



NORTH MARIN WATER DISTRICT
AGENDA - REGULAR MEETING
 March 20, 2018 – 6:00 p.m.
 District Headquarters
 999 Rush Creek Place
 Novato, California

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Est. Time	Item	Subject
6:00 p.m.	CALL TO ORDER	
	1. APPROVE MINUTES FROM REGULAR MEETING , March 6, 2018	
	2. GENERAL MANAGER'S REPORT	
	3. PRESENTATION ON DRAFT FY 19 SCWA WATER TRANSMISSION SYSTEM BUDGET	
	4. OPEN TIME: (Please observe a three-minute time limit)	
	This section of the agenda is provided so that the public may express comments on any issues not listed on the agenda that are of interest to the public and within the jurisdiction of the North Marin Water District. When comments are made about matters not on the agenda, Board members can ask questions for clarification, respond to statements or questions from members of the public, refer a matter to staff, or direct staff to place a matter of business on a future agenda. The public may also express comments on agenda items at the time of Board consideration.	
	5. STAFF/DIRECTORS REPORTS	
	6. MONTHLY PROGRESS REPORT	
	CONSENT CALENDAR	
	The General Manager has reviewed the following items. To his knowledge, there is no opposition to the action. The items can be acted on in one consolidated motion as recommended or may be removed from the Consent Calendar and separately considered at the request of any person.	
	7. Consent – Approve: GHD Inc. General Services Agreement	
	ACTION CALENDAR	
	8. Approve: Authorize Affirmative Vote for SCWA FY19 Water Transmission System Budget	
	9. Approve: AMI Opt-Out Policy	
	10. Approve: Rate Increase Letter to Novato Customers	
	11. Deny: Claim for Damages - Troia	
	INFORMATION ITEMS	
	12. 2018 Urban Area Water Cost Comparison	
	13. 2nd Quarter FY17/18 - Water Quality Report	
	14. Stafford Lake Spill/Rainfall History	

All times are approximate and for reference only.

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

Est. Time	Item	Subject
	15. MISCELLANEOUS	
		Disbursements- Dated March 8, 2018
		Disbursements- Dated March 15, 218
		Rate Increase Notice on Water Bill
		Why your water provider is fighting California's ban on watering sidewalks
		<u>News Articles:</u>
		House, DA, assessor candidates file
		Marin's rare fish have off season as rain fluctuates
7:30 p.m.	16. ADJOURNMENT	

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DRAFT
NORTH MARIN WATER DISTRICT
MINUTES OF REGULAR MEETING
OF THE BOARD OF DIRECTORS
March 6, 2018

CALL TO ORDER

President Fraites called the regular meeting of the Board of Directors of North Marin Water District to order at 6:01 p.m. at the District Headquarters and the agenda was accepted as presented. Present were Directors Jack Baker, Rick Fraites, and James Grossi. Director Michael Joly arrived at 6:05 p.m. and Director Stephen Petterle was absent. Also present were General Manager Drew McIntyre, District Secretary Terrie Kehoe, Auditor-Controller David Bentley and Chief Engineer Rocky Vogler.

District employees, Robert Clark (Maintenance/Operations Superintendent), and Tony Arendell (Construction/Maintenance Superintendent). Julie Blue, Novato resident Brigid Flagerman, Frank Soriano of Caldwell Sutter Capital and Dave Fama and James Wawrzyniak of Jones Hall Company were also in the audience.

MINUTES

On motion of Director Baker, seconded by Director Grossi the Board approved the minutes from the February 20, 2018 meeting as presented by the following vote:

AYES: Director Baker, Fraites, and Grossi

NOES: None

ABSENT: Director Joly and Petterle

ABSTAIN: None

Director Joly arrived at 6:05.

On motion of Director Baker, seconded by Director Joly the Board approved the minutes from the February 27, 2018 meeting as presented by the following vote:

AYES: Director Baker, Fraites, and Joly

NOES: None

ABSENT: Director Petterle

ABSTAIN: Director Grossi

GENERAL MANAGER'S REPORT

1 During the General Manager's report, Mr. McIntyre discussed the current rain activity, the
2 Division of Safety of Dams annual inspection of Stafford Lake Dam on March 8, the housing working
3 group meeting with the County of Marin regarding the Point Reyes Coast Guard Property on March
4 12, and the Leadership Novato Special Districts Day being held on March 14.

5 **OPEN TIME**

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

8 **STAFF/DIRECTORS REPORTS**

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

11 Mr. Clark discussed the plan for back-feeding of Stafford Lake per the request of Marin
12 Municipal. In addition he announced that Brad Stompe will be conducting Boater Safety training for
13 Marin Municipal.

14 Ms. Kehoe reminded the Board that Form 700 and the Ethics Training are both due by April
15 1, 2018.

16 **CONSENT CALENDAR**

17 Item 8 – Approve Marin Clean Energy Participation was removed from the Consent calendar
18 for additional discussion. On the motion of Director Baker, and seconded by Director Joly the Board
19 approved Item's 6, 7 and 9 on the consent calendar by the following vote:

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

21 NOES: None

22 ABSENT: Director Petterle

23 ABSTAIN: None

24 **(ITEM 6) WATER SERVICE AGREEMENT – 86 HAMILTON DRIVE FIRE SERVICE**

25 The Board approved the water service agreement for 86 Hamilton Drive Fire Service.

26 **(ITEM 7) ADOPT STATE OF CALIFORNIA GOVERNOR'S OFFICE OF EMERGENCY SERVICES**
27 **GRANT PROGRAM RESOLUTION**

28 The Board approved to adopt the State of California Governor's Office of Emergency
29 Services Grant Program Resolution.

30 **(ITEM 8) MARIN CLEAN ENERGY PARTICIPATION**

31 This item was removed from consent for additional discussion.

1 The Board reviewed staff's request to transfer remaining PG&E accounts to Marin Clean
2 Energy's Light Green program. There was a discussion about the merits of moving toward the more
3 expensive Dark Green option but the Board consensus was to proceed with transfer of the
4 remaining PG&E accounts to Light Green.

5 On the motion of Director Baker, and seconded by Director Joly the Board approved transfer
6 of the District's remaining PG&E accounts to Marin Clean Energy's Light Green program by the
7 following vote:

8 AYES: Director Baker, Grossi, Joly

9 NOES: None

10 ABSENT: Director Petterle

11 ABSTAIN: Director Fraites

12 **(ITEM 9) AMI LETTER TO CUSTOMERS**

13 The Board approved the AMI Letter to Customers.

14 **ACTION CALENDAR**

15 **OPPOSE UNLESS AMENDED LETTER FOR SB623**

16 The General Manager stated that in early 2017, Senator Monning introduced Senate Bill 623
17 which proposed the first-ever statewide water tax as a way to address a lack of access to safe
18 drinking water for some people who live in disadvantaged rural communities. Mr. McIntyre advised
19 the Board that this bill would create a per-connection tax on residential and business water bills.
20 The tax would be determined by the size of the meter, and for the typical North Marin Water
21 customer with a 5/8-inch meter that would represent a 6% increase on their bi-monthly service
22 charge. Mr. McIntyre further stated that ACWA and over 100 member agencies strongly oppose the
23 new tax.

24 On the motion of Director Baker, and seconded by Director Joly, the Board approved the
25 Oppose Unless Amended Letter for SB623 by the following vote:

26 AYES: Director Baker, Fraites, Grossi and Joly

27 NOES: None

28 ABSENT: Director Petterle

29 ABSTAIN: None

30 **AMI PROJECT FINANCING**

1 Mr. Bentley discussed the funding proposals for the Advanced Meter Information (AMI)
2 project. We received proposals from Bank of Marin, California Infrastructure Bank and Caldwell
3 Sutter Capital (Private Placement Bonds). The most attractive proposals came from JP Morgan
4 Chase with a 15 year proposal at a 2.69% rate. This proposal was submitted on February 21, and
5 would be adjusted to market rate, which on March 7, 2018 was 2.67%.

6 On the motion of Director Baker, and seconded by Director Joly, the Board approved a
7 resolution authorizing the borrowing of funds from JPMorgan Chase Bank by the following vote:

8 AYES: Director Baker, Fraites, Grossi and Joly

9 NOES: None

10 ABSENT: Director Petterle

11 ABSTAIN: None

12 **INFORMATION ITEMS**

13 **NOVATO POTABLE WATER SYSTEM FINANCIAL PLAN UPDATE**

14 Mr. Bentley provided a “dashboard” presentation that summarized the District's financial plan
15 for the next five years, through fiscal year 2023. The District's cash reserve goal is to build a cash
16 balance equal to 90% of the Annual Operating Expense. The discussion included assumptions for a
17 Water Rate Increase, the Volume of Water Sales, the Russian River Water Cost, Labor Cost,
18 Capital Improvement Projects Funding, Connection Fee revenue, Stafford Water Treatment Plant
19 Production and Debt Service. There was a lengthy Board discussion regarding various impacts to
20 the District's cash reserve balance and debt service under varying rate increases from zero to 4.5%.
21 Based on Board feedback, staff will proceed with a proposed 4.5% increase for both the commodity
22 and bi-monthly service charge. Mr. Bentley stated that with this proposed rate increase and the
23 given assumptions the cash reserve balance is projected to be 75% of annual operating expenses in
24 2023.

25 **WAC/TAC UPDATE – FEBRUARY 5, 2018 MEETING**

26 Drew gave an update on the WAC/TAC February 5, 2018 meeting.

27 **NBWA UPDATE – MARCH 2, 2018**

28 Directors Fraites and Baker gave a brief summary of the MMWD presentation given at the
29 North Bay Watershed Association meeting they attended on March 2, 2018.

30 **MISCELLANEOUS**

The Board received the following miscellaneous items: Disbursements, Employer Assisted Housing Program, Status Report- District Home at 25 Giacomini Road, Service Charge Analysis, Water Agency Hot Topics- February 2018 and NMWD Payment Remaining Local.

The Board also received the following news articles: Marin water plant to get \$400,000 seismic upgrade, Novatoan Stompe recognized, Novato seeks proposals to develop Hamilton properties and Invitation to Bid- Ridge Road Water Line Replacement.

ADJOURNMENT

President Fraites adjourned the meeting at 7:00 p.m.

Submitted by:

Theresa Kehoe
District Secretary

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FY 18-19 Proposed Budget and Rates Water Transmission System



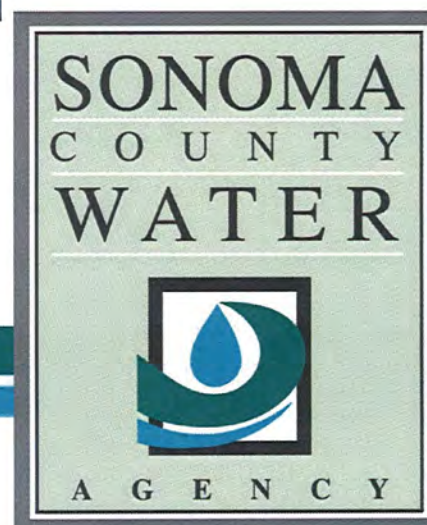
Presentation to:

North Marin Water District
March 20, 2018



NORTH MARIN
WATER DISTRICT

www.sonomacountywater.org



Proposed Rates for FY 18-19

Charge / Aqueduct	Santa Rosa	Petaluma	Sonoma
Deliveries (Acre-Feet)	41,768		
O&M	\$578.85	\$578.85	\$578.85
Water Management Planning	\$1.00	\$1.00	\$1.00
Watershed Planning & Restoration	\$91.07	\$91.07	\$91.07
Recycled Water and Local Supply	\$2.92	\$2.92	\$2.92
Water Conservation	\$45.16	\$45.16	\$45.16
Total O&M	\$719.00	\$719.00	\$719.00
Storage & Common Bond/Loan Charges	\$139.38	\$139.38	\$139.38
Sonoma Aqueduct Bond/Loan Charge			\$142.68
Prime Contractors	\$858.38	\$858.38	\$1,001.06
<u>Discretionary Charges</u>			
Capital Charges - <i>to build fund balance for future projects</i>	\$19.50	\$19.50	\$0.00
Local Recycled Water Tier 2 Program	\$0.00	\$0.00	\$0.00
Prime Contractors	\$19.50	\$19.50	\$0.00
Total Prime Contractors	\$877.88	\$877.88	\$1,001.06
Total Overall Increase:	3.67%	3.67%	5.98%

North Marin Water District

Proposed Rates for FY 18-19

	Cash in Lieu of Debt Service	Debt Service
Charges	FY18-19	FY18-19
Deliveries (Acre-Feet)	5,166	
O&M Charge	719.00	720.54
North Marin Bond & Loan Charge	56.29	82.84
Russian River Conservation Charge	109.75	109.75
Russian River Projects Charge	9.13	9.13
Total North Marin Water District Rate	894.17	922.26
Total Overall Increase:	0.89%	4.06%
Total Estimated Annual Charge:	\$4,619,555	\$4,764,670

Rate Setting Calculation (EXAMPLE)

\$36,700,000

=

\$878/ Acre Foot

41,768 AF

Water Sold = Lesser of:

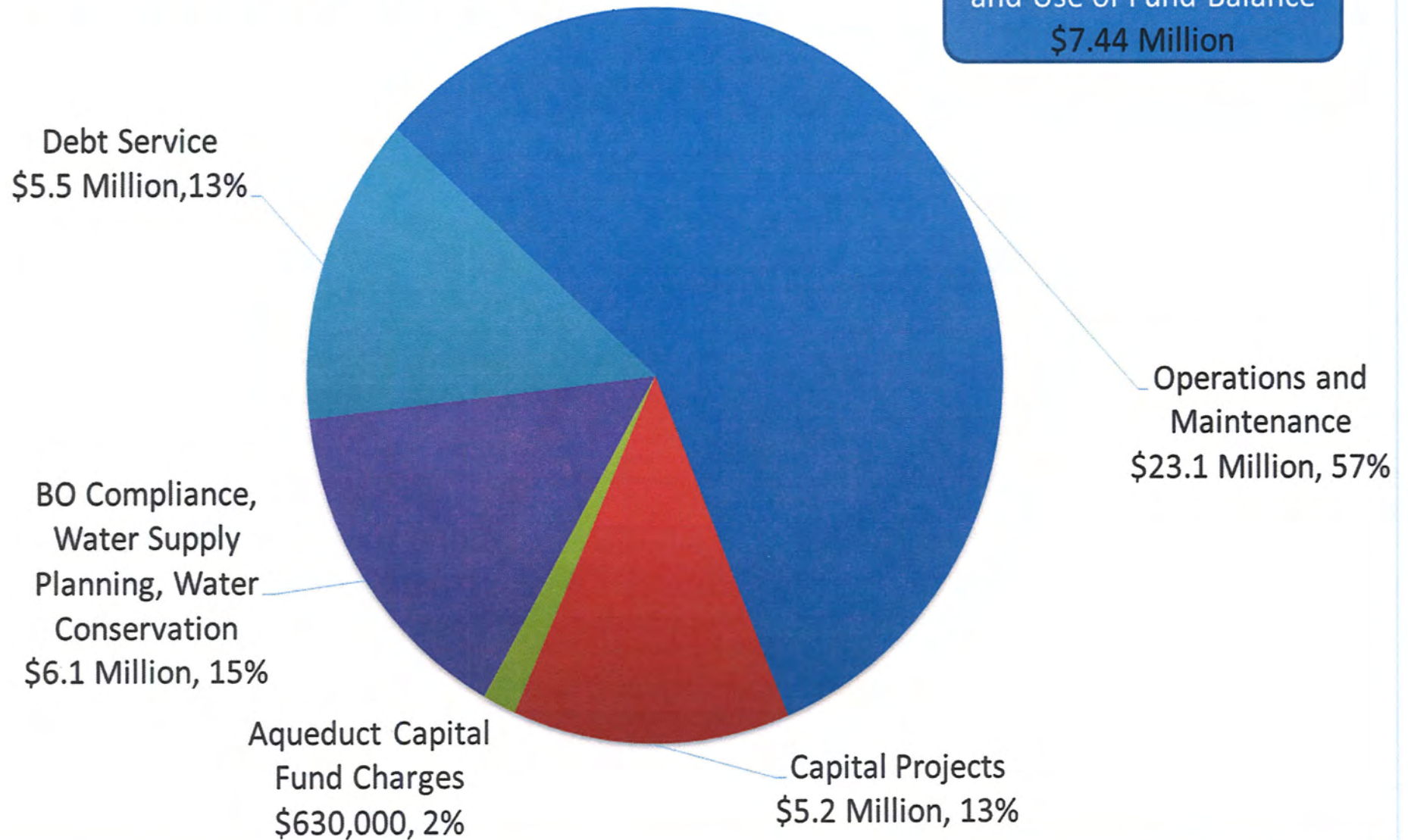
43,848 AF

or

41,768 AF

FY 18-19 Budgeted Expenditures

Grants, Bond Proceeds,
and Use of Fund Balance
\$7.44 Million

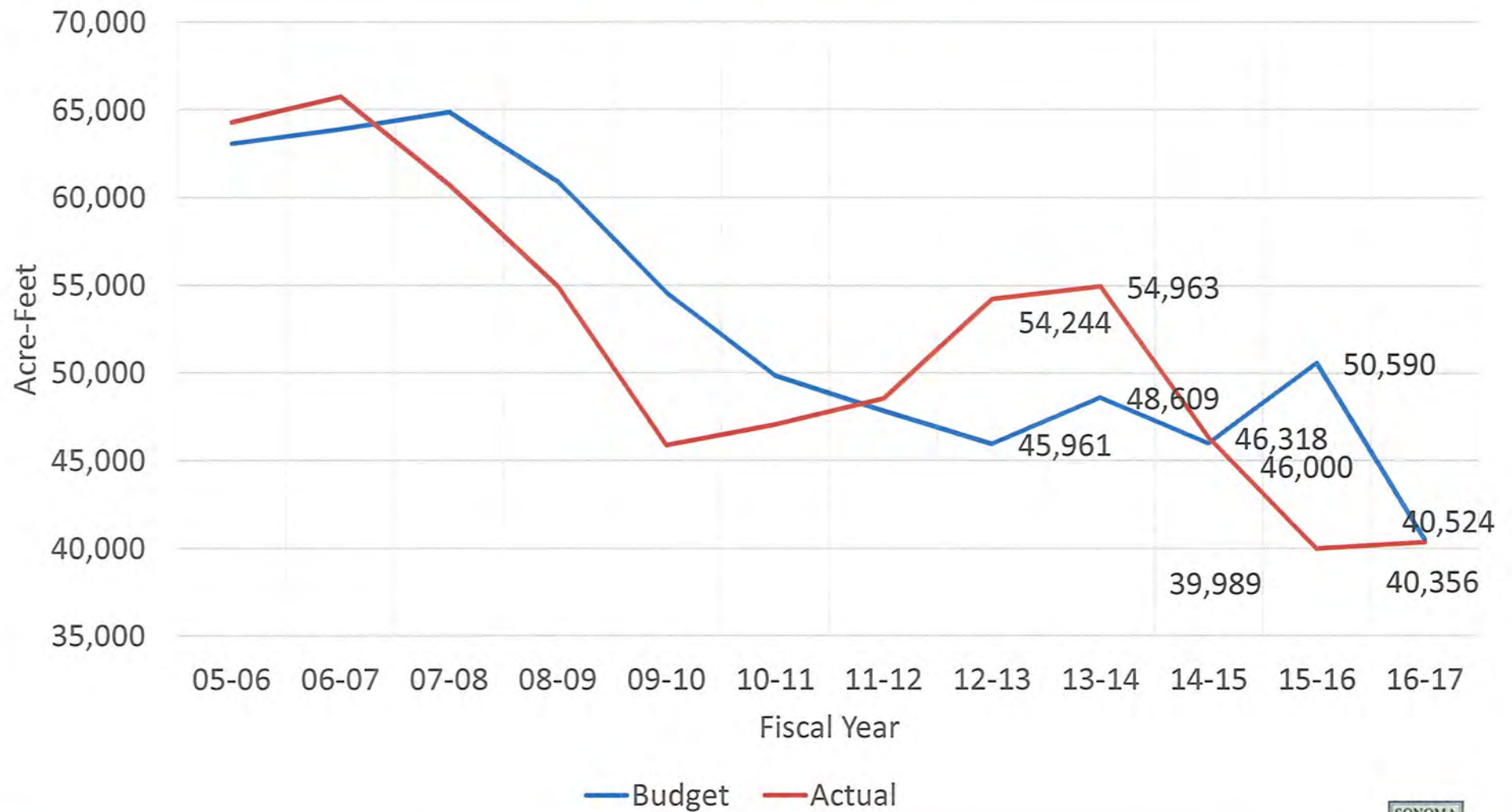


Expenditures Compared to FY 17-18

	FY17-18	FY18-19	
	Budget	Budget	Change
Operations and Maintenance	\$22.00 Million	\$23.13 Million	\$1,130,000
Capital Projects	\$5.59 Million	\$5.21 Million	(\$390,000)
BO Compliance, Water Supply Planning, Water Conservation	\$6.68 Million	\$6.05 Million	(\$630,000)
Debt Service	\$4.22 Million	\$5.47 Million	\$1,250,000
Aqueduct Capital Contribution	\$750,000	\$630,000	(\$120,000)
Totals	\$39.24 Million	\$40.49 Million	\$1,240,000

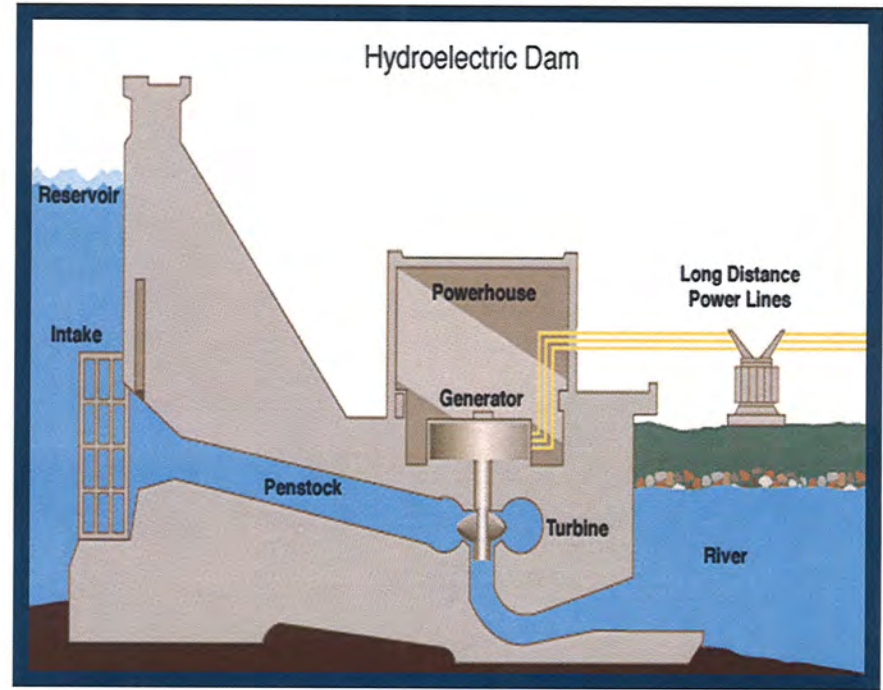
Grants, Use of Fund Balance, and Bond Proceeds	\$8,170,000	\$7,440,000	(\$730,000)
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Historical Water Transmission Deliveries



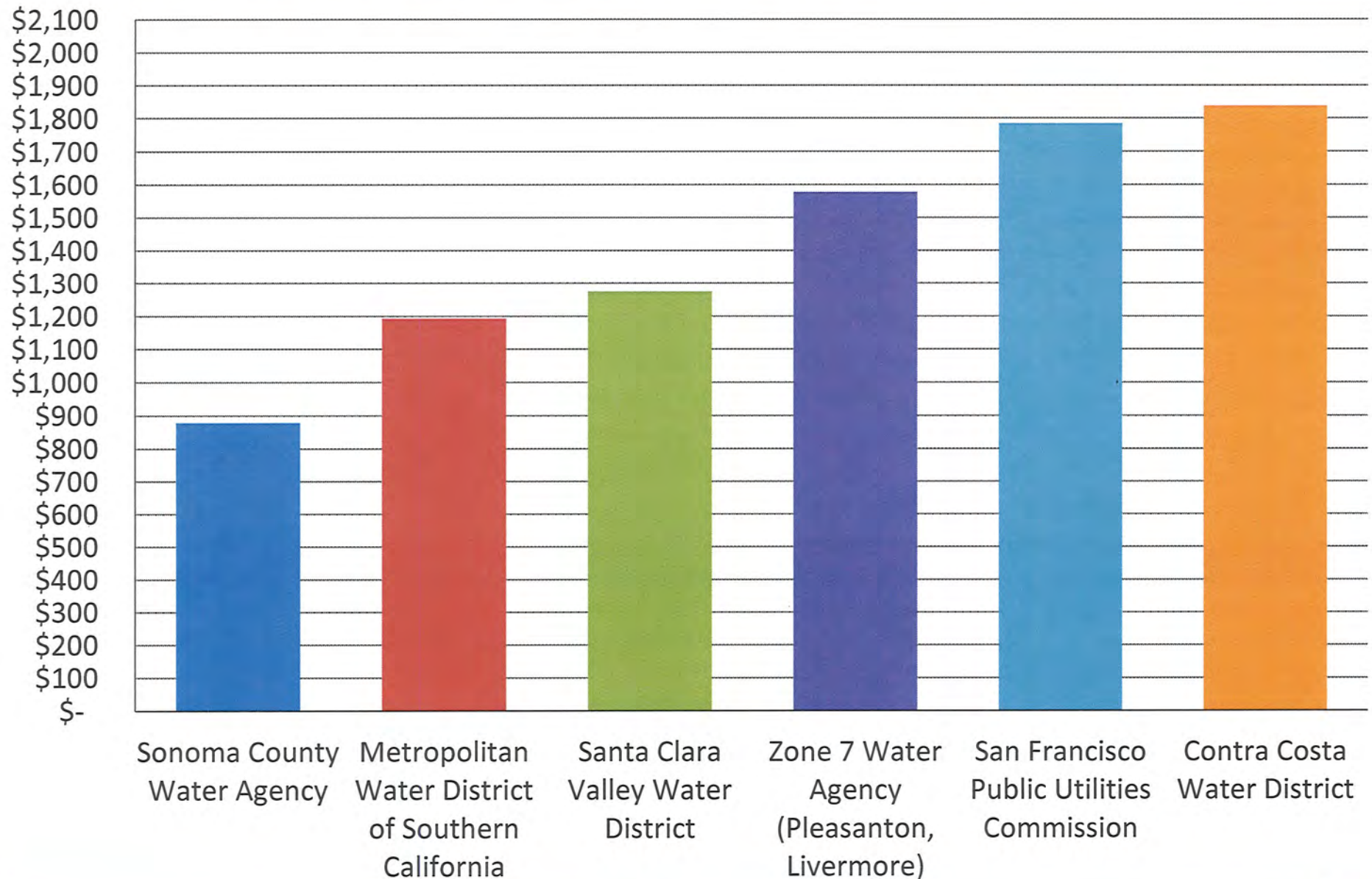
Capital Projects

Warm Springs Dam Hydroturbine Retrofit



Mirabel Dam Bladder Replacement

2018 Wholesale Water Rates Per Acre-Foot



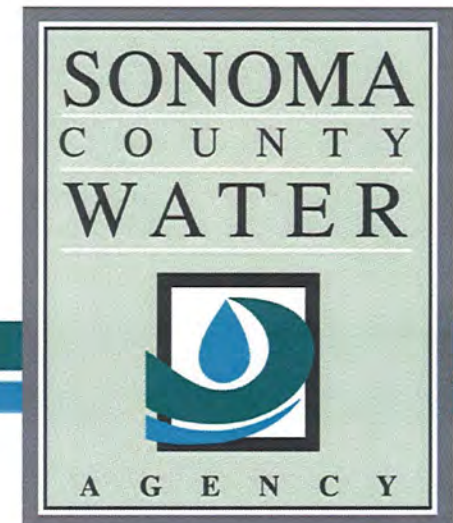
Next Steps

- **Recommended by Technical Advisory Committee - March 5**
- **Presentations to City Councils/District Boards as requested during March**
- **Vote by Water Advisory Committee on Monday, April 2**
- **Adoption by Water Agency Board of Directors – by April 30**

FY 18-19 Proposed Budget and Rates Water Transmission System

Lynne Rosselli
Finance & Accounting Mgr
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NORTH MARIN WATER DISTRICT
MONTHLY PROGRESS REPORT FOR *February 2018*
 March 20, 2018

1. Novato Potable Water Prod - RR & STP Combined - in Million Gallons - FYTD						
Month	FY17/18	FY16/17	FY15/16	FY14/15	FY13/14	18 vs 17 %
July	331	310	227	319	385	7%
August	303	300	235	301	360	1%
September	292	302	210	276	332	-3%
October	274	203	299	221	313	35%
November	164	144	145	173	229	14%
December	152	148	145	129	182	3%
January	131	121	130	137	168	8%
February	134	119	111	121	119	13%
FYTD Total	1,780	1,646	1,503	1,677	2,087	8%
West Marin Potable Water Production - in Million Gallons - FY to Date						
Month	FY17/18	FY16/17	FY15/16	FY14/15	FY13/14	18 vs 17 %
July	9.5	7.9	6.6	8.6	9.3	19%
August	8.8	7.4	7.0	8.5	9.3	19%
September	8.4	6.4	6.4	7.8	8.5	31%
October	7.9	5.2	6.5	5.4	8.0	52%
November	5.4	4.2	4.7	4.6	6.8	29%
December	5.1	3.7	3.9	4.7	6.4	37%
January	4.6	3.6	3.7	4.4	5.9	30%
February	4.8	3.3	3.8	3.9	4.4	44%
FYTD Total	54.5	41.7	42.7	47.9	58.6	31%
Stafford Treatment Plant Production - in Million Gallons - FY to Date						
Month	FY17/18	FY16/17	FY15/16	FY14/15	FY13/14	18 vs 17 %
July	113	70	108	83	98	61%
August	81	90	79	61	83	-10%
September	123	97	38	26	56	27%
October	102	94	50	0	82	9%
November	54	64	58	8	5	-16%
December	0	0	0	0	2	-
January	0	0	0	0	0	-
February	0	0	0	24	0	-
FYTD Total	473	415	333	202	326	14%
Recycled Water Production* - in Million Gallons - FY to Date						
Month	FY17/18	FY16/17	FY15/16	FY14/15	FY13/14	18 vs 17 %
July	27.7	27.1	21.3	21.8	27.6	2%
August	26.1	26.0	26.2	26.0	26.2	0%
September	25.0	23.5	15.7	19.2	18.6	6%
October	19.1	8.3	15.8	9.4	15.8	130%
November	2.5	1.2	3.2	3.7	6.4	111%
December	0.8	0.4	0.8	1.6	1.6	123%
January	1.0	0.3	0.2	0.8	1.2	218%
February	3.3	0.0	0.6	0.8	1.8	-
FYTD Total*	105.5	86.8	83.8	83.2	99.1	21%

*Excludes potable water input to the RW system: FY18=0.9MG; FY17=0.6MG; FY16=7.4MG; FY15=6.9MG; FY14=8.7MG

2. Stafford Lake Data

	February Average	February 2017	February 2018
Rainfall this month	5.10 Inches	10.24 Inches	0.61 Inches
Rainfall this FY to date	20.89 Inches	35.75 Inches	10.16 Inches
Lake elevation*	191.6 Feet	196.7 Feet	182.4 Feet
Lake storage**	1087 MG	1450 MG	567 MG

* Spillway elevation is 196.0 feet

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

Temperature (in degrees)

	Minimum	Maximum	Average
February 2017 (Novato)	48	61	55
February 2018 (Novato)	34	71	57

3. Number of Services

February 28	Novato Water			Recycled Water			West Marin Water			Oceana Marin Swr		
	FY18	FY17	Incr %	FY18	FY17	Incr %	FY18	FY17	Incr %	FY18	FY17	Incr %
Total meters installed	20,778	20,779	0.0%	57	49	16.3%	789	787	0.3%	-	-	-
Total meters active	20,556	20,538	0.1%	53	45	17.8%	781	781	0.0%	-	-	-
Active dwelling units	24,013	23,982	0.1%	0	0	-	831	830	0.1%	232	231	0.4%

4. Oceana Marin Monthly Status Report (February)

Description	February 2017	February 2018
Effluent Flow Volume (MG)	1.187	0.339
Irrigation Field Discharge (MG)	1.335	0.743
Treatment Pond Freeboard (ft)	5.4	7.2
Storage Pond Freeboard (ft)	5.5	8.7

5. Developer Projects Status Report (February)

District Projects Status Report - Const Dept (February)

Job No.	Project	% Complete	% This month
1.7168.00	Center Rd. 6" CIP	99	1

Employee Hours to Date, FY 17/18

As of Pay Period Ending February 28, 2018

Percent of Fiscal Year Passed = 67%

Developer Projects	Actual	Budget	% YTD Budget		District Projects	Actual	Budget	% YTD Budget
Construction	400	1,400	29%		Construction	3,679	4,920	75%
Engineering	395	1,414	28%		Engineering	2,074	4,000	52%

6. Safety/Liability

	Industrial Injury with Lost Time				Liability Claims Paid	
	Lost Days	OH Cost of Lost Days (\$)	No. of Emp. Involved	No. of Incidents	Incurred (FYTD)	Paid (FYTD) (\$)
FY 18 through February	54	26,472	3	2	4	\$1,965
FY 17 through February	43	\$22,304	2	2	4	\$2,702

Days without a lost time accident through February 28, 2018 = 124 days

7. Energy

FYE		February			Fiscal Year-to-Date thru February		
		kWh	¢/kWh	Cost/Day	kWh	¢/kWh	Cost/Day
2018	Stafford TP	52,998	19.7¢	\$373	432,259	19.5¢	\$347
	Pumping	73,325	20.3¢	\$497	977,043	21.0¢	\$843
	Other*	34,949	22.5¢	\$262	338,366	24.9¢	\$349
		161,272	20.6¢	\$1,108	1,747,668	21.4¢	\$1,541
2017	Stafford TP	33,625	19.2¢	\$230	405,371	19.0¢	\$316
	Pumping	56,684	20.6¢	\$377	831,427	20.4¢	\$691
	Other*	36,056	21.4¢	\$241	328,770	24.4¢	\$328
		126,365	20.4¢	\$833	1,565,567	20.8¢	\$1,337
2016	Stafford TP	44,283	18.6¢	\$284	383,595	18.4¢	\$289
	Pumping	58,035	19.8¢	\$383	771,167	17.8¢	\$561
	Other*	35,406	19.5¢	\$230	305,852	23.0¢	\$291
		137,724	19.3¢	\$859	1,460,615	19.0¢	\$1,139

*Other includes West Marin Facilities

8. Water Conservation Update

	Month of February 2018	Fiscal Year to Date	Program Total to Date
High Efficiency Toilet (HET) Rebates	1	85	3,820
Retrofit Certificates Filed	12	160	5,991
Cash for Grass Rebates Paid Out	1	12	897
Washing Machine Rebates	0	18	6,775
Water Smart Home Survey	19	214	3,119

9. Utility Performance Metric

<u>SERVICE DISRUPTIONS</u> (No. of Customers Impacted)	February 2018	February 2017	Fiscal Year to Date 2018	Fiscal Year to Date 2017
PLANNED				
Duration Between 0.5 and 4 hours	14	7	267	156
Duration Between 4 and 12 hours	*5		98	3
Duration Greater than 12 hours				
UNPLANNED				
Duration Between 0.5 and 4 hours		25	56	55
Duration Between 4 and 12 hours			88	16
Duration Greater than 12 hours				2
<u>SERVICE LINES REPLACED</u>				
Polybutylene	14	12	73	83
Copper (Replaced or Repaired)		1	10	15

* Ridge Road Valve Insertion

NORTH MARIN WATER DISTRICT

Summary of Complaints & Service Orders February 2018

3/8/2018

Type	Feb-18	Feb-17	Action Taken February 2018
<u>Consumers' System Problems</u>			
Service Line Leaks	17	11	Notified Consumer
Meter Leak Consumer's Side	0	1	~
House Plumbing	0	0	~
Noisy Plumbing	0	0	~
Seepage or Other	0	0	~
House Valve / Meter Off	0	2	~
Nothing Found	0	6	~
Low Pressure	0	0	~
High Pressure	0	0	~
Water Waster Complaints	0	0	~
Total	17	20	
<u>Service Repair Reports</u>			
Register Replacements	0	0	~
Meter Replacement	1	2	Notified Consumer
Meter Box Alignment	0	0	~
Meter Noise	0	0	~
Dual Service Noise	0	0	~
Box and Lids	1	0	Notified Consumer
Water Off/On Due To Repairs	4	3	Notified Consumer
Misc. Field Investigation	2	0	Notified Consumer
Total	8	5	
<u>Leak NMWD Facilities</u>			
Main-Leak	0	0	~
Mains-Nothing Found	0	0	~
Mains-Damage	0	0	~
Service- Leak	1	4	Repaired
Services-Nothing Found	3	3	Notified Consumer
Service-Damaged	0	0	~
Fire Hydrant-Leak	0	1	~
Fire Hydrants-Nothing Found	0	0	~
Fire Hydrants-Damaged	0	0	~
Meter Replacement	0	0	~
Meter Leak	0	0	~
Meters-Nothing Found	0	0	~
Meters Damaged	0	0	~
Washer Leaks	8	0	Repaired
Total	12	8	
<u>High Bill Complaints</u>			
Consumer Leaks	5	13	Notified Consumer
Meter Testing	0	0	~
Meter Misread	5	3	Notified Consumer
Nothing Found	12	24	Notified Consumer
Projected Consumption	0	0	~
Excessive Irrigation	0	0	~
Total	22	40	

NORTH MARIN WATER DISTRICT

Summary of Complaints & Service Orders February 2018

3/8/2018

Type	Feb-18	Feb-17	Action Taken February 2018
<u>Low Bill Complaints</u>			
Meter Misread	0	0	~
Stuck Meter	0	0	~
Nothing Found	0	0	~
Projected Consumption	0	0	~
Minimum Charge Only	0	0	~
Total	0	0	
<u>Water Quality Complaints</u>			
Taste and Odor	0	1	~
Color	0	1	~
Turbidity	0	1	~
Suspended Solids	0	0	~
Other	3	0	<i>Customer concerned about minerals on fixtures. (Alameda De La Loma)</i> Hardness and pH is normal for NMWD supply. Customer was notified of results. <i>Customer concerned about water quality due to older plumbing. (Sunset Pkwy)</i> No metals detected and other results were normal for NMWD supply. Customer was notified of results. <i>Customer concerned about water quality due to older plumbing. (Fairway Dr)</i> No metals detected and other results were normal for NMWD supply. Customer was notified of results.
Total	3	3	
TOTAL FOR MONTH:	62	76	-18%
<u>Fiscal YTD Summary</u>			
Consumer's System Problems	261	242	8% Increase In Consumer Service Line Leaks
Service Repair Report	76	86	-12% Decrease In Water On/Off Due To Repairs
Leak NMWD Facility	147	120	23% Increase In Washer Leaks
High Bill Complaints	425	535	-21% Decrease In Nothing Found
Low Bills	0	3	-100% Decrease In Nothing Found
Water Quality Complaints	28	34	-18% Decrease In Taste and Odor
Total	937	1,020	-8%

NORTH MARIN WATER DISTRICT

Summary of Complaints & Service Orders February 2018

3/8/2018

<u>Type</u>	<u>Feb-18</u>	<u>Feb-17</u>	<u>Action Taken February 2018</u>
<u>"In House" Generated and Completed Work Orders</u>			
<u>Check Meter:</u> possible consumer/District leak, high bill, flooded, need read, etc.	197	295	
<u>Change Meter:</u> leaks, hard to read	24	5	
<u>Possible Stuck Meter</u>	0	0	
<u>Repair Meter:</u> registers, shut offs	0	0	
<u>Replace Boxes/Lids</u>	2	0	
<u>Hydrant Leaks</u>	0	0	
<u>Trims</u>	12	1	
<u>Dig Outs</u>	73	24	
<u>Letters to Consumer:</u> meter obstruction, trims, bees, gate access, etc. get meter number, kill service, etc.	0	0	
	<u>308</u>	<u>325</u>	

Bill Adjustments Under Board Policy:

February 18 vs. February 17

Feb-18	25	\$7,811
Feb-17	23	\$6,219

Fiscal Year vs Prior FY


17/18 FY	292	\$128,610
16/17 FY	373	\$119,252

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MEMORANDUM

To: Board of Directors

March 16, 2018

From: David L. Bentley, Auditor-Controller 

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

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RECOMMENDED ACTION: Information

FINANCIAL IMPACT: None

At month end the District's Investment Portfolio had an amortized cost value (i.e., cash balance) of \$14,877,300 and a market value of \$14,837,006. During February the cash balance increased by \$1,243,159 due primarily to receipt of \$1.66 million in Recycled Water Central Area Expansion grant funds. The market value of securities held decreased \$40,293 during the month. The ratio of total cash to budgeted annual operating expense stood at 96%, up 8% from the prior month.

At February 28, 2018, 25% of the District's Portfolio was invested in California's Local Agency Investment Fund (LAIF), 28% in Time Certificates of Deposit, 20% in Federal Agency Securities, 17% in US Treasury Notes, 6% in the Marin County Treasury, and 3% retained locally for operating purposes. The weighted average maturity of the portfolio was 219 days, compared to 246 days at the end of January. The LAIF interest rate for the month was 1.41%, compared to 1.35% the previous month. The weighted average Portfolio rate was 1.29%, compared to 1.24% the previous month.

NORTH MARIN WATER DISTRICT
AUDITOR-CONTROLLER'S MONTHLY REPORT OF INVESTMENTS
February 28, 2018

Type	Description	S&P Rating	Purchase Date	Maturity Date	Cost Basis ¹	2/28/2018 Market Value	Yield ²	% of Portfolio
LAIF	State of CA Treasury	AA-	Various	Open	\$3,760,079	\$3,752,910	1.41% ³	25%
Time Certificate of Deposit								
TCD	Wells Fargo Bank	n/a	3/23/16	3/23/18	\$248,000	\$248,000	1.10%	2%
TCD	Mercantil Commerce Bank	n/a	6/17/16	6/15/18	248,000	248,000	1.00%	2%
TCD	Customers Bank	n/a	6/24/16	6/25/18	248,000	248,000	1.20%	2%
TCD	Merrick Bank	n/a	7/19/16	7/19/18	249,000	249,000	1.00%	2%
TCD	BMO Harris Bank	n/a	8/18/16	8/17/18	248,000	248,000	1.05%	2%
TCD	Ally Bank	n/a	10/4/16	9/28/18	248,000	248,000	1.15%	2%
TCD	Everbank	n/a	11/17/16	11/15/18	248,000	248,000	1.20%	2%
TCD	Investors Bank	n/a	12/16/16	12/17/18	248,000	248,000	1.35%	2%
TCD	Morgan Stanley Private Bank	n/a	11/22/17	5/22/19	248,000	248,000	1.60%	2%
TCD	Capital One Bank	n/a	7/19/17	7/19/19	247,000	247,000	1.70%	2%
TCD	Capital One NA	n/a	8/9/17	8/9/19	247,000	247,000	1.70%	2%
TCD	American Express FSB	n/a	9/6/17	9/6/19	247,000	247,000	1.75%	2%
TCD	Goldman Sachs Bank USA	n/a	10/11/17	10/11/19	247,000	247,000	1.70%	2%
TCD	Morgan Stanley Bank	n/a	11/9/17	11/12/19	247,000	247,000	1.75%	2%
TCD	American Express Centurion	n/a	12/5/17	12/5/19	247,000	247,000	1.90%	2%
TCD	Sallie Mae Bank	n/a	1/10/18	1/10/20	247,000	247,000	2.20%	2%
TCD	Discover Bank	n/a	2/13/18	2/24/20	247,000	247,000	2.35%	2%
					\$4,209,000	\$4,209,000	1.51%	28%
US Treasury Notes								
Treas	1,000 - 1.375%	n/a	11/17/16	12/31/18	\$1,002,718	\$994,062	1.05%	7%
Treas	1,000 - 1.50%	n/a	1/10/17	2/28/19	1,002,652	993,945	1.24%	7%
Treas	1,000 - 1.38%	n/a	1/10/18	7/31/19	496,502	495,039	1.88%	3%
					\$2,501,872	\$2,483,046	1.29%	17%
Federal Agency Securities								
FICO	0.86% MTN	n/a	4/22/16	5/11/18	\$1,015,293	\$1,012,405	0.85%	7%
FNMA	0.875% MTN	n/a	7/19/16	7/27/18	999,737	995,426	0.97%	7%
FHLB	1.625% MTN	n/a	11/21/17	6/14/19	999,546	992,445	1.65%	7%
					\$3,014,575	\$3,000,276	1.16%	20%
Other								
Agency	Marin Co Treasury	AAA	Various	Open	\$900,751	\$900,751	0.75%	6%
Other	Various	n/a	Various	Open	491,022	491,022	0.41%	3%
TOTAL IN PORTFOLIO					\$14,877,300	\$14,837,006	1.29%	100%

Weighted Average Maturity = **219 Days**

LAIF: State of California Local Agency Investment Fund.

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

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

Agency: STP State Revolving Fund Loan Reserve.

Other: Comprised of 4 accounts used for operating purposes. US Bank Operating Account, US Bank STP SRF Loan Account, Bank of Marin AEEP Checking Account & NMWD Petty Cash Fund.

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

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

3 Earnings are calculated daily - this represents the average yield for the month ending February 28, 2018.

Interest Bearing Loans	Loan Date	Maturity Date	Original Loan Amount	Principal Outstanding	Interest Rate
StoneTree Golf Loan	6/30/06	2/28/24	\$3,612,640	\$1,375,284	2.40%
Marin Country Club Loan	1/1/18	11/1/47	\$1,265,295	\$1,259,262	1.00%
Marin Country Club Loan	1/1/18	11/1/27	\$430,463	\$424,230	2.80%
Employee Housing Loans (5)	Various	Various	934,200	934,200	Contingent
TOTAL INTEREST BEARING LOANS			\$6,242,598	\$3,992,975	


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

7

MEMORANDUM

To: Board of Directors

March 16, 2018

From: Rocky Vogler, Chief Engineer 

Re: GHD, Inc. General Services Agreement

R:\NON JOB No ISSUES\Consultants\GHD (aka Winzler & Kelly)\FY17-18\Agmts_BOD Memos\GHD Genl Servs Agmt BOD memo 3-16-18.doc

RECOMMENDED ACTION: Authorize General Manager to execute a General Consulting Services Agreement with GHD, Inc.

FINANCIAL IMPACT: \$75,000

The amount of required engineering work related to existing planned District Capital Improvement Project (CIP) work as well as specialty disciplines not available in-house, continues to necessitate outsourcing of various engineering services on an as-needed basis. The District currently has general engineering services contracts with various consulting firms including GHD, CSW/Stuber-Stroeh, Miller Pacific Engineering Group, Nute Engineering, White & Prescott and Aberegg Drafting Services. The purpose of this memo is to request a new General Consulting Services (GCS) Agreement with GHD. Attached is an agreement for GHD to provide outsourcing support for engineering services to assist staff with District workload demands with a not-to-exceed limit of \$75,000. GHD has a long and proven track record with the District in providing high quality and responsive services at reasonable costs. To best meet project demands, a new GCS Agreement is desired and will be executed with individual task orders on a job-by-job basis. Two of the first task orders to be funded through this Agreement will be preparation of a Categorical Exemption (CEQA) for replacing the School Road pump station with a new pump station on Bahia Drive (est. \$12,000), as well as designing improvements required for the replacement of the motor control center at Lynwood pump station (est. \$25,000). These first two task orders combined are estimated to be approximately \$37,000.

A summation of contract billings for GHD general engineering services (exclusive of Advanced Metering Infrastructure and PRE Tank 4A) for the last several years is provided as follows:

TABLE I		
Contract Issuance Year	Billing Year	Total Billings
FY14-15	2015	\$5,316
	2016	\$10,602
	2017	\$8,593
FY16-17	2017	\$55,010
	2018	\$6,748

Currently, there is \$1,724 that has not yet been invoiced against issued FY17-18 Task Orders

Approved by GM _____

Date _____

A cost breakdown for the original \$30,000 FY16-17 contract and the \$32,000 contract amendment (September 2017) by task is summarized as follows:

TABLE 2

Starting Contract Amount (FY16-17)	\$30,000
Carryover Balance from FY14-15 Contract	\$0
Contract Amendment (Sept. 2017)	\$32,000
Adjusted Contract Amount	\$62,000
Projects (Authorized Task Orders)	
Cathodic Protection RW Hwy 101	<\$1,240>
San Mateo Tank I/O CEQA Assistance	<\$13,004>
Oceana Marin Treatment Pond Grant Assistance	<\$38,730>
Grant Ave. Bridge Pipe Replacement Structural	<\$1,986>
Remaining Balance Available on Contract	\$7,040

RECOMMENDATION

That the Board authorize the General Manager to execute a General Consulting Services Agreement between NMWD and GHD with a not-to-exceed limit of \$75,000.

AGREEMENT FOR CONSULTING SERVICES

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

WHEREAS, Consultant is a duly qualified consulting firm, experienced in the planning, design and construction management of water/wastewater facilities.

WHEREAS, in the judgement of the Board of Directors of the NMWD, it is necessary and desirable to employ the services of the Consultant to provide miscellaneous engineering services.

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

PART A -- SPECIFIC PROVISIONS:

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

- a. The scope of work covered by this agreement shall include on-site assistance and/or project management under District staff supervision. Specific work scope tasks, schedules and estimate of services cost shall be discussed, agreed upon and documented between NMWD and the Consultant prior to beginning any work under this agreement.
- b. The fee and fee payment for such work shall be as stipulated under the fee schedule included in Attachment 1 of this agreement. Agreement cost shall not exceed \$75,000 in total without additional Board of Directors' authorization.

PART B -- GENERAL PROVISIONS

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

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

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

- a. With respect to professional services under this agreement, Consultant shall assume the defense of and defend NMWD, its directors, officers, agents, and employees in any action at law or in equity in which liability is claimed or alleged to arise out of,

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

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

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

4. PROSECUTION OF WORK: The execution of this agreement shall constitute the Consultant's authority to proceed immediately with the performance of this contract. Performance of the services hereunder shall be completed by June 30, 2020, provided, however, that if the performance is delayed by earthquake, flood, high water or other Act of God or by strike, lockout or similar labor disturbance, the time for the Consultant's performance of this contract shall be extended by a number of days equal to the number of days the Consultant has been delayed.

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

North Marin Water District
P.O. Box 146
Novato, CA 94948
Attention: Rocky Vogler

Consultant:
GHD, Inc
2235 Mercury Way, Suite 150
Santa Rosa, CA 95407
Attention: Alex Culick

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

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

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

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

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

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

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

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

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

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

12. EXTRA (CHANGED) WORK: Extra work may be required. The Consultant shall not proceed nor be entitled to reimbursement for extra work unless it has been authorized, in writing, in advance, by NMWD. The Consultant shall inform the District as soon as it determines work beyond the scope of this agreement may be necessary and/or that the work under this agreement cannot be

completed for the amount specified in this agreement. Said review shall occur before consultant incurs 75% of the total fee approved for any phase of the work. Failure to notify the District shall constitute waiver of the Consultant's right to reimbursement.

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

14. INSURANCE REQUIREMENTS FOR CONSULTANTS

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

Minimum Scope of Insurance

Coverage shall be at least as broad as:

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

Minimum Limits of Insurance

Consultant shall maintain limits no less than:

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

Verification of Coverage

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

Subcontractors

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

Self-Insured Retentions

Any self-insured retentions must be declared to and approved by the District. At the option of the District, either: the insurer shall reduce or eliminate such self-insured retentions as respects

the District, its officers, officials, employees and volunteers; or the Consultant shall provide a financial guarantee satisfactory to the District (such as a surety bond) guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

Other Insurance Provisions

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

1. The District, its officers, officials, employees, and volunteers are to be covered as insureds with respect to liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of the Consultant.
2. For any claims related to this project, the Consultant's insurance coverage shall be primary insurance as respects the District, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the District, its officers, officials, employees, or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.
3. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party, except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the District.

Acceptability of Insurers

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

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

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

16. BILLING AND DOCUMENTATION: The Consultant shall invoice NMWD for work performed on a monthly basis and shall include a summary of work for which payment is requested. The invoice shall state the authorized contract limit, the amount of invoice and total amount billed to date. The summary shall include time and hourly rate of each individual, a narrative description of work accomplished, and an estimate of work completed to date.

17. REASONABLE ASSURANCES: Each party to this agreement undertakes the obligation that the other's expectation of receiving due performance will not be impaired. When reasonable grounds for insecurity arise, with respect to performance of either party, the other may, in writing, demand adequate assurance of due performance and until the requesting party receives

such assurance may, if commercially reasonable, suspend any performance for which the agreed return has not been received. "Commercially reasonable" includes not only the conduct of the party with respect to performance under this agreement but also conduct with respect to other agreements with parties to this agreement or others. After receipt of a justified demand, failure to provide within a reasonable time, not to exceed 30 days, such assurance of due performance as is adequate under the circumstances of the particular case is a repudiation of this agreement. Acceptance of any improper delivery, service, or payment does not prejudice the aggrieved party's right to demand adequate assurance of future performance.

**NORTH MARIN WATER DISTRICT
"NMWD"**

Dated: _____

Drew McIntyre, General Manager

**GHD, INC.
"CONSULTANT"**

Dated: _____

Alex Culick



Fee Schedule

2017-2018 USA West Fee Schedule

Principals:

Level E	\$195 - 210
Level F	\$220 - 260

Associates:

Level D	\$165 - 175
Level E	\$185 - 205
Level F	\$225 - 245

Specialist:

Level B	\$180
Level C	\$190
Level D	\$200
Level E	\$220 - 230
Level F	\$235 - 250

Engineers:

Level A	\$115 - 125
Level B	\$130 - 140
Level C	\$145 - 155
Level D	\$160 - 185
Level E	\$190 - 220
Level F	\$225 - 245

Geologists/Hydrogeologists:

Level A	\$115 - 125
Level B	\$130 - 135
Level C	\$140 - 150
Level D	\$160 - 180
Level E	\$185 - 200
Level F	\$210

Environmental Planners:

Level A	\$105 - 115
Level B	\$120 - 125
Level C	\$130 - 135
Level D	\$145 - 155
Level E	\$165 - 195
Level F	\$210 - 215

Environmental Chemists:

Level A	\$115 - 130
Level B	\$135 - 145
Level C	\$150 - 160
Level D	\$165 - 175
Level E	\$180 - 195

Environmental Scientists:

Level A	\$100 - 110
Level B	\$115 - 125
Level C	\$130 - 135
Level D	\$140 - 155
Level E	\$165 - 180
Level F	\$195 - 210

Industrial Hygienists / Safety Professionals:

Level A	\$105
Level B	\$115 - 120
Level C	\$125 - 135
Level D	\$145 - 160
Level E	\$170 - 180

Technicians/Technologists / Project Coordinators:

Level A	\$85
Level B	\$100 - 110
Level C	\$110 - 120
Level D	\$125 - 140
Level E	\$145 - 160
Level F	\$180 - 190

Draft/CADD:

Level A	\$75 - 80
Level B	\$90
Level C	\$95 - 100
Level D	\$115 - 125
Level E	\$130 - 160
Level F	\$170

Technical Apprentices:

Level A	\$80
Level B	\$95

Administrative Support:

\$70



Fee Schedule

2017-2018 USA West Fee Schedule

Employee time will be billed in accordance with the fees listed above. These rates are subject to change on a semi-annual basis. For other than professional employees, time spent over 8 hours per day, time spent on swing shifts, and time spent on Saturdays will be charged at 1.5 times the hourly billing rate. Work on Sundays will be charged at 2.0 times the hourly billing rate and holiday work will be charged at 2.5 times the hourly billing rate. All field personnel charges are portal to portal. Professional employees will not be charged out at premium charge rates for overtime work.

Expenses and other similar project related costs are billed out at cost plus 15%. The cost of using equipment and specialized supplies is billed on the basis of employee hours dedicated to projects. Our rates are:

- A. Office consumables: \$6.00/hr
- B. Environmental Dept/Construction Inspector consumables: \$11.00/hr
- C. Survey Field consumables: \$15.00/hr
- D. Various Environmental, Construction and Land Surveying equipment: At market B. C. D.

Payment for work and expenses is due and payable upon receipt of our invoice. Amounts unpaid thirty (30) days after the issue date of our invoice shall be assessed a service charge of one and one half (1.5) percent per month.

(*) These rates do not apply to forensic-related services, or to work for which Prevailing Wage obligations exist. It is the responsibility of the client to notify GHD Inc in writing if Prevailing Wage obligations are applicable, in which case the fees will be adjusted proportionate to the increase in labor cost.

8

MEMORANDUM

To: Board of Directors March 16, 2018
 From: Drew McIntyre, General Manager 
 Subject: Authorize Affirmative Vote for SCWA FY19 Water Transmission System Budget
\\nmwdsrv1\Administration\GM\mbob misc 2018\scwa fy19 budget.doc

RECOMMENDED ACTION: Authorize WAC Representative to vote in favor for SCWA FY19 Water Transmission System Budget

FINANCIAL IMPACT: Approximately \$53,000 increase in purchased water plus \$1.28M to opt-out of the Agency bond issue to be included in NMWD FY19 Budget

Attached is the final draft of the Sonoma County Water Agency Water Transmission System budget for Fiscal Year 2018/19 (FY19). The budget proposes NMWD water purchases next fiscal year at \$894.17 per acre-foot (Pg 4). At the last meeting Auditor-Controller David Bentley reported that SCWA's rate increase for NMWD is 4%. Recall that the Board approved payment to SCWA of \$1.28M to opt out of an Agency bond issuance at the February 6, 2018 meeting. As a result, NMWD's commodity rate increase has been adjusted to 0.9%, which will cost an additional \$53,000 next fiscal year based on purchase of 6,750 AF. SCWA is forecasting NMWD future annual purchase water rate increases of 6%.

A TAC Ad Hoc subcommittee was formed in December to review and negotiate the budget with the Agency. The Ad Hoc subcommittee (which included Mr. Bentley) met twice in January 2018 and the TAC unanimously approved the FY19 SCWA budget on March 5, 2018. A special WAC meeting will be held on April 2, 2018 to consider the budget. Absent any objections by Board members, it is my recommendation that the NMWD WAC representative vote in favor of the budget as presented.

RECOMMENDATION

Board authorize WAC representative to vote in favor for FY19 SCWA Water Transmission System budget.

Water Transmission FY 2018-2019 Draft Budget and Rates

The draft proposed FY 18-19 rates are shown in the table below:

Charge / Aqueduct	Santa Rosa	Petaluma	Sonoma
Deliveries (Acre-Feet)	41,768		
O&M	\$578.85	\$578.85	\$578.85
Water Management Planning	\$1.00	\$1.00	\$1.00
Watershed Planning & Restoration	\$91.07	\$91.07	\$91.07
Recycled Water and Local Supply	\$2.92	\$2.92	\$2.92
Water Conservation	\$45.16	\$45.16	\$45.16
Total O&M	\$719.00	\$719.00	\$719.00
Storage & Common Bond/Loan Charges	\$139.38	\$139.38	\$139.38
Sonoma Aqueduct Bond/Loan Charge			\$142.68
Prime Contractors	\$858.38	\$858.38	\$1,001.06
<u>Discretionary Charges</u>			
Capital Charges - to build fund balance for future projects	\$19.50	\$19.50	\$0.00
Local Recycled Water Tier 2 Program	\$0.00	\$0.00	\$0.00
Prime Contractors	\$19.50	\$19.50	\$0.00
Total Prime Contractors	\$877.88	\$877.88	\$1,001.06
Total Overall Increase:	3.67%	3.67%	5.98%

SUMMARY

- **Deliveries: (Budget Packet Pages 8-13):**
 - **FY18-19:** rates are based on budgeted deliveries of **41,768 Acre-Feet (AF)**. Per the Restructured Agreement for Water Supply, rates are calculated using the lesser of: the average annual water deliveries for the past 36 months (**41,768 AF**) or the last 12 months of water deliveries (Calendar Year (CY) 2017: **43,848 AF**). Actual deliveries for CY 2017 were 7.12% more than CY 2016: 40,932 AF. FY18-19 budgeted deliveries are 0.78% more than FY17-18 budgeted deliveries.
 - **FY17-18:** budgeted deliveries for rate calculation were based on the last 12 months of actual water deliveries (CY 2016: 41,446 AF). Actual FY deliveries will be determined at the end of FY17-18. Current trend indicates actuals may be close to budget. Water deliveries could possibly decrease by 5% due to the Sonoma Complex Fires. A decrease of more than 5% would result in water sales revenue below budget which could impact future rates.
 - **FY16-17:** budgeted deliveries were 40,524 AF. Actual deliveries were 40,356 AF (0.41% lower).
- **Operations and Maintenance (O&M) – Water Transmission O&M Fund (Budget Packet Pages 14-21):**
 - In accordance with the Restructured Agreement for Water Supply:
 - The rate is calculated by dividing operations and maintenance expenditures (less specific cash and noncash revenues and expenditures) by budgeted deliveries.

O&M Fund	Increase (Decrease) in Dollars	Percent Change	Description
Rate per AF	\$4.81	0.8%	Routine services and supplies and large non-routine maintenance project costs are increasing.
Revenue	\$1,151,997	3.2%	Increase attributable to budgeted deliveries and the total overall rate increase which includes higher charges for watershed planning and restoration, and new money financing for capital projects in FY 2018-2019.
Expenditures	\$995,676	2.3%	Increase due to flood and fire-related water quality studies, Russian River embankment repairs, and ongoing large non-routine maintenance projects.

Factors affecting the O&M rate:

O&M Fund Expenditures	Increase (Decrease) in Dollars	Percent Change	Description
Labor	\$600,000	4.3%	Increase attributable to a) 3% cost of living increase in Fiscal Year 2017-2018 after water transmission budget was approved, and b) additional labor for flood and fire-related water quality studies and Russian River embankment repairs, and ongoing large non-routine maintenance projects.
Power	\$100,000	3.1%	Expected to decrease \$230,000 over Fiscal Year 2016-2017 actuals (\$3.53 million) but increase \$100,000 over Fiscal Year 2017-2018 budget due to increased pumping from slightly higher water deliveries.
Chemicals	\$90,000	15.0%	Expected to increase \$10,000 over Fiscal Year 2016-2017 actuals, and \$15,000 over Fiscal Year 2017-18 estimated actuals. Increase in deliveries results in an increase in treatment costs. Fiscal Year 2017-2018 budget underestimated treatment costs.
Testing/Analysis	\$5,000	3.8%	Increase due to slightly higher water deliveries and corresponding need for laboratory testing and analysis.
Contract Services	\$260,000	18.7%	Increase due to flood and fire-related water quality studies, Russian River embankment repairs, and ongoing large non-routine maintenance projects.
Maintenance - Equipment	(\$254,000)	-20.4%	Budget is aligned more closely with Fiscal Year 2016-2017 actuals.
Small Tools - Instruments	\$40,000	28.6%	Increase to align more closely with Fiscal Year 2016-2017 actuals.
Operating Transfers	(\$76,000)	-0.6%	Operating Transfers (OT's) move revenue generated by rates into respective funds (debt service funds, subfunds, aqueduct capital funds and Common Facilities) and maintain appropriate fund balance.

• **Subfunds: (Budget Packet Pages 22-31):**

- Subfund rates are calculated by dividing subfund expenditures minus grant revenue by budgeted water deliveries.
- Water Management Planning:

- Expenditures are for Urban Water Management Planning (UWMP) which is required to be updated every five years. In intervening years, the Water Agency typically incurs minimal costs to review regulatory requirements and revise the scope of work accordingly but will maintain modest rate increases to smooth the rate and soften impact to rate payers.

Water Management Planning	Increase (Decrease) in Dollars	Percent Change	Description
Rate per AF	(\$2.14)	-68.1%	Fiscal Year 2017-2018 rate is \$3.14. Fund is for Urban Water Management Plan updates. Past rate increases have accumulated sufficient fund balance for Fiscal Year 2021 Urban Water Management Plan resulting in a rate decrease for Fiscal Year 2018-2019.
Revenue	(\$93,424)	-66.4%	Decrease due to reduced rate increase. Target fund balance for Fiscal Year 2021 Urban Water Management Plan has been reached.
Expenditures	\$0	0.0%	Budget of \$25,000 comparable to Fiscal Year 2017-2018 for follow-up meetings, responding to State Department of Water Resources and contractor requests, tracking regulatory compliance changes, and coordinating with climate adaption strategic planning efforts.

○ Watershed Planning and Restoration:

- Expenditures are for planning, design, and implementation of watershed restoration projects and projects required under the Biological Opinion.

Watershed Planning and Restoration	Increase (Decrease) in Dollars	Percent Change	Description
Rate per AF	\$4.67	5.4%	Fiscal Year 2017-2018 rate is \$86.40. Rate increase to build fund balance for Dry Creek Habitat Enhancement miles 4, 5, and 6 construction to smooth impact of future rates.
Revenue	\$234,323	6.1%	Increase due to slightly increased Fiscal Year 2018-2019 budgeted water deliveries and subfund rate increase as compared to Fiscal Year 2017-2018 budget.
Expenditures	(\$1,077,000)	-24.0%	Decrease due to encumbering Dry Creek Habitat Enhancement miles 4, 5, and 6 design agreements in Fiscal Year 2017-2018, progress on draft and final flow EIR, and climate adaption projects.

- Recycled Water and Local Supply:
 - Expenditures are for planning, design, and implementation of recycled water and local supply projects including water contractor projects under the Local Recycled Water Tier 2 (LRT2) Program.

Recycled Water and Local Supply	Increase (Decrease) in Dollars	Percent Change	Description
Rate per AF	(\$7.09)	-70.8%	Fiscal Year 2017-2018 rate is \$10.01 for Water Agency role in Santa Rosa Plain Groundwater Sustainability Agency. Past rate increases have accumulated sufficient fund balance for aquifer storage and recovery project. Fiscal Year 2017-2018 and Fiscal Year 2018-2019: TAC has not included Local Recycled Water Tier 2 (LRT2) funding in the budget.
Revenue	(\$310,248)	-69.6%	Decrease due to reduced rate increase. Target fund balance for aquifer storage and recovery project has been reached.
Expenditures	\$7,000	6.1%	Increase is for Water Agency share of Santa Rosa Plain Groundwater Sustainability Agency groundwater sustainability plan.

- Water Conservation:
 - Expenditures are for water use efficiency projects, outreach, and education.

Water Conservation	Increase (Decrease) in Dollars	Percent Change	Description
Rate per AF	\$1.39	3.2%	Fiscal Year 2017-2018 rate is \$43.77. Rate increase for program needs. Fiscal Year 2017-2018 use of \$290,000 in fund balance to reduce rate increase.
Revenue	\$212,055	10.0%	Increase due to DWR Water Energy Grant and funding agreements with water contractors.
Expenditures	\$438,672	21.3%	Implement water use efficiency, outreach and education projects, address ongoing water conservation needs, and pass through grant funds to water contractors and other partners. Fire-related water use efficiency activities expected to be ongoing in FY 2018-2019.

- **Storage, Common, and Sonoma Bond/Loan Charges: (Budget Packet Pages 43-56):**
 - The rates are calculated by dividing the annual debt service and reserve requirements (2012A, 2015A, and proposed 2019A Water Revenue Bonds) by water deliveries. The rate increases shown below are attributed to the proposed new money financing (Water Revenue Bonds 2019A); Total \$11.5M, 3.4% 25 years.

Storage and Common Bond/Loan Charges	Increase (Decrease) in Dollars	Percent Change	Description
Storage Bond/Loan Charge	(\$1.07)	-2.5%	Fiscal Year 2017-2018 rate is \$42.11. Rate is based on revenue requirement for debt service divided by water deliveries. Flat debt service with slight increase in water deliveries results in rate decrease.
Common Bond/Loan Charge	\$30.53	45.0%	Fiscal Year 2017-2018 rate is \$67.81. Increase resulting from new money financing in FY 2018-2019 for Common Facilities capital projects. \$9.4M, 25 years, 3.4%.
Sonoma Aqueduct Bond/Loan Charge	\$57	67.3%	Fiscal Year 2017-2018 rate is \$67.81. Sonoma Aqueduct pays an additional revenue bond charge for the bonds associated with the Eldridge-Madrone Pipeline Project. Increase resulting from new money financing in FY 2018-2019 for Sonoma Booster Station (SBS) Electrical Upgrade and Pumping Reliability Project. \$2.1M, 25 years, 3.4%.

- **Aqueduct Capital Charge: (Budget Packet Page 1):**
 - A discretionary charge is added by the water contractors to build fund balance for future aqueduct capital projects and minimize rate spikes.
 - The FY17-18 budget included a rate per AF of \$19.50 for the Santa Rosa and Petaluma Aqueducts and \$32 for the Sonoma Aqueduct to increase fund balance for known needed future capital projects.
 - FY18-19 draft budget includes these same aqueduct capital charges for the Santa Rosa and Petaluma Aqueducts. An Aqueduct Capital Charge for the Sonoma Aqueduct has not been included in the draft FY18-19 budget to reduce the rate impact of the proposed new money bond financing for the SBS Electrical Upgrade and Pumping Reliability Project.
- **Overall Draft Proposed Rate Increases: (Budget Packet Pages 1-7):**
 - 3.67% (Santa Rosa and Petaluma Aqueducts)
 - 5.98% (Sonoma Aqueduct)
 - Due to the Sonoma Complex Fires, water deliveries are uncertain. The Water Agency estimates that water deliveries potentially could decrease by up to 5%. The TAC Ad Hoc budget subcommittee indicated that decreases in water deliveries due to the fires were not anticipated to be significant enough to warrant recommending a lower water deliveries figure for the water rate calculation. As an example, all budgeted expenditures remaining the same, a 4.42% decrease in deliveries from 41,768 AF to 40,000 AF would result in a rate increase exceeding 8%. Per the Restructured Agreement, a different water deliveries figure other than 41,768 AF may be considered due to drought or other water supply reduction condition.
 - This is the fourth draft of the budget. Every effort has been made to prepare a budget that allows us to meet the operations, maintenance, capital, and regulatory demands of the system while maintaining fund balances within the prudent reserve policy. Factors working in our favor include federal and state grant funds, use of fund balance, and bond proceeds for capital projects totaling \$8.2M in FY17-18 and \$7.4M in FY18-19. This budget has been developed to facilitate collaborative discussions in order to achieve a budget and rate package that is responsible and financially sound.

FY2018-2019 Capital Projects
(Budget Packet Pages 32-42):

Project	Category	Amount
LHMP - Program Design (for Future FEMA Funds)	Storage	25,000
Mainline Valve Replacement (Jennings Ave)	Santa Rosa AQ	50,000
Ely BPS Flood Control & Electrical Upgrade	Petaluma AQ	480,000
LHMP - Program Design (for Future FEMA Funds)	Petaluma AQ	25,000
Wilfred Booster Station Electrical Upgrade	Petaluma AQ	650,000
MSN Segment C2 - HOV Lane - Lakeville to Old Redwood Hwy.	Petaluma AQ	100,000
Marin Sonoma Narrows Segment B2	Petaluma AQ	20,000
LHMP - Program Design (for Future FEMA Funds)	Sonoma AQ	30,000
SBS Electrical Upgrade and Pumping Reliability	Sonoma AQ	100,000
Caisson 5 Motor & Discharge Head Replacements	Common	230,000
LHMP - Program Design (for Future FEMA Funds)	Common	25,000
Mirabel Dam Bladder Replacement	Common	1,052,874
Mirabel RR Crossing Fiber Optic Cable Relocation	Common	280,000
RDS Motor Control Center Replacement	Common	455,000
RDS Pump and Motor Replacement	Common	80,000
System-wide Meter Replacements	Common	80,000
Warm Springs Dam Hydroturbine Retrofit	Common	1,120,000
Wohler Plant Access Rd. Retaining Wall	Common	180,000
Wohler Motor Replacements - Collectors 1&2	Common	200,000
WTS Equipment Building	Common	25,000
	TOTAL	5,207,874
	Storage	25,000
	Santa Rosa AQ	50,000
	Petaluma AQ	1,275,000
	Sonoma AQ	130,000
	Common	3,727,874
		5,207,874

**Sonoma County Water Agency
FY18-19 Water Transmission Budget and Rates**

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FY18-19 Prime Contractor Rates Summary

CHARGE PER ACRE FOOT:							
	Santa Rosa	Petaluma	Sonoma				Percent Change
	Aqueduct	Aqueduct	Aqueduct	FY17-18			
				SR	Pet	Son	
O&M Charge [4.2]	578.85	578.85	578.85	\$574.04	\$574.04	\$574.04	0.84%
Water Management Planning Sub-charge	1.00	1.00	1.00	\$3.14	\$3.14	\$3.14	-68.11%
Watershed Planning/Restoration Sub-charge	91.07	91.07	91.07	\$86.40	\$86.40	\$86.40	5.41%
Recycled Water & Local Supply Sub-charge	2.92	2.92	2.92	\$10.01	\$10.01	\$10.01	-70.83%
Water Conservation Sub-charge [4.16]	45.16	45.16	45.16	\$43.77	\$43.77	\$43.77	3.18%
O&M Charge	719.00	719.00	719.00	\$717.36	\$717.36	\$717.36	0.23%
Storage and Common Bond & Loan Charge	139.38	139.38	139.38	\$ 109.92	\$ 109.92	\$ 109.92	26.80%
Sonoma Aqueduct Bond Charge			142.68			\$ 85.28	67.3%
PRIME CONTRACTORS	\$858.38	\$858.38	\$1,001.06	\$ 827.28	\$827.28	\$912.56	
Capital Charges - to build fund balance for future projects	19.50	19.50	0.00	\$ 19.50	\$ 19.50	\$ 32.00	0%
Local Recycled Water Tier 2 Program	0.00	0.00	0.00	\$0.00	\$ -	\$ -	0%
PRIME CONTRACTORS	19.50	19.50	0.00	\$ 19.50	\$ 19.50	\$ 32.00	0%
				2.56%	2.56%	2.31%	
TOTAL PRIME CONTRACTORS	\$877.88	\$877.88	\$1,001.06	\$ 846.78	\$846.78	\$944.56	
Increase from FY 17-18	3.67%	3.67%	5.98%	4.98%	4.98%	5.58%	

Note: the Local Recycled Water Tier 2 Program rate is included in the Recycled Water and Local Supply Sub-charge on the Water Rates page.

WATER TRANSMISSION SYSTEM
FY18-19 WATER CHARGES PER ACRE-FOOT
FOR PRIME CONTRACTORS

FISCAL YEAR	SANTA ROSA AQUEDUCT	% INCR. (DECR.)	PETALUMA AQUEDUCT	% INCR. (DECR.)	SONOMA AQUEDUCT	% INCR. (DECR.)
2018 - 2019	877.88	3.67%	877.88	3.67%	1001.06	5.98%
2017 - 2018	846.78		846.78		944.56	
2016 - 2017	806.59		806.59		894.62	
2015 - 2016	761.05		761.05		836.55	
2014 - 2015	730.68		730.68		793.24	
2013 - 2014	705.30		705.30		768.75	
2012 - 2013	672.03		672.03		740.34	
2011 - 2012	634.11		634.11		703.33	
2010 - 2011	603.92		603.92		674.47	
2009 - 2010	564.78		564.78		622.11	
2008 - 2009	471.13		511.13		486.22	
2007 - 2008	441.70		461.70		453.49	
2006 - 2007	431.29		451.29		442.60	
2005 - 2006	412.68		432.68		424.53	
2004 - 2005	402.51		422.51		414.42	
2003 - 2004	393.89		413.89		407.95	
2002 - 2003	387.49		397.90		387.43	
2001 - 2002	383.29		384.02		373.38	
2000 - 2001	330.76		331.61		320.74	

WATER TRANSMISSION SYSTEM
FY18-19 REVENUE SUMMARY CHART

WATER CUSTOMER	FY18-19 Budgeted Water Use (Acre-Feet)	FY17-18 Rate \$/Acre-Foot	FY18-19 Proposed Rate \$/Acre-Foot	Dollar Change	Percent Change
Santa Rosa Aqueduct	16,102	\$846.78	\$877.88	\$31.10	3.67%
Petaluma Aqueduct	9,658	846.78	877.88	\$31.10	3.67%
Sonoma Aqueduct	3,707	944.56	1,001.06	\$56.50	5.98%
North Marin Water Dist.	5,166	886.28	894.17	\$7.89	0.89%
Marin Municipal – Third Off Peak	4,300	1,058.79	1,093.33	\$34.54	3.26%
Marin Municipal – Supplemental	968	1,058.79	1,093.33	\$34.54	3.26%
Forestville Aqueduct	373	846.78	877.88	\$31.11	3.67%
Wholesale/Municipal	921	1,133.47	1201.27	\$67.80	5.98%
Surplus	70	860.83	862.80	\$1.97	0.23%
Windsor	503	1,016.14	1,053.46	\$37.31	3.67%
TOTAL	41,768				

SONOMA COUNTY WATER AGENCY RATES FOR WATER DELIVERIES IN FY18-19

[X] ESTIMATED [] OFFICIAL
Approved by Board of Directors on April __, 2018

CHARGE PER ACRE FOOT:

	Santa Rosa Aqueduct	Petaluma Aqueduct	Sonoma Aqueduct
PRIME CONTRACTORS			
O&M Charge [4.2]	\$578.85	\$578.85	\$578.85
Water Management Planning Sub-charge [4.13]	\$1.00	\$1.00	\$1.00
Watershed Planning/Restoration Sub-charge [4.14]	\$91.07	\$91.07	\$91.07
Recycled Water & Local Supply Sub-charge [4.15]	\$2.92	\$2.92	\$2.92
Water Conservation Sub-charge [4.16]	\$45.16	\$45.16	\$45.16
O&M Charge	\$719.00	\$719.00	\$719.00
Bond & Loan Charges - to pay for existing debt service			
Storage Facilities Capital Charge [4.7]	41.04	41.04	41.04
Common Facilities Capital Charge [4.8]	98.34	98.34	98.34
Sonoma Aqueduct Facilities Capital Charges [4.6 b]			142.68
Total Bond & Loan Charges	\$139.38	\$139.38	\$282.06
Discretionary:			
Aqueduct Capital Charges - to build fund balance for future projects			
Aqueduct Facilities Capital Charges [4.6 e]	19.50	19.50	0.00
LRT2 - included in Recycled Water & Local Supply Sub-Charge above.			
TOTAL PRIME CONTRACTORS	\$877.88	\$877.88	\$1,001.06
Charge without LRT2 and voluntary AQ Capital Charge	\$858.38	\$858.38	\$1,001.06
OTHER AGENCY CUSTOMERS/WHOLESALE CHARGES			
(WATER CO'S & PUBLIC AGENCIES)			
O&M Charge	\$719.00	\$719.00	\$719.00
Capital Charges	139.38	139.38	282.06
Aqueduct Facilities Capital Charge	\$342.89	\$342.89	\$200.21
TOTAL OTHER AGENCY CUSTOMERS/WHOLESALE CHARGES (4.12)	\$1,201.27	\$1,201.27	\$1,201.27
(120% OF HIGHEST PRIME)			
FORESTVILLE			
O&M Charge [4.2] *	\$578.85		
Water Management Planning Sub-charge [4.13]	1.00		
Watershed Planning/Restoration Sub-charge [4.14]	91.07		
Recycled Water & Local Supply Sub-charge [4.15]	2.92		
Water Conservation Sub-charge [4.16]	45.16		
O&M Charge	\$719.00		
Bond & Loan Charges - to pay for existing debt service			
Aqueduct Facilities Capital Charges [4.6]	19.50		
Storage Facilities Capital Charge [4.7]	41.04		
Common Facilities Capital Charge [4.8]	98.34		
Total Capital Charges	\$158.88		
TOTAL FORESTVILLE	\$877.88		
* Forestville Water District exempt from Santa Rosa Aqueduct sub-charge from FY 06/07 to FY 16/17 [4.12].			
NORTH MARIN WATER DISTRICT			
O&M Charge		\$719.00	Note: N. Marin pays bond and loan charge in lieu of Capital Charge.
North Marin Bond & Loan Charge [4.9]		56.29	
Russian River Conservation Charge [4.18 (a)]		109.75	
Russian River Projects Charge [4.18 (b)]		9.13	
TOTAL NORTH MARIN WATER DISTRICT		894.17	
THIRD OFF-PEAK (MARIN MUNICIPAL)			
Highest Prime on SR and PET AQ x 1.11		\$974.45	
Russian River Conservation Charge		109.75	
Russian River Projects Charge		9.13	
TOTAL THIRD OFF-PEAK		\$1,093.33	
SUPPLEMENTAL (MARIN MUNICIPAL)			
Highest Prime on SR and PET AQ x 1.11		\$974.45	
Russian River Conservation Charge		109.75	
Russian River Projects Charge		9.13	
TOTAL SUPPLEMENTAL		\$1,093.33	
SURPLUS			
Non-Municipal / Municipal [4.11 (a)]	\$862.80	\$862.80	\$862.80
(120% of O&M Charge)			
Town of Windsor		\$1,053.46	
Town of Windsor is charged 120% of the highest charge for any other prime contractor on the Santa Rosa Aqueduct from FY 06/07 to FY 21/22 [4.17 (a)]. Town of Windsor pays all subcharges [4.13, 4.14, 4.15, and 4.16] on all water they divert from the Russian River using their equipment [4.17 (b)].			
	\$1,053.46		

The applicable section of the Restructured Agreement has been indicated in brackets.

FY 2018-19 BUDGET
SONOMA COUNTY WATER AGENCY
Operations and Maintenance Rate Computation

O & M REVENUE REQUIREMENT

FY18-19 ESTIMATED FISCAL YEAR EXPENDITURES \$44,493,437

LESS:

Depreciation/Amortization	7,584,000
Investment Income, Interest on Pooled Cash, Charges for Services	64,350
Power Sales	100,000
PWRPA Pre-paid Expense - FY 08/09 Rate Reduction- <i>One time only</i>	
"Mandatory Prudent Reserve" charge	
Recycled Water funds (Sub-object 7277) taken from special reserve	0
Transfers Out	11,664,411

REVENUE REQUIREMENT (Net Expenditures)

\$25,080,676

O & M ACRE FOOT BASE

DELIVERIES: 41,767.7

LESS:

Marin Municipal	5,268.1
Surplus (Irrigation)	69.7

TOTAL BASE DELIVERIES

36,429.9

O & M RATE COMPUTATION:

Rate = Revenue Requirement - (Marin Municipal Deliveries x 1.11 x 0.92568 x Highest Prime Rate
on Petaluma or Santa Rosa Aqueduct - Subfunds)

Total Deliveries - Surplus Deliveries - Marin Muni Deliveries

$$= \frac{25,080,676 - (4,300.00 \times 758.02) - (968.09 \times 758.02)}{41,767.7 - 69.7 - 5,268.1}$$

* = 578.85

FY18-19
Proposed Water Rates

	<u>FY17-18</u>	<u>FY18-19</u>	
	(Actual)	(Proposed)	% Change
O&M Charge	574.04	578.85	0.84%
Water Management Planning Sub-Charge	3.14	1.00	-68.11%
Watershed Planning/Restoration Sub-Charge	86.40	91.07	5.41%
Recycled Water Sub-Charge	10.01	2.92	-70.83%
Water Conservation Sub-Charge	43.77	45.16	3.18%
Total O&M Charge	717.36	719.00	0.23%

Santa Rosa Aqueduct Rate

O&M Charge	717.36	719.00	0.23%
Aqueduct Facilities Capital Charges [4.6 e]	19.50	19.50	0.0%
Storage Facilities Capital Charge [4.7]	42.11	41.04	-2.54%
Common Facilities Capital Charge [4.8]	67.81	98.34	45.03%
TOTAL	846.78	877.88	3.67%

Petaluma Aqueduct Rate

O&M Charge	717.36	719.00	0.23%
Aqueduct Facilities Capital Charges [4.6 e]	19.50	19.50	0.0%
Storage Facilities Capital Charge [4.7]	42.11	41.04	-2.54%
Common Facilities Capital Charge [4.8]	67.81	98.34	45.03%
TOTAL	846.78	877.88	3.67%

Sonoma Aqueduct Rate

O&M Charge	717.36	719.00	0.23%
Aqueduct Facilities Capital Charges [4.6 e]	32.00	0.00	-100.0%
Storage Facilities Capital Charge [4.7]	42.11	41.04	-2.54%
Common Facilities Capital Charge [4.8]	67.81	98.34	45.03%
Sonoma Aqueduct Facilities Capital Charges	85.28	142.68	67.31%
TOTAL	944.56	1001.06	5.98%

SONOMA COUNTY WATER AGENCY
RUSSIAN RIVER CONSERVATION CHARGE COMPUTATION

FISCAL YEAR 2018-19

PROPERTY ASSESSMENT VALUES AS OF FY17-18:

Does not include reassessed values - not completed

TAX CODE	ENTITY	SECURED	UNSECURED	TOTAL VALUE
14000	Forestville Co Water District	410,774,961	2,385,784	\$413,160,745
42800	City of Cotati	1,038,099,134	21,537,877	1,059,637,011
43500	City of Petaluma	9,376,435,252	392,215,823	9,768,651,075
43800	City of Rohnert Park	4,787,721,575	123,349,799	4,911,071,374
44500	City of Santa Rosa	22,660,631,118	657,993,149	23,318,624,267
45000	City of Sonoma	2,572,329,274	61,445,415	2,633,774,689
N/A	Valley of the Moon Water District	3,281,668,939	16,847,989	3,298,516,928
TOTAL		\$44,127,660,253	\$1,275,775,836	\$45,403,436,089

Notes:

- 1 Total value of secured and unsecured property in service areas of Prime Water Contractors of Sonoma County (see above) \$45,403,436,089
- 2 2016-17 Sonoma County tax rate per \$100 of full cash value assessed for payment of Warm Springs Dam Project Obligations 0.007
- 3 Total tax levied on citizens residing in service areas of Prime Water Contractors of Sonoma County, i.e., (Line 1/100) x Line 2 \$3,178,241
- 4 Total acre feet of water delivered to Prime Water Contractors of Sonoma County (excluding North Marin and Town of Windsor) plus deliveries to Forestville during the prior 12 month period ending March 31. 28,957.95
- 5 Total Russian River Conservation Charge per Acre Foot (Line 3 / Line 4) \$109.75

Russian River Projects Charge
Historical calculations

RR Conservation Charge
Historical calculations

For FY	Calculated	Actual Charge	
07-08	21.4	\$20.00	\$52.70
08-09	25.08	\$20.00	\$58.44
09-10	24.68	\$20.00	\$57.70
10-11	24.4	\$20.00	\$74.62
11-12	23.44	\$20.00	\$72.27
12-13	20.38	\$20.00	\$72.08
13-14	14.72	\$14.72	\$63.30
14-15	8.72	\$8.72	\$63.90
15-16	12.39	\$12.39	\$69.38
16-17	12.96	\$12.96	\$78.73
17-18	13.08	\$13.08	\$105.78
18-19	9.13	\$9.13	\$109.75

**SCHEDULE OF WATER DELIVERIES BY AQUEDUCT
PAST 36 MONTHS / 12 MONTHS AVERAGE**

		DELIVERING AQUEDUCT				Monthly
		Santa Rosa	Petaluma	Forestville	Sonoma	Total
36	Jan-15	1,043.7	1,285.4	19.2	171.1	2,519.4
35	Feb-15	1,032.8	1,169.0	17.0	216.3	2,435.1
34	Mar-15	1,479.2	1,645.5	27.5	343.2	3,495.3
33	Apr-15	1,243.9	1,692.4	23.7	332.3	3,292.2
32	May-15	1,247.5	2,013.7	29.0	268.7	3,559.0
31	Jun-15	1,607.0	2,432.2	43.2	316.8	4,399.2
30	Jul-15	1,341.8	1,539.5	34.9	313.3	3,229.5
29	Aug-15	1,546.4	1,751.3	41.2	346.3	3,685.2
28	Sep-15	1,552.4	1,918.3	45.4	353.6	3,869.8
27	Oct-15	1,654.3	2,202.2	49.1	407.5	4,313.1
26	Nov-15	1,114.5	1,301.8	22.9	251.4	2,690.6
25	Dec-15	1,170.5	1,622.2	23.6	218.9	3,035.3
24	Jan-16	1,026.5	1,393.9	20.0	202.9	2,643.3
23	Feb-16	1,043.1	1,167.6	16.5	174.4	2,401.6
22	Mar-16	1,177.1	1,375.0	21.8	197.9	2,771.8
21	Apr-16	1,069.9	1,559.4	21.7	262.8	2,913.7
20	May-16	1,185.9	1,961.3	27.5	262.8	3,437.5
19	Jun-16	1,923.0	2,496.7	44.3	449.6	4,913.6
18	Jul-16	1,742.5	2,066.0	41.2	403.3	4,253.0
17	Aug-16	1,635.2	1,937.1	42.2	395.0	4,009.5
16	Sep-16	1,794.9	1,888.8	39.1	374.4	4,097.1
15	Oct-16	1,597.9	1,908.3	36.8	364.4	3,907.4
14	Nov-16	1,046.2	1,182.8	20.2	216.1	2,465.3
13	Dec-16	1,258.9	1,586.6	22.0	250.4	3,118.0
12	Jan-17	1,099.2	1,219.7	26.9	220.0	2,565.8
11	Feb-17	1,023.6	1,130.4	22.6	186.5	2,363.1
10	Mar-17	992.1	1,055.3	17.3	184.7	2,249.3
9	Apr-17	1,086.7	1,777.0	22.3	215.7	3,101.7
8	May-17	1,416.0	2,095.9	30.7	348.9	3,891.5
7	Jun-17	1,627.3	2,280.7	34.6	391.6	4,334.2
6	Jul-17	2,295.9	2,711.9	52.3	584.6	5,644.7
5	Aug-17	1,678.8	2,246.2	43.3	450.1	4,418.4
4	Sep-17	2,250.3	2,634.2	51.6	546.3	5,482.4
3	Oct-17	1,788.9	2,170.0	42.7	445.3	4,446.9
2	Nov-17	1,123.1	1,350.7	25.4	257.4	2,756.7
1	Dec-17	1,107.6	1,268.4	20.9	196.0	2,593.0
Total Deliveries		50,024.6	63,037.5	1,120.5	11,120.4	125,303.0
3-Year Annual Average		16,674.9	21,012.5	373.5	3,706.8	41,767.7
Past 12 Months		17,489.4	21,940.5	390.5	4,027.1	43,847.6
Total Deliveries		50,024.6	63,037.5	1,120.5	11,120.4	125,303.0
Less: North Marin			15,498.9			15,498.9
Marin Municipal			15,804.3			15,804.3
Sonoma Co. Deliveries		50,024.6	31,734.3	1,120.5	11,120.4	93,999.8
3-Year Annual Average		16,674.9	10,578.1	373.5	3,706.8	31,333.3

2/27/2018

SONOMA COUNTY WATER AGENCY

SCHEDULE OF ACTUAL PRIOR 12 MONTHS WATER DELIVERIES IN ACRE FEET (BY CUSTOMER TYPE)
JANUARY THROUGH DECEMBER

Aqueeduct No.														**** DELIVERING AQUEDUCT ****		TOTAL						
Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	TOTAL	Santa Rosa	Petaluma	Sonoma	TOTAL						
PRIMES														DELIVERED TO:								
1	City of Santa Rosa	1,042.3	969.7	931.7	1,013.6	1,339.5	1,551.3	2,164.0	1,587.0	2,132.1	1,702.7	1,081.7	1,069.7	16,585.2	CITY OF SANTA ROSA (A)							
2	City of Petaluma	413.6	402.8	416.3	508.8	675.4	774.9	1,043.2	810.0	963.4	811.6	558.8	487.2	7,866.0	923.3	0.0	119.0	1,042.3				
2	North Marin Water Dist.	382.4	356.1	331.0	245.9	303.6	420.5	703.6	574.3	637.2	519.2	303.5	421.0	5,198.3	853.6	0.0	116.1	969.7				
2	City of Rohnert Park	189.8	163.9	116.4	128.4	207.0	241.5	389.5	319.0	356.7	300.8	203.5	144.5	2,761.0	766.9	0.0	164.8	931.7				
2	City of Cotati	23.8	23.1	22.6	27.8	36.8	51.2	66.5	55.0	71.9	57.7	36.0	26.3	498.9	810.1	0.0	203.5	1,013.6				
1	Town of Windsor	34.0	32.8	38.7	49.7	46.4	37.7	59.8	40.0	59.8	41.2	32.4	31.0	503.5	1,084.3	0.0	255.2	1,339.5				
4	City of Sonoma	86.2	95.7	105.3	107.7	168.6	179.4	262.4	185.9	242.4	190.1	123.8	100.0	1,847.4	1,185.8	0.0	365.4	1,551.3				
4	Valley of the Moon Dist.	127.0	83.9	71.9	98.2	160.1	198.7	296.8	241.6	279.4	233.4	126.6	91.7	2,009.3	1,645.0	0.0	519.1	2,164.0				
TOTAL PRIMES		2,299.1	2,128.1	2,033.9	2,180.1	2,937.4	3,455.2	4,985.9	3,812.9	4,742.7	3,856.7	2,466.4	2,371.3	37,269.6	1,332.3	0.0	254.7	1,587.0				
OTHER AGENCY CUSTOMERS														Sep 2017	1,579.5	0.0	552.6	2,132.1				
1	Larkfield Water Co	22.5	20.5	20.6	22.9	28.4	33.3	47.0	37.8	52.0	42.9	8.3	6.6	342.8	Oct 2017	1,399.5	0.0	303.3	1,702.7			
2	Penngrove Water Co	9.1	8.5	8.4	10.7	15.4	19.2	25.6	19.1	22.4	19.3	12.0	10.4	180.0	Nov 2017	915.7	0.0	166.1	1,081.7			
4	Lawndale Mutual	2.3	1.5	1.9	2.4	5.0	7.0	11.4	8.5	9.3	6.5	2.5	1.5	59.7	Dec 2017	891.9	0.0	177.8	1,069.7			
4	Kenwood Village Water Co	1.8	2.9	3.0	4.5	1.5	0.9	0.6	0.4	2.0	6.9	2.0	0.2	26.6	TOTAL SANTA ROSA				13,387.7	0.0	3,197.4	16,585.2
3	Forestville Co Water Dist.	26.9	22.6	17.3	22.3	30.7	34.6	52.3	43.3	51.6	42.7	25.4	20.9	390.5	OTHER PRIME CONTRACTORS (B)							
1	Other Gov-Santa Rosa Aq	0.4	0.6	1.1	0.5	1.7	1.4	0.6	0.4	0.5	0.5	0.3	0.2	8.3	CITY OF PETALUMA				0.0	7,866.0		7,866.0
2	Other Gov-Petaluma Aq	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NORTH MARIN WATER DISTRICT					5,198.3		5,198.3
4	Other Gov-Sonoma Aq	0.5	0.5	0.6	0.6	0.8	1.0	2.4	2.1	2.2	1.1	0.7	0.6	13.0	CITY OF ROHNERT PARK				36.1	2,724.9		2,761.0
TOTAL OTHER AGY. CUST		63.5	57.1	52.8	63.9	83.4	97.5	139.8	111.5	140.0	119.8	51.2	40.4	1,020.9	CITY OF COTATI				7.0	491.8		498.9
OFF-PEAK CUSTOMERS														TOWN OF WINDSOR				503.5			503.5	
2	Marin Municipal	201.0	176.0	160.5	855.4	857.8	773.5	483.5	468.7	582.7	461.4	236.8	179.1	5,436.3	CITY OF SONOMA						1,847.4	1,847.4
SURPLUS CUSTOMERS														VALLEY OF THE MOON DISTRICT						2,009.3	2,009.3	
1	Irrigation-Santa Rosa Aq	0.0	0.0	0.0	0.0	0.0	3.5	24.5	13.6	5.9	1.6	0.4	0.2	49.7	TOTAL OTHER PRIME CONTRACTORS				546.6	16,281.1	3,856.7	20,684.4
2	Irrigation-Petaluma Aq	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TOTAL DELIVERIES TO PRIMES				13,934.3	16,281.1	7,054.2	37,269.6
4	Irrigation-Sonoma Aq	2.2	2.0	2.0	2.4	13.0	4.5	11.1	11.6	11.0	7.4	1.8	2.1	71.1	LESS: NORTH MARIN					(5,198.3)		(5,198.3)
TOTAL SURPLUS CUST.		2.2	2.0	2.0	2.4	13.0	8.0	35.6	25.2	16.9	9.0	2.2	2.3	120.8	TOTAL SONOMA COUNTY DELIVERIES				13,934.3	11,082.8	7,054.2	32,071.3
TOTAL DELIVERIES		2,565.8	2,363.1	2,249.3	3,101.7	3,891.5	4,334.2	5,644.7	4,418.4	5,482.4	4,446.9	2,756.7	2,593.0	43,847.6								

SONOMA COUNTY WATER AGENCY

ACTUAL WATER DELIVERY DISTRIBUTION BY AQUEDUCT (ACRE FEET)
PRIOR 12 MONTHS

FY 2018-19 BUDGET
Water Transmission System Agency Fund
ESTIMATED WATER DELIVERIES AND WATER SALES - O&M plus Surcharges

REVENUE CATEGORY	ESTIMATED ACRE FEET DELIVERED	ESTIMATED RATES	ESTIMATED REVENUE
<u>WATER SALES - O&M</u>			
1 PRIMES without Subcharges	35,509.3	578.85	20,554,528
2 OTHER AGENCY CUSTOMERS	920.5	1,061.11	976,788
3 MARIN MUNICIPAL (OFF-PEAK)	4,300.0	758.02	3,259,468
4 MARIN MUNICIPAL (SUPPLEMENTAL)	968.1	758.02	733,829
5 SURPLUS CUSTOMERS	69.7	722.64	50,367
TOTAL WATER SALES - O&M	41,767.7	N/A	\$25,574,980

Note: MMWD rate adjusted per Amended MMWD Water Supply Agreements Effective 7/1/15.

Sub-Object 4175, 4176, 4177, and 4178

REVENUE CATEGORY	ESTIMATED ACRE FEET DELIVERED	ESTIMATED RATES	ESTIMATED REVENUE
<u>WATER SALES - Sub-charges</u>			
1a Water Management Planning Sub-charge [4.13]	41,767.7	1.00	41,772
1b Watershed Planning/Restoration Sub-charge [4.14]	41,767.7	91.07	3,803,958
1c Recycled Water & Local Supply Sub-charge [4.15]	41,767.7	2.92	122,000
1d Water Conservation Sub-charge [4.16]	41,767.7	45.16	1,886,222
TOTAL WATER SALES - Subcharges	41,767.7	N/A	\$5,853,952

FY 2018-19 BUDGET

Water Transmission System Agency Fund

SANTA ROSA AQUEDUCT ESTIMATED WATER DELIVERIES AND WATER SALES - O&M plus Surcharges

REVENUE CATEGORY	ESTIMATED ACRE FEET DELIVERED	ESTIMATED RATES	ESTIMATED REVENUE
<u>WATER SALES - O&M</u>			
1 SANTA ROSA AQUEDUCT	16,674.9	578.85	9,652,216

Sub-Object 4175, 4176, 4177, and 4178

REVENUE CATEGORY	ESTIMATED ACRE FEET DELIVERED	ESTIMATED RATES	ESTIMATED REVENUE
<u>WATER SALES - Sub-charges</u>			
1a Water Management Planning Sub-charge [4.13]	16,674.9	1.00	16,677
1b Watershed Planning/Restoration Sub-charge [4.14]	16,674.9	91.07	1,518,650
1c Recycled Water & Local Supply Sub-charge [4.15]	16,674.9	2.92	48,706
1d Water Conservation Sub-charge [4.16]	16,674.9	45.16	753,034
TOTAL WATER SALES - Subcharges	16,674.9	N/A	\$2,337,067

REVENUE CATEGORY	ESTIMATED ACRE FEET DELIVERED	ESTIMATED RATES	ESTIMATED REVENUE
<u>CAPITAL CHARGES</u>			
Aqueduct Facilities Capital Charges [4.6 e]	16,674.9	19.50	325,160
<u>BOND AND LOAN CAPITAL CHARGES</u>			
Storage Facilities Capital Charge [4.7]	16,674.9	41.04	684,351
Common Facilities Capital Charge [4.8]	16,674.9	98.34	1,639,744
Sonoma Aqueduct Facilities Capital Charges [4.6 b]	16,674.9	0.00	0
TOTAL WATER SALES - Capital & Bond and Loan Charges	16,674.9	N/A	\$2,649,255

TOTAL ESTIMATED REVENUE

\$14,638,538

FY 2018-19 BUDGET

Water Transmission System Agency Fund

PETALUMA AQUEDUCT ESTIMATED WATER DELIVERIES AND WATER SALES - O&M plus Surcharges

REVENUE CATEGORY	ESTIMATED ACRE FEET DELIVERED	ESTIMATED RATES	ESTIMATED REVENUE
<u>WATER SALES - O&M</u>			
1 PETALUMA AQUEDUCT	21,012.5	578.85	12,163,056

Sub-Object 4175, 4176, 4177, and 4178

REVENUE CATEGORY	ESTIMATED ACRE FEET DELIVERED	ESTIMATED RATES	ESTIMATED REVENUE
<u>WATER SALES - Sub-charges</u>			
1a Water Management Planning Sub-charge [4.13]	21,012.5	1.00	21,015
1b Watershed Planning/Restoration Sub-charge [4.14]	21,012.5	91.07	1,913,698
1c Recycled Water & Local Supply Sub-charge [4.15]	21,012.5	2.92	61,376
1d Water Conservation Sub-charge [4.16]	21,012.5	45.16	948,922
TOTAL WATER SALES - Subcharges	21,012.5	N/A	\$2,945,011

REVENUE CATEGORY	ESTIMATED ACRE FEET DELIVERED	ESTIMATED RATES	ESTIMATED REVENUE
<u>CAPITAL CHARGES</u>			
Aqueduct Facilities Capital Charges [4.6 e]	21,012.5	19.50	409,744
<u>BOND AND LOAN CAPITAL CHARGES</u>			
Storage Facilities Capital Charge [4.7]	21,012.5	41.04	862,372
Common Facilities Capital Charge [4.8]	21,012.5	98.34	2,066,292
Sonoma Aqueduct Facilities Capital Charges [4.6 b]	21,012.5	0.00	0
TOTAL WATER SALES - Capital & Bond and Loan Charges	21,012.5	N/A	\$3,338,408

TOTAL ESTIMATED REVENUE

\$18,446,475

FY 2018-19 BUDGET
Water Transmission System Agency Fund
SONOMA AQUEDUCT ESTIMATED WATER DELIVERIES AND WATER SALES - O&M plus Surcharges

REVENUE CATEGORY	ESTIMATED ACRE FEET DELIVERED	ESTIMATED RATES	ESTIMATED REVENUE
<u>WATER SALES - O&M</u>			
1 SONOMA AQUEDUCT	3,706.8	578.85	2,145,678

Sub-Object 4175, 4176, 4177, and 4178

REVENUE CATEGORY	ESTIMATED ACRE FEET DELIVERED	ESTIMATED RATES	ESTIMATED REVENUE
<u>WATER SALES - Sub-charges</u>			
1a Water Management Planning Sub-charge [4.13]	3,706.8	1.00	3,707
1b Watershed Planning/Restoration Sub-charge [4.14]	3,706.8	91.07	337,594
1c Recycled Water & Local Supply Sub-charge [4.15]	3,706.8	2.92	10,827
1d Water Conservation Sub-charge [4.16]	3,706.8	45.16	167,399
TOTAL WATER SALES - Subcharges	3,706.8	N/A	\$519,527

REVENUE CATEGORY	ESTIMATED ACRE FEET DELIVERED	ESTIMATED RATES	ESTIMATED REVENUE
<u>CAPITAL CHARGES</u>			
Aqueduct Facilities Capital Charges [4.6 e]	3,706.8	0.00	0
<u>BOND AND LOAN CAPITAL CHARGES</u>			
Storage Facilities Capital Charge [4.7]	3,706.8	41.04	152,131
Common Facilities Capital Charge [4.8]	3,706.8	98.34	364,513
Sonoma Aqueduct Facilities Capital Charges [4.6 b]	3,706.8	142.68	528,885
TOTAL WATER SALES - Capital & Bond and Loan Charges	3,706.8	N/A	\$1,045,529

TOTAL ESTIMATED REVENUE \$3,710,734

**FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY**

Section Title:

Water Transmission System Agency Fund

Section/Fund No:

44205

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
BEGINNING FUND BALANCE	4,459,322	4,901,253		1,834,429		

REVENUES

USE OF MONEY / PROPERTY

44002 Interest on Pooled Cash	102,682	64,350	64,350	64,350	0	0.00%
44003 Other Interest Earnings	0	0	0	0	0	N/A
44050 Unrealized Gains & Losses	(48,945)	0	0	0	0	N/A
44109 Concessions	0	0	0	0	0	N/A
44101 Rent - Real Estate	0	0	0	0	0	N/A
SUBTOTAL	53,737	64,350	64,350	64,350	0	0.00%

INTERGOVERNMENTAL REVENUES

42358 State Other Funding	0	0	0	0	0	N/A
42461 Federal Other Funding	41,363	(41,363)	0	0	0	N/A
42610 Other Governmental Agencies	350,000	49,277	0	0	0	N/A
42621 North Marin Water District	0	0	0	0	0	N/A
42701 Revenue Appl - PY Intergovmtl	0	0	0	0	0	N/A
SUBTOTAL	391,363	7,913	0	0	0	N/A

MISCELLANEOUS REVENUES

46021 Capital Grants - Federal	0	0	0	0	0	N/A
46027 Insurance Claims Reimbursement	222,627	0	0	0	0	N/A
46029 Donations/Contributions	0	0	0	0	0	N/A
46040 Miscellaneous Revenue	63,709	1,000	0	0	0	N/A
46041 Discounts Earned	370	350	0	0	0	N/A
46050 Cancelled/State Dated Warrants	0	1,000	0	0	0	N/A
46200 Revenue Appl PY Misc Revenue	3,272	22,000	0	0	0	N/A
46205 PY Revenue - Charges for Servi	0	0	0	0	0	N/A
46215 Other Grants	0	0	0	0	0	N/A
SUBTOTAL	289,978	24,350	0	0	0	N/A

CHARGES FOR SERVICES

45062 Construct/Bldg Permit Rvw Svcs	0	0	0	0	0	N/A
45065 Inspection Fees	0	0	0	0	0	N/A
45223 Sewer/Water Hook up Fees	23,820	9,925	20,000	0	(20,000)	(100.00%)
45301 Charges for Services	58,231	0	0	0	0	N/A
45314 Sale - Power	210,280	200,000	600,000	100,000	(500,000)	(83.33%)
45315 Sale - Water, Wholesale	22,612,209	24,947,139	24,947,139	25,574,980	627,841	2.52%
45316 Water Conservation	1,731,855	1,814,050	1,814,050	1,886,222	72,172	3.98%
45323 Common Fac Rev Bond Chg	1,804,511	2,348,686	2,348,686	3,365,157	1,016,471	43.28%
45324 Storage Fac Rev Bond Chg	1,083,794	1,277,939	1,277,939	1,283,085	5,146	0.40%
45325 Sonoma Aqueduct Rev Bond Chg	264,531	303,087	303,087	528,885	225,798	74.50%
45327 Santa Rosa Aqueduct Cap Chg	483,812	386,429	386,429	407,973	21,544	5.58%
45328 Petaluma Aqueduct Cap Chg	239,414	250,281	250,281	225,359	(24,922)	(9.96%)
45329 Sonoma Aqueduct Cap Chg	126,812	113,609	113,609	0	(113,609)	(100.00%)
45330 North Marin Rev Bond Chg	252,063	290,988	290,988	290,814	(174)	(0.06%)
45331 Water Mgmt Plan/Restore Chg	125,480	130,000	130,000	41,772	(88,228)	(67.87%)

Section Title:

Water Transmission System Agency Fund

Section/Fund No:

44205

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
45332 Watershed Plan/Restore Chg	3,414,580	3,581,000	3,581,000	3,803,958	222,958	6.23%
45333 Recycled Water & Local Supply	676,463	415,000	415,000	122,000	(293,000)	(70.60%)
45401 Revenue Appl PY Chgs for Svcs	(16,135)	0	0	0	0	N/A
SUBTOTAL	33,091,721	36,068,133	36,478,208	37,630,205	1,151,997	3.16%
OTHER FINANCING SOURCES						
47002 Sale of Capital Assets	48	0	0	0	0	N/A
47101 Transfers In - within a Fund	0	0	0	0	0	N/A
47102 Transfers In - btw Govtl Funds	0	0	0	0	0	N/A
SUBTOTAL	48	0	0	0	0	0
TOTAL REVENUES	33,826,847	36,164,746	36,542,558	37,694,555	1,151,997	3.15%

EXPENDITURES

SERVICES AND SUPPLIES

51031 Waste Disposal Services	0	4,000	4,000	3,000	(1,000)	(25.00%)
51032 Janitorial Services	6,240	4,000	4,000	6,000	2,000	50.00%
51061 Maintenance - Equipment	916,135	1,697,000	1,247,000	993,000	(254,000)	(20.37%)
51071 Maintenance - Bldg & Improve	2,102	0	0	0	0	N/A
51072 Landscaping Services	0	0	0	0	0	N/A
51077 Maint-Infrastructure	0	0	0	0	0	N/A
51205 Advertising/Marketing Svc	476	4,000	4,000	500	(3,500)	(87.50%)
51209 Information Tech Svc (non ISD)	959	4,000	4,000	1,500	(2,500)	(62.50%)
51211 Legal Services	16,756	10,000	10,000	12,000	2,000	20.00%
51212 Outside Counsel - Legal Advice	4,532	8,000	8,000	4,500	(3,500)	(43.75%)
51214 Agency Extra/Temp Help	0	1,000	1,000	1,000	0	0.00%
51226 Consulting Services	0	0	0	0	0	N/A
51230 Security Services	1,813	1,100	0	4,320	4,320	N/A
51231 Testing/Analysis	124,502	130,000	130,000	135,000	5,000	3.85%
51241 Outside Printing and Binding	643	3,000	3,000	2,000	(1,000)	(33.33%)
51244 Permits/License/Fees	92,609	50,000	50,000	60,000	10,000	20.00%
51249 Other Professional Services	0	0	0	0	0	N/A
51301 Publications and Legal Notices	0	0	0	0	0	N/A
51401 Rents and Leases - Equipment	380,303	360,000	155,000	400,000	245,000	158.06%
51421 Rents and Leases - Bldg/Land	1,432	2,000	2,000	1,500	(500)	(25.00%)
51601 Training Services	12,636	12,000	12,000	14,000	2,000	16.67%
51602 Business Travel/Mileage	1,297	5,000	15,000	5,000	(10,000)	(66.67%)
51605 Private Car Expense	1,498	1,000	1,000	1,500	500	50.00%
51801 Other Services	14,307	18,000	18,000	16,000	(2,000)	(11.11%)
51803 Other Contract Services	1,288,026	4,169,689	1,389,080	1,648,580	259,500	18.68%
51902 Telecommunication Usage	87,872	90,000	90,000	90,000	0	0.00%
51911 Mail Services	231	0	0	300	300	N/A
51917 District Operations Chgs	14,352,177	13,500,000	13,900,000	14,500,000	600,000	4.32%
51921 Equipment Usage Charges	870,802	750,000	650,000	900,000	250,000	38.46%
52021 Clothing, Uniforms, Personal	13,060	10,000	10,000	13,000	3,000	30.00%
52031 Food	4,928	700	700	700	0	0.00%
52042 Janitorial Supplies	1,899	4,000	4,000	2,000	(2,000)	(50.00%)
52061 Fuel/Gas/Oil	2,806	10,000	10,000	9,000	(1,000)	(10.00%)

Section Title:

Water Transmission System Agency Fund

Section/Fund No:

44205

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
52071 Materials and Supplies Expense	1,552	120,000	180,000	3,000	(177,000)	(98.33%)
52072 Chemicals	679,601	675,000	600,000	690,000	90,000	15.00%
52081 Medical/Laboratory Supplies	24,737	25,000	25,000	25,000	0	0.00%
52091 Memberships/Certifications	43,967	45,000	45,000	45,000	0	0.00%
52101 Other Supplies	14,664	20,000	40,000	10,000	(30,000)	(75.00%)
52111 Office Supplies	9,804	10,000	10,000	10,000	0	0.00%
52115 Books/Media/Subscriptions	1,596	1,500	1,000	1,500	500	50.00%
52117 Mail and Postage Supplies	3,036	3,000	3,000	3,000	0	0.00%
52141 Minor Equipment/Small Tools	178,378	140,000	140,000	180,000	40,000	28.57%
52142 Computer Equipment/Accessories	1,021	7,000	7,000	6,000	(1,000)	(14.29%)
52143 Computer Software/Licensing Fees	19,423	30,000	22,000	30,000	8,000	36.36%
52162 Special Department Expense	0	0	0	0	0	N/A
52171 Water Conservation Program	0	0	0	0	0	N/A
52191 Utilities	585	500	500	500	0	0.00%
52193 Utilities - Electric	3,530,069	3,200,000	3,200,000	3,300,000	100,000	3.13%
SUBTOTAL	22,708,475	25,125,489	21,995,280	23,128,400	1,133,120	5.15%
OTHER CHARGES						
53103 Interest on LT Debt	0	0	0	0	0	N/A
53104 Other interest Expense	(18)	0	0	0	0	N/A
53401 Amortization Expense	213,606	241,500	241,500	241,500	0	0.00%
53402 Depreciation Expense	5,797,348	7,428,900	7,428,900	7,342,500	(86,400)	(1.16%)
53403 Loss - Disposed Capital Asset	30,272	0	0	0	0	N/A
53500 Contributions Non-County Agy	500	0	0	0	0	N/A
53501 Contributions	0	0	0	0	0	N/A
53610 Other Charges	36,888	0	0	0	0	N/A
SUBTOTAL	6,078,596	7,670,400	7,670,400	7,584,000	(86,400)	(1.13%)
FIXED ASSETS						
19820 Machinery and Equipment	0	0	0	0	0	N/A
19822 Mobile Equipment	0	0	0	0	0	N/A
19824 Computer Equipment	0	0	0	0	0	N/A
19831 CIP - Bldg & Impr	0	0	0	0	0	N/A
19832 CIP - Infrastructure	0	0	0	0	0	N/A
19840 Work in Progress - Eqt	146,841	150,000	0	0	0	N/A
19841 Work in Progress - Intang	104,340	136,000	135,000	160,000	25,000	18.52%
19851 Intangible Assets - Non-amort	0	0	0	0	0	N/A
SUBTOTAL	251,181	286,000	135,000	160,000	25,000	18.52%
OTHER FINANCING USES						
57011 Transfers Out - within a Fund	10,228,021	13,820,081	13,697,081	13,621,037	(76,044)	(0.56%)
57012 Transfers Out - btw Govtl Fund	0	0	0	0	0	N/A
SUBTOTAL	10,228,021	13,820,081	13,697,081	13,621,037	(76,044)	(0.56%)
APPROP. FOR CONTINGENCIES						
55011 Appropriation for Contingency	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A

Section Title:

Water Transmission System Agency Fund

Section/Fund No:

44205

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
REIMBURSEMENTS						
58010 Reimb. - General	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
ADMIN. CONTROL ACCOUNT						
59004 Administrative Control Account	0	0	0	0	0	N/A
59005 Admin Control Acct Clearing	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	39,266,273	46,901,970	43,497,761	44,493,437	995,676	2.29%
Adjustments to Reserves/Encumbrances:						
Depreciation	6,010,955	7,670,400		7,584,000		
Outstanding Encumbrances - Net Change	(208,797)	0				
Capitalized Interest	(18)					
Gain/Loss on disposal of fixed assets	30,272					
Unrealized Gain/ Loss (GASB 31)	48,945					
Change in Prudent Reserve						
Post audit adjustments - Payables	0					
Rounding	1					
ENDING FUND BALANCE	4,901,253	1,834,429		2,619,546		
Operations and Maintenance 44205 Fund Balance Reserve Goal				5,822,100		
Over/(Under) Goal				(3,202,554)		

Water Transmission System Agency Fund
Major Services & Supplies Expenditure Items

Section/Fund No:

44205

	Actual FY16-17	Adopted FY17-18	Requested FY18-19	Difference	Percent Change
<u>51061 Maintenance - Equipment</u>	916,135	1,247,000	993,000	(254,000)	-20.4%
Budget is aligned more closely with Fiscal Year 2016-2017 actuals.					
<u>51211 Legal Services</u>	16,756	10,000	12,000	2,000	20.0%
Reflects level of expected expenditures.					
<u>51231 Testing/Analysis</u>	124,502	130,000	135,000	5,000	3.8%
Increase due to slightly higher water deliveries and corresponding need for laboratory testing and analysis.					
<u>51803 Other Contract Services</u>	1,288,026	1,389,080	1,648,580	259,500	18.7%
Increase due to flood and fire-related water quality studies, Russian River embankment repairs, and ongoing large non-routine maintenance projects.					
<u>51917 District Operations Chgs</u>	14,352,177	13,900,000	14,500,000	600,000	4.3%
Increase attributable to a) 3% cost of living increase in Fiscal Year 2017-2018 after water transmission budget was approved, and b) additional labor for flood and fire-related water quality studies and Russian River embankment repairs, and ongoing large non-routine maintenance projects.					
<u>51921 Equipment Usage Charges</u>	870,802	650,000	900,000	250,000	38.5%
Reflects level of expected expenditures.					
<u>52072 Chemicals</u>	679,601	600,000	690,000	90,000	15.0%
Expected to increase \$10,000 over Fiscal Year 2016-2017 actuals, and \$15,000 over Fiscal Year 2017-18 estimated actuals. Increase in deliveries results in an increase in treatment costs. Fiscal Year 2017-2018 budget underestimated treatment costs.					
<u>52141 Minor Equipment/Small Tools</u>	178,378	140,000	180,000	40,000	28.6%
Increase to align more closely with Fiscal Year 2016-2017 actuals.					
<u>52193 Utilities - Electric</u>	3,530,069	3,200,000	3,300,000	100,000	3.1%
Expected to decrease \$230,000 over Fiscal Year 2016-2017 actuals (\$3.53 million) but increase \$100,000 over Fiscal Year 2017-2018 budget due to increased pumping from slightly higher water deliveries.					

2018-19

Water Transmission System Agency Fund

51061	Maintenance - Equipment	AMOUNT
1	Chlorine Gas Detection	25,000
2	Collector 6 Chlorine Lines Maintenance	-
3	Collector 4 Chlorine Lines Maintenance	100,000
4	Eldridge Booster Station Decommission	25,000
5	Electrical Supplies and Maintenance Services	355,000
6	Hardware and Miscellaneous Supplies	50,000
7	Mirabel Chlorine Building Water Lines Replacement	100,000
8	Pump and Pipeline Supplies and Maintenance Services	40,000
9	Riverfront Park Erosion Repairs	200,000
10	Santa Rosa Plain Well Monitoring Program (SCWA Wells)	15,000
11	Wohler Road RR Fiber Optic Cable Relocation	68,000
12	WT Monitoring Well Pressure Transducers	15,000
		\$ 993,000

51803	Other Contract Services	AMOUNT
1	Aqueduct Condition Assessments	100,000
2	BAIRWMP	30,000
3	Cathodic Protection - Petaluma AQ	80,000
4	Community Outreach Program	7,500
5	Groundwater Banking Feasibility - Pilot Studies	75,000
6	Invasive Mussel Program	60,000
7	Legislative Advocacy - Federal	95,000
8	Legislative Advocacy - State	33,000
9	Maximo Hosting	68,280
10	Methodologies-Peak Demand Supply	15,000
11	NCIRWMP	35,000
12	No Bay Reg Wtr Supply Resiliency Study	200,000
13	Riverbank Filtration Studies - USGS	50,000
14	Riverfront Park Maintenance	120,300
15	Russian River Wtrshed Coupled Surface Wtr/GW Model	82,500
16	Sonoma Youth Ecology Corps	32,000
17	Tank Recoat - Cotati	25,000
18	Tank Recoat - Forestville	15,000
19	Tank Recoat - Kastania	175,000
20	Water Quality Studies - LBNL	175,000
21	Water Quality Studies - USGS	175,000
		\$ 1,648,580

51803 Other Contract Services Project Information

FY18-19

Aqueduct Condition Assessments

This program is evaluating technologies and approaches to assess the integrity of the water transmission system pipelines. A variety of inspection technologies have been evaluated with pilot-testing conducted in sections of the Santa Rosa Aqueduct, Sonoma Aqueduct, and Oakmont Pipeline. In the upcoming year, additional inspections are planned, as well as the development of a system-wide inspection plan to define and prioritize pipeline inspection projects.

\$100,000

Cathodic Protection - Petaluma AQ

During the FY of 18/19, the water agency will be installing 14 Test stations along the Petaluma AQ and 7 Rectifier locations. The test stations and rectifier locations will allow the Water Agency to protect and monitor the status of the pipeline. Funds expected to be expended in FY 18-19 are for construction change orders.

\$80,000

Groundwater Banking Feasibility - Pilot Studies

A Feasibility Study for a Groundwater Banking Program was prepared in 2013 for the Water Agency in partnership with the City of Sonoma, Valley of the Moon Water District, City of Cotati, City of Rohnert Park, and Town of Windsor. The Feasibility Study identified opportunities to improve long-term water supply reliability in Sonoma Valley and the Santa Rosa Plain by utilizing wintertime Russian River supplies and existing conveyance infrastructure to meet dry year water needs. The Feasibility Study concluded that aquifer storage and recovery wells are the most feasible method for implementing groundwater banking in the region. The next step in demonstrating the feasibility of Aquifer Storage and Recovery (ASR) is to perform a pilot study to: (1) assess the ability of local aquifers to store water; (2) assess potential water quality changes during ASR; (3) refine permitting parameters for ASR projects; and (4) provide data to scope and develop long-term groundwater banking programs. An ASR Pilot Study is planned to be initiated in Sonoma Valley in 2018 in partnership with the City of Sonoma utilizing previously budgeted funds from FY 15/16 and 16/17. A work plan and permit application packet for the ASR Pilot Study were submitted to the San Francisco Bay Regional Water Quality Control Board for review and approval in December 2017. Pending the success in demonstrating the feasibility of ASR, an additional pilot or subsequent testing of the existing pilot (as needed) would be planned for the Santa Rosa Plain or Sonoma Valley.

\$75,000

Funds expected to be expended in FY 18/19 would initiate the planning and permitting for subsequent ASR Pilot Study testing in either the Santa Rosa Plain or Sonoma Valley.

Methodologies-Peak Demand Supply

An updated Water Supply Allocation model was prepared in 2013 by Brown & Caldwell for the Water Agency and its Contractors. The updated model was temporarily approved and accepted by the Contractors through June 2015 to provide the city of Petaluma time to resolve several issues city staff had raised regarding model assumptions. These issues have now been resolved, however, the agreement with Brown and Caldwell has expired and there is no funding for finalizing the model. Furthermore, the updated model was prepared almost 4 years ago and several of the assumptions should be updated based on new information in both the Water Agency's and Water Contractor's 2015 UWMPs.

\$15,000

Funds to be expended in FY 18/19 will be used to: (1) update model assumptions; and (2) present the updated model to the Water Agency's Board of Directors and request adoption.

No Bay Reg Wtr Supply Resiliency Study

Retail water providers to over 600,000 people in Sonoma and Marin Counties are regionally connected through existing water supply infrastructure. Along with purchasing wholesale water from the Sonoma County Water Agency, each retail provider also has local supplies which are used to meet the demands of their customers. Although these systems are connected, they are not operated or managed in a coordinated manner, especially in times of water shortage. Development of a decision support tool, such as a regional Water Evaluation and Planning System (WEAP) model, could be used to evaluate strategies and water supply projects that would make the region more resilient to future water shortages.

\$200,000

Funds expended in FY 17/18 will be used to develop a work plan in cooperation with the Water Agency's Water Contractors. Funds budgeted for FY 18/19 will be expended on building the model and running scenarios.

Riverbank Filtration Studies - USGS

USGS will continue ongoing work Evaluating *Cryptosporidium parvum* oocyst removal and fate in Russian River bottom sediments at the Water Agency's riverbank filtration facilities. This includes performing coupled field scale-laboratory studies to evaluate pathogen (oocysts) and pathogen surrogate (aerobic spore forming bacteria; cyanobacteria, bacteria-specific virus) removal and decay as a function of water quality changes and riverbank filtration sediment alteration(s).

\$50,000

51803 Other Contract Services Project Information
Russian River Wtrshed Coupled Surface Wtr/GW Model

The primary objectives of this project are to: 1) refine the understanding of the Russian River Watershed hydrologic system based on an analysis of new and available field data; and 2) develop a coupled watershed/groundwater-flow model for the Russian River Watershed that will facilitate improved management of the region's water resources. This study will assist the Water Agency, the State Board, and other stakeholders to better understand the potential impacts of increasing groundwater demand on water levels and in developing strategies for efficient surface-water/groundwater management. The project will be performed over the next four years starting in FY 17/18 and is being funded by the State Water Resources Control Board, the United States Geological Survey, the Water Agency, the County of Mendocino, Mendocino County Russian River Flood Control & Water Conservation Improvement District and Redwood Valley County Water District. The water transmission system project cost share is approximately 15% of the \$1.6 M total project cost.

\$82,500

Water Quality Studies - LBNL

LBNL has developed and tested a numerical model that could simulate biological-physical feedbacks in the hyporheic zone and groundwater system at Wohler. LBNL used the model to explore different initial conditions in terms of dissolved organic carbon (DOC) availability, sediment characteristics, mineralogy, and stochastic variability in aerobic and anaerobic conditions induced through water table fluctuations. LBNL results show the fate of DOC, the potential suite of microbial behaviors that benefit water reaching the Wohler wells, and that the riverbed sediments and the cumulative effect of water table conditions can change system functionality and filtration efficacy. Funds to be expended in FY 18/19 will be used to: 1) help launch the water quality sampling program to assess potential impacts to the Water Agency's drinking water facilities resulting from the recent wildfire activity, 2) conduct spatial and temporal water quality analysis at the Wohler, Mirabel, and larger watershed scale. 3) assess impacts of hyporheic processing, microbial community dynamics from upstream to downstream that may change infiltration quantity/quality arriving at Wohler, and eventually the wells, 4) extend reactive transport modeling capabilities across a watershed-scale, network-based lumped flow+reactive transport model, and 5) provide subsurface flow, reactive transport, and microbial modeling capabilities for the USGS experimental laboratory microcosms to analyze the effect of fire ash leachate on groundwater quality and potential implications to Wohler infiltration.

\$175,000

DRAFT

**FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY**

Section Title:

Water Management Planning

Section/Fund No:

44210

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
BEGINNING FUND BALANCE	271,349	403,626		519,258		
REVENUES						
USE OF MONEY / PROPERTY						
44002 Interest on Pooled Cash	4,639	3,003	3,003	3,003	0	0.00%
44050 Unrealized Gains and Losses	(2,538)	0	0	0	0	N/A
SUBTOTAL	2,102	3,003	3,003	3,003	0	0.00%
INTERGOVERNMENTAL REVENUE						
42619 Town of Windsor	8,333	7,628	7,628	2,432	(5,196)	(68.11%)
SUBTOTAL	8,333	7,628	7,628	2,432	(5,196)	(68.11%)
OTHER FINANCING SOURCES						
47101 Transfers In - within a Fund	125,480	130,000	130,000	41,772	(88,228)	(67.87%)
47102 Transfers In - btw Govtl Funds	0	0	0	0	0	N/A
SUBTOTAL	125,480	130,000	130,000	41,772	(88,228)	(67.87%)
TOTAL REVENUES	135,914	140,631	140,631	47,207	(93,424)	(66.43%)
EXPENDITURES						
SERVICES AND SUPPLIES						
51205 Advertising Marketing	0	0	0	0	0	N/A
51211 Legal Services	127	0	0	0	0	N/A
51212 Legal Services - External	0	0	0	0	0	N/A
51241 Outside Printing & Binding	0	0	0	0	0	N/A
51602 Business Travel/Mileage	0	0	0	0	0	N/A
51605 Private Car Expense	0	0	0	0	0	N/A
51803 Other Contract Services	12,303	20,000	20,000	20,000	0	0.00%
51917 District Operations Chgs	6,049	5,000	5,000	5,000	0	0.00%
51921 Equipment Usage Charges	0	0	0	0	0	N/A
52171 Water Conservation Program	0	0	0	0	0	N/A
SUBTOTAL	18,479	25,000	25,000	25,000	0	0.00%
OTHER CHARGES						
53103 Interest on LT Debt	0	0	0	0	0	N/A
53501 Contributions	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
OTHER FINANCING USES						
57011 Transfers Out - within a Fund	0	0	0	0	0	N/A
57012 Transfers Out - btw Govtl Funds	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	18,479	25,000	25,000	25,000	0	0.00%
Adjustments to Reserves/Encumbrances:						
Outstanding Encumbrances - Net Change	12,303	0		0		
Audit Adjustment (A/P)	0	0		0		
Unrealized Gain/ Loss (GASB 31)	2,538	0		0		
Rounding	1	0		0		
ENDING FUND BALANCE	403,626	519,258		541,465		

FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY

Section Title: Watershed Planning/Restoration

Section/Fund No: 44215

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
BEGINNING FUND BALANCE	2,912,687	4,450,539		2,821,516		
REVENUES						
USE OF MONEY / PROPERTY						
44002 Interest on Pooled Cash	79,072	50,000	25,740	25,740	0	0.00%
44050 Unrealized Gains and Losses	(40,726)	0	0	0	0	N/A
SUBTOTAL	38,345	50,000	25,740	25,740	0	0.00%
INTERGOVERNMENTAL REVENUE						
42461 Federal Other Funding	150,081	(11,012)	0	0	0	N/A
42619 Town of Windsor	224,901	210,127	210,127	221,493	11,365	5.41%
SUBTOTAL	374,982	199,116	210,127	221,493	11,365	5.41%
MISCELLANEOUS REVENUE						
46021 Capital Grants - Federal	0	0	0	0	0	N/A
46029 Donations/Contributions	0	0	0	0	0	N/A
46040 Miscellaneous Revenue	312	0	0	0	0	N/A
46041 Discounts Earned	5	0	0	0	0	N/A
46050 Cancelled/Stale Dated Warrant	0	0	0	0	0	N/A
46200 Revenue Appl PY Misc Revent	150	1,200	0	0	0	N/A
SUBTOTAL	467	1,200	0	0	0	N/A
OTHER FINANCING SOURCES						
47101 Transfers In - within a Fund	3,414,580	3,581,000	3,581,000	3,803,958	222,958	6.23%
47102 Transfers In - btw Govtl Funds	0	0	0	0	0	N/A
SUBTOTAL	3,414,580	3,581,000	3,581,000	3,803,958	222,958	6.23%
TOTAL REVENUES	3,828,374	3,831,316	3,816,867	4,051,191	234,323	6.14%
EXPENDITURES						
SERVICES AND SUPPLIES						
51021 Communication Expense	0	0	0	0	0	N/A
51061 Maintenance - Equipment	4,327	6,000	0	0	0	N/A
51205 Advertising Marketing	21,669	0	0	0	0	N/A
51209 Information Tech Svc (non ISD)	173	175	0	0	0	N/A
51211 Legal Services	28,109	10,000	0	0	0	N/A
51212 Legal Services - External	6,629	7,000	0	0	0	N/A
51221 Medical/Laboratory Services	21,274	0	0	0	0	N/A
51226 Consulting Services	0	0	0	0	0	N/A
51231 Testing/Analysis	44,144	44,000	0	0	0	N/A
51241 Outside Printing and Binding	15,484	0	0	0	0	N/A
51244 Permits/License/Fees	25,365	0	0	0	0	N/A
51401 Rents and Leases - Equipment	9,636	10,000	0	0	0	N/A
51601 Training/Conference	168	100	0	0	0	N/A
51602 Business Travel/Mileage	206	0	0	0	0	N/A
51605 Private Car Expense	278	100	0	0	0	N/A
51801 Other Services	0	0	0	0	0	N/A
51803 Other Contract Services	785,047	2,824,884	1,163,000	913,000	(250,000)	(21.50%)
51902 Telecommunication Usage	245	250	0	0	0	N/A
51917 District Operations Chgs	1,715,684	2,232,000	3,024,000	2,483,000	(541,000)	(17.89%)
51921 Equipment Usage Charges	21,142	22,000	0	0	0	N/A
52021 Clothing, Uniforms, Personal	2,246	2,300	0	0	0	N/A
52031 Food	2,440	0	0	0	0	N/A

Section Title:

Watershed Planning/Restoration

Section/Fund No:

44215

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
52042 Janitorial Supplies	0	200	0	0	0	N/A
52043 Safety Supplies/Equipment	0	0	0	0	0	N/A
52061 Fuel/Gas/Oil	15	0	0	0	0	N/A
52063 Vehicle Parts	0	0	0	0	0	N/A
52071 Materials and Supplies Expens	1,201	1,200	0	0	0	N/A
52081 Medical/Laboratory Supplies	1,046	1,100	0	0	0	N/A
52091 Memberships/Certifications	2,500	0	0	0	0	N/A
52101 Other Supplies	1,838	0	0	0	0	N/A
52111 Office Supplies	53	0	0	0	0	N/A
52114 Freight/Postage	0	0	0	0	0	N/A
52115 Books/Media	1,334	0	0	0	0	N/A
52117 Mail and Postage Supplies	611	2,000	0	0	0	N/A
52141 Minor Equipment/Small Tools	2,794	3,000	0	0	0	N/A
52143 Computer Software	0	0	0	0	0	N/A
52181 Business Meals/Supplies	0	0	0	0	0	N/A
52191 Utilities Expense		30				
SUBTOTAL	2,715,658	5,166,339	4,187,000	3,396,000	(791,000)	(18.89%)
OTHER CHARGES						
53104 Other Interest Expense	0	0	0	0	0	N/A
53402 Depreciation Expense	7,721	10,000	0	8,000	8,000	N/A
53501 Contributions	0	0	0	0	0	N/A
SUBTOTAL	7,721	10,000	0	8,000	8,000	N/A
REIMBURSEMENTS						
58010 Reimb. - General	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
FIXED ASSETS						
19840 Acq-WIP-Equipment	0	0	0	0	0	N/A
19841 Acq-WIP-Intangibles	75,219	294,000	294,000	0	(294,000)	N/A
19851 Intangible Assets - Non-amort	0	0	0	0	0	N/A
SUBTOTAL	75,219	294,000	294,000	0	(294,000)	(1)
OTHER FINANCING USES						
57011 Transfers Out - within a Fund	0	0	0	0	0	N/A
57012 Transfers Out - btw Govtl Fund	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	2,798,598	5,470,339	4,481,000	3,404,000	(1,077,000)	(24.03%)
Adjustments to Reserves/Encumbrances:						
Outstanding Encumbrances - Net Change	459,629	0				
Capital Interest	0	0				
Depreciation	7,721	10,000				
Audit Adjustment (A/P)	0	0				
Unrealized Gain/ Loss (GASB 31)	40,726	0				
Rounding	0	0				
ENDING FUND BALANCE	4,450,539	2,821,516		3,468,706		

FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY

Section Title:

Recycled Water and Local Supply

Section/Fund No:

44220

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
BEGINNING FUND BALANCE	(63,538)	27,648		261,282		
REVENUES						
USE OF MONEY / PROPERTY						
44002 Interest on Pooled Cash	13,822	6,435	6,435	6,435	0	0.00%
44050 Unrealized Gains and Losses	(6,365)	0	0	0	0	N/A
SUBTOTAL	7,456	6,435	6,435	6,435	0	0.00%
INTERGOVERNMENTAL REVENUE						
42358 State Other Funding	34,130	200	0	0	0	N/A
42619 Town of Windsor	45,608	24,352	24,352	7,104	(17,248)	(70.83%)
SUBTOTAL	79,739	24,552	24,352	7,104	(17,248)	(70.83%)
CHARGES FOR SERVICES						
45301 Charges for Services	83,984	0	0	0	0	N/A
SUBTOTAL	83,984	0	0	0	0	0
MISCELLANEOUS REVENUE						
46022 Capital Grants-State	1,633	0	0	0	0	N/A
46029 Donations/Contributions	0	0	0	0	0	N/A
46200 Revenue Appl PY Misc Revenue	1,670	0	0	0	0	N/A
46029 Donations/Contributions	0	0	0	0	0	N/A
SUBTOTAL	3,303	0	0	0	0	N/A
OTHER FINANCING SOURCES						
47101 Transfers In - within a Fund	676,463	415,000	415,000	122,000	(293,000)	(70.60%)
47102 Transfers In - btw Govtl Funds	0	0	0	0	0	N/A
SUBTOTAL	676,463	415,000	415,000	122,000	(293,000)	(70.60%)
TOTAL REVENUES	850,944	445,987	445,787	135,539	(310,248)	(69.60%)
EXPENDITURES						
SERVICES AND SUPPLIES						
51021 Communication Expense	0	0	0	0	0	N/A
51061 Maintenance - Equipment	7,570	0	0	0	0	N/A
51205 Advertising/Marketing Svc	0	0	0	0	0	N/A
51209 Information Tech Svc (non ISD)	1,177	0	0	0	0	N/A
51211 Legal Services	635	2,000	0	0	0	N/A
51212 Legal Services - External	0	0	0	0	0	N/A
51226 Consulting Services	0	0	0	0	0	N/A
51241 Outside Printing and Binding	541	0	0	0	0	N/A
51244 Permits/License/Fees	1,955	1,000	0	0	0	N/A
51401 Rents and Leases - Equipment	503	0	0	0	0	N/A
51601 Training Services	1,937	1,000	0	0	0	N/A
51602 Business Travel/Mileage	10	0	0	0	0	N/A
51803 Other Contract Services	492,394	60,000	15,000	0	(15,000)	(100.00%)
51902 Telecommunication Usage	0	0	0	0	0	N/A
51915 ISD - Reprographics Services	0	0	0	0	0	N/A
51917 District Operations Chgs	501,250	100,000	100,000	0	(100,000)	(100.00%)
51921 Equipment Usage Charges	1,333	1,000	0	0	0	N/A
52031 Food	0	0	0	0	0	N/A

Section Title:

Recycled Water and Local Supply

Section/Fund No:

44220

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
52061 Fuel/Gas	0	0	0	0	0	N/A
52101 Other Supplies	0	0	0	0	0	N/A
52115 Books/Media/Subscriptions	0	0	0	0	0	N/A
52117 Mail and Postage Supplies	358	0	0	0	0	N/A
52141 Minor Equipment/Small Tools	0	0	0	0	0	N/A
52143 Computer Software/Licensing Fees	0	0	0	0	0	N/A
52171 Water Conservation Program		1,000				
SUBTOTAL	1,009,663	166,000	115,000	0	(115,000)	(100.00%)
OTHER CHARGES						
53103 Interest on LT Debt	0	0	0	0	0	N/A
53104 Other Interest Expense	(6,464)	0	0	0	0	N/A
53402 Depreciation Expense	0	12,000	0	12,000	12,000	N/A
53501 Contributions	0	0	0	110,000	110,000	N/A
SUBTOTAL	(6,464)	12,000	0	122,000	122,000	N/A
FIXED ASSETS						
19831 CIP - Bldg & Impr	0	0	0	0	0	N/A
19832 CIP - Infrastructure	(1,341)	0	0	0	0	N/A
19841 Work in Progress - Intang	9,180	10,000	0	0	0	N/A
SUBTOTAL	7,840	10,000	0	0	0	N/A
OTHER FINANCING USES						
57011 Transfers Out - within a Fund	0	0	0	0	0	N/A
57012 Transfers Out - btw Govtl Fund	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	1,011,039	188,000	115,000	122,000	7,000	6.09%
Adjustments to Reserves/Encumbrances:						
Outstanding Encumbrances - Net Change	296,987	0				
Change in Windsor Reserve	(45,608)	(24,352)				
Capital Interest	(6,464)	0		0		
Audit Adjustment (A/P)	0	0		0		
Unrealized Gain/ Loss (GASB 31)	6,365	0		0		
Rounding	0	0				
ENDING FUND BALANCE	27,648	261,282		274,821		

**FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY**

Section Title: **Water Conservation**

Section/Fund No: **44225**

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
BEGINNING FUND BALANCE	481,317	486,393		278,663		
REVENUES						
USE OF MONEY / PROPERTY						
44002 Interest on Pooled Cash	11,573	6,435	6,435	6,435	0	0.00%
44050 Unrealized Gains and Losses	(4,499)	0	0	0	0	N/A
SUBTOTAL	7,073	6,435	6,435	6,435	0	0.00%
INTERGOVERNMENTAL REVENUE						
42358 State Other Funding	117,056	332,800	26,250	185,250	159,000	605.71%
42461 Federal Other Funding	39,104	40,000	40,000	0	(40,000)	(100.00%)
42610 Other Governmental Agencies	(20,166)	0	0	0	0	N/A
42611 City of Santa Rosa	0	0	0	0	0	N/A
42612 City of Petaluma	0	2,000	0	0	0	N/A
42613 City of Rohnert Park	0	0	0	0	0	N/A
42615 City of Cotati	0	0	0	0	0	N/A
42618 City of Sonoma	0	0	0	0	0	N/A
42619 Town of Windsor	114,077	106,446	106,446	109,829	3,383	3.18%
42621 North Marin Water District	0	0	0	0	0	N/A
SUBTOTAL	250,071	481,246	172,696	295,079	122,383	70.87%
Charges for Services						
45301 Charges for Services	66,635	50,000	0	0	0	N/A
SUBTOTAL	66,635	50,000	0	0	0	N/A
OTHER FINANCING SOURCES						
46021 Capital Gains - Federal	0	0	0	0	0	N/A
46022 Capital Grants - State	0	0	0	0	0	N/A
46029 Donations/Contributions	12,228	120,000	120,000	137,500	17,500	14.58%
46040 Miscellaneous Revenue	2,516	0	0	0	0	N/A
46041 Discounts Earned	6	0	0	0	0	N/A
46050 Cancelled/State Dated Warrants	0	0	0	0	0	N/A
46200 Revenue Appl PY Misc Revenue	7,161	0	0	0	0	N/A
46215 Other Grants	0	6,000	0	0	0	N/A
SUBTOTAL	21,911	126,000	120,000	137,500	17,500	14.58%
OTHER FINANCING SOURCES						
47101 Transfers In - within a Fund	1,731,855	1,814,050	1,814,050	1,886,222	72,172	3.98%
47102 Transfers In - btw Govtl Funds	0	0	0	0	0	N/A
SUBTOTAL	1,731,855	1,814,050	1,814,050	1,886,222	72,172	3.98%
TOTAL REVENUES	2,077,546	2,477,731	2,113,181	2,325,236	212,055	10.03%
EXPENDITURES						
SERVICES AND SUPPLIES						
51021 Communication Expense	0	0	0	0	0	N/A
51032 Janitorial Services	0	0	0	0	0	N/A
51061 Maintenance - Equipment	6,092	40,000	0	0	0	N/A
51205 Advertising/Marketing Svc	159,383	160,000	0	0	0	N/A
51209 Information Tech Svc (non ISD)	810	0	0	0	0	N/A
51211 Legal Services	318	1,000	0	0	0	N/A
51214 Agency Extra/Temp Help	0	0	0	0	0	N/A

Section Title:

Water Conservation

Section/Fund No:

44225

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
51225 Training Services	500	0	0	0	0	N/A
51230 Security Services	0	0	0	0	0	N/A
51241 Outside Printing and Binding	35,301	45,000	45,000	52,000	7,000	15.56%
51244 Permits/License	0	1,200	0	0	0	N/A
51249 Other Professional Services	0	0	0	0	0	N/A
51250 Planning/Mapping/Inspections	0	0	0	0	0	N/A
51301 Publications and Legal Notices	0	0	0	0	0	N/A
51401 Rents and Leases - Equipment	653	1,200	0	0	0	N/A
51601 Training Services	5,399	3,000	0	0	0	N/A
51602 Business Travel/Mileage	3,746	1,000	3,000	5,000	2,000	66.67%
51605 Private Car Expense	1,261	1,300	0	0	0	N/A
51801 Other Services	705	0	0	0	0	N/A
51803 Other Contract Services	214,034	91,800	91,800	71,800	(20,000)	(21.79%)
51902 Telecommunication Usage	287	0	0	0	0	N/A
51915 ISD Reprographics Services	0	0	0	0	0	N/A
51917 District Operations Chgs	1,439,551	1,420,000	1,420,000	1,660,922	240,922	16.97%
51921 Equipment Usage Charges	26,711	16,000	0	0	0	N/A
52021 Clothing, Uniforms	2,339	0	0	0	0	N/A
52031 Food	2,318	2,000	0	0	0	N/A
52042 Janitorial Supplies	0	15	0	0	0	N/A
52061 Fuel/Gas/Oil	0	0	0	0	0	N/A
52071 Materials and Supplies Expense	14,093	40,000	7,500	5,000	(2,500)	(33.33%)
52091 Memberships/Certifications	5,802	13,000	13,000	13,000	0	0.00%
52101 Other Supplies	9,112	0	0	0	0	N/A
52111 Office Supplies	1,924	1,600	0	0	0	N/A
52112 Office Furniture/Fixtures	0	0	0	0	0	N/A
52114 Freight/Postage	0	0	0	0	0	N/A
52115 Books/Media/Subscriptions	3,194	100	0	0	0	N/A
52117 Mail and Postage Supplies	70	2,000	0	0	0	N/A
52141 Minor Equipment/Small Tools	7,954	2,000	0	0	0	N/A
52142 Computer Equipment/Accessories	0	0	0	0	0	N/A
52162 Special Department Expense	0	0	0	0	0	N/A
52171 Water Conservation Program	3,000	480,000	480,000	691,250	211,250	44.01%
52181 Business Meals/Supplies	0	0	0	0	0	N/A
SUBTOTAL	1,944,556	2,322,215	2,060,300	2,498,972	438,672	21.29%
OTHER CHARGES						
53500 Contributions Non-County Agy	19,750	0	0	0	0	N/A
53501 Contributions	95,520	256,800	0	0	0	N/A
SUBTOTAL	115,270	256,800	0	0	0	N/A
OTHER FINANCING USES						
57011 Transfers Out - within a Fund	0	0	0	0	0	N/A
57012 Transfers Out - btw Govtl Fund	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	2,059,826	2,579,015	2,060,300	2,498,972	438,672	21.29%
Adjustments to Reserves/Encumbrances:						
Outstanding Encumbrances - Net Chan	96,931	0		0		
Change in Windsor Reserve	(114,076)	(106,446)		0		
Audit Adjustment (A/P)	0	0		0		
Unrealized Gain/ Loss (GASB 31)	4,499	0		0		
Rounding	2	0		0		
ENDING FUND BALANCE	486,393	278,663		104,927		

Water Transmission Budget
2018-19

Itemized Detail for Subfunds Consulting/Contractual Services

Budget
FY18-19

Water Management Planning

<p>Water Demand Analysis/ Financial Modeling: Develop scope, cost, energy requests, and schedule of transmission system projects required to meet the Water Agency's portion of UWMP-identified projected demands through the Urban Water Management planning horizon. Projects identified using Water Agency's transmission system hydraulic model. Next UWMP due July 1, 2021. Conduct follow-up meetings, respond to DWR and contractor requests, track regulatory compliance changes, and coordinate with climate adaption strategic planning efforts.</p>	<p>\$ 20,000</p>
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Watershed Planning/Restoration

<p><u>RRIFR Decision 1610 Change Petition: Russian River Flows</u>: Assist in preparation of final Environmental Impact Report for Fish Habitat Flows and Water Rights Project in preparation for Board of Directors consideration for certification. Consultant services for responses to comments on the Draft EIR, and any additional impact analysis, flow modeling, hydroelectric analysis, water quality monitoring, climate change modeling (USGS), EIR, and hydrologic index evaluation needed. Work is occurring internally on the Environmental Impact Report for the Fish Habitat Flows and Water Rights Project. The EIR is being prepared by Water Agency staff, with assistance from consultants on some areas of impact analysis. A draft EIR was released on August 19, 2016. In FY18-19, most of the work will focus on reviewing and responding to public comments, adjustments to the proposed Hydrologic Index, and refinements to models, preparation of the final EIR, and presentation to the Board of Directors to certify. Work also includes submission of annual Temporary Urgency Change Petition to the State Board to approve the requested changes to minimum in-stream flows as identified in the Biological Opinion. Compared to FY17-18, the Decision 1610 Change Petition budget has decreased approximately \$630,000. The decrease is attributable to the level of effort to prepare and certify the final EIR in FY18-19.</p>	<p>\$ 188,000</p>
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<p><u>RRIFR Estuary Management: Required Annual Biological Opinion Activities</u>: The Water Agency, in consultation with NMFS, California Department of Fish & Wildlife (CDFW) and the U.S. Army Corps of Engineers (Corps), is required to annually prepare a lagoon outlet adaptive management plan by April 1; conduct and record monthly surveys of the beach topography and the outlet channel; use a time lapse video camera to record the interaction of waves, tides and the river mouth; conduct baseline monitoring of seals and other pinnipeds, conduct estuary water quality monitoring, conduct extensive surveys of estuary invertebrates; conduct juvenile steelhead and coho salmon rearing surveys, and prepare annual reports. From late spring to early fall (when flows are below 300 cfs at Hacienda Bridge), the Water Agency conducts monthly surveys of young steelhead in the estuary. Other FY18-19 activities include installation and monitoring of downstream migrant salmonid traps and water quality monitoring stations, and flood risk feasibility studies, and climate change sea level rise and salmonid water quality habitat modeling analysis (NOAA Habitat Blueprint). Compared to FY17-18, the Estuary Management budget has decreased approximately \$250,000 due to completion of stipulated judgment requirements from the Estuary EIR litigation, removal of groundwater wells used for the jetty study in FY17-18, and reductions in contract services.</p>	<p>\$ 580,000</p>
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<p><u>USGS Programmatic Climate Change Studies</u>: USGS will continue ongoing work on updating unimpaired flows in the Russian River Basin to support Water Agency water supply planning efforts. This includes developing unimpaired flows for 6 new climate scenarios from the Intergovernmental Panel on Climate Change Fifth Assessment Report, modeling impact scenarios for changing land use and water availability and provide science support in the finalization of the Draft Environmental Impact Report for Fish Habitat Flows and Water Rights Project Environment Impact Report. Under previous agreement the USGS the Russian River Basin Characterization Model to develop a historical unimpaired flow dataset for the Russian River from 1910 to 2013. This dataset was to support the modeling of the Draft EIR, and the 2015 Urban Water Management Plan. The USGS also downscaled 4 future climate change scenarios to produce daily climate change unimpaired hydrology for the Russian River. This dataset was used for the development of the Lake Mendocino Reliability Study completed in 2015.</p>	<p>\$ 120,000</p>
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Water Transmission Budget

2018-19

Itemized Detail for Subfunds Consulting/Contractual Services

Budget
FY18-19

NOAA Hydrometeorology Testbed (HMT) Quantitative Precipitation Information Phase 3 Project: NOAA Physical Sciences Division will continue ongoing weather monitoring in our region by deploying new instruments, gathering and analyzing data, and performing other work in support of local efforts to protect and manage water resources in the Russian River. Under previous agreements (Phase I & II), new weather observing stations were deployed at multiple locations throughout the region to fill existing data gaps. Information collected from these stations includes precipitation, temperature, and soil moisture. The data from these stations, as well as data being collected from existing stations, were integrated into weather prediction models to refine precipitation and temperature forecasts. Use of advanced forecasting and measurement tools can help with flood control and water supply efficiency. Sonoma County is a test area for this emerging technology. This work will also complement and support assessment of weather related hazards associated with burned areas from the fires in Sonoma County. Data collected under this agreement will augment data being collected with new gauges and a temporary radar system in response to the October 2017 fires to provide NOAA forecasters needed information for timely hazard assessments associated with post-burn watershed conditions such as flash floods and debris flows. In addition to benefitting the watershed, new information gained from this project can be applied in the future to other at-risk watersheds along the Pacific Coast and to national programs such as NOAA's National Water Model.	\$ 25,000
	\$ 913,000
Recycled Water and Local Supply	
Funding for Santa Rosa Plain Groundwater Management in FY 18/19 is included to cover the financial contribution from the Water Agency for the Santa Rosa Plain Groundwater Sustainability Agency's (GSA's) activities. Funding any potential Water Agency financial contribution through the Water Transmission Recycled Water/Local Supply is appropriate, as the Water Agency has critical water supply sources within the Santa Rosa Plain Groundwater Subbasin (Occidental Rd, Sebastopol Rd, and Todd Rd groundwater production wells) that could be impacted by the future GSA's activities.	\$ 110,000
	\$ 110,000
Water Conservation	
51241-Outside Printing and Binding	
WUE Program materials, water education calendar, and Green Business Program brochures, Garden Sense materials	\$ 52,000
51602-Business Travel/Mileage	
Attend local and statewide meeting representing the Partnership and SCWA	\$ 5,000
51803-Other Contract Services	
Water Education Bus Contract to shuttle kids from school to field study sites	\$ 41,800
Green Business Program: Funding to staff a part time position which provides water assessments for local businesses pursuing the Green Business Certification	\$ 30,000
	\$ 71,800

Water Transmission Budget

2018-19

Itemized Detail for Subfunds Consulting/Contractual Services

Budget
FY18-19

51917-District Operations Chgs

Salaries, benefits and overhead costs for staff assigned to projects budgeted within the Water Conservation Fund.	\$ 1,660,922
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52071-Materials and Supplies Expense

Teaching aids, pH strips, fabric for displays, youth outreach displays, etc.	\$ 5,000
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52091-Memberships/Certifications

Irrigation Association Certificate Renewals, Water Education Foundation, and CUWCC, Alliance for Water Efficiency, etc.	\$ 13,000
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52171-Water Conservation Program

Sonoma County Fair: Materials and hardware that are WUE focused for distribution at the Sonoma County fair	\$ 10,000
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Saving Water Partnership Wholesaler Support: Act as the regional liaison attend meetings of the CUWCC Board, Alliance for Water Efficiency, Green Building Standards Commission, Independent Technical Panel, Urban Advisory Group, CA Science Teachers Association, environmental education conference.	\$ 40,000
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School Education Program: Such as assembly program, port-a-potties, steelhead in the classroom program, youth outreach events, teacher program, English as a second language program, educational workbooks, maps	\$ 138,000
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Outdoor Water Use Focused Programs: Qualified Water Efficient Landscaper Training in English and Spanish, Garden Sense funding provides onsite visits by local master gardeners to support local turf removal programs, Community Resilience Challenge event provides training and local workshops to promote water use efficiency; Plant labeling Program, Russian River Friendly Workshops, etc.	\$ 95,000
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DWR Water Energy Grant Rebates: The Sonoma-Marin Saving Water Partnership Water-Energy Rebate Program for Restaurants (Project) will target restaurants in the Sonoma-Marin Saving Water Partnership service area to replace inefficient equipment with water-efficient and energy-efficient equipment, resulting in long term, permeant savings by reducing water and energy usage. Restaurants have historically been a difficult market to penetrate due to high turn-over rates and the leasing of hardware. The Water Agency will administer the Project. The rebate program will provide direct incentives to restaurateurs for replacement of old, inefficient fixtures.	\$ 185,250
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Public Information/Outreach Programs: Media campaign for the Sonoma-Marin Saving Water Partnership including media ad buy, ad development, DIY toolkits	\$ 165,000
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Seminars, Workshops, Training: Host trainings/ workshops to benefit the Partnership, such as Water Loss, WELO; Participation in national/ statewide studies such as Turf Transformation Study	\$ 30,000
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GardenSoft Licensing: Licensing of online Water Wise Gardening plant palate that is specific to Sonoma and Marin Counties	\$ 3,000
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Westside Education Center Exhibits	\$ 25,000
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\$ 691,250

Total \$ 2,498,972

FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY

Section Title:
Section/Fund No:

Santa Rosa Aqueduct Capital Fund
44230

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
BEGINNING FUND BALANCE	6,057,463	6,589,988		6,589,886		

REVENUES

USE OF MONEY / PROPERTY

44002 Interest on Pooled Cash	63,789	21,450	21,450	21,450	0	0.00%
44003 Other Interest Earnings	0	0	0	0	0	N/A
44050 Unrealized Gains & Los	(32,773)	0	0	0	0	N/A
SUBTOTAL	31,016	21,450	21,450	21,450	0	0.00%

MISCELLANEOUS REVENUES

46040 Miscellaneous Revenue	0	0	0	0	0	N/A
46021 Capital Grants - Federal	0	863,942	0	0	0	N/A
46029 Donations/Contributions	0	0	0	0	0	N/A
	0	0	0	0		
SUBTOTAL	0	863,942	0	0	0	N/A

ADMINISTRATIVE CONTROL ACCOUNT

49002 Advances	0	0	0	0	0	N/A
49003 Advances Clearing	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A

OTHER FINANCING SOURCES

47101 Transfers In - within a F	483,812	386,429	386,429	407,973	21,544	5.58%
47102 Transfers In - btw Govt	0	0	0	0	0	N/A
SUBTOTAL	483,812	386,429	386,429	407,973	21,544	5.58%

SPECIAL ITEMS

48004 Residual Equity Transfe	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A

TOTAL REVENUES	514,829	1,271,821	407,879	429,423	21,544	5.28%
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EXPENDITURES

OTHER CHARGES

53103 Interest on LT Debt	0	0	0	0		
53104 Other Interest Expense	(1,579)	0	0	0		
53105 Costs of Issuance	0	0	0	0		
SUBTOTAL	(1,579)	0	0	0	0	N/A

FIXED ASSETS

19820 Machinery and Equipme	0	0	0	0		
19822 Mobile Equipment	0	0	0	0		
19824 Computer Equipment	0	0	0	0		
19831 CIP - Bldg & Impr	0	0	0	0		
19832 CIP - Infrastructure	15,077	1,271,923	727,000	50,000	(677,000)	(93.12%)
19840 Work in Progress - Eqt	0	0	0	0		
19841 Work in Progress - Intar	0	0	0	0		

19851 Intangible Assets - Non-	0	0	0	0		
SUBTOTAL	15,077	1,271,923	727,000	50,000	(677,000)	(93.12%)
OTHER FINANCING USES						
57011 Transfers Out - within a	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	13,498	1,271,923	727,000	50,000	(677,000)	(93.12%)
Adjustments to Reserves/Encumbrances:						
Repayment of Loan to Storage	0	0		0		
Unrealized Gain/ Loss (GASB 31)	(1,579)	0		0		
Capitalized Interest	32,773	0		0		
Rounding	1	0		0		
ENDING FUND BALANCE	6,589,988	6,589,886		6,969,309		

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**FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY**

Section Title:
Section/Fund No:

Petaluma Aqueduct Capital Fund 44235

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
BEGINNING FUND BALANCE	7,403,293	7,712,720		7,733,001		
REVENUES						
USE OF MONEY / PROPERTY						
44002 Interest on Pooled Cash	76,825	25,000	21,450	21,450	0	0.00%
44003 Other Interest Earnings	0	0	0	0	0	N/A
44050 Unrealized Gains & Losses	(40,254)	0	0	0	0	N/A
SUBTOTAL	36,571	25,000	21,450	21,450	0	0.00%
ADMINISTRATIVE CONTROL ACCOUNT						
49002 Advances	0	0	0	0	0	N/A
49003 Advances Clearing	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
OTHER FINANCING SOURCES						
47101 Transfers In - within a Fund	239,414	250,281	250,281	225,359	(24,922)	(9.96%)
47102 Transfers In - btw Govtl Funds	0	0	0	0	0	N/A
SUBTOTAL	239,414	250,281	250,281	225,359	(24,922)	(9.96%)
TOTAL REVENUES	275,985	275,281	271,731	246,809	(24,922)	(9.17%)
EXPENDITURES						
OTHER CHARGES						
53103 Interest on LT Debt	0	0	0	0		
53104 Other Interest Expense	(26)	0	0	0		
53105 Costs of Issuance	0	0	0	0		
53403 Loss - Disposed Capital Asset	0	0	0	0		
SUBTOTAL	(26)	0	0	0	0	N/A
FIXED ASSETS						
19820 Machinery and Equipment	0	0	0	0		
19822 Mobile Equipment	0	0	0	0		
19824 Computer Equipment	0	0	0	0		
19831 CIP - Bldg & Impr	0	0	0	0		
19832 CIP - Infrastructure	6,812	255,000	145,000	1,255,000	1,110,000	765.52%
19840 Work in Progress - Eqt	0	0	0	0	0	N/A
19841 Work in Progress - Intang	0	0	0	0	0	N/A
19851 Intangible Assets - Non-amort	0	0	0	0		
SUBTOTAL	6,812	255,000	145,000	1,255,000	1,110,000	765.52%

Section Title:
Section/Fund No:

Petaluma Aqueduct Capital Fund
44235

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
<u>SPECIAL ITEMS</u>						
56030 Residual Equity Transfers	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
<u>OTHER FINANCING USES</u>						
57011 Transfers Out - within a Fund	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	6,786	255,000	145,000	1,255,000	1,110,000	765.52%
Adjustments to Reserves/Encumbrances:						
Advance to Common	0	0		0		
Increase/(Decrease) in Loan Payable	0	0		0		
Capitalized Interest	(26)	0		0		
Loss on Fixed Asset	0	0		0		
Principal Received on Loan	0	0		0		
Unrealized Gain/ Loss (GASB 31)	40,254	0		0		
ENDING FUND BALANCE	7,712,720	7,733,001		6,724,810		

FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY

Section Title:

Sonoma Aqueduct Capital Fund

Section/Fund No:

44240

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
BEGINNING FUND BALANCE	1,309,718	1,271,451		681,622		
REVENUES						
USE OF MONEY / PROPERTY						
44002 Interest on Pooled Cash	14,738	858	858	858	0	0.00%
44003 Other Interest Earnings	0	0	0	0	0	N/A
44050 Unrealized Gains & Losses	(7,282)	0	0	0	0	N/A
SUBTOTAL	7,457	858	858	858	0	0.00%
OTHER FINANCING SOURCES						
47101 Transfers In - within a Fund	126,812	113,609	113,609	1,390,000	1,276,391	1123.50%
47102 Transfers In - btw Govtl Func	0	0	0	0	0	N/A
SUBTOTAL	126,812	113,609	113,609	1,390,000	1,276,391	1123.50%
SPECIAL ITEMS						
48004 Residual Equity Transfers	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
TOTAL REVENUES	134,269	114,467	114,467	1,390,858	1,276,391	1115.08%
EXPENDITURES						
OTHER CHARGES						
53103 Interest on LT Debt	0	0	0	0		
53104 Other Interest Expense	(29,249)	0	0	0		
53105 Costs of Issuance	0	0	0	0		
53403 Loss-Disposed Capital Asset	0	0	0	0		
SUBTOTAL	(29,249)	0	0	0	0	N/A
FIXED ASSETS						
19820 Machinery and Equipment	0	0	0	0		
19822 Mobile Equipment	0	0	0	0		
19824 Computer Equipment	0	0	0	0		
19831 CIP - Bldg & Impr	0	0	0	0		
19832 CIP - Infrastructure	187,768	704,296	135,000	130,000	(5,000)	(3.70%)
19840 Work in Progress - Eqt	0	0	0	0		
19841 Work in Progress - Intang	0	0	0	0		
19851 Intangible Assets - Non-amor	0	0	0	0		
SUBTOTAL	187,768	704,296	135,000	130,000	(5,000)	(3.70%)
OTHER FINANCING USES						
57011 Transfers Out - within a Func	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	158,519	704,296	135,000	130,000	(5,000)	(3.70%)

Adjustments to Reserves/Encumbrances:

Outstanding Encumbrances - Net Change	7,950	0	0
Capitalized Interest	(29,249)	0	0
Unrealized Gain/ Loss (GASB 31)	7,282	0	0
Net Adjustment - Increase/(Decrease) to f	(14,017)	0	0

ENDING FUND BALANCE	1,271,451	681,622	1,942,480
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**FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY**

Section Title: Storage Facilities

Section/Fund No: 44250

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
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BEGINNING FUND BALANCE	202,128	9,783		70,615		
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REVENUES

USE OF MONEY / PROPERTY

44002 Interest on Pooled Cash	(2,204)	50	0	0	0	N/A
44050 Unrealized Gains & Losses	1,221	(2,000)	(2,000)	(2,000)	0	0.00%
SUBTOTAL	(983)	(1,950)	(2,000)	(2,000)	0	0.00%

MISCELLANEOUS REVENUE

46021 Capital Grants - Federal	0	0	0	0	0	N/A
46029 Donations/Contributions	0	0	0	0	0	N/A
46040 Miscellaneous Revenue	63	0	0	0		
46022 Capital Grants - State (Petaluma AQ - Caltrans Project)	185,371	0	0	0	0	N/A
46200 PY Revenue - Miscellaneous		10,503				
SUBTOTAL	185,434	10,503	0	0	0	N/A

Administrative Control

49002 Advances	0	0	0	0	0	N/A
49003 Advances Clearing	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A

OTHER FINANCING SOURCES

47101 Transfers In - within a Fund	350,000	1,850,000	150,000	10,000	(140,000)	(93.33%)
47102 Transfers In - btw Govtl Funds	0	0	0	0	0	N/A
SUBTOTAL	350,000	1,850,000	150,000	10,000	(140,000)	(93.33%)

TOTAL REVENUES	534,451	1,858,553	148,000	8,000	(140,000)	(94.59%)
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EXPENDITURES

OTHER CHARGES

53103 Interest on LT Debt	0	0	0	0	0	N/A
53104 Other Interest Expense	(125,453)	0	0	0	0	N/A
SUBTOTAL	(125,453)	0	0	0	0	N/A

FIXED ASSETS

19831 CIP - Bldg & Impr	0	0	0	0	0	N/A
19832 CIP - Infrastructure	785,477	1,795,721	195,000	25,000	(170,000)	(87.18%)
19841 Acq-WIP-Intangibles	8,068	4,000	0	0	0	N/A
19851 Intangible Assets - Non-amort	0	0	0	0	0	N/A
SUBTOTAL	793,545	1,799,721	195,000	25,000	(170,000)	(87.18%)

Section Title: **Storage Facilities**

Section/Fund No: **44250**

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
ADMINISTRATIVE CONTROL ACCOUNT						
59002 Advances	0	0	0	0	0	N/A
59003 Advances Clearing	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
OTHER FINANCING USES						
57011 Transfers Out - within a Fund	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	668,092	1,799,721	195,000	25,000	(170,000)	(87.18%)
Adjustments to Reserves/Encumbrances:						
Repayment of Loan from SR Aqueduct (0	0		0		
Princ. Pymnt on loan from SR Aqueduct	0	0		0		
Advances	0	0		0		
Outstanding Encumbrances - Net Chang	67,969	0		0		
PY CIP adjustment - reclass to PY Exp	0	0		0		
B & I Tsfrs	0	0		0		
LTD Proceeds	0	0		0		
Capitalized Interest	(125,453)	0		0		
Move Project CIP Balance	0	0		0		
Unrealized Gain/ Loss (GASB 31)	(1,221)	2,000		0		
PY Encumbrances	0	0		0		
ENDING FUND BALANCE	9,783	70,615		53,615		

FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY

Section Title: Common Facilities

Section/Fund No: 44260

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
BEGINNING FUND BALANCE	2,527,308	1,466,782		(4,117,678)		

REVENUES

USE OF MONEY / PROPERTY

44002 Interest on Pooled Cash	11,509	8,580	8,580	8,580	0	0.00%
44003 Other Interest Earnings	0	0	0	0	0	N/A
44050 Unrealized Gains & Losses	3,621	(10,000)	(22,000)	0	22,000	(100.00%)
SUBTOTAL	15,130	(1,420)	(13,420)	8,580	22,000	(163.93%)

CHARGES FOR SERVICES

45062 Construct/Bldg Permit Rvw Svc	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A

MIECELLANEOUS REVENUES

46021 Capital Grants - Federal	1,711,836	5,759,579	0	0	0	N/A
46022 Capital Grants - State	0	0	0	0	0	N/A
46029 Donations/Contributions	0	0	0	0	0	N/A
46040 Miscellaneous Revenue	0	0	0	0	0	N/A
46041 Discounts Earned	3	5	0	0	0	N/A
46200 Revenue Appl PY Misc Revenue	66,260	527	0	0	0	N/A
SUBTOTAL	1,778,099	5,760,111	0	0	0	N/A

ADMINISTRATIVE CONTROL

49002 Advances	0	0	0	0	0	N/A
49003 Advances Clearing	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A

OTHER FINANCING SOURCES

47101 Transfers In - within a Fund	4,166,695	4,550,000	3,627,000	8,280,874	4,653,874	128.31%
47102 Transfers In - btw Govtl Funds	0	0	0	0	0	N/A
SUBTOTAL	4,166,695	4,550,000	3,627,000	8,280,874	4,653,874	128.31%

TOTAL REVENUES	5,959,923	10,308,691	3,613,580	8,289,454	4,675,874	129.40%
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EXPENDITURES

OTHER CHARGES

53103 Interest on LT Debt	0	0	0	0	0	N/A
53104 Other Interest Expense	(559,262)	0	0	0	0	N/A
53403 Loss - Disposed Capital Asset	0	0	0	0	0	N/A
SUBTOTAL	(559,262)	0	0	0	0	N/A

FIXED ASSETS

19810 Land	0	0	0	0	0	N/A
19812 Acq-CIP-Land	358,161	0	0	0	0	N/A
19831 CIP - Bldg & Impr	439	0	0	0	0	N/A
19832 CIP - Infrastructure	6,362,650	14,898,151	3,375,000	3,727,874	352,874	10.46%
19840 Acq-WIP-Equipment	0	0	0	0	0	N/A

Section Title:

Common Facilities

Section/Fund No:

44260

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
19841 Work in Progress - Intang	5,557	625,000	625,000	0	(625,000)	(100.00%)
19851 Intangible Assets - Non-amort	0	392,000	392,000	0	(392,000)	(100.00%)
SUBTOTAL	6,726,808	15,915,151	4,392,000	3,727,874	(664,126)	(15.12%)
OTHER FINANCING USES						
57011 Transfers Out - within a Fund	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
ADMINISTRATIVE CONTROL ACCOUNT						
59002 Advances	0	0	0	0	0	N/A
59003 Advances Clearing	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	6,167,546	15,915,151	4,392,000	3,727,874	(664,126)	(15.12%)
Adjustments to Reserves/Encumbrances:						
Loan from Petaluma Aqueduct Capital Fund	0	0		0		
Principal payment on Loan from Petaluma /	0	0		0		
Advances	0	0		0		
Outstanding Encumbrances - Net Change	(290,022)	0		0		
Capitalized Interest	(559,262)	0		0		
Proceeds from State Loan & Other LT Debt	0	0		0		
PY CIP adjustment - reclass to PY Exp (los	0	0		0		
B & I Tsfr to ISF (Facilities) Fund	0	0		0		
Auditor Adj - Reversal of Duplicate Pymt	0	0		0		
Change in Deposit w/Others	0	0		0		
Move Project CIP Balance	0	0		0		
Change in Contingent Liability	0	0		0		
Post Audit Adjustment - Payables	0	0		0		
Unrealized Gain/ Loss (GASB 31)	(3,621)	22,000		0		
Rounding	1	0		0		
ENDING FUND BALANCE	1,466,782	(4,117,678)		443,902		

**FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY**

Section Title: North Marin Water Deposit

Section/Fund No: 44300

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
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BEGINNING FUND BALANCE	13,156	13,335		13,479		
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REVENUES

USE OF MONEY / PROPERTY

44002 Interest on Pooled Cash	178	144	144	144	0	0.00%
44050 Unrealized Gains and Losses	(95)	0	0	0	0	N/A
SUBTOTAL	84	144	144	144	0	0.00%

Intergovernmental Revenue

42610 Other Governmental Agencies	0	0	0	1,279,480	1,279,480	N/A
SUBTOTAL	0	0	0	1,279,480	1,279,480	N/A

OTHER FINANCING SOURCES

47101 Transfers In - within a Fund	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A

TOTAL REVENUES	84	144	144	1,279,624	1,279,480	887640.25%
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EXPENDITURES

OTHER CHARGES

53501 Contributions	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A

OTHER FINANCING USES

57011 Transfers Out - within a Fund	0	0	0	644,248	644,248	N/A
SUBTOTAL	0	0	0	644,248	644,248	N/A

TOTAL EXPENDITURES	0	0	0	644,248	644,248	N/A
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Adjustments to Reserves/Encumbrances:

Unrealized Gain/ Loss (GASB 31)	95	0				
Rounding	0	(0)				

ENDING FUND BALANCE	13,335	13,479		648,855		
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**FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY**

Section Title: State Loan Debt Service Fund

Section/Fund No: 44265

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
BEGINNING FUND BALANCE	\$6,728	(\$7,238)		\$4,803		
REVENUES						
<u>USE OF MONEY / PROPERTY</u>						
44002 Interest on Pooled Cash	7,150	6,006	6,006	6,006	0	0.00%
44003 Other Interest Earnings	0	0	0	0	0	N/A
44050 Unrealized Gains and Losses	(4,122)	0	0	0	0	N/A
SUBTOTAL	3,028	6,006	6,006	6,006	0	0.00%
<u>OTHER FINANCING SOURCES</u>						
47101 Transfers In - within a Fund	1,040,238	1,196,268	1,196,268	1,196,268	0	0.00%
47102 Transfers In - btw Govtl Funds	0	0	0	0	0	N/A
SUBTOTAL	1,040,238	1,196,268	1,196,268	1,196,268	0	0.00%
TOTAL REVENUES	1,043,266	1,202,274	1,202,274	1,202,274	0	0.00%
EXPENDITURES						
<u>OTHER CHARGES</u>						
53103 Interest on LT Debt	289,339	268,218	268,218	246,502	(21,716)	(8.10%)
SUBTOTAL	289,339	268,218	268,218	246,502	(21,716)	(8.10%)
<u>OTHER FINANCING USES</u>						
57011 Transfers Out - within a Fund	0	150,000	300,000	150,000	(150,000)	(50.00%)
SUBTOTAL	0	150,000	300,000	150,000	(150,000)	(50.00%)
<u>ADMIN. CONTROL ACCOUNT</u>						
59002 Advances	750,892	772,015	772,015	793,731	21,716	2.81%
59003 Advances Clearing	(750,892)	(772,015)	(772,015)	(793,731)	(21,716)	2.81%
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	289,339	418,218	568,218	396,502	(171,716)	(30.22%)
Adjustments to Reserves/Encumbrances:						
Principal payments on loan	(750,892)	0				
(Increase) / Decrease in Principal Payable	(21,122)	(772,015)		(793,731)		
Unrealized Gain/ Loss (GASB 31)	4,122	0				
Rounding	(1)	0				
ENDING FUND BALANCE	(\$7,238)	\$4,803		\$16,844		

**FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY**

Section Title:

State Loan Reserve Fund

Section/Fund No:

44270

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
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BEGINNING FUND BALANCE	\$0	\$0		\$4,000		
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REVENUES

USE OF MONEY / PROPERTY

44002 Interest on Pooled Cash	12,978	4,000	0	0	0	N/A
44003 Other Interest Earnings	0	0	0	0	0	N/A
44050 Unrealized Gains and Losses	(6,893)	0	0	0	0	N/A
SUBTOTAL	6,085	4,000	0	0	0	N/A

OTHER FINANCING SOURCES

47101 Transfers In - within a Fund	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
TOTAL REVENUES	6,085	4,000	0	0	0	N/A

EXPENDITURES

OTHER FINANCING USES

57011 Transfers Out - within a Fund	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	0	0	0	0	0	N/A

Adjustments to Reserves/Encumbrances:

Increase in Reserve	(12,978)	0		0		
Unrealized Gain/ Loss (GASB 31)	6,893					
Rounding	0					

ENDING FUND BALANCE	\$0	\$4,000		\$4,000		
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**FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY**

Section Title:

Storage Facilities Revenue Bond - 2012A

Section/Fund No:

44280

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
BEGINNING FUND BALANCE	\$56,287	\$64,831		\$77,527		
REVENUES						
<u>USE OF MONEY / PROPERTY</u>						
44002 Interest on Pooled Cash	912	200	129	129	0	0.00%
44003 Other Interest Earnings	941	2,000	0	0	0	N/A
44050 Unrealized Gains and Losses	(336)	0	0	0	0	N/A
SUBTOTAL	1,516	2,200	129	129	0	0.00%
<u>OTHER FINANCING SOURCES</u>						
47101 Transfers In - within a Fund	272,526	310,471	310,471	308,527	(1,945)	(0.63%)
47102 Transfers In - btw Govtl Funds	0	0	0	0	0	N/A
SUBTOTAL	272,526	310,471	310,471	308,527	(1,945)	(0.63%)
TOTAL REVENUES	274,042	312,671	310,600	308,655	(1,945)	(0.63%)
EXPENDITURES						
<u>SERVICES AND SUPPLIES</u>						
51242 Bank Charges	863	1,500	1,500	1,500	0	0.00%
SUBTOTAL	863	1,500	1,500	1,500	0	0.00%
<u>OTHER CHARGES</u>						
53103 Interest on LT Debt	109,350	108,670	108,670	103,876	(4,794)	(4.41%)
53104 Other Interest Expense	(4,781)	0	0	0	0	N/A
53105 Costs of Issuance	0	0	0	0	0	N/A
SUBTOTAL	104,569	108,670	108,670	103,876	(4,794)	(4.41%)
<u>OTHER FINANCING USES</u>						
57011 Transfers Out - within a Fund	0	30,000	30,000	0	(30,000)	(100.00%)
SUBTOTAL	0	30,000	30,000	0	(30,000)	(100.00%)
<u>ADMIN. CONTROL ACCOUNT</u>						
59004 Administrative Control Account	155,150	159,805	159,805	162,908	3,103	1.94%
59005 Admin Control Acct Clearing	(155,150)	(159,805)	(159,805)	(162,908)	(3,103)	1.94%
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	105,432	140,170	140,170	105,376	(34,794)	(24.82%)
Adjustments to Reserves/Encumbrances:						
Principal payments on bonds	(155,150)	(159,805)		(162,908)		
Restricted cash with trustee (reserve)	(473)					
Debt Issuance Costs						
(Increase) / Decrease in Bonds Payable	0					
Amortization of bond discount	(10,307)	0		0		
Amortization of deferred amount of refunding	5,526	0		0		
Unrealized Gain/ Loss (GASB 31)	336					
Rounding	1					
ENDING FUND BALANCE	\$64,831	\$77,527		\$117,898		

**FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY**

Section Title:

Common Facilities Revenue Bonds - 2012 A

Section/Fund No:

44275

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
BEG. FUND BALANCE	\$90,741	\$101,961		\$162,002		
REVENUES						
USE OF MONEY / PROPERTY						
44002 Interest on Pooled Cash	1,397	343	343	343	0	0.00%
44003 Other Interest Earnings	1,317	3,000	0	0	0	N/A
44050 Unrealized Gains and Losses	(533)	0	0	0	0	N/A
SUBTOTAL	2,182	3,343	343	343	0	0.00%
OTHER FINANCING SOURCES						
47101 Transfers In - within a Fund	380,655	434,680	434,680	431,957	(2,723)	(0.63%)
47102 Transfers In - btw Govtl Funds	0	0	0	0	0	N/A
SUBTOTAL	380,655	434,680	434,680	431,957	(2,723)	(0.63%)
TOTAL REVENUES	382,837	438,024	435,024	432,300	(2,723)	(0.63%)
EXPENDITURES						
SERVICES AND SUPPLIES						
51242 Bank Charges	1,120	2,000	2,000	2,000	0	0.00%
SUBTOTAL	1,120	2,000	2,000	2,000	0	0.00%
OTHER CHARGES						
53103 Interest on LT Debt	153,118	152,215	152,215	145,502	(6,713)	(4.41%)
53104 Other Interest Expense	(6,645)	0	0	0	0	N/A
53105 Costs of Issuance	0	0	0	0	0	N/A
SUBTOTAL	146,473	152,215	152,215	145,502	(6,713)	(4.41%)
OTHER FINANCING USES						
57011 Transfers Out - within a Fund	0	0	0	210,000	210,000	N/A
SUBTOTAL	0	0	0	210,000	210,000	N/A
ADMIN. CONTROL ACCOUNT						
59004 Administrative Control Account	217,250	223,768	223,768	228,113	4,345	1.94%
59005 Admin Control Acct Clearing	(217,250)	(223,768)	(223,768)	(228,113)	(4,345)	1.94%
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	147,593	154,215	154,215	357,502	203,287	131.82%
Adjustments to Reserves/Encumbrances:						
Principal payments on bonds	(217,250)	(223,768)		(228,113)		
Proceeds from issuance	0	0		0		
2003A Bond Redemption	0	0		0		
2003A Deferred amount of refunding	0	0		0		
Underwriters Discount	0	0		0		
Reclass of good faith on refunding to LT Bonds	0	0		0		
(Increase) / Decrease in Bonds Payable	0	0		0		
Restricted cash with trustee (reserve)	(662)	0		0		
Amortization of bond discount	0	0		0		
Amortization of bond premium	(14,432)	0		0		
Amortization of bond issuance costs	0	0		0		
Amortization of deferred amount of refunding	7,787	0		0		
Unrealized Gain/ Loss (GASB 31)	533	0		0		
Rounding	0			0		
ENDING FUND BALANCE	\$101,961	\$162,002		\$8,687		

**FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY**

Section Title:

Sonoma Aqueduct Revenue Bonds 2012

Section/Fund No:

44285

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
BEGINNING FUND BALANCE	\$144,936	\$154,832		\$188,698		
REVENUES						
<u>USE OF MONEY / PROPERTY</u>						
44002 Interest on Pooled Cash	1,766	515	515	515	0	0.00%
44003 Other Interest Earnings	774	0	0	0	0	N/A
44050 Unrealized Gains and Losses	(820)	0	0	0	0	N/A
SUBTOTAL	1,720	515	515	515	0	0.00%
<u>OTHER FINANCING SOURCES</u>						
47101 Transfers In - within a Fund	225,519	255,693	255,693	254,094	(1,600)	(0.63%)
47102 Transfers In - btw Govtl Funds	0	0	0	0	0	N/A
SUBTOTAL	225,519	255,693	255,693	254,094	(1,600)	(0.63%)
TOTAL REVENUES	227,239	256,208	256,208	254,608	(1,600)	(0.62%)
EXPENDITURES						
<u>SERVICES AND SUPPLIES</u>						
51242 Bank Charges	752	1,500	1,500	1,500	0	0.00%
SUBTOTAL	752	1,500	1,500	1,500	0	0.00%
<u>OTHER CHARGES</u>						
53103 Interest on LT Debt	89,932	89,414	89,414	85,471	(3,943)	(4.41%)
53104 Other Interest Expense	(3,892)	0	0	0	0	N/A
53105 Costs of Issuance	0	0	0	0	0	N/A
SUBTOTAL	86,040	89,414	89,414	85,471	(3,943)	(4.41%)
<u>OTHER FINANCING USES</u>						
57011 Transfers Out - within a Fund	0	0	0	220,000	220,000	N/A
SUBTOTAL	0	0	0	220,000	220,000	N/A
<u>ADMIN. CONTROL ACCOUNT</u>						
59004 Administrative Control Account	127,600	131,428	131,428	133,980	2,552	1.94%
59005 Admin Control Acct Clearing	(127,600)	(131,428)	(131,428)	(133,980)	(2,552)	1.94%
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	86,792	90,914	90,914	306,971	216,057	237.65%
Adjustments to Reserves/Encumbrances:						
(Increase)/Decrease in Bonds Payable						
Principal Payments on Bonds	(127,600)	(131,428)		(133,980)		
Proceeds from issuance	0	0		0		
(Increase) / Decrease in Bonds Payable	0	0		0		
Restricted cash with trustee (reserve)	121	0		0		
Amortization of bond discount	(8,477)	0		0		
Amortization of deferred amount of refund	4,584	0		0		
Unrealized Gain/ Loss (GASB 31)	820	0		0		
Rounding	1	0		0		
ENDING FUND BALANCE	\$154,832	\$188,698		\$2,355		

**FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY**

Section Title:

Storage Facilities Revenue Bonds 2015

Section/Fund No:

44290

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
BEGINNING FUND BALANCE	\$2,376,295	\$2,056,616		\$372,807		
REVENUES						
USE OF MONEY / PROPERTY						
44002 Interest on Pooled Cash	25,572	10,000	257	257	0	0.00%
44003 Other Interest Earnings	0	0	0	0	0	N/A
44050 Unrealized Gains and Losses	(12,862)	0	0	0	0	N/A
SUBTOTAL	12,710	10,000	257	257	0	0.00%
OTHER FINANCING SOURCES						
47101 Transfers In - within a Fund	844,733	967,467	967,467	974,558	7,091	0.73%
47102 Transfers In - btw Govtl Funds	0	0	0	0	0	N/A
SUBTOTAL	844,733	967,467	967,467	974,558	7,091	0.73%
TOTAL REVENUES	857,443	977,467	967,725	974,816	7,091	0.73%
EXPENDITURES						
SERVICES AND SUPPLIES						
51242 Bank Charges	2,810	2,500	2,500	4,000	1,500	60.00%
SUBTOTAL	2,810	2,500	2,500	4,000	1,500	60.00%
OTHER CHARGES						
53103 Interest on LT Debt	283,672	277,349	277,349	264,090	(13,259)	(4.78%)
53104 Other Interest Expense	(13,525)	0	0	0	0	N/A
53105 Costs of Issuance	0	0	0	0	0	N/A
SUBTOTAL	270,147	277,349	277,349	264,090	(13,259)	(4.78%)
OTHER FINANCING USES						
57011 Transfers Out - within a Fund	350,000	1,820,000	120,000	10,000	(110,000)	(91.67%)
57012 Transfers Out - btw Govtl Fund	0	0	0	0	0	N/A
SUBTOTAL	350,000	1,820,000	120,000	10,000	(110,000)	(91.67%)
59004 Administrative Control Account	553,501	561,427	561,427	579,352	17,925	3.19%
59005 Admin Control Acct Clearing	(553,501)	(561,427)	(561,427)	(579,352)	(17,925)	3.19%
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	622,957	2,099,849	399,849	278,090	(121,759)	(30.45%)
Adjustments to Reserves/Encumbrances:						
Proceeds from Bond Issuance		0				
Proceeds from Taxable Bond Issuance		0				
Loss on Refunding of Debt	5,058	0				
Restricted Cash w/Fiscal Agent	0					
Principal Payment	(553,501)	(561,427)		(579,352)		
Special Fund Stmt's!B449	0	0		0		
Amortization of Bond Premium	(18,582)	0		0		
Unrealized Gain/ Loss (GASB 31)	12,862					
Rounding	(2)	(0)				
ENDING FUND BALANCE	\$2,056,616	\$372,807		\$490,181		

**FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY**

Section Title:

Common Facilities Revenue Bonds 2015

Section/Fund No:

44295

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
BEG. FUND BALANCE	\$5,245,072	\$1,136,183		\$34,801		
REVENUES						
USE OF MONEY / PROPERTY						
44002 Interest on Pooled Cash	54,024	5,000	1,716	1,716	0	0.00%
44003 Other Interest Earnings	0	0	0	0	0	N/A
44050 Unrealized Gains and Losses	(35,201)	0	0	0	0	N/A
SUBTOTAL	18,823	5,000	1,716	1,716	0	0.00%
OTHER FINANCING SOURCES						
47101 Transfers In - within a Fund	624,121	717,738	717,738	719,056	1,318	0.18%
47102 Transfers In - btw Govtl Funds	0	0	0	0	0	N/A
SUBTOTAL	624,121	717,738	717,738	719,056	1,318	0.18%
TOTAL REVENUES	642,944	722,738	719,454	720,772	1,318	0.18%
EXPENDITURES						
SERVICES AND SUPPLIES						
51242 Bank Charges	3,236	2,500	2,500	4,000	1,500	60.00%
SUBTOTAL	3,236	2,500	2,500	4,000	1,500	60.00%
OTHER CHARGES						
53103 Interest on LT Debt	475,604	473,046	473,046	465,617	(7,429)	(1.57%)
53104 Other Interest Expense	(21,956)	0	0	0	0	N/A
53105 Costs of Issuance	0	0	0	0	0	N/A
SUBTOTAL	453,649	473,046	473,046	465,617	(7,429)	(1.57%)
OTHER FINANCING USES						
57011 Transfers Out - within a Fund	4,166,695	1,200,000	250,000	120,000	(130,000)	(52.00%)
57012 Transfers Out - btw Govtl Fund	0	0	0	0	0	N/A
SUBTOTAL	4,166,695	1,200,000	250,000	120,000	(130,000)	(52.00%)
ADMIN. CONTROL ACCOUNT						
59004 Administrative Control Account	141,499	148,574	148,574	155,649	7,075	4.76%
59005 Admin Control Acct Clearing	(141,499)	(148,574)	(148,574)	(155,649)	(7,075)	4.76%
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	4,623,580	1,675,546	725,546	589,617	(135,929)	(18.73%)
Adjustments to Reserves/Encumbrances:						
Proceeds Bond Issuance	0	0		0		
Cost of Issuance	0	0		0		
Restricted Cash w/Fiscal Agent	0	0		0		
Principal Payment	(141,499)	(148,574)		(155,649)		
Revenue Bonds Pay - Change in Current	0	0		0		
Amortization of Bond Premium	(26,471)	0		0		
Change in Reserved Fund Balance	0					
Loss on Refunding Debt	4,515	0		0		
Post Audit Adjustments - Closing COI	0	0		0		
Unrealized Gain/ Loss (GASB 31)	35,201	0		0		
Rounding	1	(0)		0		
ENDING FUND BALANCE	\$1,136,183	\$34,801		\$10,307		

**FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY**

Section Title:

Sonoma Aqueduct Revenue Bonds 2015

Section/Fund No:

44305

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
BEGINNING FUND BALANCE	\$1,146,592	\$1,159,046		\$1,173,808		
REVENUES						
USE OF MONEY / PROPERTY						
44002 Interest on Pooled Cash	11,747	8,580	8,580	8,580	0	0.00%
44003 Other Interest Earnings	0	0	0	0	0	N/A
44050 Unrealized Gains and Losses	(6,275)	0	0	0	0	N/A
SUBTOTAL	5,472	8,580	8,580	8,580	0	0.00%
OTHER FINANCING SOURCES						
47101 Transfers In - within a Fund	41,812	47,394	47,394	47,394	0	0.00%
47102 Transfers In - btw Govtl Funds	0	0	0	0	0	N/A
SUBTOTAL	41,812	47,394	47,394	47,394	0	0.00%
TOTAL REVENUES	47,284	55,974	55,974	55,974	0	0.00%
EXPENDITURES						
SERVICES AND SUPPLIES						
51242 Bank Charges	393	500	500	500	0	0.00%
SUBTOTAL	393	500	500	500	0	0.00%
OTHER CHARGES						
53103 Interest on LT Debt	40,711	40,712	40,712	40,712	0	0.00%
53104 Other Interest Expense	(1,685)	0	0	0	0	N/A
53105 Costs of Issuance	0	0	0	0	0	N/A
SUBTOTAL	39,027	40,712	40,712	40,712	0	0.00%
OTHER FINANCING USES						
57011 Transfers Out - within a Fund	0	0	0	1,170,000	1,170,000	N/A
SUBTOTAL	0	0	0	1,170,000	1,170,000	N/A
ADMIN. CONTROL ACCOUNT						
59004 Administrative Control Account	0	0	0	0	0	N/A
59005 Admin Control Acct Clearing	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	39,420	41,212	41,212	1,211,212	1,170,000	2838.98%
Adjustments to Reserves/Encumbrances:						
Proceeds Bond Issuance	0	0		0		
Restricted Cash w/Fiscal Agent	0	0		0		
Principal Payment	0	0		0		
Deposit to Cost of Issuance Fund	0	0		0		
Amortization of Bond Premium	(1,685)	0		0		
Unrealized Gain/ Loss (GASB 31)	6,275	0		0		
Change in Reserved Fund Balance	0					
Rounding	0	0		0		
ENDING FUND BALANCE	\$1,159,046	\$1,173,808		\$18,570		

**FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY**

Section Title:

Common Facilities Revenue Bonds 2019

Section/Fund No:

44310

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
BEG. FUND BALANCE	\$0	\$0		\$0		
REVENUES						
USE OF MONEY / PROPERTY						
44002 Interest on Pooled Cash	0	0	0	12,870	12,870	N/A
44003 Other Interest Earnings	0	0	0	0	0	N/A
44050 Unrealized Gains and Losses	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	12,870	12,870	N/A
OTHER FINANCING SOURCES						
47101 Transfers In - within a Fund	0	0	0	1,017,876	1,017,876	N/A
47102 Transfers In - btw Govtl Funds	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	1,017,876	1,017,876	N/A
TOTAL REVENUES	0	0	0	1,030,746	1,030,746	N/A
EXPENDITURES						
SERVICES AND SUPPLIES						
51242 Bank Charges	0	0	0	4,087	4,087	N/A
SUBTOTAL	0	0	0	4,087	4,087	N/A
OTHER CHARGES						
53103 Interest on LT Debt	0	0	0	317,547	317,547	N/A
53104 Other Interest Expense	0	0	0	0	0	N/A
53105 Costs of Issuance	0	0	0	367,826	367,826	N/A
SUBTOTAL	0	0	0	685,373	685,373	N/A
OTHER FINANCING USES						
57011 Transfers Out - within a Fund	0	0	0	5,200,000	5,200,000	N/A
57012 Transfers Out - btw Govtl Fund	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	5,200,000	5,200,000	N/A
ADMIN. CONTROL ACCOUNT						
59004 Administrative Control Account	0	0	0	243,627	243,627	N/A
59005 Admin Control Acct Clearing	0	0	0	(243,627)	(243,627)	N/A
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	0	0	0	5,889,460	5,889,460	N/A
Adjustments to Reserves/Encumbrances:						
Long Term Debt proceeds	0	0		0		
Increase/(Decrease) in Bonds Payable	0	0		0		
Unrealized Gains and Losses	0	0		0		
Proceeds Bond Issuance	0	0		9,400,000		
Deposit to Cost of Issuance Fund	0	0		0		
Restricted Cash w/Fiscal Agent	0	0		0		
Principal Payment	0	0		(243,627)		
Revenue Bonds Pay - Change in Current I	0	0		0		
Amortization of Bond Premium	0	0		0		
Change in Reserved Fund Balance	0	0		0		
Post Audit Adjustments - Closing COI	0	0		0		
Loss on Refunding of Debt	0	0		0		
Unrealized Gain/ Loss (GASB 31)	0	0		0		
Rounding	0	0		0		
ENDING FUND BALANCE	\$0	\$0		\$4,297,659		

**FY 2018-19 BUDGET
BEGINNING AND ENDING CASH SUMMARY**

Section Title:

Sonoma Aqueduct Revenue Bonds 2019

Section/Fund No:

44315

Account Title	Actual 2016-2017	Estimated 2017-2018	Adopted 2017-2018	Requested 2018-19	Difference	Percent Change
BEGINNING FUND BALANCE	\$0	\$0		\$0		
REVENUES						
USE OF MONEY / PROPERTY						
44002 Interest on Pooled Cash	0	0	0	10,296	10,296	N/A
44003 Other Interest Earnings	0	0	0	0	0	N/A
44050 Unrealized Gains and Losses	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	10,296	10,296	N/A
OTHER FINANCING SOURCES						
47101 Transfers In - within a Fund	0	0	0	227,398	227,398	N/A
47102 Transfers In - btw Govtl Funds	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	227,398	227,398	N/A
TOTAL REVENUES	0	0	0	237,694	237,694	N/A
EXPENDITURES						
SERVICES AND SUPPLIES						
51242 Bank Charges	0	0	0	913	913	N/A
SUBTOTAL	0	0	0	913	913	N/A
OTHER CHARGES						
53103 Interest on LT Debt	0	0	0	70,941	70,941	N/A
53104 Other Interest Expense	0	0	0	0	0	N/A
53105 Costs of Issuance	0	0	0	82,174	82,174	N/A
SUBTOTAL	0	0	0	153,115	153,115	N/A
OTHER FINANCING USES						
57011 Transfers Out - within a Fund	0	0	0	0	0	N/A
SUBTOTAL	0	0	0	0	0	N/A
ADMIN. CONTROL ACCOUNT						
59004 Administrative Control Account	0	0	0	54,427	54,427	N/A
59005 Admin Control Acct Clearing	0	0	0	(54,427)	(54,427)	N/A
SUBTOTAL	0	0	0	0	0	N/A
TOTAL EXPENDITURES	0	0	0	154,028	154,028	N/A
Adjustments to Reserves/Encumbrances:						
Unrealized Gains and Losses	0	0		0		
Proceeds Bond Issuance	0	0		2,100,000		
Restricted Cash w/Fiscal Agent	0	0		0		
Principal Payment	0	0		(54,427)		
Deposit to Cost of Issuance Fund	0	0		0		
Amortization of Bond Premium	0	0		0		
Unrealized Gain/ Loss (GASB 31)	0	0		0		
Change in Reserved Fund Balance	0	0		0		
Rounding	0	0		0		
ENDING FUND BALANCE	\$0	\$0		\$2,129,238		

REVENUE BOND / STATE LOAN CHARGES - WATER RATES AND ESTIMATED REVENUES FOR FY18-19

A. ANNUAL DEBT SERVICE REQUIREMENTS

	Common Facilities	Watershed Plan Restoration	Water Conservation	Storage Facilities	Sonoma Pipeline Facilities
2012 A Revenue Bond	44275	TBD	TBD	44280	44285
PRINCIPAL	228,113			162,908	133,980
INTEREST	145,502			103,876	85,471
FISCAL AGENT FEES	2,000			1,500	1,500
DEBT ISSUANCE COSTS					
Total Individual Bond Payments	375,615	0		268,284	220,951
Bond Reserve	56,342	0		40,243	33,143
Total Individual Bond Debt Service	431,957	0		308,527	254,094
2015A Revenue Bond	44295			44290	44305
PRINCIPAL	155,649			579,352	0
INTEREST	465,617			264,090	40,712
FISCAL AGENT FEES	4,000			4,000	500
DEBT ISSUANCE COSTS					
Total Individual Bond Payments	625,266			847,442	41,212
Bond Reserve (fully funded)	93,790			127,116	6,182
Total Individual Bond Debt Service	719,056			974,558	47,394
2019A Revenue Bond					
PRINCIPAL	243,627				54,427
INTEREST	317,547				70,941
FISCAL AGENT FEES	4,087				913
DEBT ISSUANCE COSTS	367,826				82,174
Total Individual Bond Payments	933,087			0	208,456
Bond Reserve (fully funded)	84,789			0	18,942
Total Individual Bond Debt Service	1,017,876			0	227,398
2013 Capital Fund Loan Requirement					
PRINCIPAL	0				
INTEREST	0				
FISCAL AGENT FEES	0				
DEBT ISSUANCE COSTS	0				
DISCOUNT/BONDS	0				
Total Individual Loan Payments	0				
Loan Reserve					
Total Individual Loan Debt Service	0				
2013 Santa Rosa AQ Capital Fund Loan					
PRINCIPAL					
INTEREST					
FISCAL AGENT FEES					
DEBT ISSUANCE COSTS					
DISCOUNT/BONDS					
Total Individual Loan Payments					
Loan Reserve					
Total Individual Loan Debt Service	0			0	0
2013 Petaluma AQ Capital Fund Loan					
PRINCIPAL					
INTEREST					
FISCAL AGENT FEES					
DEBT ISSUANCE COSTS					
DISCOUNT/BONDS					
Total Individual Loan Payments					
Loan Reserve					
Total Individual Loan Debt Service	0			0	
1. 09/10 Financing Exp for Common Fac incl above until index established	Mirabel Generators	TBD - RRIFR	TBD - Water Ed Bldg	TBD - Oakmont Pipeline	
PRINCIPAL	0				
INTEREST	0				
FISCAL AGENT FEES	0				
DEBT ISSUANCE COSTS	0				
Total Individual Bond Payments	0	0	0	0	0
Reserve	0	0	0	0	0

REVENUE BOND / STATE LOAN CHARGES - WATER RATES AND ESTIMATED REVENUES FOR FY18-19

A. ANNUAL DEBT SERVICE REQUIREMENTS

	Common Facilities	Watershed Plan Restoration	Water Conservation	Storage Facilities	Sonoma Pipeline Facilities
Total Individual Financing Debt Service	0	0	0	0	0
	44265				
SRF LOAN	675439				
PRINCIPAL	793,731			N.A	N.A
INTEREST	246,502			N.A	N.A
Total Individual Loan Payments	1,040,233				
Reserve Requirement	156,035				
Total SRF Debt Service	1,196,268				
SRF LOAN RESERVE					
RESERVE				N.A	N.A
Total SRF Debt Service	1,196,268				
TOTAL DEBT SERVICE	\$3,365,157	\$0	\$0	\$1,283,085	\$528,885
LESS REV. FROM N. MARIN REV. BOND CHARGES	290,814				
REMAINING REVENUE REQUIREMENT	\$3,074,343	\$0	\$0	\$1,283,085	\$528,885

B. CALCULATIONS OF WATER RATES FOR FY18-19

	Common Facilities Debt Service Charge	Watershed Plan Restoration Debt Service Charge	Water Conservation Debt Service Charge	Storage Facilities Revenue Bonds Charge	Sonoma Pipeline Facilities Revenue Bonds Charge
REVENUE REQUIREMENT	\$3,074,343.37	\$0	\$0	\$1,283,085	\$528,885
APPLICABLE BASE WATER DELIVERIES IN A.F.	31,263.57	41,698.0	41,698.0	31,263.57	3,706.8
CHARGES PER ACRE-FEET	\$98.34	\$0.00	\$0.00	\$41.04	\$142.68

C. CALCULATIONS OF NORTH MARIN REVENUE BONDS CHARGE

REVENUE REQUIREMENT FOR COMMON FACILITIES DEBT SERVICE (Remaining Facilities per RA 4.3a2)	2,347,281
N. MARIN'S SHARE (REV. REQMT. FOR COMMON FAC. DEBT SERVICE X (11.2/90.4))	290,814
ESTIMATED WATER DELIVERIES TO NORTH MARIN (IN A.F.)	5,166
NORTH MARIN REVENUE BONDS CHARGE	56.29

REVENUE REQUIREMENT FOR COMMON FACILITIES DEBT SERVICE (Additional Facilities per RA 4.3b9)	-
N. MARIN'S SHARE (REV. REQMT. FOR COMMON FAC. DEBT SERVICE X (19.9/146.2))	-
ESTIMATED WATER DELIVERIES TO NORTH MARIN (IN A.F.)	5,166
NORTH MARIN REVENUE BONDS CHARGE	-

<u>Common Facilities</u>			
Debt Service RA 4.3a2 (remaining facilities)	2,347,281	Total Revenue Required	\$2,347,281
N. Marin's Share (11.2/90.4)	290,814	Debt service - Additional Facilities	
Estimated Water Deliveries to N. Marin	5,166.3		
Applicable portion of the N. Marin R. Bonds Charge	\$56.29	Revenue base for NMWD	\$2,347,281

2015A New Money P&I Begins 2020

Debt Service RA 4.3b9 (additional facilities)	0	
N. Marin's Share (19.9/146.2)	-	
Estimated Water Deliveries to N. Marin	5,166	Update formula for the lesser of three years or 12 months average delivery.
Applicable portion of the N. Marin R. Bonds Charge	\$ -	
Total NMWD Share	290,814	
NMWD Total Bonds Charge	\$56.29	

FY 2018-19 BUDGET
Water Transmission System - Fund Balances and Operating Transfers

Fund	Index	OT Out (57012)	To	OT In (47102)	Fund Bal. (Stmnt.)	Fund Bal. (Cash)	Diff.
Santa Rosa Aq. Capital Fund	44230	0		407,973	6,969,309	6,969,309	(0)
Petaluma Aq. Capital Fund	44235	0		225,359	6,724,810	6,724,810	0
Sonoma Aq. Capital Fund	44240	0		1,390,000	1,942,480	1,942,480	0
Sonoma Rev Bond 2012 Fund	44285	220,000	Sonoma AQ	254,094	2,355	2,355	0
Sonoma Rev Bond 2015 Fund	44305	1,170,000	Sonoma AQ	47,394	18,570	18,570	0
Sonoma Rev Bond 2019 Fund				227,398	2,129,238	2,129,238	
Storage Rev Bond 2012 Fund	44280	0	Storage Facilities	308,527	117,897	117,898	1
Storage Rev Bond 2015 Fund	44290	10,000	Storage Facilities	974,558	490,181	490,181	(0)
Common Rev Bond 2012 Fund	44275	210,000	Common Facilities	431,957	8,687	8,687	(0)
Common Rev Bond 2015 Fund	44295	120,000	Common Facilities	719,056	10,307	10,307	0
Common Rev Bond 2019 Fund		5,200,000	North Marin	1,017,876	4,297,659	4,297,659	
State Loan Debt Service	44265	150,000	Common Facilities	1,196,268	16,844	16,844	0
State Loan Reserve	44270	0		0	4,000	4,000	0
Capital Lease Financing		0		0	0	0	0
Agency Fund (Discretionary)	44205	1,956,626	Common Facilities	0	2,619,546	2,619,546	0
Agency Fund (Charges)	44205	11,664,411		0			
Pipeline Facilities	44255			0	0	0	0
Storage Facilities	44250			10,000	53,614	53,615	0
Common Facilities	44260			8,280,874	443,901	443,902	0
North Marin	44300	644,248		0	648,856	648,855	(0)
Water Management Planning	44210			41,772	541,464	541,465	0
Watershed Planning/Restoration	44215			3,803,958	3,468,705	3,468,706	1
Recycled Water & Local Supply	44220			122,000	274,821	274,821	0
Water Conservation	44225			1,886,222	104,927	104,927	(0)

Total		21,345,285		21,345,285	30,888,173	30,888,176	3
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Common Facilities OT - in 47101 From

Water Transmission (discretionary)	1,956,626
Water Transmission (Charges)	-
North Marin	644,248
2012 Bond Fund	210,000
2015 Bond Fund	120,000
2019 Bond Fund	5,200,000
State Loan Debt Service	150,000
	<u>8,280,874</u>

O&M Rate Computation

Revenue Requirement - Transfers Out:

11,664,411

Agency Fund (Charges) OT - Out To:

<u>AQ Capital Funds</u>	
Santa Rosa Aq. Capital Fund	407,973
Petaluma Aq. Capital Fund	225,359
Sonoma Aq. Capital Fund	0
	<u>633,332</u>

Debt Service Funds

Sonoma Rev Bond 2012 Fund	254,094
Sonoma Rev Bond 2015 Fund	47,394
Sonoma Rev Bond 2019 Fund	227,398
Storage Rev Bond 2012 Fund	308,527
Storage Rev Bond 2015 Fund	974,558
Common Rev Bond 2012 Fund	431,957
Common Rev Bond 2015 Fund	719,056
Common Rev Bond 2019 Fund	1,017,876
State Loan Debt Service	1,196,268
State Loan Reserve	0
Capital Lease Financing	0
	<u>5,177,127</u>

Capital Funds and North Marin

Pipeline Facilities	0
Storage Facilities	0
Common Facilities	1,956,626
North Marin	0
	<u>1,956,626</u>

WT Subfunds

Water Management Planning	41,772
Watershed Planning/Restoration	3,803,958
Recycled Water & Local Supply	122,000
Water Conservation	1,886,222
	<u>5,853,952</u>

Total 13,621,037

Agency Fund (Charges) OT - Out To:
Summary

AQ Capital Funds	633,332
Debt Service Funds	5,177,127
WT Subfunds	5,853,952
	<u>11,664,411</u>

Capital Funds and North Marin 1,956,626

Total 13,621,037

See Next Page for Bond Proceeds Summary

2015A Water Revenue Bonds - Summary

13,600,000 Principal received

FY15-16 Actuals	FY16-17 Actuals	FY17-18 Estimated	FY18-19 Budget
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Sonoma Rev Bond 2015:

Bond Proceeds:	1,100,000	Fund Balance:	88,750	
Transfer Out To:	Sonoma AQ Capital Fund			Projects
0.00	0	0	1,170,000	Sonoma Booster Station (SBS) Pumping/Elec Upgrades

Balance: 18,750

Storage Rev Bond 2015 Fund

Bond Proceeds:	3,950,000	Fund Balance:	350,181	
Transfer Out To:	Storage Facilities			Projects
0	350,000	1,850,000	10,000	Ralphine Tanks Flow Through Project
	1,600,000			Repay SR AQ Intrafund Loan
	1,950,000	1,850,000	10,000	

Balance: 490,181

Common Rev Bond 2015 Fund

Bond Proceeds:	8,550,000	Fund Balance:	802,048	
Transfer Out To:	Common Facilities			Projects
3,855,046	4,166,695	1,200,000	120,000	Mirabel Fish Screen, Mirabel Dam Bladder Replacement, Isolation Valves, MW and RR Creek Crossings

Balance: 10,307

All project allocations are based on costs net of grant funds

Per Master Ordinance, collect 1.15x debt service which generates revenue in excess of bond proceeds.

Bond Funds Expended:				
3,855,046	6,116,695	3,050,000	1,300,000	14,321,741

Balance: 519,238

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MEMORANDUM

To: Board of Directors
 From: David L. Bentley, Auditor-Controller
 Subj: AMI Opt-Out Policy
 t:\actward\ami\opt-out policy.docx

March 16, 2018

RECOMMENDED ACTION: Approve**FINANCIAL IMPACT: Approximately \$500¹ Expense Annually**

After the IJ's March 2017 front page article on the District's AMI project appeared, eight Novato customers called to opt-out of the AMI program. Concerns expressed primarily revolved around health issues pertaining to radio frequency (RF) emissions from the antenna on the meter. One customer expressed concern about privacy. Another customer expressed concerns about involvement with any new technology, while yet another called enthusiastically volunteering to participate in the pilot project. The health concerns expressed are sincere, though based more on emotion than knowledge. When a family has experienced a death due to cancer, the conversation quickly becomes fervent and the customer is typically not open to discussion concerning the numerous studies² that have found no health effects from digital water meters. Consequently, in staff's judgment, forcing installation of a digital meter on an unwilling customer would cost more in bad-will than a no-exceptions policy would save in efficiency.

Staff therefore recommends that if a customer elects to opt-out of the AMI program, they be responsible for reading their own meter and reporting to the District bimonthly. The District will audit the meter reading annually. Consumer Services staff now send a postage-prepaid postcard to customers that have checked-out a "floating" hydrant meter used for construction. The customer writes the meter reading on the postcard and returns it by mail. If the postcard is not received, a bill is rendered showing estimated use.

Staff recommends a surcharge of \$5 per bill (\$30 annually) for opt-out customers to partially offset the cost of postage and staff time to mail post cards, manually enter meter

¹ [[\$5/bimonthly revenue - \$0.70 postage - \$0.01 postcard - \$3.36 processing (4 minutes)] * 6 bills/year] - \$8.00 Audit] * 200 customers = -\$484

² From the FAQ section of the AMI page of NMWD's website: Are There Any Health Hazards Association with NMWD's AMI Water Meters?

No. NMWD's AMI water meters are compliant with the Federal Communication's (FCC's) health and safety standards. In fact, the radio frequency (RF) exposures from AMI meters are much lower than most common household devices including microwaves, baby monitors and Wi-Fi devices. NMWD has reviewed numerous RF studies and reports, includes those from the American Cancer Society, World Health Organization, and the California Council on Science and Technology, which all conclude there is no evidence that RF emission from AMI meters pose a health risk. Please click on the names of the organizations above for more information.

readings, and annually audit the meter. As reference, PG&E charges opt-out customers a \$75 set-up fee and \$10/month for the first 36 months³, after which the monthly fee is discontinued.

District opt-out customer accounts are flagged, so that when an opt-out customer calls to discontinue service (move out), a Field Service Rep will immediately be dispatched to install an AMI meter. Over time, the number of opt-out customers will fall. The District will not replace a digital meter with an analog meter. PG&E reports that the Smart-Meter opt-out percentage is about 1%. The District might therefore see approximately 200 customers elect to opt-out of the AMI program.

As a side-note on health issues and digital meters, an important difference in RF exposure between an electric Smart Meter and NMWD's AMI water meter arises due to meter location. Typically an electric meter is located on the outside wall of a home, sometimes close to a bedroom or living area. In contrast, the typical water meter is located at the customer's property line, often twenty to thirty feet from the home. Meter location is significant because RF emissions are subject to the Inverse Square Law⁴, i.e., the intensity of RF at a distance of 10 feet is 1% of the intensity at 1 foot.

Staff Recommendation:

If a customer elects to opt-out of the District's AMI program, they will be responsible for reading their water meter and reporting to the District bimonthly. A \$5 charge on each water bill will be levied to partially offset the cost maintaining two meter reading systems.

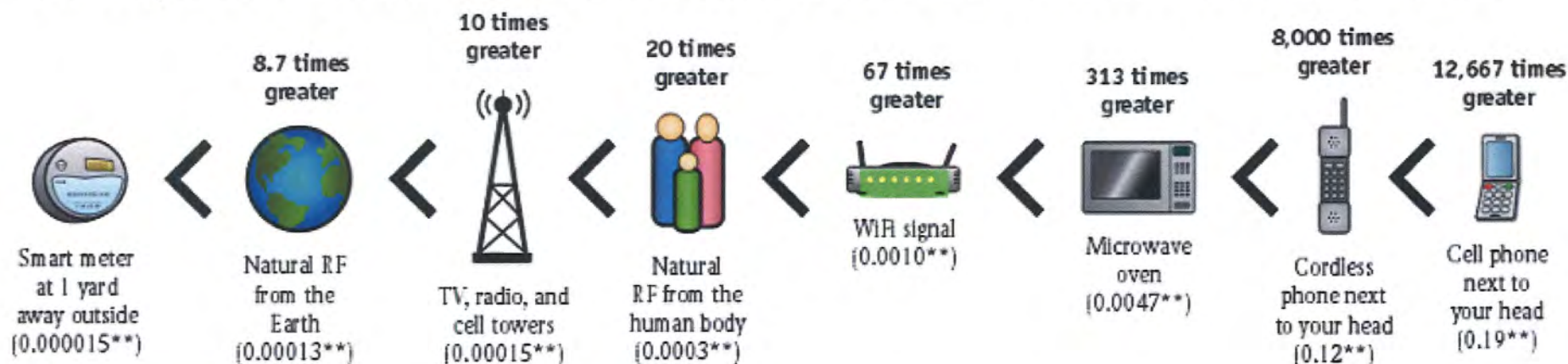
³ PG&E Care (low-income) customers pay a \$10 set-up fee and \$5 per month.

⁴ The Inverse Square Law is a law of physics stating that a specified physical quantity or intensity is inversely proportional to the square of the distance from the source of that physical quantity.

RF Health Effects

- Signal levels from an AMI meter are several thousand times less than the permissible exposures from devices that transmit continuously.
- Any exposure to RF energies, including those from common household devices such as cell phones and microwaves, and visible light (the sun) will contribute a thermal effect upon the human body (heating). However, there are no scientifically proven hazards due to non-thermal effects from AMI meters.

RF exposures from smart meters are much lower than other RF sources*



* Based on the FCC average exposure standard which averages exposure over 30 minutes of usage (47CFR1.1310 averaging)

** Measured in milliwatts per square centimeter (mW/cm²)

RF Health Effects

Key Factors to Consider When Evaluating Exposure to Radiofrequency from Smart Meters

1. Signal Frequency	Compare to devices in the 900 MHz band and 2.4 GHz band	Frequency similar to mobile phones, Wi-Fi, laptop computers, walkie-talkies, baby monitors, microwave ovens
2. Signal Strength (or Power Density)	Microwatts/square centimeter ($\mu\text{W}/\text{cm}^2$)	Meter signal strength very small compared to other devices listed above
3. Distance from Signal	Signal strength drops rapidly (doubling distance cuts power density by four)	Example: 1 ft. – $8.8 \mu\text{W}/\text{cm}^2$ 3 ft. – $1.0 \mu\text{W}/\text{cm}^2$ 10 ft. – $0.1 \mu\text{W}/\text{cm}^2$
4. Signal Duration	<ul style="list-style-type: none"> - Extremely short amount of time (2.0-5.0%, max.) - No RF signal 95-98% of the time (over 23 hours/day) 	<ul style="list-style-type: none"> - Often overlooked factor when comparing devices. - Short duration combined with weak signal strength yields tiny exposures
5. Thermal Effects	<ul style="list-style-type: none"> - Scientific consensus on proven effects from heat at high RF levels 	<ul style="list-style-type: none"> - FCC "margin-of-safety" limits 50 times lower than hazardous exposure level - Typical meter operates at 70 times less than FCC limit and 3,500 times less than the demonstrated hazard level
6. Non-thermal Effects	<ul style="list-style-type: none"> - Inconclusive research to date - No established cause-and-effect pointing to negative health impacts 	Continuing research needed

Source: California Council on Science and Technology. (2011). Health Impacts of Radio Frequency from Smart Meters. Retrieved from: <http://smartgridcc.org/wp-content/uploads/2012/08/2011smart-final.pdf>

10

MEMORANDUM

To: Board of Directors
From: David L. Bentley, Auditor-Controller
Subj: Rate Increase Letter to Novato Customers
t:\aclword\budget\19\2018 prop 218 ltr cover memo.docx

March 16, 2018

RECOMMENDED ACTION: Approve Letter to Customers**FINANCIAL IMPACT:** \$10,500 Expense

California law requires that customers be notified of a water rate increase at least 45 days prior to the public hearing where the Board considers adoption of said increase. A public hearing is scheduled for Tuesday, May 15, 2018 at 6:00 PM at the District office. The May 15 date requires that the letters be mailed by March 31, 2018. Postage, stationary and copying cost for the 18,500 active customers is estimated at \$10,500.

The proposed commodity and bimonthly service charge rate increase for Novato customers is 4.5%. The median single-family residential customer will see a \$2.50 per month increase (\$5 bimonthly) on their typical bill. The Rate-Increase Model on the District's website allows each customer to see the impact of the proposed increase on their annual water cost based upon their water use over the past 12 months.

A draft of the proposed letter is attached for Board review and comment. Legal counsel has reviewed the letter to assure compliance with Prop 218.

RECOMMENDATION:

Approve mailing the rate increase letter to customers.

March 30, 2018

Re: Notice of Proposed Water Rate Increase

Dear Customer:

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

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

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

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

REASON FOR THE PROPOSED INCREASE

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

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

RATE COMPARISON

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

PROPOSED RATE INCREASE

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

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

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

WATER RATE PUBLIC HEARING

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

HOW TO PARTICIPATE

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

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

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

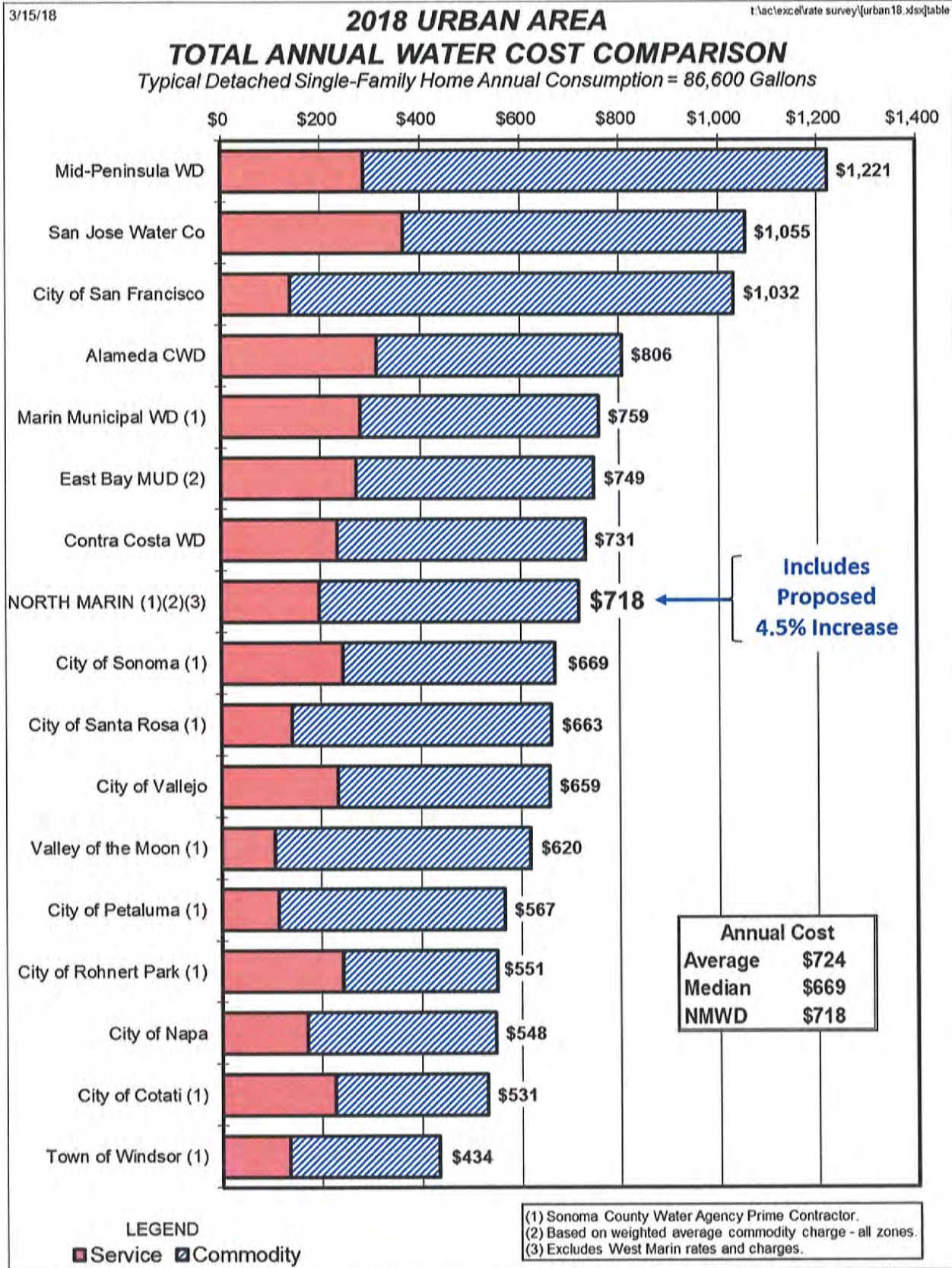
For more information visit NMWD's website at www.nmwd.com or call the District Secretary at (415) 897-4133.

Sincerely,

Drew McIntyre
General Manager

NOVATO WATER CHARGES

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



11

MEMORANDUM

To: Board of Directors
From: David L. Bentley, Auditor-Controller
Subj: Claim for Damages - Troia
I:\aclword\insurance\18\troia claim deny.docx

March 16, 2018

**RECOMMENDED ACTION: Deny Claim for Damages - Troia****FINANCIAL IMPACT: None**

Jennifer and John Troia, 824 Albatross Drive (Bahia), have made a claim against the District (attached) for \$512 plus the cost to remove an oak tree "if that becomes necessary." The Troias suffered a leak in their basement caused by puncturing a waterline running behind the sheetrock apparently while hanging a picture sometime last summer. They mopped water from their basement for months unable to determine its source. During this period there was a service line leak up the street from their home that resulted in water running onto their property. After calls to the District, NSD, the City of Novato, plumbers and leak detection companies, NMWD's Construction Superintendent visited the home in late September and assumed that the water in the basement had come from the leak up the street (which had since been repaired). The District immediately contacted ServPro, a water damage restoration company, to dry out the basement. Over the next few days, in the course of removing wet drywall, ServPro discovered the leaking pipe behind the wall which was the source of the water in the basement.

At that point the Troias insurance carrier agreed to pay all but \$512 of ServPro's bill, justifying their \$512 denial based on NMWD initiating ServPro work. Since last September the Troias have been concerned that an oak tree in their back yard, around which water from the leak in the street coalesced, might have been damaged or killed. The District has been diligently trying to settle this claim for several months now, and would settle for the \$512 out-of-pocket cost the Troias incurred, but they are not motivated to sign a release. The District requires a release on all claim settlements to preclude a claimant from returning in the future to demand additional compensation for the same event.

The District received a claim on February 7, 2018. The Government Code allows a claimant six months to file suit or be barred by the statute of limitations if the government agency responds to the claim within 45 days of receipt, in this case March 24. Failure to respond within the prescribed 45-day period allows the claimant two years to file a court action.

Accordingly, to move this along, staff recommends that the Board deny the claim, which will start the clock allowing the Troias six months to settle and sign a release or file in civil court, should they wish to pursue this claim.

Recommended Action:

Deny the Troias claim for damages.

FEB 07 2018

NORTH MARIN WATER DISTRICT

North Marin Water District

999 Rush Creek Place
Novato, California 94945

Phone: (415) 897-4133
Email: dbentley@nmwd.com

CLAIM FOR DAMAGES

The undersigned hereby presents the following claim against the North Marin Water District pursuant to the provisions of California Government Code Section 910.

NAME OF CLAIMANT: Jennifer Troia

ADDRESS: 824 Albatross Dr.

Novato, CA 94945

PHONE: 415-892-2866 Cell: 650-922-6214

Address to which notices, correspondence, etc., are to be sent:

824 Albatross Dr., Novato, CA 94945

OR Jennifer Troia @ gmail. com

Description of Claim:

Date: 9/24/17 Time: _____ Location: 824 Albatross Dr.

Describe the circumstances of claim, including your reasons for believing that the North Marin Water District is liable for your damages:

See attached documentation.

after several calls over several months, water in yard increased to an extremely large extent before nmwd dug to resolve problem.

Description of all damages which you believe you incurred as a result of the incident:

Unclear whether internal home damage partially resulted from main leak, but tree in yard is definitely affected. Also expect leak detection to be

The dollar amount of all damages that you are claiming (please attached all available estimates and supporting documentation):

Only what it might ~~cost~~ to remove the tree if that becomes necessary as well as leak detection costs of \$512.00

(Continued on reverse side)

reimbursed
\$512.00

If this is a claim for indemnity, on what date were you served with the underlying lawsuit?

Name(s) of any NMWD employee(s) involved: See attached

Rich, Tony

Claimant Signature: [Signature] Date: 1/23/18

The original of the completed form should be sent to the following:

David L. Bentley
Auditor-Controller
North Marin Water District
P.O. Box 146
Novato, CA 94948-0146

WARNING

Please be advised that, pursuant to Sections 128.5 and 1038 of the California Code of Civil Procedures, the District will seek to recover all costs of defense in the event an action is filed in the matter and it is determined that the act was not brought in good faith and with reasonable cause.

7/24 – Called water company about back yard. They said there were no leaks from the house and had no idea where the water could be coming from. Said it looked like ground water. Possible spring? Suggested we call Sanitation.

Novato Sanitation came out and scoped their pipes with cameras. No cracks or leaks. Not them. They had no idea who else I should call. They think it is the water company. Suggested I call the City to have someone look into land erosion.

Called City of Novato. No return call.

John called the City again in August. No return call. Still can't figure out what is going on.

9/14 – Found water on floor downstairs. I called the water company again and she suggested I call City Public Works. Veronica answered. She said she had no idea who I should call but it is not them. She said it only makes sense to call the Water Company. I explained that we've talked to them and they insist it is not them. Veronica suggested I call a water damage and restoration company.

John called American Leak Detection. They said they would come out but would be expensive, so suggested we first call Allied Restoration Company because they would have a camera they could point to walls and determine if there is a leak inside the walls. They came out the next day.

9/15 – Allied Restoration Co. came out and pointed their cameras on the walls and floor. They determined that it was not coming from the walls. They believed it to be related to the water outside, and suggested we call a plumber to check the waste water plumbing in case there was a backup in the system.

John called Joe (our plumber) and he said that Ben Franklin would have the proper equipment for checking waste water plumbing system. They said they would come out on Saturday.

Saturday Ben Franklin said they would come out on Monday. Then on Monday morning they said they would come out on Tuesday. Then again on Monday they said they could come out on Monday afternoon.

9/18 – Ben Franklin came out. They said the problem is with the water company and they did not want to waste any of our money on their trip out so they didn't charge us. Coincidentally, the water company was across the street at the neighbor's house. It turns out that they also have the same water problem down the hill in their back yard. The water company agreed that this was not a coincidence and called a crew out. They could not figure out where the problem was coming from. They turned off our irrigation, even though the meter detected no leaks.

We kept mopping up our floor but it did not get better. It seemed to get worse.

9/24 (Sunday) – I noticed that it was getting even worse, and I called and left a pleading message with the Veronica at the City of Novato. I said I have no idea who else to call or what to do but I need help figuring it out.

9/25 – Veronica called me back in the morning. She said she doesn't know what they can do to help me. I asked if someone could just please come out and look at it. Someone came out and he said it could be a Spring. He had no idea and apologized that he is just one more person scratching his head. He said I should call the water company. I told him they had been out twice insisting it is not them. My neighbor and I called Leak Detection Pros.

9/26 – Mark from Leak Detection Pros came out. He was stumped as well. He could not tell where it was coming from. He thought there might be a leak in the house but he wasn't sure. He pressurized the pipes because he said that would give him a more definitive answer, and he said he didn't hear the gurgle he expected to hear if there were a leak in the house. He said he thinks it is coming from the water company outside. He went under the house said it was probably coming through the slab. I left a message with the water company, again.

*Mark turned water off to house for 8 hours.
Water still came up from floor.*

9/29 – I had not heard from the water company, so I called Ben Franklin again. Nick, who had been out, said he was 100% convinced it was coming from the water company. I told him that they have been out several times and say it is not them. Nick said to call back, tell them it is an emergency and they need to get an engineer out. I called the water company and they sent the same guy who had been out in July (Rich?). He insisted it was not the water company. Then I called my insurance company. As I was on the phone with my broker, who was giving me instructions on calling in a claim, someone new from the water company showed up at my door. It was Tony, and the first words out of his mouth were, "I can't believe didn't call me sooner!" He was very apologetic. He said they don't hear anything that would indicate a leak from their main, but he has the authority to dig and they started digging up the street. He told my neighbor several times that he couldn't believe they had never called him sooner about this. When they dug, they found the leak in the main.

Tony called ServPro to come in and start cleaning up my mess downstairs. He also called someone else (?) who asked Tony whether he was sure the damage to my downstairs was from the water main. Tony replied that he had "no doubt." Tony told me that the water company would take care of all of the damages. *I canceled the claim*

The water that appeared to be coming up from the floor slowed down. The week prior, after mopping it up, it would only take 1-2 hours before the water was all over the floors as before. After they stopped the leak in the main, it took about a day for water to come up on the floors, and it didn't reach as far a range.

10/2 – John spoke with the adjustor who told him to be sure to document all the damages for the Water Company.

10/4 – ServPro finally opens up the walls and finds that there is a leak coming out of a pipe. Unclear how long that pipe had been leaking.

Could it have started when they pressurized the pipes?

Could it have started when the main leak change the water pressure to the house?

Water company said they will not pay the ServPro bill – it is now our responsibility.

Not clear that the amount of water on the floor came from the leak

Not 100% determined that it was not coming from the water company – everyone believed it was.

What took ServPro so long to open the walls? This is a Water Company service provider. Not our chosen provider. (We had called ARC.)

10/6 – Pipe had been capped off for a day but water still coming up from floor, though slowly.


10/7 – water finally dried up.

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MEMORANDUM

To: Board of Directors

March 16, 2018

From: David L. Bentley, Auditor-Controller 

Subj: Information – 2018 Urban Area Water Cost Comparison

t:\acw\rate survey\18 rate survey.docx

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

The 2018 survey shows that, when including North Marin's proposed 4.5% June 1, 2018 rate increase, the total annual water cost for NMWD single-family homes will rank 8th from the top out of the 17 comparison agencies, one notch above the median, and up two positions from the 2017 survey. Median Novato single-family residential household annual consumption is calculated at 86,600 gallons¹, down 4,300 gallons from the prior year, rendering an annual water cost of \$718. The District's tier rates are not a component of the median customer's cost as only 23% of single-family residential customers used enough water in 2017 to be subject to a tier rate.

Fourteen of the sixteen comparison agencies increased their water rates over the past twelve months. Mid-Peninsula, the most expensive, and Windsor, the least expensive, both forewent a rate increase. The average charge for all agencies surveyed, excluding North Marin, increased 9%. North Marin's annual water cost to the typical single-family residence is 7% above the median of agencies surveyed, compared to 34% below the median ten years ago. Alameda County Water District (ACWD) enacted the largest increase last year, at 26%, followed closely by Valley of the Moon at 24%.

ACWD and Contra Costa Water remain the only comparison agencies that maintain a uniform commodity rate. All of the others have a tier-rate structure.

North Marin's proposed \$33.00 bimonthly service charge for a 5/8" meter, applicable to 72% of the customer base, is 15% below the median of the comparison agencies. The bimonthly service charge ranges from a low of \$18.02 (Valley of the Moon) to a high of \$61.05 (San Jose Water).

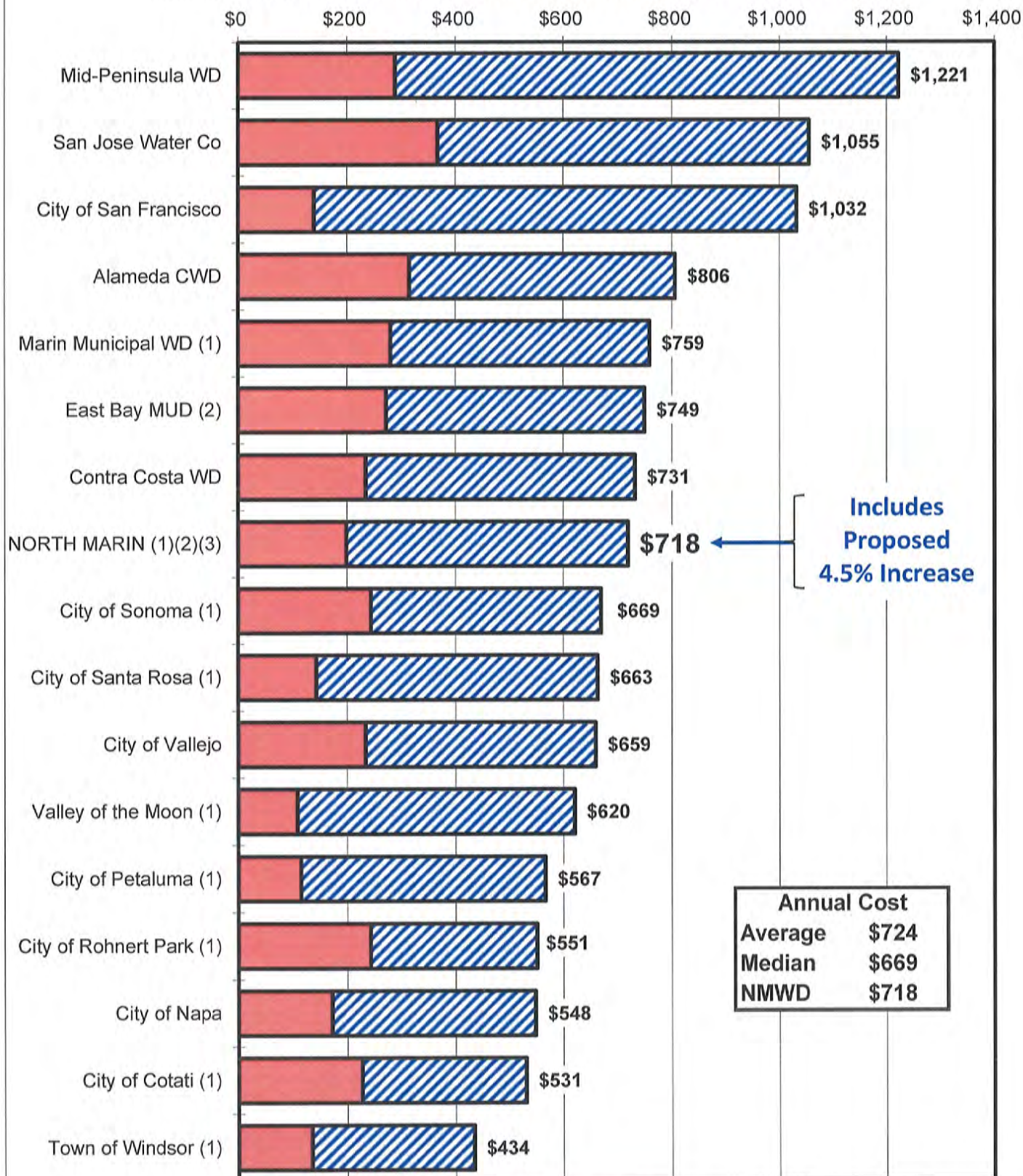
Of interest, ten² of the sixteen comparison agencies have adopted a pass-through ordinance enabling water rate increases to be enacted administratively (i.e., without a public hearing) based upon the increase in purchased water cost.

¹ The FY17 exponential moving average of the past five fiscal years median consumption was 86,600 gallons.

² Agencies with a pass-through ordinance include Mid-Peninsula, San Jose Water, Cotati, Petaluma, Rohnert Park, Santa Rosa, Marin Municipal, Valley of the Moon, Windsor and the City of Sonoma.

2018 URBAN AREA TOTAL ANNUAL WATER COST COMPARISON

Typical Detached Single-Family Home Annual Consumption = 86,600 Gallons



LEGEND

■ Service ■ Commodity

(1) Sonoma County Water Agency Prime Contractor.
 (2) Based on weighted average commodity charge - all zones.
 (3) Excludes West Marin rates and charges.

NORTH MARIN WATER DISTRICT

2018 URBAN AREA WATER COST COMPARISON

FOR TYPICAL SINGLE-FAMILY DWELLING IN THE NOVATO SERVICE AREA

As of March 15, 2018

Typical Detached Single-Family Residence Served by a 5/8" x 3/4" Meter

Annual Consumption is Calculated at 86,600 gallons.

Agency	Note	No. of Water Services	Bimonthly Service Charge	Commodity Rate/1,000 Gallons (1)	Annual Commodity Charge (2)	Total Annual Cost
Mid-Peninsula WD	(3)	8,000	\$48.00	\$10.78	\$933.45	\$1,221
San Jose Water Co	(4)	230,000	\$61.05	\$7.95	\$688.65	\$1,055
City of San Francisco	(5)	174,165	\$23.26	\$10.30	\$892.38	\$1,032
Alameda CWD	(6)	83,000	\$52.33	\$5.68	\$491.93	\$806
Marin Municipal WD	(7)	63,200	\$46.57	\$5.54	\$479.48	\$759
East Bay MUD	(8)	389,301	\$45.20	\$5.52	\$478.13	\$749
Contra Costa WD	(9)	61,242	\$38.93	\$5.75	\$497.83	\$731
→ NORTH MARIN	(10)	20,835	\$33.00	\$6.01	\$520.13	\$718 ←
City of Sonoma	(11)	4,358	\$40.56	\$4.91	\$425.57	\$669
City of Santa Rosa	(12)	53,522	\$23.78	\$6.00	\$519.94	\$663
City of Vallejo	(13)	36,558	\$38.89	\$4.91	\$425.53	\$659
Valley of the Moon	(14)	7,000	\$18.02	\$5.91	\$512.05	\$620
City of Petaluma	(15)	19,978	\$19.14	\$5.22	\$451.86	\$567
City of Rohnert Park	(16)	8,779	\$40.40	\$3.57	\$308.80	\$551
City of Napa	(17)	25,146	\$28.59	\$4.35	\$376.62	\$548
City of Cotati	(18)	2,603	\$37.73	\$3.51	\$304.26	\$531
Town of Windsor	(19)	9,185	\$22.48	\$3.45	\$299.09	\$434


Notes:

- (1) Average commodity rate for agencies with tier rate structure calculated using NMWD seasonal consumption pattern.
- (2) Based on NMWD median single-family detached residential consumption of 86,600 gallons per year.
- (3) MPWD: 4-tier rate structure. First 2 Ccf/month @ \$5.62/Ccf, next 6 @ \$8.22/Ccf, next 12 @ \$9.82, 21+ @ \$11.42. All water is purchased from the SF PUC.
- (4) SJW: 3-tier rate structure. First 3 Ccf/month at \$4.4825/Ccf, 4-18Ccf at \$4.9806, 18+ Ccf at \$5.47. Rates & charges include 5% Utility User tax, 1.17% PUC tax & 1.40% Reimbursement Fee. Bimonthly Service Charge includes surcharges for WRAP (\$1.45/mo) & SRF loan repayment (6¢/mo). Commodity Rate includes a \$0.6676 pass-thru charge for SCVWD increases in purchased & groundwater charges.
- (5) CofSF: 2-tier rate structure. First 4 Ccf/mo @ \$6.42/Ccf, excess at \$8.62/Ccf.
- (6) ACWD: Commodity rate is \$4.249/Ccf.
- (7) MMWD: 4-tier rate structure. Rate/Ccf = \$4.07, \$7.13, \$12.07, \$19.45, Summer bimonthly tiers (June-Nov) 0-26 Ccf, 27-59 Ccf, 60-99 & 100+. Winter tiers (Dec-May) 0-21 Ccf, 22-48, 49-80 & 81+. Bimonthly Charge includes \$9.78 Watershed Management and excludes the \$75 annual Fire Flow tax.
- (8) EBMUD: 3-tier rate structure with 3 elevation zones. 1st Zone Charge (0-200') is: 0-172 gpd @ \$3.45/Ccf; 173 to 393 gpd @ \$4.74; use > 393 gpd @ \$6.27/Ccf. Add'l \$0.70/Ccf for customers between 200' and 600' elevation. Add'l \$1.45/Ccf over 1st Zone for customers above 600'. Commodity rate is the wtd-avg elevation zone charge. 9.25% increase approved for July 2018.
- (9) CCWD: Commodity rate includes \$0.08/Ccf Zone 1 Energy Surcharge (applies to 60% of customers) & Bimonthly Service Charge includes surcharge for Public Fire Protection (\$0.03/day)
- (10) NMWD: Rates and charges include proposed 4.5% increase. 3-tier rate structure with 3 elevation zones. 1st Zone charge (0-60') is: 0-615 gpd @ \$5.24/1,000 gal, 616 to 1,845 gpd @ \$8.35, use in excess of 1,845 gpd @ \$14.54. Add'l 63¢/1,000 for customers between 60' & 200' elevation; add'l \$2.01/1,000 over 1st Zone for customers above 200'. Commodity rate shown is weighted average charge for all zones in Novato. Excludes West Marin rates and charges.
- (11) CofS: 4-tier rate structure. 1st 6,000 gal/month @ \$4.17/1,000; next 6,000 @ \$7.31, next 6,000 @ \$8.21, above 18,000 @ \$11.86.
- (12) CofSR: 2-tier rate structure. 1st tier (up to 3,300 gal/mo) \$5.51/1,000 gal, tier 2 (use > 3,300 gal) \$6.42/1,000. Increase July 2018.
- (13) CofV: 2-tier rate structure. First 22 Ccf bimonthly @ \$3.40/Ccf; 23+ @ \$6.38/Ccf.
- (14) VOMWD: 2-tier rate structure, 1st 4,000 gallons bimonthly @ \$3.99, excess at \$6.65/1,000 gallons.
- (15) CofP: 4-tier rate structure. First 4 Ccf/mo @ \$3.52/Ccf, 4-8 Ccf @ \$3.95, 8-16 Ccf @ \$4.50, and 16+ @ \$5.35. July '18 increase.
- (16) CofRP: 2-tier rate structure. First 4,000 gallons/month @ \$3.08/1,000, above 4,000 gallons \$4.17/1,000.
- (17) CofN: 3-tier rate structure. 1st 14,000 gal/bimo @ \$4.07/1,000, next 13,000 @ \$5.94, add'l @ \$7.68. 7% rate increase 10/1/18.
- (18) CofC: 3-tier rate structure. 1st 10,000 gal/bimonthly @ \$3.20/1,000, next 10,000 @ \$4.11, over 20,000 gal @ \$5.40.
- (19) ToFW: 4-tier rate structure. 1st 4,000 gal/mo @ \$3.12/1,000, next 3,000 gal @ \$3.40, next 10,000 @ \$4.80, add'l @ \$6.20.

Annual Cost	
Average	\$724
Median	\$669
NMWD	\$718

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MEMORANDUM

To: Board of Directors
 From: Pablo Ramudo, Water Quality Supervisor 
 Subject: Second Quarter FY 17/18— Water Quality Report
P:\LAB\WQ Supv\WQ Reports\2018\2nd Qtr FY18 WQ Rpt.doc

March 16th, 2018

RECOMMENDED ACTION: Information

FINANCIAL IMPACT: None

The water served to the communities of Novato and Point Reyes met federal and state primary and secondary water quality standards during the second 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 used as a source of drinking water during the second quarter until November 21st. Water quality was monitored on a weekly basis for chemical and mineral components as well as microbiological activity.

Algae from the raw water intake were identified and enumerated. Algae numbers were relatively low. Diversity was moderate with nine species of algae recorded in appreciable numbers. Only one genus had significant blooms, the cyanobacteria (blue-green algae) *Microcystis* which can cause problems with taste and odors.

Monitoring for geosmin, the algae-produced compound responsible for adverse taste and odor, during the first week of October showed that no detectable concentration was present in raw water.

Treatment Performance: Stafford Treatment Plant

Total organic carbon (TOC) removal was excellent, well above the 35% requirement of the Enhanced Surface Water Treatment Rule. Operators were able to achieve 83-89% TOC removal throughout the quarter. Finished water TOC concentration was 0.7-1.1 mg/L compared to the district's goal of 2.0 mg/L.

Distribution System: Novato

Of 243 samples collected for compliance with the Total Coliform Rule none were positive for coliform bacteria. Disinfection byproducts were low during the quarter and well within standards of the Stage 2 Disinfection By-Product Rule.

Distribution System: Novato continued

There were no complaints of taste and odor attributable to algae compounds during the quarter.

POINT REYES SYSTEM

Source Water: Coast Guard Wells

Raw water quality was good throughout the quarter, however water quality parameters affected by salt water which had gone up significantly in the previous quarter continued to be an issue. The sodium concentration ranged from 72 – 117 mg/L, chloride ranged from 114 - 317 mg/L, and bromide ranged from 0.42 – 1.23 mg/L.

Source Water: Gallagher Well

Raw water quality was good throughout the quarter. Water quality parameters affected by saltwater are very low from this source, and because the well is not prone to intrusion from seawater concentrations of salts are very steady. Sodium was 11 mg/L, chloride was 12 mg/L, and the bromide concentration was 0.07 mg/L.

Treatment Performance: Point Reyes Treatment Plant

Treatment was optimal throughout the quarter and finished water quality was good. Iron and Manganese removal was excellent; neither of the metals were detected in the 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

There were 26 samples collected for routine monitoring and compliance with the total coliform rule. One sample representing the zone served by the Bear Valley tanks was positive for coliform bacteria, all follow up samples were clean and no corrective action was indicated. Chlorine residual concentrations throughout our distribution system were good. Disinfection byproducts were up from last quarter due to salinity intrusion but within standards.

NOVATO RECYCLED WATER

Deer Island Recycled Water Facility

The Deer Island facility was off during the quarter.



North Marin Water District- 2nd Quarter FY 2017 / 2018

Bacteriological Quality Monitoring

Novato: 243 Samples Analyzed. No samples positive for coliform bacteria
 Point Reyes: 26 Samples analyzed. 1 sample positive for coliform bacteria.

Chemical Quality Monitoring

Constituent	Units	Maximum Contaminant level	SCWA North Marin Aqueduct	Stafford Treatment Plant	Point Reyes Treatment Plant
Conductivity	umhos/cm	900 *	268	386	279
TDS	mg/L	500 *	177	235	186
Hardness	mg/L	-	109	102	127
Alkalinity	mg/L	-	127	78.7	124
Calcium	mg/L	-	21.6	19.3	20.8
Magnesium	mg/L	-	14.2	13.6	19.4
Copper	mg/L	1.0*	ND	ND	ND
Iron	mg/L	0.3*	ND	ND	ND
Manganese	mg/L	0.05 *	ND	ND	ND
Zinc	mg/L	5.0 *	ND	ND	ND
Sodium	mg/L	-	17.1	35.6	13.4
Chloride	mg/L	250 *	5.59	58.8	14.3
Sulfate	mg/L	250 *	10.9	5.00	7.86
Fluoride	mg/L	2.0 (1.4-2.4)	0.915	0.0976	0.105
Nitrite as N	mg/L	1.0	ND	ND	ND
Nitrate as N	mg/L	10	0.167	0.0840	0.0307
pH	pH units	8.5 *	8.30	8.41	7.10
Turbidity	NTU	5	0.07	0.10	0.08
Color	PCU	15	<2.5	<2.5	<2.5
Free Chlorine	mg/L	4.0	0.89	1.42	0.95
Total Chlorine	mg/L	4.0	0.98	1.49	1.04
Temperature	° C	-	18.3	15.0	14.1
Odor	TON	3	<1	<1	<1

*Indicates secondary drinking water standard

ND = Not Detected
 NA = Not Analyzed

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MEMORANDUM

To: Board of Directors Date: March 16, 2018
From: Robert Clark, Operations / Maintenance Superintendent *RC*
Subject: Stafford Lake Spill/Rainfall History
X:\MAINT SUP\2018\BOD\BOD Memo 20yr Lake spill.doc

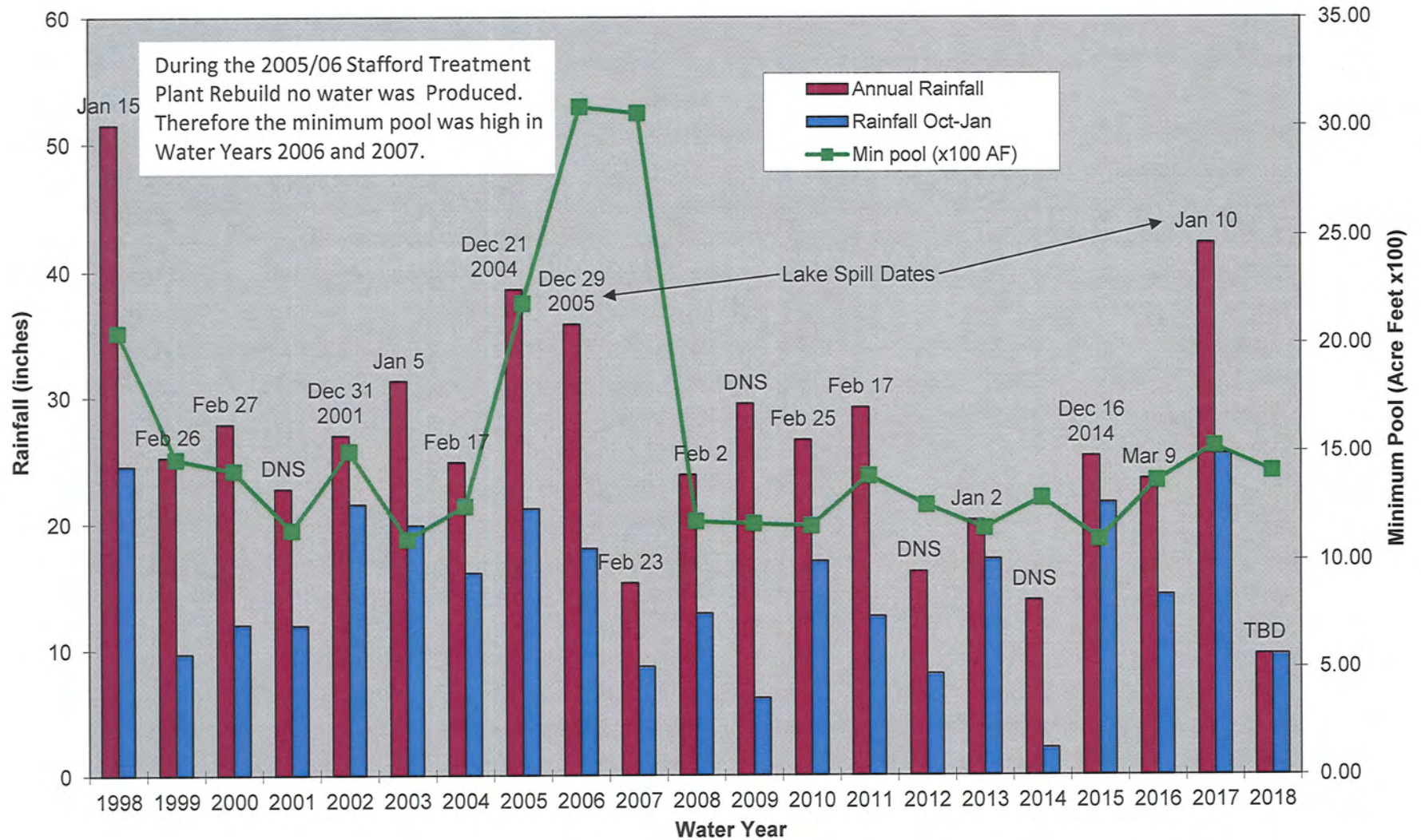
RECOMMENDED ACTION: Information
FINANCIAL IMPACT: None

Over the past 20 years, Stafford Lake has reached full capacity and has spilled over 16 of the 20 years presented. Stafford Lake did not reach full capacity in 2014 with a maximum elevation on April 25 at 188.8', 2012 with a maximum elevation on April 25 at 189.4', in 2009 with a maximum elevation on March 30 at 195.3' and again in 2001 with a maximum elevation on March 22 at 192.5. Our current year to date lake elevation is at 184' and with the March / April rain forecast and 100 acre feet back fed from SCWA, Staff does not expect the lake to fill. During the 2009 and 2014 dry weather noted above the District also back fed the lake with 348 and 359 acre feet respectfully.

To help illustrate the annual Stafford Lake capacity fluctuations, the attached chart has been assembled. The chart includes two columns for rainfall data and a line for minimum pool storage with the date when the lake reached full capacity.

- The Annual Rainfall is based on a Water Year (from the beginning of October of the previous year indicated, through the end of September of the year indicated). This is measured in inches of rain along the left side of the chart.
- The Rainfall Oct – Jan is a water year to date from the beginning of October of the previous year through the end of January of the year indicated. This is measured in inches of rain along the left side of the chart.
- The Minimum Pool (indicated by the green line) is the lowest level of Stafford Lake measured in the fall of the previous year indicated on the chart. This is measured in acre-feet along the right side of the chart (the number must be multiplied by 100).
- The dates above the column data indicate the day the lake reached full capacity and spilled during that water year or did not spill (DNS).

Stafford Lake Spill Data



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DISBURSEMENTS - DATED MARCH 8, 2018

Date Prepared 3/6/18

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 No.	Payable To	For	Amount
1	All Star Rents	Propane (25 gals) (Construction-Forklift)	\$81.10
2	Alpha Analytical Labs	Lab Testing	60.00
3	Arrow Benefits Group	February Dental Admin Fee	293.80
4	Athens Administrators	Replenish Workers' Comp Checks Written in February	3,633.78
5	AT&T	February Internet Connection	85.00
6	AT&T	Telephone (\$60), Fax (\$73), Data (\$316) & Leased Lines (\$189)	638.02
7	Babine, W.	Refund Overpayment on Closed Account	1,368.20
8	Bay Area Barricade Service	Blue & White Spray Chalk, White Striping Paint (\$114) & Blue Marking Paint	306.40
9	Burkett, Kellie	Refund Overpayment on Closed Account	173.56
10	Charles Assoc, Leonard	Prog Pymt#1: Environmental Review for PRE Tank #4 (Balance Remaining on Contract \$4,800)	15,920.00
11	Cole-Parmer Instrument	Vinyl Tubing for Waste Line on Atomic Absorption Analyzer (Lab)	43.03
12	Dubois, April	Refund Overpayment on Closed Account	100.00
13	Enthalpy Analytical	Lead Testing (Lab)	20.00
14	Environmental Express	Standards (3) (Lab)	127.23
15	Ferguson Waterworks	Annual Maintenance Agreement on AMI Software & Hardware (3/1/18-2/28/19) (Budget \$0)	4,192.61
16	Ferguson Waterworks	Box Lids (33) & Flange Adapter (8) (\$2,213)	3,552.51
17	Gallagher, Arthur J.	FY17 Final Premium Payment for Excess Workers' Comp Insurance (Total \$58,752)	3,365.00

Seq No.	Payable To	For	Amount
18	Golden Gate Petroleum	Gasoline (\$2.63/gal) & Diesel (\$3.11/gal)	2,619.84
19	Grainger	5 gal Cooler, Dry Powder Graphite, Belt for Sand Pump (STP), Gear Oil (2 gals), Cordless Cutoff Tool Kit (\$139), Face Shields (10) (\$112), First Aid Kit, Head Gear (4), "C" Batteries, Disposable Respirators (6) (\$158), Kneeling Mat, Diamond Saw Blade (\$205), Heat Shrink Labels (3), High Pressure Washer Hose for Vacuum Trailer (\$196), Cordless Cut-off Saw, Hose for Wash Rack (2) (50'), Close Nipples (4) (STP), Rake 3/8", Tubing (100') (STP), Air Compressor Service Kit for RWF on Hwy 37 (\$130) & Concrete Hole Saw Bits (2)	1,744.45
20	Hach	Reagents, Chlorine Maintenance Kit (\$213) & Sulfuric Acid (STP)	519.52
21	Hogeboom, Gwen and James	Refund Overpayment on Closed Account	73.46
22	InfoSend	January Processing Fee for Water Bill (\$494), Postage (\$1,312) & January Monthly Support Fee (\$773)	2,578.74
23	Intellaprint Systems	Toner for Engineering Ink Jet Plotter	227.86
24	Kaiser Foundation Health Plan	DMV/DOT Physical (Pearce)	115.00
25		Cafeteria Plan: Uninsured Medical Reimbursement	290.38
26	Kehoe, Theresa	Exp Reimb: Planner, Frame for Board Sign & Office Supplies	27.31
27	Kennedy Jenks	Prog Pymt#1: Engineering Services: Update Novato Water System Master Plan (Balance Remaining on Contract \$59,547)	20,453.50
28	LGVSD	Recycle Water Deliveries (10/1-12/30/17)	7,162.46
29	Lincoln Life	Deferred Compensation PPE 2/28/18	12,156.22
30	Maltby Electric	2 1/2" Galvanized Elbow	29.96
31	Marin Trophies & Treasures	Engraving of Director's Plaque with John Schoonover's Name	20.00
32	McMaster-Carr Supply	4" Suction Hose (40') ('13 Vac Excavator)	470.13
33	Microtech Scientific	Media for Micro Analysis (Lab)	250.27

Seq No.	Payable To	For	Amount
34	Nationwide Retirement Solution	Deferred Compensation PPE 2/28/18	2,150.00
35	Office Depot	Desk Sign (T. Kehoe), Copy Paper (4 Reams), Legal Pads (6), Binders (3) (\$44), Liquid Soap (1 gal), Sharpies (5), Post-it Notes (12) & Disinfecting Wipes	155.35
36	Pace Supply	6" & 8" Hymax Flange Adaptors (5) (\$1,153), Hydrant, Fire Check Assembly (\$4,785), Bandit Clamps (100) (\$480), Copper Pipe (2,160') (\$8,613), 4" x 20" PVC Pipe (40), Elbows (6), Hydrants (2) (\$578), Gaskets (30), Valves (2) (\$1,116) & Fire Hydrants (2) (\$3,934)	21,560.54
37	Redwood Empire Disposal	Refund Security Deposit on Hydrant Meter Less Final Bill	121.90
38	Rubber Form	4" Pipe Ramp w/Interlock Connector (17)	4,964.41
39	Six Robblees'	Brake Assemblies and Oil Seals for Vacuum Trailer	1,030.20
40	Soiland	Asphalt Recycling (6 tons)	29.20
41	Sonoma County Water Agency	January Contract Water	437,400.34
42	SPG Solar	January Energy Delivered Under Solar Services Agreement	5,492.78
43	Sykes, Lowell	Refund RW Load Security Deposit	100.00
44	Thomas Scientific	Nitrile Gloves (20) (Lab)	183.98
45	USA BlueBook	Ammonium Hydroxide & Pressure Gauges (7) (\$472) (STP)	504.85
46	VWR International	pH Buffer (Lab)	61.42
47	Welch, Jennifer	Refund Security Deposit on Hyd Meter Less Final Bill	621.00
TOTAL DISBURSEMENTS			<u>\$557,075.31</u>

The foregoing payroll and accounts payable vouchers totaling \$557,075.31 are hereby approved and authorized for payment.


Auditor-Controller

3/5/18
Date


General Manager

3-5-18
Date

DISBURSEMENTS - DATED MARCH 15, 2018

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:

<u>Seq</u>	<u>Payable To</u>	<u>For</u>	<u>Amount</u>
P/R*	Employees	Net Payroll PPE 2/28/18	\$138,198.74
EFT*	US Bank	Federal & FICA Taxes PPE 2/28/18	56,466.64
EFT*	State of California	State Taxes & SDI PPE 2/28/18	11,467.00
EFT*	CalPERS	Pension Contribution PPE 2/28/18	33,614.42
EFT*	CalPERS	March Health Insurance Premium (Employees \$44,113, Retirees \$11,229 & Employee Contribution \$8,461)	63,803.71
1	Able Tire & Brake	Tires (\$880) (4) & Alignment ('08 F250)	987.53
2	AC3	Annual Crane Inspections (4)	1,100.00
3	Airgas USA	Replacement Multi-Gas Monitor (Const)	781.71
4	Arrow Benefits Group	Jan Dental Expense	597.00
5	Automation Direct	Additional PLC Hardware Required for Motorized Valve Installation @ Plum St Tank	919.00
6	Backflow Distributors	Backflow Tester Hose Assembly & Replacement Assemblies & Repair Parts for DC's & RPP's (\$2,703)	2,754.64
7	Bobcat of Santa Rosa	Air, Oil & Fuel Filters (Bobcat Loader) (Less \$211 Received for Credit on Account)	262.20
8	Borges & Mahoney	Vacuum Regulator Repair (\$1,505) & Preventative Maintenance Kits (3) (STP)	2,062.08
9	Brand, Donald	Novato "Toilet Rebate" Program	300.00
10	Cilia, Joseph	Retiree Exp Reimb (March Health Ins)	343.66
11	Comcast	March Internet Connection	151.12
12	DataTree	February Subscription to Parcel Data	100.00

Seq	Payable To	For	Amount
13	DeGabriele, Chris	Retiree Exp Reimb (March Health Ins)	1,006.54
14	Diggs, James	Retiree Exp Reimb (March Health Ins)	342.23
15	Franz, Daniel	Novato "Toilet Rebate" Program	300.00
16	Golden Gate Petroleum	Grease, Hydraulic Oil & Gear Oil (STP)	483.88
17	Grainger	Caustic Plumbing Supplies for STP (\$365), Rain Boots (Barrilleaux & Bergstrom) (\$205), Concrete Hole Saw for AMI Project, Jumper Pole (\$115), PLC Relays (6) (\$111), Tool Bucket Organizer, Battery Adaptor (20 volt), Synthetic Gear Oil (2 gal) (\$148) (STP), Hearing Protectors (2), Landscape Tarps (2) (\$29), Couplings (4), Mechanics Gloves (6) & Long Tape Measure (200')	1,148.40
18	Jackson, David	Exp Reimb: Professional Engineers License Renewal (4/18-3/20) (Budget \$120)	116.00
19	Latanyshyn, Roman	Retiree Exp Reimb (March Health Ins)	343.66
20	Lucchesi, Sarah	Cafeteria Plan Reimbursement	416.66
21	Marin Landscape Materials	Concrete (42 sacks)	271.14
22	Martrano Enterprises	Safety Bumper for Automatic Gate	151.77
23	McLellan, WK	Misc Paving	2,405.20
24	McMaster-Carr Supply	Gas Pump Suction Hose (30')	146.21
25	Moore, Doug	Retiree Exp Reimb (March Health Ins)	1,006.54
26	NMWD Employee Association	Dues 12/31/17-2/28/18	985.00
27	NSI Solutions	QC Sample	51.25
28	Pace Supply	8" Repair Clamps (2) (\$727), Hub Adaptors (2), Meter Washers (500) (\$133), Hydrant Bury (\$266), Flange Adaptor Washers (3), Flanges (2), Gate Valve (2) (\$670), Couplings (2) & Copper Pipe Adaptor	2,497.80
29	Piazza Construction	Prog Pymt#8: RW Exp Central Service Area (Balance Remaining on Contract \$44,317)	20,073.01
30	Piazza Construction Escrow Acct	5% Retainer: Piazza Construction RW Central Norman Tank Project	1,056.49

Seq	Payable To	For	Amount
31	Point Reyes Prop Mgmt Assn	March HOA Fee (25 Giacomini Rd)	75.05
32	Recology Sonoma Marin	March Trash Removal	465.08
33	RGM and Associates	Prog Pymt#4: Third Party Labor Compliance Monitoring for San Mateo Tank Recoating Project (Balance Remaining on Contract \$6,040)	1,382.50
34	Simpson, Elizabeth	Novato "Toilet Rebate" Program	300.00
35	Sonoma Boot	Safety Boots (Bynum)	200.00
36	SpeedTech Lights	LED Light Bar & Pod Light for '18 Ford Transit Connect Van	495.70
37	Stafford, Vernon	Retiree Exp Reimb (March Health Ins)	343.66
38	TPx Communications	February Telephone Charges	463.63
39	United Parcel Service	Delivery Services: Sent 3 Tank Level Sensors in for Repair	31.07
40	Univar	Sodium Hypochloride (424 gal)	1,297.36
41	US Bank	February Safekeeping Fee Treasury Securities	127.25
42	Verizon Wireless	Cellular Charges: Data (\$297) & Airtime (\$115) (21)	411.55
43	Verizon Wireless	AMI Gateways (26) (\$595), O.M. SCADA & Novato CIMIS Station	669.67
44	VWR International	Base Support Filter (Lab)	293.41
		TOTAL DISBURSEMENTS	<u>\$353,267.16</u>

The foregoing payroll and accounts payable vouchers totaling \$353,267.16 are hereby approved and authorized for payment.


Auditor-Controller

3/13/13
Date


General Manager

3.12.18
Date



NORTH MARIN WATER DISTRICT

Director's Compensation Request For Attendance at Meetings Other than District Board Meetings

RECEIVED

FEB 14 2018

North Marin Water District

BOARD MEMBER: JOHN BAKER

425 Corte Norte

Novato, CA 94949

DATE 1/1/
(TODAY'S DATE)

I attended the WATER ADVISORY COMMITTEE on 1,5,18
(NAME OF MEETING OR WORKSHOP) @ SANTA ROSA (DATE OF MEETING)

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


DIRECTOR SIGNATURE

FOR ACCOUNTING USE ONLY

 2/15/18
APPROVED TO PAY BY DATE

CHARGE TO: 56001-01-11

AMOUNT: \$ _____
(filled in by Accounting)

PAID PAY PERIOD ENDING ____/____/____



NORTH MARIN WATER DISTRICT

Director's Compensation Request

For Attendance at Meetings Other than District Board Meetings

BOARD MEMBER: JOHN BAKER

425 Corte Norte

Novato, CA 94949

DATE

2/27/18

(TODAY'S DATE)

I attended the NO. BAY WATER RECYCLING AGEN. on 2/26/18
& " " WATER GRAB (NAME OF MEETING OR WORKSHOP) (DATE OF MEETING)

@ NOVATO COUNCIL CHAMBERS
and wish to be compensated as provided under the Board Compensation Policy.


DIRECTOR SIGNATURE

FOR ACCOUNTING USE ONLY


APPROVED TO PAY BY

2/27/18
DATE

CHARGE TO: 56001-01-11

AMOUNT: \$ _____
(filled in by Accounting)

PAID PAY PERIOD ENDING ____/____/____

RECEIVED

MAR 06 2018



NORTH MARIN WATER DISTRICT

North Marin Water District

Director's Compensation Request for Attendance at Meetings Other than District Board Meetings

BOARD MEMBER: RICK FRAITES

50 Forrest Road
Novato, CA 94947

DATE

3/6/18
(TODAY'S DATE)

I attended the

North Bay Watershed Association on 3/2/18

(NAME OF MEETING OR WORKSHOP)

(DATE OF MEETING)

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

A handwritten signature in blue ink, reading "Rick Fraites", written over a horizontal line.

DIRECTOR SIGNATURE

FOR ACCOUNTING USE ONLY

A handwritten signature in blue ink, written over a horizontal line.
APPROVED TO PAY BY

DATE

3/7/18

CHARGE TO: 56001-01-11

AMOUNT: \$ _____
(filled in by Accounting)

PAID PAY PERIOD ENDING ____/____/____

MEMORANDUM

To: Board of Directors
From: David L. Bentley, Auditor-Controller
Subj: Rate Increase Notice on Water Bill

March 16, 2018

t:\aclword\memo\18\notice on bill 2018.docx

RECOMMENDED ACTION: Information Only

FINANCIAL IMPACT: No Cost

In conjunction with the individually addressed letters to customers regarding the proposed rate increase, the District traditionally adds a message onto the water bill. The notice will read:

A public hearing will be held at NMWD's office on Tuesday, May 15, at 6pm, to consider a 4.5% rate increase effective June 1, equivalent to \$2.50 per month for the typical residence. The impact on your account can be viewed at nmwd.com/accountbalance.php or call us at 415-897-4133.

The proposed message is succinct (235 characters) as the message space on the water bill is limited to about 250 characters.

The Water Cost Calculator on the District's website calculates the cost and impact of the approved increases in dollars and percentages for every customer account based on each account's individual water use history. An example, using NMWD's typical single-family customer, who uses 86,600 gallons of water annually, is shown on the following page. A prominent link to the Water Cost Calculator has been placed on the District home page.

NMWD's customer base is divided into eight groups billed bimonthly. The message is included on Novato Service Area water bills mailed commencing March 15, thereby ensuring that all customers will receive the notice prior to the May 15 public hearing.

NMWD ANNUAL WATER COST CALCULATOR

Service Location: 123 Main Street
Zone: Wtd Avg

Account No: 123456
Meter Size: 0.625"

Basic Data	6/1/17	6/1/18
Water Use (Annual Gallons) *	86,600	86,600
Service Charge (Bimonthly)	\$31.50	\$33.00
Water Rate/1,000 Gallons **	\$5.39	\$5.63
Annual Cost		
Service Charge	\$189	\$198
Water Use Charge	\$467	\$488
Total Annual Cost	\$656	\$686
Annual Increase		\$30.00
Percentage Increase		4.5%
Monthly Increase: ***		\$2.50

* Water Use shown is based on your prior 12 months billed consumption.

** Water Rate shown is your annual average. The Water Rate and Water Use Charge assume your seasonal water use pattern remains consistent with your prior 12 months billed consumption.

*** Note that meters are read, and bills are rendered, bimonthly (every 2 months).

This Annual Water Cost Calculator is for estimating purposes only and may not provide all of the information contained on your specific customer bill or be precisely accurate. Your future water cost will vary based upon your actual water use. If you have questions about this calculator please call the District at 415.897.4133 and ask for customer service.

House, DA, assessor candidates file

JUNE ELECTION

By Richard Halstead

rhalstead@marinij.com @HalsteadRichard on Twitter

More candidates filed Wednesday to compete in the June 5 primary election for Marin County district attorney, Marin County assessor-recorder-county clerk and the 2nd Congressional District seat, which represents Marin.

The filing period, which was extended for any seat for which an incumbent officeholder did not file, closed Wednesday.

Two familiar faces have filed to challenge Marin's congressional representative, Jared Huffman, D-San Rafael, in the June primary. Garberville residents Andy Caffrey, an environmental activist, and Dale Mensing, a supermarket cashier, have filed to run against Huffman, who will be seeking a fourth term in Congress.

Mensing, a Republican, was Huffman's general election opponent in 2014 and 2016. Caffrey, a Democrat, ran against Huffman in the 2012 and 2014 June primary elections but failed to garner enough votes to make it to the November election in both instances.

Caffrey said his focus is "getting our nuclear power plants shut down before rapid sea level rise from the collapsing West Antarctica ice sheet."

"Jared is a good guy but he's not getting anything done that needs to be done," Caffrey said. "The fundamental problems of our society are not going to be changed by the people who are in power now because they are funded by the richest elite of our country."

Also on Wednesday, the race to determine who will replace retiring Marin District Attorney Ed Berberian became more competitive. Two Marin deputy district attorneys — Lori Frugoli and A.J. Brady — filed to run in the June primary.

Anna Pletcher, a lawyer who spent 10 years working in the anti-trust division of the U.S. Department of Justice, filed last week.

There will also be a race to determine who will replace retiring assessor-recorder-county clerk Richard Benson. Brian Karr, an appraiser in the assessor's office, and Jenny Mattson, a Realtor with Sotheby's International Realty, filed this week. Karr and Mattson will compete with Shelly Scott, a longtime appraiser in the Marin County assessor's office, who lost a bid for the position in 2010 to Benson. Scott filed last week.

The filing period for three seats on the Corte Madera Town Council was also extended since council members Diane Furst and Carla Condon are stepping down. No new candidates filed this week.

Incumbent Bob Ravasio has filed, as have Eli H. Beckman, Valeria Sasser and David Kunhardt. Beckman is an architectural designer with Perkins Eastman in San Francisco and a Corte Madera Flood Control board member. Sasser is an educator and a regional court interpreters coordinator with the Judicial Council of California. Kunhardt is a Corte Madera solar energy developer, who served as a Hillary Clinton delegate at the 2016 Democratic National Convention.

"Jared is a good guy but he's not getting anything done that needs to be done. The fundamental problems of our society are not going to be changed by the people who are in power now because they are funded by the richest elite of our country."

— *Andy Caffrey, of Garberville, an environmental activist, who has filed to run against Marin's congressional representative Jared Huffman, D-San Rafael.*

Marin's rare fish have off season as rain fluctuates

BIOLOGISTS

By Mark Prado

mprado@marinij.com @MarkPradoIJ on Twitter

The start-stop nature of the rains this winter and a generally weak salmon population have not been good for Marin's rare fish, which rely on steady flows to survive, biologists say.

Federally endangered coho salmon and threatened steelhead trout respond to the rains, which create runoff and are a natural invitation for the fish to begin swimming from the oceans upstream into creeks to spawn in the Lagunitas Creek watershed.

In December — a key month for coho migration — just .31 of an inch of rain fell in the county as measured by the Marin Municipal Water District. February — when the coho are wrapping up their migration — wasn't much better with .38 of an inch recorded. More wet weather likely would have helped.

"As far as the coho season goes, it was not a great year," said Eric Ettlinger, aquatic ecologist for the Marin Municipal Water District, adding final coho totals are not in. "Most of the coho spawned while the weather was fairly wet."

The Olema-based Salmon Protection and Watershed Network, which does its own counts, shows only 115 coho nests counted

so far. That would be the fifth-lowest total since 1995. The annual average is 250, the group says.

Preston Brown, director of conservation with SPAWN, said the low number has to do more with the weak class of fish than the spotty rain.

The coho complete a three-year life cycle in which they travel to sea and return to spawn and die. This year's class has not been strong historically, Brown said.

"This group must have been affected by landslides, erosion or debris flows that hurt their numbers over the years," Brown said. "There was something that impacted this cohort."

In an oddity, last week Ettlinger and his team saw a bright red, 3-year-old male coho. He said the "hopelessly late fish" was seen trying to spawn with a female steelhead while aggressively driving off two much larger male steelhead.

"Typically the last coho of the season are in very poor shape and none had ever been seen past the third week of February," Ettlinger wrote in his blog. "How a coho remained in top form in March is one more mystery to add to a year full of them."

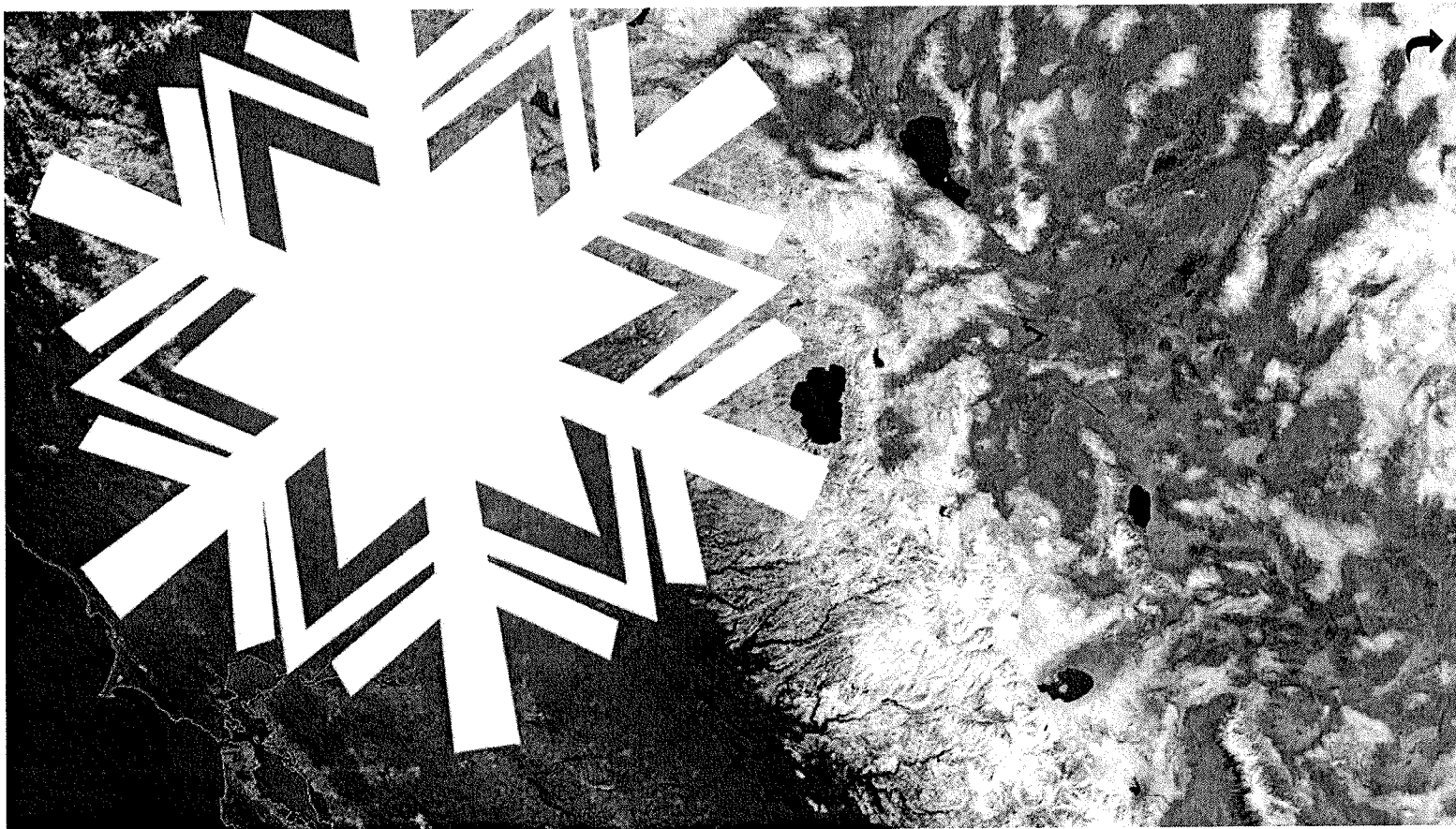
The rarely seen chum and pink salmon have appeared in Marin this season. Pink salmon are uncommon south of Washington state and are rarely seen in California streams.

Meanwhile, impressive numbers of steelhead trout were seen in January and looked to be on the verge of having a strong year in February — a peak spawning month. But as rain stopped,

spawning activity declined through the month and steelhead were mostly congregated in Lagunitas Creek pools.

Recent rains have helped steelhead, but "didn't

make up for the low levels of spawning last month, and our steelhead redd total stands at 115, or somewhat below average," Ettlinger noted.

**WATER & DROUGHT**

Why your water provider is fighting California's ban on watering sidewalks

BY DALE KASLER AND RYAN SABALOW
dkasler@sacbee.com

March 15, 2018 12:46 PM

Updated 7 hours 33 minutes ago

It seemed like the sort of thing any drought-wary Californian could support.

The state's water cops were poised last month to pass a set of rules prohibiting what most everyone agrees are wasteful water uses –like letting water from a hose without a nozzle flow into a storm drain.

But no change in California water policy ever comes easily. The State Water Resources Control Board's proposal to impose permanent conservation rules – such as prohibiting hosing down driveways, watering lawns less than two days after it rains and washing a car without attaching a

shut-off nozzle to the hose – ran into a cascade of opposition. Leery of ceding any power to the state, practically every major water agency in California, from Sacramento to San Diego, stepped up to complain the water board was overstepping its legal authority.

The board postponed its vote.

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The controversy comes at a delicate time. Eleven months after Gov. Jerry Brown declared an end to the drought, water usage is starting to creep back up in California: Urban consumption increased 5 percent last year as mandatory conservation restrictions were lifted, although usage was still 16 percent below the 2013 baseline figures used by the state water board.

Now, with California experiencing a dry winter and the possibility of another drought, Californians' stomach for conservation is about to be tested again. The state water board plans to resurrect its proposal in April. Separately, the Legislature is working on a pair of bills that in some respects would go even further in governing how much water Californians are allowed to use.

Designed to make conservation "a California way of life," the legislation would impose a long-lasting, comprehensive framework on water usage – drought or no drought. AB 1668 and SB 606 would establish overall standards for indoor and outdoor water consumption. Local water agencies would have plenty of input on how the standards are set, but if they miss the targets they could get fined thousands of dollars.

The idea is to get Californians to gradually consume less water.

"There's a lot of things we can do to be more efficient, and that's the goal of this," said Assemblywoman Laura Friedman, D-Glendale, author of AB 1668. "It's very important considering that we're going now into another drought, it looks like."

State officials are convinced that Californians are committed to saving water. During the drought, when mandatory cutbacks were imposed, the most frequent complaint from the general public was about neighbors over-watering their lawns and flouting the rules, said Felicia Marcus, chairwoman of the state water board.

"The average Californian wants to conserve and wants everybody else to conserve, and wants it to be as fair as possible," Marcus said. A Field Poll in 2016, when the drought was still severe, showed that 74 percent of Californians said curtailing water use was "very important."

Nonetheless, local water agencies are constantly on guard against efforts at the state level to restrict local water usage. They fought the cutbacks Brown mandated in 2015, during the worst of the drought. It cost them millions in revenue; and most water agencies in the Sacramento area said it was unfair that they had to slash use by 36 percent even though the region's actual water supplies were in fairly good shape.

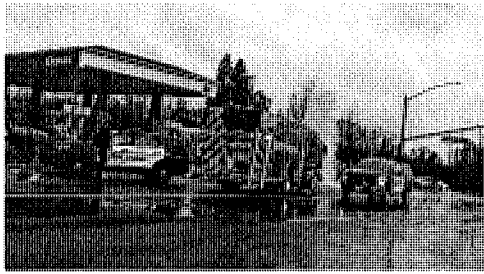
"Most agencies didn't have a need to take a 36 percent cut," said John Woodling of the Sacramento Regional Water Authority, which represents area water agencies. "They had more water supply available than that. That was really state top-down rationing."

So perhaps a blowup over the state water board's proposal was inevitable. Marcus' agency is proposing to permanently ban certain practices that were temporarily forbidden during the drought. Hotels and motels would have to remind guests, in writing, that they can reuse their towels and sheets. Cities wouldn't be allowed to water grassy medians, with certain exceptions. Homeowners couldn't water their lawns so heavily that the water runs into the sidewalk or street.

The board says it has ample legal authority – granted by the state's Constitution – to impose restrictions on the "waste and unreasonable use" of water. Nonetheless, the proposal was tabled after local water agencies protested. The agencies didn't disagree with the proposals themselves but said the board was going too far in defining what's considered an "unreasonable use" of water. That phrase is a crucial element in California's complicated system of water rights.

RELATED STORIES FROM SACRAMENTO BEE

Whiteouts expected through Friday as storm continues to roll through mountains



Boosted by storm, Sacramento's season rainfall approaches 70 percent of normal



'A huge boost.' New snow piles up in the Sierra Nevada

"You're impacting water rights plain and simple," Sacramento attorney Rob Donlan, representing several local water agencies, told the board in February.

Jeffrey Mount, a water-policy analyst at the Public Policy Institute of California, said the water districts fear one regulation will lead to another. "If the state is going to step in and regulate how long you can hold a garden hose on your driveway, why wouldn't they step in and regulate everything else?"

The state's farm lobby is equally concerned. Farm groups say the water board's proposed rules on urban water usage could eventually lead to regulations on the types of crops farmers can irrigate. "There's the potential they'll make similar decisions encroaching on agriculture," Mike Wade of the California Farm Water Coalition said in an interview.

Marcus said fears of a runaway regulatory train are unfounded. The water board is only prepared to take steps that are in line with societal views on water use.

"It's not like we're saying, 'Don't have a lawn,'" she said. "Plenty of people have suggested we should ban lawns, but that's not reasonable yet. Someday it might be, but not yet."

So if a simple ban on watering driveways stirs up a fight, how can the Legislature expect to pass an even more ambitious series of conservation measures? The answer lies in the local control that AB 1668 and SB 606 allow water districts to keep.

After going nowhere in the Legislature last year, the bills have been revised to give local water agencies a greater say in establishing the usage targets they'll have to meet.

"We felt it was extremely important to go bottom-up instead of top-down," said Sen. Bob Hertzberg, D-Los Angeles, co-author of SB 606. "We're going to respect these (local) districts."

The drought emergency mandates required local districts to slash usage by as much as 36 percent, depending on historical consumption patterns. The legislation takes a different approach.

For indoor use, the legislation would set a single statewide target for local districts to meet: 55 gallons a day per person, gradually declining to 50 gallons by 2030.

For outdoor use, the targets would be set by the state in consultation with the local districts. The Department of Water Resources would set targets for each district based on data supplied by the district on climate, landscape sizes, available water supplies and other factors. Agencies that have broadened their supply portfolio through recycling or other means would have greater leeway to use their water even in dry conditions.

The Sacramento region, where lawns are big and summers are hot, traditionally has been one of the heaviest water users in the state. Last June, for instance, the average city of Sacramento resident used a total of 144 gallons of water a day, according to the water board. The figure was 76 gallons for Los Angeles and 47 for San Francisco.

The plan proposed by the Legislature, by acknowledging differences in climate and other factors, could give Sacramentans greater leeway to continue keeping their lawns green. Woodling, of the Sacramento water authority, said area water agencies are becoming more comfortable with the legislation.

The state's largest water agency is already on board.

"It's recognizing the unique circumstances of each agency," said Deven Upadhyay of the influential Metropolitan Water District of Southern California, which is supporting the legislation. "As many of us are looking at making investments in things like recycled water, some in seawater desalination, some in storage, you want to know you're going to be able to utilize those supplies as you go into drought. That's why you invest in those things."

Failure to meet the targets would leave districts open to financial penalties, but fines wouldn't kick in until 2027. "It's a very gentle glide path to start moving people to these efficiency standards," Hertzberg said.

Environmental groups tend to favor very strict regulations on water use, but some are on board with this relatively moderate piece of legislation. Tracy Quinn, of the Natural Resources Defense Council, said the bills strike the right balance between conservation and local flexibility.

"It is a much more equitable way of ensuring long-term reliability of our supplies," she said.

 **COMMENTS** 

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