

**NORTH MARIN WATER DISTRICT**  
**AGENDA - REGULAR MEETING**  
 June 5, 2018– 6:00 p.m.  
 District Headquarters  
 999 Rush Creek Place  
 Novato, California

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

Est. Time	Item	Subject																								
6:00 p.m.	<b>CALL TO ORDER</b>																									
	1.	<b>Closed Session:</b> Conference with Real Property Negotiators as allowed under Government Code 54956.8. Property: Recycled Water Agreement between North Marin Water District and Marin Country Club; District Negotiators: General Manager and Counsel; Negotiating Party: Marin Country Club; under Negotiation: Price and Terms																								
	2.	<b>APPROVE MINUTES FROM REGULAR MEETING</b> May 15, 2018																								
	3.	<b>GENERAL MANAGER’S REPORT</b>																								
	4.	<b>OPEN TIME:</b> <i>(Please observe a three-minute time limit)</i>  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>																								
	<div><div><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.  <b>Consent - Approve Water Service Agreement</b></div><table><tr><td>6.</td><td><b>Consent – Approve:</b> College of Marin Indian Valley Campus Organic Farm</td><td><u>Type</u> GVT</td><td><u>DU</u> 0</td><td><u>EU</u> 0</td><td>Resolution</td></tr><tr><td>7.</td><td><b>Consent – Approve:</b> Resolution re Consolidation of District Election and Filing Information District Election, November 6, 2018</td><td></td><td></td><td></td><td>Resolution</td></tr><tr><td>8.</td><td><b>Consent – Approve:</b> Group Life Insurance Renewal</td><td></td><td></td><td></td><td></td></tr><tr><td>9.</td><td><b>Consent – Approve:</b> Marin County Cooperative Services Agreement- CASGEM</td><td></td><td></td><td></td><td></td></tr></table></div>		6.	<b>Consent – Approve:</b> College of Marin Indian Valley Campus Organic Farm	<u>Type</u> GVT	<u>DU</u> 0	<u>EU</u> 0	Resolution	7.	<b>Consent – Approve:</b> Resolution re Consolidation of District Election and Filing Information District Election, November 6, 2018				Resolution	8.	<b>Consent – Approve:</b> Group Life Insurance Renewal					9.	<b>Consent – Approve:</b> Marin County Cooperative Services Agreement- CASGEM				
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	<b>ACTION CALENDAR</b>																									
	10.	<b>Approve:</b> Employer Assisted Housing Program Loan																								
	11.	<b>Approve:</b> Contract Extension for NMWD Trench Restoration Paving																								

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)

Est. Time	Item	Subject	Resolution
	12.	<b>Approve:</b> MMWD and North Marin Surplus Water Agreement	
		<b>INFORMATION ITEMS</b>	
	13.	Discussion on AMI Opt-Out Policy	
	14.	Third Quarter FY/18– Water Quality Report	
	15.	Initial Review - FY19 West Marin Water and Oceana Marin Sewer Budgets	
	16.	WAC/TAC Meeting – May 7, 2018	
	17.	<b>MISCELLANEOUS</b>	
		Disbursements – Dated May 17, 2018	
		Disbursements – Dated May 24, 2018	
		Disbursements – Dated May 31, 2018	
		Press Release – Russian River Inflatable Rubber Dam Going Up	
		Media Release – Harmful Algal Bloom Season Beginning in California’s Lakes, Rivers and Streams	
		<u>News Articles:</u>	
		PG&E to auction dams project	
		Humboldt County to draft stance on future of Eel River dams after PG&E announcement	
		California moves closer to crafting specific water caps for urban districts	
		Water contamination clearing up in Santa Rosa’s Fountaingrove neighborhood	
		Price of Water 2018: Utilities Revise Household Water Rate Formulas	
7:30 p.m.	18.	<b>ADJOURNMENT</b>	

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DRAFT  
NORTH MARIN WATER DISTRICT  
MINUTES OF REGULAR MEETING  
OF THE BOARD OF DIRECTORS  
May 15, 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 Julie Blue and Chief Engineer Rocky Vogler.

District employees, Robert Clark (Maintenance/Operations Superintendent), Tony Arendell (Construction Supervisor) and Jeff Corda (Sr. Water Dist. & TP Operator) were also in attendance. Novato customers Susan Barnes and Virginia Cottone were also in the audience.

**MINUTES**

On motion of Director Baker, seconded by Director Joly the Board approved the minutes from the May 1, 2018 meeting as presented by the following vote:

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

NOES: None

ABSENT: None

ABSTAIN: None

**PUBLIC HEARING– CONSIDER PROPOSED INCREASE IN WATER RATES FOR NOVATO SERVICE AREA AND RESULTING REVISIONS TO DISTRICT REGULATION 54, WATER RATES.**

During the Public Hearing Ms. Blue explained the proposed Novato Water rate increase of 4.5% based on the five year plan and budget. Customers were notified by letter and also the hearing was published in the Marin Independent Journal. There were 17 written protests and 9 phone calls inquiring about the increase. Ms. Blue also explained that the typical customer would see an increase of \$2.50 per month.

Mr. McIntyre provided a presentation advising the Board that aging infrastructure costs, increased regulatory requirements and higher operating costs including SCWA's 4% increase play a major role in the proposed rate increase. He noted that the cost of providing service is not just based on water used for drinking but also for fire protection. He also provided the Board with a

1 FY19 Cost Structure versus Rate Structure graph showing that the cost structure is 35% variable  
2 and 65% fixed and the rate structure is 77% variable and 23% fixed.

3 Director Fraites opened the public hearing at 6:27 p.m.

4 A member from the audience Susan Barnes, stated that she hasn't had much interaction  
5 with the District but based on the little she has that everyone is polite and it seems like a well-run  
6 District. She understood that costs are going up and she felt the increase is a reasonable amount;  
7 however she wanted to see a copy of the current rate survey. Mr. McIntyre stated that our Auditor-  
8 Controller recently retired and with the change in staff it has been delayed. He offered to make it  
9 available to Ms. Barnes when it is ready.

10 Hearing no further comment, Director Fraites closed the public hearing at 6:37 p.m.

11 Director Joly questioned how many customers the new increase would affect, and Mr.  
12 McIntyre replied 20,000 plus accounts. Director Petterle stated that we are raising costs based on  
13 needs. Director Joly also praised the customers in the audience stating that we appreciate all the  
14 customers that took the time to write to express their feelings, that none of the Directors wanted to  
15 raise the rates, but that he will also be paying the 4.5% increase. Director Petterle also thanked the  
16 rate payers for coming and that it was good to know that people are paying attention. He also stated  
17 that he has been on the NMWD Board for seventeen years and it still amazes him how undervalued  
18 water is. He wished we didn't have to raise the rates, however we must to insure we can deliver the  
19 water, make sure there is not a shortage to our customers and provide good quality water. Director  
20 Baker stated he has been on the Board for over thirty years, and he has witnessed major changes to  
21 our treatment system, and that it is expensive to operate. He expressed how important it is to  
22 ensure it is safe. Director Grossi also commented that the cost of construction of the past few years  
23 has been flat, and now we are seeing cost jumping 15-20%. Director Fraites wrapped up the  
24 discussion stating that North Marin Water is a well-run District. We have employees that have been  
25 here for a long time. We have to run it like a business and believes the 4.5% increase is modest.

26 On motion of Director Grossi, seconded by Director Baker the Board approved Resolution  
27 18-12 entitled: "Resolution of the Board of Directors of North Marin Water District Amending  
28 Regulation 54 effective June 1, 2018 by the following vote:

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

30 NOES: None

31 ABSENT: None

32 ABSTAIN: None

1 **GENERAL MANAGER'S REPORT**

2 During the General Manager's report, Mr. McIntyre asked for final comments on the draft  
3 2018 Strategic Plan. Mr. McIntyre also announced receipt of a letter in which PG&E announced that  
4 they plan to put the Potter Valley Hydroelectric Project up for auction this fall. Director Baker  
5 commented that it will not just be the water agencies that are concerned but also the agricultural  
6 community. Mr. McIntyre stated that it needs to be a regional, multi county solution, including  
7 Humboldt, Mendocino and Sonoma.

8 **OPEN TIME**

9 President Fraites asked if anyone in the audience wished to bring up an item not on the  
10 agenda. Virginia Cottone spoke about the AMI Opt-Out Policy. She expressed her desire that the  
11 Opt-Out Policy for AMI meters should be allowed anytime someone new moves into a residence.  
12 She stated that there are people who are sensitive to the exposure from AMI meters. Mr. McIntyre  
13 stated that the policy has already been adopted by the Board; however a customer always has the  
14 option to request an exception from the Board. Director Petterle requested that we revisit this issue,  
15 and Ms. Cottone stated she can share her research and answer more questions if need be.

16 **STAFF/DIRECTORS REPORTS**

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

19 Mr. Clark discussed the North Bay Bowman's current interest in an outdoor archery range  
20 and their request to investigate possible lease sites on District open space property. Both Director  
21 Joly and Director Baker expressed concerns of liability. This discussion led to the request that staff  
22 draft a policy on recreational use of District lands.

23 **MONTHLY PROGRES REPORT**

24 Mr. McIntyre reviewed the Monthly Progress Report for April. He stated that Novato's fiscal  
25 year to date potable water production was up 8% and West Marin was up 26%. He reminded the  
26 Board that staff continues to investigate why the production trend in West Marin is significantly  
27 higher than water sales. Stafford Treatment Plant production is down 7% when compared to last  
28 year due to lack of rainfall filling the lake. Overall there is ample water supply in SCWA reservoirs  
29 and Stafford Lake is at 77% capacity. With respect to recycled water, we continue to add more  
30 customers and production is up 25% over last year. He also stated that the District has accrued 185  
31 days without a lost time accident, and that complaints overall were down 9%, and that some of the  
32 increase in the number of April service orders were attributed to the AMI register replacements.

33 Ms. Blue summarized the Monthly Report of Investments. At April 30, 2018, 33% of the  
34 District's Portfolio was invested in California's Local Agency Investment Fund, 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. Director Joly asked Ms. Blue to review treasury market sensitivity with our investments.

**CONSENT CALENDAR**

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

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

NOES: None

ABSENT: None

ABSTAIN: None

**APPROVE: TEXT FOR SPRING 2018 NOVATO WATERLINE, VOLUME 19, ISSUE 40**

The Board approved the text for the Spring Novato Waterline to be mailed out in early June 2018.

**APPROVE: TEXT FOR SPRING 2018 WEST MARIN'S WATERLINE, VOLUME 15**

The Board approved the text for the Spring West Marin Waterline to be mailed out in June 2018.

**INFORMATION ITEMS**

**FY 17/18 THIRD QUARTERLY PROGRESS REPORT – OPERATIONS/MAINTENANCE**

Mr. Clark presented the third quarterly progress report for the Operations/Maintenance Department. Currently the District is training three new electrical employees and two new treatment plant employees, a grounds maintenance employee and one new maintenance supervisor. Operations have been recently spending time on the San Mateo Tank Rehabilitation project and continue to focus on the backflow program. Maintenance staff completed removal and replacement of two air compressors at Stafford Treatment Plant, installed power, controls and cathodic protection at the Norman tank and performed maintenance on the Stafford lake intake tower gate controllers. Cross-Connection Control staff have been performing start-up testing for the Central recycled water project on-site retrofits. He stated that Novato Unified School District continues to fall behind in testing of their backflow devices and that future changes may be in order to regain 100% control of the program.

**BULK CHEMICAL PURCHASES**



1 Mr. Clark presented the bulk chemical purchases program. In the last five years there has  
2 been a large increase in chemical costs and being able to buy as a group has really helped the  
3 District save money. The program has expanded to 42 participating agencies in 8 geographical  
4 areas which continue to allow several vendors to participate.

5 **SECOND REVIEW-PROPOSED FY 2018/19 NOVATO WATER EQUIPMENT BUDGET**

6 Ms. Blue stated that no changes have been made since the first review. Approval of the  
7 Equipment budget is scheduled for the June 19, 2018 board meeting.

8 **SECOND REVIEW-PROPOSED FY 19 & FY 20 NOVATO CAPITAL IMPROVEMENT PROJECTS**  
9 **BUDGET**

10 Ms. Blue summarized the second review of the proposed FY19 and FY20 Novato Capital  
11 Improvement Projects. Since the initial review one project has been added, and the Automate Zone  
12 Valve Project was moved forward from FY18. The final budget review and approval is scheduled for  
13 the June 19, 2018 board meeting.

14 **SECOND REVIEW- PROPOSED FY 2018/19 NOVATO OPERATIONS BUDGET**

15 Ms. Blue summarized the second review of the proposed FY 2018/19 Novato Operations  
16 budget including a few changes since the first review. Changes included a \$33,000 increase in fees  
17 to support labor negotiations for updating the MOU with the Employee Association which is expiring  
18 at the end of September, a \$6,000 increase in temporary labor and a \$32,000 decrease in power.  
19 She reported that the budget includes the proposed 4.5% rate increase as well an employee cost of  
20 living increase of 3%. Total Operating Expenditures are projected to increase 14% primarily due to  
21 a onetime payment to SCWA of \$1,280,000. Source of Supply is budgeted to increase  
22 approximately 29%, Water Treatment is budgeted to increase 13%, and Transmission and  
23 Distribution is budgeted to increase 2%. Staffing level is down 1.2 full time employees (2%). This  
24 budget will also be presented for a final review at the June 19, 2018 board meeting.

25 **SECOND REVIEW – PROPOSED FY 2018/19 NOVATO RECYCLED WATER SYSTEM BUDGET**

26 Ms. Blue reviewed the proposed 2018/19 Novato Recycled Water System Budget and stated  
27 that no changes were made since the last review. As with the Novato budget, the final review and  
28 approval will be at the June 19, 2018 board meeting.

29 **NBWA- MAY 4, 2018 MEETING –WETLANDS TOUR RECAP**

30 Director Fraites provided a recap of the recent NBWA Wetlands Tour on May 4, 2018.

31 **MISCELLANEOUS**

1 The Board received the following miscellaneous items: Disbursements-Dated May 3, and  
2 May 10, 2018, NBWRA – May 21, 2018 Agenda, Sanitary district head leaving for position in SF,  
3 Where Water is Scarce, Communities Turn to Reusing Wastewater, Novato's 23 Annual Clean \$  
4 Green day Letter, Evacuation Drill-NMWD staffed a table, Incumbents seek to hold off bids of  
5 challengers, Novato Chamber Leadership Novato 2018 Graduation Ceremony-Rocky Vogler.

6 The Board also received the following news articles: Sewer Agency mergers needs  
7 leadership.

8 **ADJOURNMENT**

9 President Fraites adjourned the meeting at 7:38 p.m.

10 Submitted by  
11  
12  
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14 Theresa Kehoe  
15 District Secretary  
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## MEMORANDUM

To: Board of Directors June 1, 2018

From: Rocky Vogler, Chief Engineer 

Subject: Water Service Agreement – College of Marin Indian Valley Campus Organic Farm  
r:\folders by job no\2800 jobs\2817.02 com (ivc) organic farms classroom\2817.02 bod memo.doc

**RECOMMENDED ACTION:** The Board approve authorization of this agreement.

**FINANCIAL IMPACT:** None: Developer Funded

The College of Marin's Indian Valley Campus (IVC) is located at 1800 Ignacio Blvd (see attached map). The Measure B parcel tax, approved in 2016, funds a series of improvements to update and maintain College of Marin facilities and buildings. Water facilities related to Building No. 11 were approved by the board at the May 1, 2018 board meeting. The current project (the second of five Measure B improvement projects) is to install three (3) pre-fabricated Division of State Architect approved buildings for class rooms and demonstrations associated with the Organic Farm program at IVC. While the project necessitates an 8-inch main extension for required fire protection, the District is requiring upsizing to a 16-inch diameter pipeline for a possible future looping project identified in the District's 2012 Water Master Plan. A credit will be issued by the District for the extra costs incurred for the oversizing per District Regulation 22.

New water facilities include 160 feet of 16-inch PVC main, one commercial fire hydrant, and upgrade of the existing 1.5-inch meter to a 2-inch meter. A new 2-inch RPP back flow prevention device will be required for the new 2-inch meter. Landscaping will be installed as part of this project. These facilities will receive normal pressure water from Zone 2. This project has a projected additional demand of 4 EDUs (2 domestic and 2 irrigation). But since IVC is currently utilizing only 46 EDUs (45 historical and 1 estimated for Building no. 11) of the total 52 EDU of connection fees previously paid, no additional connection fees are required at this time. The IVC total updated demand equals 50 EDUs. The projected demand will be reassessed with each improvement project in the future.

Sewer service is provided by the Novato Sanitary District.

As has been customary with previous public agency projects, North Marin Water District will invoice the College of Marin for payment of actual costs as costs are incurred.

Environmental Document Review

A Negative Declaration was prepared for the College of Marin Indian Valley Campus Facilities Improvement projects and a Notice of Determination was filed with the County Clerk on November 14, 2017.

RECOMMENDATION:

That the Board approve authorization of this agreement.

Approved by GM 

Date 6-1-18

RESOLUTION NO. 18-  
AUTHORIZATION OF EXECUTION  
OF  
WATER SERVICE FACILITIES CONSTRUCTION AGREEMENT  
WITH  
MARIN COMMUNITY COLLEGE DISTRICT

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BE IT RESOLVED by the Board of Directors of NORTH MARIN WATER DISTRICT that the President and Secretary of this District be and they hereby are authorized and directed for and on behalf of this District to execute that certain water service facilities construction agreement between this District and Marin Community College District, providing for the installation of water distribution facilities to provide domestic water service to that certain real property known as 1800 Ignacio Blvd, Marin County Assessor's Parcel Number 150-480-12, NOVATO, CALIFORNIA.

\* \* \*

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 5th day of June, 2018, by the following vote:

AYES:

NOES:

ABSENT:

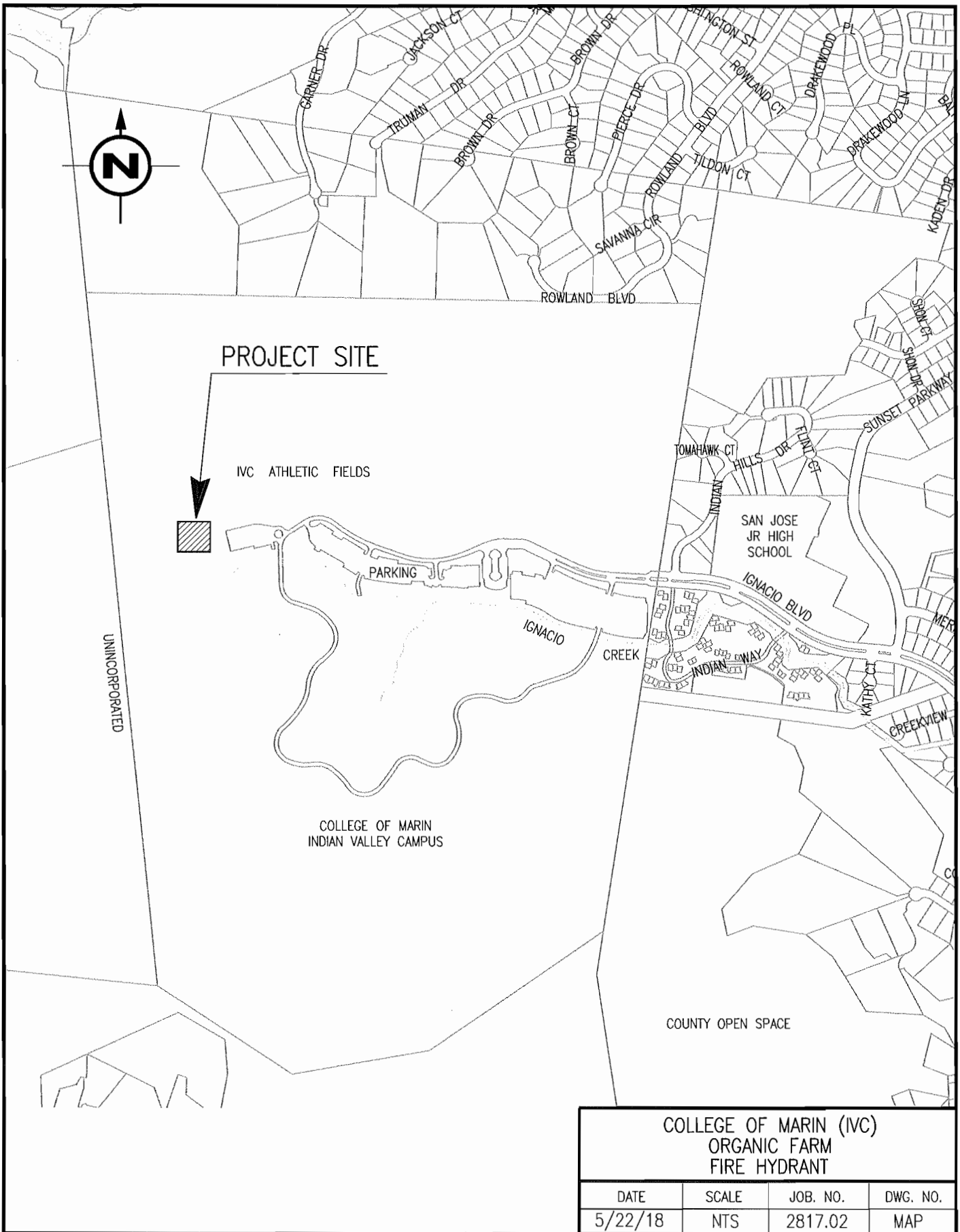
ABSTAINED:

(SEAL)

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Theresa Kehoe, Secretary  
North Marin Water District





COLLEGE OF MARIN (IVC)  
ORGANIC FARM  
FIRE HYDRANT

DATE	SCALE	JOB. NO.	DWG. NO.
5/22/18	NTS	2817.02	MAP

PART ONE  
WATER SERVICE FACILITIES CONSTRUCTION AGREEMENT  
FOR  
COLLEGE OF MARIN INDIAN VALLEY CAMPUS (IVC) ORGANIC FARM

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*THIS AGREEMENT*, which consists of this Part One and Part Two, Standard Provisions, attached hereto and a part hereof, is made and entered into as of \_\_\_\_\_, 2018, by and between NORTH MARIN WATER DISTRICT, herein called "District," and MARIN COMMUNITY COLLEGE DISTRICT, A Community College, herein called "Applicant."

*WHEREAS*, the Applicant, pursuant to District Regulation 1, the State of California Subdivision Map Act and all applicable ordinances of the City of Novato and/or the County of Marin, has pending before the City or County a conditionally approved Tentative Subdivision Map, Precise Development Plan, Tentative Parcel Map or other land use application for the real property in the District commonly known as Marin County Assessor's Parcel Number 150-480-12 and the project known as COLLEGE OF MARIN (IVC) Organic Farm, consisting of one (1) lot for commercial/institutional development; and

*WHEREAS*, prior to final approval by the City or County of a Subdivision Map, Precise Development Plan, Parcel Map or other land use application and recording of a final map for the project, the Applicant shall enter into an agreement with the District and complete financial arrangements for water service to each lot, unit or parcel of the project;

*WHEREAS*, the Applicant is the owner of real property in the District commonly known as 1800 Ignacio Blvd, Novato (Marin County Assessor's Parcel 150-480-12); and

*WHEREAS*, an agreement for Indian Valley Campus was executed in 1973 (NMWD job-1465) and the historical water demand established for the services installed and for which connection fees were paid equaled 22 equivalent dwelling units (EDUs); and

*WHEREAS*, an agreement for College "C" – Indian Valley Campus was executed in 1976 (NMWD job-1705) in which fees were paid for an additional 15 EDUs (for a total of 37 EDUs);

*WHEREAS*, an agreement for Indian Valley Campus Physical Education Center was executed in 1977 (NMWD job-1776) and fees were paid for an additional 15 EDUs (for a total of 52 EDUs);

*WHEREAS*, an agreement for College of Marin, Phase 1-Swing Space was executed in July 2008 (NMWD job-2716) and no additional fees were paid for additional EDUs, but 2 EDUs were reserved for projected water use associated with the project.

*WHEREAS*, an agreement for College of Marin Phase 2 was executed in December 2008 (NMWD job-2732) and although the project demand of 14 EDUs was estimated, no additional Facility Reserve Charge fees were collected since the combined average historical usage for this property over the prior ten (10) years equated to an average day peak month consumption of 38 EDUs, compared to a total of 52 EDUs for which Facilities Reserve Charges have previously been paid (leaving a balance of 0 EDUs in reserve), and

*WHEREAS*, an agreement for College of Marin Indian Valley Campus Building 11 was executed in May 2018 (NMWD job-2817.01) and although a project demand of 1 EDU was estimated, no additional Facilities Reserve Charge fees were collected since the new estimated total demand of 46 EDUs (the combined average historical usage for this property over the last 10 years = 45 EDUs plus 1 EDU for Building 11) is less than the 52 EDUs for which Facilities Reserve Charges have previously been paid (leaving a balance of 6 EDUs in reserve), and

*WHEREAS*, the projected water demand for this project is 4 EDUs but no additional Facility Reserve Charge fees are due since the estimated combined total demand is 50 EDUs compared to 52 total EDUs for which Facilities Reserve Charges have previously been paid (leaving a balance of 2 EDUs in reserve) and

*NOW THEREFORE*, the parties hereto agree as follows:

1. The Applicant hereby applies to the District for water service to said real property and project and shall comply with and be bound by all terms and conditions of this agreement, the District's regulations, standards and specifications and shall construct or cause to be constructed the water facilities required by the District to provide water service to the real property and project. Upon acceptance of the completed water facilities, the District shall provide water service to said real property and project in accordance with its regulations from time to time in effect.

2. Prior to the District issuing written certification to the City, County or State that financial arrangements have been made for construction of the required water facilities, the Applicant shall complete such arrangements with the District in accordance with Section 6 of this agreement.

3. Prior to release or delivery of any materials by the District or scheduling of either construction inspection or installation of the facilities by the District, the Applicant shall:

a. deliver to the District vellum or mylar prints of any revised utility plans approved by the City or County to enable the District to determine if any revisions to the final water facilities construction drawings are required. The proposed facilities to be installed are shown on Drawing No. 1.2817.02, entitled, "COLLEGE OF MARIN (IVC) Organic Farm", a copy of which is attached, marked Exhibit "A", and made a part hereof. (For purposes of recording, Exhibit "A" is not attached but is on file in the office of the District.)

b. grant or cause to be granted to the District without cost and in form satisfactory to the District all easements and rights of way shown on Exhibit "A" or otherwise required by the District for the facilities.

c. deliver to the District a written construction schedule to provide for timely withdrawal of guaranteed funds for ordering of materials to be furnished by the District and scheduling of either construction inspection or construction pursuant to Section 6 hereof.

4. Except for fire service, new water service shall be limited to the number and size of services for which Initial Charges are paid pursuant to this agreement. Initial Charges for new services, estimated District costs and estimated applicant installation costs are as follows:

**Initial Charges**

Meter Charges (include in material cost) .....	.....One 2-inch @	\$ 0.00	\$ 0.00
Reimbursement Fund Charges .....	.....2-inch @	\$ 3,140.00	\$ 3,140.00
Reimbursement Fund Charges (Credit).....	.....1.5-inch @	\$ 1,540.00	\$ <1,540.00>
Facilities Reserve Charges.....	.....Fifty-two @	\$ 28,600.00	\$ 1,487,200.00
Facilities Reserve Charges (Credit).....	.....Fifty-two @	\$ <28,600.00>	\$ <1,487,200.00>

**Subtotal - Initial Charges..... \$ 1,600.00**

**Estimated District Costs**

Pipe, Fittings & Appurtenances.....	\$ 10,978.00
District Construction Labor.....	\$ 10,784.00
Engineering & Inspection.....	\$ 4,096.00
Bulk Materials.....	\$ 1,325.00

**Subtotal –Estimated District Costs..... \$ 27,183.00**

**Estimated Applicant Installation Costs**

Installation Labor.....	\$ 13,800.00
Contractor Furnished – Pipe Fittings & Appurtenances.....	\$ 6,671.00
Bulk Materials.....	\$ 4,612.00

**Subtotal- Estimated Applicant Installation Costs..... \$ 25,083.00**

**TOTAL ESTIMATED WATER FACILITIES COSTS..... \$ 53,866.00**

**Credit for Upsizing from 8" to 16"**

District Costs for Upsizing.....	\$ < 78.00>
Applicant Costs for Upsizing.....	\$ <8,534.00>

**Subtotal- Credit for Upsizing from 8" to 16"..... \$ < 8,612.00>**

**TOTAL ESTIMATED WATER FACILITIES COST (with Credit)..... \$ 45,254.00**

(Bulk materials are such items as crushed rock, imported backfill, concrete, reinforcing steel, paving materials, and the like, which are to be furnished by the contractor performing the work.)

5. In addition to the Initial Charges, Estimated District Costs and Contributions, and Estimated Applicant Installation Costs set forth in Section 4 above, the Applicant shall furnish at no cost to the District all PVC pipe (4-inch diameter and larger), valves and water line fittings shown on Exhibit "A" or otherwise required by the District. The quantities, type and quality of said materials shall be approved by the District prior to purchase by the Applicant and shall conform to District standards as stated and shown on Specifications (15100 Valves, 15056 Pipeline Fittings, 15064 Polyvinyl Chloride (PVC) Pressure Pipe) marked as Exhibit "B" attached hereto and made a part hereof and as otherwise may be required. (For purposes of recording, Exhibit "B" is not attached but is on file in the office of the District.) The cost of said materials is estimated to be \$6,671. The District reserves the right to reject and prohibit installation of all nonconforming materials furnished by the Applicant.

6. Financial Arrangements to be made by the Applicant shall consist of the following:

Initial Charges and Estimated District Costs

The District will invoice The College of Marin for payment of actual costs as costs are incurred.

Estimated Installation Costs

Alternate No. 1 - Installation By Applicant: If the Applicant elects to install the facilities or hire a private contractor to install the facilities, the Applicant shall provide financial guarantees satisfactory to the District in the form of a performance bond in the amount of \$25,083 conditioned upon installation of the facilities and furnishing of bulk materials and a maintenance bond in the amount of \$6,271 conditioned upon payment of the cost of maintaining, repairing, or replacing the facilities during the period of one (1) year following completion of all the facilities and acceptance by the District. Performance and maintenance bonds shall be executed by a California admitted surety insurer with a minimum A.M. Best rating of A-VII. In lieu of posting bonds, the Applicant may provide an irrevocable letter of letters of credit payable at sight at a financial institution in the Novato area guaranteeing funds in the same amounts. All financial guarantees shall be provided by the Applicant rather than the contractor. The Applicant or contractor, whichever performs the work, shall be properly licensed therefore by the State of California and shall not be objectionable to the District.

Alternate No. 2 - Installation By District: If the Applicant requests the District to install the facilities and the District consents to do so, the District will install and invoice The College of Marin for payment of actual costs as costs are incurred.

The credit for upsizing from 8" to 16" set forth in Section 4 hereof in the amount of \$8,612 shall be applied to the final project cost analysis.

7. Water service through the facilities to be installed pursuant to this agreement will not be furnished to any building unless the building is connected to a public sewer system or to a waste water

disposal system approved by all governmental agencies having regulatory jurisdiction. This restriction shall not apply to temporary water service during construction.

8. New construction in the District's Novato service area is required to be equipped with high efficiency water conserving equipment and landscaping specified in Regulation 15 sections e. and f.

9. All estimated costs set forth in this agreement shall be subject to periodic review and revision at the District's discretion. In the event the Applicant has not completed financial arrangements with the District in accordance with Section 6 hereof prior to expiration of six (6) months from the date of this agreement, all Initial Charges and estimated costs set forth in Section 4 hereof shall be revised to reflect then current District charges and estimates. In the event the Applicant has not secured final land use approval for the project from the City of Novato or County of Marin, recorded a final map and diligently commenced construction of improvements required by those agencies and the District prior to expiration of one (1) year from the date of this agreement, the District may, at its option, either retract financial certifications issued to City, County and State agencies and terminate this agreement or require amendment of this agreement and review of all Initial Charges and estimated costs contained herein. The Applicant shall pay any balance due upon demand or furnish a guarantee of such payment satisfactory to the District.

10. All extensions of time granted by the City of Novato or the County of Marin for the Applicant to comply with conditions of land use approval or to construct improvements pursuant to a subdivision improvement agreement shall require concurrent extensions of this agreement and shall be cause for review and revision of all Initial Charges and estimated costs set forth in Section 4 hereof. The Applicant shall apply to the District for extension of this agreement prior to approval of the Applicant's requests for such extensions by either the City of Novato or the County of Marin.

11. This agreement shall bind and benefit the successors and assigns of the parties hereto; however, this agreement shall not be assigned by the Applicant without the prior written consent of the District. Assignment shall be made only by a separate document prepared by the District at the Applicant's written request.

**NORTH MARIN WATER DISTRICT**  
"District"

**ATTEST:**

\_\_\_\_\_  
Rick Fraites, President

\_\_\_\_\_  
Theresa Kehoe, Secretary

(SEAL)

**MARIN COMMUNITY COLLEGE DISTRICT**  
A Community College  
"Applicant"

(SEAL)

\_\_\_\_\_  
Greg Nelson, V.P. Finance and Operations

**NOTES:** *If the Applicant executing this agreement is a corporation, a certified copy of the bylaws or resolutions of the Board of Directors of said corporation authorizing designated officers to execute this agreement shall be provided.*

*This agreement must be executed by the Applicant and delivered to the District within thirty (30) days after it is authorized by the District's Board of Directors. If this agreement is not signed and returned within thirty days, it shall automatically be withdrawn and void. If thereafter a new agreement is requested, it shall incorporate the Initial Charges (connection fees) and cost estimates then in effect.*

**ALL SIGNATURES MUST BE ACKNOWLEDGED BEFORE A NOTARY PUBLIC.**

7



## MEMORANDUM

To: Board of Directors  
 From: Theresa Kehoe, District Secretary   
 Subj: Resolution re Consolidation of District Election and Filing Information  
 District Election, November 6, 2018

June 1, 2018

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**RECOMMENDED ACTION:** Approve Resolution Re Consolidation of District Election

**FINANCIAL IMPACT:** Approximately \$2,000 Cost Saving for Consolidating Election

Attached for the Board's approval is a resolution requesting consolidation of the District's election on November 6, 2018, and requesting election services by the County Clerk. The Marin County Registrar of Voters has requested that the District's resolution include language stating that the North Marin Water District is requesting that Marin County hold the election for the few Sonoma County voters eligible to vote for the District's Board.

**Regular 4-Year Terms of the following Directors will end in 2018:**

**Richard Fraites**

**James Grossi \***

\* Director James Grossi was appointed to the District Board of Directors in August, 2017 to fill the seat vacated by the resignation of former Director John Schoonover and Government Code 1780(d)(2) requires the appointment holds until the next general District election. The length of term following this election will be four years since former Director Schoonover's term was set to expire in 2018.

**Short 2-Year Term of the following Directors will end in 2020:**

**Michael Joly \*\***

\*\* Director Michael Joly was appointed to the District Board of Directors in February, 2017 to fill the seat vacated by the resignation of former Director Dennis Rodoni and Government Code 1780(d)(2) requires the appointment holds until the next general District election. The length of term following this election will be two years since former Director Rodoni's term was set to expire in 2020.

The filing period for the November 6, 2018 District Election is **July 16, through August 10, 2018**. Nomination papers will be available from the County Clerk/Elections Division, Hall of Justice, Civic Center, San Rafael.

If nomination papers are not filed by ALL incumbents by 5:00 p.m. on August 10, 2018, the filing period will be extended to 5:00 p.m., August 15, 2018. **Note: Only non-incumbent candidates may file nomination papers during an extended filing period.**

Approved by GM 

Date 6.1.18

Upon taking out nomination papers, candidates will be given a copy of Candidates Guidelines with detailed information. If you have any questions, please contact the County Clerk's office (Dan Miller) at 415-473-6437. Please be aware that **all candidates are required to file a Candidates Statement of Economic Interests (Form 700)** with the county elections where they file their Declaration of Candidacy. I will provide copies of Form 700 to the three current Directors whose terms will end in 2018.

Candidates who are elected, or appointed in lieu of a contested election, take office at 12 noon on Friday, December 7, 2018 and serve two or four-year terms as noted above.

#### RECOMMENDATION

Board adopt attached resolution.

**RESOLUTION NO. 18-XX**

**RESOLUTION OF THE GOVERNING BODY OF THE  
NORTH MARIN WATER DISTRICT**

**PROPOSING AN ELECTION BE HELD IN ITS JURISDICTION;  
REQUESTING THE BOARD OF SUPERVISORS TO CONSOLIDATE WITH ANY  
OTHER ELECTION CONDUCTED ON SAID DATE, AND REQUESTING  
ELECTION SERVICES BY THE MARIN COUNTY ELECTIONS DEPARTMENT**

**WHEREAS**, it is the determination of said governing body the regularly scheduled election to be held on the 6<sup>th</sup> day of November, 2018, at which election the issue to be presented to the voters shall be to elect the following members to the Board of Directors:

Number of Regular Term Positions (4-year)    2

Number of Short Term Positions (2-year)       1

**NOW, THEREFORE, BE IT RESOLVED**, pursuant to Elections Code §10002, the Board of Supervisors of the County of Marin is hereby requested to:

- 1) Consolidate said election with any other applicable election conducted on the same day in the manner prescribed in Elections Code §10418;
- 2) Authorize and direct the Elections Department at District expense, to provide all necessary election services and to canvass the results of said election.
- 3) Requests that Marin County hold the election on behalf of any Sonoma County voters eligible to vote for the District's Board.

**PASSED AND ADOPTED** this fifth day of June, 2018 by the following vote, to wit:

AYES:

NOES:

ABSENT:

\_\_\_\_\_  
PRESIDENT, BOARD OF DIRECTORS

ATTEST: \_\_\_\_\_  
Secretary

8

## MEMORANDUM

To: Board of Directors

June 1, 2018

From: Julie Blue, Auditor-Controller 

Subj: Approve: Group Life Insurance Renewal

t:\aclword\personnel\life ins\18 renewal.docx

**RECOMMENDED ACTION:** Approve**FINANCIAL IMPACT:** \$11,172 Annually

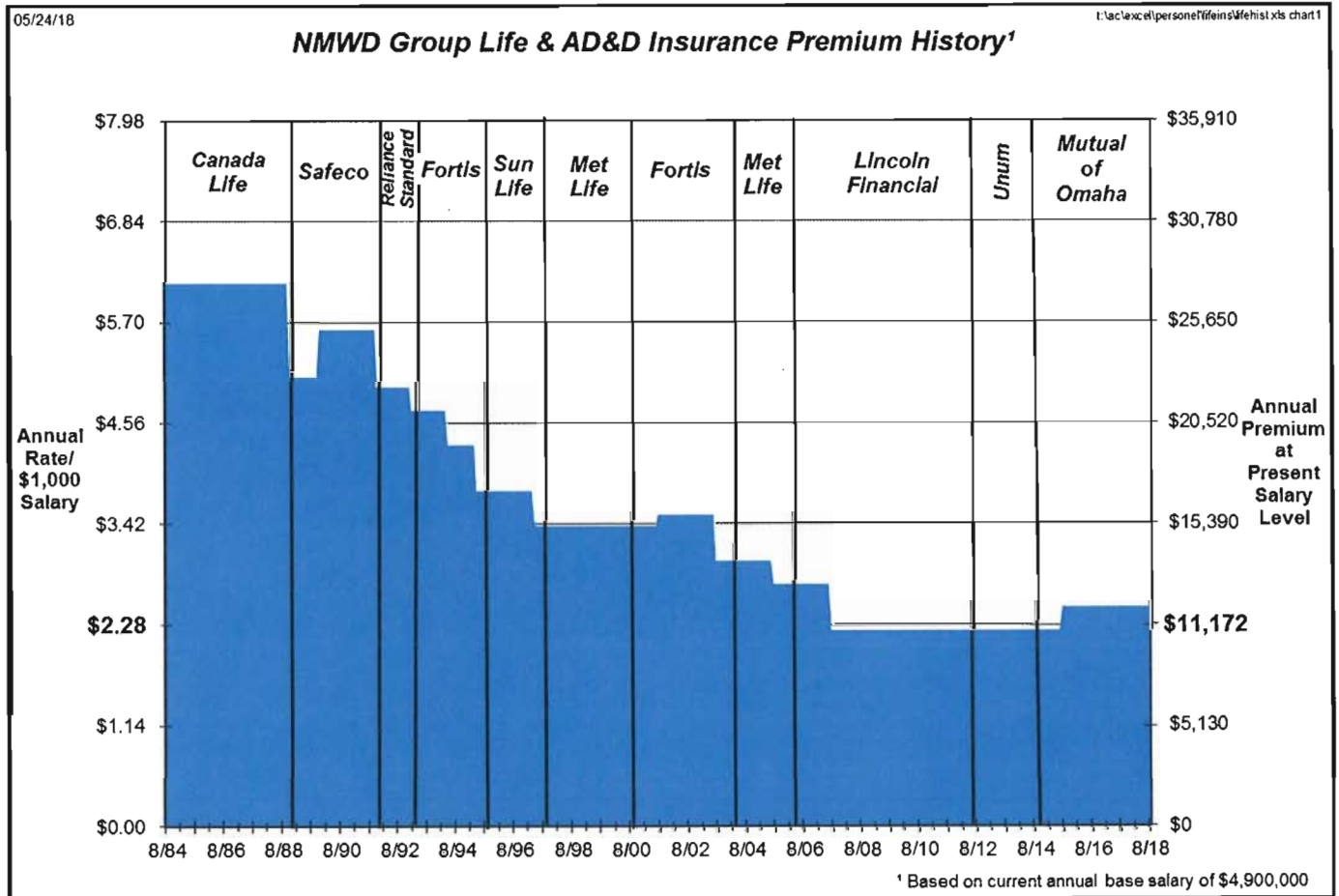
The District's benefit package includes a life insurance policy for regular employees with a benefit equal to their annual salary. The group life benefit also includes an accidental death and dismemberment policy (AD&D) that offers double indemnity in the event of accidental death and defined lump sum payments if there is loss of sight or appendage. The District's current provider is Mutual of Omaha, at \$2.28/\$1,000 of payroll, which policy expires July 31, 2018. Attached is a chart showing our Group Life and AD&D premium history.

In 2015 Staff asked McNeil Benefits Insurance Services in Novato, the broker for our group life policy since 1957, to survey the market pricing for renewal. Seven insurers provided a response, and two declined to quote. Mutual of Omaha was selected with the lowest cost at \$2.28/\$1,000. Their proposal included a two-year rate guarantee and the premium remains unchanged through the 2018 policy. Mutual of Omaha remains one of the strongest companies in the industry, with a Best's Rating of A+16 (Superior financial strength with policyholder surplus over \$2 billion).

**Recommendation:**

Authorize the Auditor-Controller to renew the contract with Mutual of Omaha for the District's Group Life and Accidental Death and Dismemberment Insurance at a rate of \$2.28 per \$1,000 of payroll for a one-year period commencing August 1, 2018.

Approved by GM Date 6.1.18



9

## MEMORANDUM

To: Board of Directors  
From: Drew McIntyre, General Manager  
Subject: Marin County Cooperative Services Agreement  
t:\gm\bod misc 2018\marin co gasgem agreement memo 2018.doc

June 1, 2018

**RECOMMENDED ACTION:** Board Approve Cooperative Services Agreement with Marin County

**FINANCIAL IMPACT:** Up to \$1,500/yr (costs paid by Marin County)

The California Statewide Groundwater Elevation Monitoring (CASGEM) program was developed by the Department of Water Resources (DWR) in response to the passage of Senate Bill x7-6 in November 2009. CASGEM requires that groundwater elevations in all basins be regularly monitored. Marin County Environmental Health Services (EHS) is the lead agency for carrying out the CASGEM program in Marin County and their Monitoring Program is provided as Attachment 1. There are five groundwater basins in Marin County as shown in Map 1 of this attachment and six wells will be monitored twice a year, in spring and fall. All basins will be monitored except for the Ross Valley Groundwater Basin since no wells have been identified within this basin. NMWD has agreed to assist EHS with groundwater measurements at three of the well site locations in the northwestern portion of the county (shown in Map 2 and listed in Table 1) since we routinely travel to this area as part of our Oceana Marin operation and maintenance duties.

District staff time to perform these services will be minimal and coincident with routine Oceana Marin visits. A cooperative services agreement has been prepared to provide for cost recovery to NMWD for these services (see Attachment 2). The Cooperative Services Agreement has been reviewed by both County and NMWD legal counsel.

**RECOMMENDATION:**

Board Approve Cooperative Services Agreement with Marin County.

Approved by GM



Date

6-1-18



# **Marin County Groundwater Elevation Monitoring Program**

**December 2011  
(Updated April 2018)**

Rebecca Ng  
Deputy Director  
Marin County Environmental Health Services  
3501 Civic Center Drive, Suite 236  
San Rafael, CA 94913  
415-473-6907

# **Marin County Groundwater Elevation Monitoring Program**

December 2011  
(Updated April 2018)

## **1.0 Overview**

This Monitoring Plan (Plan) has been prepared to satisfy the requirements of the California Statewide Groundwater Elevation Monitoring (CASGEM) Program. CASGEM was developed by the Department of Water Resources (DWR) in response to the passage of Senate Bill 7-6 in November 2009. The law directs that groundwater elevations in all basins and sub-basins in California be regularly and systematically monitored, preferably by local entities, with the goal of demonstrating seasonal and long-term trends in groundwater elevations. DWR is directed to make the resulting information readily and widely available. The CASGEM program establishes a permanent, locally-managed system to monitor groundwater elevation in California's alluvial groundwater basins and sub-basins identified in DWR Bulletin No. 118. The CASGEM program relies and builds on the many, established local long-term groundwater monitoring and management programs. Through the CASGEM program, local monitoring parties with appropriate authority may notify DWR of their intent to be a Monitoring Entity. A Monitoring Entity is a local agency or group that voluntarily takes responsibility for conducting or coordinating groundwater level monitoring and reporting for all or part of the groundwater basin.

This Plan is subject to change as the monitoring network for each basin changes. Revisions will be submitted to DWR when additions or removal of wells from the monitoring network occurs.

It is noted that on September 16, 2014, the California Sustainable Groundwater Management Act (SGMA) was signed into law by a three-bill legislative package of AB 1739, SB 1168, and SB 1319. This act requires governments and water agencies of high and medium priority basins to prepare Groundwater Sustainability Plans to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Since the groundwater basins within Marin County have been ranked by DWR as low priority, there are no requirements for the County to prepare a Groundwater Sustainability Plan at this time.

## **Monitoring Entity**

The Marin County Environmental Health Services Division (EHS) of the Community Development Agency is the lead agency for carrying out the CASGEM program in Marin County. The North Marin Water District is a participating agency. The EHS contact is Rebecca Ng, Deputy Director, (415) 473-6907, [rng@marincounty.org](mailto:rng@marincounty.org).

## **Purpose**

The purpose of this Plan is to describe the approach and activities of Marin's groundwater level monitoring program to satisfy the CASGEM program requirements. The basic components of a CASGEM plan include the following:

- A discussion of the well network
- Identify the wells in the monitoring network including maps of the wells in each basin
- Discussion of the monitoring schedule
- Description of the field methods used to collect water level data
- Discussion of the roles of cooperating agencies, if applicable
- Description of the monitoring plan rationale

## **Plan Organization**

Section 2.0 of the plan provides an overview of Marin County geology and briefly describes the hydrogeologic conditions beneath each basin. Section 3.0 describes monitoring sites and timing. Section 4.0 discusses procedures for monitoring procedures and data collection. It also describes how the water level data is managed and stored, as well as reporting requirements for the CASGEM program.

### **2.0 Marin County**

The County of Marin encompasses an area of 828.20 square miles. Geographically, the county forms a large, southward-facing peninsula, with the Pacific Ocean to the west, San Pablo Bay and San Francisco Bay to the east, and the city of San Francisco to the south across the Golden Gate Bridge. Marin County's northern border is with Sonoma County.

As described in the California Department of Water Resources Bulletin No. 118, there are five groundwater basins within or partially within Marin County's boundaries. These are shown in Map 1. Four of the five groundwater basins are entirely within the county boundaries and are identified with the San Francisco Bay Hydrologic Region. The fifth groundwater basin is partially within Marin County's boundaries and Sonoma County's boundaries. This basin, the Wilson Grove Highlands basin, is identified with the North Coast Hydrologic Region.

The groundwater use in the San Francisco Bay Hydrologic Region is generally about 5 percent of the region's estimated average water supply for agricultural and urban uses and accounts for less than one percent of statewide groundwater uses. In general, groundwater quality throughout most of the region is suitable for most urban and agricultural uses with only local impairments. The primary constituents of concern are high Total Dissolved Solid (TDS), nitrate, boron, and organic compounds. Areas of high TDS (and chloride) concentrations are typically found in the region's groundwater basins situated close to the San Francisco Bay, such as southern Sonoma and Petaluma valleys. The shallow aquifer zone within Petaluma Valley also shows persistent nitrate contaminants. Some of the more remote areas in west Marin County are completely reliant upon groundwater as their sole source of water.

### **Marin County Groundwater Basin Boundaries and Hydrology**

This section provides a brief description of the geologic and hydrogeologic setting of the groundwater basins in Marin County as described in Bulletin 118 and shown in Map 1.

#### **North Coast Hydrologic Region**

##### **Basin 1-59 Wilson Grove Formation Highlands**

Surface Area: 86,400 acres (135 square miles)

Average well depths – 224ft. (domestic) and 323 ft. (municipal/irrigation)

The Wilson Grove Formation Highlands Groundwater Basin is an irregularly shaped basin in northern Marin and southern Sonoma Counties. The basin is bound by Chileno Valley on the south, Bodega Bay on the west, and the Tolay Fault on the east. The contact between the Franciscan and Wilson Grove Formation defines the Basin boundary on the north. The Bloomfield Fault bisects the Basin from north to south. Several streams drain the basin and join to form Estero Americano Creek, which runs from east to west through the basin and is the northern Marin border with Sonoma. Most of the smaller tributaries flow south and west to join the creek before it enters Bodega Bay. Average precipitation within the basin is estimated to be greater than 44 inches in the northwest to less than 28 inches in the southeast.

There is limited information on the hydrogeology of the basin. The primary water-bearing formations are as follows:

1. Recent alluvium is dispersed throughout the basin, consisting of poorly sorted coarse sand and gravel, and moderately sorted fine sand, silt, and clay.
2. Pleistocene marine terrace deposits are found throughout the basin, consisting of fossiliferous marine sandstone, siltstone and silty clay with interbedded gravels and basal tuff beds. The terrace deposits were formed as alluvial fan or stream channel deposits and have been left isolated as the grade level in streams dropped.
3. Pliocene Wilson Grove Formation is the major water-bearing unit in the basin, consisting of unconsolidated, fine-grained, massive sand and minor amounts of gravel and tuff deposited under beach and shallow-marine conditions. The formation was deposited in a subsiding embayment that was open to the ocean. The sediments were deposited on the surface of high relief carved into the underlying Franciscan sediments. The Wilson Grove Formation consists of unconsolidated, fine-grained, massive sand and minor amounts of gravel and tuff deposited under beach and shallow-marine conditions.

### **San Francisco Bay Hydrologic Region**

#### **Basin 2-27 Sand Point Area Groundwater Basin**

Surface Area: 1,407 acres (2.2 square miles)

Average Well Depth: 94 ft.

The Sand Point Area groundwater basin is a small, coastal basin that is bounded to the west, south and southwest by Tomales Bay. Tomales Bay is a geologic feature of high significance, as it delineates the north, northwest trending San Andreas Fault Zone. The basin's northern boundary lies just south of Dillon Beach and adjoins the Wilson Grove Formation Highlands basin. The eastern boundary extends inland a distance that varies from about 1/4 mile in the south to just over 2 miles in the north. The northern and eastern basin boundaries approximately follow the alluvial sand deposits in the basin and the surrounding bedrock. Holocene beach sands and Latest Pleistocene to Holocene dune sands are the predominant basin deposits. According to one water well log available for the western-portion of the basin, bedrock, consisting of the Franciscan Formation, was encountered beneath the alluvium at 94 feet below ground surface (bgs.) The Franciscan Formation consists mainly of sandstone, with minor amounts of conglomerate, chert, and shale. The annual precipitation in the basin averages 35 inches. (It is noted in Bulletin 118 that the boundaries of the basin may need slight adjusting.)

#### **Basin 2-28 Ross Valley Groundwater Basin**

Surface Area: 1.765 acres (2.8 square miles)

Average Well Depth: 229 ft.

The Ross Valley groundwater basin is a small, coastal basin located about 10 miles north of San Francisco, with portions of the basin lying in the City of Corte Madera and Larkspur. It is bounded to the east by San Francisco Bay and to the north by Corte Madera Creek. From its northern and eastern boundaries, respectively, the basin extends south a maximum distance of 2 miles and inland (west) a distance that varies from about 1 mile in the south to just over 2 miles in the north. The basin boundaries approximate the contact between the artificial fill (predominantly) and alluvium (minor) in the basin and the surrounding bedrock. The artificial fill is characterized as fill overlying San Francisco Bay mud; and the alluvium as Holocene, undifferentiated deposits. Additional deposits mapped within the basin include Holocene San Francisco Bay muds, which occur along and the shoreline and inland. The annual precipitation in the basin ranges from 31 inches in the east to 41 inches in the west.

**Basin 2-29 San Rafael Valley Groundwater Basin**

Surface Area: 896 acres (1.4 square miles)

Average Well Depth: 159ft.

The San Rafael Valley groundwater basin is a small, coastal basin located 12 miles north of San Francisco, and includes the City of San Rafael. It is bounded to the east by San Rafael Bay, which lies between San Pablo Bay to the north and San Francisco Bay to the south. The basin extends from its southernmost boundary near San Quentin, about 1.5 miles to its northern boundary of Rafael Creek. The basin extends inland (west) a distance that varies from about 1/2 mile in the south to just under 2 miles in the north. The basin boundaries approximate the contact between the artificial fill (predominantly) and alluvium (minor) in the basin and the surrounding bedrock. The artificial fill is characterized as fill overlying San Francisco Bay mud; and the alluvium as Holocene, undifferentiated deposits. The annual precipitation in the basin averages 33 inches.

**Basin 2-30 Novato Valley Basin**

Surface Area: 20,500 acres (32 square miles)

Average Well Depth: 243 ft.

The Novato Valley groundwater basin occupies a structural depression in the Coast Ranges immediately west of San Pablo Bay and north of San Rafael. San Antonio Creek bounds the Novato Valley basin to the north and the Mendocino Range forms the western and southern boundary. Streams discharging to San Pablo Bay drain the basin and are tidally influenced in the lower reaches. Annual precipitation in the basin ranges from less than 28 inches adjacent to the bay to more than 40 inches in the upland areas in the Mendocino Range.

**3.0 Monitoring Sites and Timing**

There is no history of groundwater monitoring in any of the Marin County basins except for two wells in the Novato Valley Basin that have been monitored by DWR since 1973 and 1989. There is no published information regarding groundwater storage capacity and recharge for the Marin County groundwater basins.

Due to the urban setting and availability of municipal water supplies in Marin County, there are few available wells of sufficient depth located within a particular groundwater basin. Additionally, due to the relatively small size of the groundwater basins in Marin County, there are few wells included in the well network for monitoring.

Six wells will be monitored as part of Marin County's CASGEM Plan. Together, these wells represent the four major basins within the county. Marin County EHS will administer the monitoring of five of these wells. No well monitoring is proposed for the Ross Valley Groundwater Basin since it is not well suited for regular groundwater development and no well has been identified. The general location of these wells is shown in Map 2.

The site identification number of these wells, their respective basin, identification number, location, and other pertinent information is detailed in the Table 1 - Marin County CASGEM Sites. Each well will be monitored twice a year, in the spring and fall.

Well completion reports for each well are not included in this plan. The Department of Water Resources should have copies of each well completion report that can be identified by the unique well completion number. The reports, which are made confidential by Water Code Section 13752, may be disclosed with permission of the well owner.

## **4.0 Monitoring Procedures**

### **Field Methods**

It is anticipated that monitoring will be conducted using an electronic sounding tape (Solinst Model 102 Water Level Meter) in April and October of each year to obtain seasonal high and low groundwater levels.

### **Field Preparation**

1. Sanitize or pre-clean equipment and ensure that it is in working order. Ensure batteries are fresh and the line is not kinked, knotted, frayed, or cut. Test the equipment prior to going out.
2. Check the distance from the electrode probe's sensor to the nearest foot marker on the tape to ensure that this distance puts the sensor at the zero foot point for the tape. If it does not, a correction must be applied to all depth-to-water measurements. Record this in an equipment log book and on the field form.
3. Print new field sheets (attached DWR Form 1213) with updated previous levels.
4. Contact those well owners that require notification prior to monitoring or for wells that need to be shut off.
5. Ensure keys to gates and assorted wrenches are in vehicle.
6. If this is the initial visit, conduct a well information inventory, plan to identify and photograph measurement reference points, and measure distance from measurement reference point to ground surface.
7. Identify site information and documentation required and measurement locations.

### **Field Procedures:**

1. Check that the well is not pumping. If the well is pumping mark a 1 in the no measurement (NM) column of the field sheet, and do not take a measurement. If the pump motor is off but warm, take a measurement and mark 4 in the questionable measurement (QM) column due to recent pumping. If the pump is off and the motor is cold take a measurement.
2. Remove well cap or plug and report date and time on data sheet.
3. Ensure that the opening into the casing, the reference point (RP), is still available. If the reference point needs to be changed or adjusted, take an accurate measurement of the new RP height from ground surface and note on the field sheet.
4. Wipe off the electrode probe and lower 5 to 10 feet of the tape with a disinfectant wipe, rinse with de-ionized or tap water, and dry.
5. Place groundwater-level measuring device into the well.
6. For electrical tapes, record the distance from the water surface, as determined by the audio signal or meter, to the reference measuring point and record. For sonic meter, record the level displayed on the LED readout.
7. Wait several minutes and repeat the measurement.
8. Repeat measurements consistently going up or down. If measurements are going up, ideally take measurements until the level stabilizes within 0.1 feet; otherwise note the measurements as questionable. If going down, then note "questionable."
9. If known, note the time since the well was last pumping.
10. Remove all downhole equipment, and replace well plug or cap.
11. Clean and rinse all downhole equipment and store for transport to the next well.
12. Note any changes in the well condition since the previous measurement (e.g., new reference point, new well enclosure, etc.)

### **Recording Data in the Field (DWR Form 1213)**

1. Local well identification number from Table 1, which is coded to the latitude and longitude, North American Datum, NAD 83
2. Measurement date and time (military time/24-hour format)
3. No measure code (NM) as described on the form
4. Questionable measurement code (QM) as described on the form
5. Reference point elevation (RP) of the well in feet, North American Vertical Datum (NAVD 88)
6. Ground surface elevation at the well in feet, NAVD88 – referred to land surface datum (LSD) on the form
7. Tape at reference point (RP)
8. Tape at water surface (WS)
9. Reference point to water surface, feet
10. Land surface datum to water surface, feet – calculation
11. Previous depth
12. Comments and observations

### **Quality Assurance/Quality Control**

The following general quality assurance/quality control procedures apply:

1. Document measurements, notes and codes on the groundwater level data forms or field notebook.
2. Operate instruments in accordance with operating instructions as supplied by the manufacturer, unless otherwise specified.
3. Each well should be tested at least twice in order to compare results. If results do not agree to within 0.1 feet, a third measurement should be taken and the readings averaged. Consistent failure of consecutive readings to agree suggests that levels are changing because of one or more conditions as indicated on Form 1213, and should be noted accordingly.
4. Results should be compared to historical measurements while in the field and significant discrepancies noted and resolved, if possible.
5. Wells for which no measurements or questionable measurements are obtained should have the codes entered as described on the field form:
6. Upon return from the field, appropriate corrective actions need to be communicated and completed prior to the next survey event.
7. All data entered into electronic spreadsheet or database should be double-keyed or hard copy printed.
8. Questionable wells or measurements noted during data compilation need to result in corrective actions, if applicable.

### **Sanitary Practices for Equipment**

The water level measurement equipment should be handled carefully, both when transporting the equipment and when using the equipment to take water level measurements. In effect, only the water level measurement probe end should come in contact with the well water.

The water level measurement equipment should be kept and maintained clean by preventive and standard cleaning measures including:

1. Placing the equipment in a clean space for storage and during transport to avoid contact with dirty surfaces
2. At a minimum, cleaning the probe at the end of the tape with an appropriate cleaning agent at the

beginning of field activities, whenever the probe appears dirty, and at the end of the measurement round.

3. Inspecting the probe tape carefully before and after each water measurement for any foreign materials.

In between each water level measurement, the probe should be carefully inspected. If the probe appears dirty at all or appears to have foreign material on it, the probe should be properly cleaned. If the probe appears clean, at a minimum the probe should be disinfected.

### **Data Handling and Reporting**

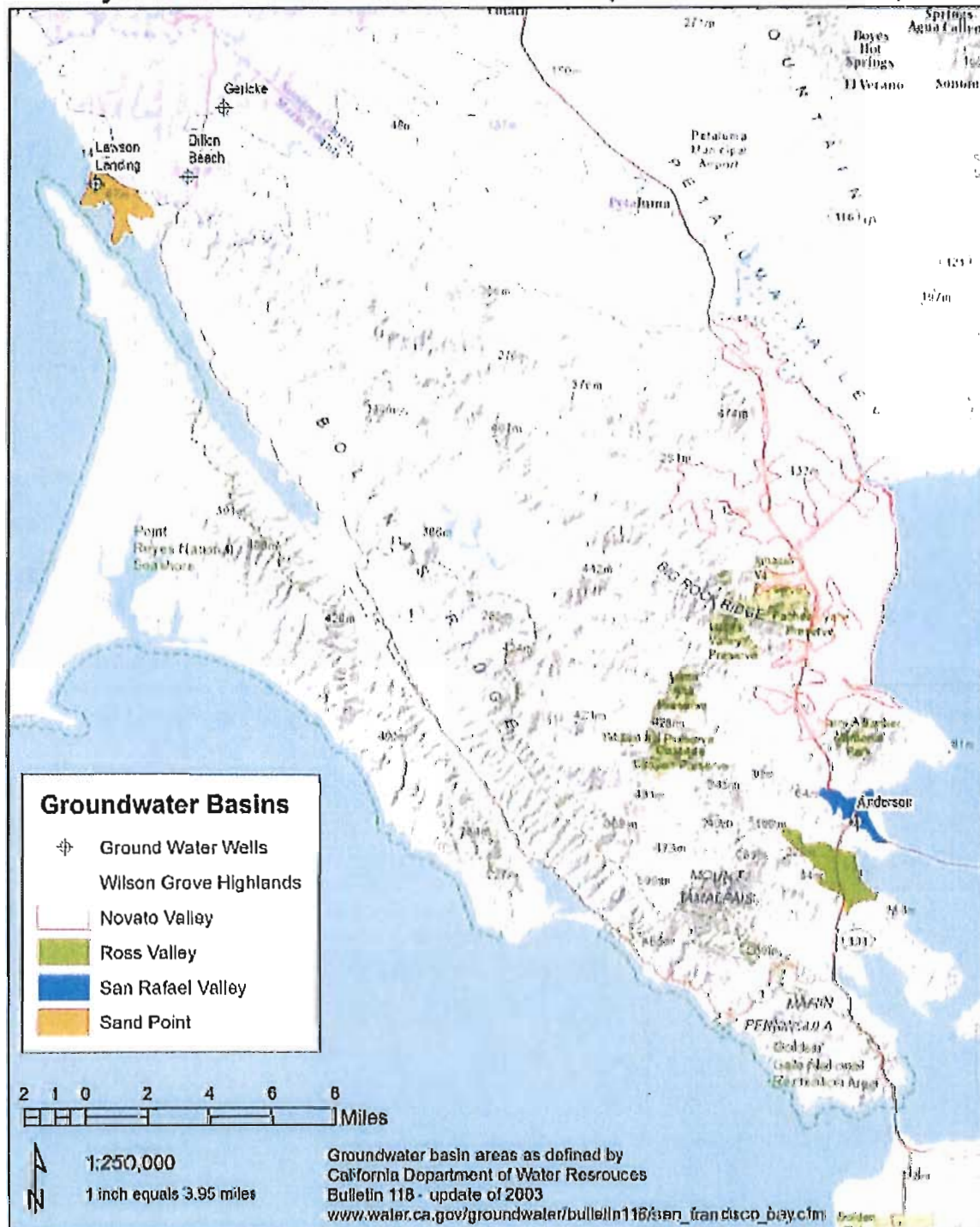
As the Monitoring Entity, Marin County EHS is responsible for the handling and reporting of groundwater level information for the five wells they monitor: WG1, WG2, SP1, SR1, and NV1. The sixth well (NV2) is currently monitored by DWR, who enters their data into the state system.

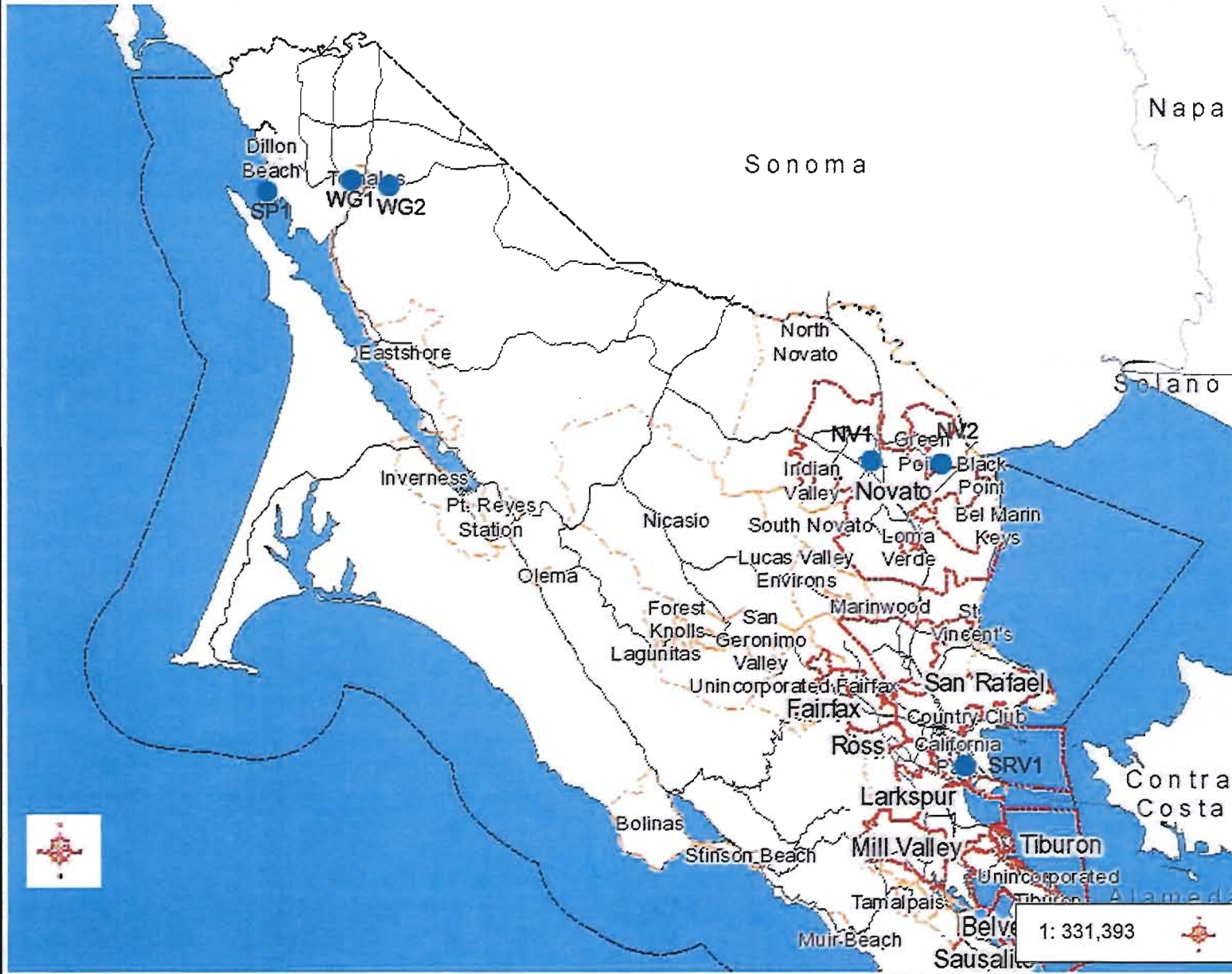
Field datasheets of water levels are collected, checked for errors, and uploaded electronically to the CASGEM online system agency database. Data will be uploaded as soon as possible after being taken, but no later than January 1st for fall measurements and July 1st for spring measurements.



# Map 1

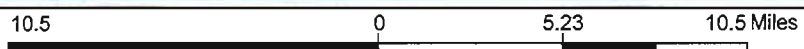
## County of Marin Groundwater Basins (DWR Bulletin 118)





- Legend**
- Major Road
  - City
  - Community
  - Marin County Legal Boundary
  - Other Bay Area County
  - Ocean and Bay

**Notes**



NAD\_1983\_HARN\_StatePlane\_California\_III\_FIPS\_0403\_Feet  
© Latitude Geographics Group Ltd.

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.  
**THIS MAP IS NOT SURVEY ACCURATE**

**Map 2 – Monitoring Well Sites**

**TABLE 1**  
**MARIN COUNTY CASGEM SITES**  
 April 2018

BASIN NAME/ Well ID	BASIN NO.	ADDRESS	CONTACT INFO	WELL COMP#	WELL GPS	SAMPLING ENTITY*	DEPTH	SCREENED	WELL STATUS	USE
Wilson Grove- <b>WG1</b>	1-59	599 Dillon Beach, Tomales	Tom Nunes, Tomales Fire Station* 707-878-2464	700288	38.246381, -122.909946	NMWD	191 ft.	32-191 ft.	active	domestic
Wilson Grove – <b>WG2</b>	1-59	3501 Tomales Petaluma Rd, Tomales	Brittany Jensen 310-701-8461	unknown	38.2432, -122.8828**	resident	N/A	N/A	active	domestic
Sand Point <b>SP1</b>	2-27	Lawson's Landing 137 Marine View Dr. Dillon Beach	Carl (Willy) Vogler 707-878-2443 lawsonslanding@g mail.com	312297	38.242137, -122.964420	NMWD	200 ft.	120-200 ft.	active	domestic
Ross Valley	2-28	No available acceptable wells in this basin.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
San Rafael Valley <b>SRV1</b>	2-29	1050 Anderson Dr. San Rafael	John O'Riney Marin Sanitary Service 415-458-5538	347002	37.954443, -122.504425	EHS	180 ft	60-180 ft.	active	irrigation
Novato Valley <b>NV1</b>	2-30	Olive and Railroad Ave, Novato (740 Olive Ave)	Erik Brown Novato Sanitary District erikb@novatosan.com	N/A	38.110927, -122.565783	NMWD	33 ft.	13 ft.	active	Irrigation/ industrial
Novato Valley <b>NV2</b>	2-30	193 & 192 Atherton Ave, Novato	DWR monitoring Glenn Diamond 415-696-8332	N/A	38.106000 -122.5197	DWR State well # 03N06W16H001M	N/A	N/A	inactive  (residential)	domestic

\*Well monitored by North Marin Water District (NMWD), Marin County Environmental Health Services (EHS), California State Department of Water (DWR) Resources

\*\*Location of parcel, not exact location of well; groundwater elevation 18.2 ft.

Table 5. Groundwater level data form for manual measurements (DWR Form 121

[illegible]

COOPERATIVE SERVICES AGREEMENT  
BETWEEN THE  
COUNTY OF MARIN  
AND THE  
NORTH MARIN WATER DISTRICT

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THIS AGREEMENT, is entered into this \_\_\_\_ day of \_\_\_\_\_, 2018, by and between the COUNTY OF MARIN (County), a political subdivision of the state, and NORTH MARIN WATER DISTRICT (NMWD), a special district, hereinafter the Party or Parties.

RECITALS

WHEREAS, NMWD and County are each public agencies engaged in providing public services within the County of Marin, including monitoring and other activities related to groundwater and surface waters within portions of the County of Marin; and

WHEREAS, the Parties desire to cooperate and coordinate personnel and equipment in order to more efficiently and effectively provide particular services related to monitoring of groundwater conditions within the County of Marin and service area of NMWD.

NOW, THEREFORE, the Parties do hereby agree as follows:

1. NMWD shall provide certain semi-annual groundwater measurement and sampling activities, as more expressly described in the Scope of Work attached hereto as Exhibit A, and incorporated herein as if fully set forth.
2. Periodically, the managers of the Parties, or their designees, will review and consider revisions to the Scope of Work in order to best accomplish the purposes for which they are undertaken. Such revisions must be mutually agreed upon and in writing to be effective.
3. County shall provide to NMWD all rights of entry or other authorization required to access any monitoring location on public or private property not owned by a Party to this Agreement.
4. NMWD shall be solely responsible for the determination of need and assignment of any personnel, equipment, or materials required pursuant to this Agreement.
5. County shall fully compensate NMWD for work performed hereunder pursuant to the Fee Schedule attached hereto as Exhibit B and incorporated herein as if fully set forth. The total cost to the County shall not exceed \$1,500, unless mutually agreed upon in writing.



6. NMWD shall, no more frequently than monthly, invoice County for the personnel, equipment, and materials pursuant to the Fee Schedule and shall cooperate with County to provide any required tax identification or other payment information. County shall remit payment pursuant to any undisputed invoice within 30-days of receipt.

7. Each Party will indemnify, defend, and hold the other Party and its assignees, agents, officers and employees harmless from and against any claims, suits, proceedings, costs, liabilities, expenses (including court costs and reasonable legal fees), or damages (Claims) to real or tangible personal property and/or bodily injury to persons, including death, resulting from its or its employees, Clients or agents negligence or willful misconduct arising from or related to this Agreement.

8. Each Party shall purchase and maintain throughout the term of this Agreement insurance or indemnity protection that is co-equal with its indemnity obligations and may include insurance or self-insurance. This shall include, but not necessarily be limited to Commercial General Liability insurance and Commercial Automobile liability insurance with limits of not less than \$1,000,000 per occurrence (\$2,000,000 in the aggregate) and the other Party and its directors, officers, employees, and volunteers to the extent of the owed indemnity obligations, shall be named as "additional insureds" under such policies. Each Party shall also maintain workers' compensation insurance for industrial injury or illness, including coverage for its own employees. Proof of insurance shall be provided in the form of a certificate of insurance or self-insured letter to the other party.

9. All notices and authorizations in connection with this Agreement shall be addressed to:

North Marin Water District: North Marin Water District  
Attn: General Manager  
P.O. Box 146  
Novato, CA 94948

Marin County: Marin County Environmental Health Services  
Attn: Deputy Director  
3501 Civic Center Drive, Suite 236  
San Rafael, CA 94903

10. Either Party to this Agreement may, without penalty, immediately withdraw from participation hereunder upon giving thirty (30) days written notice thereof to the other Party.

IN WITNESS WHEREOF the Parties have executed this Agreement as of the date first written above.

**COUNTY OF MARIN**  
"A Municipal Corporation"

**ATTEST:**

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Rebecca Ng, Deputy Director  
Environmental Health Services

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**NORTH MARIN WATER DISTRICT**  
"District"

**ATTEST:**

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Rick Fraites, President

---

Theresa Kehoe, Secretary

(SEAL)


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## MEMORANDUM

To: Board of Directors

June 1, 2018

From: Julie Blue, Auditor-Controller 

Subj: Approve - Employer Assisted Housing Program Loan

t:\gm\agreements\temp housing\rodriguez\board request.doc

**RECOMMENDED ACTION:** Approve Housing Loan**FINANCIAL IMPACT:** \$275,000 Loan from Liability Contingency Fund

In accordance with the District's Employer Assisted Housing Program, Christopher Rodriguez, a 35-year-old Field Service Representative who has been employed with the District for 1 year and 4 months, has requested a District loan of \$275,000 to purchase a market-rate home in Novato. The history of the District's Employer Assisted Housing Program was recently reviewed with the Board at the March 6, 2018 meeting.

The 2-bedroom, 2 ½-bath 1,229 square foot home is located at 1675 Novato Blvd, Unit #9 and the sales price is \$550,000. The first deed of trust will be \$247,500. The \$275,000 District loan would be 50% of the sale price, the maximum percentage allowed under the policy. Christopher will pay a 5% down-payment of \$27,500 plus closing costs estimated at 2.4% of the purchase price (\$13,000). Under the Housing Assistance Policy, the District will be entitled, at Christopher's discretion, to either 50% of the appreciation accruing on the property upon sale or refinancing, or to the interest revenue foregone by the District over the period of the loan.

Christopher, his wife Lizbeth, and their son Diego are currently renting a room from Lizbeth's family in Novato. They are expecting their 2<sup>nd</sup> child in August 2018 and do not have sufficient space in the current housing arrangement to accommodate the new baby. The purchase is contingent upon approval of the District loan and receipt of an appraisal confirming the value of the home. Attached are details from the real estate listing with pictures.

**Source of Funding**

The \$275,000 loan will be borrowed from the Liability Contingency Fund. Currently there are five Employer Assisted Housing Loans totaling \$934,200 borrowed against the \$1.5 million the Board has authorized for this program. Christopher's \$275,000 loan will reduce the balance remaining for future housing assistance to \$291,000.

**Recommendation:**

Approve a loan to Christopher Rodriguez of up to \$275,000 under the District's Employer Assisted Housing Program, and authorize the General Manager to sign the note at such time as the loan is required to close the purchase transaction.

[Print this Page](#)
[Open as PDF](#)

## Client Detail with Addl Pics Report

Listings as of 05/24/18 at 1:26pm

Active 05/08/18 Listing # 21810931 1675 Novato Blvd #9, Novato, CA 94947 [Map](#) Listing Price: \$550,000  
 County: Marin Cross St: Boulevard Ter Map: 1, A1 Original Price: \$550,000



Property Type	Residential	Property Subtype	Condo/Coop
Area	Novato		
Beds	2	Approx Square Feet	1229 Not Verified
Baths(FH)	3 (2 1)	Price/Sq Ft	\$447.52
Year Built	1991	Lot Sq Ft (approx)	3324
APN	140-470-19	Lot Acres (approx)	0.0763
DOM/CDOM	15/15		



**Directions** Delong, Rt on Novato Blvd., Lt into Lone Common Oaks (Driveway is quick left after Blvd Terrace)

**Marketing Remarks** Rare Novato Townhouse with a 2 car garage, 2 very large bedrooms and 2 full bathrooms upstairs. Each bedroom includes a private deck. Washer & Dryer upstairs, half bath downstairs, plenty of storage and a large entertaining patio off the main living room. Low HOA Fee's. Close to Downtown, public transportation and so much more.

SoldOffMLS/CompSale? No  
 SoldOffMLS/CompSale? No  
 Senior No  
 Year Built Source Realist Public Rec  
 Common Int Dev Yes

New Construct/Resale Resale  
 Probate Sale No  
 Construct/Condition Completed  
 2nd Unit on Lot No  
 Planned Unit Develop Unknown

HOA Paid	Yes	HOA Amount	\$341.60
Attach/Detach Home	Monthly Attached	TIC	No
Style	Unknown	Stories/Levels	2 Story
Location of Unit	Other	Construction Type	Wood Frame
Upper Level	Bath(s), Bedroom(s)	Exterior	Wood Siding
View(s)	None	Main Level	Bath(s), Family Room, Garage, Kitchen
Fireplace	Yes	Floors	Laminate, Vinyl/Linoleum
Spa/HotTub Y/N	No	Fireplace(s)	1 Fireplace
#Garage Spaces	2	Pool	No
#Off Street Spaces	1	#Carport Spaces	1
Other Rooms	Storage	Gar/Prk	2 Car, 3 Spaces
Laundry/Appliance	Dryer Incl., Washer Incl	Heat/Cool	Central Heat
Yard/Grounds	Deck(s), Patio(s)	Other Structures	None
Water Source	Water Public	Lot Description	Level
Utilities	PG&E	Sewer/Septic	Sewer Public
		Fee Includes	External Bldg. Maint, Garbage, Grounds Maint, Insurance, Water
Restrictions	Pet Size	Sale Conditions	Offer As Is

**Presented By:****Kathy Yamamoto**

Lic: 01471264

Primary: 415-258-1520

Secondary: 415-577-0699

Other:

E-mail: [kathy@marinrealestatepros.com](mailto:kathy@marinrealestatepros.com)Web Page: <http://www.MarinRealEstatePros.com>**RE/MAX of Central Marin**

Office Lic.: 00694613

1099 D Street Suite 201

San Rafael, CA 94901

415-258-1505

Fax : 415-258-1510

May 2018

Information has not been verified, is not guaranteed, and is subject to change.  
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 Copyright ©2018 Rapattoni Corporation. All rights reserved.  
 U.S. Patent 6,910,045



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## MEMORANDUM

To: Board of Directors  
From: Tony Arendell, Construction Superintendent   
Subject: Contract Extension for NMWD Trench Restoration Paving  
K:\CONST SUP\2018\2018 Paving\2018-19 Paving Contract Extension BOD Memo 5-29-18.doc

June 1, 2018

**RECOMMENDED ACTION:** The Board authorize extension of the paving contract to W.K. McLellan Company

**FINANCIAL IMPACT:** Estimated at \$300,000

W.K. McLellan Company (McLellan) has been the District's contractor for trench restoration work since 1997. When last approved by the Board at the January 3, 2017 meeting, the proposed McLellan pricing was 2% less than the pricing they submitted on a 2015 successful low bid for a similar paving contract with Marin Municipal Water District. There were two bidders for the MMWD work and McLellan was successful low bidder. McLellan is offering to perform work for next fiscal year at current pricing. In July of this year, MMWD is also expected to extend the contract with McLellan for another year. The District reserves the right to extend the contract beyond FY18/19, subject to agreement by both parties.

Annual billings to McLellan for FY18/19 are estimated to be approximately \$300,000. Annual costs for this work over the last five years are summarized in Table 1. To prosecute the work, purchase orders will be issued monthly for trench areas to be paved at the approved unit pricing.

District staff wants to advise the Board that McLellan has had an excellent working relationship with NMWD, City of Novato, and Marin County and they go out of their way to ensure that District paving needs are met. The quality of McLellan's work has been excellent and there have been very few complaints from City or County staff or customers on the workmanship or longevity of trench restoration paving.

RECOMMENDATION

Board authorize extension of the trench restoration paving contract with W.K. McLellan Company based on current unit prices provided.

TABLE 1

<i>YEAR</i>	<i>BILLINGS</i>
FY12-13	\$143,299
FY13-14	\$149,221
FY14-15	\$234,723
FY 15-16	\$295,616
FY 16-17	\$173,868

TABLE 2

ITEM	BID DESCRIPTION	MCLELLAN PRICING SINCE 2015
1.	<u>EXCAVATE, PRIME AND RESURFACE 2-INCH GRIND AND PAVE</u>	
	a) 0-1000 square feet	\$7.00
	b) 1000-2500 square feet	\$6.00
	c) 2500-5000 square feet	\$5.00
2.	<u>EXCAVATE, PRIME AND RESURFACE WITH 4-INCH ASPHALT CONCRETE</u>	
	a) 0-29 square feet	\$8.82
	b) 30-99 square feet	\$8.82
	c) 100-499 square feet	\$8.59
	d) Excess of 500 square feet	\$8.39
3.	<u>EXCAVATE, PRIME AND RESURFACE WITH 6-INCH ASPHALT CONCRETE</u>	
	a) 0-29 square feet	\$10.53
	b) 30-99 square feet	\$10.29
	c) 100-499 square feet	\$10.04
	d) Excess of 500 square feet	\$9.80
4.	<u>EXCAVATE, PRIME AND RESURFACE WITH 8-INCH ASPHALT CONCRETE</u>	
	a) 0-29 square feet	\$13.72
	b) 30-99 square feet	\$13.72
	c) 100-499 square feet	\$13.72
	d) Excess of 500 square feet	\$13.72
5.	<u>EXCAVATE, PRIME AND RESURFACE WITH 12-INCH ASPHALT CONCRETE</u>	
	a) 0-100 square feet	\$17.64
	c) 100-499 square feet	\$17.64
	d) Excess of 500 square feet	\$17.64
6.	<u>VALVES</u> Includes a 3'x3' patch Installing of aluminum ring in valve riser Rising to grade	\$75.00
7.	<u>CONCRETE RESTORATION PRICING</u>	
	a) 4" square feet	\$13.25
	b) 6" square feet	\$16.00
	c) Dowels each	\$8.00
	d) Wash square feet	\$2.00
	e) Curb & Gutter linear feet	\$1.55
8.	<u>MOBILIZATION TO WEST MARIN</u> 4 Man Crew LS	\$750

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MEMORANDUM

To: Board of Directors  
From: Drew McIntyre, General Manager  
Subject: MMWD and North Marin Surplus Water Agreement  
t:\gm\mmwd\2018\bod memo surplus water agreement 060118.doc

June 1, 2018

**RECOMMENDED ACTION:** Board Approve the Surplus Water Agreement

**FINANCIAL IMPACT:** None at this time

The attached agreement was developed for surplus water to be released by Marin Municipal Water District (MMWD) and treated by NMWD for ultimate use by the Nicasio community during intermittent limited water shortage conditions. The agreement applies solely to normal and wet year conditions on Lagunitas Creek, has been developed based on input from both NMWD and MMWD legal counsel, and is consistent with provisions in the NMWD-MMWD 2014 Interconnection Agreement. The agreement recognizes that both NMWD and MMWD have pre-1914 water rights in Lagunitas Creek and stipulates an arrangement wherein, upon request by NMWD when surplus water is available, MMWD will release up to 20 acre-feet of water into Lagunitas Creek.

Per the attached agreement terms, the resulting surplus water release by MMWD is for the sole benefit of off-setting any potable water trucked from NMWD's West Marin system to the Nicasio community. When this occurs, NMWD will pay MMWD \$213 per acre foot in accordance with Section 6 of the 2014 Interconnection Agreement. The Marin Municipal Water District Board of Directors approved this agreement at their May 15, 2018 meeting.

**RECOMMENDATION:**

Board Approve the Surplus Water Agreement with Marin Municipal Water District

**AGREEMENT  
BETWEEN NORTH MARIN WATER DISTRICT  
AND MARIN MUNICIPAL WATER DISTRICT**

This Agreement is made by and between the North Marin Water District (North Marin) and the Marin Municipal Water District.

For good and valuable consideration, receipt of which is hereby acknowledged, the parties agree as follows:

Section 1: Recitals.

- A. On February 5, 2014 the parties entered into the Interconnection Agreement under which North Marin wheels Marin Municipal's contractual share of water from Sonoma County Water Agency through the North Marin Aqueduct for distribution to Marin Municipal's customers in Marin County.
- B. Section 3C of the Interconnection Agreement provides for Marin Municipal, under specified conditions, to release water into Lagunitas Creek upon North Marin's request. Water in excess of 250 acre-feet per year may be released "subject to the availability of surplus water as determined solely by Marin Municipal."
- C. North Marin has requested that Marin Municipal make available, twenty acre feet of water pursuant to and under conditions specified in Section 3.C of the Interconnection Agreement, so that North Marin may treat that water and supply it, through a private water hauler, to the unincorporated West Marin agricultural community of Nicasio (Nicasio) that intermittently experiences limited water shortages.
- D. Nicasio has been identified by Marin County LAFCO as a priority review area regarding a possible amendment to the sphere of influence of Marin Municipal, and Marin Municipal desires to assist the residents of Nicasio with some of these water shortages.
- E. Marin Municipal acknowledges that both parties have pre-1914 water rights on Lagunitas Creek.

Section 2: Terms.

- A. Pursuant to Section 3 C of the Interconnection Agreement which provides that "Additional amounts of water may be released by Marin Municipal upon North Marin's request subject to the availability of surplus water as determined solely by Marin Municipal" the parties agree as follows:

**Normal and Wet Water Year Request for Additional Release of Available Surplus Water for Nicasio Residents**

- i. During a water year on Lagunitas Creek that is classified as other than a “dry year” under the water year classifications as established by the State Water Resources Control Board in its Order WR 95-17, North Marin may request and Marin Municipal may solely determine whether to release up to an additional twenty acre feet of surplus water to supply Nicasio.

North Marin shall make that request in writing to:

Water Supply Planning Unit  
Marin Municipal Water District  
220 Nellen Avenue  
Corte Madera, CA 94925

- ii. Marin Municipal shall consider North Marin’s request and in Marin Municipal’s sole discretion determine whether it has up to twenty acre feet of available water that is surplus to its needs.
  - iii. If Marin Municipal determines that such surplus water is available, it will release as feasible no more than twenty acre feet of water from Lake Nicasio or from Kent Lake to North Marin for the sole purpose of supplying that water to Nicasio. Water delivered to Nicasio may be used only for domestic and livestock watering purposes. Any such surplus water released for purposes of supplying Nicasio is in addition to Marin Municipal’s two hundred and fifty acre foot water delivery to North Marin described in Section 3C of the Interconnection Agreement.
  - iv. North Marin shall pay Marin Municipal for the surplus water supplied for the Nicasio Community under the provisions of Section 6.C, “Compensation for Nicasio or Lagunitas Creek Deliveries and Other Water Delivered by Marin Municipal,” of the Interconnection Agreement.
  - v. Nothing in this Agreement shall be construed as a transfer of any portion of any water right held by either party, and each party shall hold the other party harmless should any state regulatory agency seek to take action against one or both parties as the result of the delivery of water in implementation of the agreement.
- B. This agreement shall expire concurrently with the Interconnection Agreement referenced above, and may be terminated by either party upon sixty (60) days’ advance written notice in the manner contemplated by the Interconnection Agreement to the other party..

North Marin Water District

Marin Municipal Water District

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Rick Fraites  
President, Board of Directors

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Armando Quintero  
President, Board of Directors

ATTEST

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Secretary

ATTEST

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Secretary

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## MEMORANDUM

To: Board of Directors  
From: Drew McIntyre, General Manager  
Subject: Discussion on AMI Opt-Out Policy  
t:\gmbod misc 2018\ami opt-out policy review memo 060118.docx

June 1, 2018

**RECOMMENDED ACTION:** Information only**FINANCIAL IMPACT:** None

At the May 1, 2018 meeting, the Board approved an Advanced Metering Information (AMI) Opt-Out Policy (see attached). The Policy (#48) states that a residential customer may opt-out of the installation of an AMI meter but that once an AMI meter has been installed there is no option to opt-out. As reported by Auditor-Controller Julie Blue in her attached Board memo, five of the seven agencies that responded to her survey reported that they did not allow opting out of AMI installations.

During Open Time at the May 15, 2018 meeting, District customer Virginia Cottone spoke about the AMI Opt-Out Policy. She requested that customers still be allowed to opt-out after an AMI meter was installed. My response to Ms. Cottone at that time was that the Policy was already approved, however, any customer always has the option to request an exception from the Board. Director Petterle requested that the AMI Opt-Out Policy be revisited.

I believe the District's AMI Opt-Out Policy as currently adopted is a fair compromise to address potential concerns by our customers. Accordingly, unless otherwise directed by the Board, it is my recommendation that the Policy remain as approved at the May 1 meeting.

## MEMORANDUM

To: Board of Directors

April 27, 2018

From: Julie Blue, Auditor-Controller *JB*

Subj: AMI Opt-Out Policy  
t:\aclword\ami\opt-out policy 2.docx

**RECOMMENDED ACTION: Approve**

**FINANCIAL IMPACT: No Financial Impact**

The AMI meter installation project is underway with 3% of meters installed as of April 13, 2018. There are currently 25 customers that have requested to opt-out of installing AMI meters. Based on the rate of 2% of PG&E opt-out Smart-Meter customers in the Novato area there could be up to 400 customers electing to opt-out of the program. These customers have expressed concerns primarily revolved around health issues pertaining to radio frequency (RF) emissions from the antenna on the meter. Further information regarding customer concerns and RF data impacts was discussed at the March 20 board meeting.

A survey was conducted by staff to establish how other agencies are addressing similar customer concerns. Although the agencies are in different stages of implementation the majority did not allow customers to opt-out of AMI meter installation. The seven agencies that responded were Carpinteria Valley Water District, East Valley Water District, Valley of the Moon Water District, and the Cities of Buena Park, Cotati, Roseville, and Santa Rosa. The results of the survey indicated that one had an established opt-out policy, one was considering a policy, and five did not allow opting out.

As this project continues through the implementation phase various options have been considered. Staff recommends the District establish an opt-out policy to accommodate those customers that have concerns with digital AMI meters. This policy will provide guidelines for meter-reading, billing, and move-out procedures for opt-out customers.

Those customers that wish to opt-out of the installation of an AMI meter must submit an application. These customers will continue to have their meters manually read by NMWD's Field Service Representatives. The cost of reading the meters, and the subsequent administrative duties, has been calculated at \$10<sup>1</sup> per customer for each billing cycle and will be added to the opt-out customer's bill.

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<sup>1</sup> Per customer bi-monthly charge of \$10 = Meter Reading and System Data Entry, \$7.50 (\$60/hour for 7 minutes/meter + 0.50 vehicle time) + Administration, \$2.50 (\$76/hr for 2 minutes/meter). Note: Hourly rates represent an average of the job classification and include all employer paid benefits.

Staff recommends that once a meter is installed there be no opt-out option. The customer is notified approximately 10 days prior to the meter installation. This allows for sufficient time for the customer to call in with questions or opt-out requests. Additionally, when an opt-out customer calls to discontinue service (move out), a Field Service Rep will be dispatched to install an AMI meter. As tenant occupancy turnover occurs the number of opt-out customers will decrease.

This memo and policy have been reviewed by legal counsel and their input has been incorporated.

**Staff Recommendation:**

Staff recommends the Board approve the AMI opt-out policy detailed below.

**DRAFT**

**NORTH MARIN WATER DISTRICT**

**POLICY: AMI Opt-Out Policy**  
**POLICY NUMBER: 48**

Original Date: April 27, 2018  
Last Reviewed: 04/27/18  
Last Revised:

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A residential customer may opt-out of the installation of an Advanced Metering Information (AMI) meter. The request must be made in writing by the NMWD customer of record (family members, neighbors, or landlords cannot act on behalf of another unless there is a power of attorney duly executed by the customer then in effect, in which case the attorney in fact can act for the customer) prior to the installation. To opt-out, the customer must complete and submit an opt-out application to NMWD.

There will be a bi-monthly meter reading fee of \$10 per opt-out customer. This fee is assessed based on the time it will take to read the meter and the administrative time to enter and process the data.

When water service is discontinued by a customer who has opted-out, the District will install an AMI meter on the account. If a customer who has opted-out subsequently requests the installation of an AMI meter, an AMI meter will be installed at no charge and that customer's participation in the opt-out program will be terminated. Once an AMI meter has been installed, there is no option to opt-out.

04/27



**14**

## MEMORANDUM

To: Board of Directors  
From: Pablo Ramudo, Water Quality Supervisor *PR*  
Subject: Third Quarter FY 17/18 – Water Quality Report  
P:\LAB\WQ Supv\WQ Reports\2018\3rd Qtr FY18 WQ Rpt.doc

June 1, 2017

**RECOMMENDED ACTION:** Information**FINANCIAL IMPACT:** \$0

Water served to the communities of Novato and Point Reyes met all federal and state primary and secondary water quality standards during the third quarter of fiscal year 2017-2018

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

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

**NOVATO SYSTEM****Source Water: Stafford Lake**

Stafford Lake water was not used as a source of drinking water in the third quarter. Water quality was monitored on a bi-weekly basis for chemical and mineral components as well as microbiological activity.

Algae and plankton from the raw water intake were identified and enumerated. Total algae numbers were low as is common in winter months with no large blooms. Six species were present in appreciable numbers including two common cyanobacteria.

**Treatment Performance: Stafford Treatment Plant**

Stafford Treatment Plant did not produce any water during the quarter. Water was back-fed into Stafford Lake from the distribution system during this period. This was accomplished using a connection designed for this purpose that bypasses most of the treatment plant plumbing. Water is dechlorinated and monitored as it enters the lake in compliance with the district's potable water discharge permit.

**Distribution System: Novato**

Of the 264 routine samples collected for compliance with the Total Coliform Rule, there was one coliform positive sample this quarter. The coliform bacteria were detected in a sample taken

**(continued from page 1- Distribution System: Novato)**

from the sample station representing the area served by Wildhorse tank. The chlorine concentration in the sample was sufficient to maintain disinfection and follow up samples were all clean, it is suspected that a sampling error may have been responsible for the result. Chlorine residual concentrations throughout our distribution system were good.

Average disinfection by-product concentrations were moderate and typical for this time of year.

Continuing the practice which began in dryer years, NWMD performed a limited flushing program to clear sediment that can accumulate in distribution mains. Zone 1 was targeted with flushing that started in mid-March and continued through late April.

**POINT REYES SYSTEM**

**Source Water: Coast Guard Wells**

Raw water quality was acceptable throughout the quarter. Water quality parameters affected by salt water were elevated, but began to decrease by the end of the quarter. The sodium concentration ranged from 81 - 87 mg/L, chloride concentration decreased from 260 to 88/L, and bromide ranged from 0.32 to 0.91 mg/L. Hardness ranged from 150 - 300 mg/L.

**Source Water: Gallagher Well**

Gallagher well was used as a source of water during the quarter. Water quality parameters affected by saltwater are very low from this source and are not prone to intrusion from seawater. Sodium concentration remained steady at around 10 mg/L, chloride at around 11 mg/L, and bromide at 0.06 mg/L. Hardness was also fairly steady around 115 mg/L.

**Treatment Performance: Point Reyes Treatment Plant**

Treatment was optimal throughout most of the quarter and finished water quality was good. Iron and manganese were not detected in treated water.

Water was primarily sourced from Gallagher Well which was supplemented with water from the Coast Guard wells during times of higher demand. Water from the two sources is blended prior to treatment.

**Distribution System: Point Reyes**

Of 23 routine samples collected for compliance with the Total Coliform Rule, there were no coliform positive samples this quarter. Chlorine residual concentrations throughout our distribution system were good.

Disinfection byproducts were moderate and typical for this time of year.

**NOVATO RECYCLED WATER**

**Deer Island Recycled Water Facility**

The Deer Island plant did not produce water during the quarter.

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## MEMORANDUM

To: Board of Directors

June 1, 2018

From: Julie Blue, Auditor-Controller JB

Subj: Initial Review – FY19 West Marin Water and Oceana Marin Sewer Budgets

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**RECOMMENDED ACTION:** Initial Review & Provide Direction to Staff**FINANCIAL IMPACT:** None at this time. Upon adoption, the FY19 Budgets would see:

West Marin Water System Rate Increase .....	\$37,000
West Marin Water System Expenditure Plan .....	\$1,962,000
Oceana Marin Sewer System Rate Increase .....	\$11,000
Oceana Marin Sewer System Expenditure Plan .....	\$760,000

Following for your initial review are the budgets for the West Marin Water System and the Oceana Marin Sewer System proposed for FY 2018/19 (FY19). Proposed for the West Marin Water System customers is a 4.5% rate increase. Proposed for the Oceana Marin Sewer System customers is a 5% rate increase.

**INCREASE PROPOSAL DETAIL****Water Rates**

A 4.5% increase is recommended in both the commodity rate and the bimonthly service charge, which would increase to \$33.00 bimonthly for the typical customer with a 5/8" meter. The proposed West Marin Water increase would total \$30 annually (\$2.50 per month) for the typical residential customer (see Rate Increase Analysis on page 6 of the budget document).

A letter was mailed to each West Marin Water customer on May 11, 2018 advising of the proposed rate increase and extending an invitation to attend the public hearing and/or exercise the right to protest the proposed increase (see page 10). If enacted, the proposed increase is expected to generate \$37,000 in additional revenue next fiscal year.

Annual 4.5% increases are included in the 5-year financial plan for FY20 and beyond (see page 4) to help pay for \$3.5 million in Capital Improvement Projects scheduled over the next five years as the District moves forward with the initial stages of construction of a Solids Handling Facility pilot project at the Point Reyes Treatment Plant (\$1,250,000), completion of the replacement of PRE Tank #4A (\$625,000), replacement of PRE Tank #1 & #2 (\$450,000) and the relocation of the Olema PS Out of the Flood Plain (\$500,000). The financial plan anticipates borrowing \$500,000 to construct these projects over the coming five years.

## **Sewer Rates**

The Oceana Marin Sewer System held a cash balance of \$529,000 at April 30, 2018. A 5% (\$4/month) increase is proposed for FY19, which will generate an additional \$11,000 per year. The increase will help fund the CIP program for the next five years totaling \$2.8 million dollars which includes the Pond Dredging and Solids Disposal (\$400,000), the Treatment Pond Rehab (\$1,200,000), the ACP Sewer Reline Project (\$300,000), and the Parallel Force Main Project (\$500,000). Annual 5% increases are included in the 5-year financial plan for FY20 and beyond to partially fund the CIP program. Grant and loan funds will fund the remaining project costs.

An increase in the Sewer Service Charge, which is collected on the Property Tax roll, must be adopted by ordinance, which requires readings at two Board meetings and publication twice. A summary of the ordinance will be published in the Point Reyes Light on June 7 and June 21, and customers have been invited to attend the June 26 meeting in Point Reyes Station. The ordinance summary to be published is included on page 21. The letter on page 19 was mailed to each Oceana Marin homeowner on May 11, 2018, providing notice of the proposed sewer rate increase and inviting customers to the June 26 public hearing.

## **Connection Fees**

The Oceana Marin Sewer connection fee was increased in FY17 with a 2-phased approach. The fee increased from \$15,200 to \$22,600 effective September 1, 2016, and increased to \$30,000 effective July 1, 2017, all in an effort to help finance the capital improvements.

One new connection is budgeted for both West Marin Water and Oceana Marin Sewer next fiscal year.

## **BUDGETED SYSTEM IMPROVEMENT PROJECTS**

Significant Capital Improvement Projects budgeted for the coming year, from page 1 of the budget package, include:

### **Water**

- \$625,000 to complete the replacement of PRE Tank #4A.
- \$550,000 to commence the TP Solids Handling Project for solids removal from the treatment plant filtrate system.
- \$90,000 to commence the New Gallaher Well #2 project which totals \$300,000 and will be completed in FY 20.
- \$50,000 to replace PB services in Sync with County Paving (25 replacements).
- \$10,000 to Relocate the Production Meter to improve read accuracy.

### **Sewer**

- \$400,000 for the project to dredge the treatment and storage ponds.
- \$125,000 is included for pond repairs related to the 16/17 storm damage.
- \$40,000 is included for continued infiltration repair work to reduce the amount of rainwater from infiltrating into the collection system.

### **Future Projects**

The West Marin Water 5-Year Financial Plan includes a \$1.3 million Treatment Plant Solids Handling Facility to be constructed over a two-year period commencing in FY19. The PRE Tank #1 and #2 Replacement project is scheduled in FY21 totaling \$450,000. Relocating Olema PS out of the Flood Plan is scheduled for FY23 totaling \$500,000.

For Oceana Marin Sewer, \$40,000 is budgeted each year into the future to continue infiltration repair work. \$1,200,000 is included commencing in FY20 to Rehab the OM Treatment Pond.

## **WEST MARIN WATER SYSTEM OPERATING BUDGET**

You will note from page 3 of the budget that the proposed West Marin Water System Budget projects a cash deficit next fiscal year of \$991,000. This deficit assumes 100% of the \$1,325,000 Capital Improvement Project Budget is expended, which does not typically occur. The proposed budget projects one new service to be added to the system each year into the future, in line with the slow growth we have seen recently. A history of West Marin Water system growth



is shown graphically on page 7 of the budget document.

FY19 water sales volume is budgeted at 64 million gallons which is an increase of approximately 3% compared to the prior year budget of 62 million gallons. Average annual consumption over the past decade is 72MG. The current water use reflects a conservative estimate and is based on the average of the past five years of use. The forecast assumes water sales volume will remain at 64MG in FY20 and remain static into the future as conservation programs (including water rate increases) continue to induce more efficient use of water. Historical consumption data is shown on page 8.

Operating expenditures, before depreciation, are budgeted to increase 3% from the FY18 adopted budget, an increase of \$16,000. A graphical history of operating expenditures is included on page 9. The 2018 update of the Coastal Area Annual Water Cost Comparison (page 13) shows that, even with the proposed 4.5% rate increase, the water cost for NMWD's West Marin customers remains below that paid by the customers of the other seven coastal agencies surveyed.

#### **OCEANA MARIN SEWER OPERATING BUDGET**

The proposed Oceana Marin Sewer budget shown on page 14 includes a \$4/month (5% - to \$90/month) increase in the sewer service charge. One new connection is budgeted for next fiscal year, which is Oceana Marin's average over the past five years, as shown in the chart on page 17. Operating expenditures are budgeted to decrease 2% from the FY18 adopted budget. A graphical history of Oceana Marin operating expenditures is shown on page 18. The 2018 update of the Coastal Area Annual Sewer Cost Comparison (page 22) shows that, when the County 1% allocation of AB8 tax revenue is included as a ratepayer cost, and assuming approval of the recommended 5% sewer service charge increase, Oceana Marin sewer service cost will continue to rank first among the six coastal sewer agencies surveyed.

The West Marin Water and Oceana Marin Sewer budgets will be reviewed again at the June 19 meeting. A public hearing to consider the proposed water rate increases and to adopt the water and sewer budgets is then scheduled for June 26 in Point Reyes Station.

Proposed  
**BUDGET**

*Initial Review*

**West Marin Water  
&  
Oceana Marin Sewer**  
FISCAL YEAR  
**2018-19**

**NORTH MARIN WATER DISTRICT**

999 RUSH CREEK PLACE, NOVATO, CA

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&  
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**CAPITAL IMPROVEMENT PROJECTS**

5/24/18

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		FY18 Budget	FY18 Est Actual	FY19	FY20	FY21	FY22	FY23
6.	WEST MARIN WATER SYSTEM							
2.6263.20	a. Replace PRE Tank #4A (25K gal w/82K gal)	\$550,000	\$150,000	\$625,000				
2.7160.00	b. Green Sand Filter Media Replace-FY18	\$75,000	\$25,000					
2.6609.20	c. New Gallagher Well #2		\$10,000	\$90,000	\$200,000			
2.8829.00	d. PB Replace in Sync w/ County Paving	\$50,000	\$0	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
2.6601.32	e. TP Solids Handling (Note 4)		\$50,000	\$550,000	\$700,000			
	f. Abandon Downey Well					\$25,000	\$125,000	
	g. Relocation of Production Meter			\$10,000				
	h. PRE Tank #1 & #2 Replacement					\$450,000		
	i. Relocate Olema PS Out of Flood Plain							\$500,000
	j. Other West Marin Water System Expenditures		\$15,000					
		\$675,000	\$250,000	\$1,325,000	\$950,000	\$525,000	\$175,000	\$550,000
7.	OCEANA MARIN SEWER SYSTEM							
8.8672.28	a. Infiltration Repair	\$40,000		\$40,000	\$40,000	\$40,000	\$40,000	\$40,000
8.7163.00	b. Design/Install 8th Disposal Trench (300')	\$80,000						
8.7085.02	c. Tahiti Way Lift Pumps Rebuild (2) (every 5 yrs)	\$20,000					\$20,000	\$20,000
8.7164.00	d. Tahiti Way Power Relocation	\$20,000						
8.7166.00	e. ACP Sewer Reline (6" @ 3,000')						\$50,000	\$250,000
8.7171.00	f. Pond Dredging & Solids Disposal	\$50,000		\$400,000				
8.7173.00	g. OM Treatment Pond Rehab-(Note 9)		\$6,000		\$150,000	\$1,050,000		
86607-22	h. OM Treatment Pond-Storm Damage (Note 10)		\$35,000	\$125,000				
	i. Parallel Force Main (1st of 3 Segments) (Note 11)						\$100,000	\$400,000
		\$210,000	\$41,000	\$565,000	\$190,000	\$1,090,000	\$210,000	\$710,000

**CAPITAL IMPROVEMENT PROJECTS**

5/24/18

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	FY18 Budget	FY18 Est Actual	FY19	FY20	FY21	FY22	FY23
<b>LESS FUNDED BY LOANS/GRANTS/OTHER</b>							
a. WM Treatment Plant Solids Handling (Note 4)				(\$500,000)			
b. WM TP Modific Design/Construct (Note 6)							
c. OM Treatment Pond Rehab (Note 9)		(\$26,000)		(\$113,000)	(\$1,038,000)		
d. OM Treatment Pond-Storm Damage (Note 10)			(\$69,000)				
e. OM Parallel Force Main (Note 11)							(\$400,000)
<b>TOTAL LOAN/GRANT FUNDS</b>	<b>\$0</b>	<b>(\$26,000)</b>	<b>(\$69,000)</b>	<b>(\$613,000)</b>	<b>(\$1,038,000)</b>	<b>\$0</b>	<b>(\$400,000)</b>
<b>SUMMARY - NET PROJECT OUTLAY</b>							
West Marin Water	\$675,000	\$250,000	\$1,325,000	\$450,000	\$525,000	\$175,000	\$550,000
Oceana Marin Sewer	\$210,000	\$15,000	\$496,000	\$77,000	\$52,000	\$210,000	\$310,000
<b>NET PROJECT OUTLAY</b>	<b>\$885,000</b>	<b>\$265,000</b>	<b>\$1,821,000</b>	<b>\$527,000</b>	<b>\$577,000</b>	<b>\$385,000</b>	<b>\$860,000</b>
<b>STUDIES &amp; SPECIAL PROJECTS</b>							
2.4061.00 a. Digitize West Marin Water Facility Maps	\$10,000	\$0					
8.4062.00 b. Oceana Marin Vulnerability Study	\$25,000	\$0					
	<b>\$35,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>WEST MARIN WATER DEBT SERVICE</b>							
a. EDA Loan	\$2,000	\$2,000	\$0	\$0	\$0	\$0	\$0
b. PRE-1 Revenue Bond	\$14,000	\$14,000	\$14,000	\$14,000	\$0	\$0	\$0
c. PR-6 Revenue Bond	\$13,000	\$13,000	\$12,000	\$12,000	\$13,000	\$12,000	\$0
d. TP Solids Handling Bank Loan	\$71,000	\$71,000	\$71,000	\$71,000	\$71,000	\$71,000	\$71,000
e. TP Solids Handling Add'l Bank Loan (Note 4)			\$0	\$0	\$35,000	\$35,000	\$35,000
f. TP Modifications Loan (Note 6)							
	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$97,000</b>	<b>\$97,000</b>	<b>\$119,000</b>	<b>\$118,000</b>	<b>\$106,000</b>
<b>OCEANA MARIN SEWER DEBT SERVICE</b>							
a. CIP Financing (Note 11)				\$0	\$18,000	\$17,000	\$46,000
<b>NET PROJECT OUTLAY &amp; DEBT SERVICE</b>	<b>\$985,000</b>	<b>\$365,000</b>	<b>\$1,918,000</b>	<b>\$624,000</b>	<b>\$696,000</b>	<b>\$503,000</b>	<b>\$966,000</b>

Note 4 - \$1.25M WM Water Solids Handling Facility partially funded by bank loan (\$600,000 remaining). Additional \$500K to be borrowed in FY20 to complete project.

Note 6 - \$2.8M WM TP Project funded by debt and /or grant funds.

Note 9 - If CalOES grant application is successful NMWD cost share = 25% of total \$1.2M project cost. \$250K borrowed in FY21 at 3.5% for 20 years.

Note 10 - If CalOES grant application is successful \$69,000 of the \$125,000 project will be grant funded.

Note 11 - \$250K borrowed in FY21 at 3.5% for 20 years. \$400K borrowed in FY23 at 3.5% for 20 years to finance CIP. Assumes 5% annual sewer service rate increases.

**WEST MARIN WATER**  
**BUDGET SUMMARY**  
**Fiscal Year 2018/19**

	<b>Proposed Budget 2018/19</b>	<b>Estimated Actual 2017/18</b>	<b>Adopted Budget 2017/18</b>
<b>OPERATING INCOME</b>			
1 Water Sales	<b>\$868,000</b>	\$855,000	\$810,000
2 Misc Service Charges	<b>7,000</b>	7,000	7,000
3 <b>Total Operating Income</b>	<b>\$875,000</b>	\$862,000	\$817,000
<b>OPERATING EXPENDITURES</b>			
4 Source of Supply	<b>\$15,000</b>	\$16,000	\$15,000
5 Pumping	<b>42,000</b>	52,000	45,000
6 Operations	<b>52,000</b>	49,000	53,000
7 Water Treatment	<b>159,000</b>	164,000	147,000
8 Transmission & Distribution	<b>139,000</b>	129,000	131,000
9 Consumer Accounting	<b>27,000</b>	24,000	27,000
10 Water Conservation	<b>10,000</b>	6,000	10,000
11 General Administration	<b>95,000</b>	82,000	95,000
12 Depreciation Expense	<b>197,000</b>	193,000	195,000
13 <b>Total Operating Expenditures</b>	<b>\$736,000</b>	\$715,000	\$718,000
14 <b>NET OPERATING INCOME (LOSS)</b>	<b>\$139,000</b>	\$147,000	\$99,000
<b>NON-OPERATING REVENUE/(EXPENSE)</b>			
15 PR-2 County Tax Allocation	<b>\$55,000</b>	\$53,000	\$53,000
16 Miscellaneous Revenue	<b>4,000</b>	4,000	4,000
17 Interest Revenue	<b>14,000</b>	20,000	13,000
18 Bond & Loan Interest Expense	<b>(29,000)</b>	(31,000)	(31,000)
19 <b>Total Non-Operating Income/(Expense)</b>	<b>\$44,000</b>	\$46,000	\$39,000
20 <b>NET INCOME/(LOSS)</b>	<b>\$183,000</b>	\$193,000	\$138,000
<b>OTHER SOURCES/(USES) OF FUNDS</b>			
21 Add Depreciation Expense	<b>\$197,000</b>	\$193,000	\$195,000
22 Connection Fees	<b>23,000</b>	46,000	23,000
23 Capital Improvement Projects	<b>(1,325,000)</b>	(250,000)	(675,000)
24 Bond & Loan Principal Payments	<b>(69,000)</b>	(69,000)	(69,000)
25 Working Capital Increase/(Decrease)	-	-	-
26 <b>Total Other Sources/(Uses)</b>	<b>(\$1,174,000)</b>	(\$80,000)	(\$526,000)
27 <b>CASH INCREASE/(DECREASE)</b>	<b>(\$991,000)</b>	\$113,000	(\$388,000)

## WEST MARIN WATER

### 5-Year Financial Forecast

#		Actual 2015/16	Actual 2016/17	Est Actual 2017/18	Budget 2018/19	Projected 2019/20	Projected 2020/21	Projected 2021/22	Projected 2022/23
1	<b>BASIC DATA</b>								
1	Active Meters	780	780	781	782	783	784	785	786
2	Avg Commodity Rate/1,000 Gal	\$9.62	\$9.70	\$10.21	\$10.67	\$11.16	\$11.68	\$12.21	\$12.77
3	Potable Consumption (MG)	56.6	61.6	66.4	64.0	64.0	64.0	64.0	64.0
	<b>OPERATING REVENUE</b>								
4	Commodity Charge	\$544,743	\$597,855	\$678,000	\$683,000	\$714,000	\$747,000	\$782,000	\$817,000
5	Bimonthly Service Charge	168,775	168,775	177,000	185,000	193,000	202,000	211,000	221,000
6	Miscellaneous Service Charges	11,377	6,838	7,000	7,000	7,000	7,000	7,000	7,000
7	<b>Total Operating Revenue</b>	<b>\$724,895</b>	<b>\$773,468</b>	<b>\$862,000</b>	<b>\$875,000</b>	<b>\$914,000</b>	<b>\$956,000</b>	<b>\$1,000,000</b>	<b>\$1,045,000</b>
8	Operating Expenditures	\$462,242	\$527,780	\$522,000	\$539,000	\$555,000	\$572,000	\$589,000	\$607,000
9	Depreciation Expense	189,039	192,151	193,000	197,000	219,000	235,000	244,000	247,000
10	<b>Total Operating Expense</b>	<b>\$651,281</b>	<b>\$719,931</b>	<b>\$715,000</b>	<b>\$736,000</b>	<b>\$774,000</b>	<b>\$807,000</b>	<b>\$833,000</b>	<b>\$854,000</b>
11	<b>NET OPERATING INCOME</b>	<b>\$73,614</b>	<b>\$53,537</b>	<b>\$147,000</b>	<b>\$139,000</b>	<b>\$140,000</b>	<b>\$149,000</b>	<b>\$167,000</b>	<b>\$191,000</b>
	<b>NON-OPERATING REVENUE/(EXPENSE)</b>								
12	Interest Revenue	\$10,025	\$20,564	\$20,000	\$14,000	\$4,000	\$3,000	\$2,000	\$4,000
13	Interest Expense	(23,232)	(33,407)	(31,000)	(29,000)	(27,000)	(40,000)	(37,000)	(34,000)
14	PR-2 County Tax Allocation	49,365	51,841	53,000	55,000	57,000	59,000	61,000	63,000
15	Miscellaneous	596	(13,330)	4,000	4,000	4,000	4,000	4,000	4,000
16	<b>Total Non-Op Revenue/(Expense)</b>	<b>36,754</b>	<b>25,668</b>	<b>46,000</b>	<b>44,000</b>	<b>38,000</b>	<b>26,000</b>	<b>30,000</b>	<b>37,000</b>
17	<b>Net Income</b>	<b>\$110,368</b>	<b>\$79,205</b>	<b>\$193,000</b>	<b>\$183,000</b>	<b>\$178,000</b>	<b>\$175,000</b>	<b>\$197,000</b>	<b>\$228,000</b>
	<b>OTHER SOURCES/(USES)</b>								
18	Add Depreciation Expense	\$189,039	\$192,151	\$193,000	\$197,000	\$219,000	\$235,000	\$244,000	\$247,000
19	Connection Fees	0	30,800	46,000	23,000	23,000	23,000	23,000	23,000
20	Capital Improvement Projects	(\$215,749)	(79,064)	(250,000)	(1,325,000)	(950,000)	(525,000)	(175,000)	(550,000)
21	Loan Proceeds	-	-	-	-	500,000	-	-	-
22	Debt Principal Payments	(63,455)	(67,081)	(69,000)	(69,000)	(70,000)	(79,000)	(81,000)	(72,000)
23	Net Change in Working Capital	(9,894)	10,290	-	-	-	-	-	-
24	<b>Total Other Sources/(Uses)</b>	<b>(\$100,059)</b>	<b>\$87,096</b>	<b>(\$80,000)</b>	<b>(\$1,174,000)</b>	<b>(\$278,000)</b>	<b>(\$346,000)</b>	<b>\$11,000</b>	<b>(\$352,000)</b>
25	<b>Cash Increase/(Decrease)</b>	<b>\$10,309</b>	<b>\$166,301</b>	<b>\$113,000</b>	<b>(\$991,000)</b>	<b>(\$100,000)</b>	<b>(\$171,000)</b>	<b>\$208,000</b>	<b>(\$124,000)</b>
26	Operating Reserve	\$245,289	\$401,012	\$718,000	\$296,000	\$196,000	\$40,000	\$263,000	\$139,000
27	System Expansion Reserve	762,422	773,000	569,000	-	-	-	-	-
28	Liability Contingency Reserve	99,000	99,000	99,000	99,000	99,000	99,000	99,000	99,000
29	Bond Redemption Reserve	30,000	30,000	30,000	30,000	30,000	15,000	-	-
30	<b>ENDING CASH BALANCE</b>	<b>\$1,136,711</b>	<b>\$1,303,012</b>	<b>\$1,416,000</b>	<b>\$425,000</b>	<b>\$325,000</b>	<b>\$154,000</b>	<b>\$362,000</b>	<b>\$238,000</b>

## **WEST MARIN WATER NOTES**

### **# KEY**

West Marin Water includes the communities of Point Reyes Station, Inverness Park, Olema, Bear Valley, Silver Hills and Paradise Ranch Estates (PRE).

- 1 Assumes annual increase of 1 connection per year.
- 2 Commodity rate and Bimonthly Service Charge increased 4.5% 7/1/18. Annual 4.5% increases shown thereafter for financial forecasting purposes only not yet - considered by the Board of Directors. Note that the FY2015/16 Average Commodity Rate included a drought surcharge.
- 3 Consumption projection assumes 64MG in FY19 and 64MG annually thereafter.
- 4 Average Commodity Rate multiplied by Potable Consumption.
- 5 Bimonthly service charge shown to increase 4.5% annually after FY19. Details of the rate increase structure to be determined at annual budget hearings.
- 8 Operating Expense projected to increase 3% per year.
- 12 Projected available funds invested at 1.00%
- 14/22 Interest and principal payments comprised of two 40-year 5% bonds all purchased by the Farmers Home Administration:
  - 1) 1980 PRE-1 \$240,000 revenue bond fully amortized in 2020; 2) 1981 PR-6 \$217,800 revenue bond fully amortized in 2021; plus an Economic Development Administration \$46,000 5% 40-year loan paid off in 2017.FY20 includes debt service on \$500K loan to finance completion of Solids Handling Facility.
- 19 The connection fee was set at \$22,800 per equivalent dwelling unit effective August 1, 2010.
- 20 Capital Improvement Projects. See 5-year Capital Improvement Projects Plan.  
FY20 \$500,000 loan to complete the Solids Handling and PRE Storage projects.
- 26 Operating Reserve should be comprised of a minimum of 4 months of operating expenditures as recommended by the District's financial advisors.
- 27 System Expansion Reserve is composed of connection fee revenue and unexpended Bank of Marin loan funds.
- 28 Liability Contingency Reserve - \$90,000 is West Marin Water's pro-rata share (3.6%) of the District's \$2.5 million liability contingency fund, available to pay liability claims arising within the West Marin water system. \$8,885 was added in Dec 2006 from sale of 2 surplus parcels in Inverness Park.
- 29 Bond Redemption Reserve is comprised of one year of Revenue Bond debt service (\$30K) for PR-6 & PRE-1 bonds as required by bond covenant plus tax receipts held in the Marin County treasury.



# West Marin Water Rate Increase Analysis

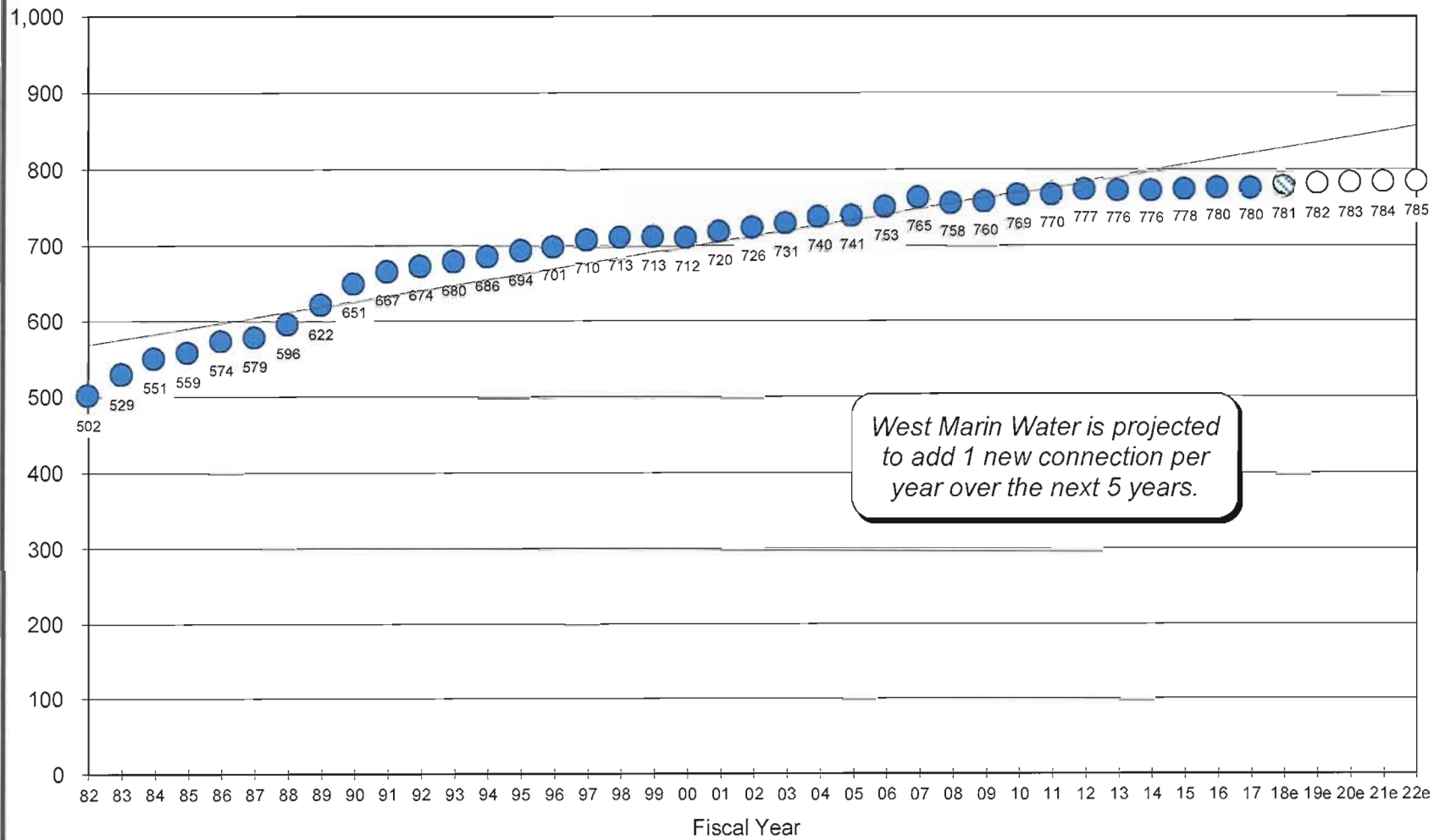
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5/17/2018

## Annual Residential Impact (based on 49,300 gallons water use)

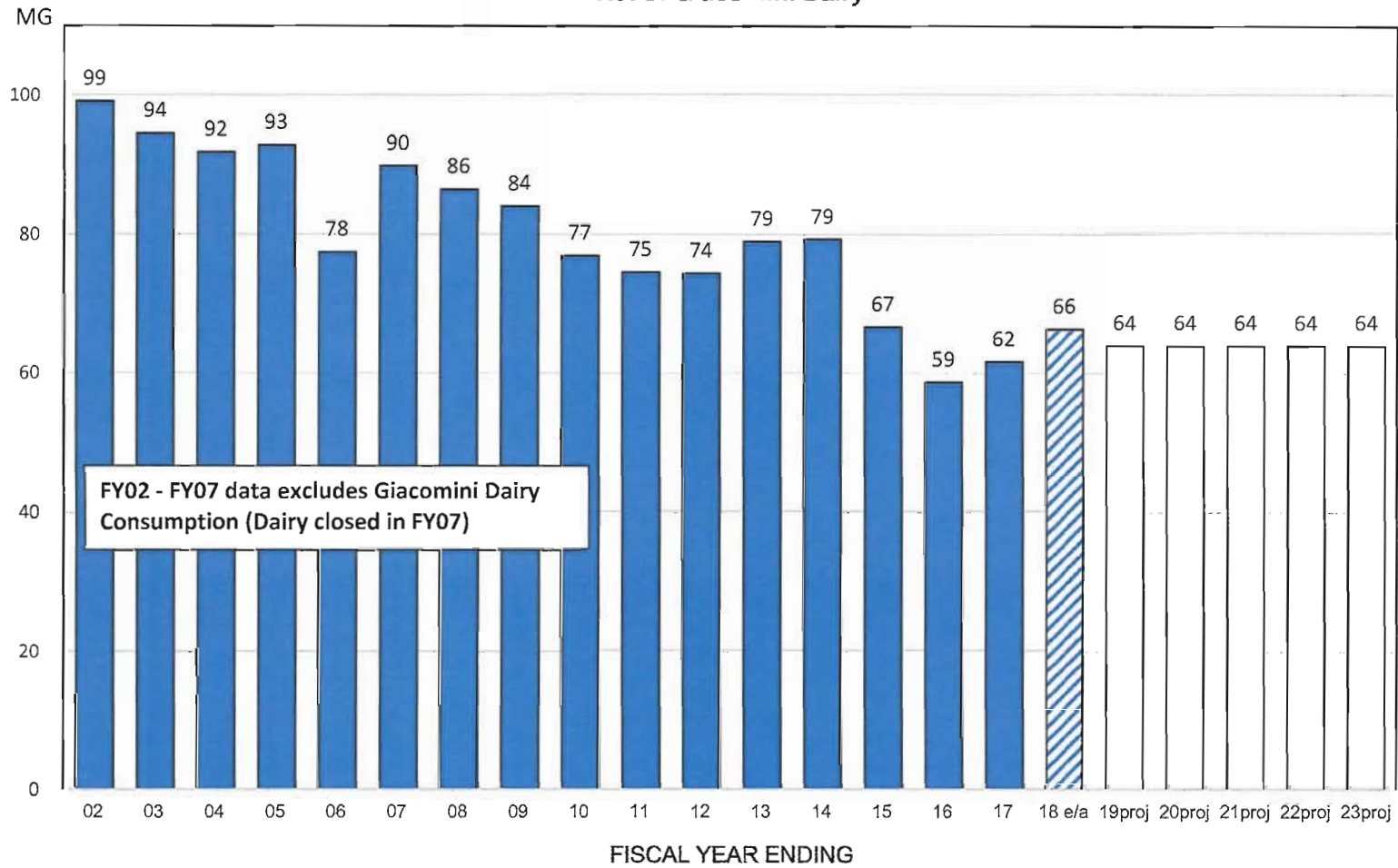
		Commodity Rate	Annual Commodity Charge		Annual Service Charge		Annual Tax Allocation <sup>1</sup>		Total Annual Cost	Annual \$ Increase	% Increase
Point Reyes Station	Current	\$8.55	\$422	+	\$189	+	\$59	=	\$670		
	Proposed	\$8.93	\$440	+	\$198	+	\$59	=	\$698	\$28	4.1%
Inverness Park, Bear Valley, Silver Hills	Current	\$8.77	\$432	+	\$189	+	\$59	=	\$681		
	Proposed	\$9.16	\$452	+	\$198	+	\$59	=	\$709	\$28	4.1%
Olema	Current	\$9.39	\$463	+	\$189	+	\$0	=	\$652		
	Proposed	\$9.81	\$484	+	\$198	+	\$0	=	\$682	\$30	4.6%
PRE Zone A	Current	\$8.77	\$432	+	\$288	+	\$0	=	\$720		
	Proposed	\$9.16	\$452	+	\$300	+	\$0	=	\$752	\$31	4.3%
PRE Zone B	Current	\$14.26	\$703	+	\$288	+	\$0	=	\$991		
	Proposed	\$14.90	\$735	+	\$300	+	\$0	=	\$1,035	\$44	4.4%
Outside Services	Current	\$11.97	\$590	+	\$189	+	\$0	=	\$779		
	Proposed	\$12.50	\$616	+	\$198	+	\$0	=	\$814	\$35	4.5%
Weighted Average	Current	\$9.49							\$716		
	Proposed	\$9.91							\$746	<b>\$30</b>	4.2%

### West Marin Water Active Service Connections

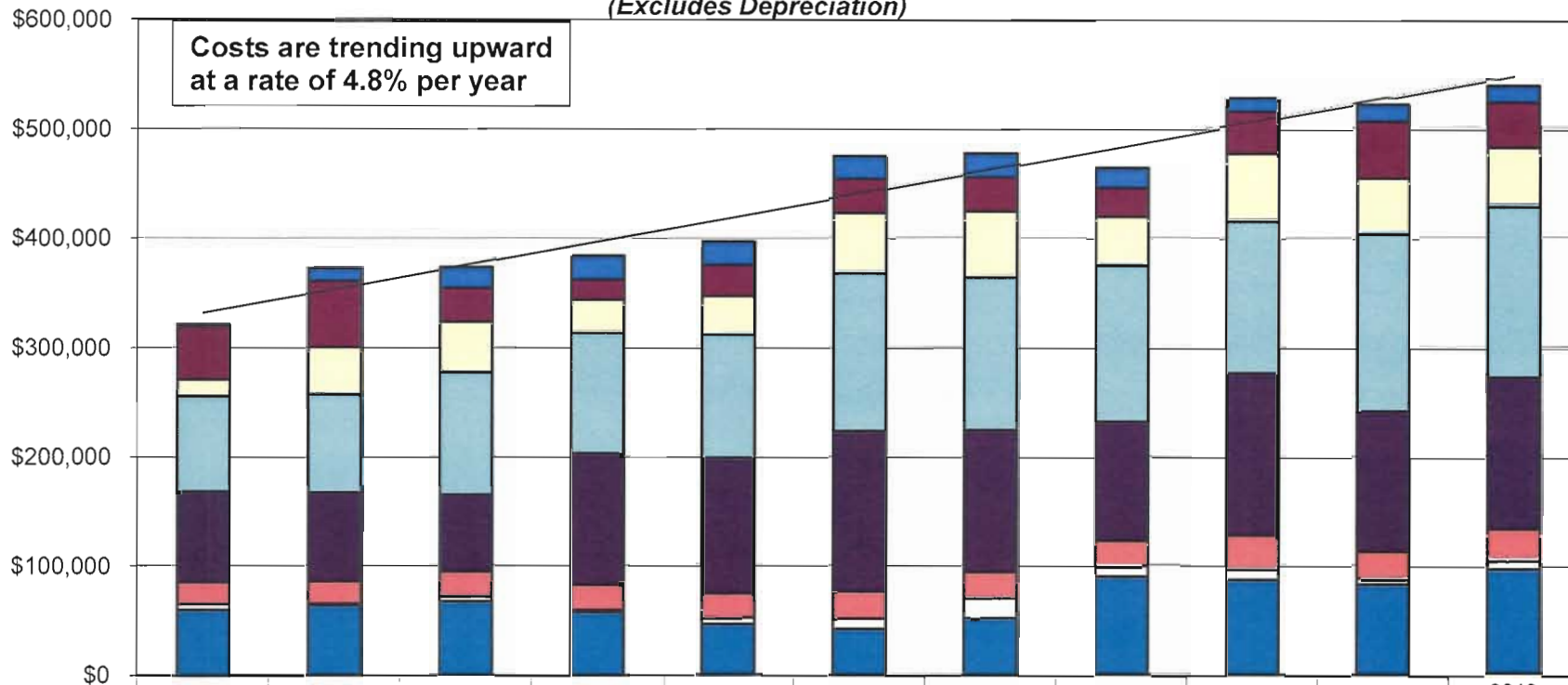


05/24/18

### West Marin Potable Water Billed Consumption Net of Giacomini Dairy



### West Marin Water Operating Expenditures (Excludes Depreciation)





999 Rush Creek Place  
P.O. Box 146  
Novato, CA 94948-0146

PHONE  
415-897-4133

EMAIL  
[info@nmwd.com](mailto:info@nmwd.com)

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

May 11, 2018

Customer Name  
Address  
City, State Zip

NMWD Account #: XXXXXXX

**RE: Notice of Proposed Water Cost Increase – West Marin Service Area**

Dear Customer:

This letter is to advise you of **proposed increases to West Marin water rates** that would take effect on July 1, 2018. It also provides information about a **Public Hearing scheduled on June 26, 2018**, at which time written and oral comments will be considered and a vote on the increase will be taken by the North Marin Water District Board of Directors.

**HOW MUCH IS THE PROPOSED RATE INCREASE?**

A 4.5% increase in the cost of water is proposed, which would result in an average increase of \$2.49 per month (\$30 annually) for the typical (median) single-family residential customer who consumes 49,300 gallons of water annually. Those using less than the median would see an increase less than \$30 annually, and those using more would pay more. The increase for non-residential customers (commercial, institutional and irrigation accounts) would vary based on water use and meter size. The median non-residential account would also see an annual 4.5% cost increase. A detailed description of the proposed water rate increases is included on page 3.

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

**REASON FOR THE PROPOSED INCREASE**

The District's mission is to provide an adequate supply of safe, reliable and high-quality water at reasonable cost consistent with good conservation practices and minimum environmental impact. Maintaining and renovating the infrastructure of the rural West Marin Water System is expensive. Today the system includes 26 miles of pipeline, over 1 million gallons of finished water storage distributed across 13 tanks, 7 pump stations, 168 fire hydrants, a multitude of valves, 3 wells, and a water treatment plant, all designed to serve 781 customers. Sufficient revenue to finance the ongoing system operation and renovation must be generated.

**ADDITIONAL INFORMATION**

Greater detail of the various rates and customer categories is provided on page 3.

**A public hearing before the NMWD Board of Directors to consider the proposed rate increase is scheduled for 6:00 pm, Tuesday, June 26, 2018, at the Dance Palace (503 B Street) in Point Reyes Station.**

You are invited to present oral or written testimony on the proposal at the public hearing. You have the right to protest this proposed rate increase. If you do, you must submit a 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 adopted.

Your written protest must be received prior to the close of the June 26, 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 about the North Marin Water District, including the history of the West Marin Water System, or to view the most recent Coastal Area Water Cost Comparison or the District's audited financial statement, 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

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<b>PROPOSED</b>			
<b>West Marin Water System Rate Changes</b>			
EFFECTIVE JULY 1, 2018			
<b>BIMONTHLY SERVICE CHARGE</b>	<b><u>Existing</u></b>	<b><u>Proposed</u></b>	<b><u>% Increase</u></b>
For STANDARD 5/8 x 3/4-INCH METER.....	\$31.50	\$33.00	4.5%
For 1-inch residential meter for fire service.....	\$35.70	\$37.50	4.5%
For 1-inch meter.....	\$63.00	\$66.00	4.5%
For all meters in Paradise Ranch Estates.....	\$47.50	\$50.00	4.5%
<b>QUANTITY CHARGE</b>			
<u>Residential Rate Per Dwelling Unit</u>			
First 400 gallons per day.....	\$8.55	\$8.93	4.5%
From 401 to 900 gallons per day.....	\$11.84	\$12.37	4.5%
From 901+ gallons per day.....	\$18.99	\$19.84	4.5%
<u>Commercial, Institutional &amp; Irrigation Rate</u>			
November 1 through May 31.....	\$8.64	\$9.03	4.5%
June 1 through October 31.....	\$11.95	\$12.49	4.5%
<b>PLUS A HYDRAULIC ZONE CHARGE/1,000 GAL</b>			
<u>Zone</u>			
1 Point Reyes Station.....	\$0.00	\$0.00	0%
2 Bear Valley, Silver Hills, Inverness Park & Lower Paradise Ranch Estates (Elevation 0' - 365').....	\$0.22	\$0.23	4.5%
3 Olema.....	\$0.84	\$0.88	4.5%
4 Upper Paradise Ranch Estates (Elevation 365'+).....	\$5.71	\$5.97	4.5%
Additional Commodity Rate for Consumers Outside the Improvement District Boundary.....	\$3.42	\$3.57	4.5%

## 2018 COASTAL AREA WATER COST COMPARISON

5/25/2018

Comparison of NMWD's Charges with Other Agencies Based on Rates and Charges in Effect on 6/1/18

"Typical" Single Family Residence (5/8" x 3/4" Meter) Using 49,300 Gallons Annually

Agency	No. of Water Services	Bimonthly Service Charge	Commodity Rate per 1,000 Gallons		Annual Water Cost <sup>1</sup>	Water Bond Tax Rate per \$100/AV	Annual Tax Cost <sup>2</sup>	Total Annual Cost
Bolinas Community PUD	587	\$215.50	\$1.33/\$2.00	(3)	\$1,364	\$0.001	\$521 (4)	\$1,885
California Water Coast Springs	255	\$52.81	\$8.26/\$8.88		\$1,652 (5)	-	-	\$1,652
Estero Mutual Water District	142	\$207.90	\$7.86/\$11.56	(6)	\$1,568	-	-	\$1,568
Stinson Beach Co Water	731	\$77.10	\$2.61/\$6.26	(7)	\$605	\$0.003	\$711 (8)	\$1,315
Bodega Bay PUD	1,061	\$61.82	\$7.73	(9)	\$488	-	\$366 (10)	\$853
Inverness PUD	516	\$110.00	\$3.48/\$5.35	(11)	\$838	-	-	\$838
Muir Beach Community Services	151	\$49.92	\$9.20	(12)	\$506 (13)	-	\$300 (14)	\$806
→ <b>NMWD West Marin Service Area</b>	<b>781</b>	<b>\$33.00</b> (15)	<b>\$9.83</b>	(16)	<b>\$683</b>	-	<b>\$63</b> (17)	<b>\$745</b>

Notes:

- (1) Median annual consumption for West Marin Service Area single-family detached home is 49,300 gallons. Use will differ in other areas and microclimates.
- (2) Includes taxes for debt service on outstanding water bonds and loans plus any applicable apportionment of the AB8 1% County levy distributed to compensate for the Prop 13 elimination of the operation and maintenance tax.
- (3) 1st 15 Ccf quarterly @ \$1.00/Ccf, 16 to 21 Ccf @ \$1.50, 22 - 28 @ \$3.00, 29 - 40 @ \$6.00, 41 - 60 @ \$10, 61 - 75 @ \$15 and 76+ Ccf @ \$18/Ccf (billed quarterly).
- (4) Based on home with net AV of \$545,375 (average 2017/18 AV on 544 single family homes in Bolinas less \$7,000 homeowner exemption) and tax rate of 0.001¢/\$100 AV. 100% of this tax is allocated to water. Also shares in 1% County levy. This "allocation" is projected by the County of Marin at \$302,414 for Bolinas in 2017/18 of which 100% is credited to the water fund amounting to \$477 per service.
- (5) In 2016 the PUC agreed to consolidate Cal Water's Redwood Valley rates with its "Bayshore District" (South Bay) rates. Roughly 2,000 connections in the Redwood Valley District, of which Coast Springs is a part, are now combined with Bayshore's 54,000 connections, resulting in a significant rate reduction for Coast Springs customers. Cost information for Cal Water is from the 2017 survey.
- (6) First 25 cubic meters bimonthly @ \$2.075/cm; next 25 cm @ \$3.051/cm. Drought surcharge of \$20.00/cm for use in excess of 50 cm.
- (7) First 6 Ccf monthly @ \$1.95/Ccf; 6 to 10 Ccf @ \$4.68/Ccf; 10 to 16 Ccf @ \$7.88/Ccf; 16 to 20 Ccf @ \$10.80/Ccf; 20 to 30 Ccf @ \$16.97/Ccf; 30 to 40 Ccf @ \$21.20/Ccf; 40 and above Ccf @ \$27.54/Ccf.
- (8) Based on weighted average tax rate of \$0.0034/\$100 AV and home with net AV of \$1,377,441 (average 2017/18 AV on 662 single family homes in Stinson Beach less \$7,000 homeowner exemption). Stinson Beach also shares in 1% County levy. This "allocation" is projected at \$693,234 in 2017/18 of which 70% is credited to the water fund amounting to \$664 per service.
- (9) \$61.82 bi-monthly water service charge for 0-800 cubic feet, then \$6.51/100 cubic feet for 801-2,500 cubic feet, then \$7.43/100 cubic feet over 2,500 cubic feet.
- (10) Based on share of 1% County levy. This "allocation" by the County of Sonoma was estimated at \$388,136 for 16/17, of which 100% was allocated to water amounting to \$367 per service. The 17/18 estimate will not be available until June.
- (11) First 12 Ccf bimonthly @ \$2.60/Ccf; 13 to 36 Ccf @ \$4.00/Ccf, 37 to 48 @ \$5.60/Ccf, 49 to 60 @ \$7.70/Ccf, and 61+ @ \$23.20/Ccf.
- (12) \$49.92/bimonthly flat rate includes 4,500 gallons, plus \$0.92/100 gallons for 4,500 to 10,000, plus \$1.29/100 gallons for 10,000 to 30,000, plus \$1.62/100 gallons for 30,000+ gallons.
- (13) 25% of revenue is allocated to capital improvements.
- (14) The annual \$300 charge is collected via water billings and is allocated to capital improvements.
- (15) Includes a proposed bi-monthly increase of \$1.50.
- (16) Rate shown is weighted average of Point Reyes Station, Olema, Bear Valley/Inverness Park & Paradise Ranch Estates and includes a Proposed 4.5% commodity rate increase. Tier rate charges do not apply to the typical residential customer as median use does not exceed the 400 gpd tier rate threshold.
- (17) West Marin Service Area receives allocation of the 1% County levy projected at \$49,000 in 2017/18, amounting to \$63 per service.

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**OCEANA MARIN SEWER**  
**BUDGET SUMMARY**  
**Fiscal Year 2018/19**

	<b>Proposed Budget 2018/19</b>	<b>Estimated Actual 2017/18</b>	<b>Adopted Budget 2017/18</b>
<b>OPERATING INCOME</b>			
1 Monthly Sewer Service Charge	\$252,000	\$239,000	\$239,000
2 Misc Service Charges	-	500	-
3 <b>Total Operating Income</b>	<b>\$252,000</b>	<b>\$239,500</b>	<b>\$239,000</b>
<b>OPERATING EXPENDITURES</b>			
4 Sewage Collection	\$78,000	\$54,000	\$54,000
5 Sewage Treatment	47,000	61,000	57,000
6 Sewage Disposal	39,000	18,000	32,000
7 Consumer Accounting	2,000	2,000	2,000
8 General Administration	29,000	27,000	54,000
9 Depreciation Expense	37,000	37,450	51,000
10 <b>Total Operating Expenditures</b>	<b>\$232,000</b>	<b>\$199,450</b>	<b>\$250,000</b>
11 <b>NET OPERATING INCOME (LOSS)</b>	<b>\$20,000</b>	<b>\$40,050</b>	<b>(\$11,000)</b>
<b>NON-OPERATING REVENUE/(EXPENSE)</b>			
12 OM-1/OM-3 Tax Allocation	\$59,000	\$57,000	\$56,000
13 Interest Revenue	6,000	5,000	4,000
14 Miscellaneous Revenue	-	500	-
15 Miscellaneous Expense	-	400	-
16 <b>Total Non-Op Income/(Expense)</b>	<b>\$65,000</b>	<b>\$62,900</b>	<b>\$60,000</b>
<b>NET INCOME/(LOSS)</b>	<b>\$85,000</b>	<b>\$102,950</b>	<b>\$49,000</b>
<b>OTHER SOURCES/(USES) OF FUNDS</b>			
17 Add Depreciation Expense	\$37,000	\$37,450	\$51,000
18 Connection Fees	30,000	30,000	30,000
19 Grant/Loan Proceeds	69,000	26,000	-
20 Capital Improvement Projects	-	-	(210,000)
21 <b>Total Other Sources/(Uses)</b>	<b>\$136,000</b>	<b>\$93,450</b>	<b>(\$129,000)</b>
22 <b>CASH INCREASE/(DECREASE)</b>	<b>\$221,000</b>	<b>\$196,400</b>	<b>(\$80,000)</b>

**OCEANA MARIN SEWER****5-Year Financial Forecast**

#		Actual 2015/16	Actual 2016/17	Est Actual 2017/18	Budget 2018/19	Projected 2019/20	Projected 2020/21	Projected 2021/22	Projected 2022/23
1	<b>BASIC DATA</b>								
1	Number of Connections	230	231	232	233	234	235	236	237
2	Monthly Service Charge	\$71.00	\$78.00	\$86.00	\$90.00	\$95.00	\$100.00	\$105.00	\$110.00
	<b>OPERATING REVENUE</b>								
3	Monthly Service Charge	\$195,461	\$215,989	\$239,000	\$252,000	\$267,000	\$282,000	\$297,000	\$313,000
4	Miscellaneous Service Charges	460	600	500	-	-	-	-	-
5	<b>Total Operating Revenue</b>	<b>\$195,921</b>	<b>\$216,589</b>	<b>\$239,500</b>	<b>\$252,000</b>	<b>\$267,000</b>	<b>\$282,000</b>	<b>\$297,000</b>	<b>\$313,000</b>
	<b>OPERATING EXPENSE</b>								
6	Operating Expenditures	\$159,131	\$181,734	\$162,000	\$195,000	\$200,000	\$206,000	\$212,000	\$218,000
7	Depreciation Expense	48,193	41,616	37,450	37,000	37,000	37,000	37,000	40,000
8	<b>Total Operating Expense</b>	<b>\$207,324</b>	<b>\$223,350</b>	<b>\$199,450</b>	<b>\$232,000</b>	<b>\$237,000</b>	<b>\$243,000</b>	<b>\$249,000</b>	<b>\$258,000</b>
9	<b>NET OPERATING INCOME</b>	<b>(\$11,403)</b>	<b>(\$6,761)</b>	<b>\$40,050</b>	<b>\$20,000</b>	<b>\$30,000</b>	<b>\$39,000</b>	<b>\$48,000</b>	<b>\$55,000</b>
	<b>NON-OPERATING REVENUE/(EXPENSE)</b>								
10	Interest Revenue	\$3,638	\$5,749	\$5,000	\$6,000	\$8,000	\$11,000	\$23,000	\$24,000
11	Interest Expense	-	-	-	-	-	(9,000)	(8,000)	(22,000)
12	OM-1/OM-3 Tax Allocation	52,609	55,247	57,000	59,000	61,000	63,000	65,000	67,000
13	Miscellaneous Revenue	9,054	500	500	-	-	-	-	-
14	Miscellaneous Expense	(636)	(789)	400	-	-	-	-	-
15	<b>Total Non-Op Revenue/(Expense)</b>	<b>\$64,665</b>	<b>\$60,707</b>	<b>\$62,900</b>	<b>\$65,000</b>	<b>\$69,000</b>	<b>\$65,000</b>	<b>\$80,000</b>	<b>\$69,000</b>
	<b>Net Income</b>	<b>\$53,262</b>	<b>\$53,946</b>	<b>\$102,950</b>	<b>\$85,000</b>	<b>\$99,000</b>	<b>\$104,000</b>	<b>\$128,000</b>	<b>\$124,000</b>
	<b>OTHER SOURCES/(USES)</b>								
16	Add Depreciation Expense	\$48,193	\$41,616	\$37,450	\$37,000	\$37,000	\$37,000	\$37,000	\$40,000
17	Connection Fees	23,690	30,400	30,000	30,000	30,000	30,000	30,000	30,000
18	Capital Improvement Projects	(7,547)	(154,815)	-	-	-	-	(100,000)	(400,000)
19	Grant/Loan Proceeds	-	-	26,000	69,000	113,000	1,038,000	-	-
20	Debt Principal Payments	-	-	-	-	-	(9,000)	(9,000)	(24,000)
21	Net Change in Working Capital	1,864	(10,630)	-	-	-	-	-	-
22	<b>Total Other Sources/(Uses)</b>	<b>\$66,200</b>	<b>(\$93,429)</b>	<b>\$93,450</b>	<b>\$136,000</b>	<b>\$180,000</b>	<b>\$1,096,000</b>	<b>(\$42,000)</b>	<b>(\$354,000)</b>
23	<b>Cash Increase/(Decrease)</b>	<b>\$119,462</b>	<b>(\$39,483)</b>	<b>\$196,400</b>	<b>\$221,000</b>	<b>\$279,000</b>	<b>\$1,200,000</b>	<b>\$86,000</b>	<b>(\$230,000)</b>
24	<b>ENDING CASH BALANCE</b>	<b>\$463,664</b>	<b>\$424,181</b>	<b>\$621,000</b>	<b>\$842,000</b>	<b>\$1,121,000</b>	<b>\$2,321,000</b>	<b>\$2,407,000</b>	<b>\$2,177,000</b>

**OCEANA MARIN SEWER**

**NOTES**

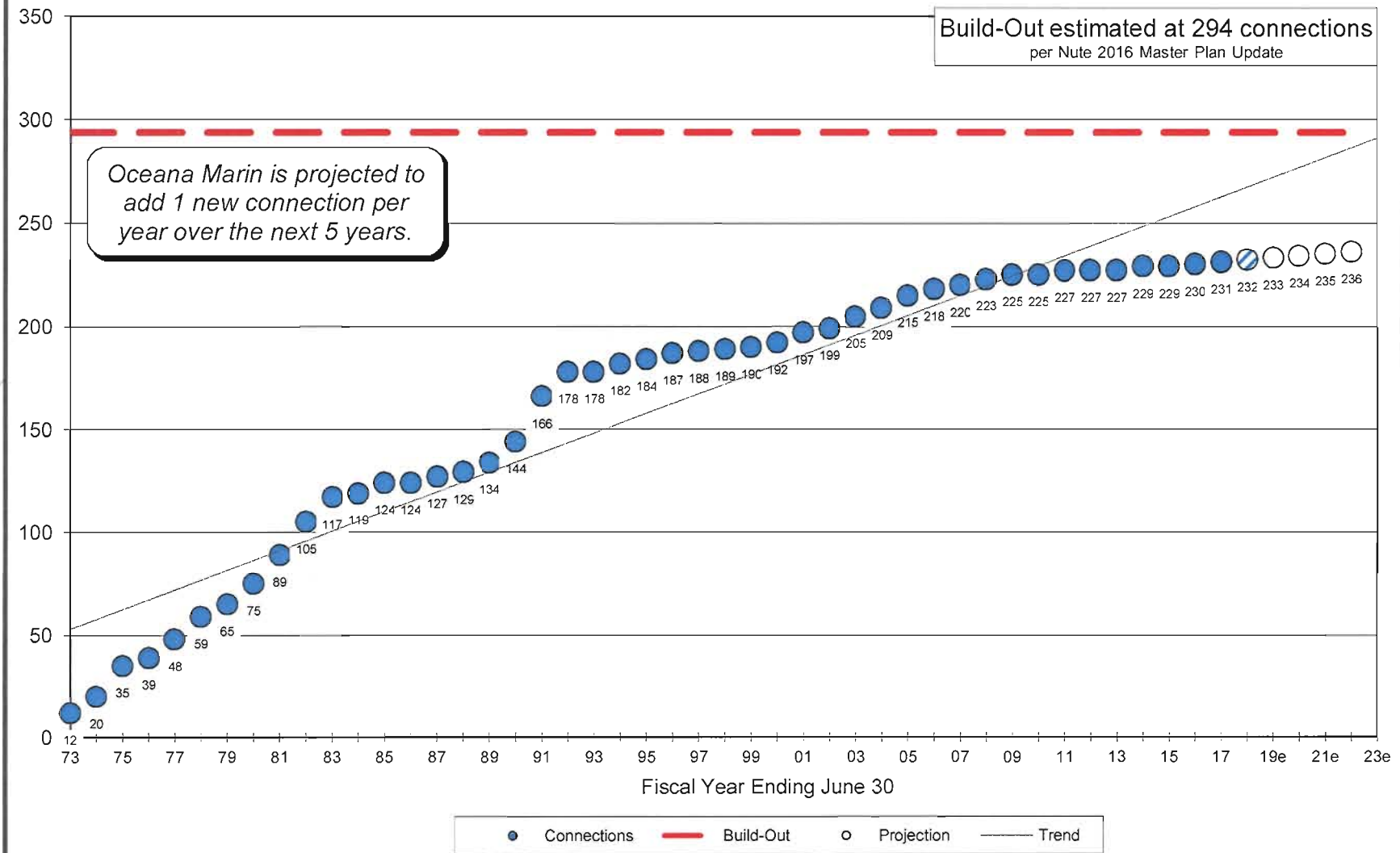
# KEY

- 1 Assumes 1 connection per year, which is the average over the last 5 years. Capacity is estimated at 294 dwelling units.
- 2 Proposed 5% annual increases to build cash to fund the \$400,000 Pond Dredging and Solids Disposal project commencing in FY19 and phase 1 of the \$500,000 Parallel Force Main project commencing in FY22.
- 6 Operating expenditures projected to increase 3% annually after FY18. Excludes depreciation expense.
- 10 Projected available funds invested at 1.00%
- 12 County tax allocation enacted subsequent to Prop 13 to compensate for O&M tax revenue previously received. OM-1/IOM-3 County Tax allocation is projected to increase 3% per year.
- 17 Connection fee increased to \$30,000 on 7/1/17. Assumes connections occur in OM-3 Units 1 or 5 which are subject to the connection fee.
- 18 Capital Improvement Projects. See 5-year Capital Improvement Projects Plan.
- 19 Grant/Loan - Pond Treatment Rehab capital projects to be funded at 75% by grants. Includes loans for capital projects of \$250K in FY21 and \$400K in FY23. Loans are budgeted with an interest rate of 3.5% for 20 years.
- 24 Cash available for operation, maintenance and improvements.

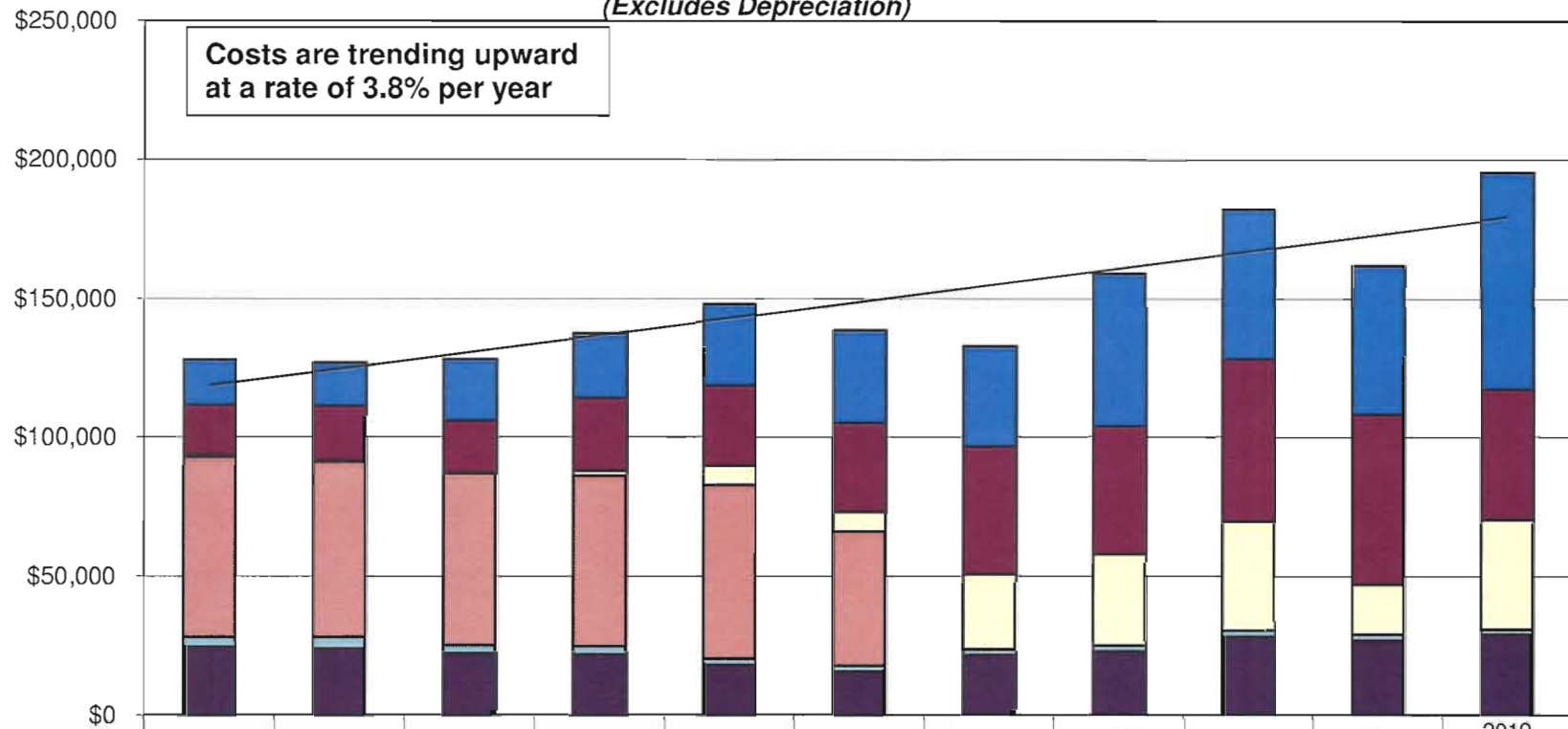
5/18/2018

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## Oceana Marin Growth Active Sewer Connections



## Oceana Marin Operating Expenditures (Excludes Depreciation)



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 e/a	2019 Budget
Collection	\$16,309	\$15,748	\$22,503	\$23,687	\$29,703	\$33,587	\$36,189	\$55,475	\$53,664	\$54,000	\$78,000
Treatment	\$18,142	\$19,474	\$18,470	\$25,928	\$29,021	\$31,901	\$45,727	\$45,868	\$58,688	\$61,000	\$47,000
Disposal	\$797	\$719	\$489	\$1,972	\$6,895	\$7,257	\$27,022	\$32,850	\$38,854	\$18,000	\$39,000
Contract Ops	\$64,467	\$62,755	\$61,592	\$61,215	\$62,281	\$47,803	\$0	\$0	\$0	\$0	\$0
Cons Acctg	\$3,429	\$3,952	\$2,778	\$2,636	\$2,162	\$2,235	\$2,091	\$2,131	\$2,244	\$2,000	\$2,000
G & A	\$24,801	\$24,228	\$22,359	\$22,052	\$18,099	\$15,735	\$21,604	\$22,807	\$28,284	\$27,000	\$29,000
Total	\$127,945	\$126,876	\$128,191	\$137,490	\$148,161	\$138,518	\$132,633	\$159,131	\$181,734	\$162,000	\$195,000



**NORTH MARIN  
WATER DISTRICT**

999 Rush Creek Place  
P.O. Box 146  
Novato, CA 94948-0146

PHONE  
415-897-4133

EMAIL  
[info@nmwd.com](mailto:info@nmwd.com)  
May 11, 2018

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

## **RE: Notice of Proposed Oceana Marin Sewer Service Cost Increase**

Dear Customer:

This letter is to advise you of a **proposed increase to the Oceana Marin sewer service charge** that would take effect on July 1, 2018. It also provides information about a **Public Hearing scheduled on June 26, 2018**, at which time written and oral comments will be considered and a vote on the increase will be taken by the North Marin Water District Board of Directors.

### **How much is the proposed rate increase?**

Current Oceana Marin sewer service charges are \$86/month (\$1,032/year). A **5% increase** is proposed equaling \$90/month (\$1,080/year).

### **How will the proposed increase affect my sewer bill?**

Oceana Marin sewer service charges are collected on the Marin County property tax bill, which is rendered annually for the fiscal year period July 1 through June 30. The proposed sewer service charge increase would add \$4 per month to the cost of sewer service for all customers in Oceana Marin, resulting in a total annual charge for fiscal year 2018/19 of \$1,080 (\$90 per month for July 2018 through June 2019).

### **Why are rates being increased?**

In January 2016 the District concluded a Master Plan Update that identified over \$3 million in projects necessary to improve the reliability and redundancy of the Oceana Marin Wastewater System. Constructing these improvements will be financially challenging for the 232 customers of the Oceana Marin utility. Even if the projects are constructed over a 20-year period, the cost would still average \$150,000 annually. The proposed rate increase, if enacted, would generate \$11,000 of additional revenue annually (\$48/year X 232 customers). The entire Master Plan Update is available for review at: <http://www.nmwd.com/pdfs/agenda/011916.pdf>.

Additional rate increases will be necessary in future years as the District continues to improve the reliability of the existing facilities and to construct redundant facilities in order to protect against potential system failure and sewage spills. Prior years' rate increases were in-line with financing the CIP plan on a pay-go basis while the current 5-year financial plan includes annual rate increases of 5% and forecasts borrowing funds to complete the plan.

DIRECTORS: JACK BAKER · RICK FRAITES · JAMES GROSSI · MICHAEL JOLY · STEPHEN PETTERLE

OFFICERS: DREW McINTYRE, General Manager · TERRIE KEHOE, District Secretary · JULIE BLUE, Auditor-Controller · ROCKY VOGLER, Chief Engineer

### Public Hearing

**A public hearing before the NMWD Board of Directors to consider the proposed sewer service charge increase is scheduled for 6:00 pm, Tuesday, June 26, 2018, at the Dance Palace (503 B Street) in Point Reyes Station.**

You are invited to present oral or written testimony on the proposal at the public hearing. You have the right to protest this proposed rate increase. 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 the proposed increase will not be imposed.

Your written protest must be received prior to the close of the June 26, 2018 public hearing. Written protests must be signed by the property owner and must include a description of the parcel (parcel number or service address). Send or deliver written protests to:

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

For more information about the North Marin Water District, including a history of the Oceana Marin Sewer System, or to view the most recent Coastal Area Sewer Cost Comparison or the District's audited financial statement, 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

NORTH MARIN WATER DISTRICT  
NOTICE OF PUBLIC HEARING  
OCEANA MARIN SEWER SERVICE CHARGES  
FISCAL YEAR 2018-2019  
AND INTENT TO COLLECT ON TAX ROLL

NOTICE IS HEREBY GIVEN that pursuant to Section 5471 et seq. of the California Health and Safety Code and Section 31101 et seq. of the California Water Code, the Board of Directors of North Marin Water District (NMWD), intends to amend NMWD Regulation 109, Oceana Marin Sewer Service - Rates and Charges, through the adoption of Ordinance No. 36 on June 26, 2018, fixing its charges for sewerage services for the fiscal year 2018-2019 in the amount of \$90 per month (\$1,080 per year) per parcel (a proposed increase of \$4 per month - \$48 annually), and further intends to elect to collect such charges on the tax roll as it did for fiscal year 2017-2018 in the same manner as general taxes. NMWD has caused to be filed with its Secretary a written report containing a description of each parcel of real property receiving sanitary sewerage service from said District and the anticipated amount of charges on each such parcel.

NOTICE IS HEREBY GIVEN THAT ON Tuesday, June 26, 2018 at 6:00 p.m. at a regular Board Meeting of NMWD held at The Dance Palace, 503 B Street, Point Reyes Station, California, said Board will hear and consider all protests and objections to the proposed increase in charges for sewage services set for in said report.

Dated: May 31, 2018

Publish: June 7 and June 21, 2018 in the Point Reyes Light



## 2018 COASTAL AREA SEWER COST COMPARISON

5/25/2018

Comparison of NMWD's Charges with Other Agencies based on Charges in effect on 6/1/18

Agency	No. of Sewer Services	Monthly Service Charge	Annual Tax Revenue <sup>(1)</sup>	Annual Total	
> NMWD Oceana Marin	232	\$90.00 <sup>(2)</sup>	\$224 <sup>(3)</sup>	\$1,304	<
Bolinas Community PUD	163	\$108.17	\$0 <sup>(4)</sup>	\$1,298	
Marshall Community Wastewater System	52	\$98.84 <sup>(5)</sup>	\$0	\$1,186	
Tomales Village CSD	107	\$81.90 <sup>(6)</sup>	\$92 <sup>(7)</sup>	\$1,074	
Stinson Beach Co Water - Inspection Only	710	\$39.65 <sup>(8)</sup>	\$293 <sup>(9)</sup>	\$769	
Bodega Bay PUD	1,023	\$61.10	\$0 <sup>(10)</sup>	\$733	

### Notes:

- (1) Includes taxes for debt service on outstanding sewer bonds and loans plus any applicable allocation of the AB8 1% County levy distributed to compensate for the Prop 13 elimination of the operation and maintenance tax.
- (2) Includes proposed increase of \$4/month.
- (3) Based on share of 1% County levy. This "allocation" is projected by the County of Marin at \$52,000 for 2017/18 which equates to \$224 per service.
- (4) Based on home with net AV of \$545,375 (average 2017/18 AV on 544 single family homes in Bolinas less \$7,000 homeowner exemption) and tax rate of 0.001¢/\$100 AV none of which is allocated to Sewer. Also shares in 1% County levy. This "allocation" is projected by the County of Marin at \$302,414 for Bolinas in 2017/18 of which 100% is credited to the water fund.
- (5) Community wastewater step-system commenced October 2008. Each parcel has own septic tank, pumped to a community collection tank, then pumped into a community leach field.
- (6) Includes proposed increase of \$9.45 month to be effective 7/1/18.
- (7) Based on home with net AV of \$374,093 (average 2017/18 AV on 107 single family homes in Tomales) and tax rate of 2.4¢/\$100 AV.
- (8) On-Site Wastewater System - no sewer system. Services provided include septic inspections, ground and surface water monitoring and other inspections required by the State Water Quality Control Board. In addition to the cost paid to Stinson Beach Water Co., each customer must purchase and install their own on-site wastewater system.
- (9) Based on allocation of 1% County levy. This "allocation" was projected by the County of Marin at \$693,234 for 2017/18 of which 30% was allocated to sewer amounting to \$293 per service.
- (10) Based on share of 1% County levy. This "allocation" by the County of Sonoma was estimated at \$388,136 for 16/17 of which 100% was allocated to water (0% to sewer). The 17/18 estimate will not be available until June.

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\*DRAFT Minutes of Water Advisory Committee and Technical Advisory Committee  
35 Stony Point Road, Santa Rosa, California  
May 7, 2018

Attendees: Jennifer Burke, City of Santa Rosa  
Jack Tibbetts, City of Santa Rosa  
Carlene Okiyama, City of Santa Rosa  
Susan Harvey, City of Cotati  
Craig Scott, City of Cotati  
Mark Millan, Town of Windsor  
Paul Piazza, Town of Windsor  
Toni Bertolero, Town of Windsor  
Jake Mackenzie, City of Rohnert Park  
Mary Grace Pawson, City of Rohnert Park  
Colleen Ferguson, City of Sonoma  
Dave King, City of Petaluma  
Jack Baker, North Marin Water District  
Drew McIntyre, North Marin Water District  
Rocky Vogler, North Marin Water District  
Larry Russell, Marin Municipal Water District  
Jack Gibson, Marin Municipal Water District  
Carl Gowan, Marin Municipal Water District  
Mark Heneveld, Valley of the Moon Water District  
Grant Davis, SCWA  
Mike Thompson, SCWA  
Jay Jasperse, SCWA  
Ann DuBay, SCWA  
David Manning, SCWA  
Brad Sherwood, SCWA  
Carrie Pollard, SCWA  
Lynne Rosselli, SCWA  
Don Seymour, SCWA  
Jessica Martini Lamb, SCWA  
Lynda Hopkins, Supervisor District 5

Public Attendees: David Keller, FOER  
Brenda Adelman, RRWPC  
Bob Anderson, United Winegrowers  
Duane Dewitt

1. Check-in  
Mark Millan, WAC Chair, called the meeting to order at 9:08 a.m.
2. Public Comments  
Ann DuBay spoke about 2018 High School Video contest with this year's theme: "From the Street to the Creek, Be Part of the Solution" and also the Water Awareness Poster contest.

Duane Dewitt spoke about the need to keep natural recharge areas open in the Roseland area.

3. Recap from the April 2, 2018 WAC/TAC Meeting and Approval of Minutes

Moved by Susan Harvey, City of Cotati, seconded by Mark Heneveld, Valley of the Moon Water District, to approve the minutes of the April 2, 2018 WAC/TAC meeting; unanimously approved.

4. Water Supply Coordination Council

WAC Chair Mark Millan reported that the group met to establish Agenda.

5. Sonoma Marin Saving Water Partnership

a. Water Production Relative to 2013 Benchmark – Drew McIntyre, North Marin Water District, referred to the handout and reported that the March 2018 Partnership water usage was 23% below the 2013 benchmark and the year to date water usage was 13% below the 2013 benchmark.

b. Eco Friendly Garden Tour Recap – Carrie Pollard, SCWA, reported on the event. Comments followed.

6. Approve Sonoma-Marín Saving Water Partnership First Amended MOU

Drew McIntyre, North Marin Water District, reported that the original MOU expires this June. He gave a status update on development of the First Amended MOU and highlighted changes from the original MOU.

Moved by Jake Mackenzie, City of Rohnert Park, seconded by Susan Harvey, City of Cotati, to approve the Sonoma-Marín Saving Water Partnership First Amended MOU; unanimously approved.

7. Water Supply Conditions

Don Seymour, SCWA, reported that normal water supply conditions on the Russian River are currently in effect. He stated that a final assessment on the current water supply condition for the Russian River is June 1. Lake Mendocino is above the water supply target storage at about 86,000 ac-ft, Lake Sonoma is at 94% of the water supply pool with 230,000 ac-ft of storage.

8. Potter Valley Project Relicensing Update

Don Seymour, SCWA, stated that various PG&E studies are underway per the FERC approved Study Plan. He also reported that the Congressman Huffman stakeholder meetings are continuing and that two ad hoc working groups have been formed. Comments followed.

9. SCWA Washington D.C. Visit

Supervisor Hopkins reported on the success of the SCWA Washington D.C. visit with confirmation that the Army Corps of Engineers has allocated \$3.6M in funding this year for the Dry Creek project

10. Biological Opinion Status Update

Jessica Martini Lamb, SCWA, reviewed the hand-out and gave update on the Fish Flow Project, Dry Creek Habitat Enhancement Project, Fish Monitoring, Russian River Estuary Management Project, Interim Flow Changes and Public Outreach efforts. Discussion followed. With respect to the Fish Flow Project Draft EIR status, Jessica reported that Agency staff are still drafting responses to the comments and this process has been slowed due to the need to meet with some of the resource agencies to review

comments. She stated that these meetings should be finished this summer. WAC Chair Mark Millan requested that Jessica return late summer for another report update.

11. Post October Sonoma Fire Event Update

Mike Thompson, SCWA, reported. SCWA will go to their board on June 5, 2018 to get authorization to proceed with financing of the sewer system in Larkfield and for a consultant for the design.

Jennifer Burke, City of Santa Rosa, updated the committee on the Water Quality investigation and next steps. Discussion followed.

12. Integrated Regional Water Management Plan(s) Update

Grant Davis, SCWA, reported on North Coast and Bay Area Integrated Regional Water Management Plans. Discussion followed including the future direction of these grant funded programs. Grant also discusses the upcoming California Economic Summit in Santa Rosa, November 15-16.

13. Items for next Agenda (August 6, 2018 WAC/TAC Meeting)

No special requests

14. Check Out

- a. Next WAC/TAC meeting is August 6, 2018.
- b. Meeting was adjourned at 10:22 a.m.

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## ***DISBURSEMENTS - DATED MAY 17, 2018***

Date Prepared 5/15/18

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:

<b>Seq</b>	<b>Payable To</b>	<b>For</b>	<b>Amount</b>
1	Able Tire & Brake	Tire (\$318) & Tire Repair ('16 Nissan Frontier)	174.14
2	All Star Rents	Propane (14 gals) (STP)	48.90
3	Alphagraphics Marin	Rate Increase Letter (4 Page-Color) (18,465) (\$4,295), Carrier Envelopes (19,000) (\$1,019) & Mailing Services (18,465) (\$1,967)	7,282.44
4	Atco Pest Control	Rodent Removal @ Stafford Lake Dam	325.00
5	AT&T	Telephone (\$41), Fax (\$73), Data (\$173) & Leased Lines (\$190)	495.54
6	Automation Direct	PLC Parts (2)	79.00
7	Backflow Distributors	Repair Kits & Seals for Small Backflow Devices	97.95
8	Bay Area Barricade Service	Signs "Attention All Visitors Please Sign In", "Parking Only", "Not a Through Street", "Private Parking Only" & "Parking Only for Visitors of NMWD", Traffic Flags (6), Cones (48) (\$668) & Barricades (24) (\$684)	1,693.88
9	BlackPoint Tree Service	Remove Large Branches from 3 Oak Trees Along Atherton Tank Road	975.00
10	Brilliant Corners	Refund of Deposit/New Development/WC Restriction-Novato	1,000.00
11	Buck's Saw Service	Low Oil Shut Down Switch (\$77), Replacement Concrete Saw (\$1,085), String Mower (\$374), Weedline & 2 Stroke Gas (16 qts) (\$121)	1,676.08
12	CA Debt & Investment Advisory	JP Morgan AMI Loan Debt Issuance Costs	1,150.00
13	Calpico	Grounding Clamps (15)	109.15
14	Carfango, Allen	Claim Settlement-Reimbursement for Repair to Customer's Car Due to Ramp Put in Driveway for Capital Improvements Project - Ridge Road	1,485.24
15	Cherry, Robert & Kris	Refund Overpayment on Closed Account	48.31

Seq	Payable To	For	Amount
16	Cilia, Joseph	Retiree Exp Reimb (May Health Ins)	343.66
17	Cole-Parmer Instrument	'O' Ring Head Seals (4)	46.54
18	Corrpro	Magnesium Rod Anodes for STP Filters (4)	412.66
19	DeGabriele, Chris	Retiree Exp Reimb (May Health Ins)	1,006.54
20	Diggs, James	Retiree Exp Reimb (May Health Ins)	342.23
21	Environmental Resource Assoc	Reference Sample (Lab)	122.33
22	Evoqua Water Technologies	Service on Deionization System (Lab)	221.07
23	Ferguson Waterworks	Box Lids (20) (\$848), Flanges (2), Nipples (25) (\$342) Elbows (12), Bushings (4), Couplings (2), Gaskets (10) & Nipples (17),	1,435.85
24	Ferguson Waterworks	Prog Pymt#1: AMI Project: Meters (1,422) (\$340,689), Registers (6,289) (\$938,240), Fiberlyte Lids (2,146) (\$96,470) & Installations (1,431) (\$25,768) (Less Credit of \$84 for Price Correction) (Balance Remaining on Contract \$2,729,977)	1,401,084.77
25		Vision Reimbursement	157.87
26	Fisher Scientific	Copper Atomic Absorption (Lab)	107.80
27	Frontier Communications	Leased Lines	2,078.92
28	Gaya, DB	Prog Pymt#7: Perform Tank Coating Inspection San Mateo Tank Project (Balance Remaining on Contract \$4,467)	6,269.60
29	Golden Gate Petroleum	Gas (\$3.12/gal) & Diesel (\$3.31/gal)	4,450.65
30	Gottlieb, Herbert	Refund Overpayment om Closed Account	91.91
31	Grady, Ken	ATI Membranes & Electrolyte (STP)	78.79
32	Grainger	Adjustable Spray Nozzles (2) (\$203), Insulated Lance, 6" Spray Gun, Steel Tape Measures (10) (\$159), Reducers (6), Flood Alarm Switches for Valve Vaults @ Norman Tank & Plum Tank (\$127), Electrical Gloves, Lug Nuts for Meter Pedestals (4), Tools for E/M Truck (\$227) & Spray Paint (12)	1,082.82
33	Hopkins Technical Products	Back Pressure Valve for STP Chemical Pump	331.88





Seq	Payable To	For	Amount
34	Instrumart	Dissolved Oxygen Meter (O.M.)	941.78
35	Latanyszyn, Roman	Retiree Exp Reimb (May Health Ins)	343.66
36	LeBrun, Kent	Exp Reimb: D3 Application Fees	120.00
37	Maltby Electric	Breaker Box & Ground Lug for San Mateo Tank Recoat (\$186), Ground Bar for Electrical Load Center & Uni-strut Nuts (20)	226.06
38	Marin County Ford	Motor Oil (9 qts), Oil Filter & Air Filter ('12 F250)	67.91
39	Marin County Clerk	Environmental Fees to be Paid to Dept of Fish and Wildlife to File Notice of Determination for PRE Tank 4A Replacement Project	2,330.75
40	Moore, Doug	Retiree Exp Reimb (May Health Ins)	1,006.54
41	MSI Litho	Window Envelopes with NMWD Logo (10,000)	789.88
42	Nelson Staffing	Gather Data & Complete Districts Annual Urban Area Water Cost Comparison Survey	896.55
43	North Marin Auto Parts	Headlight Bulbs (2) ('07 Toyota Pruis), Oil Filters (3), Air Filters (3), Spark Plugs (8) (\$58), Brake Fluid (6 qts), Motor Oil (24 qts) (\$78), Fuel Line for Automotive Fuses (18') (\$58), Oil & Filter for Shop Air Compressor, Light Bulb Switch & Light Bulbs (10)	319.40
44	North Bay Gas	Nitrogen (STP) (\$617) & April Cylinder Rental	715.37
45	Novato Builders Supply	Screws, Concrete Nails (1 lb), Pipe Strap, Socket Drivers (2), Metal Studs (4), Lumber, Stakes (25), Concrete (1 yd) (\$194), Push Broom (\$54) & Hole saw (2)	422.59
46	NSI Solutions	QC Sample (3) (Lab)	204.00
47	Pace Supply	11" & 22" Ells (9) (\$1,547), Couplings (59) (\$1,066), Nipples (10) (\$749) & Tapping Sleeve (5" x 4")	3,910.71
48	Peterson Trucks	Lower Seat Cushion ('12 Int'l Dump Truck)	369.99

Seq	Payable To	For	Amount
49	Pini Hardware	Pail, Plumbing Supplies (Deer Island Reclaim Plant), Hacksaw, Hex Plug, Replacement Keys (2), Filters for D.I. System (\$59), Claw Bar, Tool Box Latch, Wallbase, Floor Glue, Sawhorse Bracket, Stain, Wood Filler, Straps (10), Tools for Building & Grounds Maintenance (\$107), Wire for Tank Repair, Cleaning Wipes, Storage Boxes (3), Uni Struts for Electrical Enclosures, Eyebolts, Concrete Drill Bit, Concrete Epoxy, Tie Plates, Spray Paint (3), Mouse Trap, Hardware, Pressure Treated Post, Trowel (2), Bushings (3), Sprinkler Head & Shovels (12) (\$410)	979.77
50	Point Reyes Light	Display Ad: Salinity Intrusion into Pt. Reyes Well Supply	78.75
51	Point Reyes Prop Mgmt Assn	May HOA Fee (25 Giacomini Rd)	75.05
52	Preferred Alliance	Pre-Employment Drug Screen (Blue, Outcalt & Gibbs)	126.00
53	Ramudo, Pablo	Exp Reimb: Mileage & Parking (ACWA WQ Committee Meeting-Sacramento)	96.84
54	RGM and Associates	Prog Pymt#7: Perform Third Party Compliance Monitoring for San Mateo Tank Recoating Project (Balance Remaining on Contract \$3,565)	1,262.50
55	Rice Lake Weighing Systems	Made Adjustments to Weights Used in Calibrating (Lab)	797.52
56	Rockwell Engineering & Equipment	Replacement Mechanical Seal for OM Lift Station Pump #2	631.98
57	Scott Technology Group	Quarterly Maintenance on Engineering Copier (1/16/18-4/15/18)	718.00
58	Sequoia Safety Supply	Anti-Fog Lens Wipes (300), Safety Gloves (298) (\$161) & Sunscreen Pouches (100) (\$56)	239.61
59	Soiland	Asphalt Recycling (11 tons)	56.20
60	Stafford, Vernon	Retiree Exp Reimb (May Health Ins)	343.66
61	Thomas Scientific	Safety Gloves (20) & Cleaner (Lab)	243.38
62	TPx Communications	April Telephone Charges	467.34

Seq	Payable To	For	Amount
63	T & T Valve & Instrument	Bray Flying Lead Solenoid for STP Filter Valve	275.25
64	United Parcel Service	Delivery Service: Sent Meter Lid Out to Make Mold for AMI Project & Standard Weights for Calibration	30.24
65	USA BlueBook	Replacement Teeth for Meter Wrenches (6)	190.74
66	US Bank	April Safekeeping Fee-Treasury Securities	172.50
67	Verizon Wireless	Communication Gateways (26) (\$583), O.M. SCADA & Novato	643.70
68	Volvo Construction Equipment	Parts to Repair Paving Breaker	134.79
69	VWR International	Alcohol Wipes (400), Sodium Carbonate (\$75), Endo Broth (\$151) & Standard (Lab)	261.92
70	Ward, Lauren	Novato "Toilet Rebate" Program	200.00
71	Waste Management	Misc Debris (10 yds)	190.58
72	Water Education Foundation	Membership Dues (McIntyre)	161.00
73	Whitney, Brian	Novato "Toilet Rebate" Program	200.00
74	White Cap Construction	Rebar Caps (60)	111.58
<b>TOTAL DISBURSEMENTS</b>			<b><u>\$1,457,660.61</u></b>

The foregoing payroll and accounts payable vouchers totaling \$1,457,660.61 are hereby approved and authorized for payment.

 _____ Auditor-Controller	5-16-18 _____ Date
 _____ General Manager	5-16-18 _____ Date

## ***DISBURSEMENTS - DATED MAY 24, 2018***

Date Prepared 5/22/18

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:


<b>Seq</b>	<b>Payable To</b>	<b>For</b>	<b>Amount</b>
P/R*	Employees	Net Payroll PPE 5/15/18 & Final Payout D. Bentley	\$173,179.00
EFT*	Internal Revenue Service	Federal & FICA Taxes PPE 5/15/18 & Final Payout D. Bentley	83,248.42
EFT*	State of California	State Taxes & SDI PPE 5/15/18 & Final Payout D. Bentley	19,217.84
EFT*	CalPERS	Pension Contribution PPE 5/15/18	35,150.31
EFT*	US Bank	April Bank Analysis Charge (Lockbox \$912 & Other \$344, Less Interest of \$134)	\$1,121.61
1	Allied Fluid Products	Temporary Hose for Highline to Connect Water Service During Outages over 12 Hours	1,709.89
2	Alpha Analytical Labs	Lab Testing	30.00
3	Arrow Benefits Group	May Dental Admin Fee	299.45
4	Arrow Benefits Group	April Dental Expense	3,857.66
5	Athens Administrators	April Bill Review Fees	23.73
6	AT&T	Leased Line	66.24
7	Bank of Marin	Bank of Marin Loan Principal & Interest (Pymt 79 of 240)	46,066.67
8	Bay Area Barricade Service	Spray Chalk (60) (\$236) & Marking Paint (24)	329.29
9	Bender, Matthew	Annual 2018 Water Codes (3 Books)	566.38
10		Vision Reimbursement	15.00
11	Borjian, Jim	Novato "Toilet Rebate" Program	100.00
12	Brelje & Race	Prog Pymt#2: Engineering Services for STP Clearwell Concrete Coating Review (Balance Remaining on Contract \$3,256)	382.50


Seq	Payable To	For	Amount
13	Brilliant Corners	Refund Excess Advance for Construction Over Actual Job Cost-856 Cypress Upside to 1" Meter	320.72
14	California Water Service	Water Service (0 CCF) (OM) (3/1/18-5/1/18)	50.68
15	Cherry, Robert & Kris	Refund Overpayment on Closed Account	20.62
16	Clipper Direct	Commuter Benefit Program (4)	332.00
17	Cole-Parmer Instrument	Filters for Solids Testing (100) (Lab)	191.79
18	Comcast	May Internet Connection	151.12
19	Corner Office	Adjustable Ergonomic Desk for District Secretary	2,420.96
20	Farr Construction	Prog Pymt#7: San Mateo Recoat Project (Balance Remaining on Contract \$99,595)	29,735.00
21	GHD	Prog Pymt#3: Crest Tank Pump Station (Balance Remaining on Contract \$2,380)	2,959.00
22	Golden Gate Petroleum	Gas (\$3.21/gal) & Diesel (\$3.32/gal)	2,043.79
23	Grainger	14" Pipe Wrench, Security Bits for Changing Meter Lids (\$77) & Batteries (AAA, AA) (144)	182.18
24	Hardy Diagnostics	Media for Micro (Lab)	386.40
25	Harrington Plastics	O.M. Chlorine Pump Part	204.87
26	Hose & Fittings, Etc	New Hydrant Cylinder & Parts for Gate on Stafford Intake Tower	7,750.63
27	International Dioxide	Chlorine Dioxide Generator Annual Service & Parts (STP)	7,462.08
28		Cafeteria Plan: Uninsured Medical Reimbursement	297.79
29	LGVSD	Recycled Water Deliveries (1/1/18-3/31/18)	23,281.14
30	Lincoln Life	Deferred Compensation PPE 5/15/18	11,937.26
31	Maltby Electric	T/M Cable Splice Kits for Old Ranch Rd Tank	942.34
32	Marin County	Refund Overpayment on Closed Account	238.00
33	McLellan, WK	Misc Paving & Traffic Control	3,393.63

Seq	Payable To	For	Amount
34	Nationwide Retirement Solution	Deferred Compensation PPE 5/15/18	2,150.00
35	Novato, City of	Street Excavation Moratorium Fee (2075 Laguna Vista)	500.00
36	Pace Supply	Double Detector Check Assembly (\$1,951) & 2" Copper Pipe (60')	2,557.24
37	PG&E	Power: Bldgs/Yard (\$2,934), Rectifier/Controls (\$752), Pumping (\$21,308), Treatment (\$127) & Other (\$107), Line Extension Deficiency for 100 Ocean View Blvd-Dillion Beach & New Service Installation Fee for Harbor Drive Pressure Station (\$125)	25,661.01
38	Ramos, Jose J.	Refund Overpayment on Closed Account	100.00
39	Saysette, Cori	Novato "Cash for Grass" Rebate Program	258.50
40	Scott Technology Group	Admin Photocopier Maintenance (4/30/18-4/29/19)	1,699.83
41	Six Robblees'	Oil Seals (2) ('13 Vac Excavator)	43.55
42	Smirnoff, Michael	Novato "Toilet Rebate" Program	100.00
43	Sonoma County Water Agency	Conservation Program Support (1/1/18-3/31/18)	11,572.03
44	Syar Industries	Asphalt (6 tons)	960.20
45	Thomas Scientific	'O' Ring Canister Gasket	49.08
46	Tishma, G.	Novato "Toilet Rebate" Program	200.00
47	USA BlueBook	Sample Test (2) (STP)	418.29
48	U.S. Bank Card	Birthday Lunches (\$102), Clean-up Supplies & Food for Retirement Party (\$407), Safety Incentive Lunch (\$150), Counter & Wire Harness (\$312) & Time Books for Construction (\$265)	1,254.30
49	US Postal Service	Meter Postage	1,000.00
50	VWR International	Endo Glass Ampules (40), Buffer (\$92) & Gross Media for Bacteria (Lab)	230.19

Seq	Payable To	For	Amount
51	Winzer	Fuses & Heat Shrink Tube for Construction Equipment	232.35
		<b>TOTAL DISBURSEMENTS</b>	<b><u>\$508,652.56</u></b>

The foregoing payroll and accounts payable vouchers totaling \$508,652.56 are hereby approved and authorized for payment.

 5/22/18  
 Auditor-Controller Date

 5/22/18  
 General Manager Date

## ***DISBURSEMENTS - DATED MAY 31, 2018***

Date Prepared 5/29/18

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	Allied Mechanical	Perform HVAC Maintenance on Boiler, Water Pump, 2 AC Units, Ducts & Cooling Tower	\$2,490.00
2	All Star Rents	Compressor Rental to Air Up All Novato Hydro Tanks (\$145) & Propane (17.4 gals) (STP)	208.04
3	Alpha Analytical Labs	Lab Testing	339.00
4	Alphagraphics Marin	Metering Letters (2,053), Mailing Services (2,053) (\$1,608) & Postage for Mailing of AMI Notification Letters	2,142.67
5	American Family Life Ins	May Employee Accident, Disability & Cancer Insurance	2,883.19
6	Bold & Polisner	April Legal Services: AMI Project (\$168), Brown Act (\$84), Misc (\$420), Nicasio Water Supply (\$294) & Personnel Issue (\$189)	1,155.00
7	Borges & Mahoney	pH Probe (STP)	325.08
8	Bunler Commercial	Refund Security Deposit on Hydrant Meter Less Final Bill	238.00
9	Caltest Analytical Laboratory	Lab Testing	70.30
10	Childs, Satonia	Refund Overpayment on Open Account	77.74
11	Cooper, B/Hansi Dunn	Refund Overpayment on Closed Account	35.77
12	Corda, Jeff	Exp Reimb: Safety Boots	200.00
13	Core Utilities	Consulting Services: April IT Support (\$5,000), Radio Programming for Tank Sites (\$200), Utility Billing Software (\$300), Website Maintenance (\$50) & AMI Modifications (\$2,100)	7,650.00
14	Dittmann, Debbie & Michael	Refund Overpayment on Closed Account	121.89
15	Farr Construction	Refund Security Deposit on Hydrant Meter Less Final Bill & Refund Overpayment on Closed Account (\$476)	815.39


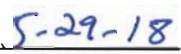



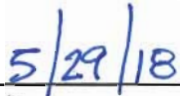
Seq	Payable To	For	Amount
16	Ferguson Waterworks	Nipples (4), Valves (4) (\$2,658), Elbows (39) (\$212), 3" Meter Box & Couplings (20)	3,282.79
17	Fisher Scientific	Hoses (2) (Lab)	25.91
18	Fujiwara, Deborah	Refund Overpayment on Closed Account	35.41
19	Genterra Consultants	Prog Pymt#12: Stafford Dam Maintenance Plan (Balance Remaining on Contract \$3,799)	520.00
20	GHD	Prog Pymt#10: Engineering Services for PRE Tank 4A Project (Balance Remaining on Contract \$59,007)	211.00
21		Cafeteria Plan: Uninsured Medical Reimbursement	70.00
22	Grainger	36" Pick & Plastic Sheeting to Wrap Flex Hose (\$62)	107.44
23	Grant Building Investment	Refund Excess Advance for Construction Over Actual Job Cost (1305 Grant Ave FS)	1,487.47
24	Griswold Industries	New Pressure Regulators & Reliefs for Use During Water Main Repairs	9,118.35
25	High-Purity Standards	IC Standards (Lab)	53.23
26	Idexx Laboratories	Vessels for E. Coli Analysis (Lab)	248.87
27	InfoSend	April Processing Fee for Water Bills (\$1,258), Postage (\$3,551) & Monthly Support Fee (\$722)	5,532.13
28	Intellaprint Systems	Quarterly Maintenance on Engineering Scanner/Copier	447.00
29		Vision Reimbursement	343.00
30	Lucchesi, Sarah	Cafeteria Plan Reimbursement	416.66
31	McLellan, WK	Misc Paving & Traffic Control	10,824.25
32	McIntyre, Drew	Exp Reimb: Website Hosting Renewal Charge	675.92
33	Metrohm USA	Yearly Order of Supplies to Perform Preventative Maintenance (Lab)	975.57
34	MSI Litho	Business Cards (2,750) (11 Employees)	259.32
35	National Fire Protection Assoc	Membership Dues (Vogler) (Budget \$180) (1/18-	125.00

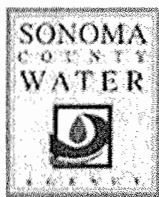
Seq	Payable To	For	Amount
36	Neal, Aimee	Refund Overpayment on Closed Account	38.18
37	Ozone, Laurie	Novato "Toilet Rebate" Program	100.00
38	Parkinson Accounting Systems	April Accounting Software Support	292.50
39	Petaluma Elks Lodge #901	Deposit to Host NMWD Holiday Party 12/1/18	500.00
40	POA of Novato Heights	2018 Dues (Budget \$200)	200.00
41	Purdy, Janet	Novato "Toilet Rebate" Program	100.00
42	Recology Sonoma Marin	May Trash Removal & Green Waste Dumping	1,501.28
43	Reischmann, Marc	Exp Reimb: Laboratory Training for Regulation Implementation	65.00
44	Reyes, Veronica	Novato "Smart Irrigation Controller" Program	198.98
45	Roy's Sewer Service	Cleaning O.M. Wet Well & North Street Lift Station	3,000.00
46	Safeguard	Deposit Slips (600) (Front Counter)	123.81
47	Schwaab	Stamp "Fire Hydrant Approved"	87.08
48	Sequoia Safety Supply	Safety Vests (3) & Ibuprofen (400)	60.38
49	Sjoblom, Jeff	Exp Reimb: D2 Exam & Certification Fees (Budget \$0)	125.00
50	SoftResources	Prog Pymt#7: Consulting Enterprise Asset Management Software (Balance Remaining on Contract \$12,783)	1,400.00
51	Soiland	Asphalt Recycling (6 tons)	27.85
52	Solenis	Polymer (2,290 lbs) (STP)	3,403.97
53	Sonoma County Water Agency	April Contract Water	454,276.29
54	SPG Solar	April Energy Delivered Under Solar Services Agreement	12,664.07
55	Terrell, Paul	Refund Overpayment on Closed Account	35.25
56	Thatcher Chemical	Chlorine Gas (2,000 lbs) (STP)	4,789.00
57	Township Building Services	April Janitorial Services	1,877.53

Seq	Payable To	For	Amount
58	Trinity Financial	Refund Overpayment on Closed Account	416.63
59	Univar	Sodium Hypochlorite (200 gal)	424.45
60	VWR International	Buffer Solution & Filter (Lab)	180.60
61	Waste Management	Misc Debris (Old IT A/C Unit)	59.79
62	Weisberg, Meg & Jay	Refund Overpayment on Closed Account	61.92
63	White & Prescott	Prog Pymt#22: Surplus Tank Sites (Balance Remaining on Contract \$9,580)	200.00
64	Wilhelm, Patricia and Roger	Refund Overpayment on Closed Account	38.84
<b>TOTAL DISBURSEMENTS</b>			<b><u>\$539,759.79</u></b>

The foregoing payroll and accounts payable vouchers totaling \$539,759.79 are hereby approved and authorized for payment.



  
 Auditor-Controller Date



  
 General Manager Date



## PRESS RELEASE

**For Immediate Release**  
**May 21, 2018**

**CONTACT:**

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### **Russian River Inflatable Rubber Dam Going Up** *Anglers, Boaters Must Portage Around Dam*

**(Forestville, CA)** – The Sonoma County Water Agency (Water Agency) began inflating its rubber dam on the Russian River near Forestville on Monday, May 21. The rubber dam is a critical component of the Russian River water supply system that provides naturally filtered drinking water to more than 600,000 residents in portions of Sonoma and Marin counties. The rubber dam will remain inflated through summer and into the fall.

The rubber dam is typically inflated in late spring when demand for potable water increases. When fully inflated, the rubber dam creates a small pool of water from which the Water Agency draws water for use in four off-stream infiltration ponds. The infiltration ponds help recharge groundwater which is then naturally filtered through sand and gravel and delivered to the Water Agency's customers.

Boaters must portage around the rubber dam, located downstream of Wohler Bridge. Public notices will be posted around the rubber dam warning the public not to recreate on or near the dam. California Department of Fish and Wildlife regulations prohibit fishing within 250 feet of the upstream and downstream sides of the rubber dam.

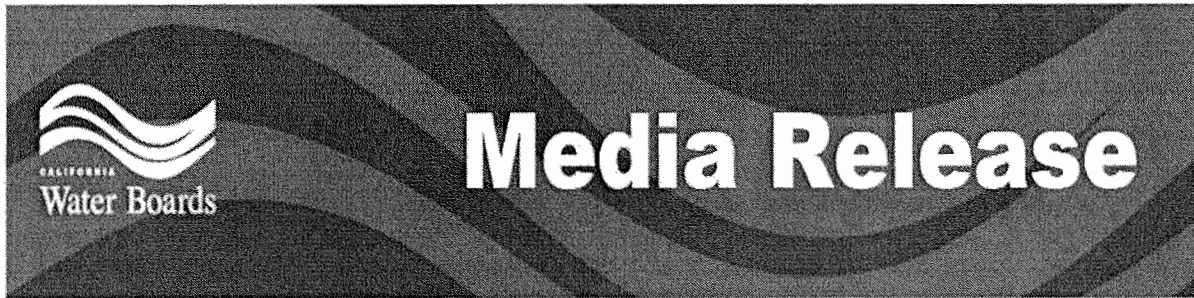
The Russian River Biological Opinion, issued in 2008 by National Marine Fisheries Service, found that fish screens at the Water Agency's River Diversion Structure could harm small fish, including young endangered coho salmon and threatened steelhead. In order to comply with the Biological Opinion and continue operating its system, the Water Agency in 2016 installed a new, improved fish screen. In conjunction with the installation of the fish screen, the Water Agency also constructed an improved fish ladder and viewing gallery. The new fish ladder will create better conditions for adult and juvenile salmon moving up or downstream, and will allow for more native species to use the ladder for migration.

For more information about the rubber dam and how the Water Agency delivers naturally filtered Russian River water to its customers, please visit [www.sonomacountywater.org/water-system](http://www.sonomacountywater.org/water-system).

###

*The Sonoma County Water Agency is working to secure our future by investing in our water resources, community and environment. The Water Agency provides water supply, flood protection and sanitation services for portions of Sonoma and Marin counties. Visit us on the Web at [www.sonomacountywater.org](http://www.sonomacountywater.org).*

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for info  
STATE



## **Harmful Algal Bloom Season Beginning in California's Lakes, Rivers and Streams**

*State Water Board Reminds Public to Be Aware of HABs*

**FOR IMMEDIATE RELEASE**  
**May 24, 2018**

**Contact: Greg Gearheart**  
**(916) 341-5892**

**Miryam Barajas**  
**(916) 341-5263**

**SACRAMENTO** -- With the summer season nearing and recreational activities about to ramp up on the state's lakes, rivers and streams, the State Water Board is reminding the public to be aware of harmful algal blooms (HABs).

Algae and cyanobacteria, the organisms that cause HABs, have existed for billions of years as essential components of freshwater ecosystems. But when certain conditions favor their growth - warm temperatures, stagnant water flows, excessive nutrient inputs - they can multiply very rapidly creating "blooms." These blooms can produce toxins, and taste and odor compounds, that pose health risks to humans and animals. When blooms pose a risk, they are referred to as harmful algal blooms (HABs).

While visiting your local lake or river, be aware that toxins can be present even though a bloom is not visible. Heed all advisory signs posted near water bodies. To check if a bloom was reported, contact the water manager or visit the [HAB Reports Map](#).

Dogs and children are most likely to be affected by HABs because of their smaller body size and tendency of playing in the water for longer periods. Dogs are especially susceptible because they swallow more water while swimming and during other activities like retrieving a ball from the water, and are less deterred by unsightly, smelly water that may contain harmful toxins.

It is important to distinguish cyanobacteria (often referred to as "blue-green algae") from green algae and other non-toxic water plants that are not thought to pose potential hazards to health. HABs can be a variety of colors such as green, white, red or brown and may look like thick paint floating on the water. Cyanobacteria blooms have a grainy, sawdust-like appearance of individual colonies.



## PG&E to auction dams project

**POTTER VALLEY** » Utility's divestiture likely to ripple throughout water system

By

**GUY KOVNER**

THE PRESS DEMOCRAT

PG&E intends to sell a remote Mendocino County hydropower project at an auction this fall, a decision that means little in terms of its meager electrical output but sends a ripple through the water system that supplies cities, residents and ranchers from Ukiah south through much of Sonoma County and into northern Marin County.

Many of the more than 600,000 customers and residents who get their water from the Russian River have no idea how much of it flows from the Potter Valley Project's two dams on the Eel River and through an aging powerhouse in the out-of-the-way valley about 20 miles north of Ukiah.

There's no indication yet that PG&E's divestiture from the 110-year-old project — or the alternative of transferring it to local control — would jeopardize the annual diversion of more than 20 billion gallons of Eel River water into the Russian River. But the utility's announcement opens the door to changes water experts have anticipated and unsettles communities across two counties that rely on it.

"The water supply needs to be protected," said Janet Pauli, a longtime Potter Valley rancher and irrigation district official. "It's very serious. There's no way around it."

Lake Mendocino, the reservoir near Ukiah, depends on the Potter Valley diversion to supply dry-season Russian River flows down to Healdsburg and supplement the supply the Sonoma County Water Agency delivers to customers in Sonoma and Marin counties. Most is taken from water stored in Lake Sonoma, the region's largest reservoir.

But without the diversion, Lake Mendocino would shrivel in size in the driest years ahead, diminishing flows in the upper Russian River, a local government study found.

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Mendocino County Supervisor Carre Brown, a Potter Valley resident, said PG&E's announcement was anticipated, but still came as a shock.

"Now, we have a big issue to confront," she said, noting that Sonoma, Mendocino, Lake and Humboldt counties all have a stake in the long-standing tug of war over water in the Russian and Eel river basins.

There are imperiled, federally protected salmon and steelhead trout runs in both rivers, and critics of the diversion have long considered it water stolen from the Eel River, which flows out of Lake Pillsbury, a reservoir in Lake County, and courses for 200 miles through Mendocino and Humboldt counties.

The water diversion through a system of tunnels and pipes engineered in the early 1900s transformed 7,000-acre Potter Valley into an agricultural cornucopia that produces \$34 million worth of wine grapes, pears, grass-fed cattle and other products a year.

In contrast, the small powerhouse completed in 1908 at the valley's north end generates 9.2 megawatts of power, about 0.1 percent of PG& E's nearly 7,700-megawatt total statewide.

Ironically, the project was originally built to generate electricity for Ukiah and the diverted water was essentially an afterthought. Potter Valley ranchers quickly realized their gain and hand-dug canals to keep their lands green when the surrounding hills turn gold.

David Moller, a director in the utility's power generation department, said in a letter announcing the auction Thursday that shedding the Potter Valley Project would have "a negligible impact on PG& E's overall portfolio of renewable power."

Continued operation of the project "is not in the long-term best interests of PG& E's electric customers," he said, acknowledging that it "provides important regional benefits, including recreation opportunities and a significant contribution to the Russian River water supply."

The divestiture is not a novel move for PG& E.

Last month, utility officials announced an auction of two non-operating hydropower projects totaling 28 megawatts in Kern and Tulare counties. And last year, PG& E sold a 3.5-megawatt project to the Merced Irrigation District and launched an auction of a 29-megawatt complex in Butte County.

A year ago, when PG& E filed documents with the Federal Energy Regulatory Commission for relicensing the Potter Valley Project, there were suspicions the utility might opt to decommission the project.

At the time, Moller said decommissioning was "a possibility to be looked at it" in any relicensing case. Shutting off the water diversion would have a "devastating effect" throughout the Russian River watershed, Brown said at the time, calling the watershed "the economic engine for the county of Mendocino."

Many farming interests in Sonoma County feel the same way about the water's value.

Grape growers in the famed Alexander Valley viticultural area would be handicapped, the Sonoma County Farm Bureau said, and residents north of Windsor, as well as fish in the upper river, would be compromised.

Without inflow from the Potter Valley Project, Lake Mendocino would go dry in 60 percent of the years from 2015 to 2045, according to a Sonoma County Water Agency study.



Critics of the project, including the nonprofit Friends of the Eel River, sensed in relicensing a renewed opportunity to press for removal of the project's two dams that they contend cut off migrating salmon and steelhead from valuable spawning areas above Lake Pillsbury.

The issues and competing interests are now revived, as Moller said PG& E is "open to exploring" the possibility of transferring the project to a "local or regional entity" instead of selling it at an auction.

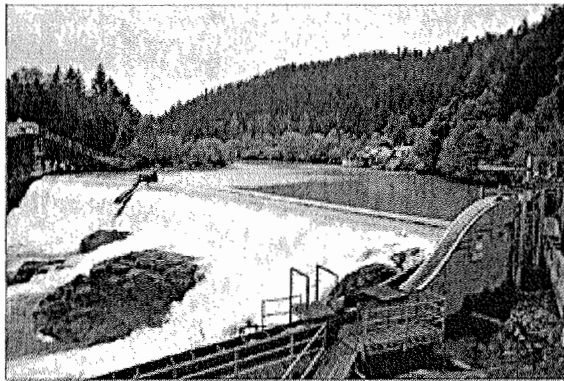
James Gore, chairman of the Sonoma County Board of Supervisors, said a county bid on the project would need to include Mendocino, Lake and Humboldt counties, a sentiment that Brown expressed, as well.

"It's go time to try to figure out how we honor the different needs for that water," he said.

Gore noted the irony of working collaboratively with PG& E on water issues while the county and utility are in a legal battle over damage claims from the October wildfires.

Rep. Jared Huffman, D-San Rafael, said PG& E's move to sell or transfer the hydropower project could be "a productive opening" for dialog involving the multiple interests in two watersheds.

"I certainly am willing to facilitate conversations," he said. "Stay tuned."



**Water from the Eel River collects at Van Arsdale Reservoir and flows over the Cape Horn Dam. PG&E plans to divest from the hydropower project.** CHRISTOPHER CHUNG / THE PRESS DEMOCRAT, 2017



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## **Humboldt County to draft stance on future of Eel River dams after PG&E announcement**

*By **Will Houston**, Eureka Times-Standard* POSTED: 05/15/18

Humboldt County tribes, fishermen, city officials and environmentalists on Tuesday called for the Board of Supervisors to support full removal of PG&E's Potter Valley Project dams Tuesday after the utility company announced last week that it planned to auction off the project.

The board ultimately directed 2nd District Supervisor Estelle Fennell and 1st District Supervisor Rex Bohn to draft a policy statement outlining the county's position on the future of the project, with the stance being based on the input from local stakeholders.

The 110-year-old Potter Valley Project supplies water and power to hundreds of thousands of customers in the Potter Valley by diverting water from the Eel River into the Russian River.

Board Chairman and 5th District Supervisor Ryan Sundberg said he personally wants to see the dams removed, though he said that might not be a realistic option.

"These dams have choked off our natural resources, our salmon for a long time," Sundberg said. "...Dam removal is the best way to get as much water down the river as possible."

Former Wiyot Tribe Chairwoman Cheryl Seidner and other tribal representatives called on the board Tuesday to allow the tribe to have a seat at the table at the very start of discussions on the future of the Potter Valley Project.

Seidner, whose father William Seidner was an Eel River fisherman, said she remembers her grandfather talking about the Eel River when it ran with eels and salmon that could be harvested, canned and dried. Even then, she said, the impacts on the river from dams and other disturbances could be seen.

"Today eating salmon and eel is a luxury for me," she said. "We don't get it like we used to. Now we can maybe get three or five eels and we used to get gunny sacks full and we would have it all winter long and we shared it with the community."

"... So I always hear how much water we had in the Eel River and now sometimes I don't even get my ankles wet, a few years ago, as I crossed the Eel River," Seidner said, referencing the 2014-15 water year when the river went dry in some sections.

Meanwhile, a local environmental organization says it obtained documents showing that Humboldt County and three other counties are supporting plans to keep the dams in place. Fennell denied the allegations.

### **THE PROJECT**

Constructed in 1908 in Mendocino County, the Potter Valley Project uses two dams and a diversion tunnel connecting the Eel River to the Russian River to generate power and provide water for farmers and communities in Mendocino and Sonoma counties.

The Cape Horn Dam was constructed on the Eel River in 1908 to create the Van Arsdale reservoir, which worked to carry water south through the mile-long diversion tunnel to provide water and generate hydroelectric power for Potter Valley residents.

About 12 miles upriver of Cape Horn Dam is the Scott Dam, which was constructed in 1922 to form the Lake Pillsbury reservoir. Lake Pillsbury was created to supply a continuous flow of

water to the project's power generators during the late spring and summer months when the Eel River flows typically begin to decrease.

The project is required to provide flows to federally protected species of salmon on the river, but the dams created challenges for the anadromous fish that affected all aspects their freshwater life such as migration, spawning and juvenile development.

A fish ladder was added to the Cape Horn Dam to allow fish to pass into the Van Arsdale reservoir, however no such passageway exists for Scott Dam and as a result, about 100-150 miles of habitat once used for spawning were lost.

Where there were once about 500,000 salmonids in the 200-mile Eel River and its many tributaries prior to 1900, only about 15,000 return to the river each year. Other factors that have been attributed to the decline in Eel River salmon populations are logging, overharvesting, introduction of invasive species, illegal water diversions and natural events.

Fortuna's interim City Manager Merritt Perry said the future decision about the project presents an opportunity to make a significant changes to the river.

"The city of Fortuna is the largest incorporated city on the Eel River and it stands to win or lose depending on how this goes on the river health," Perry said.

The federal licenses for the dams are set to expire in 2022, with PG&E planning to auction off the dams.

Fennell is the chairwoman of the Eel-Russian River Commission, which is made up representatives of Humboldt, Mendocino, Sonoma and Lake counties. She said that the group is looking at the possibility of a regional entity, such as a joint powers authority, that could look at how the dams could be managed and present those possibilities to PG&E before it auctions the dams to a new owner.

Bohn and Fennell are set to return to the board with the draft policy statement prior to the commission's June 8 meeting in Ukiah.

#### SECRET MEETING ALLEGATIONS

In a news release on Monday evening and in comments made Tuesday, Friends of the Eel River representatives accused Fennell and the commission she chairs of secretly plotting to keep the dams in place for financial gain to the detriment of fish.

The environmental organization says they used a public records request to obtain notes taken during what they claim were secret meetings between members of the Eel-Russian River Commission including Fennell, PG&E officials and Russian River water districts.

The group alleges these meetings were held to discuss plans for taking the dams out of the federal licensing process so as to avoid having to provide additional protection for fisheries, such fish passage on Scott Dam.

The group alleges that the dams would instead obtain a non-power license through the state and would turn the Potter Valley Project into a water transfer project, but still keep hydropower running.

Fennell vehemently denied the accusations Tuesday, calling them "dishonest fabrications."

"And we have one main goal and that is to get more of our water back into our Eel River," Fennell said. "And this moment in history, we have a golden opportunity right now to

accomplish that and we will and we can with a united front working together. And that has been and will continue to be my goal.”

PG&E spokeswoman Deanna Contreras says the company has had several informal meetings with stakeholders to discuss ideas for the future of the Potter Valley Project.

“None of these ideas have resulted in any plans or agreements going forward,” she said.

Contreras said the company is open to exploring the possibility of transferring the project to a local or regional entity as an alternative to the auction.

“PG&E is not presently involved in any active transfer or sale negotiations,” Contreras said.

Tension peaked at Tuesday’s meeting after Friends of the Eel River Conservation Director Scott Greacen called Fennell “duplicious” for denying knowledge of these plans that he said would create an “end run” around the need to create fish protections and around ongoing stakeholder talks about the future of the Potter Valley Project.

“The plan you’re hoping to move forward will undermine our hope of fish recovery in the Eel and across the region,” Greacen said. “It would continue the status quo. It would skip out on the promise we have made to the future that we will do better. It is a plan to welsh on the debt that we owe the future. It’s a plan to say to history, ‘We didn’t care. We knew, but we didn’t care.’”

Fennell responded saying that Greacen doesn’t know at all what her plans are because she hasn’t created a plan and that her plan is to “listen to the people of Humboldt County and represent them, thank you very much.”

Greacen responded, “I don’t trust you,” to which Fennell replied, “That’s fine, I don’t feel that great about you either.”

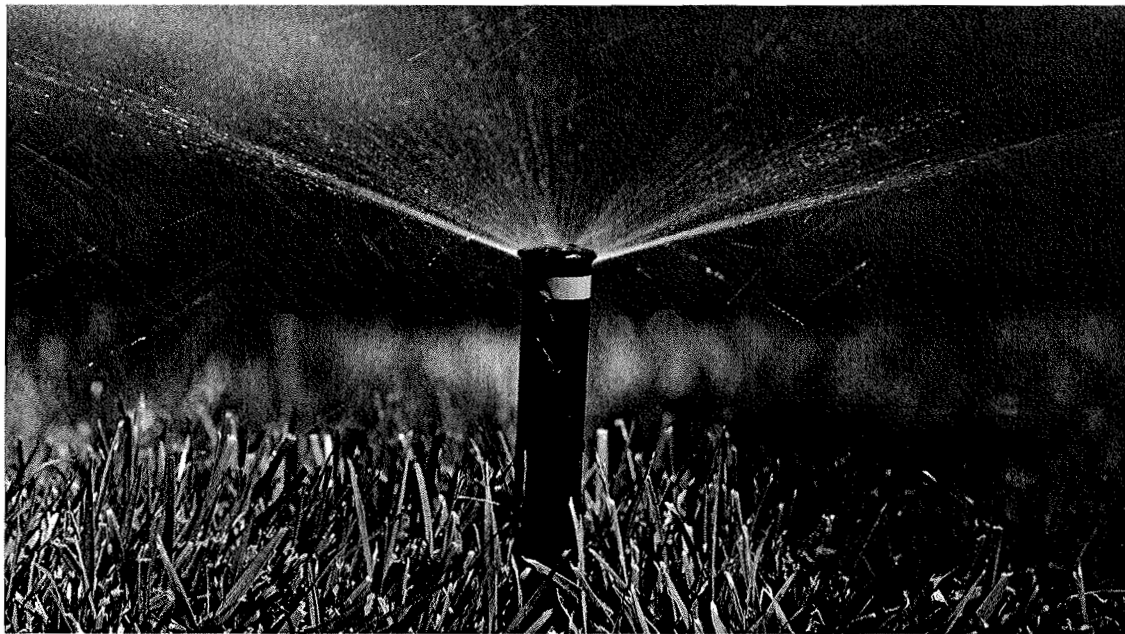
*Will Houston can be reached at 707-441-0504.*

# California moves closer to crafting specific water caps for urban districts

Los Angeles Times

By BETTINA BOXALL

MAY 18, 2018 | 5:00 AM



A sprinkler waters a California lawn. (Justin Sullivan / Getty Images)

California cities and towns may find themselves on a water budget in the next decade under a pair of bills approved Thursday by the legislature.

The measures follow Gov. Jerry Brown's call to make water conservation a permanent way of life in a state long accustomed to jewel-green lawns and suburban tracts studded with swimming pools.

More than a year of legislative negotiations reflected the enduring conflicts over state and local control.

Though the bills establish a framework to end excessive urban water use, the proposals were substantially weakened by a series of amendments sought by water districts.

"I would say it was amended with so many exceptions and so many carve-outs ... that I have serious doubts that it's going to reduce water use or lead to more efficient use," said Matt O'Malley, executive director of San Diego Coastkeeper, an environmental group.

Sen. Bob Hertzberg (D-Van Nuys), co-sponsor of one of the bills, said that despite necessary compromises, the measures represented a "gigantic move forward" in the state's approach to urban water use.

"Instead of having a governor that [issues] emergency orders when we have a drought, it sets standards in terms of indoor, outdoor water use and enforcement. So we're not just engaged in crisis management all the time."

Under the bills, which Brown is expected to sign, the state will set standards that will be used to create individual water budgets for the more than 400 water agencies that distribute supplies to cities and towns.

The budgets will in essence set a target for how much water a district should use in a year, taking into account such factors as the local climate, amount of irrigated landscape and population.

How the local districts meet the targets will be up to them. The budgets will be developed over the next several years, based on standards for indoor and outdoor use as well as leakage from water distribution systems.

If an agency doesn't meet its target, the State Water Resources Control Board can start issuing conservation orders after July 1, 2026.

A clause that would have allowed the board to issue cease-and-desist orders was dropped. But starting in late 2027, the board can impose fines of \$1,000 a day on agencies that violate orders.

"This is the first legislation with a threat of a fiscal penalty," said Tracy Quinn, California water conservation director for the Natural Resources Defense Council, an environmental group.

"While it may not be the giant leap we were hoping for when we started this process, it's definitely a step in the right direction," she added.

The approach departs from the one taken during California's five-year drought, when Brown issued an unprecedented order to cut the state's overall urban water use by 25%.

Water districts complained that the order treated all districts the same, whether they were water hogs or models of conservation.

The mandate ended when Brown declared the drought over last year, but the governor directed state agencies to develop permanent urban conservation measures. The legislation is a step in that process.

Water districts and environmental groups were split on the bills, according to a legislative listing of supporters and opponents.

Supporters included the Metropolitan Water District of Southern California and Los Angeles, the Pacific Institute and the NRDC.

Opponents included numerous water districts across the state, which considered the measures overreach, as well as environmental groups such as the Sierra Club of California and the California Coastkeeper Alliance, which argued they didn't go far enough.

"It's really death by a thousand cuts," said Sara Aminzadeh, executive director of the Coastkeeper Alliance.

She complained that the indoor use standard was too high.

The measure sets an initial indoor standard of 55 gallons per person per day — which Aminzadeh said the vast majority of water suppliers already meet. The number drops to 52.5 gallons in 2025, and to 50 gallons in 2030.

The Sierra Club and the Coastkeeper alliance also objected to an amendment favoring water districts that include recycled water in their potable supplies. They can increase their annual water budget by 10% to 15%.

"We felt it was really bad public policy to set a precedent where uses of certain supplies... could essentially be wasted," Aminzadeh said.

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# Water contamination clearing up in Santa Rosa's Fountaingrove neighborhood

KEVIN MCCALLUM

THE PRESS DEMOCRAT | May 18, 2018, 8:53PM



Santa Rosa officials are increasingly hopeful that the full replacement of a portion of the water system in Fountaingrove contaminated after October's wildfires may not be necessary, citing steady improvement in the water quality in parts of the system.

Instead of barreling ahead with replacing the entire system at a cost of up to \$43 million, the city now is opting to replace the most contaminated parts and see if that helps resolve the contamination problem.

"The data suggests it may be premature to rush into full replacement," said Ben Horenstein, director of Santa Rosa Water.

Tests in various parts of the 184-acre area are showing dramatically different levels of contamination based on where the samples are taken, officials said.

Results from water service lines — which run from the water mains to the water meters at the curb and have been isolated — are showing the highest levels of contamination, in some cases hundreds of times the allowable levels.

Unlike the service lines, water in the mains have been regularly flushed over the past several months and are showing steady declines in the levels of benzene and other volatile hydrocarbons.

Officials believe plastic pipes and system components that melted during the wildfires released the chemicals. Because of low water pressure in the area during the fires, the chemicals were sucked back into the service lines and mains. There, they adhered to or

were absorbed into the pipes and other system components, such as rubber gaskets. The contaminants were then leached back into the water, officials believe.

After an initial period of fluctuation, benzene levels have steadily been decreasing in water sampled from fire hydrants, which draw directly from the mains, said Jennifer Burke, the city's deputy director of water and engineering resources.

Benzene levels in the advisory area — which once encompassed 350 homes, all but 13 of which burned in the Tubbs fire — have been falling since January, she said. Tests show they have dropped below levels that require the city to report data, and in many cases are no longer detectable.

The water in the mains is flushed regularly, in part to ensure it doesn't sit too long in any one area of pipe. The practice also ensures that chlorine levels are maintained to keep the water clean and free of organic contaminants such as bacteria.

That strongly suggests that flushing action, despite early evidence to the contrary, is helping resolve the contamination problem, Burke said.

To date, the city has flushed 220,000 gallons of water through parts of the system in the area. Flushing initially reduced contamination levels but didn't eliminate them. In fact, in some cases the presence of benzene stubbornly bounced back, confounding water officials.

But over time, contamination levels in the water mains have dropped as the city has isolated the mains from the contaminated service lines, replaced many service lines and continued the flushing efforts.

The trend has prompted the city to reconsider the need to replace the entire water system in the advisory area. Instead, it is offering to install water filters for anyone seeking to rebuild in the area while it determines whether the entire system needs to be replaced.

As an interim step, the city will spend \$3.4 million to replace 500 water service lines — 350 in the advisory area and 150 outside the area — and hope contamination levels in the mains continue to drop and eventually disappear.

The Board of Public Utilities signed off on a \$600,000 contract this week to carry out the first phase of the project. It is expected to pick a contractor for the remainder of the work, estimated to cost \$2.8 million, by the end of the month.

The work is expected to be completed by Aug. 3.

The city hopes that replacing the service lines will remove a source of contamination, allow many isolated areas of the system to be flushed, and that with time the problem will correct itself.

"We do feel that this phased approach is the right thing to do and is in the best interests of the community," Horenstein said.

Not everyone agrees. The city held a private meeting with some residents of the area this week, and some expressed concern that the "pivot," as Horenstein calls it, may just be delaying the inevitable system replacement.

There was also some confusion about the city's promises to install carbon filters for any homeowner who needs one, Horenstein said.

"There certainly are fears that the carbon system will be the long-term solution," he said.

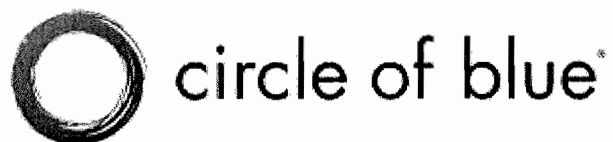
But, that is far from the case, he said.

"Giving everyone a Brita water filter is not the way to solve a long-term issue," Horenstein said. The city's regulators "have been pretty clear about that."

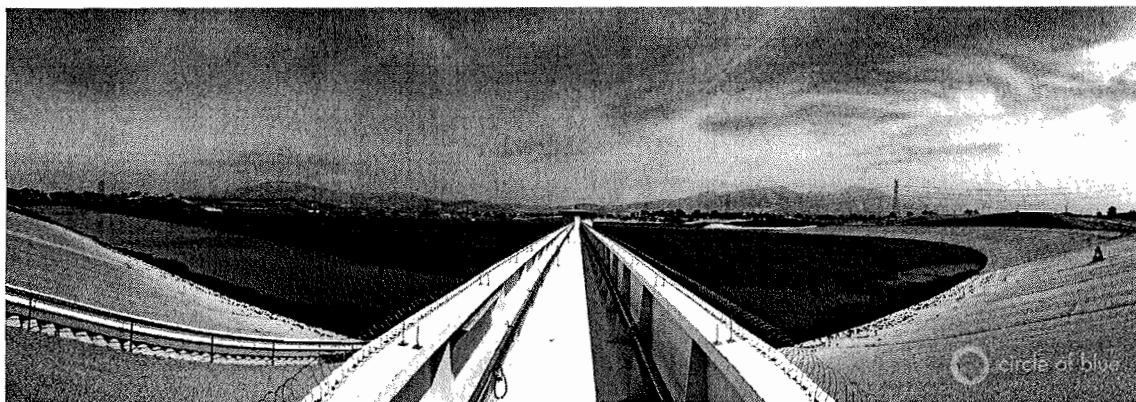
Joe Kates, who attended the private meeting, said there was debate about the wisdom of the phased approach. Some residents who've been struggling to figure out how to rebuild in the area have viewed the benzene problem as the final straw and decided to move on.

But Kates, a retired molecular biologist, said he was actually encouraged by the city's systematic and data-driven approach to solving the problem.

"It was a very strong signal and, on the basis of that, my wife and I are committed to rebuilding," he said.



## Price of Water 2018: Utilities Revise Household Water Rate Formulas



*Small increase in prices but some significant adjustments to water bill calculations.*

**By Brett Walton, Circle of Blue – May 30, 2018**

In contrast to the federal government's chronic underinvestment in the pipes, pumps, and plants that supply and treat the nation's drinking water, America's large cities are forging ahead with fresh spending to modernize their systems. One result is that all the work to repair municipal water systems is raising the cost of service.

In its latest annual survey of water price trends in 30 large U.S. cities Circle of Blue found that the average price of residential drinking water for a family of four using 100 gallons per person per day rose 3.3 percent last year. It was the smallest increase since the survey started in 2010 and continues a recent trend of slower price growth.

For a family of four using 50 gallons per person per day, the average price rose 4.6 percent, the same as the previous year. The median increase for the 100-

gallon scenario was 2.4 percent. The median increase was 3.1 percent at the 50-gallon tier, a level that reflects more conservative use.

The largest price increases occurred in California, where major utilities are in a construction frenzy to cleanse dirty water for reuse, gird pipes against earthquakes, and respond to water-supply vulnerabilities that were exposed during the five-year drought that ended last year.

Prices at the 50-gallon-per-person level in Fresno, Los Angeles, San Diego, San Francisco, and San Jose climbed more than 7 percent. Residents of San Jose (17.8 percent), Fresno (15.4 percent), and Los Angeles (13 percent) absorbed the three highest price increases in the survey.

The average price of residential drinking water for a family of four using 100 gallons per person per day rose 3.3 percent last year. It was the smallest increase since the survey started in 2010.

“Two big cost drivers are diversification of water sources and replacing aging infrastructure,” Sanjay Gaur, vice president in the California office of Raftelis, a consultancy, told Circle of Blue. Cities that lost revenue due to water restrictions during the drought are also looking to make up that deficit, he added.

The survey has limits. The prices do not reflect average household bills. Circle of Blue has developed [a separate data set](#) for that category. The cost of water is a major factor in how much an urban American family generally uses. Higher prices generally result in lower usage.

A second constraint is that the survey is narrow. There are more than 50,000 community water systems in the United States. This assessment looks at only 30 of the largest, which typically display better financial strength and fewer health violations than their smaller counterparts. And it does not consider stormwater fees or sewer rates, which in many cases are far higher than drinking water.

The strength of the survey, though, is its annual accounting of the change in prices for three scenarios in which monthly water use remains constant. The survey, which attracts national attention, is useful for identifying financial trends that influence the water bills of tens of millions of American residents.

This year’s survey finds that the extensive investments large cities are making to their water systems comes as the federal government continues to display

the decades old aversion to paying for improving infrastructure. President Trump entered office more than a year ago after campaigning to spark federal investment in the systems that move people, goods, water, data, and electricity. The grand infrastructure project Trump championed faded on Capitol Hill, where lawmakers opted instead for a status quo piecemeal approach that was less costly and used existing financing tools.

City leaders, though, understand the urgency of assuring their residents and businesses have adequate supplies of water and distribution systems that do not break in order to stay competitive nationally and globally. Los Angeles, for example, wants local water sources to account for half of the city's supply by 2035, a

transformation that will require billions of dollars of investment to reuse water, store more rainfall, and strip industrial chemicals from polluted groundwater basins. The city budgeted \$6.6 billion over the next five years for capital projects, a category that includes basic fixes such as water main replacements.

Fresno's increase is part of a five-year, \$429 million plan to develop an alternative to the city's declining groundwater reserves. The Southeast Surface Water Treatment Facility, expected to begin full operations in June, will draw water from the Kings River. The facility is being financed through the state revolving fund, a low-interest, water infrastructure loan program that Congress is still keen to support.

San Diego is spending \$1.2 billion on the first phase of Pure Water, the brand name for a state-of-the-art wastewater recycling facility. Discharges from the city's wastewater treatment plant that are currently cast into the Pacific Ocean will be reused for drinking.

Farther north, San Francisco is nearing completion of a \$4.8 billion construction program to protect its regional water distribution system from earthquake damage. The city's pipes cross three fault lines.

Six cities in the survey, meanwhile, did not change their rates, while Austin Water in Texas, bucking the national trend, decreased its water charges.

This year's survey finds that the extensive investments large cities are making to their water systems comes as the federal government continues to display the decades old aversion to paying for improving infrastructure.

The investments made by these 30 cities are part of the \$683 billion that Bluefield Research, a group that analyzes water infrastructure, expects municipal utilities to spend in the next decade on water and sewer systems. More than 40 percent of the money will go toward the most basic components: repairing and replacing old pipes. These networks, hidden from sight, are a formidable asset, with their total length in a single city often extending several thousand miles.

The challenge for water utilities is to earn enough revenue to repair pipes, expand systems, meet regulatory requirements, and prepare for the wet-dry punches expected from a warming planet. But they must do so at a time when many are selling less water than they have in decades. Los Angeles, for example, used 18 percent less water last year than in 1970, despite adding more than 1.2 million people.

## **Weakening the Link between Use and Revenue**

While residential water prices are moving relentlessly upward, they did so over the last year at a slower pace. Instead of large, double-digit expansions every few years, some cities are introducing smaller, regular increases.

Houston, due to a 2010 ordinance, pegs its annual adjustments to inflation and to the city's population growth. Chicago also links its increases to local consumer price trends.

Atlanta has not raised rates since 2012, thanks to supplementary revenue from a one-percent city sales tax.

To keep pace with decreases in water demand, utilities are shifting a larger share of their revenue from variable charges, which are based on the number of gallons used, to fixed charges, which are paid each billing cycle regardless of how much water flowed through a home's taps.

Exemplifying that trend is San Jose, which had the most drastic change in rate structure last year of the 30 cities.

San Jose Municipal Water System, one of three water providers in the city, made three major moves that resulted in a double-digit percentage point increase for some customers. San Jose attributes its rate increase to the higher

cost of purchasing water from San Francisco, which is also a regional wholesaler, and from Santa Clara Valley Water District.

San Jose began by scrapping its increasing block rate, a rate design in which the cost of each gallon becomes more expensive as use increases. The same concept governs federal income tax brackets. These rates are popular because higher prices are seen as a signal to conserve and those who use the most water pay more for it.

The utility's next change was to shift more of its rate to the fixed fee, while also decreasing its variable charges. That shift is becoming a common adjustment for utilities, one they undertake in order to align their costs and revenues. One of the drawbacks of relying on increasing block rates, if they are not well-designed, is that utility revenue is exposed to changes in the weather. Wet summers or drought restrictions can slash water use at the upper end — and with it, the money from those more-expensive gallons.

Denver Water executed a similar move last year as San Jose — increasing the fixed fee and trimming the variable. Starting with a rates overhaul in 2016, Denver Water has gradually shifted revenue to fixed charges. It now collects around 20 percent of rate revenue from the fixed charge, compared to less than 10 percent in 2015.

The intersection of higher rates and equity concerns have resulted in water affordability becoming a politically prominent issue.

“The result is a more reliable revenue stream for us and smoother, more consistent, and lower price adjustments for our customers,” Travis Thompson, a Denver Water spokesman, told Circle of Blue.

The challenge with this revenue shift is that it raises concerns about equity and conservation. Equity because frugal users will shoulder a relatively higher burden, and conservation because less of the rate will be attached to how much water is used.

“It’s a big balancing act,” Gaur, the rates consultant, remarked.

The numbers bear that out. Residents in San Jose’s Evergreen neighborhood who use relatively little water saw prices increase at a much steeper rate than high-volume users. (San Jose has eight water rates that correspond to



particular neighborhoods.) At the 50-gallon level the increase was 17 percent, while at 100 gallons, prices rose only 3 percent.

The intersection of these two trends — higher rates and equity concerns — have resulted in water affordability becoming a politically prominent issue. Philadelphia drew attention last year for its income-based rate, but other cities in the survey have increased financial aid for the poor.

Seattle Public Utilities offers a bill discount of up to 50 percent for the more than 30,100 households in its customer aid program.

Denver, after its rates overhaul, still uses an increasing block rate. But the size of the blocks are based on winter water use. As a result, indoor use, which is fairly constant throughout the fall, winter, and spring, is priced at a low rate. Higher rates apply in summer, when lawns are growing and water use can spike as much as three times as winter use. It is a way both to personalize water rates and keep a price signal for conservation.

Philadelphia drew attention last year for its income-based rate, but other cities in the survey have increased financial aid for the poor.

## Not Everything Is Bigger in Texas

Rate decreases, on the other hand, are rare. But Austin Water, which serves about 1 million people in the Texas capital, accomplished the feat.

The utility did so by making two adjustments, according to David Anders, assistant director of finance. It refinanced its debt, which brought interest payments down, and the city started charging new housing developments more money to connect to the water and sewer system.

Austin is consistently ranked as one of the country's fastest growing large cities. Its population swelled by roughly 140,000 people since 2010. But until recently it was taking in only \$8 million to \$10 million a year in connection fees, far lower than what the state allowed.

The City Council passed a resolution, effective January 2014, that increased the connection fees. Anders said the utility is now earning about \$35 million a year in connection charges, which are used to pay down the debt.

"The policy change made development and growth pay more for itself, rather than have all ratepayers subsidize the growth," Anders told Circle of Blue.

**Bio****Latest Posts****Brett Walton**

Brett writes about agriculture, energy, infrastructure, and the politics and economics of water in the United States. He also writes the Federal Water Tap, Circle of Blue's weekly digest of U.S. government water news. He is the winner of two Society of Environmental Journalists reporting awards, one of the top honors in American environmental journalism: first place for explanatory reporting for a series on septic system pollution in the United States(2016) and third place for beat reporting in a small market (2014). Brett lives in Seattle, where he hikes the mountains and bakes pies. [Contact Brett Walton](#)

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