b>	<b>112.3</b>	<b>90.1</b>	<b>95.1</b>	<b>106.8</b>	<b>108.6</b>	<b>25%</b>

\*Excludes potable water input to the RW system: FY 18=0.9MG; FY 17=1.4 MG; FY 16=7.4MG; FY 15=6.9MG; FY 14=9.6MG

## 2. Stafford Lake Data

	April Average	April 2017	April 2018
Rainfall this month	1.74 Inches	3.13 Inches	3.66 Inches
Rainfall this FY to date	26.26 Inches	42.13 Inches	20.49 Inches
Lake elevation*	193.3 Feet	196.0 Feet	191.3 Feet
Lake storage**	1199 MG	1377 MG	1064 MG

\* Spillway elevation is 196.0 feet

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

## Temperature (in degrees)

	Minimum	Maximum	Average
April 2017 (Novato)	39	85	61
April 2018 (Novato)	41	87	60

## 3. Number of Services

April 30	Novato Water			Recycled Water			West Marin Water			Oceana Marin Swr		
	FY18	FY17	Incr %	FY18	FY17	Incr %	FY18	FY17	Incr %	FY18	FY17	Incr %
Total meters installed	20,778	20,776	0.0%	57	49	16.3%	789	787	0.3%	-	-	-
Total meters active	20,556	20,539	0.1%	53	45	17.8%	781	781	0.0%	-	-	-
Active dwelling units	24,013	23,996	0.1%	0	0	-	831	830	0.1%	232	231	0.4%

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

Description	April 2017	April 2018
Effluent Flow Volume (MG)	0.662	0.703
Irrigation Field Discharge (MG)	1.263	0.556
Treatment Pond Freeboard (ft)	5.4	6.6
Storage Pond Freeboard (ft)	5.4	6.2

## 5. Developer Projects Status Report (April)

Job No.	Project	% Complete	% This month
1.2784.00	Novato Village	5	1
1.2800.00	Novato Theatre	95	5
1.2815.00	86 Hamilton Dr. FS	40	40
1.2812.00	Chase Bank FS & Hydrant	5	5

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

Job No.	Project	% Complete	% This month
1.6221.21	San Mateo Tank	85	10
1.7161.00	Ridge Rd. Pipe Replacement	10	10

## Employee Hours to Date, FY 17/18

As of Pay Period Ending April 30, 2018

Percent of Fiscal Year Passed = 83%

Developer Projects	Actual	Budget	% YTD Budget	District Projects	Actual	Budget	% YTD Budget
Construction	430	1,400	31%	Construction	4,427	4,920	90%
Engineering	523	1,414	37%	Engineering	2,531	4,000	63%

## 6. Safety/Liability

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) (\$)	
FY 18 through April	54	\$26,411	3	2	4	\$1,965
FY 17 through April	85	\$42,464	2	2	4	\$2,702

Days without a lost time accident through April 30, 2018 185 Days

## 7. Energy Cost

FYE	kWh	April		Fiscal Year-to-Date thru April		
		¢/kWh	Cost/Day	kWh	¢/kWh	Cost/Day
2018 Stafford TP	64,288	19.7¢	\$423	549,737	19.6¢	\$354
Pumping	80,202	20.2¢	\$558	1,155,650	20.9¢	\$794
Other*	40,933	22.0¢	\$311	413,736	24.5¢	\$333
	185,424	20.4¢	\$1,292	2,119,124	21.2¢	\$1,481
2017 Stafford TP	59,157	19.1¢	\$378	522,790	19.0¢	\$332
Pumping	69,088	20.5¢	\$443	956,300	20.4¢	\$657
Other*	37,270	21.6¢	\$251	405,402	23.8¢	\$324
	165,515	20.3¢	\$1,071	1,884,492	20.8¢	\$1,286
2016 Stafford TP	61,367	18.6¢	\$381	491,003	18.5¢	\$297
Pumping	79,014	20.2¢	\$499	903,704	18.1¢	\$537
Other*	40,029	20.2¢	\$245	387,121	22.3¢	\$283
	180,410	19.7¢	\$1,144	1,781,829	19.1¢	\$1,117

\*Other includes West Marin Facilities

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## 8. Water Conservation Update

	Month of April 2018	Fiscal Year to Date	Program Total to Date
High Efficiency Toilet (HET) Rebates	15	115	3850
Retrofit Certificates Filed	19	209	6030
Cash for Grass Rebates Paid Out	1	13	898
Washing Machine Rebates	1	20	6777
Water Smart Home Survey	12	255	3160

## 9. Utility Performance Metric

<b>SERVICE DISRUPTIONS (No. of Customers Impacted)</b>	<b>April 2018</b>	<b>April 2017</b>	<b>Fiscal Year to Date 2018</b>	<b>Fiscal Year to Date 2017</b>
<b>PLANNED</b>				
Duration Between 0.5 and 4 hours	10	5	278	238
Duration Between 4 and 12 hours	3		101	3
Duration Greater than 12 hours				
<b>UNPLANNED</b>				
Duration Between 0.5 and 4 hours	9	5	66	68
Duration Between 4 and 12 hours	2		92	16
Duration Greater than 12 hours			1	2
<b>SERVICE LINES REPLACED</b>				
Polybutylene	12	7	89	96
Copper (Replaced or Repaired)	2	1	12	17

# NORTH MARIN WATER DISTRICT

## Summary of Complaints & Service Orders April 2018

5/10/2018

Type	Apr-18	Apr-17	Action Taken April 2018
<b><u>Consumers' System Problems</u></b>			
Service Line Leaks	3	9	Notified Consumer
Meter Leak Consumer's Side	7	0	Notified Consumer
House Plumbing	2	0	Notified Consumer
Noisy Plumbing	2	0	Notified Consumer
Seepage or Other	2	0	Notified Consumer
House Valve / Meter Off	10	3	Notified Consumer
Nothing Found	5	10	Notified Consumer
Low Pressure	1	0	Pressure @ 45 PSI, clogged aerator.
High Pressure	1	0	Pressure @ 80 PSI, drops to 38 PSI. PRV needs replcmt.
Water Waster Complaints	1	0	Notified Consumer
<b>Total</b>	<b>34</b>	<b>22</b>	
<b><u>Service Repair Reports</u></b>			
Meter Replacement	3	4	Notified Consumer
Box and Lids	0	1	~
Water Off/On Due To Repairs	15	7	Notified Consumer
Misc. Field Investigation	6	0	Notified Consumer
<b>Total</b>	<b>24</b>	<b>12</b>	
<b><u>Leak NMWD Facilities</u></b>			
Main-Leak	3	0	Notified Consumer
Mains-Nothing Found	1	0	Notified Consumer
Service- Leak	1	10	Repaired
Services-Nothing Found	2	0	Notified Consumer
Fire Hydrant-Leak	0	2	~
Meter Leak	1	0	Notified Consumer
Meters-Nothing Found	4	0	Notified Consumer
Meters Damaged	0	0	Notified Consumer
Washer Leaks	2	2	Repaired
<b>Total</b>	<b>14</b>	<b>14</b>	
<b><u>High Bill Complaints</u></b>			
Consumer Leaks	7	6	Notified Consumer
Meter Misread	3	0	Notified Consumer
Nothing Found	17	16	Notified Consumer
Excessive Irrigation	4	0	Notified Consumer
<b>Total</b>	<b>31</b>	<b>22</b>	
<b><u>Low Bill Complaints</u></b>			
Nothing Found	1	0	Notified Consumer
<b>Total</b>	<b>1</b>	<b>0</b>	



## NORTH MARIN WATER DISTRICT

### Summary of Complaints & Service Orders April 2018

5/10/2018

Type	Apr-18	Apr-17	Action Taken April 2018
<b>Water Quality Complaints</b>			
Taste and Odor	0	2	~
Turbidity	0	2	~
Other	1	0	<b>Customer requested water to be tested due to water tank problem. (Aaron Dr.)</b> Results were normal for NMWD supply. Customer was notified of results.
<b>Total</b>	<b>1</b>	<b>4</b>	
<b>TOTAL FOR MONTH:</b>	<b>105</b>	<b>74</b>	<b>42%</b>

### Fiscal YTD Summary

Consumer's System Problems	301	299	1%	Increase In Meter Leak Consumer's side
Service Repair Report	109	100	9%	Increase In Misc. Field Investigation
Leak NMWD Facility	168	153	10%	Increase In Washer Leaks
High Bill Complaints	470	589	-20%	Decrease In Nothing Found
Low Bills	1	3	-67%	Decrease In Nothing Found
Water Quality Complaints	31	44	-30%	Decrease In Taste and Odor
<b>Total</b>	<b>1,080</b>	<b>1,188</b>	<b>-9%</b>	

### Change Primarily Due To

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

<b>Check Meter:</b> possible consumer/District leak, high bill, flooded, need read, etc.	169	161
<b>Change Meter:</b> leaks, hard to read	7	0
<b>Possible Stuck Meter</b>	6	0
<b>Repair Meter:</b> registers, shut offs	5	0
<b>Replace Boxes/Lids</b>	5	0
<b>Trims</b>	14	7
<b>Dig Outs</b>	92	36
	<b>298</b>	<b>204</b>

### Bill Adjustments Under Board Policy:

#### April 18 vs. April 17

Apr-18	18	\$6,979
Apr-17	18	\$6,883

#### Fiscal Year vs Prior FY


17/18 FY	345	\$142,144
16/17 FY	415	\$131,256

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**MEMORANDUM**

To: Board of Directors

May 11, 2018

From: Julie Blue, Auditor-Controller   
Nancy Holton, Senior Accountant

Subj: Auditor-Controller's Monthly Report of Investments for April 2018

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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 \$18,011,085 and a market value of \$17,964,941. During April the cash balance increased by \$260,738. The market value of securities held decreased \$46,143 during the month. The ratio of total cash to budgeted annual operating expense stood at 116%, up 2% from the prior month.

At April 30, 2018, 33% of the District's Portfolio was invested in California's Local Agency Investment Fund (LAIF), 25% in Time Certificates of Deposit, 22% in Federal Agency Securities, 14% in US Treasury Notes, 5% in the Marin County Treasury, and 1% retained locally for operating purposes. The weighted average maturity of the portfolio was 189 days, compared to 177 days at the end of March. The LAIF interest rate for the month was 1.66%, compared to 1.52% the previous month. The weighted average Portfolio rate was 1.50%, compared to 1.40% the previous month.

**NORTH MARIN WATER DISTRICT**  
**AUDITOR-CONTROLLER'S MONTHLY REPORT OF INVESTMENTS**  
**April 30, 2018**

Type	Description	S&P Rating	Purchase Date	Maturity Date	Cost Basis <sup>1</sup>	4/30/2018 Market Value	Yield <sup>2</sup>	% of Portfolio
<b>LAIF</b>	State of CA Treasury	AA-	Various	Open	\$5,915,079	\$5,900,516	1.66% <sup>3</sup>	<b>33%</b>
<b>Time Certificate of Deposit</b>								
TCD	Mercantile Commerce Bank	n/a	6/17/16	6/15/18	248,000	248,000	1.00%	1%
TCD	Customers Bank	n/a	6/24/16	6/25/18	248,000	248,000	1.20%	1%
TCD	Merrick Bank	n/a	7/19/16	7/19/18	249,000	249,000	1.00%	1%
TCD	BMO Harris Bank	n/a	8/18/16	8/17/18	248,000	248,000	1.05%	1%
TCD	Ally Bank	n/a	10/4/16	9/28/18	248,000	248,000	1.15%	1%
TCD	Everbank	n/a	11/17/16	11/15/18	248,000	248,000	1.20%	1%
TCD	Investors Bank	n/a	12/16/16	12/17/18	248,000	248,000	1.35%	1%
TCD	Morgan Stanley Private Bank	n/a	11/22/17	5/22/19	248,000	248,000	1.60%	1%
TCD	Capital One Bank	n/a	7/19/17	7/19/19	247,000	247,000	1.70%	1%
TCD	Capital One NA	n/a	8/9/17	8/9/19	247,000	247,000	1.70%	1%
TCD	American Express FSB	n/a	9/6/17	9/6/19	247,000	247,000	1.75%	1%
TCD	Goldman Sachs Bank USA	n/a	10/11/17	10/11/19	247,000	247,000	1.70%	1%
TCD	Morgan Stanley Bank	n/a	11/9/17	11/12/19	247,000	247,000	1.75%	1%
TCD	American Express Centurion	n/a	12/5/17	12/5/19	247,000	247,000	1.90%	1%
TCD	Sallie Mae Bank	n/a	1/10/18	1/10/20	247,000	247,000	2.20%	1%
TCD	Discover Bank	n/a	2/13/18	2/24/20	247,000	247,000	2.35%	1%
TCD	Wells Fargo Bank	n/a	3/28/18	3/30/20	248,000	248,000	2.55%	1%
TCD	Citibank	n/a	4/11/18	4/13/20	246,000	246,000	2.55%	1%
					<b>\$4,455,000</b>	<b>\$4,455,000</b>	<b>1.64%</b>	<b>25%</b>
<b>US Treasury Notes</b>								
Treas	1.375%	n/a	11/17/16	12/31/18	\$1,002,176	\$994,766	1.05%	6%
Treas	1.500%	n/a	1/10/17	2/28/19	1,002,209	993,828	1.24%	6%
Treas	1.380%	n/a	1/10/18	7/31/19	496,914	493,965	1.88%	3%
					<b>\$2,501,299</b>	<b>\$2,482,559</b>	<b>1.29%</b>	<b>14%</b>
<b>Federal Agency Securities</b>								
FICO	0.86% MTN	n/a	4/22/16	5/11/18	\$1,016,739	\$1,016,329	0.88%	6%
FNMA	0.875% MTN	n/a	7/19/16	7/27/18	999,844	997,443	1.00%	6%
FHLB	1.625% MTN	n/a	11/21/17	6/14/19	999,604	991,762	1.70%	6%
FFCB	2.00 MTN%	n/a	4/12/18	5/8/19	998,788	996,602	2.24%	6%
					<b>\$4,014,977</b>	<b>\$4,002,136</b>	<b>1.46%</b>	<b>22%</b>
<b>Other</b>								
Agency	Marin Co Treasury	AAA	Various	Open	\$900,751	\$900,751	0.75%	5%
Other	Various	n/a	Various	Open	223,979	223,979	0.41%	1%
<b>TOTAL IN PORTFOLIO</b>					<b>\$18,011,085</b>	<b>\$17,964,941</b>	<b>1.50%</b>	<b>100%</b>

Weighted Average Maturity = 189 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.

FICO: Financing Corporation, FNMA: Federal National Mortgage Association, FHLB: Federal Home Loan Bank,

FFCB: Federal Farm Credit Bank

Agency: STP State Revolving Fund Loan Reserve.

Other: Comprised of 4 accounts used for operating purposes. US Bank Operating Account, US Bank STP SRF Loan 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 April 30, 2018.

<b>Interest Bearing Loans</b>	Loan Date	Maturity Date	Original Loan Amount	Principal Outstanding	Interest Rate
StoneTree Golf Loan	6/30/06	2/28/24	\$3,612,640	\$1,339,023	2.40%
Marin Country Club Loan	1/1/18	11/1/47	\$1,265,295	\$1,253,218	1.00%
Marin Country Club Loan	1/1/18	11/1/27	\$430,463	\$417,967	2.80%
Employee Housing Loans (5)	Various	Various	934,200	934,200	Contingent
<b>TOTAL INTEREST BEARING LOANS</b>			<b>\$6,242,598</b>	<b>\$3,944,408</b>	

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

**7**

MEMORANDUM

To: Board of Directors

May 11, 2018

From: Ryan Grisso, Water Conservation Coordinator *RG*

Subject: Approve Text for Spring 2018 Novato "Water Line", Volume 19, Issue 40  
V:\Memos to Board\Spring 2017 WaterLine Text 0517.doc

**RECOMMENDED ACTION:** Approve Spring 2018 Novato "Water Line" Text

**FINANCIAL IMPACT:** \$8,000 (Included in FY 2017/2018 Budget)

Draft text and design for the Spring 2018 Novato "Water Line", Volume 19, Issue 40 is attached for your review. Should any Board member have individual comments please provide them to the General Manager at the Board meeting on May 15, 2018. It is expected the "Water Line" will be mailed in early June 2018.

RECOMMENDATION

Board authorize General Manager to approve final text and design of Spring 2018 Novato "Water Line", Volume 19, Issue 40.

Approved by GM *[Signature]*

Date 5.11.18



NORTH MARIN WATER DISTRICT

# THE WATER LINE

NOVATO'S SERVICE AREA NEWSLETTER • VOLUME 18 ISSUE 40 SPRING 2018

## Water Supply Update: Novato's Water – Use it Wisely

Drew McIntyre, General Manager

This year, rainfall in Novato was 75% of average and Stafford Lake filled to 76% of its maximum storage capacity. After dry months in December and February, we were fortunate to have decent rainfall in March and April. On the Russian River, Sonoma County Water Agency reservoirs supplying Novato (i.e., Lake Sonoma and Lake Mendocino) were at or above 94% as of May 1 of this year. While there is currently adequate water supply, maintaining water use efficiency is important. Novato water customers continue to use less water when compared to the state's baseline of 2013. Thank you for your ongoing efforts to use water efficiently. NMWD is committed to using our local supplies to the fullest extent possible. In addition to surface water supply for Stafford

Lake Treatment Plant production, NMWD, in cooperation with our local sanitary districts, has completed a major expansion in drought proof, recycled water supply (see below for more information).

As reported in previous newsletters, the state is developing long-term water conservation measures that are aimed at making conservation a way of life in California. The state will continue to require some "common sense" water use prohibitions (see below). NMWD reports monthly water production statistics to the state for ongoing monitoring. Customers are urged to participate in the many water conservation programs offered by NMWD. See [www.nmwd.com](http://www.nmwd.com) for details.

## AMI is coming to NMWD *Julie Blue, Auditor/Controller*

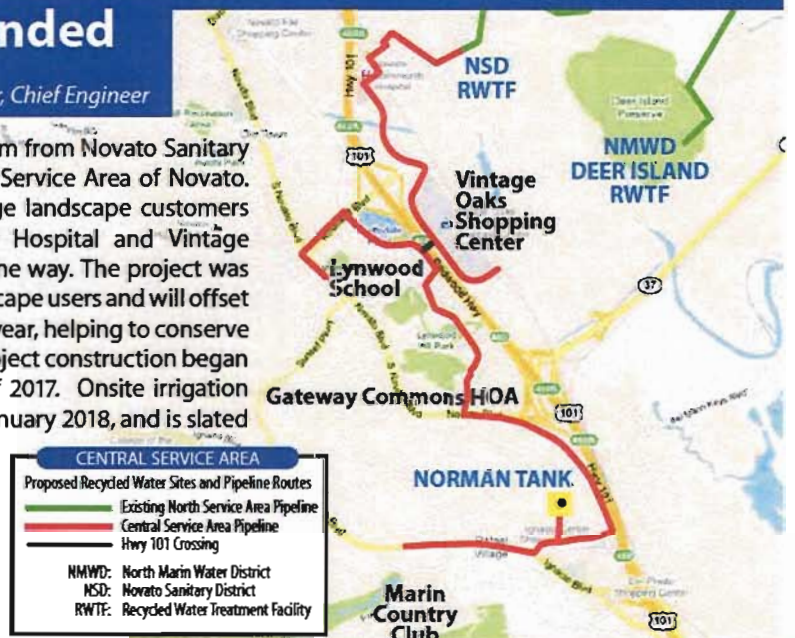
To improve water use efficiency as well as meter reading efficiency, accuracy, and customer service, NMWD has commenced deployment of an Advanced Meter Information (AMI) system. The project includes meter upgrades for customers throughout NMWD's Novato service territory. With the AMI system, digital meter data is sent securely via radio to NMWD headquarters for billing purposes. This technology provides early leak detection and enables customers to view near real-time water use information online, thereby gaining a better understanding of their water use patterns. Upgrading of all Novato water meters will occur over the next eight months. As a part of the AMI system, a new online payment and Water Smart Portal has been developed. We encourage you to "sign-in" on the portal to get acquainted with the system. Visit [www.onlinebiller.com/nmwd](http://www.onlinebiller.com/nmwd)



## Recycled Water has Expanded in the Central Area *Rocky Vogler, Chief Engineer*

NMWD has expanded the recycled water system from Novato Sanitary District's treatment plant to into the Central Service Area of Novato. This project will serve approximately 40 large landscape customers (including Marin County Club, Novato Community Hospital and Vintage Oaks Shopping Center), and three car washes along the way. The project was designed to reach the maximum number of large landscape users and will offset approximately 65 million gallons of potable water per year, helping to conserve potable water supplies for the greater Novato area. Project construction began in November 2016 and was completed at the end of 2017. Onsite irrigation retrofits for the large landscape customers began in January 2018, and is slated for completion in May 2018. The project received substantial federal and state grant funding, with the remainder funded by low interest state loans.

For more information on the Recycled Water Expansion Project, please visit [www.nmwd.com](http://www.nmwd.com) or <http://nmwdcentralexpansion.blogspot.com>



## Celebrating 70 Years of Service

Seventy years ago, in April 1948, the citizens of Novato voted to form the North Marin Water District and purchase the "Novato Water Company", a private local water purveyor. At that time, the limited local ground water wells could not keep up with water supply needs and fire protection requirements for the growing community. Since 1948, the District's Board of Directors, management and staff have been true to our

### EXCEPTIONAL SERVICE FOR



1948 - 2018

mission, striving to provide a quality product at a reasonable cost, keeping customer service our main focus and completing our work with minimum environmental impact. We thank you for your support and remain committed to meeting your needs into the future. In recognition of our 70 years of service, we have a limited supply of commemorative water glasses available on a first come, first served basis. Please drop by the front desk and ask for a glass!

Pay your bills online at: [www.onlinebiller.com/nmwd](http://www.onlinebiller.com/nmwd)

# NMWD Lawn Replacement Programs Ryan Grisso, Water Conservation Coordinator

## Cash for Grass

NMWD offers a cash incentive for removing regularly maintained and automatically irrigated lawn areas and replacing them with District-approved low water use plantings on drip irrigation. The incentive will pay you up to \$50 per 100 square feet of lawn area (maximum \$400 per single family dwelling). Pre-qualification site visit and re-landscaping plan approval is required for participation.



OR

## Lawn Be Gone

This program is for "do-it-yourselfers" who want to replace lawn areas by covering and composting in place - a process known as "sheet-mulching". NMWD offers delivery of free compost, cardboard and mulch for eligible sheet-mulching projects. Pre-qualification site visit and landscape plan approval required prior to participation. Delivery will be performed by NMWD's designated contractor.



See [www.nmwd.com](http://www.nmwd.com) for rules and application forms, and then call 415-761-8944 to schedule an appointment.

## Water Smart Savings Program

Call (415) 761-8944 for program details or visit [www.nmwd.com](http://www.nmwd.com)

North Marin Water District wants to help customers use water efficiently. That's why we've put all of our water saving promotions under one umbrella. The Water Smart Savings Program encompasses all you need to get started on saving water and saving money. Call (415) 761-8944 for program details or visit [www.nmwd.com](http://www.nmwd.com)

### Water Smart Home Survey:

This free service includes thorough indoor and outdoor water efficiency checks.

### Water Conserving Fixtures:

Free showerheads, faucet aerators and self-closing hose nozzles are available upon request.

### Rainwater Catchment Rebate:

Rebate for collection and storage of rainwater.

### High Efficiency Clothes Washer Rebate:

NMWD offers a rebate to customers when they purchase a qualifying high efficiency clothes washer.

### Cash for Grass Rebate:

Get Cash for removing irrigated and maintained lawn and replacing it with low water use plants. Pre-qualification required.

### Water Smart Landscape Rebate:

Rebates available for water efficient landscape equipment, such as a new drip irrigation system replacing a spray system or a rain shut off device.

### Smart Controller Rebate:

A Smart Controller uses weather data and site specific information to automatically adjust run times.

### High Efficiency Toilet Rebate:

Customers who replace an old water-guzzling toilet with a high efficiency toilet may be eligible for a rebate.

### Greywater Rebate:

Rebate for the reuse of water from washing machine, shower or bathroom sink to water landscape plants.

### Other Programs:

Other programs include pool cover rebate, hot water recirculation system rebate and "Lawn Be Gone" sheet mulching program.



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WATER DISTRICT**



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## Free Water Smart Home Survey Program

The Water Smart Home Survey Program offers customers a chance to have a NMWD representative complete a FREE water use efficiency survey. Our friendly and knowledgeable survey technicians can show you how to easily become more water use efficient and we will help you understand how to program your irrigation controller in this post-drought time. You'll also get free low-flow showerheads and sink aerators as needed to achieve maximum water use efficiency.

### On the Survey we will inspect:

- Sprinklers & irrigation systems
- Landscaping
- Water meter
- Faucets
- Showerheads
- Toilets
- Clothes washers
- Other water-using devices in the home



Call today to schedule your **Free Water Smart Home Survey:** 415-761-8944

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MEMORANDUM

To: Board of Directors

May 11, 2018

From: Ryan Grisso, Water Conservation Coordinator *RG*

Subject: Approve Text for Spring 2018 West Marin's *Water Line*, Volume 15  
V:\Memos to Board\Spring 2018 WM WaterLine Text 0518.doc

**RECOMMENDED ACTION:** Approve 2018 West Marin "*Water Line*"

**FINANCIAL IMPACT:** \$2,000 (included in WM FY 2017/2018 Budget)

Draft text and design for the Spring 2018 West Marin "*Water Line*", Volume 15 is attached for your review and approval. Should any Board member have individual comments please provide them to the General Manager at the Board meeting on May 15, 2018. It is expected the West Marin 2018 "*Water Line*" will be mailed in June 2018.

RECOMMENDATION

Board authorize the General Manager to approve text and design of West Marin's 2018 "*Water Line*", Volume 15.

Approved by GM 

Date 5.11.18



# THE WATER LINE

WEST MARIN'S WATER CONSERVATION NEWSLETTER • VOLUME 15 • SPRING 2018

## Normal Year Conditions on Lagunitas Creek

NMWD water supply for West Marin customers is diverted from shallow wells adjacent to Lagunitas Creek near the U.S. Coast Guard Housing Facility in Point Reyes Station and on Gallagher Ranch.



At 32" through April 1, this year's rainfall is classified as a normal year (a normal year is declared when total

precipitation from October 1 to April 1 exceeds 28 inches measured at the Marin Municipal's Kent Lake). While this will not be a dry year, some common-sense prohibitions against water waste and non-essential use remain in effect.

We encourage you to use water efficiently, identify and fix leaks immediately, and participate in NMWD's water use efficiency programs. See below and on reverse side for details.

## Notice of Paradise Ranch Estates Tank 4A Replacement

**N**MWD's PRE Tank 4A Replacement Project (near 420 Drake's View Drive) includes construction of a new 125,000 gallon concrete tank that is intended to address County Fire requirements as well as replace both the existing aged tank (50,000 gallons) and an additional tank (25,000 gallons) that burned in the 1995 Mount Vision Fire.

Environmental documents have been prepared and the 30-day public review comment period will extend from May 11 through June 11, 2018. The public hearing has been scheduled for the June 26, 2018 Board meeting located in Point Reyes Station (at the Dance Palace).

## Free Water Smart Home Survey Program

The Water Smart Home Survey Program offers customers a chance to have a NMWD representative complete a FREE water use efficiency survey. Our friendly and knowledgeable survey technicians can show you how to easily become more water use efficient and we will help you understand how to program your irrigation controller in this post-drought time. You'll also get free low-flow showerheads and sink aerators as needed to achieve maximum water use efficiency.

### On the Survey we will inspect:

- Sprinklers & irrigation systems
- Landscaping
- Water meter
- Faucets
- Showerheads
- Toilets
- Clothes washers
- Other water-using devices in the home



Call today to schedule your **Free Water Smart Home Survey: 415-761-8944**

**Pay your bills online at: [www.onlinebiller.com/nmwd](http://www.onlinebiller.com/nmwd)**

# Water Smart Savings Program

Call (415) 761-8944 for program details or visit [www.nmwd.com](http://www.nmwd.com)

North Marin Water District wants to help customers use water efficiently. That's why we've put all of our water saving promotions under one umbrella. The *Water Smart Savings Program* encompasses all you need to get started on saving water and saving money. Call (415) 761-8944 for program details or visit [www.nmwd.com](http://www.nmwd.com).



## High-Efficiency Toilet Rebate

Don't flush money away. Now you can get a rebate when you replace your non-water-conserving toilets with a High-Efficiency Toilet (HET). HETs use 20% less water than standard ultra-low flush toilets, so not only will you save water, but you'll save money, too. HETs eligible for rebate must be EPA WaterSense models. Call for rebate values and participation details or visit [www.nmwd.com](http://www.nmwd.com).



## High-Efficiency Clothes Washer Rebate Program

High Efficiency clothes washers can save up to 50% of the water used and 65% of the energy used when compared to conventional top-loading clothes washers. NMWD currently offers a rebate to customers when they purchase a qualifying high-efficiency clothes washer. Call for rebate value and participation details, or visit [www.nmwd.com](http://www.nmwd.com).



[www.nmwd.com](http://www.nmwd.com)

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**NORTH MARIN  
WATER DISTRICT**



## Water Smart Landscape Efficiency Rebate

Water efficient landscapes can be achieved through a number of strategies including efficient irrigation devices and equipment, and soil maintenance.

You may be eligible for rebates (call for rebate amounts and participation details or visit [www.nmwd.com](http://www.nmwd.com)) when you install District-qualified water-efficient landscape equipment including:

- Spray to drip irrigation conversions
- Weather Based Irrigation Controllers
- Multi-stream rotating sprinkler nozzles (for lawn areas only)
- Rain shut-off devices
- Mulch



## Cash for Grass

As part of the Water Smart Savings Program, you can get cash back when you remove your regularly mowed and irrigated lawn and re-landscape with California native low water use plants. Pre-inspection and re-landscaping plan approval required. Call for rebate values and complete program participation details or visit [www.nmwd.com](http://www.nmwd.com).

## Rainwater Harvesting and Graywater Rebate

Install a rainwater harvesting system, and District rebates may be available. Rainwater harvesting is the collection and storage of rainwater for reuse in landscape irrigation. Systems can range from simple catchment devices, such as rain barrels, to more complex systems, such as cisterns or storage tanks. Rebates are also available for graywater system installations. Pre-inspection and plan approval required. Call for participation details and rebate values or visit [www.nmwd.com](http://www.nmwd.com).



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## MEMORANDUM

To: Board of Directors  
From: Robert Clark, Operations / Maintenance Superintendent   
Subject: FY 17/18 Third Quarter Progress Report - Operations/Maintenance  
X:\MAINT SUP\2018\BOD\Q3 17-18 O&M update.doc

May 11, 2018

**RECOMMENDED ACTION:** Information

**FINANCIAL IMPACT:** None

**Novato**

With 12.31 inches of rain or 86 percent of average rainfall during the three month period Stafford Lake did not fill and reached a maximum elevation of 191.4 feet or 77% of full capacity. There was no operation of the Stafford Lake Treatment Plant during the period. Operations staff performed two major projects during the STP shut down; overhaul of the chlorine dioxide generator for improved dosing efficiency and modifications to the waste discharge line (which has allowed us to flow the full 110 gpm to the Novato Sanitary District). The Operators attended the CA-NV AWWA Operators Symposium and received 10 contact hours towards their required 36 hours.

Maintenance staff completed scheduled tasks this period including removal and replacement of two plant air compressors at STP. Staff also installed the power, controls and cathodic protection at the Norman tank and rebuilt the Stafford lake intake tower gate controllers. New Building and Grounds staff member Piaris Ocodhain was hired during the period and was able to complete yard work around the main office and made site visits to all pump stations and tanks in Novato. Cross-Connection Control (CCC) staff has been performing start-up testing for the Central recycled water project on-site retrofits. The 2017 CCC annual report was completed; highlights from the CCC program include; 94% completion of the 2,301 backflow device testing and 100% completion of the commercial fire services testing. Novato Unified School District continues to fall behind in properly testing their backflow devices. Fleet services received a new Transit Connect van for on-call support and expect to receive the new Construction Foreman truck in the next few weeks.


**West Marin System / Oceana Marin**

Staff responded to two severe weather events by placing a mobile generator at the Point Reyes Treatment Plant but no issues were realized during the winter. Failure of one of the primary lift station pumps at the Tahiti Way Lift station required staff to change out the pump set and order a rebuild kit. After reinstallation of the repaired pump, the lift station was operating properly.

**10**

**MEMORANDUM**

May 11, 2018

To: Board of Directors  
From: Robert Clark, Operations / Maintenance Superintendent   
Subject: Bulk Chemical Purchases  
X:\MAINT SUP\2018\BOD\BACC update 2018.doc

**RECOMMENDED ACTION:** Information

**FINANCIAL IMPACT:** Expected \$39,800 annual savings from 2013 costs.

Over the past five years the District has participated with the Bay Area Chemical Consortium (BACC) for the purchase of bulk chemicals used at the various treatment facilities throughout the District (Stafford Lake, Deer Island, Point Reyes and Oceana Marin). These chemicals include varying quantities of ferric chloride (FeCl<sub>3</sub>), sodium hydroxide (NaOH), liquid chlorine (Cl<sub>2</sub>) and sodium hypochlorite (NaClO). Our per unit costs for bulk chemical purchases utilizing this partnership have continued to stay below costs realized while working on our own to procure these chemicals.

However, and as expected the BACC savings has decreased from 58% in the first year to 21% this year. The savings this year is estimated to be just under \$40,000 based on an average year operation at the various treatment facilities. In a year to year comparison our costs will be going up by nearly 19% for these chemicals from FY17/18. Staff believes that with our continued participation in the BACC competitive bid process provides good value.

The administrative fees for participating in the BACC bid program this year is expected to be \$879 approximately 2% of our overall expected savings. Each year the Dublin San Ramon Services District administers the program and receives 4-6 bids for each of the various chemicals. The program has expanded to 42 participating agencies in 8 geographical areas which continue to allow several vendors to participate.

While there are several other bulk chemicals we use, those noted above are the only chemicals that are not vendor specific. For instance polymers used at Stafford Lake Water Treatment Plant are specifically formulated and tested for optimization of the treatment process, and we have an agreement with IDI DuPont to deliver sodium chlorite.


11



MEMORANDUM

To: Board of Directors

May 11, 2018

From: Julie Blue, Auditor-Controller 

Subj: Second Review – Proposed FY 2018/19 Novato Water Equipment Budget  
t:\aclword\budget\19\equip budget 19 review 2.docx

**RECOMMENDED ACTION: Review and Provide Direction to Staff**

**FINANCIAL IMPACT: \$250,000 FY19 Expenditure Plan Proposed for June 19 Meeting**

Since the April 17 review, no changes have been made to the proposed FY19 Equipment Budget.

Following is a chart showing ten years of equipment purchases history (A), and a five-year vehicle and equipment replacement plan (B).

Approval of the Equipment Budget is scheduled for the June 19, 2018 board meeting.

**EQUIPMENT EXPENDITURES**

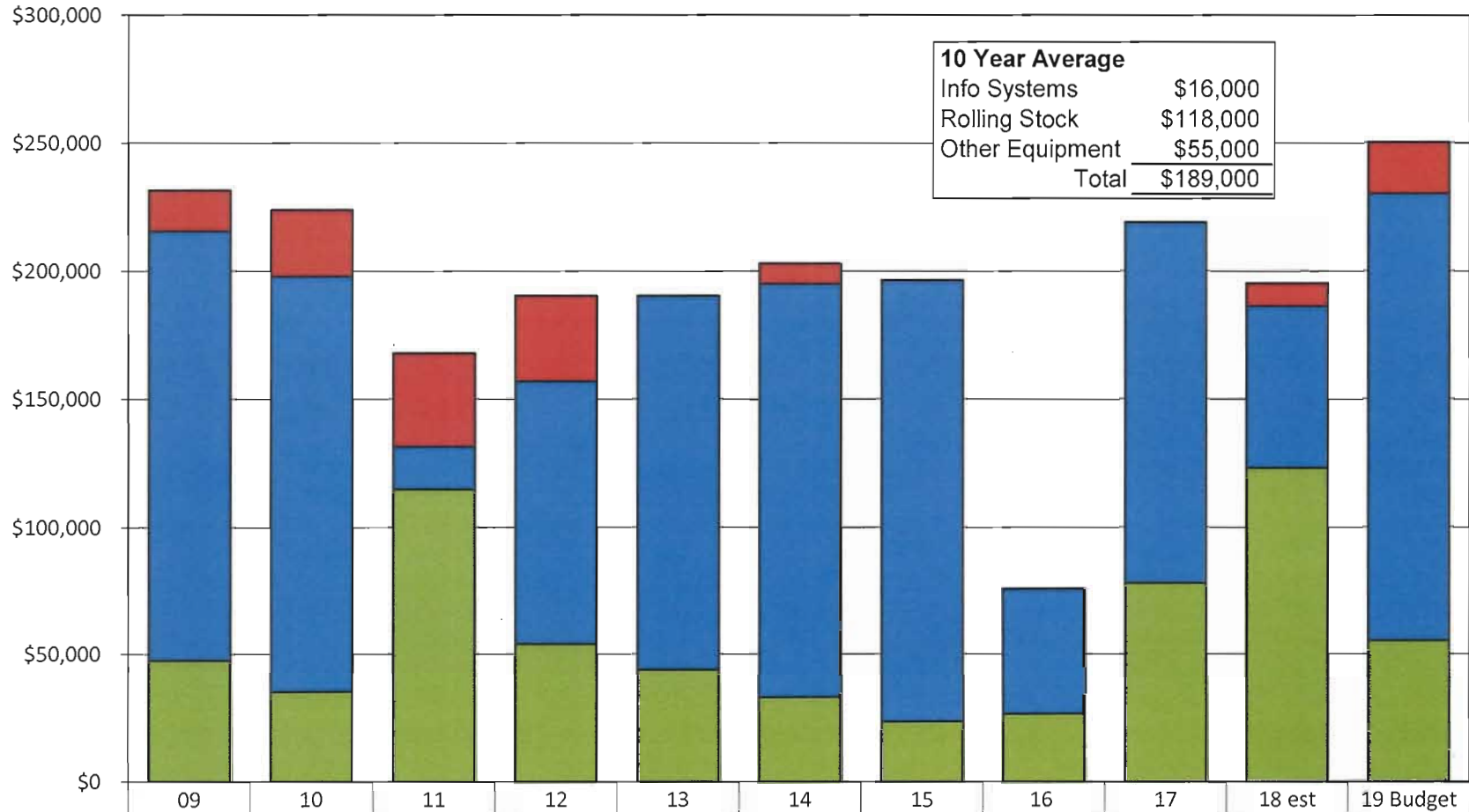
**Fiscal Year 2018/2019 Budget**

		Approved	Description
<b>1 ADMINISTRATION</b>			
12101.01.00	a. Website Upgrade	\$10,000	Modernize website to a current design making it more mobile and multiple browser friendly.
12101.01.00	b. Timekeeping Software Upgrade	\$10,000	Upgrade timekeeping system from slow outdated unsupported software.
		<b>\$20,000</b>	
<b>2 CONSTRUCTION/MAINTENANCE</b>			
12106.01.00	a. Pipe Locator <sup>1</sup>	\$8,000	Replace of pipe locator purchased in 2005.
12106.01.00	b. Fittings & Hose for Emergency Hose Trailer	\$6,000	Additional fittings & 500' of 1" hose for Hose Trailer.
		<b>\$14,000</b>	
<b>3 OPERATIONS/MAINTENANCE</b>			
12108.01.00	a. Autoclave for Lab <sup>1</sup>	\$27,000	Replace 25-year old autoclave. Parts availability is limited on this.
12108.01.00	b. Tire Balance Machine <sup>1</sup>	\$8,000	Equipment needed for mechanic shop.
12108.01.00	c. STP Reclaim Cleaning Pump <sup>1</sup>	\$6,000	Replacement of 25-HP trash pump.
		<b>\$41,000</b>	
<b>4 VEHICLE &amp; ROLLING EQUIPMENT EXPENDITURES</b>			
			<u>Rolling Stock to be Transferred &amp; Auctioned or Description</u>
12104.01.00	a. 5-Yard Diesel Dump Truck with sliding bed <sup>1</sup>	\$120,000	Replace '99 F550 3yd Dump w/90K miles.
12104.01.00	b. 1/2 Ton 4x4 Pickup 4-door with Shell <sup>1</sup>	\$40,000	03 Dodge Dakota transfer to Electrical/Mechanical crew.
12104.01.00	c. STP Equipment Cart	\$15,000	Equipment cart to transport tools and equipment at STP site.
		<b>\$175,000</b>	
<b>Total</b>		<b>\$250,000</b>	

	Adopted Budget	Estimated Actual	Proposed Budget
<b>RECAP</b>	2017/18	2017/18	2018/19
Equipment	\$147,000	\$132,000	\$75,000
Rolling Stock	\$63,000	\$63,000	\$175,000
	<b>\$210,000</b>	<b>\$195,000</b>	<b>\$250,000</b>

Note 1: Replacement

### 10 Year History of Equipment Purchases



	09	10	11	12	13	14	15	16	17	18 est	19 Budget
Info Systems	\$15,761	\$25,925	\$36,375	\$33,346	\$0	\$8,050	\$0	\$0	\$0	\$9,000e	\$20,000
Rolling Stock	\$168,055	\$162,696	\$16,671	\$103,057	\$146,305	\$161,834	\$172,989	\$48,812	\$141,044	\$63,000e	\$175,000
Other Equipment	\$47,520	\$35,082	\$114,612	\$53,724	\$43,764	\$32,884	\$23,231	\$26,374	\$77,802	\$123,000e	\$55,000
<b>Total</b>	<b>\$231,336</b>	<b>\$223,703</b>	<b>\$167,658</b>	<b>\$190,127</b>	<b>\$190,069</b>	<b>\$202,768</b>	<b>\$196,220</b>	<b>\$75,187</b>	<b>\$218,846</b>	<b>\$195,000e</b>	<b>\$250,000</b>

**5-Year Vehicle Replacement Plan**

Updated 4/11/2018

FY18/19	New Item Description	Replacement Item Description	Cost
1	5-Yard Diesel roll off Dump truck	#52 1999 F450 3-Yard dump	\$120,000
2	State Bid 1/2 ton 4x4 pick up 4 door with shell	#49 2003 Dodge Dakota to E/M Tech	\$40,000
3	STP Equipment Cart		\$15,000
4		Total	\$175,000

Note: #501, #58 or 59, #52 will be auctioned

FY19/20	New Item Description	Replacement Item Description	Cost
1	State Bid 1/2 ton 4x4 pick up 4X4	#47 2002 Chevy K1500	\$30,000
2	State Bid 1/2 Ton Pickup w/Tool Box and Radio	#53 2004 Chevy to pool	\$30,000
3	Backhoe 4X4 diesel W Enclosed Cab	#77 2004 John Deere Backhoe	\$125,000
4		Total	\$185,000

Note: #47, #510, #77 will be auctioned

FY20/21	New Item Description	Replacement Item Description	Cost
1	STP Forklift 5k lbs. cap Propane	#902E 2001 Hyster 50	\$40,000
2	5-Yard Diesel Dump truck	#44 2002 International	\$120,000
3	Hybrid Car w/ Radio	#510 2009 Toyota Prius	\$30,000
4		Total	\$190,000

Note: #56, #902E, and #44 will be auctioned

FY21/22	New Item Description	Replacement Item Description	Cost
1	1/2 ton V6 2WD w/Tool Box and Radio	#53 2004 Chevy 1500	\$35,000
2	1/2 Ton 4x4 Pickup w/Tool Box and Radio	#511 2010 Ford 4x4	\$35,000
3	1/2 ton V6 2WD w/Tool Box and Radio	#505 2008 Ford 3/4 ton 4X4	\$35,000
4	Hybrid Car w/ Radio	#56 2005 Honda Civic	\$30,000
5		Total	\$135,000

FY22/23	New Item Description	Replacement Item Description	Cost
1	250kw Portable generator	#73 STMO 225 KW PG	\$125,000
2	1/2 Ton 4x4 Pickup w/Tool Box and Radio	#512 2010 Ford	\$35,000
3	1/2 ton V6 2WD w/Tool Box and Radio	#54 2004 Chevy 1500	\$35,000
4		Total	\$195,000

Note: #57, #512 and #54 will be auctioned.

12

## MEMORANDUM

To: Board of Directors

May 11, 2018

From: Julie Blue, Auditor-Controller *JB*Subj: Second Review - Proposed FY19 & FY20 Novato Capital Improvement Projects Budget  
t:\aclword\budget\19\cip 19 review 2.docx**RECOMMENDED ACTION: Review and Provide Direction to Staff****FINANCIAL IMPACT: \$5.8 million FY19 & \$4.4 million FY20 Gross Expenditure Budget Proposed for June 19 Meeting**

Presented for your second review is the proposed Capital Improvement Project (CIP) Budget for the Novato service area for fiscal years 2018/19 (FY19) and 2019/20 (FY20). Since the initial board review one project has been added to the FY19 CIP. The Automate Zone Valve Project, No. 2.c, was moved forward from FY18 and totals \$100K.

The net internally funded, or "pay-go" expenditure over the coming two fiscal years is \$5.9 million.

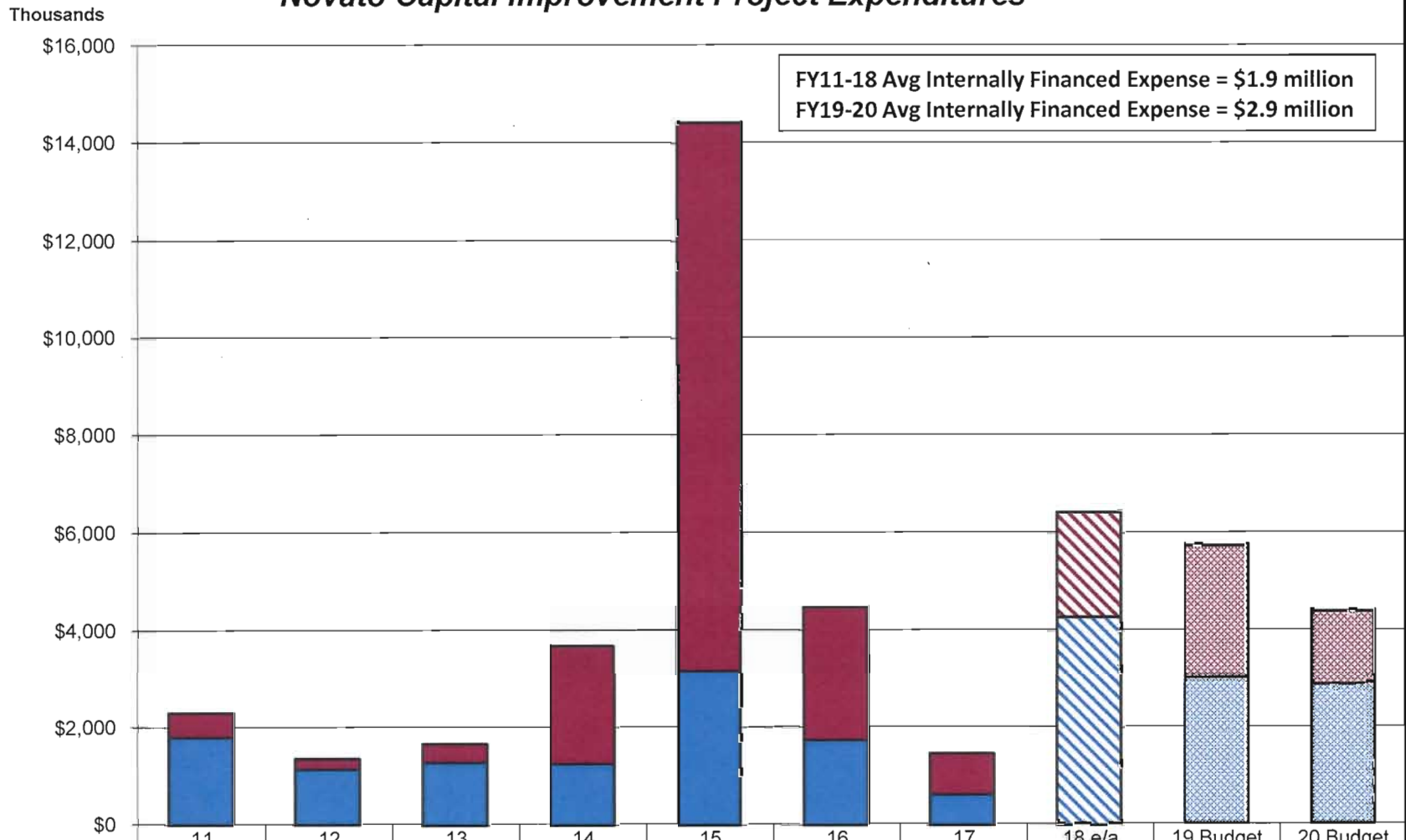
Below is a summary identifying the significant projects (\$500K or more) proposed to be undertaken over the next two fiscal years. An explanation of each FY19 project is incorporated into the detail listing attached.

<b>Project</b>	<b>FY19</b>	<b>FY20</b>
Advanced Meter Information – Radio Read Meter Retrofit	\$2,500,000	0
San Mateo 24" Inlet/Outlet Pipe (2,200)	500,000	190,000
Office/Yard Building Refurbish	250,000	1,500,000
Cherry Hill #2 Recoat	250,000	250,000
Replace Sludge Line to Center Road	0	600,000
Coat STP Concrete Clearwells	590,000	0
Crest PS (Design/Const)/Reloc School Rd PS	200,000	520,000
Other Projects	1,470,000	1,355,000
<b>Gross Project Outlay</b>	<b>\$5,760,000</b>	<b>\$4,415,000</b>
Less Loans & Grants	(2,750,000)	(1,500,000)
<b>Net Project Outlay (internally funded)</b>	<b>\$3,010,000</b>	<b>\$2,915,000</b>

Novato Water's CIP expenditure plan, when viewed over the current fiscal year through the next five years, averages \$2.4 million annually in internally funded projects. This is slightly below the \$2.5 million cap approved by the Board and incorporated into the 5-year financial plan.

A final budget review and approval is scheduled for the June 19, 2018 board meeting. .  
Historically, the budget has been reviewed and approved at a “public hearing”. This process is  
being reviewed by staff and legal counsel as a public hearing may not be required.

### Novato Capital Improvement Project Expenditures



	11	12	13	14	15	16	17	18 e/a	19 Budget	20 Budget
■ Debt/Grant Financed	\$500	\$215	\$377	\$2,424	\$11,261	\$2,736	\$837	\$2,135	\$2,750	\$1,500
■ Internally Financed	\$1,796	\$1,132	\$1,277	\$1,253	\$3,157	\$1,735	\$624	\$4,288	\$3,010	\$2,915
Total	\$2,297	\$1,347	\$1,653	\$3,677	\$14,418	\$4,472	\$1,461	\$6,423	\$5,760	\$4,415



**CAPITAL IMPROVEMENT PROJECTS**

5/8/2018

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		FY19	FY20	FY19 Project Description
1.	PIPELINE REPLACEMENTS/ADDITIONS			
	a. Main/Pipeline Replacements			
1.7161.00	1 Ridge Road 6" ACP (8"@1,400')	\$140,000		Install 1,400' of 8" water main from Ridge Rd PS to Forest Rd to replace 6" ACP that shows a high level of degradation.
1.7176.00	2 Replace Shady Ln Service Saddles	\$100,000		Replace approximately 22 failing service saddles.
1.7177.00	3 Rush Creek Pipe Protection		\$190,000	
	4 Leveroni Creek Repair		\$120,000	
	5 Other Main Replacements (60+ years old)	\$160,000	\$160,000	Unplanned repairs/replacements for failing mains.
		\$400,000	\$470,000	
	b. Main/Pipeline Additions			
1.7150.00	1 San Mateo 24" Inlet/Outlet Pipe (2,200')	\$500,000	\$190,000	Multiyear project to install 1,600 feet of 24-inch pipe from San Mateo Tank to the end of San Mateo Way to improve northern Zone 2 fire flow.
		\$500,000	\$190,000	
	c. Polybutylene Service Line Replacements			
1-7169-00	1 Country Lane 2" Plastic	\$150,000		Replace approximately 340 lf of failing 2" main with 4".
1.7139.xx	2 Replace PB in Sync w/City Paving (30 Srvcs)		\$70,000	
1.7123.xx	3 Other PB Replacements (80 Services)		\$80,000	
		\$150,000	\$150,000	
	d. Relocations to Sync w/City & County CIP			
1.8737.xx	1 Other Relocations	\$70,000	\$70,000	Relocate facilities for yet to be identified City/County Projects.
		\$70,000	\$70,000	
	<b>TOTAL PIPELINE REPLACEMENTS/ADDITIONS</b>	<b>\$1,120,000</b>	<b>\$880,000</b>	

**CAPITAL IMPROVEMENT PROJECTS**

5/8/2018

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		FY19	FY20	FY19 Project Description
2.	<b>SYSTEM IMPROVEMENTS</b>			
1.7007.11	a. DCA Repair/Replace (~14/yr)	\$60,000	\$100,000	Detector Check Assembly replacements.
1.7090.04	b. Anode Installations (150/yr)	\$30,000	\$10,000	Place anodes on copper laterals for corrosion protection.
1.7157.00	c. Automate Zone Valve (Slowdown Ct)	\$100,000		To provide real-time operation of Zone 2 pressure and flow when STP goes on & off.
1.7158.00	d. Advanced Meter Information Retrofit (Note 1)	\$2,500,000		Complete installation of the AMI System.
1.7178.00	e. Asset Management Software Procure/Implement	\$75,000	\$75,000	Software to eliminate paper records and improve efficiencies for ranking capital expenditures .
1.7136.00	f. Facilities Security Enhancements	\$25,000		Tanks & PS security improvements.
	<b>TOTAL SYSTEM IMPROVEMENTS</b>	<b>\$2,790,000</b>	<b>\$185,000</b>	
3.	<b>BUILDING, YARD, STP IMPROVEMENTS</b>			
	<b>a. Administration Building</b>			
1.6501.43	1 Electronic Document Management System	\$140,000		Manage digital document creation, storage, retrieval & expiration.
1.6501.44	2 Office/Yard Building Renovation (Note 2)	\$250,000	\$1,500,000	50-year-old building requires significant upgrading.
		\$390,000	\$1,500,000	
	<b>b. Stafford Treatment Plant</b>			
	1 Dam Concrete Repair (Apron)		\$50,000	
1.6600.89	2 Coat Concrete Clearwells (Both Units)	\$590,000		Existing concrete walls in STP Actifloc and finished water clear wells are showing signs of exposed aggregate due to low pH treated water. New protective coating will stop the deterioration.
	3 Replace Sludge Line to Center Road (4"@ 4,400')		\$600,000	
1.6600.92	4 Other Treatment Plant Improvements	\$50,000	\$50,000	Miscellaneous plant improvements
		\$640,000	\$700,000	
	<b>TOTAL BUILDING, YARD, STP IMPROVEMENTS</b>	<b>\$1,030,000</b>	<b>\$2,200,000</b>	

**CAPITAL IMPROVEMENT PROJECTS**

5/8/2018

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		FY19	FY20	FY19 Project Description
4.	STORAGE TANKS/PUMP STATIONS			
	a. Tank Construction			
1.6207.20	1 Old Ranch Rd Tank Replace (50,000 gal) (Note 3)	\$60,000	\$260,000	Replace and upsize existing redwood tank due to the current tank approaching end of useful life.
		\$60,000	\$260,000	
	b. Tank Rehabilitation			
1.7170.00	1 Hydropneumatic Tank Repairs	\$30,000	\$30,000	Ongoing program to inspect/Repair the 7 tanks in compliance with State Code.
1.6205.22	2 Cherry Hill #2 Recoat (0.2 MG)	\$250,000	\$250,000	Remove and replace coating system to extend tank life.
		\$280,000	\$280,000	
1.6112.24	c. Lynwood P.S. Motor Control Center	\$280,000	\$90,000	Move motor controls above-ground.
1.6141.00	d. Crest PS (Design/Const) /Reloc School Rd PS	\$200,000	\$520,000	Replace School Rd PS with new facility on Bahia Drive.
	<b>TOTAL STORAGE TANKS/PUMP STATIONS</b>	<b>\$820,000</b>	<b>\$1,150,000</b>	
	Novato Capital Improvement Gross Project Outlay	<b>\$5,760,000</b>	<b>\$4,415,000</b>	
	<b>LESS FUNDED BY LOANS/GRANTS/OTHER</b>			
	a. Advanced Meter Information Retrofit (Note 1)	(\$2,500,000)		
	b. Office/Yard Building Refurbish (Note 2)	(\$250,000)	(\$1,500,000)	
	<b>TOTAL LOAN/GRANT FUNDS</b>	<b>(\$2,750,000)</b>	<b>(\$1,500,000)</b>	
	Novato Capital Improvement Net Project Outlay	<b>\$3,010,000</b>	<b>\$2,915,000</b>	
	<b>NOVATO POTABLE WATER DEBT SERVICE</b>			
	a. STP SRF Loan	\$1,044,000	\$1,044,000	
	b. AEEP Bank Loan	\$482,000	\$482,000	
	c. Advanced Meter Info Retrofit Loan (Note 1)	\$357,000	\$377,000	
	d. Admin Building Renovation Loan (Note 2)	\$844,000	\$844,000	
		\$2,727,000	\$2,747,000	

Note 1 - \$5.5M Advanced Meter Info Retrofit is partially funded by Bank Loan of \$4.6M. Prior to securing bank loan the project was internally financed.

Note 2 - \$12M Office/Yard Renovation is proposed to be funded by 20 year 3.5% Bank Loan

Note 3 - Assumes property acquisition, survey, site plan provided to District at no charge via 405 Gage Lane project.

**13**

## MEMORANDUM

To: Board of Directors

May 11, 2018

From: Julie Blue, Auditor-Controller Subj: Second Review – Proposed FY 2018/19 Novato Operations Budget  
t:\aclword\budget\19\ops review 19 II.docx**RECOMMENDED ACTION:** Review and Provide Direction to Staff**FINANCIAL IMPACT:** **\$24.3 Million FY19 Spending Plan Proposed for June 19 Meeting****Budget Changes since the Last Review**

1. A \$33K increase in fees in support of labor negotiations for updating the Memo of Understanding (MOU) for the NMWD Employee Association expiring September 30, 2018.
2. A \$6K increase in temporary labor in support of the accounts payable and payroll functions. Currently one employee is responsible for both and redundancy is needed.
3. A \$32K decrease in electric power due to the refinement of the PG&E estimate.
4. A \$100K increase in the capital improvement project budget for Automation of Zone Valves which was moved forward from FY18.

**Budget Summary**

The fiscal year 2018/19 (FY19) budget proposed herein projects a net "bottom line" cash deficit of \$1,163,000. A rate increase of 4.5% is factored into the budget effective June 1, 2018. The 4.5% increase adds \$880,000 to FY19 budgeted revenue.

FY19 water sales volume is budgeted at 2.6 BG, consistent with the FY18 projected sales volume, but higher than the 2.3 BG budgeted amount for FY18.

The operating revenue (water sales) less operating expenditures for the FY19 budget estimates a net operating income of \$1,236,000 which compares to this year's projected net operating income of \$3,269,000. Total budgeted outlay, which includes capital improvement projects and debt service, is budgeted at \$24.3 million, down 14% from the FY18 budget.

**Budget Detail**

**Water Sales** - Water sales volume is budgeted at 2.6 BG, which is in line with the current fiscal year estimated actual, and 5% below the 10-year average. The chart on page 6 of the budget document shows a 10-year history of billed consumption.

The proposed 4.5% rate increase is structured as a 4.5% increase in the commodity rate

see an average monthly increase of \$2.50. The proposed rate increase would generate \$880,000 in additional revenue next fiscal year.

### **Operating Expenditures**

**Total Operating Expenditures** are projected to increase 14% (\$2,032,000) from the FY18 budget. The difference is primarily composed of a \$1,280,000 payment to SCWA and a \$619,000 increase for water purchases. Without these two outlying items the operations budget is relatively flat with a projected increase of 1% (\$133,000). Additional details of some of the individual components of the Operating Expenditure Budget follow.

**Source of Supply** is budgeted to increase approximately 29% (\$1,900,000) from last year's budget. The volume of water purchased from the Sonoma County Water Agency (SCWA) is forecast at 1.9 BG, a 0.2 BG increase from the FY18 budget. The increase costs for the purchase of water include \$47,000 for the expected increased charges, as set by SCWA, and \$572,000 for the expected increased volume of water to be purchased. Also included in this expenditure is a payment to SCWA for \$1.3M. This payment is a one-time payout for bond issued debt service. The payment will be made in FY19 and no further payments will be due for the life of the debt service.

**Water Treatment** is budgeted to increase 13% (\$272,000) from last year's budget. This is due to projected increases in operating permit fees, increases in the cost of chemicals, and an increase in the costs of sludge disposal. Maintenance of the grounds and equipment for the Stafford Treatment Plant are also budgeted to increase for pumps and motor repairs, repairs to the road, pond covering, and bird netting.

**Transmission and Distribution** is budgeted to increase by approximately 2% (\$75,000) from the prior year's budget. This increase is primarily due to rebalancing of operational priorities to Transmission and Distribution.

**Staffing** - The proposed budget includes a staffing level of 54 full-time equivalent (FTE) employees, down 1.2 FTE (2%) from the current year budget. The decrease from the prior year is due to overlapping staff due to retirement and turnover. See below for FTE count by division.

<u>FTE Staffing</u>	<u>FY19</u>	<u>FY18</u>
Administration	8.0	8.0
Consumer Services	6.0	6.0
Construction/Maintenance	12.0	12.0
Engineering	8.0	8.2
Maintenance	9.0	10.0
Operations	6.0	6.0
Water Quality	<u>5.0</u>	<u>5.0</u>
	<u>54.00</u>	<u>55.2</u>

The temporary staffing budget is proposed to increase by 490 hours from the prior year's budget to 8,836 hours. The increase is due to additional administrative hours needed to complete a cost of service study and to provide assistance in completing a salary survey for employee agency negotiations. Additional hours are also required for back-up support for the payroll and accounts payables functions.

For budgeting purposes, a 3% cost-of-living salary increase, based on the projected increase in the consumer price index, has been factored into the budget effective October 1, 2018, in accordance with the Memorandum of Understanding.

The District's average CalPERS retirement contribution rate will increase 4% (to 23.8%) from the amount budgeted last year. All employees now pay 100% of the CalPERS employee contribution. For budgeting purposes, a 4% increase in group health insurance rates effective January 1, 2019 is assumed, which is the average rate of increase over the past 3 years, and increases budgeted labor cost by \$28,000.

**Operating Expenditures Summary** – Total budgeted operating expenditures are up \$2 million (14%) compared to the adopted FY18 budget. The below table lists the budget variances by category. The primary influences for this variance is the payment to SWCA for the debt service on their bond issuance and the substantial increase in water purchases due to the corresponding increase in water sales. The cost of chemicals for water treatment and power for operations also contribute to the increase in the budget.

<b>Component</b>	<b>Increase/ (Decrease) vs. FY18 Budget</b>	<b>FY19 % Change</b>
Purchased Water Cost*	\$1,900,000	40%
Materials, Services & Supplies	110,000	6%
Chemicals	30,000	7%
Electric Power	18,000	5%
Distributed G&A & Overhead	-26,000	0%
Net Increase/(Decrease)	<u>\$2,032,000</u>	<u>14%</u>

\* – Includes \$1.3M for a one-time debt service payment to SCWA and \$620K increase in water cost/purchases.

This budget draft will be refined and adjusted in conjunction with preparation of the West Marin Budgets along with additional review of the Capital Improvement Projects budget, and will be presented for additional review at the June 19<sup>th</sup> board meeting. Historically, the budget has been reviewed and approved at a “public hearing”. This process is being reviewed by staff and legal counsel as a public hearing may not be required.



Proposed  
**BUDGET**

*Second Review*

# **Novato Potable Water Operating Budget**

FISCAL YEAR

# **2018-19**

***NORTH MARIN WATER DISTRICT***

*999 RUSH CREEK PLACE, NOVATO, CA*

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**NOVATO POTABLE WATER**  
**BUDGET SUMMARY**  
**Fiscal Year 2018/19**

	<i>Proposed Budget 2018/19</i>	<i>Estimated Actual 2017/18</i>	<i>Adopted Budget 2017/18</i>
<b>OPERATING INCOME</b>			
1	<b>\$20,144,000</b>	\$19,468,000	\$17,366,000
2	<b>340,000</b>	386,000	352,000
3	<b>\$20,484,000</b>	\$19,854,000	\$17,718,000
<b>OPERATING EXPENDITURES</b>			
4	<b>\$6,756,000</b>	\$5,576,000	\$4,833,000
5	<b>343,000</b>	334,000	350,000
6	<b>580,000</b>	790,000	695,000
7	<b>2,409,000</b>	2,080,000	2,169,000
8	<b>3,136,000</b>	2,590,000	3,061,000
9	<b>619,000</b>	579,000	647,000
10	<b>380,000</b>	268,000	440,000
11	<b>2,205,000</b>	1,803,000	2,201,000
12	<b>2,820,000</b>	2,565,000	2,800,000
13	<b>\$19,248,000</b>	\$16,585,000	\$17,196,000
14	<b>NET OPERATING INCOME (LOSS)</b>	<b>\$1,236,000</b>	<b>\$3,269,000</b>
<b>NON-OPERATING INCOME/(EXPENSE)</b>			
15	<b>\$100,000</b>	132,000	100,000
16	<b>133,000</b>	149,000	133,000
17	<b>(533,000)</b>	(436,000)	(452,000)
18	-	(85,000)	-
19	<b>(20,000)</b>	(\$2,000)	(20,000)
20	<b>(\$320,000)</b>	(\$242,000)	(\$239,000)
21	<b>NET INCOME/(LOSS)</b>	<b>\$3,027,000</b>	<b>\$283,000</b>
<b>OTHER SOURCES/(USES) OF CASH</b>			
22	<b>\$2,820,000</b>	\$2,565,000	\$2,800,000
23	<b>680,000</b>	922,000	780,000
24	<b>1,000</b>	1,000	-
25	<b>245,000</b>	245,000	245,000
26	<b>30,000</b>	45,000	-
27	<b>250,000</b>	4,600,000	6,200,000
28	<b>(250,000)</b>	(172,000)	(210,000)
29	<b>(5,760,000)</b>	(6,423,000)	(10,315,000)
30	<b>(1,350,000)</b>	(1,090,000)	(1,093,000)
31	<b>1,255,000</b>	(5,100,000)	(1,751,000)
32	-	1,129,000	2,570,000
33	<b>(\$2,079,000)</b>	(\$3,278,000)	(\$774,000)
34	<b>CASH INCREASE/(DECREASE)</b>	<b>(\$1,163,000)</b>	<b>(\$491,000)</b>

**NOVATO POTABLE WATER OPERATING BUDGET DETAIL**

Fiscal Year 2018/19

	Proposed Budget 18/19	Estimated Actual 17/18	Adopted Budget 17/18	Actual 16/17	Actual 15/16	Actual 14/15	Actual 13/14	Actual 12/13
<b>STATISTICS</b>								
1 Active Meters	20,577	20,556	20,545	20,544	20,535	20,498	20,505	20,492
2 Avg Commodity Rate/1,000 Gal (Net)	\$5.99	\$5.73	\$5.35	\$5.40	\$5.25	\$4.87	\$4.81	\$4.32
3 Potable Consumption (BG)	2.60	2.60	2.30	2.31	2.15	2.44	2.95	3.02
<b>OPERATING INCOME</b>								
4 Water Sales	\$20,300,000	\$19,628,000	\$17,280,000	\$16,772,060	\$15,489,903	\$16,101,706	\$18,385,017	\$16,626,526
5 Bill Adjustments	(156,000)	(160,000)	86,000	(130,587)	(64,461)	(82,790)	(95,470)	(104,567)
6 Sales to MMWD	-	-	-	-	-	-	432,294	0
7 Wheeling Charges-MMWD	75,000	75,000	91,000	91,374	90,217	119,144	100,527	251,980
8 Miscellaneous Service Revenue	265,000	236,000	261,000	252,038	277,479	276,388	265,496	223,619
9 <b>TOTAL OPERATING INCOME</b>	<b>\$20,484,000</b>	<b>\$19,854,000</b>	<b>\$17,718,000</b>	<b>\$16,984,885</b>	<b>\$15,793,138</b>	<b>\$16,414,448</b>	<b>\$19,087,864</b>	<b>\$16,997,558</b>
<b>OPERATING EXPENSE</b>								
<b>SOURCE OF SUPPLY</b>								
10 Supervision & Engineering	\$37,000	\$10,000	\$20,000	\$11,264	\$10,586	\$11,641	\$9,698	\$9,103
11 Operating Expense - Source	12,000	4,000	10,000	8,513	11,928	11,044	10,497	6,821
12 Maintenance/Monitoring of Dam	67,000	24,000	62,000	24,059	22,796	11,635	19,438	38,295
13 Maintenance of Lake & Intakes	18,000	3,000	17,000	7,575	6,299	511	11,701	14,481
14 Maintenance of Watershed	50,000	37,000	49,000	36,218	17,325	15,151	17,015	23,405
15 Water Purchased for Resale to MMWD	-	-	-	-	-	-	253,539	0
16 Water Quality Surveillance	22,000	8,000	25,000	3,513	3,137	7,467	13,713	12,776
17 Contract Water - SCWA	6,550,000	5,490,000	4,650,000	4,320,623	3,997,030	4,333,100	5,698,211	5,135,330
18 GASB 68 Adjustment	-	-	-	5,682	-	-	-	-
19 <b>TOTAL SOURCE OF SUPPLY</b>	<b>\$6,756,000</b>	<b>\$5,576,000</b>	<b>\$4,833,000</b>	<b>\$4,417,447</b>	<b>\$4,069,101</b>	<b>\$4,390,549</b>	<b>\$6,033,812</b>	<b>\$5,240,211</b>
<b>PUMPING</b>								
20 Operating Expense	\$3,000	\$0	\$3,000	\$0	\$0	\$237	\$0	\$0
21 Maintenance of Structures/Grounds	26,000	22,000	27,000	28,514	26,347	51,544	46,502	24,115
22 Maintenance of Pumping Equipment	62,000	35,000	68,000	30,354	13,507	51,013	27,696	35,637
23 Electric Power - Pumping	252,000	277,000	252,000	246,869	212,207	213,909	255,711	263,471
24 GASB 68 Adjustment	-	-	-	3,496	-	-	-	-
25 <b>TOTAL PUMPING</b>	<b>\$343,000</b>	<b>\$334,000</b>	<b>\$350,000</b>	<b>\$309,233</b>	<b>\$252,061</b>	<b>\$316,703</b>	<b>\$329,909</b>	<b>\$323,223</b>
<b>OPERATIONS</b>								
26 Supervision & Engineering	\$169,000	\$244,000	\$169,000	\$234,870	\$256,231	\$241,264	\$219,520	\$187,986
27 Operating Expense	252,000	393,000	358,000	343,890	304,897	244,900	274,893	264,400
28 Maintenance Expense	56,000	\$49,000	58,000	47,202	34,755	37,667	79,906	101,036
29 Telemetry Equipment/Controls Maint	86,000	\$88,000	93,000	101,568	68,674	86,544	62,223	44,349
30 Leased Line Expense	17,000	\$16,000	17,000	17,592	17,704	17,986	17,675	17,921
31 GASB 68 Adjustment	-	-	-	63,553	-	-	-	-
32 <b>TOTAL OPERATIONS</b>	<b>\$580,000</b>	<b>\$790,000</b>	<b>\$695,000</b>	<b>\$808,675</b>	<b>\$682,261</b>	<b>\$628,361</b>	<b>\$654,217</b>	<b>\$615,692</b>

**NOVATO POTABLE WATER OPERATING BUDGET DETAIL**

Fiscal Year 2018/19

	Proposed Budget 18/19	Estimated Actual 17/18	Adopted Budget 17/18	Actual 16/17	Actual 15/16	Actual 14/15	Actual 13/14	Actual 12/13
<b>WATER TREATMENT</b>								
33 Supervision & Engineering	\$152,000	\$175,000	\$105,000	\$168,945	\$130,358	\$112,433	\$111,096	\$112,612
34 Operating Expense	389,000	\$244,000	371,000	349,671	313,024	333,020	285,050	308,301
35 Purification Chemicals	455,000	\$441,000	425,000	247,260	378,562	358,907	316,762	400,627
36 Sludge Disposal	119,000	\$99,000	102,000	107,942	90,043	72,720	66,085	103,196
37 Maintenance of Structures/Grounds	119,000	\$49,000	75,000	78,910	68,351	79,728	60,148	52,242
38 Purification Equipment Maintenance	203,000	\$221,000	177,000	186,246	150,989	104,290	137,838	137,793
39 Electric Power - Treatment	156,000	\$156,000	138,000	129,652	113,223	120,592	135,637	112,767
40 Laboratory Expense (net)	816,000	\$695,000	776,000	768,965	705,212	691,990	655,315	602,901
41 GASB 68 Adjustment	-	-	-	150,494	-	-	-	-
42 <b>TOTAL WATER TREATMENT</b>	<b>\$2,409,000</b>	<b>\$2,080,000</b>	<b>\$2,169,000</b>	<b>\$2,188,085</b>	<b>\$1,949,762</b>	<b>\$1,873,680</b>	<b>\$1,767,931</b>	<b>\$1,830,439</b>
<b>TRANSMISSION &amp; DISTRIBUTION</b>								
43 Supervision & Engineering	\$656,000	\$606,000	\$591,000	\$569,303	\$559,007	\$562,934	\$486,544	\$427,430
44 Maps & Records	180,000	\$138,000	171,000	168,267	110,877	108,956	77,995	106,669
45 Operation of T&D System	636,000	\$524,000	607,000	582,483	509,160	404,243	511,708	460,489
46 Storage Facilities Expense	141,000	\$97,000	175,000	155,641	150,066	167,362	134,352	87,843
47 Maintenance of Valves & Regulators	222,000	\$166,000	211,000	196,162	189,372	151,691	91,709	117,299
48 Maintenance of Mains	155,000	\$179,000	130,000	149,584	215,077	149,898	72,176	86,906
49 Backflow Prevention Program	234,000	\$182,000	303,000	155,536	150,298	156,590	147,878	102,338
50 Maintenance of Copper Services	187,000	\$132,000	177,000	159,769	142,083	202,193	141,987	175,880
51 Maintenance of PB Service Lines	469,000	\$373,000	453,000	473,695	532,436	432,820	411,357	483,006
52 Maintenance of Meters	107,000	\$112,000	105,000	66,356	100,402	100,401	94,418	93,360
53 Detector Check Assembly Maint	70,000	\$59,000	63,000	72,208	54,586	65,749	52,369	7,581
54 Maintenance of Hydrants	79,000	\$22,000	75,000	51,020	34,311	25,655	22,154	28,531
55 GASB 68 Adjustment	-	-	-	228,385	-	-	-	-
56 <b>TOTAL TRANSMISSION &amp; DISTRIB</b>	<b>\$3,136,000</b>	<b>\$2,590,000</b>	<b>\$3,061,000</b>	<b>\$3,028,409</b>	<b>\$2,747,675</b>	<b>\$2,528,492</b>	<b>\$2,244,647</b>	<b>\$2,177,332</b>
<b>CONSUMER ACCOUNTING</b>								
57 Meter Reading & Collection	\$250,000	\$175,000	\$245,000	\$182,663	\$189,262	\$166,919	\$182,216	\$180,030
58 Billing & Accounting	228,000	\$265,000	274,000	289,503	281,010	269,054	256,653	247,897
59 Contract Billing	18,000	\$16,000	18,000	16,692	17,160	16,946	17,561	18,110
60 Postage & Supplies	55,000	\$50,000	55,000	56,373	58,903	60,032	61,791	64,497
61 Credit Card Fees	31,000	\$43,000	31,000	29,685	24,592	23,893	14,149	
62 Lock Box Service	11,000	\$10,000	11,000	10,944	10,944	10,080		
63 Uncollectible Accounts	14,000	\$14,000	14,000	12,709	15,382	14,818	19,500	23,230
64 Office Equipment Expense	27,000	\$23,000	15,000	11,350	23,091	16,743	23,905	8,290
65 Distributed to Other Operations	(15,000)	(\$17,000)	(16,000)	(17,161)	(16,959)	(16,233)	(15,276)	(13,961)
66 GASB 68 Adjustment	-	-	-	49,950	-	-	-	-
67 <b>TOTAL CONSUMER ACCOUNTING</b>	<b>\$619,000</b>	<b>\$579,000</b>	<b>\$647,000</b>	<b>\$642,708</b>	<b>\$603,385</b>	<b>\$562,252</b>	<b>\$560,499</b>	<b>\$528,093</b>

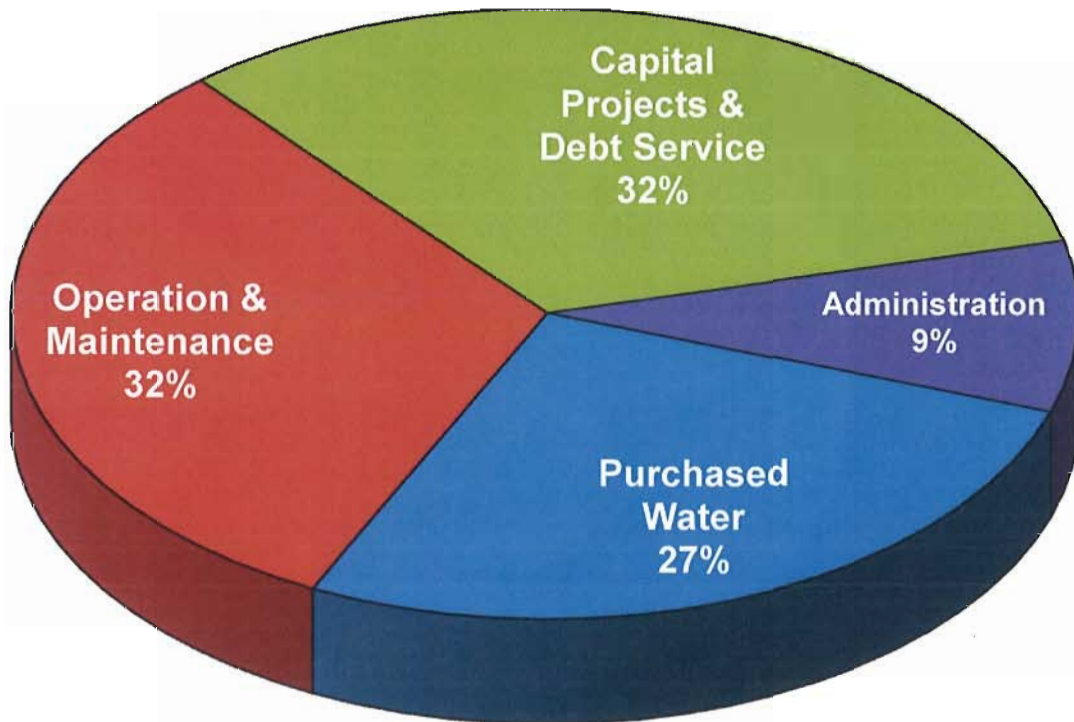
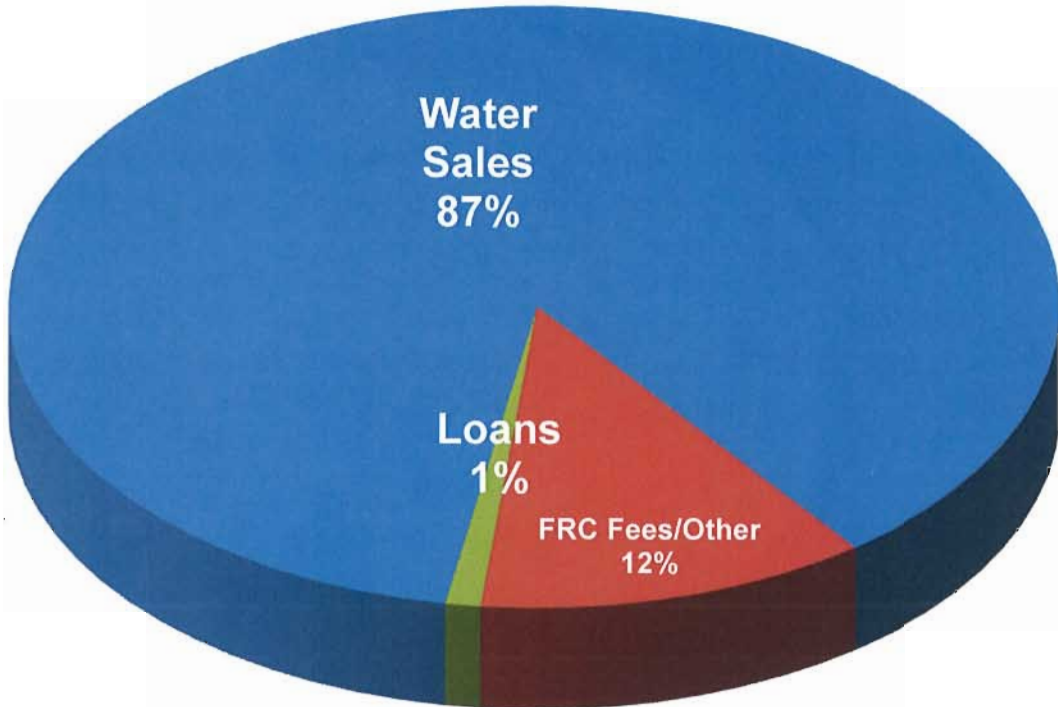
## NOVATO POTABLE WATER OPERATING BUDGET DETAIL

Fiscal Year 2018/19

		Proposed Budget 18/19	Estimated Actual 17/18	Adopted Budget 17/18	Actual 16/17	Actual 15/16	Actual 14/15	Actual 13/14	Actual 12/13
<b>WATER CONSERVATION</b>									
68	Residential	\$299,000	\$210,000	\$354,000	\$270,150	\$320,620	\$410,154	\$362,499	\$222,637
69	Commercial	19,000	6,000	19,000	1,702	3,711	5,352	2,605	1,169
70	Public Outreach/Information	39,000	23,000	40,000	30,618	32,287	34,148	51,638	28,477
71	Large Landscape	23,000	29,000	27,000	36,818	24,877	10,747	12,702	13,966
72	GASB 68 Adjustment	-	-	-	21,754	-	-	-	-
73	<b>TOTAL WATER CONSERVATION</b>	<b>\$380,000</b>	<b>\$268,000</b>	<b>\$440,000</b>	<b>\$361,042</b>	<b>\$381,495</b>	<b>\$460,401</b>	<b>\$429,444</b>	<b>\$266,249</b>
<b>GENERAL &amp; ADMINISTRATION</b>									
74	Director's Expense	\$39,000	\$34,000	\$41,000	\$34,384	\$34,222	\$30,400	\$25,300	\$14,400
75	Legal Fees	19,000	18,000	17,000	28,043	20,488	9,956	20,906	10,112
76	Human Resources	67,000	60,000	31,000	31,451	25,036	33,977	28,386	35,917
77	Auditing Services	20,000	20,000	17,000	16,220	18,770	18,380	21,050	20,600
78	Consulting Services/Studies	393,000	181,000	425,000	51,567	138,735	107,015	0	53,327
79	General Office Salaries	1,364,000	1,366,000	1,362,000	1,492,719	1,309,502	1,191,792	1,184,164	1,214,210
80	Office Supplies	47,000	23,000	47,000	35,048	37,709	36,877	46,174	37,232
81	Employee Events	12,000	13,000	12,000	9,726	10,143	7,379	7,227	6,204
82	Other Administrative Expense	16,000	11,000	17,000	13,960	10,427	13,390	13,240	18,150
83	Election Cost	-	-	-	2,077	250	0	250	0
84	Dues & Subscriptions	73,000	66,000	69,000	59,046	59,271	53,296	47,842	45,607
85	Vehicle Expense	8,000	8,000	8,000	9,325	8,112	8,112	8,112	8,112
86	Meetings, Conf & Training	230,000	148,000	237,000	186,436	139,858	136,863	117,425	112,402
87	Telephone, Water, Gas & Electricity	49,000	38,000	49,000	45,355	42,458	38,580	33,328	32,995
88	Building & Grounds Maintenance	53,000	49,000	55,000	62,856	63,344	48,891	35,642	41,194
89	Office Equipment Expense	129,000	91,000	118,000	95,465	87,141	97,868	90,231	82,349
90	Insurance Premiums & Claims	117,000	86,000	117,000	87,319	140,366	102,073	72,192	76,473
91	Retiree Medical Benefits	172,000	162,000	172,000	164,969	168,935	175,580	159,691	166,699
92	(Gain)/Loss on Overhead Charges	(39,000)	(106,000)	(39,000)	(19,931)	(89,626)	(85,682)	(222,710)	(136,354)
93	G&A Distributed to Other Operations	(144,000)	(150,000)	(169,000)	(161,036)	(126,771)	(113,218)	(76,538)	(77,443)
94	G&A Applied to Construction Projects	(420,000)	(315,000)	(385,000)	(290,813)	(359,689)	(353,998)	(389,569)	(392,205)
95	GASB45 Adjustment (OPEB)	-	-	-	120,988	-	-	-	-
96	GASB68 Adjustment (Pension Liability)	-	-	-	207,182	-	-	-	-
97	<b>TOTAL GENERAL &amp; ADMINISTRATION</b>	<b>\$2,205,000</b>	<b>\$1,803,000</b>	<b>\$2,201,000</b>	<b>\$2,282,356</b>	<b>\$1,738,681</b>	<b>\$1,557,531</b>	<b>\$1,222,343</b>	<b>\$1,369,981</b>
98	Depreciation Expense	\$2,820,000	2,565,000	\$2,800,000	\$2,710,627	\$2,577,081	\$2,507,124	\$2,445,634	\$2,417,032
99	<b>TOTAL OPERATING EXPENSE</b>	<b>\$19,248,000</b>	<b>\$16,585,000</b>	<b>\$17,196,000</b>	<b>\$16,748,582</b>	<b>\$15,001,502</b>	<b>\$14,825,093</b>	<b>\$15,688,436</b>	<b>\$14,768,252</b>
100	<b>NET OPERATING INCOME/(LOSS)</b>	<b>\$1,236,000</b>	<b>\$3,269,000</b>	<b>\$522,000</b>	<b>\$236,303</b>	<b>\$791,636</b>	<b>\$1,589,355</b>	<b>\$3,399,428</b>	<b>\$2,229,306</b>

**NOVATO POTABLE WATER  
FISCAL YEAR 2018-19**

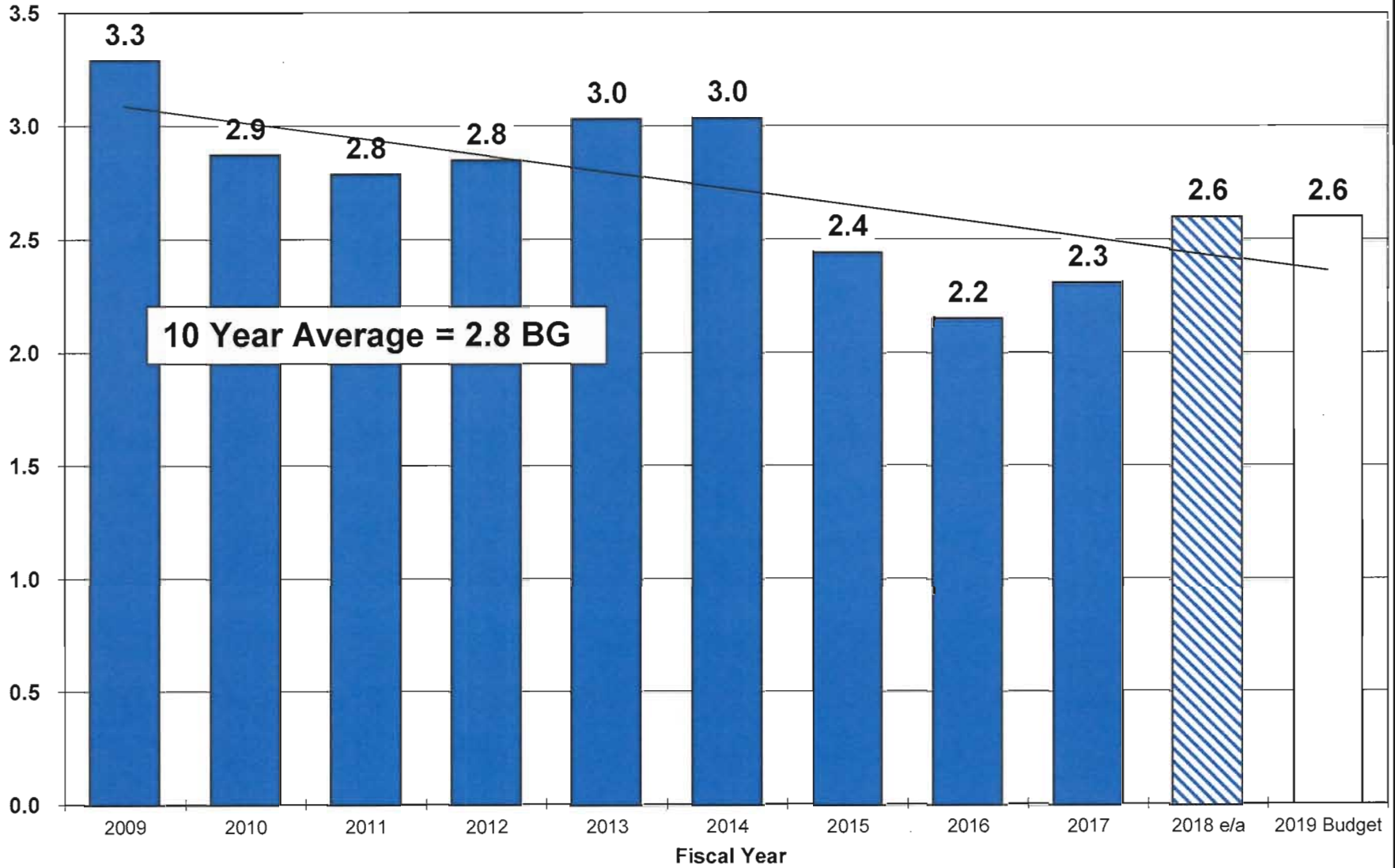
**SOURCE OF FUNDS = \$23.2 MILLION**



**USE OF FUNDS = \$24.3 MILLION**

### Novato Water Billed Consumption 10 Year History

Billion  
Gallons

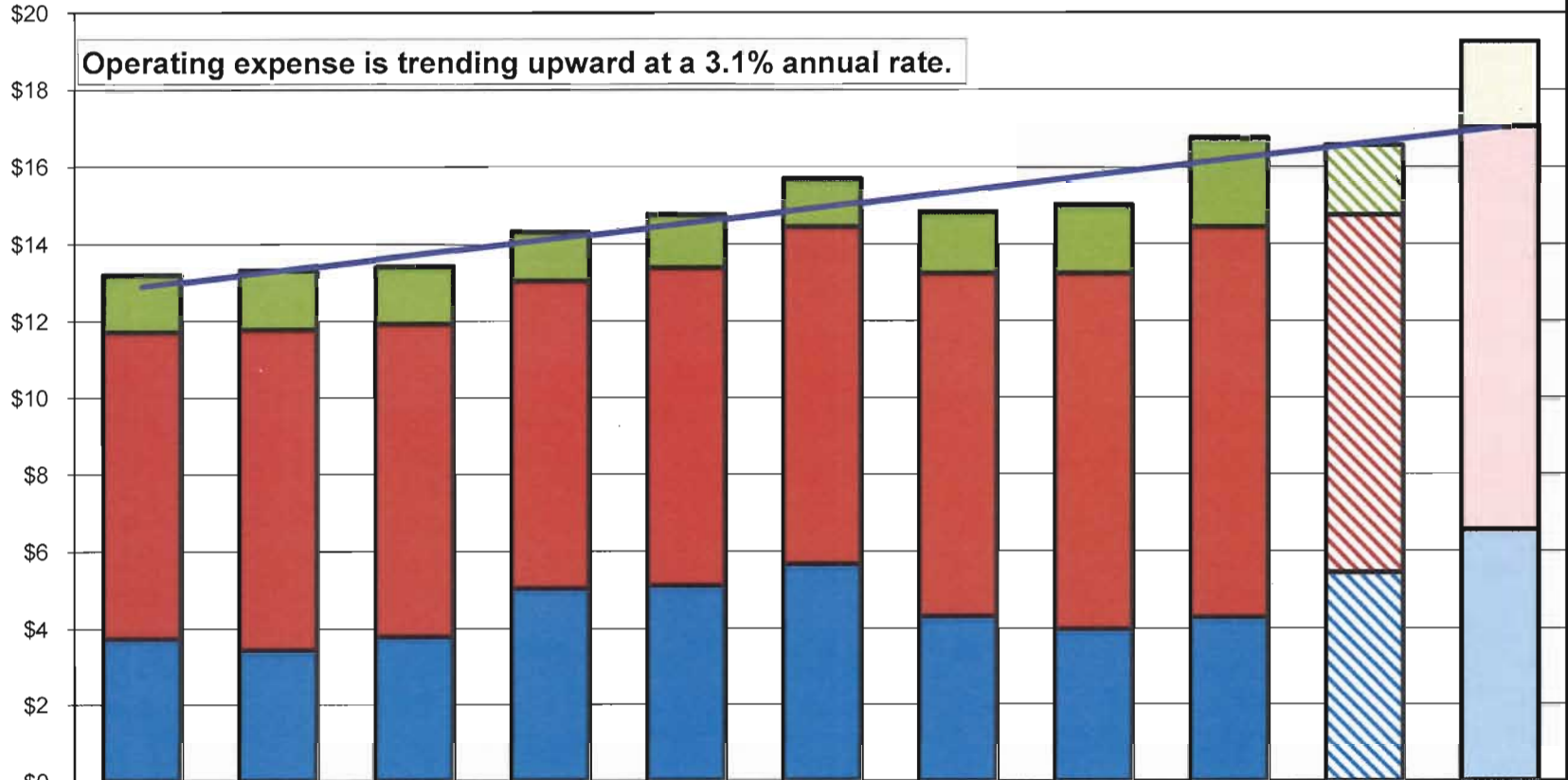




Million \$

### Novato Water Operating Expense History

Operating expense is trending upward at a 3.1% annual rate.



	09	10	11	12	13	14	15	16	17	18 e/a	19 Budget
Admin	\$1.5	\$1.5	\$1.5	\$1.3	\$1.4	\$1.2	\$1.6	\$1.7	\$2.3	\$1.8	\$2.2
O&M	\$8.0	\$8.3	\$8.1	\$8.0	\$8.3	\$8.8	\$8.9	\$9.3	\$10.1	\$9.3	\$10.5
Purch Wtr	\$3.7	\$3.4	\$3.8	\$5.0	\$5.1	\$5.7	\$4.3	\$4.0	\$4.3	\$5.5	\$6.6
Total	\$13.2	\$13.3	\$13.4	\$14.3	\$14.8	\$15.7	\$14.8	\$15.0	\$16.7	\$16.6	\$19.2
Regression	\$12.9	\$13.3	\$13.7	\$14.1	\$14.6	\$15.0	\$15.4	\$15.8	\$16.2	\$16.6	\$17.0

Fiscal Year

**14**

## MEMORANDUM

To: Board of Directors May 11, 2018  
From: Julie Blue, Auditor-Controller *JB*  
Subj: Second Review – Proposed FY 2018/19 Novato Recycled Water System Budget  
t:\aclword\budget\19\rw19 review 2.docx

**RECOMMENDED ACTION:** Review and Provide Direction to Staff

**FINANCIAL IMPACT:** \$3.5 Million FY18 Expenditure Plan Proposed for June 19 Meeting

**Changes since the Last Review**

There were no changes to the Recycled Water Budget since the Board's May 1 initial review.

**Budget Summary**

The FY 2018/19 (FY19) Recycled Water System (RWS) budget projects demand of 200MG next fiscal year (see chart of historical water use attached), which is a 25% increase from FY18 as the Central expansion project will continue to bring new customers. Consistent with the potable water rate increase, a 4.5% commodity rate and bimonthly service charge increase is proposed to be effective June 1, 2018. The proposed increase is projected to generate \$50,000 in additional revenue next fiscal year.

Operating expenses (excluding depreciation) are budgeted to increase 11% (\$46,000) from the existing FY18 budget. The FY19 budget projects purchase of 150MG (\$210,000) of tertiary treated water from Novato Sanitary District and 45MG (\$63,000) from Las Gallinas Valley Sanitary District, both at \$1,400/MG. The Deer Island Plant is budgeted to produce 5MG during the summer to keep it in good running order, and available to serve as a backup facility.

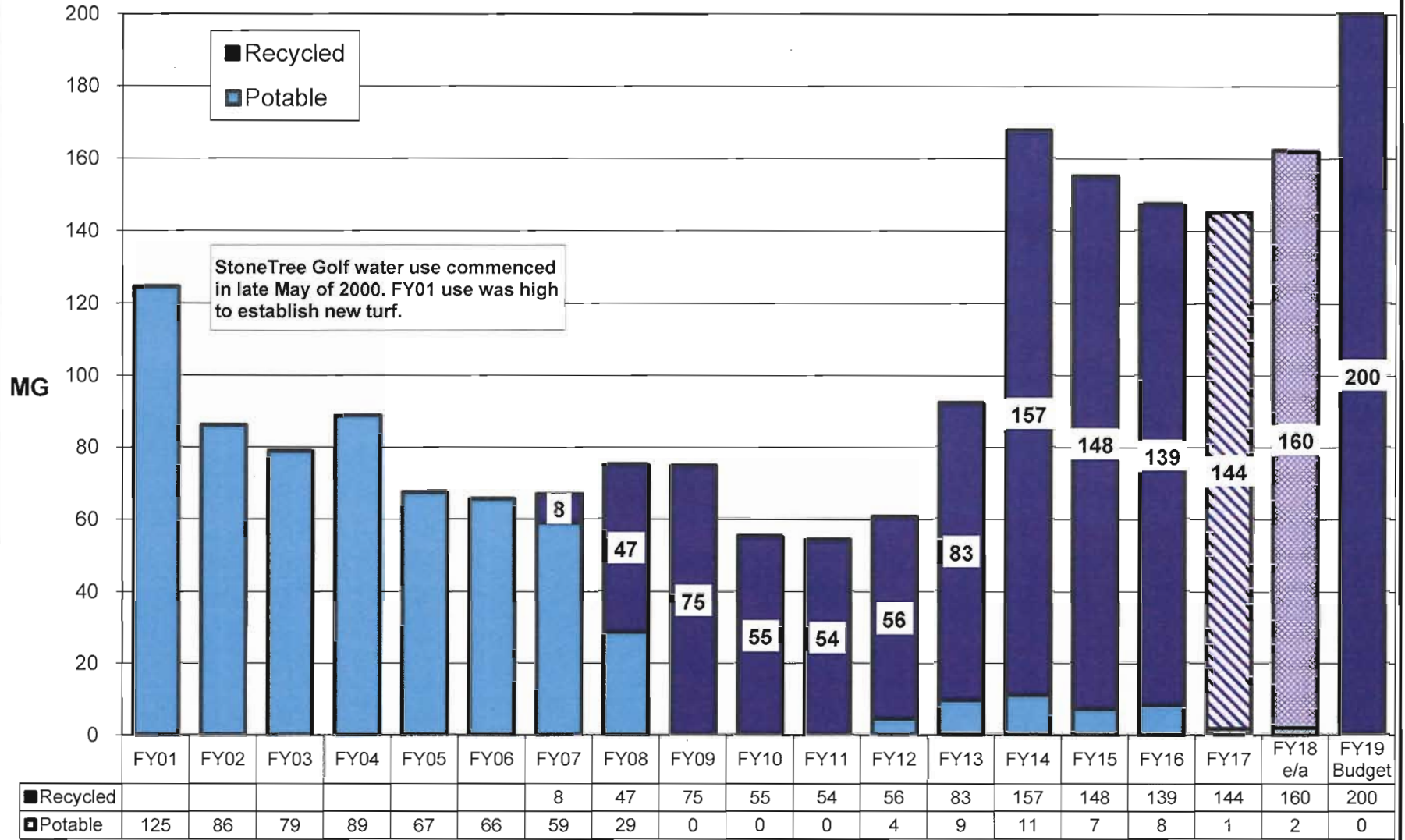
The projects to expand recycled water distribution facilities to Novato will be complete in FY18. The capital budget for FY19 includes \$100,000 to retrofit existing potable irrigation customers and \$20,000 for continued participation in the NBWRA administration. In FY18 Novato has advanced funds to RWS in anticipation of the receipt of loan and grant funds. The FY19 RWS budget transfers out \$1.2M in Connection Fee to the Novato potable water system to repay the advances.

As with the Novato budget, staff will continue to fine-tune the RWS budget, and return it for final review and approval at the June 19<sup>th</sup> board meeting.

**NOVATO RECYCLED WATER**  
**BUDGET SUMMARY**  
**Fiscal Year 2018/19**

	<i>Proposed Budget 2018/19</i>	<i>Estimated Actual 2017/18</i>	<i>Adopted Budget 2017/18</i>
<b>OPERATING INCOME</b>			
1 Recycled Water Sales	\$1,154,000	\$883,000	\$884,000
2 Bimonthly Service Charge	41,000	33,000	34,000
3 <b>Total Operating Income</b>	<b>\$1,195,000</b>	<b>\$916,000</b>	<b>\$918,000</b>
<b>OPERATING EXPENDITURES</b>			
4 Purchased Water - NSD	\$210,000	\$98,000	\$154,000
5 Purchased Water - LGVSD	63,000	\$37,000	63,000
6 Pumping	6,000	\$3,000	6,000
7 Operations	64,000	\$59,000	62,000
8 Water Treatment	31,000	\$18,000	24,000
9 Transmission & Distribution	56,000	\$15,000	68,000
10 Consumer Accounting	1,000	\$1,000	1,000
11 General Administration	51,000	\$51,000	58,000
12 Depreciation	474,000	\$444,000	480,000
13 <b>Total Operating Expenditures</b>	<b>\$956,000</b>	<b>\$726,000</b>	<b>\$916,000</b>
14 <b>NET OPERATING INCOME (LOSS)</b>	<b>\$239,000</b>	<b>\$190,000</b>	<b>\$2,000</b>
<b>NON-OPERATING INCOME/(EXPENSE)</b>			
15 Interest Revenue	\$10,000	\$17,000	\$10,000
16 Stone Tree Golf Interest Payments	29,000	34,000	34,000
17 Deer Island SRF Loan Interest Expense	(53,000)	(58,000)	(58,000)
18 Distrib System SRF Loans Interest Exp	(235,000)	(186,000)	(191,000)
19 <b>Total Non-Operating Income/(Expense)</b>	<b>(\$249,000)</b>	<b>(\$193,000)</b>	<b>(\$205,000)</b>
20 <b>NET INCOME/(LOSS)</b>	<b>(\$10,000)</b>	<b>(\$3,000)</b>	<b>(\$203,000)</b>
<b>OTHER SOURCES/(USES) OF FUNDS</b>			
21 Add Depreciation Expense	\$474,000	\$444,000	\$480,000
22 Fed Grant/SRF Loan - Central Expansion	-	2,819,000	5,333,000
23 Connection Fees Transferred from (to) Novato	(1,255,000)	5,100,000	1,751,000
24 Stone Tree Golf Principal Repayment	222,000	217,000	217,000
25 Capital Improvement Projects	(120,000)	(3,365,000)	(6,545,000)
26 Deer Island SRF Loan Principal Payments	(221,000)	(215,000)	(215,000)
27 Distrib System SRF Loan Principal Pmts	(639,000)	(424,000)	(425,000)
28 <b>Total Other Sources/(Uses)</b>	<b>(\$1,539,000)</b>	<b>\$4,576,000</b>	<b>\$596,000</b>
29 <b>CASH INCREASE/(DECREASE)</b>	<b>(\$1,549,000)</b>	<b>\$4,573,000</b>	<b>\$393,000</b>

### Recycled Water Production History



**15**

**Drew McIntyre**

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**From:** North Bay Watershed Association <NBWA=scwa.ca.gov@mail95.atl161.mcsv.net> on behalf of North Bay Watershed Association <NBWA@scwa.ca.gov>  
**Sent:** Tuesday, April 17, 2018 3:05 PM  
**To:** Drew McIntyre  
**Subject:** RSVP for a NBWA Wetland Restoration Tour

North Bay Wetland Restoration Tour

[View this email in your browser](#)



## North Bay Watershed Association

Hello NBWA Board Members,

This May the NBWA Board is invited to attend a special tour of North Bay Wetland Restoration sites on **Friday, May 4th, 2018 at 9:30 a.m. to noon** (please note extended meeting time).

**Tour Meeting Location:**

Novato Sanitary District

500 Davidson Street

Novato, CA

**Registration is required and space is limited.** We will prioritize NBWA Board member and Board alternate participation on this tour, and if there is available space we will open those spaces to interested parties and the public. Please RSVP by Wednesday, April 25th. Remaining spots will be opened up to interested parties on the wait list at that time, and the final tour list

will be confirmed.

Stops will include Bahia Wetlands, Sears Point/Sonoma Baylands, and may include the Napa/Sonoma Marshes. The tour will be lead by staff from the San Francisco Bay Joint Venture.

Transportation will be provided between tour locations.

Please let me know if you are joining us for this special tour and I will add your name to the reservation list.

Thank you,

Sophie Porcelli

Programs Specialist | Sonoma County Water Agency

Phone: 707.524.6430

Email: [Sophie.Porcelli@scwa.ca.gov](mailto:Sophie.Porcelli@scwa.ca.gov)



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**Our mailing address is:**

North Bay Watershed Association

404 Aviation Blvd

Santa Rosa, CA 95403

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16

**DISBURSEMENTS - DATED MAY 3, 2018****Item #16**

Date Prepared 5/1/18

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

Seq	Payable To	For	Amount
1	Alpha Analytical Labs	Lab Testing	\$300.00
2	Alphagraphics Marin	#10 Envelopes (20,500) for AMI Notification Letters	1,024.12
3	Amazon	Label Printer for Warehouse (\$515), Hard Disk Drive (\$51) (Kane), Autoclave Door Gasket (\$88) (Lab) & Cartridge Kit for Purification System (\$329) (Lab), Ribbon Cartridge (\$89) & Thermal Labels for New Warehouse Printer (\$121)	1,204.33
4	Arrow Benefits Group	April Dental Admin Fee	305.10
5	Athens Administrators	May Workers' Comp Admin Fee	1,000.00
6	AT&T	April Pt. Reyes TP Internet Connection	85.00
7	Automation Direct	PLC Parts for Harbor Dr Regulator Station	1,028.00
8	Badger Meter	Cellular Meters (18)	15.84
9	Bastogne	Return Payment on Account	65.23
10		Vision Reimbursement	259.94
11	Blue, Julie	May 2018 Health Insurance Reimbursement	570.13
12	Bold & Polisner	AMI Project (\$420), Gallagher Well #2 (\$357), Groundwater Monitoring (\$252), JM Pipe Claim (\$126), Nicasio Water Supply (\$1,008), Prop 218 Letter (\$210), Reimb Entitlement (\$84) & Saving Water Partners (\$42)	2,499.00
13	Coleman, John	Novato "Toilet Rebate" Program & Refund Alternative Compliance Reg 15 Deposit (\$315)	415.00

Seq	Payable To	For	Amount
14	Core Utilities	Consulting Services: April IT Support (\$5,000), Program SCADA Radios (4) (\$350), Repair Control Links Between NNMWD & NSD (\$50), SCADA (\$125), Troubleshoot Loss of PLC Communication @ STP (\$300), Programmed Route Numbers from CORE to Engineering Drive (\$50), Added Addresses to Services (\$50), Update Website (\$75), Website AMI FAQ's (\$475), Website Water Conservation Update (\$50), AMI Project (\$525) & Website Annual Water Cost Calculator (\$100)	7,150.00
15	CPI International	Graphite Tubes (10) (Lab)	445.96
16	Evoqua Water Technologies	Service on Deionization System (Lab)	365.32
17	Ferguson Waterworks	1 1/2" Meters (2) (\$1,069), Couplings (2), Meter Flange & Angle Meter Stops (8) (\$1,719)	3,006.76
18	GHD	Prog Pymt#9: Engineering Services for PRE Tank 4A Project (Balance Remaining on Contract \$37,463)	105.50
19		Cafeteria Plan: Uninsured Medical Reimbursement	649.53
20	Grainger	Water Pump Repair Kits (2) (\$445), Hand File Set, Combination Wrench, Nitrile Seat (3), General Purpose Cleaner (6 gals) (\$78), Ratcheting Box End Wrenches (4) (\$114), 2" Seat for Spare Water Pump (\$117), Screw Extractor Set, Vacuum Filters (6), Traffic Sign "Bump" (\$92), Chain for Hydrant Meters (\$273), Cat 5 Cable for Radio Installations (\$391), Entry Mat & Sump Pump for Kastania Valve Pit (\$240)	2,100.16
21	Kaiser Foundation Health Plan	Pre-Employment Physicals (Blue, Gibbs, Juarez & Outcalt)	260.00
22	Larsengines	Replacement Payment. Original Went to Closed ACH Account	187.02
23	Leslie Pool Supplies	Refund Lockbox Payment Received in Error	77.03
24	Lucchesi, Sarah	Cafeteria Plan Reimbursement	416.66
25	Madruga Iron Works	4' X 6' DCA Cover Assemblies (3)	10,041.36
26	Maltby Electric	Conduit & Fittings for Harbor Dr Regulator Power	65.04

Seq	Payable To	For	Amount
27	McMaster-Carr Supply	Hatch Intrusion Switch for San Mateo Tank	65.77
28	Miyamoto, Glenn	Novato "Toilet Rebate" Program	200.00
29	Montes, Marci	Novato "Toilet Rebate UHET" Program	150.00
30	Mutual of Omaha	May Group Life Insurance Premium	880.29
31	Neopost USA	May Postal Meter Rental	108.20
32	NMWD Employee Association	NMWD Assoc Dues 2/28/18 Through 4/15/18	960.00
33	Pace Supply	Double Check Backflow, Double Fire Check Assemblies (3) (\$5,707), Copper Pipe (60') (\$360), Meter Spuds (15), Service Saddle & Tapping Sleeve (12" x 16") (\$691)	7,381.71
34	Parkinson Accounting Systems	March Accounting Software Support Accounting	1,987.50
35	Redwood Engineering	Replacement Check. Original Lost In Mail.	840.16
36	Sequoia Safety Supply	Brief Relief Urine Bags (100) (\$259), Safety Vests (7), Raingear for New Employees (Gibbs & Outcalt) (\$204)	533.34
37	SoftResources	Prog Pymt#6: Consulting Enterprise Asset Management Software (Balance Remaining on Contract \$14,183)	1,925.00
38	Solar, Rosalia	Exp Reimb: Office Supplies	23.23
39		Cafeteria Plan: Uninsured Medical Reimbursement	1,141.00
40	SPG Solar	March Energy Delivered Under Solar Services Agreement	10,476.26
41	Stompe, Brad	Exp Reimb: Safety Snacks (\$57), Parking (\$10) & Bridge Toll (\$14) for AWWA Ops Symposium on 3/28/18	80.50
42	Thomas Scientific	Flip Top Bottles (66) (Lab)	78.28
43	US Bank	March Safekeeping Fee-Treasury Securities	130.50
44	VWR International	Phosphoric Acid (Lab)	52.19

Seq	Payable To	For	Amount
45	White & Prescott	Prog Pymt#19: Review Disposition of NMWD Surplus Tank Sites @ Oleander & Spinosa Way, Prog Pymt#20: 86 Hamilton Water Line Easement & Prog Pymt#21: AEEP Easement Support - B2 Reach A, (Balance Remaining on Contract \$9,720)	520.00
<b>TOTAL DISBURSEMENTS</b>			<b><u>\$61,175.96</u></b>

The foregoing payroll and accounts payable vouchers totaling \$61,175.96 are hereby approved and authorized for payment.



Auditor-Controller

4/30/18

Date



General Manager

4-30-18

Date

## DISBURSEMENTS - DATED MAY 10, 2018

Date Prepared 5/8/18

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 4/30/18	\$151,166.39
EFT*	US Bank	Federal & FICA Taxes PPE 4/30/18	62,920.28
EFT*	State of California	State Taxes & SDI PPE 4/30/18	12,939.81
EFT*	CalPERS	Pension Contribution PPE 4/30/18	36,402.04
EFT*	CalPERS	May Health Insurance Premium (Employees \$46,883, Retirees \$11,232 & Employee Contribution \$8,977)	\$67,092.52
1	Alpha Analytical Labs	Lab Testing	\$20.00
2	Athens Administrators	April Replenish Workers' Comp Checks Written	7,692.43
3	Backflow Distributors	Backflow Tester Parts (4)	221.37
4	Banakus, Dan	Refund Excess Advance for Construction Over Actual Job Cost-Novato Pediatric Dentistry	2,768.03
5	Barnard Pipeland	Refund Security Deposit on Hyd Meter Less Final Bill	762.73
6	Blue Revolution	Refund Security Deposit on Hyd Meter Less Final Bill	683.38
7		Vision Reimbursement	270.00
8	Bunler Commercial	Refund Security Deposit on Hyd Meter Less Final Bill	500.93
9	Covello Group	Prog Pymt#19: March RW Exp Project Central Service Area (Balance Remaining on Contract \$711)	12,464.23
10	Cummings Trucking	Rock (17 tons) (\$647) & Sand (33 tons)	2,730.85
11	DataTree	April Subscription to Parcel Data Information	100.00

Seq	Payable To	For	Amount
12	DeGabriele, Chris	Prog Pymt#1: Consulting Services: Interconnection Agreement, Novato Creek Stream Habitat Assessment & Misc (Balance Remaining on Contract \$45,384)	696.00
13	Direct Line	April Telephone Answering Service	390.84
14	Draeger	Testing for SCBA Mask for Individuals, Operators & Escape Breathing Air Bottles, K Cart & Stand Alone	1,107.00
15	Environmental Resource	Calibration Solution for STP Turbidity Motor (Lab)	443.87
16	Environmental Express	Sample Cups (1,000) (Lab)	57.39
17	Evoqua Water Technologies	Deionization System Rental (Lab)	300.00
18	Farr Construction	Prog Pymt#6: San Mateo Recoat Project (Balance Remaining on Contract \$130,895)	157,168.00
19	Ferguson Waterworks	Water Smart Customer Portal	25,000.00
20	Fisher Scientific	Tip Rack (960) & Chlorine Test Reagent (1,000) (Lab) (\$179)	220.73
21	Gempler's	Vapor Adsorbent Cartridges (2) (Lab)	108.98
22	Grainger	Beverage Cooler (5 gal), Teflon Tape (40-1/2" x 520") & Knee Boots (Foster) (\$99)	185.98
23	Grisso, Ryan	Exp Reimb: Rod & Reel Kid Activity for Outreach Events	30.76
24	Hach	Sodium Persulfate (5 gal) (STP)	254.77
25	InfoSend	March Processing Fee for Water Bills (\$1,322) & Postage (\$3,670) & March Monthly Support Fee	5,792.60
26	Kennedy Jenks	Replacement Payment: Original Check Lost in Mail (\$20,453) & Prog Pymt #2: Engineering Services-Update Novato Water System Master Plan (\$15,733) (Balance Remaining on Contract \$43,814)	36,186.05
27	Larsengines	Drive Belt for Cut-off Saws (2), Air Filters (2), & Gas Cans (2) (\$76)	225.70
28	Lincoln Life	Deferred Compensation PPE 4/30/18	12,352.31

Seq	Payable To	For	Amount
29	Maltby Electric	Electrical Parts for San Mateo Tank Repairs (\$211) & Supplies/Parts for Shop Inventory	408.14
30	Marin Color Service	Paint (1 gal) (Office)	38.68
31	Metrohm USA	Pressure Screws (2)	113.56
32	National Business Furniture	Desk Chair (Manzoni)	231.06
33	Nationwide	Deferred Compensation PPE 4/30/18	2,150.00
34	Novato Sanitary District	February 2018 RW Operating Expense	5,010.25
35	Novato Chamber of Commerce	Novato Leadership-Shuttle Service for Special Districts Day (50% Split W/Novato Sanitary)	250.00
36	NSI Solutions	QC Sample (Lab)	51.25
37	Opperman & Son	Parking Brake Air Valve ('02 Int'l Dump Truck)	92.37
38	Pace Supply	Pipe Crimper (\$212), Corp Stop (\$1,345), Tee, Bolt, Couplings (11) (\$824), Nipples (17), Bushings (6), Ells (2), Flanges (11) (\$314), Reducers (2), Plugs (3), Valves (8), Tapping Sleeve (8" x 6") (\$824) & 6" PVC Pipe (200') (\$1,190)	5,058.40
39	NMWD Petty Cash	Calendar, 70th Anniversary Cake (\$19), Refreshments for Clean-up Day, Safety Bucks, Resolution Frames & Tablecloths for Outreach Event	71.95
40	Ramudo, Pablo	Exp Reimb: SCWA, BAWWA & ACWA Meetings. Mileage (\$244), Bridge Toll (\$15), Parking (\$4) & Registration (\$55)	318.16
41	Rauch Communication Consultant	Prog Pymt#1: Strategic Planning Workshops (2/13 & 2/27/18) (Balance Remaining on Contract \$8,074)	9,926.01
42	Red Wing Shoe Store	Safety Boots (Garrett)	190.63
43	Roy's Sewer Service	Pump Out Septic Tank @ 25 Giacomini Rd	650.00
44	SCP Science	Standard (Lab)	285.84
45	Sequoia Safety Supply	Safety Glasses (23) & Ear Plugs (1,200) (\$106)	178.95
46	Six Robblees'	Wheel Cylinders, Bearings & Seals for Water Trailer	214.92



Seq	Payable To	For	Amount
47	Soiland	Asphalt Recycling	32.60
48	SWRCB Accounting Office	Annual Lab Certification	6,145.00
49	Stericycle Transportation Svcs	Hazardous Waste Disposal (WQ Lab)	180.00
50	Synectic Technologies	Quarterly Phone System Maintenance	446.70
51	Verizon Wireless	Cellular Charges: Data (\$270) & Airtime (\$126) (21)	396.37
52	VWR International	Dry Heat Indicator Strips (100) & Ammonium Persulfate (Lab)	65.99
53	Wildcat Engineering	Prog Pymt #4: Onsite Retrofit for RW Central Area (Balance Remaining on Contract \$253,589)	174,347.80
54	Wiley Price & Radulovich	March Legal Services	247.50
55	Wilson, Jim	Reimbursement Program - Cherry Hill Pipeline Phase 2	5,240.41
		<b>TOTAL DISBURSEMENTS</b>	<b><u>811,598.51</u></b>

The foregoing payroll and accounts payable vouchers totaling \$811,598.51 are hereby approved and authorized for payment.

Julie Blue 5-8-18  
Auditor-Controller Date

[Signature] 5.8.18  
General Manager Date

Rec'd  
4/6/18  
B



**NORTH MARIN WATER DISTRICT**  
**Director's Compensation Request**  
**for Attendance at Meetings Other than District Board Meetings**

BOARD MEMBER: JOHN BAKER


425 Corte Norte  
Novato, CA 94949

DATE

4/2/18  
(TODAY'S DATE)

I attended the WATER ADVISORY COMMITTEE on 4/2/18  
(NAME OF MEETING OR WORKSHOP) (DATE OF MEETING)

and wish to be compensated as provided under the Board Compensation Policy.

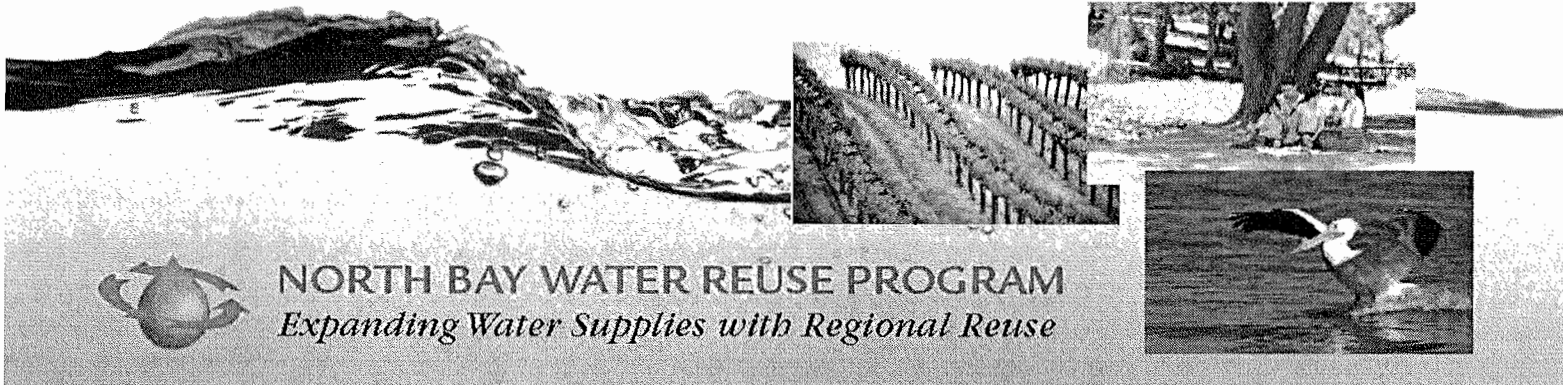
  
\_\_\_\_\_  
DIRECTOR SIGNATURE

**FOR ACCOUNTING USE ONLY**

 4/6/18  
APPROVED TO PAY BY DATE

CHARGE TO: 56001-01-11 AMOUNT: \$ \_\_\_\_\_  
(filled in by Accounting)

PAID PAY PERIOD ENDING \_\_\_\_ / \_\_\_\_ / \_\_\_\_



**NORTH BAY WATER REUSE PROGRAM**  
*Expanding Water Supplies with Regional Reuse*

**BOARD OF DIRECTORS MEETING**

**AGENDA**

**Monday, May 21, 2018**  
**9:30 AM**

**Novato City Hall Council Chambers**  
**901 Sherman Avenue, Novato, CA 94945**

Members and Consultants unable to attend in person may call in: +1 (602) 567-4030  
 (Local dial in); +1(888)227-0011 (Toll Free) Access code: 1980;  
<https://conferencing.brwncauld.com/conference/1980>

1. **Call to Order (1 minute)**
2. **Roll Call (1 minute)**
3. **Public Comment (3 minutes)**  
 (Any member of the public may address the Board at the commencement of the meeting on any matter within the jurisdiction of the Board. This should not relate to any item on the agenda. It is the policy of the Authority that each person addressing the Board limit their presentation to three minutes. Non-English speakers using a translator will have a time limit of six minutes. Any member of the public desiring to provide comments to the Board on an agenda item should do so at the time the item is considered. It is the policy of the Authority that oral comments be limited to three minutes per individual or ten minutes for an organization. Speaker's cards will be available in the Boardroom and are to be completed prior to speaking.)
4. **Introductions (2 minutes)**
5. **Board Meeting Minutes of February 26, 2018 (2 minutes)**  
 (The Board will consider approving the minutes from the February 26, 2018 Board meeting.)
6. **Report from the Chair (10 minutes)**  
 (The Chair will report on the following items.)
  - 6.a Consultant Progress Reports
  - 6.b Financial Reports

Action  
 Pages 6 – 9

Information and  
 Discussion  
 Pages 12 – 25  
 Pages 26 – 40

**North Bay Water Reuse Authority • c/o Sonoma County Water Agency, 404 Aviation Boulevard, Santa Rosa, CA 95403**  
**707-235-8965 • NBWRA.org**

County of Marin • Las Gallinas Valley Sanitary District • Novato Sanitary District • Marin Municipal Water District • North Marin Water District • Sonoma County Water Agency  
 City of Petaluma • Sonoma Valley County Sanitation District • County of Napa • Napa Sanitation District • City of American Canyon

- Information and Discussion**  
Pages 41 – 42
7. **Board Information Requests (2 minutes)**  
(The Board will be provided with a brief update on their information requests.)
- Discussion**  
Pages 43 – 48
8. **Discussion and Direction: Could NBWRA be Integrated Under NorthBay WATER (20 minutes)**  
(The Board will discuss and provide direction on the issue of whether NBWRA could be Integrated with NorthBay WATER)
- Action**  
Pages 49 – 53
9. **Approval of the FY2018/19 Budget and Meeting Dates (10 minutes)**  
(The Board will consider the approval of the FY2018/19 Budget and meeting dates.)
- Information**  
Pages 55 – 55
10. **Phase 1: Status and Activities (10 minutes)**  
(The Board will be updated on Phase 1 status and activities.)
- Information**  
Pages 56 – 82
11. **Phase 2: Status and Activities (10 minutes)**  
(The Board will be updated Phase 2 status and activities.)
- Discussion**  
Pages 83 – 84
12. **Items for Future Discussion and Action (5 minutes)**  
(The Board will consider items for future discussion and action.)
- Information**  
Page 85
13. **Comments from Chair and Board Members (5 minutes)**  
(The Chair and Board members may make brief announcements or reports on his or her own activities, pose questions for clarification, and/or request that items be placed on a future agenda. Except as authorized by law, no other discussion or action may be taken.)
- Page 86
14. **Adjournment (1 minute)**

**Next Board Meeting**  
**Monday, July 23, 2018, 9:30 A. M., Novato City Hall**

(In compliance with the Americans with Disabilities Act of 1990, if you need special assistance to participate in a Board meeting, or you need a copy of the agenda, or the agenda packet, in an appropriate alternative format, please contact the Program Manager at (510) 410-5923. Notification of at least 48 hours prior to the meeting or time when services are needed will assist in assuring that reasonable arrangements can be made to provide accessibility to the meeting or service. A copy of all the documents constituting the agenda packet is available for public inspection prior to the meeting at 404 Aviation Boulevard, Santa Rosa, CA 95403. Any person may request that a copy of the agenda or the agenda packet be mailed to them for a fee of \$.10 per page plus actual mailing costs. If you wish to request such a mailing, please contact Chuck Weir, Weir Technical Services, 3026 Ferndale Court, Pleasanton, CA 94588, 510-410-5923, [chuckweir@sbcglobal.net](mailto:chuckweir@sbcglobal.net). The agenda for each meeting is also available on-line at [www.nbwra.org](http://www.nbwra.org) and will be available at the meeting.)

**North Bay Water Reuse Authority • c/o Sonoma County Water Agency, 404 Aviation Boulevard, Santa Rosa, CA 95403**  
**707-235-8965 • NBWRA.org**

## Sanitary district head leaving for position in SF

### ROSS VALLEY

By **Adrian Rodriguez**

[arodriguez@marinij.com](mailto:arodriguez@marinij.com) @adrianrrodri on Twitter

The administrator of the Ross Valley Sanitary District has resigned to become assistant general manager of the San Francisco Public Utilities Commission, the district announced this week.

Greg Norby, 51, a resident of Tennessee Valley in unincorporated Mill Valley, is making the move after five years with the sanitary district. As general manager in Ross Valley he earned \$228,986 annually.

Norby is expected to continue in his current role until the last week of June. He will begin the new job July 2. He will earn \$242,000 annually.

District board members said they will begin seeking a replacement immediately and have called a special meeting Wednesday to discuss next steps during a closed session. The open session begins at 5 p.m. The meeting is at the district's administrative offices at 2960 Kerner Blvd. in San Rafael.

"We want somebody who is technically proficient on the business of sanitation," said Doug Kelly, board president. "It's a technical job that requires technical expertise."

Kelly said that the board and staff are sad to see Norby go, calling him "fantastic," and "well-loved and dedicated." Kelly said that Norby turned around the district amid public controversy, which included a lawsuit against

the former general manager Brett Richards, who preceded Norby.

After a recent Marin County Civil Grand Jury report recommended consolidation of three sanitary districts in central Marin, including the Sanitary District No. 1 (Ross Valley), in an effort to save taxpayer dollars, Kelly said he supports shared services.

With the resignation of Norby, Kelly said, "I certainly see this as an opportunity for shared services, consolidation, or merger."

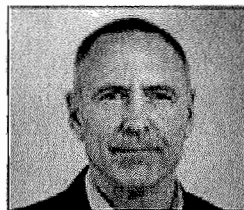
Board member Mary Sylla said while shared services are not out of the cards for her, right now she hopes for a more immediate solution.

"The process of consolidation is something that could not happen in the short term," she said. "I'm hoping that we find a new general manager to continue the amazing progress Greg has made."

Sylla said that Norby has put the district in a good position.

"Because of his (Norby's) work, RVSD is now a role model in the region, using proven technology along with management best practices to ensure our wastewater stays in the pipes and out of the waterways," she said. "We wish him the best in his new endeavor and look forward to following his career and future successes."

Under Norby's lead, the agency has worked toward



Greg Norby, general manager of Ross Valley Sanitary District, is leaving his position for a job in San Francisco.

CONTRIBUTED BY RVSD

modernization of pump stations, a 95 percent reduction in wet weather sewer overflow volumes, and a \$50 million capital program with projects in varying phases of construction. The district's private sewer lateral replacement program is an exemplary achievement, with more than 1,400 private laterals replaced and \$3.5 million in grant funds allocated, board members said.

A 2014 special California State Audit sponsored by Assemblyman Marc Levine, D-Greenbrae, helped identify best practices for board governance, financial controls, ethics, and sustainable staff compensation practices. All of the state recommendations were implemented, board members said.

The district serves about 47,000 residents in Fairfax, San Anselmo, Ross, Larkspur,

Greenbrae and neighboring communities, operating on a \$64.7 million budget.

In his new role, Norby will oversee San Francisco's wastewater and storm water operations, capital improvement programs, flood resilience program strategies, climate change and sea level rise initiatives.

Norby said that it's a bittersweet situation.

"Things are going well here: the board is great, the staff is incredible," he said.

But "to have an impact on San Francisco, the future infrastructure and water operations, these opportunities don't come along that often," he said.

## **Where Water is Scarce, Communities Turn to Reusing Wastewater**

*With the era of dam building coming to an end in much of the developed world, places such as California and Australia are turning to local and less expensive methods to deal with water scarcity, including recycling wastewater, capturing stormwater, and recharging aquifers.*

Link: <https://e360.yale.edu/features/instead-of-more-dams-communities-turn-to-reusing-wastewater>

Jacques Leslie, Yale Environment 360, May 1, 2018

When California's Orange County Water District began distributing drinking water derived from sewage in the mid-1970s, it acted out of simple need. The aquifer it relied on for most of its drinking water had been so overdrawn that saltwater from the nearby Pacific Ocean was seeping into it, and allocation limits prevented increases in exports from the Colorado River and Sierra Nevada Mountains, sources of the rest of the district's water.

Orange County was then a bastion of political conservatism, not the sort of place associated with environmental innovation, but water scarcity is a powerful motivator. To make the idea more palatable to consumers squeamish about drinking what was formerly sewage, the district treated the wastewater, then stored it in the local aquifer to dilute and further cleanse it before withdrawing it for use. The district soon became operator of the world's largest wastewater-to-drinking-water plant, a distinction it still holds. By the time the district completes its next planned expansion in 2023, the system will generate 130 million gallons of drinking water a day, enough to serve about 1 million of its 2.5 million customers and more than four times the production of the world's second-largest sewage-to-drinking-water facility, in Singapore.

More significantly, the district represents the vanguard of a paradigm shift in water storage and conservation in areas where scarcity is a major threat — in the U.S. West and Southwest, assorted other states, and many nations. It's a move away from reliance on distant dams and reservoirs and towards methods that can be developed locally— not just wastewater recycling but aquifer recharge and storage, stormwater capture, desalination, and smart-meter-based leak detection. Compared to dams, the new sources are small, local, decentralized, and custom-designed to fit the hydrological and demographic conditions of their locale.

In the era of climate change, dams and reservoirs are increasingly vulnerable to drought and evaporation.

Numerous nations are participating in this shift. The Namibian capital of Windhoek has been turning its wastewater into drinking water since 1968. Australia has developed an array of innovative techniques to increase its water supply, notably including "sewer mining" — the use of small-scale, modular units to treat and reuse wastewater at the site where it is generated. Israel now reuses nearly 90 percent of its wastewater, more than any other nation.

The latest methods are considered more reliable than reservoirs, whose water supply varies with precipitation levels and season. In the era of climate change, dams are increasingly vulnerable to drought and evaporation, while the supply of, say, urban wastewater stays roughly constant. Because most of the storage techniques mimic or reinforce natural processes instead of opposing them, as dams do, at worst they cause minimal environmental disruption and at best they generate substantial benefit.

Most of them also deliver water at prices that are lower, sometimes by multiples, than water delivered from dams — and the disparity is likely to increase. California, for example, has 1,400 large dams; the 1,401st is not likely to find an advantageous site, so water from it will be costly. In contrast, the new approaches are benefiting from innovations in fields like membrane technology that can improve water treatment effectiveness. And unlike water from distant dams, local storage and recycling practices don't require pumping over long distances, making them more energy efficient. As it stands, water conveyed from faraway rivers and reservoirs to the Orange County Water District costs \$1,000 per acre-foot; the unsubsidized cost of its recycled water is \$850 per acre-foot.

“There's a shift currently away from large dams especially, particularly in nations like the U.S. where there is already a lot of infrastructure in place and we've used the most efficient dam sites,” said Erin Bonney Casey, research director at [Bluefield Research](#), a Boston-based market research firm that focuses on water management issues. In wastewater recycling alone, Bluefield expects U.S. investment to reach \$21.5 billion over the next decade.

A [Bluefield study](#) last year found that in a ranking of the current cost of water delivered from six technologies, dams and reservoirs were the second-costliest. From cheapest to most expensive, the progression goes: smart-meter leak detection, desalination of brackish water (usually in aquifers), wastewater recycling, stormwater capture, reservoirs, ocean desalination. Even ocean desalination is likely to get cheaper as filtration technologies improve, while new dam water gets more expensive.

Not by coincidence, the new approaches have emerged as the dam era has waned. In California, the leading state in development of many of these strategies, no new storage dams have been built since 1978, but according to a [peer-reviewed paper](#)<sup>1</sup> by water policy consultant Barry Nelson, adoption of the new methods has caused California's water storage to increase since then by a “capacity greater than that of Lake Shasta,” the state's largest reservoir.

The new approaches have captured relatively little public attention, partly because they lack the monumental appearance of dams and instead function largely out of sight. That's partly why California policymakers still are considering new dams even though their cost alone ought to disqualify them. “We've been building a new generation of storage projects for 40 years,” Nelson told me, “and the policy debate has just not caught up.”

Most of the increased capacity that Nelson's paper documents entails storing water in the emptied parts of overdrawn aquifers, which amount to millions of acre-feet. In addition to augmenting water supply, filling these aquifers provides environmental benefit: their water quality usually improves as levels inside them rise, and the higher levels prevent soil compaction and surface subsidence, which eventually occurs when aquifers are left unfilled. Even taking compaction into account, the volume of unused

\*



aquifer storage in California is three times the storage volume of all of California's surface reservoirs and lakes.

The volume of unused aquifer storage in California is three times the volume of the state's surface reservoirs and lakes.

"It's sitting there waiting to be recharged," said Daniel Mountjoy, resource stewardship director at Sustainable Conservation, a San Francisco-based nonprofit that promotes an aquifer storage process called "on-farm recharge" in California's San Joaquin Valley. "It's free storage, and if we don't fill it, we're going to lose it."

The simplest way to recharge aquifers is to do it the natural way, by flooding the ground over them. Before the advent of industrial society, big storms caused rivers to flood, and the floods covered adjacent ground. Mountjoy's organization is tracking more than 200 farms whose owners have agreed to allow flooding in wet years on a fraction of their land in return for water delivered at no or reduced cost. Water for farms is customarily released from dams and distributed through large aqueducts to smaller canals that link to individual farms; the capacity of those canals is the biggest constraining factor in on-farm recharge.

But even without expanding the canals' volume, a 2015 study by RMC Water and Environment, a California consulting firm, found that recharge from November to March could reduce the region's overdraft by 12 to 20 percent, and inclusion of additional months of recharge could hike that number to 30 percent. According to Mountjoy, water collected in this way costs only \$46 to \$120 per acre-foot, as little as a thirtieth of the estimated cost of water from the proposed Temperance Flat Dam on the San Joaquin River.

Where adverse soil composition prevents aquifer recharge by flooding, the use of "recharge wells" — wells designed to pump or drain water into aquifers — has spread. R. David G. Pyne, an engineer who pioneered the storage and withdrawal of water in aquifers for human use — a practice known as "aquifer storage and recovery," or ASR — estimates that at least 140 recharge well fields have been installed in about 25 states, and the technique is being used in about 15 other countries, including Australia, Bangladesh, Canada, England, Israel, and New Zealand. Pyne believes that usable aquifers exist in most states, but so far only a few — New Jersey, Arizona, California, Colorado, and Florida — have used them extensively. The most common application of ASR is to make aquifers that contain contaminants such as salt suitable for storage. Some clean water is pumped into the aquifer to act as a buffer by pushing contaminated water to the sides of the aquifer; more clean water is then added to the aquifer's center, where it remains untainted.

"There's a lot of interest by folks who 20 years ago wouldn't give you the time of day," Pyne said, "but now they're realizing that if they want to sustain growth in major urban areas, they've got to do something different."

Reversing its traditional approach to stormwater, the city of Los Angeles is now pioneering stormwater capture. Through most of the twentieth century, Southern California cities tried to prevent flooding by

turning rivers into concrete watercourses that hastened flow into the Pacific Ocean. Meanwhile, they spent lavish sums to import drinking water from elsewhere in California. Marking the definitive end of that approach, Los Angeles mayor Eric Garcetti issued a directive in 2014 to cut purchases of imported water in half within a decade.

Now the city is redesigning roads, parks, and other surfaces to absorb as much water as possible so that it seeps downward into aquifers, thereby reducing flooding, cleansing itself, and becoming available for reuse. A joint 2014 [study](#) by the Natural Resources Defense Council and the Pacific Institute found that stormwater capture in the San Francisco Bay Area and urban portions of Southern California possesses the potential to increase water supplies by as much water as is used by the entire city of Los Angeles in a year.

Even leak detection can play a significant role in increasing water supply, particularly in eastern U.S. cities whose aged pipes may lose as much as 30 percent of the water passing through them. A 2004 California law requires the state's urban water utilities to install smart meters for all customers by 2025. As of 2016, about 35 percent of U.S. water utilities had already installed automated metering systems, according to a [study](#) by West Monroe Partners, a consulting firm.

Texas is the only U.S. state that allows distribution of treated wastewater directly into potable water systems.

In many places, the biggest obstacles the new approaches face are regulatory, not technological. For instance, only one state, Texas, now allows distribution of treated wastewater directly into potable water systems. As a result, two Texas cities, Wichita Falls and Big Spring, operate the only "direct potable reuse" systems in the country. Eleven states allow "indirect potable reuse" — the process that the Orange County Water District uses, in which treated wastewater is stored in aquifers before being distributed as drinking water.

Some non-potable reuse systems take advantage of lower purification requirements to provide water for industry, agriculture, and recreational facilities such as golf courses. But the cheaper cost of treatment is counterbalanced by the need to install separate piping systems for non-potable water. As a result, potable reuse, which doesn't need additional pipes, is likely to flourish as the so-called "yuck factor" diminishes. Though California doesn't allow direct potable reuse now, legislation passed last year requires state officials to issue enabling regulations by 2023. Those regulations are likely to serve as templates for other states, spurring adoption of direct potable reuse.

The emergence of recycled sewage underlines a key tenet of all the new water storage technologies: the water of a given watershed — whether toilet water, stormwater, or drinking water — must be managed as a whole in order to maximize its usefulness. After all, water traveling down a river may be diverted and transformed dozens of times, at different times serving as agricultural water or drinking water or undergoing treatment before it reaches the river's mouth.

Accordingly, the coordinated use of some or all of these approaches has become known as Integrated Water Management, or, more familiarly, One Water. A statement in author-astrophysicist Robert

Kandel's book, *Water from Heaven: The Story of Water from the Big Bang to the Rise of Civilization, and Beyond*, could serve as One Water's credo: "Whenever you eat an apple or drink a glass of wine, you are absorbing water that has cycled through the atmosphere thousands of times since you were born."

**Jacques Leslie** is a regular *Los Angeles Times* op-ed contributor.

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#### News Update



**707.836.0300**

You received this email because your address has been entered into a distribution list of individuals who are interested in updates regarding recycled water.

MBC

April 30, 2018

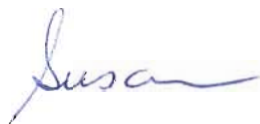
Dear North Marin Water District volunteers:

Thank you for your help in making Novato's 23rd Annual **Clean & Green Day** such a success. There were over 300 people involved and a ton of waste was collected and properly disposed. We estimated about 185 acres in eleven parks were cleaned up, and over 35 miles of roadsides, median islands, creekbanks and trails were cleaned.

Working together we achieved a lot. It could not have happened without your help.

Thank you very much.

Sincerely,



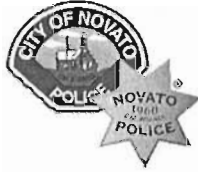
Susan Stompe  
Co-Chair  
Clean & Green Day  
Novato Streetscape Committee



Ed Schulze  
Co-Chair  
Clean & Green Day  
Novato Streetscape Committee

Enclosed coupons for Whole Foods have varying dates for use - some 4/21 - 5/6, & some 5/7 - 5/21  
Enjoy!

MISC



# Evacuation Drill

## Table Booth Information

**HILL GYM – 1560 HILL ROAD**

(next to Margaret Todd Senior Center)

NMWD STAFFED  
A TABLE

**THANK YOU TO ALL OF THE TABLE PARTICIPANTS!**

**MAY 5, 2018**

Thank you for your participation in our unique residential evacuation drill. There will be 4 neighborhoods evacuating at specific times and have been directed to check-in at the Hill Gym. Please arrive at the Hill Gym by 8:00 a.m. for set-up. Tables and chairs will already be set up for you with your designated organization listed at your table. Your lunch break is scheduled from 12:00-13:00, but there still might be a few residents inside the gym. If you will require electrical power, please bring an extension cord and power surge multi-plug.

Novato residents are aware of the fires in Sonoma and Napa and have many questions regarding shelters, water supply, pets, gas and electrical, traffic control, emergency notifications, and more. This is a great opportunity to educate our communities and to be prepared if and when Marin suffers from a disaster.

Cell contact is 415-310-6125. Email is [swargo@novatofire.org](mailto:swargo@novatofire.org). Again, thank you for making the residential evacuation drill a pleasant experience for everyone. (NFD Sandy Wargo)

The basic timeline is listed below. Please expect the first group of residents to arrive soon after 9:00 a.m.

- 0900 Black Point Evac Drill
- 1030 Indian Valley Evac Drill
- 1330 Marin Valley Mobile Country Club Evac Drill
- 1445 Pacheco Valle Evac Drill
- 1630 Law/Fire Briefing                      Hill Gym Lot                      1560 Hill Road
- 1700 Close Hill Gym

We will start ushering residents out of the Hill Gym by 4:15ish, to give you plenty of time to pack your supplies up and enjoy the rest of your day! *Sandy*

## Incumbents seek to hold off bids of challengers

### JUNE PRIMARY

By Mark Prado

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A trio of established incumbents — Jared Huffman, Marc Levine and Mike McGuire — face challenges to their seats in the upcoming June 5 primary.

Huffman, D-San Rafael, faces challenges from Garberville — Humboldt County residents Andy Caffrey, an environmental activist; and Dale Mensing, a supermarket cashier — in the race for the U.S. House of Representatives, District 2.

Preventing energy exploration off the California coast, stopping gun violence and modernizing the country's schools have been recent issues touched upon by the veteran legislator as the primary draws near. Huffman is 54.

Caffrey, 60, is laser-focused on the environment.

“I have been an ecology activist all my life,” said Caffrey, a Democrat who ran against Huffman in the 2012 and 2014 June primary elections but failed to garner enough votes to make it to the November election in both instances. “Many bad things have happened to the Earth because of humans. Now we have to deal with sea-level rise and we have to get off fossil fuels. I can help by being in Congress.”

Mensing, 59, a Republican, was Huffman's general election opponent in

2014 and 2016. He has a host of issues: gun rights, eliminating the U.S. Federal Reserve, eliminating airplane chemtrails, exploring wave energy and eliminating nuclear power, and eliminating Common Core education, among others.

Assemblyman Levine, D-Greenbrae, is seeking another term for the state Assembly District 10 seat.

“It's amazing to think six years have gone by since my first election,” Levine, 44, said. “In those six years, California has climbed out of the ‘Great Recession,’ AB 32 has reduced greenhouse gases and we have worked to alleviate traffic problems throughout the North Bay.”

Levine said he is also proud of his work on mental health issues during his tenure.

Dan Monte of San Anselmo, a retired general contractor and paratransit bus driver, is challenging Levine. His top issue is guaranteed health care.

“This is really a David vs. Goliath race,” Monte, 70, acknowledged. “There is way too much money in Sacramento controlling what is happening with health care. I won't be able to spend money to send out 40 fliers, but I'm dogged and determined to get the word out about my campaign.”

The top two vote-getters in the primary move forward to the November election. Because there are only two candidates for the seat, Levine and Monte will square off again in November.

That is also the case of the District 2 state Senate seat pitting Sen. McGuire, D-Healds-

burg, against Veronica Jacobi, a Democrat who failed in her bid to unseat Levine in 2016.

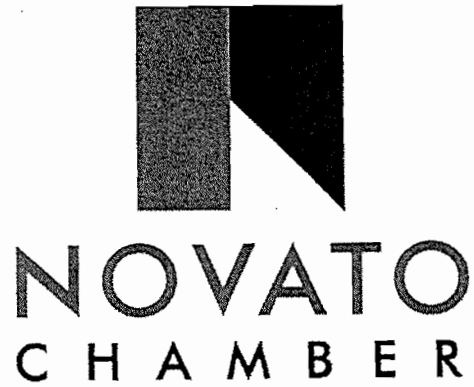
In the days leading up to the primary, McGuire, 38, has called for funding for firefighters, the prosecution of rogue cannabis growers and the quality of patient care at skilled nursing facilities.

Jacobi, who served on the Santa Rosa City Council from 2006 to 2010, said climate issues are at the top of her list.

“We can solve the climate crisis. We need to have the political will in speed and scale,” said Jacobi, 59, who works as a mechanical engineer specializing in energy management. “We can do it with multi-solving. That

“We’re going to the mat to stop the selling of the California coast to big oil,” McGuire said. “I’m also focusing on the transportation challenges facing Marin: the 101/580 corridor, the Narrows and Highway 37. I’m also supporting SMART.”

could mean housing near transit that’s blended into the community, while working with neighbors.”



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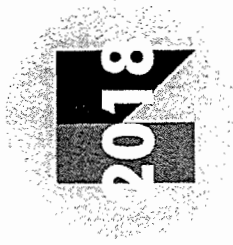
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## *Sewer agency mergers need leadership*

### **Editorial**

The Marin County Civil Grand Jury is doing its job pointing out ways local government can operate better and more efficiently when it comes to taxpayer cost.

It comes as no surprise that the 2017-18 grand jury focused on Marin's many local sanitary districts and called for regional consolidations.

That same recommendation has been raised, studied, recommended and rejected before; most recently in 2013, when Southern Marin voters rejected a proposal to consolidate sanitary districts that serve the area.

But the grand jury raised the issue to echo the state Little Hoover Commission's findings that California has too many special districts and many operate with little public oversight or participation.

The districts are mostly protected by the political rallying cry of local control, that the best government is small and closer to the people it serves.

It was that argument that submarined the ballot measure to consolidate Southern Marin's sewer districts. Board members — often longtime incumbents

whose re-election has rarely gone challenged — campaigned against the proposed reform.

Local officials wouldn't risk their political capital to actually campaign for consolidation. It showed that winning voter approval of consolidation would take more than a bunch of bureaucratic studies and a measure on the ballot.

A proposal that several sewer districts — Ross Valley, San Rafael, Larkspur, Corte Madera, Murray Park and San Quentin Village — reorganize as a single entity with the Central Marin Sanitation Agency, which runs the sewer plant that the local lines run to, has been studied at length before, generating lawsuits and political power struggles, but no consolidation.

The 2013 measure would have merged the Alto, Almonte, Homestead Valley, Richardson Bay and Mill Valley sewer systems into a single agency. The directors of the small agencies campaigned against the measure and prevailed.

So, where will this grand jury's recommendation go?

The grand jury is recommending that the county bolster its funding of the Marin Local Agency Formation

Commission, a little-known agency that is supposed to focus on redrawing jurisdictional lines in ways that make sense in today's geography and budgets.

LAFCO has studied this issue before and come up with the same recommendations.

Better funding of LAFCO could improve the odds that its recommendations could become reality, the grand jury says.

Increased staffing of an agency isn't going to build the political will and mettle needed to make consolidations happen.

Maybe members of the grand jury, upon the end of their terms, should stay involved in the issue. Public involvement is the best way to build political will and alter the history of previous recommendations.

Until then, spending public time and money on proposals that make sense, but lack local leadership, will just add to the piles of consultant studies and staff reports that have already been devoted to this issue.