



**NORTH MARIN WATER DISTRICT**  
**AGENDA - REGULAR MEETING**  
 January 17, 2017 – 7:00 p.m.  
 District Headquarters  
 999 Rush Creek Place  
 Novato, California

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Est. Time	Item	Subject
7:00 p.m.	<b>CALL TO ORDER</b>	
	1. <b>APPROVE MINUTES FROM REGULAR MEETING</b> , January 3, 2017	
	2. <b>GENERAL MANAGER'S REPORT</b>	
	3. <b>OPEN TIME: (Please observe a three-minute time limit)</b>	
	This section of the agenda is provided so that the public may express comments on any issues not listed on the agenda that are of interest to the public and within the jurisdiction of the North Marin Water District. When comments are made about matters not on the agenda, Board members can ask questions for clarification, respond to statements or questions from members of the public, refer a matter to staff, or direct staff to place a matter of business on a future agenda. The public may also express comments on agenda items at the time of Board consideration.	
	4. <b>STAFF/DIRECTORS REPORTS</b>	
	5. <b>QUARTERLY FINANCIAL REPORT</b>	
	6. <b>MONTHLY PROGRESS REPORT w/Customer Service Questionnaire</b>	
	<b>CONSENT CALENDAR</b>	
	The General Manager has reviewed the following items. To his knowledge, there is no opposition to the action. The items can be acted on in one consolidated motion as recommended or may be removed from the Consent Calendar and separately considered at the request of any person.	
	7. <b>Consent – Approve</b> Novato Children's Center – Fire Service	
	8. <b>Consent – Approve</b> Replacement Vehicle Expenditure Update	
	<b>INFORMATION ITEMS</b>	
	9. January Storm Update	
	10. City of Novato Paving Moratorium, Measure A, Group 8 & 9	
	11. Typical Multi-Purpose Reservoir of Russian River Project	
	12. State Water Resources Control Board – Notice of Public Workshop – Urban Water Conservation Emergency Regulations	
	13. NBWRA BOD Update	
	14. TAC Meeting – January 9, 2017	

All times are approximate and for reference only.

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

(Continued)

Est. Time	Item	Subject
	15.	<b>MISCELLANEOUS</b> Disbursements Self-Insured Workers' Comp -2nd Quarter Status Report Renewal of Oceana Marin Liability Insurance Bennett Horenstein Selected as Water Director Marin County Land Disclosure of Public Water System Well Location Information on GeoTracker GAMA  <u>News Articles:</u> An explanation of Sonoma County's atmospheric river American Canyon considering recycled water to boost city resources
8:30 p.m.	16.	<b>ADJOURNMENT</b>

1

DRAFT  
NORTH MARIN WATER DISTRICT  
MINUTES OF REGULAR MEETING  
OF THE BOARD OF DIRECTORS  
January 3, 2017

**CALL TO ORDER**

President Petterle called the regular meeting of the Board of Directors of North Marin Water District to order at 7:00 p.m. at the District headquarters and the agenda was accepted as presented. Present were Directors Jack Baker, Rick Fraites, Stephen Petterle, and John Schoonover. Also present were General Manager Chris DeGabriele, District Secretary Katie Young, Auditor-Controller David Bentley and Chief Engineer Drew McIntyre.

West Marin resident Ronhda Kutter, Novato residents Mike Joly and Gary Butler, District employees Robert Clark (Operations/Maintenance Superintendent) and Tony Arendell (Construction/Maintenance Superintendent) were in the audience.

**MINUTES**

Director Baker asked that the Automated Metering Information be further clarified in the draft minutes of the December 20, 2016 Board of Directors meeting.

On motion of Director Schoonover, seconded by Director Fraites the Board approved the minutes from the previous meeting as modified by the following vote:

AYES: Director Baker, Fraites, Petterle, and Schoonover

NOES: None

**GENERAL MANAGER'S REPORT**

**Water Supply**

Mr. DeGabriele informed the Board that the Russian River water supply looks good entering the New Year. He stated that the water supply pool at Lake Sonoma is full and at Lake Mendocino is at 105% of capacity (encroaching into the flood control pool). Mr. DeGabriele mentioned that the U.S. Army Corps of Engineers is again allowing a temporary deviation into the flood control pool at Lake Mendocino. He informed the Board that locally Stafford Lake is at 55% of capacity, but the watershed is saturated and any rainfall now directly helps Stafford storage.

Director Baker requested an explanation of the flood control and water supply pools in the Russian River Reservoir's be provided at a future meeting.

1 **OPEN TIME**

2 President Petterle asked if anyone in the audience wished to bring up an item not on the  
3 agenda and there was no response.

4 **STAFF / DIRECTORS' REPORTS**

5 President Petterle asked if staff or Directors wished to bring up an item not on the agenda  
6 and the following items were discussed:

7 Mr. McIntyre advised the board that Mountain Cascade Inc., the contractor for the East Side  
8 Recycled Water project had a kick off meeting last Thursday and are expected to begin pipeline  
9 installation in the next couple weeks, weather permitting.

10 Director Petterle requested that Board members contact him regarding committee  
11 assignments.

12 **ACTION CALENDAR**

13 **CONTRACT EXTENSION FOR NMWD TRENCH RESTORATION PAVING**

14 Tony Arendell requested that the Board authorize an extension of the paving contract with  
15 W.K. McLellan Company. He advised the Board that McLellan has been the District's contractor for  
16 trench restoration work since 1997 and the work was last bid in 2007 when McLellan was awarded  
17 the NMWD paving contract. He stated that the proposed pricing by McLellan is 2% less than the  
18 pricing they recently submitted for a similar contract with Marin Municipal Water District. Mr. Arendell  
19 advised that the McLellan price increases are slightly higher than the consumer price index. He  
20 informed the Board that the most significant reason is that projects with a deep lift asphalt paving  
21 require more time for compaction and asphalt oil specifications have changed. He noted that the  
22 estimated cost of the contract in the next fiscal year is \$300K.

23 On motion of Director Fraites, seconded by Director Schoonover the Board authorized the  
24 General Manger to execute a trench restoration paving contract with W.K. McLellan Company based  
25 on unit prices provided by the following vote:

26 AYES: Director Baker, Fraites, Petterle, and Schoonover

27 NOES: None

28 **CONTENT FOR WINTER 2017 BILL INSERT**

29 Mr. DeGabriele advised the Board that staff is proposing a bill insert updating all customers  
30 on the Automated Metering Information Program the District is now embarking upon. He stated that  
31 it's expected that the bill insert will start in mid to late January.

1 Director Fraites opined that it was an excellent idea and applauded staff's efforts.

2 On motion of Director Fraites, seconded by Director Baker the Board authorized the General  
3 Manager to approve final content and layout for the winter 2017 bill insert by the following vote:

4 AYES: Director Baker, Fraites, Petterle, and Schoonover

5 NOES: None

6 **INFORMATION ITEMS**

7 **SUMMARY OF DANISH WATER TECHNOLOGY ALLIANCE FACT FINDING TOUR**

8 Robert Clark made a presentation to the Board summarizing his recent Water Technology  
9 Alliance Fact Finding trip to Denmark. He advised the Board that the tour participants included  
10 ACWA and AWWA senior staff members and staff from Inland Empire Utilities, County of San Luis  
11 Obispo, Tulare County, East Bay MUD, SCWA and Prescott, Wisconsin. Robert provided an  
12 overview of the technology and policies implemented in Denmark and identified seven areas NMWD  
13 may be able to look into including: improved coordination with Novato Sanitary District in Novato and  
14 the smaller water systems in West Marin, better utilization of water system data for operation  
15 optimization, creation of District metered areas in Novato to coordinate with AMI for leak detection,  
16 partnering with Marin Clean Energy and Novato Sanitary District for energy production, working with  
17 Novato Sanitary District and residents to reduce I&I along Center Rd to allow STP discharges in  
18 winter months, collaborate in regional (Bay Area) efforts to improve management and water cycle  
19 education.

20 **NBWA MEETING – JANUARY 6, 2017**

21 Mr. DeGabriele advised the Board that the North Bay Water Association Meeting agenda  
22 packet had the wrong location for the meeting this Friday, January 6<sup>th</sup>. He stated that the meeting  
23 will be held it is at Novato Sanitary District.

24 **TAC MEETING – JANUARY 9, 2017**

25 Mr. DeGabriele provided the Board with the agenda for the Technical Advisory Committee  
26 meeting next Monday. He advised the Board that included with the agenda packet is a  
27 memorandum from Mike Healy advising that the Water Advisory Committee has a Vice-Chair  
28 vacancy.

29 **MISCELLANEOUS**

30 The Board received the following miscellaneous information: Disbursements, Update – Bill  
31 Payment Options, SWRCB – Correction to Order for Additional Information, Save the Date –

1 January 30, 2017 Shaping the future of ABAG, Marin LAFCo Notice of Special Meeting and Agenda  
2 and Think Tank's Infrastructure Plan for U.S. Waterways Emphasizes Dam Removal.

3 The Board received the following news articles: City sets forum on Bel Marin Keys plan and  
4 Notice – NMWD Board Vacancy.

5 The Board also received the following miscellaneous items at the meeting: Proof of  
6 Publication – Notice NMWD Board Vacancy (Pt. Reyes Light) and the following news article: Water  
7 board seeks successor as Rodoni takes county seat.

8 **ADJOURNMENT**

9 President Petterle adjourned the meeting at 7:47 p.m.

10 Submitted by  
11  
12

13  
14 Katie Young  
15 District Secretary

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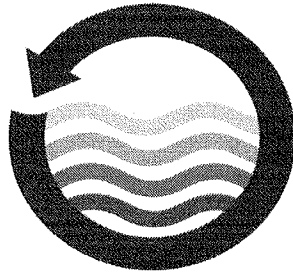


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**5**

# **NORTH MARIN WATER DISTRICT**



## **FINANCIAL STATEMENT FISCAL YEAR 2016-17**

**December 2016**

**NORTH MARIN WATER DISTRICT  
FINANCIAL STATEMENTS  
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## MEMORANDUM

To: Board of Directors  
 From: David L. Bentley, Auditor-Controller  
 Subj: Information – FY16/17 December Financial Statement  
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January 13, 2017

### FISCAL YEAR PERFORMANCE COMPARED TO THE ANNUAL BUDGET

#### CONSOLIDATED SUMMARY

<b>Actual vs. Budget</b>	<b>Dec-16</b>	<b>FYTD 16/17</b>	<b>FY16/17 Budget</b>	<b>FYTD / Budget %</b>
Operating Revenue	\$990,641	\$10,299,455	\$19,648,000	52%
Operating Expense	1,498,694	9,373,668	18,611,000	50%
Non-Operating Revenue / (Expense)	22,397	(146,888)	(458,000)	32%
Net Income / (Loss)	(\$485,656)	\$778,900	\$579,000	135%
Other Sources / (Uses)*	(171,571)	52,750	(1,060,000)	-
Cash Increase / (Decrease)	(\$657,227)	\$831,651	(\$481,000)	-

\* See Page 8.

For the first half of the fiscal year the District generated a net income of \$778,900 and saw a net cash increase of \$831,651. On a seasonally adjusted basis, Operating Revenue came in 4% under budget and Operating Expense came in 3% under budget. Twelve percent of the Capital Improvement Projects Budget has been expended this fiscal year-to-date. At December 31 Caltrans owed the District \$595,443 for the AEEP, and \$2,340,253 in loan and grant funds was owed the District for the Recycled Water Distribution System expansion to Central Novato.

### SUMMARY INCOME STATEMENTS BY SERVICE AREA PRESENTED IN ACCORDANCE WITH GENERALLY ACCEPTED ACCOUNTING PRINCIPALS

#### NOVATO WATER

<b>Year over Year Comparison</b>	<b>Dec-16</b>	<b>FYTD 16/17</b>	<b>FYTD 15/16</b>	<b>FY17 vs 16 Up/(Down)</b>
Operating Revenue	\$911,974	\$9,321,006	\$8,360,904	11%
Operating Expense	1,328,942	8,503,185	7,712,638	10%
Other Income / (Expense)	(22,155)	(102,398)	(173,972)	(41%)
Net Income / (Loss)	(\$439,122)	\$715,424	\$474,294	51%
Active Accounts	20,536	20,536	20,524	0%
Consumption (MG)	118	1,309	1,204	9%
Average Commodity Rate / 1,000 gal (net)	\$5.13	\$5.42	\$5.09	7%
Income / (Loss) / Active Account	(\$21.38)	\$34.84	\$23.11	51%
Income / (Loss) / 1,000 Gal	(\$3.72)	\$0.55	\$0.39	39%
Connection Fee Revenue	\$0	\$201,185	\$177,800	13%
Caltrans Capital Contribution	\$5,600	\$16,744	\$2,359,979	(99%)
MMWD AEEP Capital Contribution	\$0	\$245,000	\$245,000	0%
Developer 'In-Kind' Contributions	\$17,659	\$266,747	\$202,809	32%

Consumption for the fiscal year-to-date was 9% more than the prior year same period. Total operating revenue, which includes wheeling and other miscellaneous service charges, increased 11% (\$960,103) from the prior year same period due to the consumption increase and the June 1, 2016 5% rate increase. Total operating expense was 10% (\$790,547) more than last year same period.

The Stafford Treatment Plant produced 415 MG this fiscal year-to-date at a cost of \$2,616/MG<sup>1</sup> versus \$2,547/MG<sup>3</sup> from SCWA. The budget for Stafford is 750 MG at a cost of \$2,820/MG.

#REF!

The fiscal year-to-date net income (which includes non-operating items such as interest revenue and expense) of \$715,424 compares to a budgeted net income for the year of \$755,000 and to a net income of \$474,294 for the prior year same period. \$415,221 (5%) of the Novato Water Capital Improvement Project Budget was spent versus \$3,731,256 (41%) for the prior year same period. \$201,185 in connection fees have been collected (\$779,000 is budgeted). Connection Fee reserves totaling \$644,251 have been transferred this fiscal year-to-date to the Recycled Water Fund to cover the debt service for expansion of the RW distribution system. The Novato Connection Fee Reserve has a deficit of \$5,288,069 arising from transfers to the RW Fund in advance of Connection Fee receipts. That deficit will be reimbursed by future Connection Fee revenue. The Novato cash balance decreased \$355,955 in December, and stood at \$11,472,377 at month end, compared to a budgeted projection of \$10,100,000 at June 30, 2017. The cash decrease is due primarily to the \$574,000 annual payment for the SRF loan for STP.

<b>NOVATO RECYCLED</b>		FYTD	FYTD	FY17 vs 16
<b>Year over Year Comparison</b>	<b>Dec-16</b>	<b>16/17</b>	<b>15/16</b>	<b>Up/(Down)</b>
Operating Revenue	\$16,281	\$462,480	\$422,319	10%
Operating Expense	73,879	426,570	402,594	6%
Other Income / (Expense)	(7,308)	(97,708)	(142,864)	(32%)
Net Income / (Loss)	<u>(\$64,906)</u>	<u>(\$61,798)</u>	<u>(\$123,139)</u>	(50%)
Active Accounts	44	44	44	0%
Consumption (MG)	2.0	84.5	82.8	2%
Average Commodity Rate / 1,000 gal (net)	\$5.26	\$5.26	\$4.92	7%
Deer Island Production (MG)	0.0	6.2	6.2	0%
Novato Sanitary Production (MG)	0.0	51.4	51.0	1%
Las Gallinas Production (MG)	0.4	28.9	25.8	12%
Potable Water Input (MG)	(0.0)	0.1	6.9	(99%)

84.5 MG was delivered to RW customers this fiscal year-to-date, 2% more than the prior year same period. Operating revenue was 10% more than last year same period due to the consumption increase and the June 1, 2016 7% commodity rate increase. Total operating expense was \$23,976 (6%) more than the prior year same period, and includes \$22,000 of paving on Olive Avenue in December. The recycled water was produced at a cost of \$2,116/MG<sup>2</sup> versus \$2,547/MG<sup>3</sup> from SCWA. The budgeted production cost of recycled water is \$3,035/MG.

The fiscal year-to-date net loss of \$61,798 compares to a budgeted net loss for the year of \$300,000 and a net loss of \$123,139 for the prior year same period. \$1,502,928 (20%) of the Capital Improvement Project Budget has been expended this fiscal year-to-date. The Novato Recycled cash balance decreased \$466,363 in December, and stood at \$614,299 at month end, compared to a budgeted projection of \$1,505,000 at June 30, 2017. At December 31 the SWRCB owed the District \$2,340,253 in loan and grant funds for the Recycled Water Distribution System expansion to Central Novato.

<sup>1</sup> Stafford production cost = TP op expense (\$666,426) + SRF loan interest (\$139,858) + plant depreciation (\$279,374) / 415 MG produced

<sup>2</sup> Recycled Water production cost = purchase water cost (\$79,392) + treatment expense (\$3,822) + Deer Island RW Facility SRF loan interest (\$31,681) + Deer Island plant depreciation (\$68,339) / 86.6 MG produced

<sup>3</sup> SCWA production cost per MG = O&M charge (\$2,123) + debt service charge (\$157) + Russian River conservation charge (\$228) + Russian River projects charge (\$40)

### **WEST MARIN WATER**

<b>Year over Year Comparison</b>	<b>Dec-16</b>	<b>FYTD 16/17</b>	<b>FYTD 15/16</b>	<b>FY17 vs 16 Up/(Down)</b>
Operating Revenue	\$44,367	\$407,488	\$390,953	4%
Operating Expense	66,150	339,109	300,685	13%
Other Income / (Expense)	24,217	21,599	9,747	122%
Net Income / (Loss)	<u>\$2,434</u>	<u>\$89,977</u>	<u>\$100,015</u>	(10%)
Active Accounts	781	781	778	0%
Consumption (MG)	3.8	34.2	32.2	6%
Average Commodity Rate / 1,000 gal (net)	\$7.67	\$9.36	\$9.41	(1%)
Income/ (Loss) / Active Account	\$3.12	\$115.21	\$128.55	(10%)
Income / (Loss) / 1,000 Gal	\$0.64	\$2.63	\$3.11	(15%)
Connection Fee Revenue	\$0	\$8,000	\$0	-
Developer 'In-Kind' Contributions	\$0	\$0	\$13,632	-

Consumption through December was 34.2 MG, 6% more than the prior year same period. Operating revenue of \$407,488 was \$16,535 (4%) more than last year primarily due to the consumption increase and the 5% rate increase effective July 1, 2016, offset by a large (154%) increase in bill adjustments.

Operating expenditures were \$339,109, 13% more than the previous year same period. The fiscal year-to-date net income of \$89,977 compares to a budgeted annual net income of \$73,000 and to a net income of \$100,015 for the prior year same period. \$14,525 (2%) of the Capital Improvement Project Budget has been expended this fiscal year-to-date, and \$8,000 in connection fees have been collected (\$23,000 is budgeted). The West Marin Water cash balance increased \$72,181 in December, and stood at \$1,346,000 at month end, compared to a budgeted projection of \$732,000 at June 30, 2017.

### **OCEANA MARIN SEWER**

<b>Year over Year Comparison</b>	<b>Dec-16</b>	<b>FYTD 16/17</b>	<b>FYTD 15/16</b>	<b>FY17 vs 16 Up/(Down)</b>
Operating Revenue	\$18,018	\$108,482	\$97,854	11%
Operating Expense	29,723	104,803	122,289	(14%)
Other Income / (Expense)	27,643	31,619	36,534	(13%)
Net Income / (Loss)	<u>\$15,938</u>	<u>\$35,297</u>	<u>\$12,099</u>	192%
Active Accounts	231	231	229	1%
Monthly Sewer Service Charge	\$78	\$78	\$71	10%
Income / (Loss) / Active Account	\$69.00	\$152.80	\$52.83	-
Connection Fee Revenue	\$0	\$30,400	\$23,690	28%

Operating revenue of \$108,482 was 11% more than the previous year same period due to the 10% rate increase effective July 1, 2016. Operating expenditures were 14% (\$17,486) lower than the previous year same period. The fiscal year-to-date net income of \$35,297 compares to a budgeted annual income of \$51,000 and to a net income of \$12,099 for the prior year same period. 63% of the Capital Improvement Project Budget has been expended this fiscal year-to-date.

\$30,400 in connection fees have been collected (\$30,000 is budgeted). The Oceana Marin cash balance increased \$92,912 in December, due to collection of \$146,016 in sewer service charges and OM1/OM2 tax allocation with first half property tax payments, and stood at \$431,079 at month end, compared to a budgeted projection of \$327,000 at June 30, 2017.



**NORTH MARIN WATER DISTRICT  
STATEMENT OF NET POSITION  
FOR THE PERIOD ENDING DECEMBER 31, 2016**

	<b>TOTAL</b>	<b>NOVATO WATER</b>	<b>NOVATO RECYCLED</b>	<b>WEST MARIN WATER</b>	<b>OCEANA MARIN SEWER</b>
<b>ASSETS</b>					
<b>Cash &amp; Investments</b>					
Unrestricted/Undesignated Cash	\$586,953	\$0	\$0	\$222,760	\$364,193
<b>Restricted Cash</b> (Note 1)					
Connection Fee Fund	\$95,647	\$0	\$0	\$95,647	\$0
Wohler Pipeline Financing Fund	405,117	405,117	0	0	0
Collector #6 Financing Fund	1,592,817	1,592,817	0	0	0
Revenue Bond Redemption Fund	30,000	0	0	30,000	0
Bank of Marin Project Fund	694,875	37,188	0	657,688	0
Deer Island RWF Replacement Fund	0	0	0	0	0
Capital Replacement & Expansion Fund	0	0	0	0	0
Tax Receipts Held in Marin Co Treasury	390	0	0	388	3
STP SRF Loan Fund-Marín Co Treasury	788,841	788,841	0	0	0
RWS North/South SRF Payment Fund	614,299	0	614,299	0	0
<b>Designated Cash</b> (Note 2)					
Liability Contingency Fund	922,285	823,400	0	98,885	0
Self-Insured Workers' Compensation Fund	610,975	583,973	0	20,119	6,883
Retiree Medical Benefits Fund	3,745,221	3,745,221	0	0	0
Maintenance Accrual Fund	3,513,216	3,513,216	0	0	0
Conservation Incentive Rate Fund	40,845	0	0	40,845	0
Operating Reserve Fund	239,667	0	0	179,667	60,000
<b>Total Cash</b>	<b>\$13,881,148</b>	<b>\$11,489,771</b>	<b>\$614,299</b>	<b>\$1,346,000</b>	<b>\$431,079</b>
Gain/(Loss) on MV of Investments	(17,395)	(17,395)	0	0	0
<b>Market Value of Cash &amp; Investments</b>	<b>\$13,863,754</b>	<b>\$11,472,377</b>	<b>\$614,299</b>	<b>\$1,346,000</b>	<b>\$431,079</b>
<b>Current Assets</b>					
Net Receivables - Consumers	\$590,713	\$567,197	\$7,715	\$25,700	(\$9,898)
Accrued Water Sales	1,351,421	1,320,272	10,064	21,085	0
Accounts Receivable-Other	852,003	638,310	106,209	0	107,484
RWS Central Expansion SRF Loan Rec	1,216,932	0	1,216,932	0	0
RWS Central Expansion Grant Rec	1,123,322	0	1,123,322	0	0
Prepaid Expense	301,104	299,441	0	0	1,664
Reimbursable Small Jobs	9,691	6,427	0	3,264	0
Interest Receivable	27,569	27,569	0	0	0
Inventories	449,004	449,004	0	0	0
Deposits Receivable	23,791	23,791	0	0	0
<b>Total Current Assets</b>	<b>\$5,945,550</b>	<b>\$3,332,010</b>	<b>\$2,464,242</b>	<b>\$50,049</b>	<b>\$99,249</b>

**NORTH MARIN WATER DISTRICT  
STATEMENT OF NET POSITION  
FOR THE PERIOD ENDING DECEMBER 31, 2016**

	<b>TOTAL</b>	<b>NOVATO WATER</b>	<b>NOVATO RECYCLED</b>	<b>WEST MARIN WATER</b>	<b>OCEANA MARIN SEWER</b>
<b>Loans Receivable</b>					
Employee Loans (Note 3)	\$934,200	\$934,200	\$0	\$0	\$0
Other Long Term Receivables (Note 4)	1,518,888	0	1,518,888	0	0
<b>Loans Receivable</b>	<b>\$2,872,770</b>	<b>\$1,353,882</b>	<b>\$1,518,888</b>	<b>\$0</b>	<b>\$0</b>
<b>Property and Plant</b>					
Land & Land Rights	\$1,473,091	\$1,368,872	\$0	\$103,411	\$808
Dam, Lake, & Source Facilities	5,574,033	5,081,621	0	492,412	0
Treatment Facilities	21,082,445	17,561,535	2,666,198	319,913	534,799
Storage Facilities	20,883,812	18,278,550	519,014	2,086,249	0
Transmission Facilities (16"+)	24,108,078	23,985,755	0	122,324	0
Distribution and Pumping Facilities	83,126,960	60,055,788	17,266,234	5,804,939	0
Sewer Mains, Pumps, & Laterals	1,186,758	0	0	0	1,186,758
<b>Sub-Total</b>	<b>\$157,435,178</b>	<b>\$126,332,120</b>	<b>\$20,451,445</b>	<b>\$8,929,248</b>	<b>\$1,722,365</b>
Less Accumulated Depreciation (Note 5)	(48,674,437)	(41,699,251)	(2,572,400)	(3,452,023)	(950,764)
<b>Net Property and Plant</b>	<b>\$108,760,740</b>	<b>\$84,632,869</b>	<b>\$17,879,045</b>	<b>\$5,477,225</b>	<b>\$771,601</b>
<b>Buildings and Equipment (Note 6)</b>					
Buildings	\$1,902,893	\$1,902,893	\$0	\$0	\$0
Office Equipment	705,998	705,998	0	0	0
Laboratory Equipment	253,593	253,593	0	0	0
Trucks & Automobiles	1,219,009	1,219,009	0	0	0
Construction Equipment	790,971	790,971	0	0	0
Tools, Shop Equipment	231,073	231,073	0	0	0
<b>Sub-Total</b>	<b>\$5,103,537</b>	<b>\$5,103,537</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Less Accumulated Depreciation (Note 5)	(3,913,885)	(3,913,885)	0	0	0
<b>Net Buildings and Equipment</b>	<b>\$1,189,652</b>	<b>\$1,189,652</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Construction In Progress</b>					
Developer	\$553,169	\$536,671	\$0	\$12,096	\$4,402
District	4,303,092	1,286,083	2,633,118	244,031	139,860
<b>Total Construction in Progress</b>	<b>\$4,856,261</b>	<b>\$1,822,754</b>	<b>\$2,633,118</b>	<b>\$256,127</b>	<b>\$144,262</b>
<b>Net Utility Plant</b>	<b>\$114,806,653</b>	<b>\$87,645,275</b>	<b>\$20,512,163</b>	<b>\$5,733,352</b>	<b>\$915,863</b>
<b>Deferred Outflow of Resources</b>	<b>\$1,354,255</b>	<b>\$1,354,255</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>TOTAL ASSETS</b>	<b>\$138,842,982</b>	<b>\$105,157,798</b>	<b>\$25,109,591</b>	<b>\$7,129,401</b>	<b>\$1,446,191</b>

**NORTH MARIN WATER DISTRICT  
STATEMENT OF NET POSITION  
FOR THE PERIOD ENDING DECEMBER 31, 2016**

	<b>TOTAL</b>	<b>NOVATO WATER</b>	<b>NOVATO RECYCLED</b>	<b>WEST MARIN WATER</b>	<b>OCEANA MARIN SEWER</b>
<b>LIABILITIES AND NET ASSETS</b>					
<b>Current Liabilities</b>					
Trade Accounts Payable	\$1,941,529	\$1,832,208	\$107,907	\$0	\$1,414
Reimbursement Prog. Unclaimed Funds	6,440	6,440	0	0	0
Bond Debt Principal Payable-Current	22,000	0	0	22,000	0
Loan Debt Principal Payable-Current	1,432,276	798,423	631,890	1,964	0
Bank of Marin Principal Payable-Current	338,329	295,023	0	43,306	0
Bond/Loan Debt Interest Payable-Current	1,109	436	0	673	0
Accrued Interest Payable-SRF Loan	72,440	1,091	71,349	0	0
Deposits/Performance Bonds	200,933	177,901	0	20,032	3,000
Unemployment Insurance Reserve (Note 8)	21,282	21,282	0	0	0
Workers' Comp Future Claims Payable	13,370	12,434	348	441	147
Payroll Benefits (Note 9)	913,365	848,871	22,873	31,216	10,405
Due To Other Funds (Note 10)	419,682	0	419,682	0	0
Deferred Revenue	111,008	2,900	0	0	108,108
<b>Total Current Liabilities</b>	<b>\$5,493,763</b>	<b>\$3,997,009</b>	<b>\$1,254,048</b>	<b>\$119,632</b>	<b>\$123,074</b>
<b>Restricted Liabilities</b>					
Construction Advances	\$262,303	\$248,438	\$10,000	\$3,000	\$865
<b>Total Restricted Liabilities</b>	<b>\$262,303</b>	<b>\$248,438</b>	<b>\$10,000</b>	<b>\$3,000</b>	<b>\$865</b>
<b>Long Term Liabilities (Note 7)</b>					
Bonds Outstanding - PR6 (FmHA)	\$46,000	\$0	\$0	\$46,000	\$0
Bonds Outstanding - PRE1 (FmHA)	38,000	0	0	38,000	0
STP Rehab SRF Loan	10,448,030	10,448,030	0	0	0
RWF SRF Loan	2,404,935	0	2,404,935	0	0
RWS North/South Expansion SRF Loan	7,696,032	0	7,696,032	0	0
RWS Central Expansion SRF Loan	1,216,932	0	1,216,932	0	0
Bank of Marin Loan	6,086,356	5,307,303	0	779,054	0
Net Pension Liability @ 6/30/15 (Note 16)	8,619,837	8,619,837	0	0	0
Retiree Health Benefits Payable (Note 2)	1,042,132	1,042,132	0	0	0
<b>Total Long Term Liabilities</b>	<b>\$37,598,254</b>	<b>\$25,417,302</b>	<b>\$11,317,898</b>	<b>\$863,054</b>	<b>\$0</b>
<b>Deferred Inflow of Resources</b>	<b>806,744</b>	<b>806,744</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL LIABILITIES</b>	<b>\$44,161,064</b>	<b>\$30,469,493</b>	<b>\$12,581,946</b>	<b>\$985,686</b>	<b>\$123,939</b>

**NORTH MARIN WATER DISTRICT  
STATEMENT OF NET POSITION  
FOR THE PERIOD ENDING DECEMBER 31, 2016**

	<b>TOTAL</b>	<b>NOVATO WATER</b>	<b>NOVATO RECYCLED</b>	<b>WEST MARIN WATER</b>	<b>OCEANA MARIN SEWER</b>
<b>Net Assets</b>					
<b>Invested in Capital Assets</b>					
Contributions in Aid of Construction	\$76,705,205	\$69,782,975	\$4,104,370	\$2,138,348	\$679,511
Grants in Aid of Construction	8,218,524	341,046	5,050,292	2,827,187	0
Connection Fees	32,463,459	24,853,840	5,794,091	1,268,369	547,158
<b>Total Investment</b>	<b>\$117,387,188</b>	<b>\$94,977,861</b>	<b>\$14,948,753</b>	<b>\$6,233,904</b>	<b>\$1,226,669</b>
<b>Restricted Reserves</b>					
Connection Fee Fund	(\$5,226,612)	(\$5,288,069)	\$0	\$95,647	(\$34,190)
Wohler Pipeline Financing Fund	405,117	405,117	0	0	0
Collector #6 Financing Fund	1,592,817	1,592,817	0	0	0
Revenue Bond Redemption Fund	30,000	0	0	30,000	0
Bank of Marin Project Fund	694,875	37,188	0	657,688	0
Deer Island RWF Replacement Fund	1,164,347	0	1,164,347	0	0
Capital Replacement & Expansion Fund	1,198,480	0	1,198,480	0	0
RWS North/South SRF Payment Fund	614,299	0	614,299	0	0
<b>Designated Reserves</b>					
Liability Contingency Fund	922,285	823,400	0	98,885	0
Maintenance Accrual Fund	4,265,681	4,265,681	0	0	0
Self-Insured Workers' Compensation Fund	608,606	574,540	10,653	19,677	3,736
Retiree Medical Benefits Fund	2,703,080	2,703,080	0	0	0
Conservation Incentive Rate Fund	40,845	0	0	40,845	0
Operating Reserve Fund	239,667	0	0	179,667	60,000
Earned Surplus - Prior Yrs	(33,167,164)	(26,598,907)	(5,319,452)	(1,276,476)	27,672
Net Income/(Loss)	778,900	715,424	(61,798)	89,977	35,297
Prior Period Adjustment	(215,031)	(247,077)	32,047	0	0
Transfer (To)/From Reserves (see below)	644,537	727,252	(59,684)	(26,099)	3,068
<b>Total Restricted &amp; Designated</b>	<b>(\$22,705,270)</b>	<b>(\$20,289,556)</b>	<b>(\$2,421,109)</b>	<b>(\$90,189)</b>	<b>\$95,583</b>
<b>TOTAL NET POSITION</b>	<b>\$94,681,918</b>	<b>\$74,688,305</b>	<b>\$12,527,645</b>	<b>\$6,143,715</b>	<b>\$1,322,252</b>
<b>Transfer (To)/From Reserves</b>					
Connection Fee	792,184	792,908	0	(656)	(69)
Maintenance Reserve	(50,000)	(50,000)	0	0	0
RWF Replacement Fund	(59,947)	0	(59,947)	0	0
Capital Replacement & Expansion Fund	(96)	0	(96)	0	0
Retiree Medical Insurance Fund	(25,632)	(25,632)	0	0	0
(Gain)/Loss Self-Insured WC Fund	12,446	8,536	359	414	3,137
Bank of Marin Project Fund	(3,089)	1,440	0	(4,529)	0
Conservation Incentive Rate Fund	(4,994)	0	0	(4,994)	0
Operating Reserve Fund	(16,335)	0	0	(16,335)	0
<b>Total Transfer</b>	<b>\$644,537</b>	<b>\$727,252</b>	<b>(\$59,684)</b>	<b>(\$26,099)</b>	<b>\$3,068</b>

**NORTH MARIN WATER DISTRICT**  
**SOURCES AND USES OF FUNDS STATEMENT - ALL SERVICE AREAS COMBINED**  
**FOR THE PERIOD ENDING DECEMBER 31, 2016**

	YTD Actual	Annual Budget	YTD/ Budget %	Prior YTD Actual
<b>OPERATING REVENUE</b>				
Water Sales	\$7,864,093	\$14,751,000	53%	\$6,836,033
Bimonthly Service Charge	2,167,268	4,336,000	50%	2,165,919
Sewer Service Charge	107,882	214,000	50%	97,554
Wheeling & Misc Service Charges	160,213	347,000	46%	172,523
<b>TOTAL OPERATING REVENUE</b>	<b>\$10,299,455</b>	<b>\$19,648,000</b>	<b>52%</b>	<b>\$9,272,030</b>
<b>OPERATING EXPENDITURES</b>				
Source of Supply	\$3,023,564	\$4,869,000	62%	\$2,449,467
Pumping	195,227	366,000	53%	145,448
Operations	418,216	843,000	50%	376,104
Water Treatment	1,120,567	2,223,000	50%	948,228
Sewer Service	69,392	141,000	49%	85,233
Transmission & Distribution	1,495,117	3,272,000	46%	1,288,674
Consumer Accounting	308,075	653,000	47%	311,562
Water Conservation	164,747	480,000	34%	212,652
General & Administrative	866,676	2,247,000	39%	1,073,620
Depreciation	1,712,087	3,517,000	49%	1,647,217
<b>TOTAL OPERATING EXPENDITURES</b>	<b>\$9,373,668</b>	<b>\$18,611,000</b>	<b>50%</b>	<b>\$8,538,205</b>
<b>NET OPERATING INCOME (LOSS)</b>	<b>\$925,788</b>	<b>\$1,037,000</b>	<b>89%</b>	<b>\$733,824</b>
<b>NON-OPERATING REVENUE/(EXPENSE)</b>				
Tax Proceeds	\$55,886	\$100,000	56%	\$51,099
Interest Revenue	78,530	105,000	75%	59,425
Miscellaneous Revenue	106,390	136,000	78%	98,170
Bond & Loan Interest Expense	(385,599)	(779,000)	49%	(408,582)
Miscellaneous Expense	(2,094)	(20,000)	10%	(70,668)
<b>TOTAL NON-OP REVENUE/(EXPENSE)</b>	<b>(\$146,888)</b>	<b>(\$458,000)</b>	<b>32%</b>	<b>(\$270,556)</b>
<b>NET INCOME/(LOSS)</b>	<b>\$778,900</b>	<b>\$579,000</b>	<b>135%</b>	<b>\$463,268</b>
<b>OTHER SOURCES/(USES) OF FUNDS</b>				
Add Depreciation Expense	\$1,712,087	\$3,517,000	49%	\$1,647,217
Connection Fees	239,585	832,000	29%	201,490
Loan Proceeds	0	11,487,000	0%	0
Grant Proceeds	677,188	1,500,000	45%	19,124
Caltrans AEEP Capital Contribution	16,744	0	-	2,359,979
StoneTree RWF Loan Principal	104,944	212,000	50%	102,460
MMWD AEEP Capital Contribution	245,000	245,000	100%	245,000
Capital Equipment Expenditures	(7,135)	(245,000)	3%	0
Capital Improvement Projects	(2,064,553)	(16,856,000)	12%	(4,319,229)
Bond & Loan Principal Payments	(926,922)	(1,752,000)	53%	(902,486)
Change in Working Capital	55,812	0	-	(2,230,895)
<b>TOTAL OTHER SOURCES/(USES)</b>	<b>\$52,750</b>	<b>(\$1,060,000)</b>	<b>-</b>	<b>(\$2,877,341)</b>
<b>CASH INCREASE/(DECREASE)</b>	<b>\$831,650</b>	<b>(\$481,000)</b>	<b>-</b>	<b>(\$2,414,073)</b>

**NORTH MARIN WATER DISTRICT  
INCOME STATEMENT AND CASH FLOW BY SERVICE AREA  
FOR THE PERIOD ENDING DECEMBER 31, 2016**

<b>SUMMARY INCOME STATEMENT</b>	<b>TOTAL</b>	<b>NOVATO WATER</b>	<b>NOVATO RECYCLED</b>	<b>WEST MARIN WATER</b>	<b>OCEANA MARIN SEWER</b>
Operating Revenue	\$10,299,455	\$9,321,006	\$462,480	\$407,488	\$108,482
Operating Expense	9,373,668	8,503,185	426,570	339,109	104,803
<b>OPERATING INCOME/(LOSS)</b>	<b>\$925,788</b>	<b>\$817,822</b>	<b>\$35,910</b>	<b>\$68,378</b>	<b>\$3,678</b>
Non-Operating Revenue/(Expense)	(146,888)	(102,398)	(97,708)	21,599	31,619
<b>NET INCOME/(LOSS)</b>	<b>\$778,900</b>	<b>\$715,424</b>	<b>(\$61,798)</b>	<b>\$89,977</b>	<b>\$35,297</b>

**CAPITAL CONTRIBUTIONS**

SCWA Prop 84 Water Conserv Grant	\$16,156	\$16,156	\$0	\$0	\$0
RW Central Area Expansion Grant	661,032	0	661,032	\$0	\$0
Developer In-Kind Contributions	266,747	266,747	0	0	0
Caltrans AEEP Capital Contributions	16,744	16,744	0	0	0
MMWD Capital Contribution	245,000	245,000	0	0	0
Connection Fees	239,585	201,185	0	8,000	30,400
FRC Transfer	0	(644,251)	644,251	0	0

<b>CAPITAL CONTRIBUTIONS</b>	<b>\$1,445,264</b>	<b>\$101,581</b>	<b>\$1,305,284</b>	<b>\$8,000</b>	<b>\$30,400</b>
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<b>CHANGE IN NET POSITION</b>	<b>\$2,009,134</b>	<b>\$569,927</b>	<b>\$1,275,533</b>	<b>\$97,977</b>	<b>\$65,697</b>
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Net Position June 30, 2016	92,672,784	74,118,378	11,252,112	6,045,738	1,256,555
Net Position December 31, 2016	<u>\$94,681,918</u>	<u>\$74,688,305</u>	<u>\$12,527,645</u>	<u>\$6,143,715</u>	<u>\$1,322,252</u>

**CASH FLOW STATEMENT**

Net Income/(Loss)	\$778,900	\$715,424	(\$61,798)	\$89,977	\$35,297
Add Depreciation	1,712,087	1,357,417	236,007	96,323	22,339
<b>Cash Generated From Operations</b>	<b>\$2,490,987</b>	<b>\$2,072,841</b>	<b>\$174,210</b>	<b>\$186,300</b>	<b>\$57,636</b>

**Other Sources (Uses) of Funds**

Connection Fee Revenue	\$239,585	\$201,185	\$0	\$8,000	\$30,400
Loan Proceeds	0	0	0	0	0
Grant Proceeds	677,188	16,156	661,032	0	0
Capital Assets Acquisition	(2,071,688)	(422,356)	(1,502,928)	(14,525)	(131,879)
Caltrans AEEP Capital Contribution	16,744	16,744	0	0	0
StoneTree RWF Loan Principal Pmts	104,944	0	104,944	0	0
MMWD AEEP Capital Contribution	245,000	245,000	0	0	0
Principal Paid on Debt	(926,922)	(543,976)	(349,357)	(33,589)	0
Consumer Receivables Decr (Incr)	1,334,296	1,018,758	233,150	69,674	12,714
Construction Advances (Decr) Incr	80,223	77,223	0	3,000	0
Other Assets/Liabilities Decr (Incr)	(1,236,640)	(556,054)	(669,560)	(9,571)	(1,455)
Trade Accounts Payable (Decr) Incr	(122,067)	(197,928)	75,861	0	0
Connection Fee Transfer	0	(644,251)	644,251	0	0
<b>Total Other Sources (Uses)</b>	<b>(\$1,659,336)</b>	<b>(\$1,209,181)</b>	<b>(\$382,924)</b>	<b>\$22,989</b>	<b>(\$90,220)</b>

<b>Net Cash Provided (Used)</b>	<b>\$831,651</b>	<b>\$863,661</b>	<b>(\$208,715)</b>	<b>\$209,289</b>	<b>(\$32,584)</b>
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<b>MV Cash &amp; Investments June 30, 2016</b>	<b>13,032,102</b>	<b>10,608,716</b>	<b>823,013</b>	<b>1,136,711</b>	<b>463,662</b>
<b>MV Cash &amp; Investments Dec 31, 2016</b>	<u><b>\$13,863,754</b></u>	<u><b>\$11,472,377</b></u>	<u><b>\$614,299</b></u>	<u><b>\$1,346,000</b></u>	<u><b>\$431,079</b></u>

**NOVATO WATER**  
**DETAIL INCOME STATEMENT**  
**FOR THE PERIOD ENDING DECEMBER 31, 2016**

	DECEMBER 2016	YEAR TO DATE ACTUAL	YTD/ BUDGET%	PRIOR YTD ACTUAL
<b>OPERATING REVENUE</b>				
Water Sales	\$616,639	\$7,186,469	53%	\$6,157,039
Bill Adjustments	(11,296)	(90,206)	129%	(32,102)
Bimonthly Service Charges	282,989	2,068,459	50%	2,067,219
Account Turn-on Charges	4,670	32,431	43%	40,780
New Account Charges	475	3,890	49%	4,900
Returned Check Charges	162	1,087	109%	675
Hydrant Meter Up/Down Charges	0	1,000	-	200
Backflow Service Charges	10,438	66,451	50%	65,167
Lab Service-Outside Clients	1,791	14,334	53%	20,236
Wheeling Charges - MMWD	6,106	37,092	42%	36,790
Regulation 15 Forfeiture	0	0	0%	0
<b>TOTAL OPERATING REVENUE</b>	<b>\$911,974</b>	<b>\$9,321,006</b>	<b>52%</b>	<b>\$8,360,904</b>
<b>TOTAL EXPENDITURES</b>				
<b>SOURCE OF SUPPLY</b>				
Supervision & Engineering	\$243	\$5,440	30%	\$4,054
Operating Expense - Source	274	5,908	59%	5,312
Maint/Monitoring of Dam	114	19,997	32%	10,585
Maint of Lake & Intakes	0	5,186	37%	15
Maint of Structures	0	0	0%	0
Maint of Watershed	0	29,737	114%	12,082
Water Quality Surveillance	0	442	2%	1,239
Fishery Maint	0	0	0%	1,192
Erosion Control	0	550	27%	0
Purchased Water	449,518	2,866,569	64%	2,308,520
<b>SOURCE OF SUPPLY</b>	<b>\$450,149</b>	<b>\$2,933,830</b>	<b>63%</b>	<b>\$2,342,999</b>
<b>PUMPING</b>				
Operating Expense - Pumping	\$0	\$0	0%	\$0
Maint of Structures & Grounds	3,147	18,090	53%	10,278
Maint of Pumping Equipment	1,236	9,456	14%	5,567
Electric Power	11,866	142,501	65%	112,255
<b>PUMPING</b>	<b>\$16,249</b>	<b>\$170,047</b>	<b>53%</b>	<b>\$128,100</b>
<b>OPERATIONS</b>				
Supervision & Engineering	\$20,294	\$121,345	74%	\$121,872
Operating Expense - Operations	25,877	157,580	39%	143,228
Maintenance Expense	2,050	18,366	23%	13,110
Telemetry Equipment/Controls Maint	14,697	50,746	61%	25,817
Leased Lines	1,529	9,232	54%	9,362
<b>OPERATIONS</b>	<b>\$64,447</b>	<b>\$357,269</b>	<b>48%</b>	<b>\$313,388</b>

**NOVATO WATER**  
**DETAIL INCOME STATEMENT**  
**FOR THE PERIOD ENDING DECEMBER 31, 2016**

	DECEMBER 2016	YEAR TO DATE ACTUAL	YTD/ BUDGET%	PRIOR YTD ACTUAL
<b>WATER TREATMENT</b>				
Supervision & Engineering	\$9,600	\$70,297	76%	\$64,032
Operating Expense - Water Treatment	2,158	211,145	71%	177,520
Purification Chemicals	459	127,128	30%	108,839
Sludge Disposal	9,745	65,619	78%	42,108
Maint of Structures & Grounds	11,964	35,221	40%	21,295
Maint of Purification Equipment	32,785	93,026	59%	74,583
Electric Power	6,865	63,990	48%	55,859
Water Quality Programs	13,155	63,538	61%	57,134
Laboratory Direct Labor	35,461	204,647	53%	167,888
Lab Service-Outside Clients	910	19,582	26%	20,707
Water Quality Supervision	7,848	47,175	60%	37,077
Laboratory Supplies & Expense	3,283	37,592	48%	43,524
Customer Water Quality	4,216	25,600	37%	23,555
Lab Cost Distributed	(2,810)	(15,082)	63%	(13,085)
<b>WATER TREATMENT</b>	<b>\$135,637</b>	<b>\$1,049,478</b>	<b>51%</b>	<b>\$881,037</b>
<b>TRANSMISSION &amp; DISTRIBUTION</b>				
Supervision & Engineering	\$46,828	\$283,877	38%	\$264,492
Maps & Records	21,003	83,041	59%	44,259
Operation of T&D System	15,888	78,233	37%	58,075
Facilities Location	8,019	77,762	80%	46,137
Safety: Construction & Engineering	8,676	23,104	36%	20,707
Customer Service Expense	11,978	78,109	42%	90,187
Flushing	12	2,144	3%	101
Storage Facilities Expense	11,719	68,611	52%	47,482
Cathodic Protection	0	6,280	23%	8,394
Maint of Valves/Regulators	14,722	73,701	34%	44,385
Maint of Mains	4,370	70,208	59%	87,351
Leak Detection - Mains	287	5,161	30%	4,179
Backflow Prevention Program	19,143	98,472	57%	60,742
Maint of Copper Services	6,799	67,387	38%	59,290
Maint of PB Service Lines	43,491	267,670	58%	291,707
Single Service Installations	(3,397)	7,780	-	3,183
Maint of Meters	6,859	30,689	29%	49,351
Detector Check Assembly Maint	16,440	41,337	57%	44,395
Maint of Hydrants	5,789	28,530	35%	15,467
<b>TRANSMISSION &amp; DISTRIBUTION</b>	<b>\$238,625</b>	<b>\$1,392,096</b>	<b>45%</b>	<b>\$1,239,884</b>
<b>CONSUMER ACCOUNTING</b>				
Meter Reading	\$13,147	\$78,951	43%	\$73,397
Collection Expense - Labor	1,265	9,412	25%	14,379
Collection Expense - Agency	82	1,118	37%	590
Billing & Consumer Accounting	23,420	142,602	54%	133,753
Contract Billing	1,229	8,431	47%	8,460
Stationery, Supplies & Postage	5,260	29,411	47%	29,509
Credit Card Fees	2,723	15,316	61%	12,874
Lock Box Service	912	5,472	50%	5,472
Uncollectable Accounts	2,100	5,212	31%	9,001
Office Equipment Expense	1,596	4,795	22%	19,164
Distributed to West Marin (4.1%)	(1,455)	(8,524)	53%	(8,615)
<b>CONSUMER ACCOUNTING</b>	<b>\$50,278</b>	<b>\$292,195</b>	<b>47%</b>	<b>\$297,983</b>



**NOVATO WATER**  
**DETAIL INCOME STATEMENT**  
**FOR THE PERIOD ENDING DECEMBER 31, 2016**

	DECEMBER 2016	YEAR TO DATE ACTUAL	YTD/ BUDGET%	PRIOR YTD ACTUAL
<b>WATER CONSERVATION</b>				
Residential	\$18,550	\$134,590	35%	\$182,158
Commercial	0	766	4%	2,522
Public Outreach/Information	207	11,665	29%	15,444
Large Landscape	2,207	13,795	69%	8,751
<b>TOTAL WATER CONSERVATION</b>	<b>\$20,964</b>	<b>\$160,817</b>	<b>35%</b>	<b>\$208,875</b>
<b>GENERAL AND ADMINISTRATIVE</b>				
Directors Fees	\$2,332	\$34,068	103%	\$15,990
Legal Fees	0	10,223	79%	4,411
Human Resources	1,819	16,496	61%	11,545
Auditing Fees	0	17,020	100%	9,470
Consulting Services/Studies	3,295	6,543	1%	134,465
General Office Salaries	109,762	681,495	53%	604,503
Safety: General District Wide	2,913	16,830	27%	9,479
Office Supplies	1,354	9,046	19%	12,793
Employee Events	4,578	5,080	42%	9,263
Other Administrative Expense	1,203	7,796	60%	5,087
Dues & Subscriptions	(11,482)	33,424	56%	46,700
Vehicle Expense	676	4,056	51%	4,245
Meetings, Conferences & Training	16,931	98,254	48%	76,025
Recruitment Expense	0	1,030	34%	574
Gas & Electricity	3,236	21,640	70%	16,672
Telephone	35	3,549	44%	3,573
Water	226	952	48%	1,129
Buildings & Grounds Maint	2,272	27,201	50%	28,155
Office Equipment Expense	4,954	56,766	60%	57,103
Insurance Premiums & Claims	7,301	43,567	37%	85,182
Retiree Medical Benefits	12,395	79,128	46%	88,252
(Gain)/Loss on Overhead Charges	(8,032)	(167,683)	137%	46,338
G&A Applied to Other Operations (5.9%)	(9,091)	(66,091)	43%	(63,149)
G&A Applied to Construction	(19,087)	(150,354)	40%	(198,397)
<b>GENERAL &amp; ADMINISTRATIVE</b>	<b>\$127,590</b>	<b>\$790,036</b>	<b>38%</b>	<b>\$1,009,407</b>
<b>Depreciation (Note 5)</b>	<b>225,002</b>	<b>1,357,417</b>	<b>48%</b>	<b>1,290,964</b>
<b>TOTAL OPERATING EXPENSE</b>	<b>\$1,328,942</b>	<b>\$8,503,185</b>	<b>51%</b>	<b>\$7,712,638</b>
<b>OPERATING INCOME/(LOSS)</b>	<b>(\$416,967)</b>	<b>\$817,822</b>	<b>76%</b>	<b>\$648,266</b>

**NOVATO WATER  
DETAIL INCOME STATEMENT  
FOR THE PERIOD ENDING DECEMBER 31, 2016**

	DECEMBER 2016	YEAR TO DATE ACTUAL	YTD/ BUDGET%	PRIOR YTD ACTUAL
<b>NON-OPERATING REVENUE</b>				
Interest:				
General Funds	\$0	\$0	0%	\$0
Wohler Pipeline Financing Fund	510	2,789	139%	1,737
Collector #6 Financing Fund	2,004	10,967	137%	6,829
Retiree Medical Insurance Fund	4,704	25,632	142%	15,080
Self-Insured Workers' Comp Fund	736	4,100	103%	2,373
Aqueduct Energy Efficiency Proj Fund	47	262	-	2,084
Funds Held in County Treasury	0	1,434	36%	112
<b>Total Interest Revenue</b>	<b>\$8,001</b>	<b>\$45,185</b>	<b>87%</b>	<b>\$28,215</b>
Rents & Leases	9,761	51,457	63%	40,862
Other Non-Operating Revenue	1,592	59,884	120%	38,969
Gain/(Loss) on MV of Investments	(5,467)	(20,352)	-	(11,113)
<b>NON-OPERATING REVENUE</b>	<b>\$13,887</b>	<b>\$136,174</b>	<b>74%</b>	<b>\$96,933</b>
<b>NON-OPERATING EXPENSE</b>				
Bank of Marin AEEP Loan Interest Exp	\$16,033	\$97,220	48%	\$102,048
STP SRF Loan Interest Expense	19,771	139,858	50%	148,984
Drought Loan Interest Expense	73	436	44%	854
Other Non-Operating Expense	167	1,057	5%	19,019
<b>NON-OPERATING EXPENSE</b>	<b>\$36,042</b>	<b>\$238,572</b>	<b>48%</b>	<b>\$270,905</b>
<b>NET INCOME/(LOSS)</b>	<b>(\$439,122)</b>	<b>\$715,424</b>	<b>95%</b>	<b>\$474,294</b>
<b>BEGINNING FUND EQUITY</b>		<b>\$74,118,378</b>		<b>\$73,700,508</b>
NET INCOME/(LOSS)	(439,122)	715,424		474,294
<b>CONTRIBUTED CAPITAL</b>				
SCWA 84 Water Conservation Grant	0	16,156	-	19,124
Developer 'In-Kind' Contributions	17,659	266,747	-	202,809
Caltrans AEEP Capital Contribution	5,600	16,744	1%	2,359,979
MMWD AEEP Capital Contribution	0	245,000	100%	245,000
Connection Fees	0	201,185	38%	177,800
FRC Transfer to Recycled Water	(328,828)	(644,251)	90%	(585,572)
Prior Period Adjustment	0	(247,077)	-	0
<b>ENDING FUND EQUITY</b>		<b>\$74,688,305</b>		<b>\$76,593,942</b>

**NOVATO RECYCLED WATER  
DETAIL INCOME STATEMENT  
FOR THE PERIOD ENDING DECEMBER 31, 2016**

	DECEMBER 2016	YEAR TO DATE ACTUAL	YTD/ BUDGET%	PRIOR YTD ACTUAL
<b>OPERATING REVENUE</b>				
Recycled Water Sales	\$10,365	\$444,314	60%	\$407,986
Bimonthly Service Charges	2,184	14,421	50%	14,312
Water Loads	3,733	3,733	-	0
Account Turn-on Charges	0	12	-	20
<b>TOTAL OPERATING REVENUE</b>	<b>\$16,281</b>	<b>\$462,480</b>	<b>60%</b>	<b>\$422,319</b>
<b>OPERATING EXPENSE</b>				
<b>SOURCE OF SUPPLY</b>				
Purchased Water - NSD	\$500	\$59,233	47%	\$50,653
Purchased Water - LGVSD	504	20,160	32%	41,917
<b>SOURCE OF SUPPLY</b>	<b>\$1,004</b>	<b>\$79,392</b>	<b>42%</b>	<b>\$92,570</b>
<b>PUMPING</b>				
Maint of Structures & Grounds	\$0	\$0	0%	\$0
Maint of Pumping Equipment	0	145	7%	812
Electric Power	27	1,837	61%	1,475
<b>PUMPING</b>	<b>\$27</b>	<b>\$1,981</b>	<b>33%</b>	<b>\$2,287</b>
<b>OPERATIONS</b>				
Supervision & Engineering	\$579	\$5,739	52%	\$3,716
Operating Expense - Operations	6	8,059	42%	6,263
Potable Water Consumed	481	1,242	12%	26,783
Maintenance Expense	1,210	4,573	65%	254
Telemetry Equipment/Controls Maint	551	9,900	99%	3,678
<b>OPERATIONS</b>	<b>\$2,827</b>	<b>\$29,513</b>	<b>52%</b>	<b>\$40,694</b>
<b>WATER TREATMENT</b>				
Purification Chemicals	\$0	\$809	20%	\$1,819
Maint of Purification Equipment	0	906	9%	570
Electric Power	2,106	2,106	105%	0
Laboratory Direct Labor	0	1,531	26%	675
Lab Expense Distributed from Novato	(2)	918	31%	454
<b>WATER TREATMENT</b>	<b>\$2,104</b>	<b>\$6,271</b>	<b>25%</b>	<b>\$3,518</b>
<b>TRANSMISSION &amp; DISTRIBUTION</b>				
Supervision & Engineering	\$132	\$4,100	23%	\$3,107
Maps & Records	0	72	-	0
Operation of T&D System	628	631	63%	0
Cathodic Protection	0	0	0%	0
Customer Service Expense	2,424	2,965	-	0
Storage Facilities Expense	0	9,885	99%	462
Maint of Valves/Regulators	0	22	2%	0
Maint of Meters	0	0	0%	0
Maint of Mains	22,020	24,486	-	540
<b>TRANSMISSION &amp; DISTRIBUTION</b>	<b>\$25,204</b>	<b>\$42,160</b>	<b>132%</b>	<b>\$4,109</b>

**NOVATO RECYCLED WATER  
DETAIL INCOME STATEMENT  
FOR THE PERIOD ENDING DECEMBER 31, 2016**

	DECEMBER 2016	YEAR TO DATE ACTUAL	YTD/ BUDGET%	PRIOR YTD ACTUAL
<b>CONSUMER ACCOUNTING</b>				
Distributed from Novato (3.6%)	\$70	\$409	41%	\$416
<b>CONSUMER ACCOUNTING</b>	\$70	\$409	41%	\$416
<b>GENERAL AND ADMINISTRATIVE</b>				
Consulting Services/Studies	\$0	\$6,786	-	\$0
Distributed from Novato (1.6%)	3,308	24,051	42%	22,980
<b>GENERAL &amp; ADMINISTRATIVE</b>	\$3,308	\$30,836	54%	\$22,980
Depreciation (Note 5)	39,335	236,007	49%	236,020
<b>TOTAL OPERATING EXPENSE</b>	\$73,879	\$426,570	50%	\$402,594
<b>OPERATING INCOME/(LOSS)</b>	<u>(\$57,598)</u>	<u>\$35,910</u>	(44%)	<u>\$19,725</u>
<b>NON-OPERATING REVENUE</b>				
Interest:				
General Funds	\$0	\$0	0%	\$0
RWF Replacement Fund	669	2,543	-	1,383
Capital Repl & Exp Fund	(96)	0	-	1,170
Self-Insured Workers' Comp Fund	14	78	-	43
StoneTree RWF Loan	3,321	20,342	52%	22,826
<b>Total Interest Revenue</b>	\$3,908	\$22,963	51%	\$25,422
<b>NON-OPERATING REVENUE</b>	\$14,465	\$33,520	74%	\$41,790
<b>NON-OPERATING EXPENSE</b>				
RWF SRF Loan Interest Expense	\$5,337	\$31,681	50%	\$34,169
Expansion SRF Loan Interest Expense	16,435	99,436	49%	104,262
Other Non-Operating Expense	0	111	-	46,224
<b>NON-OPERATING EXPENSE</b>	\$21,773	\$131,227	50%	\$184,655
<b>NET INCOME/(LOSS)</b>	<u>(\$64,906)</u>	<u>(\$61,798)</u>	21%	<u>(\$123,139)</u>
<b>BEGINNING FUND EQUITY</b>		\$11,252,112		\$11,264,553
NET INCOME/(LOSS)	(64,906)	(61,798)		(123,139)
FRC Transfer from Novato	328,828	644,251	90%	585,572
RW Central Area Expansion Grant	491,534	661,032	-	0
Prior Period Adjustment	32,047	32,047		0
<b>ENDING FUND EQUITY</b>		<u>\$12,527,645</u>		<u>\$11,726,985</u>

**WEST MARIN WATER  
DETAIL INCOME STATEMENT  
FOR THE PERIOD ENDING DECEMBER 31, 2016**

	DECEMBER 2016	YEAR TO DATE ACTUAL	YTD/ BUDGET%	PRIOR YTD ACTUAL
<b>OPERATING REVENUE</b>				
Water Sales	\$29,541	\$335,660	56%	\$309,358
Bill Adjustments	(382)	(15,877)	-	(6,248)
Bimonthly Service Charges	14,065	84,387	51%	84,387
Account Turn-on Charges	170	386	39%	557
New Account Charges	20	80	8%	120
Returned Check Charges	18	63	-	18
Backflow Service Charges	935	2,788	56%	2,760
<b>TOTAL OPERATING REVENUE</b>	<b>\$44,367</b>	<b>\$407,488</b>	<b>52%</b>	<b>\$390,953</b>
<b>OPERATING EXPENSE</b>				
<b>SOURCE OF SUPPLY</b>				
Supervision & Engineering	\$0	\$44	-	\$121
Operating Expense	241	2,112	35%	3,168
Maint of Structures	0	7,925	66%	7,600
Water Quality Surveillance	0	261	7%	3,007
<b>SOURCE OF SUPPLY</b>	<b>\$241</b>	<b>\$10,342</b>	<b>47%</b>	<b>\$13,897</b>
<b>PUMPING</b>				
Maint of Structures and Grounds	\$3,314	\$6,710	56%	\$995
Maint of Pumping Equip	1,316	1,442	14%	1,336
Electric Power	1,780	15,047	100%	12,730
<b>PUMPING</b>	<b>\$6,410</b>	<b>\$23,199</b>	<b>63%</b>	<b>\$15,061</b>
<b>OPERATIONS</b>				
Supervision & Engineering	\$579	\$5,517	69%	\$5,908
Operating Expense	745	5,412	49%	8,033
Maint of Telemetry Lines	0	0	-	0
Maint of Telemetry Equipment	7,250	18,079	106%	4,433
Leased Lines	430	2,425	40%	3,648
<b>OPERATIONS</b>	<b>\$9,003</b>	<b>\$31,435</b>	<b>75%</b>	<b>\$22,022</b>
<b>WATER TREATMENT</b>				
Supervision & Engineering	\$432	\$2,244	37%	\$2,604
Operating Expense	1,647	7,995	40%	15,706
Purification Chemicals	939	4,595	92%	865
Maint of Structures & Grounds	0	0	0%	86
Maint of Purification Equipment	581	1,882	9%	4,705
Electric Power	1,012	9,324	35%	7,808
Laboratory Direct Labor	4,203	21,636	66%	17,251
Laboratory Services	48	608	15%	560
Water Quality Supervision	113	791	13%	767
Customer Water Quality	12	2,763	69%	1,729
Lab Expense Distributed from Novato	2,495	12,979	68%	11,593
<b>WATER TREATMENT</b>	<b>\$11,482</b>	<b>\$64,818</b>	<b>44%</b>	<b>\$63,673</b>

**WEST MARIN WATER  
DETAIL INCOME STATEMENT  
FOR THE PERIOD ENDING DECEMBER 31, 2016**

	DECEMBER 2016	YEAR TO DATE ACTUAL	YTD/ BUDGET%	PRIOR YTD ACTUAL
<b>TRANSMISSION &amp; DISTRIBUTION</b>				
Supervision & Engineering	\$318	\$3,305	19%	\$3,500
Maps & Records	144	218	3%	0
Facilities Location - USA	1,237	4,527	91%	1,841
Customer Service Expense	1,248	4,020	67%	4,415
Flushing	0	0	0%	0
Storage Facilities Expense	2,387	9,721	23%	6,033
Cathodic Protection	0	795	16%	672
Maint of Valves	0	768	13%	971
Valve Operation Program	0	0	0%	0
Maint of Mains	750	1,743	35%	4,966
Maint of Backflow Devices	0	510	7%	853
Backflow Dev Inspection/Survey	0	2,408	-	2,865
Maint of Copper Services	883	6,615	132%	14,128
Maint of PB Service Lines	6,215	18,984	173%	3,463
Maint of Meters	418	5,924	296%	975
Detector Check Assembly Maint	0	304	15%	0
Maint of Hydrants	0	0	0%	0
Hydrant Operation	0	0	0%	0
Single Service Installation	0	1,018	-	0
<b>TRANSMISSION &amp; DISTRIBUTION</b>	<b>\$13,599</b>	<b>\$60,861</b>	<b>43%</b>	<b>\$44,681</b>
<b>CONSUMER ACCOUNTING</b>				
Meter Reading	\$684	\$6,393	80%	\$4,084
Collection Expense - Labor	210	210	11%	266
Uncollectable Accounts	0	409	-	273
Distributed from Novato (3.6%)	1,234	7,231	56%	7,349
<b>CONSUMER ACCOUNTING</b>	<b>\$2,129</b>	<b>\$14,243</b>	<b>62%</b>	<b>\$11,971</b>
<b>WATER CONSERVATION</b>				
Water Conservation Program	\$315	\$3,930	20%	\$3,777
<b>TOTAL WATER CONSERVATION</b>	<b>\$315</b>	<b>\$3,930</b>	<b>20%</b>	<b>\$3,777</b>
<b>GENERAL AND ADMINISTRATIVE</b>				
Consulting Services/Studies	\$2,700	\$2,700	8%	\$0
Distributed from Novato (3.2%)	4,300	31,259	43%	29,868
<b>GENERAL &amp; ADMINISTRATIVE</b>	<b>\$7,000</b>	<b>\$33,959</b>	<b>31%</b>	<b>\$29,868</b>
<b>Depreciation (Note 5)</b>	<b>15,972</b>	<b>96,323</b>	<b>51%</b>	<b>95,735</b>
<b>TOTAL OPERATING EXPENSE</b>	<b>\$66,150</b>	<b>\$339,109</b>	<b>47%</b>	<b>\$300,685</b>
<b>OPERATING INCOME/(LOSS)</b>	<b>(\$21,783)</b>	<b>\$68,378</b>	<b>140%</b>	<b>\$90,268</b>

**WEST MARIN WATER  
DETAIL INCOME STATEMENT  
FOR THE PERIOD ENDING DECEMBER 31, 2016**

	DECEMBER 2016	YEAR TO DATE ACTUAL	YTD/ BUDGET%	PRIOR YTD ACTUAL
<b>NON-OPERATING REVENUE</b>				
Interest - General Funds	\$442	\$1,926	-	\$585
Interest - FRC	122	656	22%	757
Interest - Self-Insured WC Fund	25	141	-	81
Interest - Bank of Marin Project Fund	828	4,529	151%	2,819
Interest - CIR Fund	63	288	-	186
Rents & Leases	0	4,344	109%	3,927
Tax Proceeds - OL-2 G.O. Bond	0	1	-	147
Tax Proceeds - PR-2 Tax Allocation	25,910	27,054	56%	24,514
Other Non-Operating Revenue	0	0	-	102
<b>NON-OPERATING REVENUE</b>	<b>\$27,390</b>	<b>\$38,938</b>	<b>67%</b>	<b>\$33,119</b>
<b>NON-OPERATING EXPENSE</b>				
Bank of Marin Loan Interest Expense	\$2,353	\$14,271	51%	\$14,979
PRE-1 Revenue Bond Interest Exp	208	1,250	42%	1,525
PR-6 Revenue Bond Interest Exp	233	1,400	47%	1,650
Drought Loan Interest Expense	8	48	22%	111
Other Non-Operating Expense	370	370	-	5,107
<b>NON-OPERATING EXPENSE</b>	<b>\$3,173</b>	<b>\$17,339</b>	<b>51%</b>	<b>\$23,372</b>
<b>NET INCOME/(LOSS)</b>	<b>\$2,434</b>	<b>\$89,977</b>	<b>123%</b>	<b>\$100,015</b>
<b>BEGINNING FUND EQUITY</b>		<b>\$6,045,738</b>		<b>\$6,043,464</b>
NET INCOME/(LOSS)	2,434	89,977		100,015
<b>CONTRIBUTED CAPITAL</b>				
Developer 'In-Kind' Contributions	0	0	-	13,632
Connection Fees	0	8,000	35%	0
<b>ENDING FUND EQUITY</b>		<b>\$6,143,715</b>		<b>\$6,157,111</b>

**OCEANA MARIN SEWER  
DETAIL INCOME STATEMENT  
FOR THE PERIOD ENDING DECEMBER 31, 2016**

	DECEMBER 2016	YEAR TO DATE ACTUAL	YTD/ BUDGET%	PRIOR YTD ACTUAL
<b>OPERATING REVENUE</b>				
Sewer Service Charges	\$18,018	\$107,882	50%	\$97,554
Inspection Fees	0	600	-	300
<b>TOTAL OPERATING REVENUE</b>	<b>\$18,018</b>	<b>\$108,482</b>	<b>51%</b>	<b>\$97,854</b>
<b>OPERATING EXPENSE</b>				
<b>SEWAGE COLLECTION</b>				
Supervision & Engineering	\$723	\$6,262	52%	\$4,845
Inspection	0	558	14%	0
Operating Expense	612	2,984	50%	6,210
Facilities Location	0	1,472	147%	679
Maint of Telemetry Equipment	277	3,494	175%	2,634
Maint of Lift Stations	0	2,639	33%	11,823
Maint of Manholes	0	0	0%	0
Maint of Sewer Mains	0	0	0%	3,259
Electric Power	1,095	6,057	67%	5,338
<b>SEWAGE COLLECTION</b>	<b>\$2,707</b>	<b>\$23,465</b>	<b>47%</b>	<b>\$34,788</b>
<b>SEWAGE TREATMENT</b>				
Operating Expense	\$18,298	\$26,011	87%	\$22,520
Treatment Supplies & Expense	0	0	0%	0
Maint of Structures	0	0	0%	71
Maint of Equipment	0	1,323	17%	4,347
Laboratory Direct Labor	533	1,975	33%	1,545
Lab Expense Distributed from Novato	318	1,185	59%	1,038
Electric Power	564	3,089	44%	2,777
<b>SEWAGE TREATMENT</b>	<b>\$19,712</b>	<b>\$33,582</b>	<b>58%</b>	<b>\$32,297</b>
<b>SEWAGE DISPOSAL</b>				
Operating Expense	\$847	\$7,191	60%	\$6,122
Maint of Pump Stations	0	1,425	18%	5,780
Maint of Storage Ponds	608	1,818	45%	122
Maint of Irrigation Field	99	1,911	21%	6,124
<b>SEWAGE DISPOSAL</b>	<b>\$1,554</b>	<b>\$12,345</b>	<b>37%</b>	<b>\$18,148</b>
<b>CONSUMER ACCOUNTING</b>				
Collection Expense - County of Marin	\$344	\$344	-	\$342
Distributed from Novato (0.5%)	\$151	\$884	44%	\$850
<b>CONSUMER ACCOUNTING</b>	<b>\$495</b>	<b>\$1,227</b>	<b>61%</b>	<b>\$1,192</b>
<b>GENERAL AND ADMINISTRATIVE</b>				
Distributed from Novato (1.0%)	\$1,483	\$10,781	43%	\$10,301
Liability Insurance	177	1,063	53%	1,063
<b>GENERAL AND ADMINISTRATIVE</b>	<b>\$1,660</b>	<b>\$11,845</b>	<b>44%</b>	<b>\$11,365</b>
<b>Depreciation (Note 5)</b>	<b>3,594</b>	<b>22,339</b>	<b>48%</b>	<b>24,498</b>
<b>TOTAL OPERATING EXPENSE</b>	<b>\$29,723</b>	<b>\$104,803</b>	<b>48%</b>	<b>\$122,289</b>
<b>OPERATING INCOME/(LOSS)</b>	<b>(\$11,705)</b>	<b>\$3,678</b>	<b>(123%)</b>	<b>(\$24,435)</b>



**OCEANA MARIN SEWER  
DETAIL INCOME STATEMENT  
FOR THE PERIOD ENDING DECEMBER 31, 2016**

	<u>DECEMBER 2016</u>	<u>YEAR TO DATE ACTUAL</u>	<u>YTD/ BUDGET%</u>	<u>PRIOR YTD ACTUAL</u>
<b><u>NON-OPERATING REVENUE</u></b>				
Rents & Leases	\$0	\$500	-	\$500
Interest - Connection Fee Reserve	(0)	69	-	0
Interest - General Funds	417	2,726	136%	1,333
Interest - Self Insured WC Fund	8	48	-	28
Tax Proceeds - OM-1/OM-3 Tax Alloc	27,612	28,832	55%	26,437
Annexation Fees	0	0	-	8,508
Other Non-Operating Revenue	0	0	-	46
<b>NON-OPERATING REVENUE</b>	<u>\$28,037</u>	<u>\$32,175</u>	60%	<u>\$36,852</u>
<b><u>NON-OPERATING EXPENSE</u></b>				
Other Non-Operating Expense	\$394	\$556	-	\$318
<b>NON-OPERATING EXPENSE</b>	<u>\$394</u>	<u>\$556</u>	-	<u>\$318</u>
<b>NET INCOME/(LOSS)</b>	<u>\$15,938</u>	<u>\$35,297</u>	69%	<u>\$12,099</u>
<b>BEGINNING FUND EQUITY</b>		\$1,256,555		\$1,260,299
NET INCOME/(LOSS)	15,938	35,297		12,099
<b>CONTRIBUTED CAPITAL</b>				
Contribution in Aid of Construction	0	0	-	3,390
Connection Fees	0	30,400	203%	23,690
<b>ENDING FUND EQUITY</b>		<u>\$1,322,252</u>		<u>\$1,299,478</u>

**NORTH MARIN WATER DISTRICT  
ANALYSIS OF WORKERS' COMP, CIR AND CONNECTION FEE FUNDS  
FOR THE PERIOD ENDING DECEMBER 31, 2016**

		NOVATO WATER	WEST MARIN WATER	OCEANA MARIN SEWER	RECYCLED WATER
<b><u>WORKERS' COMPENSATION FUND</u></b>	<b>TOTAL</b>				
<b>WC Cash Balance 6/30/16</b>	\$716,297	\$671,654	\$23,234	\$7,921	\$13,488
Less: Projected Prior FY Claims Liability	95,244	88,577	3,143	1,048	2,476
<b>WC Reserve Balance 6/30/16</b>	\$621,053	\$583,077	\$20,091	\$6,873	\$11,012
Add: WC Expense Charged to Operations FYTD	95,500	88,815	3,152	1,051	2,483
Interest Earned	4,367	4,100	141	48	78
Subtotal	\$720,920	\$675,992	\$23,384	\$7,972	\$13,573
Less: Claims Expense Paid	77,513	72,087	2,558	853	2,015
Excess Insurance Premium	28,802	26,786	950	317	749
Administration Fees	6,000	5,580	198	66	156
<b>WC Reserve Balance 12/31/16</b>	\$608,606	\$571,539	\$19,677	\$6,736	\$10,653
Add: Projected Claims Liability	13,370	12,434	441	147	348
Funds borrowed to subsidize operations	(11,000)	0	0	0	(11,000)
<b>WC CASH BALANCE 12/31/16</b>	<b>\$610,976</b>	<b>\$583,973</b>	<b>\$20,119</b>	<b>\$6,883</b>	<b>\$0</b>
<b><u>CONSERVATION INCENTIVE RATE FUND</u></b>					
<b>CIR Cash Balance 6/30/16</b>	\$35,852	\$0	\$35,852		
Add funds borrowed to subsidize operations	0	0	0		
<b>CIR Reserve Balance 6/30/16</b>	\$35,852	\$0	\$35,852		
Add: CIR Charges Billed FYTD	95,699	82,591	13,108		
Regulation 15 Forfeitures	0	0	0		
Interest Earned	288	0	288		
Subtotal	\$131,840	\$82,591	\$49,248		
Less: CIR Funds Expended FYTD <sup>1</sup>	64,395	60,465	3,930		
Bill Adjustments granted in CIR Tier	26,600	22,127	4,473		
<b>CIR Reserve Balance 12/31/16</b>	\$40,846	\$0	\$40,845		
Less funds borrowed to subsidize operations	0	0	0		
<b>CIR CASH BALANCE 12/31/16</b>	<b>\$40,845</b>	<b>\$0</b>	<b>\$40,845</b>		
<b><u>CONNECTION FEE FUND</u></b>					
<b>Connection Fee Cash Balance 6/30/16</b>	\$114,868	\$0	\$109,263	\$5,605	
Add: funds borrowed to subsidize operations	(\$5,170,616)	(\$5,170,616)	\$0	\$0	
Connection Fee Reserve Balance 6/30/16	(\$5,055,748)	(\$5,170,616)	\$109,263	\$5,605	
Add: Connection Fees Collected FYTD	\$239,585	\$201,185	\$8,000	\$30,400	
Repayment Prior Year Loan from RWF	\$0	\$0	\$0	\$0	
Interest Earned	\$724	\$0	\$656	\$69	
Prior Period Adjustment <sup>2</sup>	\$788,509	\$788,509	\$0		
Subtotal	(\$4,026,929)	(\$4,180,922)	\$117,919	\$36,074	
Less: Fees Expended FYTD	\$555,430	\$462,896	\$22,271	\$70,263	
Fees transferred to RWS FYTD (Note 14)	\$644,251	\$644,251	\$0	\$0	
Connection Fee Reserve Balance 12/31/16	(\$5,226,611)	(\$5,288,069)	\$95,647	(\$34,190)	
Less: Funds borrowed to subsidize operations	(\$5,322,259)	(\$5,288,069)	\$0	(\$34,190)	
<b>CONNECTION FEE CASH BALANCE 12/31/16</b>	<b>\$95,647</b>	<b>\$0</b>	<b>\$95,647</b>	<b>\$0</b>	

<sup>1</sup> On September 1, 2009 the Board authorized water conservation expenditures to be charged against the Conservation Incentive Rate Fund.

<sup>2</sup> Prior period adjustment of \$788,509 pertains to Recycled Water Facility SRF Loan Interest Expense relieved from Novato FRC FY08-FY16. Black Point Golf Links pays for 91.67% of the Debt Service through 2/28/24 and only the amount not paid by BPGL should be relieved from the FRC Fund.

**NORTH MARIN WATER DISTRICT  
CONNECTION FEE ANALYSIS  
FOR THE PERIOD ENDING DECEMBER 31, 2016**

The Connection Fee (FRC) Fund is comprised of cash available from collection of Facility Reserve Charge Fees. The FRC fee is charged to developers based upon the estimate of cost necessary to construct capacity to serve the new development. These funds are restricted by law for expansion of the facilities within the service area where the new development occurs. Funds are disbursed from the Connection Fee Reserve as expenditures to increase system capacity to serve new development are incurred.

<b>FY17 CONNECTION FEE EXPENDITURES</b>	<b>TOTAL EXPENDITURE</b>	<b>% FUNDED BY CONNECTION FEES</b>	<b>TOTAL FROM CONNECTION FEES<sup>1</sup></b>
<b>Novato Water</b>			
Zone A Pressure Improvements	\$60,691	50%	\$30,346
Ridge Rd 6" ACP	23,123	50%	11,562
Center Rd 6" CIP	15,005	50%	7,503
Bank of Marin AEEP Debt Service	241,021	25%	60,255
Tank Access Hatch/Level Alarms	4,780	25%	1,195
STP Rehab SRF Loan Debt Service	527,129	25%	131,782
Lynwood PS Motor Control Center Replace	1,837	25%	(1,431)
Advanced Meter Info Retrofit	184,735	25%	33,107
SMART Crossing Upgrade	46,704	25%	11,676
Meter Relocation-Plum St (14 Svcs)	61,844	50%	30,922
Water Conservation Expenditures	100,352	100%	100,352
Dam Concrete Spillway Repair	2,311	25%	578
San Mateo 24" Inlet/Outlet	19,416	50%	9,708
RTU Upgrades FY17	13,102	25%	3,276
Anode Installations	12,912	25%	3,228
Radio Expansion Telemetry Upgrade	5,067	25%	1,267
Automate Zone Valve-Slowdown Ct	1,140	25%	285
Facilities Security Enhancements	34,067	25%	8,517
San Mateo Tank Recoat	13,580	25%	3,395
Crest Pump Station/Relocate School Rd PS	39,253	25%	9,813
Dam Monitoring Well Repairs	22,248	25%	5,562
	<u>\$1,430,319</u>		<u>\$462,896</u>
<b>Recycled Water</b>			
NBWRA Grant Program Administration	\$5,223	100%	\$5,223
RW Expansion North Area Debt Service	285,972	100%	285,972
RW Expansion South Area Debt Service	232,174	100%	232,174
RW Expansion Central Area Local Share	112,840	100%	112,840
Deer Island Wet Well Drain	7,890	100%	7,890
PG&E Power to Reservoir Hill	153	100%	153
	<u>\$644,251</u>		<u>\$644,251</u>
<b>West Marin Water</b>			
Bank of Marin Debt Service	\$35,379	25%	\$8,845
Replace PRE Tank #4A	53,705	25%	13,426
	<u>\$89,085</u>		<u>\$22,271</u>
<b>Oceana Marin Sewer</b>			
Infiltration Repair	\$34,475	50%	\$17,238
Dosing Siphon Repairs	59,331	50%	29,666
Design/Install 8th Disposal Trench	7,200	50%	3,600
Tahiti Way Lift Pumps Rebuild	33,114	50%	16,557
ACP Sewer Reline	625	50%	313
Force Main Improvements	5,770	50%	2,885
North St Lift Station Comm Upgr	12	50%	6
	<u>\$140,527</u>		<u>\$70,263</u>

<sup>1</sup> The Percentage Funded by Connection Fees is the percentage of total project cost paid by FRC funds, which are allocated to new growth based on historic NMWD practice. The Total From Connection Fees amounts shown are FRC (connection fee) expenditures only, and do not include operations funding, which is also used to pay for these projects.

**NORTH MARIN WATER DISTRICT  
EQUIPMENT EXPENDITURES  
PERIOD ENDING DECEMBER 31, 2016**

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	DECEMBER 2016	FYTD TOTAL	FY 16/17 BUDGET	(OVER) UNDER	Notes
<b>1 CONSTRUCTION</b>					
a. Leak Detector		\$7,135	\$8,000	\$865	1
b. Fittings & Hose for Emergency Hose Trailer		0	6,000	6,000	
	\$0	\$7,135	\$14,000	\$6,865	
<b>2 OPERATIONS/MAINTENANCE</b>					
a. STP Manganese Analyzer		\$0	\$13,000	\$13,000	1
b. Lab Info Management Sys Software Upgrade		0	70,000	70,000	1
	\$0	\$0	\$83,000	\$83,000	
<b>3 VEHICLE &amp; ROLLING EQUIPMENT EXPENDITURES</b>					
a. Compact Track Loader w/Attachments		\$0	\$90,000	\$90,000	1
b. 1/2 Ton 4x4 Pickup w/Tool Box & Radio		0	30,000	30,000	1
c. 1/2 Ton Pickup w/Tool Box & Radio	0	0	28,000	28,000	1
	\$0	\$0	\$148,000	\$148,000	
<b>TOTAL EQUIPMENT EXPENDITURES</b>	\$0	\$7,135	\$245,000	\$237,865	

Notes:

(1) Replacement item.

**NORTH MARIN WATER DISTRICT  
OVERHEAD ACCOUNT ANALYSIS  
FOR PERIOD ENDING DECEMBER 31, 2016**

	YEAR TO DATE ACTUAL	ANNUAL BUDGET	YTD/ BUDGET%	PRIOR YTD ACTUAL
<b><u>Material Handling</u></b>				
Material Overhead Recovered (15%)	\$22,701	\$125,000	18%	\$21,743
Labor	\$33,031	\$105,000	31%	\$31,421
Materials, Supplies & Expense	1,706	9,000	19%	5,334
Correction to Inventory Counts	(2,494)	0	-	2,865
Write-down of Obsolete Inventory	0	0	-	0
Depreciation	5,018	11,000	46%	5,542
	<u>\$37,261</u>	<u>\$125,000</u>	30%	<u>\$45,162</u>
Net Material Handling Gain / (Loss)	<u>(\$14,560)</u>	<u>\$0</u>	-	<u>(\$23,419)</u>
<b><u>Construction Supplies</u></b>				
Const Supplies Overhead Recovered (10%)	\$134,122	\$312,000	43%	\$110,656
Labor	\$32,838	\$95,000	35%	\$37,826
Materials, Supplies & Expense	36,798	94,000	39%	44,426
Small Tools	5,897	24,000	25%	4,247
Depreciation	1,579	4,000	39%	1,860
	<u>\$77,112</u>	<u>\$217,000</u>	36%	<u>\$88,359</u>
Net Constr Supplies Gain / (Loss)	<u>\$57,010</u>	<u>\$95,000</u>	60%	<u>\$22,297</u>
<b><u>Vehicle &amp; Equipment</u></b>				
Vehicle & Equipment Recovered <sup>1</sup>	\$153,805	\$380,000	40%	\$202,661
Labor	\$32,465	\$95,000	34%	\$29,010
Materials, Supplies & Expense	41,364	80,000	52%	53,497
Fuel	32,238	87,000	37%	37,610
Depreciation	64,224	136,000	47%	63,246
	<u>\$170,290</u>	<u>\$398,000</u>	43%	<u>\$183,363</u>
Net Vehicle & Equip Gain / (Loss)	<u>(\$16,485)</u>	<u>(\$18,000)</u>	92%	<u>\$19,299</u>
<b><u>Payroll</u></b>				
Overheaded Payroll Recovered	\$3,827,453	\$8,088,000	47%	\$3,465,665
Salary Including Leave Time	\$2,483,378	\$5,379,000	46%	\$2,433,346
Employer FICA & Medicare Tax	184,879	396,000	47%	178,219
Insurance <sup>2</sup>	459,775	1,025,000	45%	421,185
Worker's Compensation	30,441	101,000	30%	55,857
Retiree Medical Accrual	39,563	84,000	47%	38,688
CalPERS Retirement	476,186	1,004,000	47%	464,108
Unreconciled Difference	11,514	0	-	(61,223)
	<u>\$3,685,735</u>	<u>\$7,989,000</u>	46%	<u>\$3,530,180</u>
Net Payroll Gain / (Loss)	<u>\$141,718</u>	<u>\$99,000</u> <sup>3</sup>		<u>(\$64,515)</u>
<b>Total Overhead Gain / (Loss)</b>	<b><u>\$167,683</u></b>	<b><u>\$176,000</u></b>	<b>95%</b>	<b><u>(\$46,338)</u></b>

<sup>1</sup> Vehicle & Equipment Recovered is the amount charged to projects and operations to recover the expense of owning and operating the asset. The recovery rate is \$6/hr. for vehicles 3/4-ton and under \$11/hr. for larger vehicles. An additional 50% is charged to developer projects to reflect the fair market value of the asset used.

<sup>2</sup> Insurance Includes Medical, Dental, Vision, Cafeteria, Life

<sup>3</sup> Projected gain on self-insured worker's compensation gives rise to the budgeted payroll gain.

**NORTH MARIN WATER DISTRICT  
EXPENDITURES BY CATEGORY  
FOR PERIOD ENDING DECEMBER 31, 2016**

OPERATING EXPENSE		Novato	Recycled	West Marin	Oceana Marin	YTD Total	Annual Budget	YTD Budget %	Prior YTD Actual	% Change
1	Salaries & Benefits	\$3,234,980	\$29,403	\$108,376	\$32,621	\$3,405,380	\$6,848,000	50%	\$2,898,991	17 %
2	Water Purchases	2,866,569	79,392	0	0	2,945,961	4,669,000	63%	2,401,090	22 %
3	Depreciation	1,357,417	236,007	96,323	22,339	1,712,087	3,517,000	49%	1,647,217	3 %
4	Materials, Services & Supplies	697,449	42,074	36,273	23,370	799,166	1,684,000	47%	780,550	2 %
5	Consulting Services/Studies	6,543	6,786	2,700	0	16,029	490,000	3%	134,465	-88 %
6	Chemicals	127,128	809	4,595	0	132,533	436,000	30%	111,523	18 %
7	Electric Power	206,491	3,943	24,371	9,146	243,951	414,000	59%	198,241	23 %
8	Vehicles and Equipment (Distrib)	106,096	857	8,125	2,434	117,513	282,000	42%	139,653	-15 %
9	Tools & Supplies (Distrib)	114,241	1,921	5,626	2,164	123,952	186,000	67%	89,251	38 %
10	Retiree Medical Expenses	79,128	0	0	0	79,128	173,000	46%	88,252	-10 %
11	Water Conservation Rebates	32,852	0	1,250	0	34,102	160,000	21%	60,647	-43 %
12	Insurance & Claims	43,567	0	0	1,063	44,630	145,000	31%	86,245	-48 %
13	Office Supplies & Postage	38,457	0	0	0	38,457	110,000	35%	55,176	-30 %
14	Overhead Charges (Gain)/Loss	(167,683)	0	0	0	(167,683)	(122,000)	137%	46,338	-461 %
15	Distributed Costs (Lab,G&A,ConsAcctg)	(240,051)	25,378	51,470	11,665	(151,538)	(381,000)	40%	(199,435)	-24 %
16	<b>Total Operating Expense</b>	<b>\$8,503,185</b>	<b>\$426,570</b>	<b>\$339,109</b>	<b>\$104,803</b>	<b>\$9,373,668</b>	<b>\$18,611,000</b>	<b>50%</b>	<b>\$8,538,205</b>	<b>9 %</b>
17	Interest Expense & Other	238,572	131,227	17,339	556	387,694	799,000	49%	478,633	-19 %
18	<b>Total Expense</b>	<b>\$8,741,757</b>	<b>\$557,797</b>	<b>\$356,448</b>	<b>\$105,359</b>	<b>\$9,761,361</b>	<b>\$19,410,000</b>	<b>50%</b>	<b>\$9,016,838</b>	<b>8 %</b>
<b><u>Warehouse, Shop &amp; Yard</u></b>										
19	Salaries & Benefits	\$98,334	\$0	\$0	\$0	\$98,334	\$292,000	34%	\$98,257	0 %
20	Materials, Services & Supplies	115,509	0	0	0	115,509	156,000	74%	\$147,978	-21 %
21	Depreciation	70,821	0	0	0	70,821	151,000	47%	\$70,648	0 %
22	Distributed Costs	(284,663)	0	0	0	(284,663)	(599,000)	48%	(316,882)	-10 %
23	<b>Total W/H, Shop &amp; Yard</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>-</b>	<b>\$0</b>	<b>-</b>
<b><u>District Capital Outlay</u></b>										
24	Salaries & Benefits	\$141,645	\$118,590	\$9,719	\$32,781	\$302,733	\$808,000	37%	\$419,456	-27 %
25	Equipment Expenditures	7,135	0	0	0	7,135	245,000	3%	0	-
26	Debt Principal Payments	543,976	349,357	33,589	0	926,922	1,752,000	53%	902,486	2 %
27	Materials, Services & Supplies	278,240	1,384,338	4,806	99,099	1,766,483	16,048,000	11%	3,899,773	-54 %
28	<b>Total District Capital Outlay</b>	<b>\$970,996</b>	<b>\$1,852,284</b>	<b>\$48,114</b>	<b>\$131,879</b>	<b>\$3,003,273</b>	<b>\$18,853,000</b>	<b>16%</b>	<b>\$5,221,716</b>	<b>-42 %</b>
<b><u>Developer Funded Projects</u></b>										
29	Salaries & Benefits	\$86,153	\$0	\$1,211	\$0	\$87,364	\$217,000	40%	\$100,670	-13 %
30	Materials, Services & Supplies	117,183	0	2,300	0	119,484	124,000	96%	123,648	-3 %
31	<b>Total Developer Projects</b>	<b>\$203,336</b>	<b>\$0</b>	<b>\$3,511</b>	<b>\$0</b>	<b>\$206,847</b>	<b>\$341,000</b>	<b>61%</b>	<b>\$224,318</b>	<b>-7 %</b>
32	<b>Total</b>	<b>\$9,916,088</b>	<b>\$2,410,081</b>	<b>\$408,073</b>	<b>\$237,238</b>	<b>\$12,971,482</b>	<b>\$38,604,000</b>	<b>34%</b>	<b>\$14,462,871</b>	<b>-10 %</b>

**NORTH MARIN WATER DISTRICT  
VEHICLE FLEET ANALYSIS  
FOR PERIOD ENDING DECEMBER 31, 2016**

Fiscal Year to Date								Vehicle Cost per Mile				
Year	Description	Veh#	Assigned	Mileage	Expense <sup>1</sup>	Recovery <sup>2</sup>	Gain/(Loss)	Mileage	Life to Date	FY17	FY16	FY15
1	1999 Dodge Ram 1500	32	STP	516	\$221	\$602	\$381	83,204	\$0.44	\$0.43	\$1.21	\$0.39
2	2002 Chev K1500 4x4	47	LeBrun	4,828	\$1,307	\$2,013	\$706	124,077	\$0.36	\$0.27	\$0.42	\$0.53
3	2003 Dodge Dakota 4x4	49	Stompe	2,932	\$770	\$1,467	\$697	96,336	\$0.41	\$0.26	\$0.33	\$0.38
4	2004 Chev C1500	53	STP	1,839	\$861	\$774	(\$87)	121,792	\$0.46	\$0.47	\$0.67	\$0.40
5	2004 Chev C1500 Xtra Cab	54	Pool	2,224	\$1,542	\$1,612	\$70	95,692	\$0.45	\$0.69	\$3.67	\$0.39
6	2005 Honda Civic Hybrid	56	Engineering	856	\$3,587	\$495	(\$3,092)	76,747	\$0.29	\$4.19	\$0.44	\$0.29
7	2005 Honda Civic Hybrid	57	Clark	4,747	\$721	\$1,568	\$846	73,244	\$0.23	\$0.15	\$0.20	\$0.58
8	2005 Ford Ranger	58	Pool	1,185	\$615	\$504	(\$111)	127,120	\$0.44	\$0.52	\$0.33	\$0.42
9	2005 Ford Ranger	59	Bynum	5,747	\$3,289	\$4,947	\$1,658	124,331	\$0.46	\$0.57	\$0.39	\$0.65
10	2006 Chev Colorado	501	Pool	603	\$240	\$311	\$70	136,205	\$0.38	\$0.40	\$0.40	\$0.42
11	2007 Chev K2500 4x4	502	Corda, Joe	3,929	\$5,211	\$4,233	(\$977)	92,300	\$0.57	\$1.33	\$0.67	\$0.50
12	2007 Chev Colorado	504	FSR	6,262	\$2,149	\$5,101	\$2,951	54,410	\$0.43	\$0.34	\$0.35	\$0.71
13	2008 Ford F250 4x4	505	Cilia	1,761	\$3,855	\$3,880	\$25	88,447	\$0.72	\$2.19	\$0.56	\$0.62
14	2008 Ford F250 4x4	506	STP	3,717	\$1,730	\$2,548	\$818	61,318	\$0.77	\$0.47	\$0.57	\$0.96
15	2008 Chev Colorado 4x4	509	Engineering	2,261	\$726	\$1,448	\$721	95,127	\$0.34	\$0.32	\$0.41	\$0.33
16	2009 Toyota Prius Hybrid	510	Engineering	2,686	\$345	\$1,293	\$948	97,421	\$0.20	\$0.13	\$0.40	\$0.35
17	2010 Ford F150 4x4	511	STP	4,975	\$5,535	\$2,879	(\$2,656)	66,558	\$0.52	\$1.11	\$0.54	\$0.41
18	2010 Ford F150	512	Kurfirist	4,523	\$2,567	\$6,154	\$3,587	90,467	\$0.50	\$0.57	\$0.74	\$0.36
19	2010 Ford F150	513	On-Call	7,596	\$3,144	\$3,051	(\$92)	60,889	\$0.44	\$0.41	\$0.69	\$0.41
20	2012 Ford F250	515	Reed	2,374	\$1,162	\$2,598	\$1,436	38,813	\$0.61	\$0.49	\$0.47	\$0.66
21	2012 Ford F250	516	Castellucci	5,754	\$3,148	\$4,734	\$1,585	41,984	\$0.54	\$0.55	\$2.44	\$0.48
22	2014 Ford F150	517	Grisso	1,321	\$317	\$1,408	\$1,091	7,495	\$0.41	\$0.24	\$0.66	\$0.33
23	2015 Ford F250 4x4	518	Kehoe, Chris	7,939	\$2,233	\$6,543	\$4,309	43,943	\$0.36	\$0.28	\$0.38	\$0.37
24	2015 Ford Escape 4X4	520	Arendell	7,742	\$1,370	\$4,195	\$2,825	22,982	\$0.26	\$0.18	\$0.31	\$0.16
25	2015 Ford F150 4X4	521	Lemos	4,857	\$778	\$1,951	\$1,173	17,285	\$0.31	\$0.16	\$0.36	\$1.95
26	2016 Nissan Frontier	522	Roberto	4,360	\$1,460	\$4,024	\$2,564	7,795	\$0.36	\$0.33	-	-
27	2017 Ford Escape 4X4	523	Lab	4,020	\$476	\$2,272	\$1,796	4,405	\$0.12	\$0.12	-	-
Total 3/4 Ton & Under				101,554	49,361	72,602	23,241	1,950,387	\$0.44	\$0.49	\$0.48	\$0.46
1	1999 Ford F350 W/Svc Body	19	Pool	791	\$2,434	\$1,018	(\$1,417)	132,543	\$0.79	\$3.08	\$2.42	\$1.05
2	2002 Int'l 5 Yd Dump	44	Construction	1,372	\$10,223	\$4,486	(\$5,737)	94,962	\$1.69	\$7.45	\$1.51	\$1.49
3	1999 Ford F550 3-Yd Dump °	52	Construction	1,891	\$2,001	\$5,164	\$3,163	87,167	\$0.97	\$1.06	\$1.15	\$1.22
4	2006 Int'l 4300 Crew	503	Breit	1,567	\$4,792	\$9,191	\$4,399	36,437	\$2.58	\$3.06	\$2.19	\$2.69
5	2008 Ford F350 4x4	507	Latanyshyn	5,827	\$4,908	\$7,388	\$2,480	107,078	\$0.80	\$0.84	\$0.73	\$0.63
6	2009 Peterbilt 335 Crew	508	Lemos/Reed	2,187	\$3,667	\$8,872	\$5,204	27,804	\$1.90	\$1.68	\$1.35	\$1.98
7	2012 Int'l 5 Yd Dump	514	Rupp	2,425	\$3,532	\$5,995	\$2,463	26,446	\$1.47	\$1.46	\$1.15	\$1.24
8	2015 Int'l 5 Yd Dump	519	Sjoblom	2,949	\$2,643	\$7,579	\$4,936	18,623	\$0.93	\$0.90	\$0.78	\$1.14
Total 1 Ton & Over				19,009	\$34,199	\$49,691	\$15,492	531,060	\$1.20	\$1.80	\$1.14	\$1.24

<sup>1</sup> Expense amount shown excludes depreciation (approximately \$100,000 for FY17).

<sup>2</sup> Recovery is the amount charged to projects and operations to recover the expense of owning and operating the vehicle. Commencing 7/1/07 the recovery rate for vehicles 3/4-ton and under is \$6/hr and the recovery rate for vehicles 1-ton and over is \$11/hr. An additional 50% is charged to developer projects to reflect the fair market value of the vehicle being used.

<sup>3</sup> Purchased used in 2004 with 33,500 miles. Mileage shown is total incurred since District purchase.

**NORTH MARIN WATER DISTRICT  
WATER CONSERVATION PROGRAM DETAIL  
FOR PERIOD ENDING DECEMBER 31, 2016**

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Description			COST THRU JUNE 2016	DECEMBER 2016	FYTD TOTAL	FY 16/17 BUDGET	(OVER) UNDER	TOTAL COST	
NOVATO									
a. Residential									
1-7700-01	1-7700-26	1	Cash for Grass	\$378,476	\$4,556	\$24,551	\$75,000	\$50,449	\$403,027
1-7700-02	1-7700-27	2	Landscape Efficiency Rebates	22,667	128	688	7,000	6,312	23,355
1-7700-03		3	Fixtures Purchases	44,652	0	0	5,000	5,000	44,652
1-7700-06	1-7700-28	4	Washing Machine Rebates	343,746	993	3,041	20,000	16,959	346,787
1-7700-07		5	Demonstration Garden Improvements	54,416	0	0	1,000	1,000	54,416
1-7700-11	1-7700-29	6	Toilet Rebate SF	964,946	1,908	13,617	34,000	20,383	978,563
1-7700-12	1-7700-30	7	Toilet Rebate MF	18,173	0	0	4,000	4,000	18,173
1-7700-13		8	Residential Audits	328,236	390	27,318	50,000	22,682	355,554
1-7700-15		9	High Efficiency Toilet Distribution	242,177	0	0	0	0	242,177
1-7700-16		10	Water Waste Ordinance Monitoring	85,576	583	8,348	10,000	1,652	93,925
1-7700-17	1-7700-31	11	Swimming Pool Cover Rebate	2,997	0	172	2,000	1,828	3,169
1-7700-19	1-7700-32	12	ET Controller Rebate	30,385	270	2,047	8,000	5,953	32,432
1-7700-08		13	Administration	1,312,551	8,110	47,160	140,000	92,840	1,359,711
1-7700-20		14	New Development Wtr Cons Program	73,519	1,613	7,137	8,000	863	80,656
1-7700-21	1-7700-33	15	Demand Offset Rebate Program	2,797	0	0	2,000	2,000	2,797
1-7700-23		16	Grant Administration	2,314	0	417	1,000	583	2,731
1-7700-24	1-7700-34	17	Hot Water Recirculation Rebate	1,927	0	94	4,000	3,906	2,021
1-7700-25		18	Residential Fill Station	66,064	0	0	10,000	10,000	66,064
b. Commercial									
1-7701-02	1-7701-05	1	Toilet Rebate Program	66,961	0	0	10,000	10,000	66,961
1-7701-03	1-7701-04	2	Commercial Audits	15,890	0	766	9,000	8,234	16,656
c. Public Outreach/Information									
1-8672-16		1	Fall Newsletter	56,769	0	8,869	8,000	(869)	65,638
1-8672-17		2	Spring Newsletter	74,879	0	0	9,000	9,000	74,879
1-8672-18		3	Summer Newsletter	20,290	0	0	0	0	20,290
1-7700-04		4	Public Outreach / H <sub>2</sub> O Fair	110,892	0	102	7,000	6,898	110,994
1-7700-05		5	Marketing	149,846	207	2,694	16,000	13,306	152,540
1-7700-22		6	Public Outreach/Leadership Novato	11,098	0	0	0	0	11,098
d. Large Landscape									
1-8653-02		1	Large Landscape Audits	89,427	105	210	5,000	4,790	89,637
1-7702-01		2	Large Landscape Budgets	36,181	188	1,513	1,000	(513)	37,694
1-7702-02	1-7702-04	3	Large Landscape Irrig Efficiency Rebates	14,460	0	222	4,000	3,778	14,682
1-8653-01		4	CIMIS Station Maintenance	18,653	0	0	2,000	2,000	18,653
1-7702-03		6	Administration-Large Landscape	40,984	1,914	11,850	8,000	(3,850)	52,834
TOTAL NOVATO WATER CONSERVATION			\$4,681,949	\$20,964	\$160,817	\$460,000	\$299,183	\$4,842,765	
WEST MARIN WATER									
2-5166-00		a.	Water Conservation Program	\$81,581	\$315	\$3,930	\$22,000	\$18,070	\$85,511
TOTAL WATER CONSERVATION EXPENDITURES <sup>1</sup>			\$81,581	\$315	\$3,930	\$22,000	\$18,070	\$85,511	

<sup>1</sup>FY17 total excludes \$209,713 (5,001.5 AF x \$41.93) paid to SCWA for water conservation services provided to NMWD.



**NORTH MARIN WATER DISTRICT  
CAPITAL IMPROVEMENT PROJECTS  
PERIOD ENDING DECEMBER 31, 2016**

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Description	COST THRU JUNE 2016	DECEMBER 2016	FYTD TOTAL	FY 16/17 BUDGET	(OVER)/UNDER BUDGET	TOTAL COST
<b>1 PIPELINE REPLACEMENTS/ADDITIONS</b>						
a. Main/Pipeline Replacements						
1-7161-00 1 Ridge Road 6" ACP (8" @ 1,400')	\$0	\$42	\$23,123	\$315,000	\$291,877	\$23,123
1-7169-00 2 Center Rd 6" CIP (8"@1,300')	0	3,036	15,005	0	(15,005)	15,005
b. Main/Pipeline Additions						
1-7150-00 1 San Mateo 24" Inlet/Outlet Pipe (2,200')	15,291	1,719	4,125	150,000	145,875	19,416
c. PB Service Line Replacements						
1-7139-xx 1 Replace PB in Sync w/City Paving (30 Svcs)	0	0	0	70,000	70,000	0
1-7123-xx 2 Other PB Replacements (85 Services)	0	0	0	200,000	200,000	0
1-7169-00 3 Country Lane 2" Plastic	0	582	1,470	0	(1,470)	1,470
d. Relocations to Sync w/City & County CIP						
1-8737-05 1 Meter Relocations-Plum St (14 Svcs, 1 Hydrant)	0	147	61,844	0	(61,844)	61,844
1-8737-xx 2 Other Relocations	0	0	0	80,000	80,000	0
<b>TOTAL PIPELINE REPLACEMENTS/ADDITIONS</b>	<b>\$15,291</b>	<b>\$5,527</b>	<b>\$105,566</b>	<b>\$815,000</b>	<b>\$709,434</b>	<b>\$120,857</b>
e. Aqueduct Replacements & Enhancements						
1-7118-02 1 MSN B2-Utility Agreement Costs*	\$61,355	\$5,600	\$12,421	\$0	(\$12,421)	\$73,777
<b>2 SYSTEM IMPROVEMENTS</b>						
1-7008-13 a. RTU Upgrades	\$0	\$0	\$13,102	\$15,000	\$1,898	\$13,102
1-7007-10 b. Detector Check Assembly Repair/Repl (~14/yr)	0	0	11,369	190,000	178,631	11,369
1-7090-03 c. Anode Installations (150/yr)	0	1,033	12,912	30,000	17,088	12,912
1-7132-03 d. Radio Telemetry	0	0	5,067	25,000	19,933	5,067
1-7146-00 e. Tank Access Hatch/Level Alarms (15 sites)	99,025	0	0	40,000	40,000	99,025
1-7157-00 f. Automate Zone Valve-Slowdown Ct	1,112	0	28	100,000	99,972	1,140
1-7158-00 g. Radio Read Meter Retrofit (Pilot Study/Install) <sup>1</sup>	88,565	18,341	96,170	3,000,000	2,903,830	184,735
1-7136-00 h. Facilities Security Enhancements	34,067	0	0	25,000	25,000	34,067
1-6504-20 i. 25 Giacomini Exterior Paint	0	0	0	8,000	8,000	0
1-7145-00 j. Zone A Pressure Improvements-BMK Intertie	319,547	12,354	60,691	0	(60,691)	380,238
<b>TOTAL SYSTEM IMPROVEMENTS</b>	<b>\$542,318</b>	<b>\$31,728</b>	<b>\$199,339</b>	<b>\$3,433,000</b>	<b>\$3,233,661</b>	<b>\$741,657</b>
<b>3 BUILDINGS, YARD, &amp; S.T.P. IMPROVEMENTS</b>						
a. Administration Building						
1-6501-43 1 Electronic Document Management System	\$0	\$0	\$0	\$150,000	\$150,000	\$0
1-6501-44 2 Office/Yard Building Refurbish <sup>2</sup>	0	0	0	3,000,000	3,000,000	0
1-6501-46 3 Office Emergency Generator	0	0	0	150,000	150,000	0
b. Corp Yard/Warehouse/Construction Office						
1-8738-01 1 SMART Crossing Upgrade (Golden Gate Pl)	0	0	46,704	58,000	11,296	46,704
c. Stafford Treatment Plant						
1-6600-69 1 Stafford Dam Concrete Spillway Repair	132,897	0	2,311	70,000	67,689	135,208
1-6600-82 2 STP Emergency Power Generator	0	0	0	150,000	150,000	0
1-6600-83 3 Lake Backfeed De-Chlorination System	0	0	0	50,000	50,000	0
1-6600-84 4 Dam Monitoring Well Repairs	0	0	22,248	0	(22,248)	22,248
<b>TOTAL BUILDING, YARD, &amp; STP IMPROVEMENTS</b>	<b>\$132,897</b>	<b>\$0</b>	<b>\$71,263</b>	<b>\$3,628,000</b>	<b>\$3,556,737</b>	<b>\$204,160</b>
<b>4 STORAGE TANKS &amp; PUMP STATIONS</b>						
1-6221-21 a. San Mateo Tank Recoat (5 MG)	\$0	\$197	\$13,580	\$120,000	\$106,420	\$13,580
1-6112-24 b. Lynwood Pump Station Motor Control Center	103,902	0	1,837	165,000	163,163	105,739
1-6117-27 c. San Marin Pump Station Can Rehab	0	0	0	30,000	30,000	0
1-6112-25 d. Lynwood Pump Station Can Rehab	0	0	0	30,000	30,000	0
1-6141-00 e. Crest P.S.(Design/Const)/Reloc School Rd P.S.	28,039	3,445	11,214	120,000	108,786	39,253
<b>TOTAL STORAGE TANKS &amp; PUMP STATIONS</b>	<b>\$131,941</b>	<b>\$3,642</b>	<b>\$26,632</b>	<b>\$465,000</b>	<b>\$438,368</b>	<b>\$158,572</b>

**NORTH MARIN WATER DISTRICT  
CAPITAL IMPROVEMENT PROJECTS  
PERIOD ENDING DECEMBER 31, 2016**

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Description	COST THRU JUNE 2016	DECEMBER 2016	FYTD TOTAL	FY 16/17 BUDGET	(OVER)/UNDER BUDGET	TOTAL COST
<b>5 RECYCLED WATER</b>						
5-7127-00 a. NBWRA Grant Program Administration	\$1,074,240	\$789	\$5,223	\$80,000	\$74,777	\$1,079,463
5-6058-10 b. Expansion to Central Area <sup>3</sup>	937,185	8,705	136,118	7,500,000	7,363,882	1,073,303
5-6058-15 c. RW Central Right of Way Costs <sup>3</sup>	59,768	594	25,560	0	(25,560)	85,328
5-6058-20 d. RW Central Private Onsite Retrofit <sup>3</sup>	6,961	87,228	87,280	0	(87,280)	94,241
5-6058-25 e. RW Central Public Onsite Retrofit <sup>3</sup>	25,486	3,450	3,553	0	(3,553)	29,039
5-6058-30 f. RW Exp-Central-East Side Const <sup>3</sup>	12	121,455	178,521	0	(178,521)	178,533
5-6058-40 g. RW Exp-Central-West Side Const <sup>3</sup>	420	890,418	1,048,359	0	(1,048,359)	1,048,778
5-6058-50 h. RW Central-Norman Tank Rehab/Const <sup>3</sup>	0	0	10,600	0	(10,600)	10,600
5-7155-00 i. Deer Island Wet Well Drain	329	7,561	7,561	0	(7,561)	7,890
5-7162-01 j. PG&E Power to Reservoir Hill Tank	0	153	153	20,000	19,847	153
k. Other Recycled Water Expenditures	0	0	0	80,000	80,000	0
<b>TOTAL RECYCLED WATER</b>	<b>\$2,104,400</b>	<b>\$1,120,354</b>	<b>\$1,502,928</b>	<b>\$7,680,000</b>	<b>\$6,177,072</b>	<b>\$3,607,328</b>
<b>6 WEST MARIN WATER SYSTEM</b>						
2-6263-20 a. Replace PRE Tank #4A (25K Gal w/82K Gal)	\$39,181	\$695	\$14,525	\$450,000	\$435,475	\$53,705
2-7160-00 b. Green Sand Filter Media Replace	0	0	0	75,000	75,000	0
2-6609-20 c. New Gallagher Well #2	0	0	0	100,000	100,000	0
<b>TOTAL WEST MARIN WATER SYSTEM</b>	<b>\$39,181</b>	<b>\$695</b>	<b>\$14,525</b>	<b>\$625,000</b>	<b>\$610,475</b>	<b>\$53,705</b>
<b>7 OCEANA MARIN SEWER SYSTEM</b>						
8-8672-28 a. Infiltration Repair	\$0	\$0	\$34,475	\$40,000	\$5,525	\$34,475
8-7163-00 b. Design/Install 8th Disposal Trench (300')	0	170	7,200	50,000	42,800	7,200
8-7085-02 c. Tahiti Way Lift Pumps Rebuild (2)	0	16,895	33,114	20,000	(13,114)	33,114
8-7164-00 d. Tahiti Way Power Relocation	0	0	0	20,000	20,000	0
8-7165-00 e. North St Lift Station Communication Upgrade	0	12	12	30,000	29,988	12
8-7166-00 f. ACP Sewer Reline	0	0	625	50,000	49,375	625
8-7167-00 g. Dosing Siphon Repairs	2,877	7,750	56,454	0	(56,454)	59,331
<b>TOTAL OCEANA MARIN SEWER SYSTEM</b>	<b>\$2,877</b>	<b>\$24,826</b>	<b>\$131,879</b>	<b>\$210,000</b>	<b>\$78,121</b>	<b>\$134,756</b>
<b>TOTAL PROJECT EXPENDITURES</b>	<b>\$3,030,260</b>	<b>\$1,192,372</b>	<b>\$2,064,554</b>	<b>\$16,856,000</b>	<b>\$14,791,447</b>	<b>\$5,094,813</b>
<b>8 LESS FUNDED BY GRANTS, LOANS &amp; REIMBURSEMENTS</b>						
<b>(Accrued)/Deferred</b>						
a. RW Expansion - Central Service Area SRF Loan <sup>3</sup>	(\$500,814)	(\$532,495)	(\$716,118)	\$0	\$716,118	(\$1,216,931)
b. RW Expansion - Central Service Area Grant <sup>3</sup>	(462,289)	(\$491,534)	(\$661,032)	0	661,032	(1,123,322)
c. MSN Aqueduct Caltrans Reimb-Segment B2 <sup>4</sup>	(60,853)	(5,600)	(12,421)	0	12,421	(73,274)
d. Radio Read Meter Retrofit (Pilot Study/Install) <sup>1</sup>	0	(18,341)	(96,170)	0	96,170	(96,170)
e. Office/Yard Building Refurbish <sup>2</sup>	0	0	0	0	0	0
<b>FUNDING BY OTHERS (ACCRUED)/DEFERRED</b>	<b>(\$1,023,956)</b>	<b>(\$1,047,970)</b>	<b>(\$1,485,742)</b>	<b>\$0</b>	<b>\$1,485,742</b>	<b>(\$2,509,697)</b>
<b>Received</b>						
a. RW Expansion - Central Service Area SRF Loan <sup>3</sup>	\$0	\$0	\$0	(\$3,633,240)	(\$3,633,240)	\$0
b. RW Expansion - Central Service Area Grant <sup>3</sup>	0	0	0	(3,353,760)	(3,353,760)	0
c. MSN Aqueduct Caltrans Reimb-Segment B2 <sup>4</sup>	(57,843)	0	0	0	0	(57,843)
d. Radio Read Meter Retrofit (Pilot Study/Install) <sup>1</sup>	0	0	0	(3,000,000)	(3,000,000)	0
e. Office/Yard Building Refurbish <sup>2</sup>	0	0	0	(3,000,000)	(3,000,000)	0
<b>FUNDING BY OTHERS RECEIVED</b>	<b>(\$57,843)</b>	<b>\$0</b>	<b>\$0</b>	<b>(\$12,987,000)</b>	<b>(\$12,987,000)</b>	<b>(\$57,843)</b>
<b>NET PROJECT EXPENDITURES</b>	<b>\$1,948,461</b>	<b>\$144,402</b>	<b>\$578,812</b>	<b>\$3,869,000</b>	<b>\$3,290,189</b>	<b>\$2,527,274</b>

**NORTH MARIN WATER DISTRICT  
CAPITAL IMPROVEMENT PROJECTS  
PERIOD ENDING DECEMBER 31, 2016**

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Description	COST THRU JUNE 2016	DECEMBER 2016	FYTD TOTAL	FY 16/17 BUDGET	(OVER)/UNDER BUDGET	TOTAL COST
<b>CIP SUMMARY-GROSS EXPENDITURES:</b>						
		Current Month	FYTD Total	FY 16/17 Budget	FYTD/ Budget%	
Novato Water Capital Projects		\$46,497	\$415,221	\$8,341,000	5%	
Novato Recycled Water Capital Projects		1,120,354	1,502,928	7,680,000	20%	
West Marin Water Capital Projects		695	14,525	625,000	2%	
Oceana Marin Sewer Capital Projects		24,826	131,879	210,000	63%	
Gross Capital Improvement Project Outlays		\$1,192,372	\$2,064,553	\$16,856,000	12%	
<b>CIP SUMMARY-NET EXPENDITURES:</b>						
		Current Month	FYTD Total	FY 16/17 Budget	FYTD/ Budget%	
Novato Water Capital Projects		\$22,556	\$306,630	\$2,341,000	13%	
Novato Recycled Water Capital Projects		96,325	125,778	693,000	18%	
West Marin Water Capital Projects		695	14,525	625,000	2%	
Oceana Marin Sewer Capital Projects		24,826	131,879	210,000	63%	
Net Capital Improvement Project Outlays		\$144,402	\$578,812	\$3,869,000	15%	

**Notes to Capital Improvement Projects Schedule:**

- (1) Radio Read Meter Retrofit to be funded by SRF or Bank Loan.
- (2) Office/Yard Refurbish to be funded by Bank Loan.
- (3) \$11.7M RW Central Expansion funded by Federal Grants, SRF Loan, local contribution & Marin Country Club contribution. Debt service paid from FRC Funds.
- (4) Funding provided 100% by Caltrans.

<b>CONSULTING SERVICES/STUDIES</b>						
1-4055-00	a. Stafford Lake Sanitary Survey	\$118	\$3,295	\$5,580	\$40,000	\$34,420
1-4056-00	b. Novato Creek Steelhead Recovery	5,829	0	820	100,000	99,180
1-4057-00	c. Local Water Supply Enhancement Study	0	0	0	100,000	100,000
1-7039-02	d. Novato Water Master Plan Update	0	0	143	85,000	84,857
1-4058-00	e. Cost of Service Study Peer Review	0	0	0	30,000	30,000
1-4059-00	f. Stafford Lake Water Rights Update	0	0	0	50,000	50,000
1-4060-00	g. STP Efficiency Improvements	0	0	0	150,000	150,000
2-4061-00	h. Digitize West Marin Water Facility Maps	0	2,700	2,700	35,000	32,300
5-4045-00	i. RW Engineering Report Update	24,804	0	6,786	0	(6,786)
		\$30,751	\$5,995	\$16,029	\$590,000	\$573,971
						\$46,779

## North Marin Water District Financial Statement Notes

### Note 1 - Restricted Cash

**Connection Fee Fund:** Cash available from collection of Connection Fees. The fee is charged to developers based upon the estimate of cost necessary to construct capacity to serve the new development. These funds are restricted by law for expansion of the water or sewer facilities within the service area where the development occurs. Funds are disbursed from the Connection Fee Reserve as expenditures are incurred to increase system capacity to serve new development. The fund balance accrues interest monthly.

**Wohler Pipeline Financing Fund:** In December 2002 the Sonoma County Water Agency sold \$6.8 million (par) of 30-year revenue bonds to finance the Wohler to Forestville Pipeline. NMWD's share of the debt is \$844,050 ( $\$6,800,000 \times 11.2 / 90.4$ ). In January 2003 the District established this designated cash and corresponding reserve account and transferred \$844,050 of FRC money into the fund. The Wohler Pipeline Financing Fund is credited with interest monthly.

**Collector #6 Financing Fund:** The Sonoma County Water Agency received a \$15.8 million State Revolving Fund loan commitment at an interest rate of 2.8% repayable over 20 years for construction of Collector #6. NMWD's share of Collector #6 is \$1,950,000 ( $\$15,800,000 \times 11.2 / 90.4$ ). In January 2003 the District established this designated cash and corresponding reserve account and transferred \$1,950,000 of FRC money into the fund. The Collector #6 Financing Fund is credited with interest monthly.

**Revenue Bond Redemption Fund:** Comprised of one year of debt service as required by West Marin revenue bond covenants. These funds are restricted for payment of bond principal, interest and administration fees. The fund balance does not accrue interest.

**Bank of Marin Project Fund:** The District received an \$8 million loan from the Bank of Marin in October 2011 to fund the Aqueduct Energy Efficiency Project. The 20-year, 3.54% annual percentage rate loan requires monthly payments of \$46,067 and will be fully amortized on 10/27/2031. In June 2012 the Board authorized reallocating \$1 million of this loan to West Marin Water to repay Novato Water \$223,000 owed for previous loans to fund Long Range Improvement Projects and the remainder to fund the Solids Handling Facility at the Point Reyes Water Treatment Plant. The unexpended fund balance accrues interest monthly.

**Deer Island RWF Replacement Fund:** The State Revolving Fund (SRF) loan agreement required the District to agree to establish and maintain a Water Recycling Capital Reserve Fund (WRCRF) for the expansion, major repair, or replacement of the Deer Island Recycled Water Treatment Plant. The WRCRF is maintained in compliance with the "Policy for Implementing the State Revolving fund for Construction of Wastewater Treatment Facilities" in effect at the time the agreement was signed by the District. The September 2003 Recycled Water Master Plan prepared by Nute Engineering recommended limiting the reserve to fund replacement of the RWF electrical and mechanical equipment (including transmission pumps) as they wear out. The cost of said equipment was \$1,483,000 which, at Nute's recommended 6% interest rate factor and 25-year life, renders an annual funding requirement \$115,000. The fund balance accrues interest monthly.

**Recycled Water Capital Replacement and Expansion Fund:** The 2011 Interagency Agreements for Recycled Water between NSD, LGVSD & NMWD require that any payments to the Distributor (NMWD) by the End User (Consumers) in excess of actual costs (marginal payments) shall be deposited in this fund. Operation and Maintenance Costs are defined as the actual cost of: labor (including general and administrative overhead plus tools and supplies normally applied), equipment and vehicle charges, consumables (such as chemicals and electrical power), and spare parts and/or replaced components necessary to reliably treat and deliver recycled water to the End Users. Operation and Maintenance Costs do not include costs for major capital replacement or process changes.

**Tax Receipts held in Marin County Treasury:** Balance of tax proceeds collected and disbursed by the County of Marin for repayment of the Olema (OL-2) general obligation bond debt. The County credits interest to these funds quarterly.

**STP SRF Loan Fund – Marin County Treasury:** The 2004 Stafford Treatment Plant State Revolving Fund (SRF) loan agreement requires the District to build a Reserve Fund equal to one year of payments (\$1,044,474) in the Marin County Treasury during the first ten years of the 20-year repayment period. Every January 1 and July 1, commencing January 1, 2010, the District deposits with the County 10% of the semi-annual SRF payment. The County credits the fund with interest quarterly, and will use the Reserve to pay the last 2 semi-annual SRF loan payments.

**RWS North/South SRF Payment Fund:** The State Water Resource Control Board Agreements for the seven Clean Water State Revolving Fund Loans made for expansion of the Recycled Water System distribution system require that the District establish a reserve fund equal to one year's debt service (\$614,299) prior to the construction completion date.

## **Note 2 - Designated Cash**

**Liability Contingency Fund:** Established in 1986 when the District first elected to self-insure its general liability risk. This reserve was funded with \$1 million initially and \$200,000 annually thereafter until it reached a balance of \$2 million. In FY98 the West Marin Water System was included in the fund and built-up a proportional reserve of \$74,000 over several years. Commencing FY93, \$1 million of the reserve was made available to fund loans to eligible employees under the District's Employer Assisted Housing Program. In August 2008, \$500,000 was transferred into this reserve from the Self-Insured Workers' Compensation Fund and made available to fund Employer Assisted Housing Program loans. Currently there are \$1,234,200 in Employer Assisted Housing Loans outstanding (see Note 3). In March 2005, \$652,400 was expended from the fund to purchase a home at 25 Giacomini Road in Point Reyes Station. The home is rented to an employee who provides after-hours presence in the community to respond to emergencies. In 2006, \$8,885 was added from the sale of surplus property in West Marin. The fund balance does not accrue interest.

**Self-Insured Workers' Compensation Fund:** Commencing July 2011, the District began self-insuring its workers' compensation liability. The savings accrued through self-insuring the liability is reserved in this fund for possible future claims expense. The District carries a workers' compensation excess policy for claims that exceed \$750,000. See schedule on page 21.

**Retiree Medical Benefits Fund:** NMWD pays the cost of health insurance for retirees between the ages of 55 and 65 and spouse under any group plan offered by CalPERS. The retiree must be at least 55 and have a minimum of 12 years of NMWD service at the date of retirement. NMWD's contribution toward the chosen plan is capped in the same manner as all other NMWD employees in the same class. Coverage terminates for the spouse when the spouse becomes eligible for Medicare, or for both the retiree and spouse when the retiree becomes eligible for Medicare. When the retiree or spouse becomes eligible for Medicare, NMWD pays up to the couple annuitant rate, which is capped at \$3,830 per year (\$319/month). In August 2003, NMWD transferred \$2.55 million (\$2.3 million for current retirees plus \$250,000 for future retirees) from unrestricted cash into a reserve to fund this obligation. In 2010 the Board directed staff to add \$1,500 per employee annually as a payroll overhead to accrue and accelerate amortization of this liability. The accrual is maintained as a Long-Term Liability entitled Retiree Health Benefits Payable. The Retiree Health Benefits Payable plus the Retiree Medical Benefits Reserve Fund currently has a balance of \$3.7M. In 2015 an Actuarial Analysis calculated NMWD's total actuarial liability at \$5.6 million. The Retiree Medical Benefits cash fund earns interest monthly. Accounting Standards require that the \$5.6M reserve be fully funded in 20 years.

**Drought Contingency (Rate Stabilization) Fund:** In August 2008, the Board directed staff to establish this reserve with \$135,000 from the Self-Insured Workers' Compensation Fund for the Novato district to draw upon during dry years. A threshold of 3.2 billion gallons of potable consumption was established as a benchmark for 'normal' years. During any fiscal year that water sales volume exceeds 3.2BG, the incremental revenue generated is deposited into the Drought Contingency Reserve. In those years when sales volume falls below the benchmark, funds are withdrawn from the reserve to maintain the budgeted revenue forecast. The goal is to build a reserve equal to 20% (currently \$2,500,000) of budgeted annual water commodity sales. In FY09 \$50,335 was added to the reserve. The fund was fully depleted in FY10. The fund balance accrues interest monthly.

**Maintenance Accrual Fund:** Established in FY91 to provide a source of maintenance money for replacement of treatment, storage, transmission and distribution facilities as they wear out. The annual contribution from operating reserves was initially \$200,000. Net polybutylene claim settlement proceeds of \$671,060 were closed into the fund in FY93. In FY94 the annual contribution was reduced to \$100,000. The District's goal is to build a reserve equal to 10% of the net book value of Novato's existing plant, currently \$7.0M. Funds are borrowed from the Maintenance Accrual Fund to offset the shortfall in unrestricted Cash & Investments. The fund balance does not accrue interest.

**Conservation Incentive Rate Fund:** In 2004 and 2005, a Conservation Incentive Tier Rate was enacted in Novato and West Marin respectively. Monies derived from this tier-rate charge are set aside in the Conservation Incentive Rate Reserve, and used for conservation programs designated by the Board. The fund balance accrues interest monthly.

**Operating Reserve Fund:** This reserve, comprised of four months of budgeted operating expenditures (less depreciation) as recommended by the District's financial advisors, serves to ensure adequate working capital for operating, capital, and unanticipated cash flow needs that arise during the year. The fund balance does not accrue interest.

### **Note 3 – Employee Loans**

**Housing Loans:** The District's Employer Assisted Housing Program allows up to \$300,000 to be loaned to an employee for a period of up to 15 years for the purchase of a home within the District service territory that will enable the employee to respond rapidly to emergencies affecting the operation of the District. Repayment is due upon sale, termination of employment, or other event as described in the Program. Interest on the loan is contingent upon and directly proportional to the appreciation in value occurring on the purchased property. There are five employee-housing loans currently outstanding totaling \$934,200: a \$250,000 loan dated August 2004, a \$39,200 loan dated September 2004, a \$150,000 loan dated November 2007, a \$245,000 loan dated June 2010, and a \$250,000 loan dated March 2015.

### **Note 4 – Other Long Term Receivables**

The District entered into a temporary water service agreement with Black Point Golf Links in 1999 to provide potable water for StoneTree Golf Course until recycled water was available. In 2006 the District received a \$4.3 million 20-year 2.4% SRF loan to finance the Deer Island Recycled Water project, and Black Point Partners agreed to pay the District \$3,612,640 in bimonthly payments of \$41,762 at 2.4% coinciding with StoneTree's water service payments. The final payment from StoneTree is due in February 2024.

### **Note 5 – Depreciation**

Assets are assigned a useful life based on consultations with the District Chief Engineer and a survey of other water agencies. Depreciation is computed on a straight-line basis over the estimated useful life of the various classes of property as follows:

<u>Facility</u>	<u>Life (Years)</u>
Aqueduct.....	150
Dam.....	100
Buildings & Structures.....	40
Mains.....	50
Pumping Equipment.....	25
Water Treatment Equipment.....	20
Storage & Transmission (16"+) Facilities.....	50
Distribution Facilities (includes Pump Stations).....	50
Office, Laboratory, Construction & Shop Tools & Equipment.....	10
Vehicles 1 ton or greater.....	10
All other vehicles.....	5
Sewer Mains.....	40
Sewer Pumps.....	10

### **Note 6 - Capitalization Policy**

The Government Finance Officers Association *Guide for State and Local Governments* recommends that a capitalization policy incorporate a minimum threshold of \$5,000 and an estimated useful life of at least two years. It also cautions that federal grant and loan requirements prevent the use of capitalization thresholds in excess of \$5,000. Thus NMWD's capitalization threshold is \$5,000.

### **Note 7 – Bond & Loan**

#### **Servicing Schedule for Fiscal Year 2016-2017**

Service Area	Description	Issue Date	Rate	Original Amount	Payment Due	Final Pmt	FY17		6/30/17 Outstanding Balance
							Interest Expense	Principal Paid	
1 Novato	EDA Loan	1977	5.0%	\$351,770	7/1	7/1/17	\$872	\$16,705	\$17,679
2 Novato	SRF Loan - STP	2004	2.39%	\$16,528,850	7/1 & 1/1	7/1/29	\$272,950	\$771,524	\$10,840,721
3 Novato	Bank Marin Loan	2011	3.54%	\$7,000,000	27 <sup>th</sup> /mo	10/27/31	\$191,830	\$290,212	\$5,412,750
Novato Total							\$465,652	\$1,078,441	\$16,271,150
4 RW TP	SRF Loan	2006	2.4%	\$4,302,560	6/19	6/19/27	\$62,773	\$210,594	\$2,404,935
5 RW North	SRF Loans (4)	2013	2.6%	\$4,375,605	Varies	Varies	\$96,894	\$184,998	\$3,541,694
6 RW South	SRF Loans (3)	2013	2.2%	\$5,359,858	Varies	Varies	\$104,280	\$228,127	\$4,509,772
Recycled Water Total							\$263,947	\$623,719	\$10,456,401
7 Point Reyes	EDA Loan	1977	5.0%	\$46,000	7/1	7/1/17	\$96	\$2,481	\$1,964
8 PRE	PRE-1 Revenue	1980	5.0%	\$240,000	10/1 & 4/1	4/1/20	\$2,500	\$12,000	\$38,000
9 Point Reyes	PR-6 Revenue	1981	5.0%	\$217,800	7/1 & 1/1	7/1/21	\$3,050	\$10,000	\$46,000
10 WM Water	Bank Marin Loan	2012	3.54%	\$1,000,000	27 <sup>th</sup> /mo	10/27/31	\$28,159	\$42,600	\$800,897
West Marin Water Total							\$33,805	\$67,081	\$886,861
FY16 Total							\$763,404	\$1,769,241	\$27,614,412

1. In 1977 the Federal Economic Development Administration issued a 40-year 5% loan of \$351,770 to assist in the funding emergency Novato Water system projects in response to the drought.
2. In April 2004 the California State Department of Water Resources approved a 2.39% 20-year loan for reconstruction of the Stafford Water Treatment Plant. The project was completed in FY09 with repair of the Outlet Tower Sluice Gate. Interest paid during construction totaled \$1,636,378. The loan covenants require an annual reserve fund contribution of \$104,447 (10% of the annual debt service obligation) be deposited into the Marin County Treasury during each of the first ten years of the repayment period. Debt service is funded 25% by Facility Reserve Charges. The first payment was made in December 2009.
3. In October 2011 Bank of Marin made a 20-year 3.54% (APR) loan of \$8 million to fund the District's share of the Aqueduct Energy Efficiency Project. See Note 15, and note to loan 11 below.
4. In August 2006 the California State Department of Water Resources approved a 2.4% 20-year loan of \$4,264,545 for construction of the Deer Island Recycled Water Facility. With the addition of \$38,015

in Construction Period Interest, the loan principal totaled \$4,302,560. The project was completed in June 2007, and the first payment was made June 19, 2008.

5. In July 2011 the California State Department of Water Resources approved a series of four 2.6% 20-year loans which totaled \$4,375,605 for the Recycled Water North Service Area Expansion Project. The projects were completed on October 31, 2012, and the first payment was made in November of 2012.
6. In March 2012 the California State Department of Water Resources approved a series of three 2.2% 20-year loans totaling \$5,361,952 for the Recycled Water South Service Area Expansion Project. The projects were completed on September 4, 2013, and the first payment was made in December of 2013.
7. In 1977 the Federal Economic Development Administration issued a 40-year 5% loan of \$46,000 to assist in the funding emergency West Marin Water system projects, including temporary diversions from Bear Valley Creek and Lagunitas Creek in response to the drought.
8. The Paradise Ranch Estates private water system was created by David Adams and Sons in 1952 to provide water to 85 homes in the PRE subdivision located north of Inverness Park. Problems with water quality and quantity developed and in 1969 the Marin County Health Department issued a boil-water order to all customers of the company. In 1972 the County declared a moratorium on issuance of building permits. A suit by property owners resulted in an agreement reached in Marin Superior Court in late 1978 directing Adams to finance a District feasibility study for the takeover of the system. This culminated in formation of Improvement District PRE-1 and an election authorizing issue of \$240,000 of 5% 40-year revenue bonds, which, in conjunction with a \$720,000 Farmers Home Administration grant, financed system rehabilitation. Service was provided from the Point Reyes System by installation of an additional well, expansion of the treatment plant, and a 6-inch pipeline connection at the Inverness Park pump station extending 1.6 miles along Sir Francis Drake Boulevard to the newly reconstructed Paradise Ranch Estates distribution system. On 4/22/80 the USDA purchased the revenue bond issue in its entirety.
9. In 1981 work commenced on rehabilitating the Point Reyes Inverness Park water system. 18,865 feet of pipeline was either replaced or installed, a 300,000-gallon tank was added in Point Reyes Station and a 100,000-gallon tank was added in Inverness Park. Total cost of these improvements was \$820,015. A 72% grant combined with a \$217,800 5% 40-year revenue bond acquired 8/28/81 by the Farmers Home Administration financed the project.
10. In June 2012 the Board authorized reallocating \$1 million of the Bank of Marin loan to West Marin Water to repay Novato Water \$223,000 owed for loans to fund Long Range Improvement Projects and the remainder to fund the Solids Handling Facility at the Point Reyes Water Treatment Plant. See note to loan 3 above.

#### **Note 8 – Unemployment Insurance Reserve**

NMWD uses the "Reimbursable Method" of paying for Unemployment Costs. Under this method, the District reimburses the State Employment Development Department for all unemployment benefits paid on our behalf. The reserve is maintained at an amount equal to the higher of the average claim amount paid over the last 5 years or 52 times the maximum weekly benefit amount (currently \$450 x 52 = \$23,400).

#### **Note 9 – Payroll Benefits**

Payroll Benefits payable includes payroll taxes; vacation, sick, and holiday leave; Section 125 payments; cancer, long term care and disability insurance premiums; union dues; and employee benefit fund.

#### **Note 10 - Interest Policy on Inter-District Loans**

In the event an improvement district expends all of its Undesignated Funds, it shall borrow funds from that improvement district's Board Designated Fund reserves to meet ongoing requirements. In the event an improvement district expends all of its Board Designated Fund reserves, it may receive a loan from the Novato Improvement District in an amount sufficient to meet its ongoing requirements. Restricted Funds shall not be used to finance ongoing normal operating expenses.



No interest shall be paid by an improvement district on funds borrowed from that improvement district's Board Designated Fund reserves. Interest on loans from the Novato Improvement District shall be paid by the recipient district to the Novato district based upon the outstanding loan balance at the close of the previous accounting period. Interest shall be calculated at the higher of: 1. The weighted average interest rate of Novato improvement district debt (2.77% at 6/30/15); or 2. The average interest rate earned on the District treasury since the close of the previous accounting period; plus \$50 per month.

**Note 11 – Budget Augmentations**

**Note 12 – Prior Period Adjustment**

Water usage adjustment (\$247,077) for FY16 due to inaccurate meter reads by Sonoma County Water Agency.

**Note 13 – Explanation of Financial Statement Components**

The District's financial statement is comprised of four components: 1) Statement of Net Position, 2) Sources and Uses of Funds Statement – All Service Areas Combined, 3) Income Statement and Cash Flow by Service Area, and 4) Notes to the Financial Statements. This report also contains other supplementary information in addition to the basic financial statements themselves.

**The Statement of Net Position** (page 4) reports the District's assets and liabilities and provides information about the nature and amount of investments in resources (assets) and the obligations to the District's creditors (liabilities). The difference between assets and liabilities is reported as *net position*. Over time, increases or decreases in the fund balance may serve as a useful indicator of whether the financial position of the District is improving or deteriorating.

**The Sources and Uses of Funds Statement – All Service Areas Combined** (page 8) compares fiscal year-to-date performance against the Board approved annual budget – presented in the adopted budget format. This Sources and Uses of Funds Statement varies from the income statement in that it includes capital expenditures, debt principal repayment, connection fee revenue, and cash infusions from debt issuance.

**The Income Statement and Cash Flow by Service Area** (page 9) presents the net income (loss) for the fiscal year-to-date (FYTD) period for each of the District's four service areas. The income and expenses on this report are presented in conformity with Generally Accepted Accounting Principles (GAAP) and comply with Governmental Accounting Standards Board pronouncements. Accordingly, all income and expenses are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. This statement measures the success of each service area's operations and can be used to determine whether the service area has successfully recovered all costs through user fees and other charges.

Also included at the bottom of page 9 is a statement of Cash Flow by Service Area. The primary purpose of this statement is to reconcile in an informative manner the difference between the net income/(loss) for the period of each service area with the resultant change in cash balance that occurred over the same period.

**Notes to the Financial Statements** (page 31) provide a summary of significant accounting policies and assumptions and other information of value to the financial statement reader.

**Other Supplementary Information** includes Detail Income Statements presented in accordance with GAAP for each of the four service areas (pages 10, 14, 16, 19). These statements present income and expenditures in close detail for further analysis. Other supplementary schedules of note include the Vehicle Fleet Analysis (page 25), Equipment Expenditures (page 22) and Capital Improvement Project Expenditures (page 27), which show outlays to date, compared with budget authority.

#### **Note 14 –Connection Fee Transfers from Novato Water To Recycled Water**

The following Connection Fee (FRC) reserve amounts have been transferred to the Recycled Water fund:

	Expansion Local Share			NBWRA	SRF RWF Expansion		Misc	Total	Transfer Executed
	North	South	Central		Loan	SRF Loan			
FY07				\$29,725				\$29,725	
FY08				\$50,478	\$22,795			\$73,273	
FY09				\$150,455	\$22,795			\$173,250	
FY10	\$133,659			\$75,198	\$22,795			\$231,652	\$133,659
FY11				\$133,319	\$22,795			\$156,114	
FY12	\$233,478	\$265,500		\$115,883	\$22,795			\$637,656	
FY13				\$315,023	\$22,795	\$464,572		\$802,390	\$1,970,400
FY14	\$236,291	\$723,525	\$4,024	\$63,035	\$22,795	\$500,529		\$1,550,200	\$1,550,200
FY15		\$17,563	(\$4,024)	\$38,283	\$22,795	\$614,299		\$688,916	\$688,916
FY16	\$0	\$0	\$66,729	\$102,842	\$22,795	\$614,299		\$806,664	\$806,664
FY17			\$112,840	\$5,223		\$518,146	\$8,043	\$644,251	\$644,251
	<b>\$603,428</b>	<b>\$1,006,589</b>	<b>\$179,569</b>	<b>\$1,079,464</b>	<b>\$205,154</b>	<b>\$2,711,845</b>	<b>\$8,043</b>	<b>\$5,794,091</b>	<b>\$5,794,091</b>

#### **Note 15 –Debt Service Coverage Ratio**

Debt Service Coverage Ratio is the ratio of net income/(loss) plus interest expense, depreciation, and connection fee revenue for the fiscal year to the sum of the fiscal year's principal and interest payments on the District's total debt.

	FY13	FY14	FY15	FY16	FY17 Budgeted
Net Income/(Loss)	\$2,036,943	\$3,815,820	\$1,050,523	\$378,468	\$579,000
Depreciation	\$2,784,648	\$3,128,302	\$3,183,725	\$3,286,353	\$3,517,000
Interest Expense	\$778,762	\$830,830	\$847,951	\$807,035	\$779,000
Connection Fees	\$876,350	\$152,800	\$801,600	\$278,690	\$832,000
Total Available For Debt Service	\$6,476,703	\$7,927,751	\$5,883,799	\$4,750,546	\$5,707,000
Annual Debt Service	\$2,118,314	\$2,448,968	\$2,534,473	\$2,528,938	\$2,531,000
<b>Debt Service Coverage Ratio</b>	<b>3.06</b>	<b>3.24</b>	<b>2.32</b>	<b>1.88</b>	<b>2.25</b>
<b>Bank of Marin Debt Service Coverage Calculation<sup>1</sup></b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17 Budgeted</b>
Change in Net Assets <sup>2</sup>	\$5,035,889	\$1,999,996	\$5,051,394	\$4,517,516	\$4,138,000
Interest Expense	\$778,762	\$830,830	\$847,951	\$807,035	\$779,000
Depreciation & Amortization	\$2,784,670	\$3,128,302	\$3,183,725	\$3,286,353	\$3,517,000
Total Available for Debt Service	\$11,598,266	\$5,959,128	\$10,269,919	\$8,610,903	\$8,434,000
Bank of Marin Annual Debt Service	\$552,800	\$552,800	\$552,800	\$552,800	\$552,800
<b>Bank of Marin Coverage Ratio</b>	<b>20.98</b>	<b>10.78</b>	<b>18.58</b>	<b>15.58</b>	<b>15.26</b>

<sup>1</sup> Per the October 27, 2011 Bank of Marin loan agreement, each June 30, beginning June 30, 2012, the Debt Service Coverage Ratio shall not be less than 1.2 to 1. "Debt Service Coverage Ratio" shall mean the ratio of (i) Borrower's change in net assets plus interest, depreciation, and amortization during the fiscal-year period ending on the Determination Date to the sum of the scheduled principal and interest payments on the Loan during the twelve-month period following the Determination Date.

<sup>2</sup> See page 9

**Note 15 – Deferred Inflow and Deferred Outflow of Resources**

*Deferred Inflow of Resources* is the net difference between projected and actual earnings on pension plan investments, which for FY15 was \$806,744 and is recognized in FY16. *Deferred Outflow of Resources* is the fiscal year 2016 pension contribution (\$828,792) adjusted by the change in employer's proportion of differences between the employer's contributions and the employer's proportionate share of contributions from the CalPERS Actuarial Report (\$525,463) for a total of \$1,354,255 at June 30, 2016

	<b>Deferred Outflow</b>	<b>Deferred Inflow</b>
FY16 Pension Contributions	\$828,792	
Differences between actual & expected experience	\$42,882	
Changes in actuarial assumptions		(\$405,704)
Net difference between projected & actual earnings on investments		(\$203,384)
Differences between actual contribution & proportionate share of contribution		(\$197,656)
Adjustment due to differences in proportions of net pension liability	\$482,581	
Total at June 30, 2016	\$1,354,255	(\$806,744)

**Note 16 – Net Pension Liability**

The net pension liability is the difference between the total pension liability (the present value of projected benefit payments to employees based on their past service) and the assets (mostly investments reported at fair value) set aside in a trust and restricted to paying benefits to current employees, retirees, and their beneficiaries.

Net Pension Liability 6/30/2015	\$6,701,264
Reclassify FY15 Contributions to FY16	(\$669,066)
Difference between Expected & Actual Experience	\$58,197
Change in Proportion	\$578,040
Changes in Deferred Outflows & Inflows	\$978,843
Change in Actuarial Assumptions	(\$550,598)
Change in Actual Contribution & Proportionate Share of Contribution	(\$268,248)
Difference between Projected & Actual Earnings on Investments	\$1,791,405
Net Pension Liability 6/30/2016	\$8,619,837

Net Pension Liability (NPL) = Total Pension Liability (TPL) – fiduciary net position (market value of assets)

Pension Expense = service cost + interest on TPL + current period benefit changes – member contributions – expected earnings on plan investments + administrative expenses + recognition of deferred outflows – recognition of deferred inflows

6

**NORTH MARIN WATER DISTRICT**  
**MONTHLY PROGRESS REPORT FOR *December 2016***  
January 17, 2017

1.

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

Month	FY16/17	FY15/16	FY14/15	FY13/14	FY12/13	17 vs 16 %
July	345	227	319	385	389	52%
August	330	235	301	360	396	40%
September	315	210	276	332	346	50%
October	222	299	221	313	283	-26%
November	156	145	173	229	166	7%
December	171	145	129	182	146	18%
FYTD Total	1,539	1,262	1,419	1,800	1,726	22%

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

Month	FY16/17	FY15/16	FY14/15	FY13/14	FY12/13	17 vs 16 %
July	7.9	6.6	8.6	9.3	9.8	20%
August	7.4	7.0	8.5	9.3	9.7	6%
September	6.4	6.4	7.8	8.5	8.3	-1%
October	5.2	6.5	5.4	8.0	7.4	-21%
November	4.2	4.7	4.6	6.8	5.2	-11%
December	3.7	3.9	4.7	6.4	4.5	-5%
FYTD Total	34.8	35.2	39.5	48.3	44.9	-1%

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

Month	FY16/17	FY15/16	FY14/15	FY13/14	FY12/13	17 vs 16 %
July	70	108	83	98	49	-35%
August	90	79	61	83	83	14%
September	97	38	26	56	72	153%
October	94	50	0	82	88	90%
November	64	58	8	5	64	10%
December	0	0	0	2	0	-
FYTD Total	415	333	178	326	355	25%

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

Month	FY16/17	FY15/16	FY14/15	FY13/14	FY12/13	16 vs 15 %
July	27.1	21.3	21.8	27.6	11.2	27%
August	26.0	26.2	26.0	26.2	10.5	-1%
September	23.5	15.7	19.2	18.6	8.5	50%
October	8.3	15.8	9.4	15.8	0.0	-47%
November	1.2	3.2	3.7	6.4	0.0	-62%
December	0.4	0.8	1.6	1.6	0.0	-54%
FYTD Total*	86.5	83.0	81.6	96.1	30.2	4%

\*Excludes potable water input to the RW system: FYTD17=0.0MG; FYTD16=6.9MG; FYTD15=6.9MG; FYTD14=5.3MG.

## 2. Stafford Lake Data

	December Average	December 2015	December 2016
Rainfall this month	5.33 Inches	5.74 Inches	4.49 Inches
Rainfall this FY to date	10.24 Inches	6.79 Inches	11.72 Inches
Lake elevation*	184.0 Feet	181.1 Feet	186.4 Feet
Lake storage**	643 MG	511 MG	770 MG

\* Spillway elevation is 196.0 feet

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

## Temperature (in degrees)

	Minimum	Maximum	Average
December 2015 (Novato)	30	69	51
December 2016 (Novato)	34	74	51

## 3. Number of Services

December 31	Novato Water			Recycled Water			West Marin Water			Oceana Marin Swr		
	FY17	FY16	Incr %	FY17	FY16	Incr %	FY17	FY16	Incr %	FY17	FY16	Incr %
Total meters installed	20,782	20,759	0.1%	48	48	0.0%	787	785	0.3%	-	-	-
Total meters active	20,536	20,524	0.1%	44	44	0.0%	781	778	0.4%	-	-	-
Active dwelling units	23,979	23,981	0.0%	0	0	-	830	825	0.6%	231	229	0.9%

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

Description	December 2015	December 2016
Effluent Flow Volume (MG)	0.459	0.869
Irrigation Field Discharge (MG)	0.900	0.228
Treatment Pond Freeboard (ft)	6.1	3.8
Storage Pond Freeboard (ft)	5.7	3.4

## 5. Developer Projects Status Report (December)

Job No.	Project	% Complete	% This month
1.2783.00	Redwood Blvd. Chevron Car Wash	95	5
1.2798.00	7473 Redwood Blvd. Shell Station Remodel	99	14

## District Projects Status Report - Const Dept (December)

Job No.	Project	% Complete	% This month
1.7145.00	Zone A Pressure Improvements	95	5
8.7167.00	Oceana Marin Dosing Siphon Repairs	99	24

## Employee Hours to Date, FY 16/17

As of Pay Period Ending December 31, 2016

Percent of Fiscal Year Passed = 50%

Developer Projects	Actual	Budget	% YTD Budget	District Projects	Actual	Budget	% YTD Budget
Construction	735	1,400	53%	Construction	1,300	4,658	28%
Engineering	401	1,480	27%	Engineering	1,852	4,032	46%

## 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 17 through December	29	\$15,584	2	2	4	\$2,275
FY 16 through December	0	0	0	0	3	\$43,634

Days without a lost time accident through December 31, 2017 = 118 days

## 7. Energy Cost

FYE	December			Fiscal Year-to-Date thru December		
	Kwh	¢/Kwh	Cost/Day	Kwh	¢/Kwh	Cost/Day
2017 Stafford TP	35,699	19.2¢	\$221	337,450	19.0¢	\$348
Pumping	58,845	20.2¢	\$396	710,333	20.3¢	\$793
Other*	37,192	21.2¢	\$263	257,004	25.0¢	\$355
	131,736	20.2¢	\$888	1,304,786	20.9¢	\$1,498
2016 Stafford TP	27,456	18.7¢	\$166	317,222	18.4¢	\$317
Pumping	66,616	16.0¢	\$367	650,145	17.5¢	\$632
Other*	34,508	18.5¢	\$220	237,215	23.7¢	\$312
	128,580	17.2¢	\$739	1,204,582	18.9¢	\$1,261
2015 Stafford TP	23,430	18.1¢	\$137	332,769	17.7¢	\$321
Pumping	67,508	15.7¢	\$342	752,631	16.6¢	\$688
Other*	35,482	18.1¢	\$214	242,881	22.2¢	\$296
	126,420	16.8¢	\$708	1,328,281	17.9¢	\$1,308

\*Other includes West Marin Facilities

## 8. Water Conservation Update

	Month of December 2016	Fiscal Year to Date	Program Total to Date
High Efficiency Toilet (HET) Rebate (\$100 each)	14	121	3,658
Retrofit Certificates Filed	21	136	5,689
Cash for Grass Rebates Paid Out	6	45	871
Washing Machine Rebates	14	42	6,744
Water Smart Home Survey	27	242	2,762

## 9. Utility Performance Metric

<b>SERVICE DISRUPTIONS</b> (No. of Customers Impacted)	December 2016	December 2015	Fiscal Year to Date 2017	Fiscal Year to Date 2016
<b>PLANNED</b>				
Duration Between 0.5 and 4 hours	26*	6	94	91
Duration Between 4 and 12 hours			3	6
Duration Greater than 12 hours				
<b>UNPLANNED</b>				
Duration Between 0.5 and 4 hours	6	7	30	66
Duration Between 4 and 12 hours			16	57
Duration Greater than 12 hours			1	
<b>SERVICE LINES REPLACED</b>				
Polybutylene	11	8	52	74
Copper (Replaced or Repaired)		2	11	8

\*16 corporation stop replacement

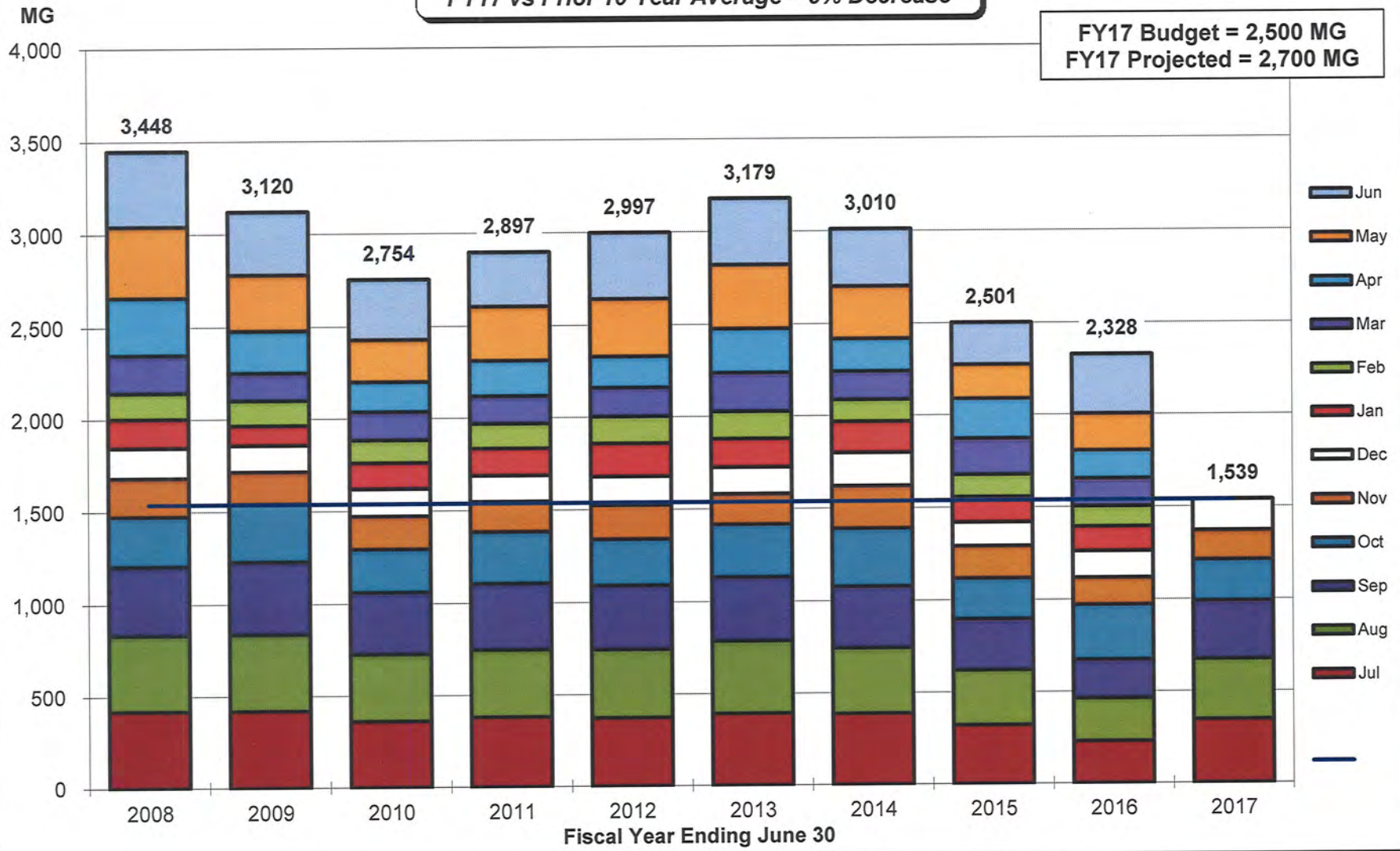
1/5/17

t:\ac\excel\lwtr use\productn.xls chart - total prod by mo

# Novato Potable Water Production

FY17 vs FY16 = 22% Increase  
FY17 vs Prior 10 Year Average = 9% Decrease

FY17 Budget = 2,500 MG  
FY17 Projected = 2,700 MG





# NORTH MARIN WATER DISTRICT

## Summary of Complaints & Service Orders December 2016

1/9/2017

Type	Dec-16	Dec-15	Action Taken December 2016
<b><u>Consumers' System Problem</u></b>			
Service Line Leaks	12	0	Notified Consumer
Meter Leak Consumer's Side	0	16	~
House Plumbing	0	0	~
Noisy Plumbing	0	0	~
Seepage or Other	0	0	~
House Valve / Meter Off	1	7	Notified Consumer
Nothing Found	6	11	Notified Consumer
Low Pressure	0	0	~
High Pressure	0	0	~
Water Waster Complaints	0	0	~
<b>Total</b>	<b>19</b>	<b>34</b>	
<b><u>Service Repair Reports</u></b>			
Register Replacements	0	0	~
Meter Replacement	0	1	~
Meter Box Alignment	0	0	~
Meter Noise	0	0	~
Dual Service Noise	0	0	~
Box and Lids	0	0	~
Water Off/On Due To Repairs	9	5	Notified Consumer
Misc. Field Investigation	0	3	~
<b>Total</b>	<b>9</b>	<b>9</b>	
<b><u>Leak NMWD Facilities</u></b>			
Main-Leak	0	0	~
Mains-Nothing Found	0	0	~
Mains-Damage	0	0	~
Service- Leak	4	6	Repaired
Services-Nothing Found	1	4	Notified Consumer
Service-Damaged	0	0	~
Fire Hydrant-Leak	1	2	Repaired
Fire Hydrants-Nothing Found	1	0	Notified Consumer
Fire Hydrants-Damaged	1	2	Repaired
Meter Replacement	0	0	~
Meters-Nothing Found	0	0	~
Meters Damaged	0	0	~
Washer Leaks	0	3	~
<b>Total</b>	<b>8</b>	<b>17</b>	
<b><u>High Bill Complaints</u></b>			
Consumer Leaks	7	6	Notified Consumer
Meter Testing	0	0	~
Meter Misread	5	8	Notified Consumer
Nothing Found	67	13	Notified Consumer
Projected Consumption	0	0	~
Excessive Irrigation	1	0	Notified Consumer
<b>Total</b>	<b>80</b>	<b>27</b>	

# NORTH MARIN WATER DISTRICT

## Summary of Complaints & Service Orders December 2016

1/9/2017

Type	Dec-16	Dec-15	Action Taken December 2016
<b><u>Low Bill Reports</u></b>			
Meter Misread	0	0	~
Stuck Meter	0	0	~
Nothing Found	0	0	~
Projected Consumption	0	0	~
Minimum Charge Only	0	0	~
<b>Total</b>	<b>0</b>	<b>0</b>	
<b><u>Water Quality Complaints</u></b>			
Taste and Odor	3	0	<b><i>Customer reported high chlorine taste &amp; odor. (San Mateo Way)</i></b> Chlorine levels were normal for NMWD supply. Customer was notified of results. <b><i>Customer reported metallic taste. (Topaz Dr)</i></b> Metals were not detected. Results were normal for NMWD supply. Customer was notified of results. <b><i>Customer reported off taste &amp; odor causing stomach illness. (Indian Way)</i></b> No off taste & odor detected by lab staff. Results normal for NMWD supply. No bacterial contamination present. Customer was notified of results.
Color	0	4	~
Turbidity	0	0	~
Suspended Solids	0	0	~
Other	4	1	<b><i>Customer requested lead &amp; copper sampling. (Bel Marin Keys Blvd)</i></b> Neither were detected. Customer was notified of results. <b><i>Customer requested lead &amp; copper sampling. (Vineyard Rd)</i></b> Neither were detected. Customer was notified of results. <b><i>Customer reported illness after drinking filtered tap water. (7th St)</i></b> Tap and filtered water were tested. All results were normal for NMWD supply. No contamination present in either water sample. Customer was notified of results. <b><i>Customer reported illness &amp; bubbles in the water. (Santa Maria Dr)</i></b> Bubbles were likely due to soap residue in glass bowl. Bubbles were not produced in other dishware. Tests results normal for NMWD supply. No bacterial contamination was present. Customer was notified of results.
<b>Total</b>	<b>7</b>	<b>5</b>	
<b>TOTAL FOR MONTH:</b>	<b>123</b>	<b>92</b>	<b>34%</b>

# NORTH MARIN WATER DISTRICT

## Summary of Complaints & Service Orders December 2016

1/9/2017

Type	Dec-16	Dec-15	Action Taken December 2016	
<b><u>Fiscal YTD Summary</u></b>				<b><u>Change Primarily Due To</u></b>
Consumer's System Problems	208	230	-10%	Decrease In House Valve/Meter Off
Service Repair Report	74	60	23%	Increase In Water Off/On For Repairs
Leak NMWD Facilities	103	131	-21%	Decrease In Service Lks-Nothing Found
High Bill Complaints	458	161	184%	Increase In Nothing Found
Low Bills	1	1	0%	~
Water Quality Complaints	26	21	24%	Increase In Taste and Odor
Total	<b>870</b>	<b>604</b>	<b>44%</b>	

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

<b><u>Check Meter:</u></b> possible consumer/District leak, high bill, flooded, need read, etc.	265	173
<b><u>Change Meter:</u></b> leaks, hard to read	11	6
<b><u>Possible Stuck Meter</u></b>	0	0
<b><u>Repair Meter:</u></b> registers, shut offs	0	0
<b><u>Replace Boxes/Lids</u></b>	1	8
<b><u>Hydrant Leaks</u></b>	0	0
<b><u>Trims</u></b>	24	43
<b><u>Dig Outs</u></b>	36	142
<b><u>Letters to Consumer:</u></b> meter obstruction, trims, bees, gate access, etc. get meter number, kill service, etc.	0	0
	<b>337</b>	<b>372</b>

### **Bill Adjustments Under Board Policy:**

#### **December 16 vs. December 15**

Dec-16	43	\$11,620
Dec-15	24	\$15,801

#### **Fiscal Year to Date vs. Prior FYTD**

16/17 FYTD	307	\$105,817
15/16 FYTD	121	\$38,351

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# Customer Service Questionnaire Quarterly Report

Quarter Ending 12/31/16



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Response				Response			
Water Quality	Agree	Neutral	Disagree	Pressure	Agree	Neutral	Disagree
Courteous & Helpful	2			Courteous & Helpful	2		
Accurate Information	2			Accurate Information	2		
Prompt Service	2			Prompt Service	2		
Satisfactorily Resolved	2			Satisfactorily Resolved	2		
Overall Experience	2			Overall Experience	2		
	10	0	0		10	0	0
Leak	Agree	Neutral	Disagree	Noisy Pipes	Agree	Neutral	Disagree
Courteous & Helpful	4			Courteous & Helpful			
Accurate Information	4			Accurate Information			
Prompt Service	4			Prompt Service			
Satisfactorily Resolved	4			Satisfactorily Resolved			
Overall Experience	4			Overall Experience			
	20	10	0		0	0	0
Billing	Agree	Neutral	Disagree	Other	Agree	Neutral	Disagree
Courteous & Helpful	1	2		Courteous & Helpful			
Accurate Information	2	1		Accurate Information			
Prompt Service	2	1		Prompt Service			
Satisfactorily Resolved	1	2		Satisfactorily Resolved			
Overall Experience	1	2		Overall Experience			
	7	8	0		0	0	0
				Grand Total	47	18	0
					72%	28%	0%
				Questionnaires Sent Out	169	100%	
				Questionnaires Returned	11	7%	

**Quarter Ending 12/31/16**

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## MEMORANDUM

To: Board of Directors

January 13, 2017

From: David L. Bentley, Auditor-Controller

Subj: Auditor-Controller's Monthly Report of Investments for December 2016

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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 \$13,881,148 and a market value of \$13,863,754. During December the cash balance decreased by \$657,227 due primarily to payment of four SRF Loans totaling \$846,831. The market value of securities held decreased \$17,395 during the month. The ratio of total cash to budgeted annual operating expense stood at 92%, down 4% from the prior month.

At December 31, 2016, 39% of the District's Portfolio was invested in California's Local Agency Investment Fund (LAIF), 29% in Time Certificate of Deposit, 14% in Federal Agency Securities, 7% in US Treasury Notes, 5% in Corporate Medium Term Notes, and 5% in the Marin County Treasury. The weighted average maturity of the portfolio was 249 days, compared to 242 days at the end of November. The LAIF interest rate for the month was 0.72%, compared to 0.68% the previous month. The weighted average Portfolio rate was 0.84%, compared to 0.81% the previous month. Including interest paid by The Bay Club on the StoneTree Golf Recycled Water Facilities Loan, the District earned \$13,814 in interest revenue during December, with 58% earned by Novato Water, 29% earned by Recycled Water (by virtue of the StoneTree Golf Loan) and the balance distributed to the two West Marin districts.

**NORTH MARIN WATER DISTRICT  
AUDITOR-CONTROLLER'S MONTHLY REPORT OF INVESTMENTS  
December 31, 2016**

Type	Description	S&P Rating	Purchase Date	Maturity Date	Cost Basis <sup>1</sup>	12/31/2016 Market Value	Yield <sup>2</sup>	% of Portfolio
<b>LAIF</b>	State of CA Treasury	AA-	Various	Open	\$5,361,479	\$5,362,664	0.72% <sup>3</sup>	<b>39%</b>
<b>Time Certificate of Deposit</b>								
TCD	First Niagara Bank	n/a	4/30/15	5/1/17	249,000	249,000	0.75%	2%
TCD	Discover Bank	n/a	5/6/15	5/8/17	248,000	248,000	0.85%	2%
TCD	Capital One Bank	n/a	6/10/15	6/12/17	248,000	248,000	0.90%	2%
TCD	Flagship Cmnty Bank	n/a	6/24/15	6/24/17	249,000	249,000	0.75%	2%
TCD	American Express Bank	n/a	7/8/15	7/10/17	248,000	248,000	1.15%	2%
TCD	Capital One National Assoc	n/a	8/5/15	8/7/17	248,000	248,000	1.20%	2%
TCD	American Express Centurion	n/a	10/7/15	10/10/17	248,000	248,000	1.20%	2%
TCD	BMW Bank	n/a	12/14/15	12/11/17	248,000	248,000	1.20%	2%
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%
					<b>\$3,971,000</b>	<b>\$3,971,000</b>	<b>1.05%</b>	<b>29%</b>
<b>US Treasury Notes</b>								
Treas	1,000 - 1.00%	n/a	11/17/16	12/31/18	1,006,484	1,002,891	1.05%	7%
					<b>\$1,006,484</b>	<b>\$1,002,891</b>	<b>1.05%</b>	<b>7%</b>
<b>Federal Agency Securities</b>								
FICO	0.86% MTN	n/a	4/22/16	5/11/18	1,005,240	998,607	0.85%	7%
FNMA	0.875% MTN	n/a	7/19/16	7/19/18	998,987	991,424	0.97%	7%
					<b>\$2,004,227</b>	<b>\$1,990,031</b>	<b>0.91%</b>	<b>14%</b>
<b>Corporate Medium Term Notes</b>								
MTN	General Electric Capital	AA+	3/18/16	5/15/17	\$640,584	\$639,793	0.76%	5%
					<b>\$640,584</b>	<b>\$639,793</b>	<b>0.75%</b>	<b>5%</b>
<b>Other</b>								
Agency	Marin Co Treasury	AA+	Various	Open	\$789,231	\$789,231	0.32%	6%
Other	Various	n/a	Various	Open	108,143	108,143	0.50%	1%
<b>TOTAL IN PORTFOLIO</b>					<b>\$13,881,148</b>	<b>\$13,863,754</b>	<b>0.84%</b>	<b>100%</b>

Weighted Average Maturity = **249 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.

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

Agency: STP State Revolving Fund Loan Reserve.

MTN: Medium Term Note - Maturity of 5 years or less.

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.

<sup>1</sup> Original cost less repayment of principal and amortization of premium or discount.

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

<sup>3</sup> Earnings are calculated daily - this represents the average yield for the month ending December 31, 2016.

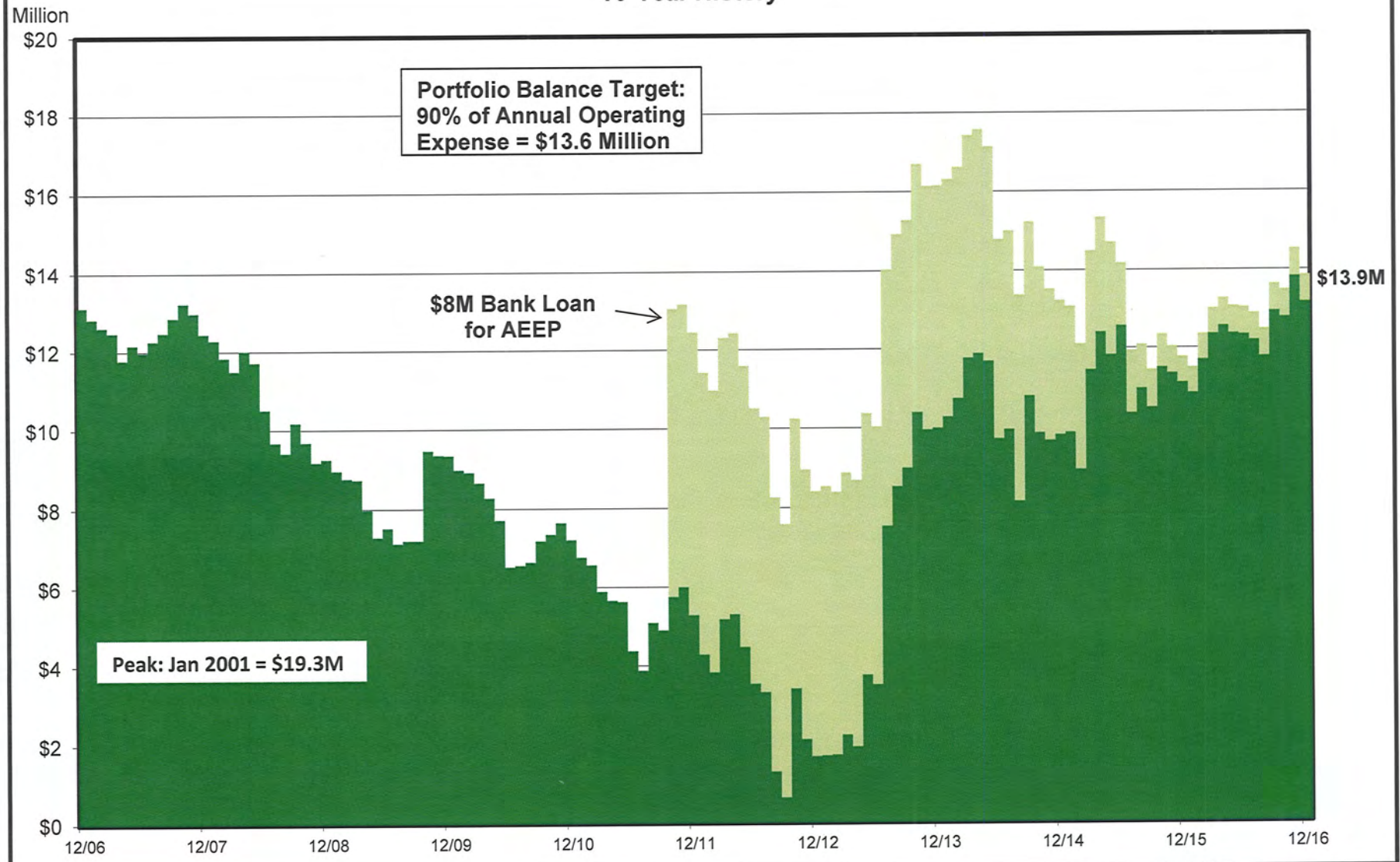
<b>Interest Bearing Loans</b>	Loan Date	Maturity Date	Original Loan Amount	Principal Outstanding	Interest Rate
StoneTree Golf Loan	6/30/06	2/28/24	\$3,612,640	\$1,625,097	2.40%
Employee Housing Loans (5)	Various	Various	934,200	934,200	Contingent
<b>TOTAL INTEREST BEARING LOANS</b>			<b>\$4,546,840</b>	<b>\$2,559,297</b>	

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

1/10/17

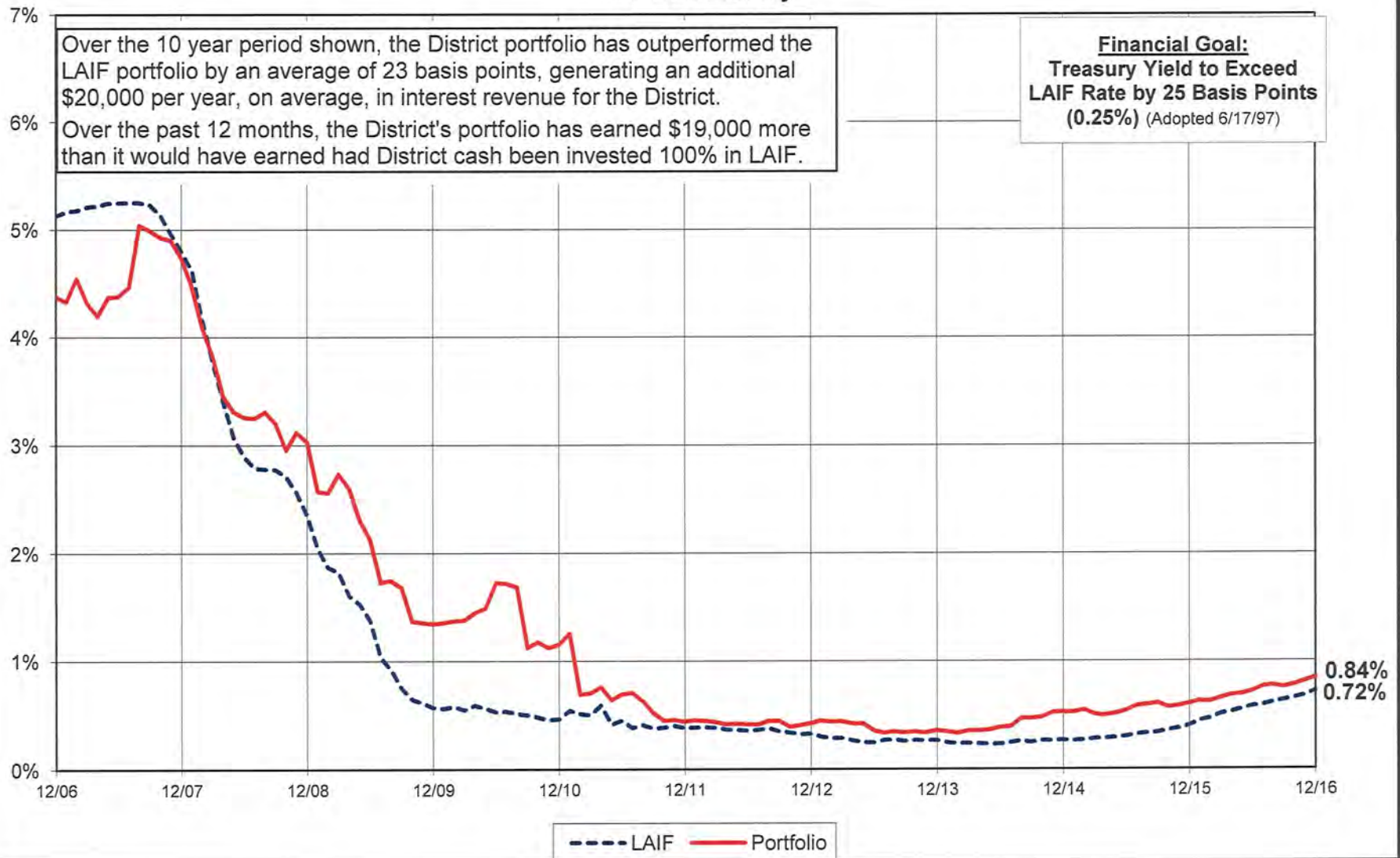
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## NMWD Portfolio Balance 10-Year History






# NMWD Portfolio Rate of Return State of CA Local Agency Investment Fund vs District Portfolio 10-Year History



7

## MEMORANDUM

To: Board of Directors  
 From: Drew McIntyre, Assistant General Manager/Chief Engineer   
 Subject: Water Service Agreement – Novato Children's Center – Fire Service  
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January 17, 2017

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

**FINANCIAL IMPACT: None:** Developer Funded

Novato Children's Center is located within a Novato Unified School District (NUSD) owned parcel (APN: 155-020-16) immediately south of Hamilton Elementary School (see attached map). Novato Fire District has required installation of a 6-inch fire service to serve two modular buildings of the Novato Children's Center. The proposed water facilities for this project include 20 ft. of steel pipe and a 6-inch fire service. Potable water service to this parcel is currently being provided from the existing 4-inch meter (Acct. No. 42832) serving the Hamilton Elementary School (APN: 157-180-23). There is no additional landscaping required for the current project.

Water service to Hamilton Elementary School was acquired in 2002 from Marin Municipal Water District as part of the Hamilton Boundary Reorganization (J-8699) of Hamilton Air Base. In 2008, a water service agreement was executed for installation of fire hydrants for the school (J-2713). In 2011 (J-2754), water facilities were expanded to serve a 16,400 square foot multi-purpose building; 3,100 square foot administration building, and two 24' x 40' modular classrooms. Water demand prior to 2011 was established as 34 Equivalent Dwelling Units (EDU's) based on historical water use from 2002 to 2010. Water demand was increased by 3 EDUs during the 2011 expansion project (J-2754), increasing the total demand to 37 EDUs for both parcels, APN 155-020-16 and 157-180-23. The modular buildings' water demand was included as part of the 2011 expansion project. A new recycled water meter was installed later for the Hamilton school in 2013 (Acct. No. 42863). The current average day peak month water use since 2013 is 33 EDUs (14 EDUs potable water + 19 EDUs recycled water). Since current water use is less than the paid Facilities Reserve Charges (FRCs), collection of additional FRCs is not required at this time.

As has been customary with previous city, county and special district projects, North Marin Water District will invoice the Novato Unified School District for payment of actual costs as they are incurred.

Sanitary sewer service will continue to be provided by Novato Sanitary District.

#### Environmental Document Review

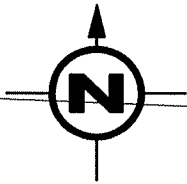
This project has been determined to be exempt from the requirements of the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines Sections 15301 and 15304.

#### Recommendation

That the Board approve authorization of this agreement.

Approved by GM CD

Date 1/13/2017



ALAMEDA DEL PRADO

U.S. HWY 101

NAVE DR.

HAMILTON  
SCHOOL

APN: 157-180-23

PROJECT SITE

101

APN:  
155-020-16

EDWARDS CT

MATHER COURT

INNER WAY

CRISSY PLACE

DR

BOLLING

MARIN VALLEY DR

CAPTAIN NURSE CIRCLE

ALAMEDA DEL PRADO

NOVATO CHILDRENS CENTER  
5520 NAVE DRIVE  
APN: 155-020-16

DATE	SCALE	JOB.NO.	DWG.NO.
11/28/16	NTS	2803	MAP

RESOLUTION NO. 17-  
AUTHORIZATION OF EXECUTION  
OF  
WATER SERVICE FACILITIES CONSTRUCTION AGREEMENT  
WITH  
NOVATO UNIFIED SCHOOL DISTRICT

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BE IT RESOLVED by the Board of Directors of NORTH MARIN WATER DISTRICT that the President and Secretary of this District be and they hereby are authorized and directed for and on behalf of this District to execute that certain water service facilities construction agreement between this District and Novato Unified School District, a School District, providing for the installation of water distribution facilities to provide domestic water service to that certain real property known as 5520 Nave Drive, Marin County Assessor's Parcel Number 155-020-16, NOVATO, CALIFORNIA.

\* \* \*

I hereby certify that the foregoing is a true and complete copy of a resolution duly and regularly adopted by the Board of Directors of NORTH MARIN WATER DISTRICT at a regular meeting of said Board held on the 17th day of January, 2017, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAINED:

(SEAL)

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Katie Young, Secretary  
North Marin Water District

PART ONE  
WATER SERVICE FACILITIES CONSTRUCTION AGREEMENT  
FOR  
NOVATO UNIFIED SCHOOL DISTRICT  
NOVATO CHILDREN'S CENTER – FIRE SERVICE

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*THIS AGREEMENT*, which consists of this Part One and Part Two, Standard Provisions, attached hereto and a part hereof, is made and entered into as of \_\_\_\_\_, 2017, by and between NORTH MARIN WATER DISTRICT, herein called "District," and NOVATO UNIFIED SCHOOL DISTRICT, herein called "Applicant."

*WHEREAS*, the Applicant is the owner of the real property in the District commonly known as 5520 Nave Drive, Novato, Marin County Assessor's Parcel Number 155-020-16 and the project known as NOVATO CHILDREN'S CENTER – FIRE SERVICE; and

*WHEREAS*, existing water service to the parcel was transferred to the District from Marin Municipal Water District in February, 2002 as part of the Hamilton Boundary Reorganization (J 8699); and

*WHEREAS*, in May, 2008 a water service agreement was executed by the Applicant and the District for the "Novato Unified School District-Hamilton Elementary Fire Hydrants", (J 2713) and the historical water use on the property was established to be 34 EDUs, per District Regulation 1c.; and

*WHEREAS*, in September 2011 a water service agreement was executed by the applicant and the District for the 2011 Hamilton Elementary School Expansion project and three (3) additional EDUs were collected for the expansion project (J 2754) resulting in a total allotment of 37 EDUs.

*WHEREAS*, the current project water use was already included in 2011 (J 2754) water use calculations and there is no new demand due to the current project (J 2803); and

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

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



2. Prior to the District issuing written certification to the City, County or State that financial arrangements have been made for construction of the required water facilities, the Applicant shall complete such arrangements with the District in accordance with Section 5 of this agreement.

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

a. deliver to the District vellum or mylar prints of any revised utility plans approved by the City or County to enable the District to determine if any revisions to the final water facilities construction drawings are required. The proposed facilities to be installed are shown on Drawing No. 1 2803.001, entitled, "NUSD NOVATO CHILDREN'S CENTER-FIRE SERVICE", a copy of which is attached, marked Exhibit "A", and made a part hereof. (For purposes of recording, Exhibit "A" is not attached but is on file in the office of the District.)

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

c. deliver to the District a written construction schedule to provide for timely withdrawal of guaranteed funds for ordering of materials to be furnished by the District and scheduling of either construction inspection or construction pursuant to Section 5 hereof.

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

#### **Initial Charges**

##### **Fire Sprinkler Connection Bypass Meters**

(Included in Estimated District Costs) .....	...One 5/8-inch @	\$	0.00	\$	0.00
Reimbursement Fund Charges .....	...One 5/8-inch @	\$	420.00	\$	420.00
Facilities Reserve Charges.....	...Thirty seven @	\$	28,600.00	\$	1,058,200.00
Credit for Existing Service (FRCs 37X\$28,600 + 420 RFC)...	.....@	\$	<1,058,620.00>	\$	<1,058,620.00>

**Subtotal - Initial Charges..... \$ 0.00**

#### **Estimated District Costs**

Pipe, Fittings & Appurtenances.....	\$	9,748.00
District Construction Labor.....	\$	29,760.00
Engineering & Inspection.....	\$	2,581.00
Bulk Materials.....	\$	2,050.00

**Subtotal –Estimated District Costs..... \$ 44,139.00**

#### **Estimated Applicant Installation Costs**

Installation Labor.....	\$	0.00
Contractor Furnished – Pipe Fittings & Appurtenances.....	\$	0.00

Bulk Materials.....	\$	0.00
<b>Subtotal- Estimated Applicant Installation Costs.....</b>	<b>\$</b>	<b>0.00</b>
<b>TOTAL ESTIMATED WATER FACILITIES COSTS.....</b>	<b>\$</b>	<b>44,139.00</b>

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

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

Initial Charges and Estimated District Costs

The Applicant shall either pay to the District or provide a two (2) year irrevocable letter of credit in form satisfactory to the District and payable at sight at a financial institution in the Novato area the sum of Initial Charges and Estimated District Costs as set forth in Section 4 hereof in the amount of **\$ 44,139**. If the Applicant provides the two (2) year irrevocable letter of credit, the District shall immediately draw down Initial Charges and shall draw upon the remaining funds guaranteed by the letter at any time the District deems appropriate to recover the Estimated District Costs which normally will be at least thirty (30) days prior to the anticipated start of construction for the ordering of materials to be furnished by the District.

Estimated Installation Costs

Installation By District: Due to the proprietary nature of construction required to install said facilities, the District reserves the right to install the facilities utilizing District construction forces. The Applicant shall either pay to the District the total Estimated Installation Costs set forth in Section 4 hereof in the amount of **\$44,139** or shall include such amount in the irrevocable letter of credit provided for the Initial Charges and Estimated District Costs set forth first above. The District shall draw upon installation funds guaranteed by the letter at any time the District deems appropriate which normally will be at least thirty (30) days prior to the anticipated start of construction.

Whenever an irrevocable letter of credit is required by this agreement, the Applicant may substitute a certificate of deposit at a financial institution in the Novato area provided the certificate may be cashed at sight by the District at any time.

6. Water service through the facilities to be installed pursuant to this agreement will not be furnished to any building unless the building is connected to a public sewer system or to a waste water disposal system approved by all governmental agencies having regulatory jurisdiction. This restriction shall not apply to temporary water service during construction.



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

8. All estimated costs set forth in this agreement shall be subject to periodic review and revision at the District's discretion. In the event the Applicant has not completed financial arrangements with the District in accordance with Section 5 hereof prior to expiration of six (6) months from the date of this agreement, all Initial Charges and estimated costs set forth in Section 4 hereof shall be revised to reflect then current District charges and estimates. In the event the Applicant has not secured final land use approval for the project from the City of Novato or County of Marin, recorded a final map and diligently commenced construction of improvements required by those agencies and the District prior to expiration of one (1) year from the date of this agreement, the District may, at its option, either retract financial certifications issued to City, County and State agencies and terminate this agreement or require amendment of this agreement and review of all Initial Charges and estimated costs contained herein. The Applicant shall pay any balance due upon demand or furnish a guarantee of such payment satisfactory to the District.

9. All extensions of time for the Applicant to construct improvements shall require concurrent extensions of this agreement and shall be cause for review and revision of all Initial Charges and estimated costs set forth in Section 4 hereof.

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

**NORTH MARIN WATER DISTRICT**  
"District"

**ATTEST:**

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Stephen Petterle, President

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Katie Young, Secretary

(SEAL)

NOVATO UNIFIED SCHOOL DISTRICT  
"Applicant"

(SEAL)

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Yancy Hawkins  
Assistant Superintendent  
Business and Operations

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

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

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

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## MEMORANDUM

To: Board of Directors  
 From: Robert Clark, Operations/Maintenance Superintendent *RC*  
 Subject: Replacement Vehicle Expenditure Update  
 X:\MAINT SUP\2017\BOD\Vehicle Purchase RFP BOD.doc

January 13, 2017

**RECOMMENDED ACTION:** Authorize request for proposal for track loader

**FINANCIAL IMPACT:** \$148,000 in the adopted FY 2016/17 equipment budget

As part of the adopted FY 2016/17 Equipment Budget staff identified the need to replace two half ton pickup trucks and purchase a new track loader with trailer. Staff has prepared a request for proposal for a new track loader from the four vendors listed below. Vendors are being asked to respond to the request by January 31 and be able to deliver the loader 90 days after award.

- ❖ Peterson Caterpillar, Santa Rosa
- ❖ Pape Machinery, Rohnert Park,
- ❖ Bobcat of Santa Rosa, Santa Rosa
- ❖ Garton Tractor Inc. Kubota, New Holland, Takeuchi, Santa Rosa

Staff has also identified the need to advance the replacement of the 1 ton service vehicle # 507 2008 Ford F350 4x4 with over 105,000 miles from the originally planned 2017/18 budget into the current FY 2016/17 budget. Truck #507 is used by the electrical / mechanical technicians and is one of the primary emergency response vehicles in the fleet. In keeping with the priority of emergency response preparedness, staff plans to postpone the purchase of a new 4x4 pickup truck in the FY 2016/17 budget to accommodate the funding for this purchase.

The cost estimates for the compact track loader with trailer, 1 ton service cab and chassis and one half ton pickup should not exceed the \$148,000 in the adopted FY 2016/17 equipment budget. To ensure budget compliance, staff will finalize the purchases of the track loader and service truck prior to the purchase of the half ton pickup. These costs include outfitting each vehicle with a radio, service body and a tool box for the pickup.

When these new vehicles have been delivered staff plans to have the 1999 Ford F350 service truck #19 and the 2005 Ford Ranger pickup #58 taken to the First Capitol Auction for resale.

**RECOMMENDED:** Authorize Staff to solicit bids for the purchase of a new track loader, purchase one 1 ton service vehicle with service body and one ½ ton pickup truck.

Approved by GM *RD*Date *1/13/2017*

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## MEMORANDUM

To: Board of Directors  
From: Robert Clark Operations / Maintenance Superintendent  
Subj: January Storm Update  
x:\maint sup\2017\bod\bod january storm memo.doc

January 13, 2017

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

During the month of January we have seen nearly 10 inches of rain and Stafford Lake has risen over 10 feet. We have seen some flooding in the Corporation Yard and in Point Reyes during high tide events this past week. There have been some minor mud slides and erosion areas throughout the service area that we will address as we are able to gain access. Our treatment pond in Oceana Marin will need to have some bank repair work performed during the dry season but the erosion is stabilized for the time being. Below are some photos of areas throughout the District from the past week storm events.

Staff provided District operational updates the Novato EOC, which was open over the weekend of January 7<sup>th</sup> and 8<sup>th</sup> as well as Tuesday and Wednesday the 10<sup>th</sup> and 11<sup>th</sup>. The Marin County EOC held area updates during this same time period that District staff provided summary updates to as well. In summary the District fared well with now service outages or prolonged staff callouts. All facilities are in normal operation mode.



Office Parking Lot 1/7



Service Yard 1/7





Dam over flow 1/11/17



Spillway erosion



Road to Center Rd. Tank



Car in Novato Creek on Sunday 1/8



Point Reyes Coast Guard Wells 1/8



Gallagher Well site 1/7



Gallagher Well 1/8





Ocean Marin Treatment Pond 1/10  
Before temporary repairs



Oceana Marin Pond Erosion 1/11  
After Temporary repairs

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## MEMORANDUM

To: Board of Directors

January 13, 2017

From: Terrie Kehoe, Engineering Services Representative  
Drew McIntyre, Assistant General Manager/Chief Engineer

Subject: City of Novato Paving Moratorium, Measure A Group 8 &amp; 9 (CIP 16-001)

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

Standard practice by the City of Novato is to adopt a five year street cut (excavation) prohibition immediately following a street pavement rehabilitation project. These excavation prohibitions (also known as paving moratoriums) can have a negative impact on NMWD customers undergoing major remodels due to the need to upsize water service for fire sprinkling. The City of Novato's 2017 pavement rehabilitation projects include streets from Measure A Group 8 and 9 (Attachment 1). This information is made available from the City of Novato's website and also by mail (via public notice). When we receive paving moratorium updates we first transfer the information to NMWD's facility maps located at the NMWD Engineering Department counter. This allows both staff and customers the opportunity to see the actual areas affected by the moratorium as well at the date in which the moratorium remains in effect.

Annually, NMWD sends a direct mailing to all those consumers who will be under the current paving moratorium. This year we again used the parcel database program (Parcel Quest) that allows properties to be searched by parcel number, street address or owner name. This program also has the capability to print out mailing labels. In doing so we are able to search each street on the Measure A Group 8 and 9 listing, print it by parcel number, service number and mailing address. In this way we have a quick reference of what was sent out and know that everyone on that street was contacted. At the first of this year we sent out 401 notices. The paving moratorium has an approximate start date of June 2017 and will last five years.



## Measure A Group 8 & 9 Pavement Rehabilitation CIP Project #16-001

### CONCRETE WORK & PAVEMENT REHABILITATION

	Road Name	Begin	End
1	ADAMS COURT	JOHNSON ST	NORTH END
2	ARTHUR STREET	S. NOVATO BLVD	HAYES ST
3	ARTHUR STREET	HAYES ST	WASHINGTON ST
4	ARTHUR STREET	WASHINGTON ST	INDIAN VALLEY RD
5	BROWN DRIVE	WASHINGTON ST	BROWN CT
6	BROWN DRIVE	BROWN CT	SOUTH END
7	CAMBRIDGE STREET	JOHNSON ST	ARTHUR ST
8	DENISE COURT	WESTWOOD DR	SOUTH END
9	GARFIELD STREET	ARTHUR ST	NORTH END
10	GARNER DRIVE	WASHINGTON ST	JACKSON DR
11	HARDING DRIVE	WASHINGTON ST	1000 FT EAST OF WASHINGTON
12	HARDING DRIVE	1000 FT EAST OF WASHINGTON ST	WEST END
13	HARRISON COURT	CAMBRIDGE ST	WEST END
14	HAYES STREET	ARTHUR ST	NORTH END
15	IGNACIO BOULEVARD	KATHY CT	INDIAN VALLEY COLLEGE
16	JACKSON COURT	JACKSON DR	WEST END
17	JACKSON DRIVE	JACKSON CT	TRUMAN DR
18	JOHNSON STREET	END EAST OF CAMBRIDGE	END NORTH OF ADAMS
19	LANDING COURT	REDWOOD BLVD	NORTH END
20	MCCLAY ROAD	NOVATO BLVD	CENTER RD
21	OLIVE AVENUE	#626	ROSALIA DR
22	OLIVE AVENUE	ROSALIA DR	SAMROSE DR
23	PEACH STREET	CHASE ST	OLIVE SCHOOL
24	PIERCE DRIVE	ROWLAND BLVD	CUL DE SAC
25	REBECCA WAY	OLIVE AVE	END
26	REDWOOD ROAD	LAMONT AVE	LANDING COURT
27	RITA COURT	OLIVE AVE	END
28	RUDNICK AVENUE	OLIVE AVE	SUMMERS AVE
29	TRUMAN DRIVE	BROWN DR	1000 FT WEST OF BROWN DR
30	TRUMAN DRIVE	1000 FT WEST OF BROWN DR	SOUTH END

### LOCALIZED PAVEMENT REPAIRS (DOP) ONLY

1	SAN MARIN DRIVE	NOVATO BLVD	SAN ANDREAS DR
2	SAN MARIN DRIVE	SIMMONS LN	REDWOOD BLVD
3	SAN MARIN DRIVE	SAN ANDREAS DR	SAN MATEO WAY
4	SAN MARIN DRIVE	SAN MATEO WAY	SERENO WAY

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## MEMORANDUM

To: Board of Directors

January 13, 2017

From: Chris DeGabriele, General Manager 

Subj: Typical Multi-Purpose Reservoir of the Russian River Project

t:\gmlbod misc 2017\loodcontrol\pool0117.docx

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

At the January 3<sup>rd</sup> Board of Director's meeting, Director Baker requested an explanation of the flood control and water supply pools in the Russian River Reservoirs be provided at a future meeting. The information used to prepare this memo is all available on Sonoma County Water Agency's website [www.swca.ca.gov](http://www.swca.ca.gov) and is intended to provide a brief overview of the major reservoirs on the Russian River: Lake Mendocino and Lake Sonoma.

Attachment 1 (Figure 3.5 from the Fish Habitat Flows and Water Rights Project Draft EIR) shows the Russian River watershed and locations of major reservoirs. The highlighted boxes show statistical information about both Lake Mendocino and Lake Sonoma including information on the water supply pool, flood control pool and statistics on the dam construction.

Lake Mendocino

Lake Mendocino is located approximately 4 miles northeast of the City of Ukiah on the East Fork Russian River in Mendocino County and is created by Coyote Valley Dam. The U.S. Army Corps of Engineer's (USACE) construction of Coyote Valley Dam and Lake Mendocino was authorized by the Flood Control Act of 1944 for the purposes of flood control, water supply, recreation, and streamflow regulation. Construction was completed in 1959. Coyote Valley Dam is an earth embankment dam, approximately 160 feet high with a crest 3,500 feet long. The invert of the controlled outlet at the dam is at an elevation of 637 feet above mean sea level (MSL); the dam crest elevation is at 784 feet above MSL. Lake Mendocino's total current storage capacity is 116,500 acre-feet, with a water supply pool between 68,400 acre-feet and 111,000 acre-feet, depending on time of year. The inside elevation of the bottom of the dam's controlled outlet establishes the top of the inactive pool, which was estimated to have a storage capacity of 135 acre-feet. Based on reservoir bathymetric surveys completed in 1952 and 2001, the estimated average sedimentation rate is approximately 143 acre-feet per year, and it appears that the inactive pool has reached its capacity to accumulate sediment.

The watershed contributing to Lake Mendocino encompasses an area of 105 square miles, which is approximately 7 percent of the Russian River watershed. The average annual inflow into Lake Mendocino is approximately 235,000 acre-feet per year, with a peak annual

inflow of 443,000 acre-feet in 1983 and a minimum annual inflow of 60,000 acre-feet in 1977. Inflow into the reservoir consists of unimpaired flows from the contributing watershed and water imported from the Eel River by the Potter Valley Project (PVP). Unimpaired stream flows create most of the Russian River flows downstream of Coyote Valley Dam to the Russian River's confluence with Dry Creek during the rainy season (November through April). During the drier months of May through October, water released from Lake Mendocino storage creates most of the flows in the Russian River upstream of Dry Creek.

The USACE operates Lake Mendocino recreational facilities, which include hiking trails, picnic areas, campgrounds, boat launches, and a disc golf course. These facilities also provide opportunities for boating, swimming, and hunting.

The USACE manages water releases from Coyote Valley Dam and Lake Mendocino during flood management operations according to the Coyote Valley Dam Master Water Control Manual, Appendix I (CVD Water Control Manual). The CVD Water Control Manual includes a reservoir guide curve that establishes the maximum seasonal limits for water supply storage in Lake Mendocino. The volume of the water supply pool decreases during the rainy season to increase available storage for flood management operations (Attachment 2). The volume of the water supply pool increases in the dry season to increase water storage for water supply operations. The flood control pool is defined as the volume above the reservoir guide curve. When water storage in Lake Mendocino is above the reservoir guide curve and in the flood control pool, the USACE normally manages releases from Coyote Valley Dam. Under typical flood management operations, water is temporarily detained in the flood control pool until the risk of downstream flooding has diminished. The USACE will then release water from the reservoir to bring storage levels back down to the level defined by the reservoir guide curve. These releases are initiated in accordance with schedules established in the CVD Water Control Manual.

The Water Agency is the local sponsor for Lake Mendocino and is responsible for making water supply releases in compliance with its water right permits. As the local sponsor, the Water Agency has the exclusive right to control releases from the water supply pool. The Water Agency makes releases from Coyote Valley Dam to maintain the minimum instream flow requirements specified in its water right permits and for downstream beneficial uses along the Upper Russian River, including diversions for domestic, municipal, industrial and agricultural purposes. These releases are made by the Water Agency when reservoir storage levels are in the water supply pool, which is at or below the reservoir guide curve as established in the CVD Water Control Manual. The Water Agency and the Mendocino County Russian River Flood

Control and Water Conservation Improvement District (Mendocino District) each have a water right permit for storage of water in Lake Mendocino's water supply pool. The Water Agency makes release decisions on the Upper Russian River to comply with minimum instream flow requirements in its water right permits at compliance locations as far away as Healdsburg, over 60 miles downstream of Lake Mendocino. While the Water Agency must release enough water to satisfy diversions and stream depletions that occur along the river plus the amount needed for minimum instream flow compliance, the Water Agency does not control those diversions and the streamflow loss due to diversions and depletions can only be estimated from stream gage information at the compliance locations.

The City of Ukiah operates the Lake Mendocino Hydroelectric Plant at Coyote Valley Dam, which uses the releases of water from the reservoir to generate power under the Federal Energy Regulatory Commission (FERC) license. This plant began operations in 1986. The plant has a total generation capacity of 3.5 megawatts (MW) from two turbine/generator units with capacities of 2,500 and 1,000 kilowatts (kW), which are located in the powerhouse at the base of Coyote Valley Dam. The facility's maximum discharge capacity is 2,000 cfs and all water used at the power plant is discharged to the East Fork Russian River immediately downstream of the facility.

Note that between March 1 and September 30<sup>th</sup> in Lake Mendocino, the water supply pool is allowed to encroach into the flood control pool and transitions to a higher operational level for the summer season (Attachment 2). A target storage curve, recently prepared by Sonoma County Water Agency, represents the normal daily storage level for each day of the year, the daily storage levels were determined based on reservoir modeling of an average year under normal water supply conditions. Categories of water supply conditions are based on criteria defined in the State Water Resources Control Board Decision 1610 defining the Agency's water rights on the Russian River and establishing the acceptable instream flow requirements.

On December 16, 2016, the Water Agency submitted a temporary deviation to the water control manual requesting the USACE allow an additional 4,825 acre-feet of water to be stored in the flood control pool for Lake Mendocino. As of Thursday, January 12, 2017, Lake Mendocino holds 95,857 acre-feet, well above the water supply pool, (68,400 acre feet) and it's expected the USACE will release this excess water over time after these severe storms pass, consistent with the CVD Water Control Manual.



## Lake Sonoma

Lake Sonoma is located approximately 10 miles northwest of the City of Healdsburg on Dry Creek, a tributary to the Russian River, and is created by Warm Springs Dam. The USACE's construction of Warm Springs Dam and Lake Sonoma were authorized by the Flood Control Act of 1962 for the purposes of flood control, water supply, environmental stewardship, and recreation. Construction was completed in 1983. Warm Springs Dam is an earth embankment dam approximately 319 feet high with a crest 3,000 feet long. Warm Springs Dam has four intakes at different elevations, which allow releases to be managed to achieve the desired water temperatures for fisheries. The deepest intake at the dam is at an elevation of 221 feet above MSL; the dam crest elevation is at 519 feet above MSL. When constructed, Lake Sonoma's total storage capacity was 381,000 acre-feet, with a water supply pool of 245,000 acre-feet.

The USACE has not completed a reservoir bathymetric survey since Lake Sonoma was constructed. The Water Agency has estimated an average sedimentation rate for Lake Sonoma based on bed load measurements collected by the USACE during planning of the project. An average suspended sediment yield of 3,640 tons per square mile of watershed was measured in Dry Creek near the Geyserville United State Geological Survey (USGS) gaging station for the 15-year period from 1965 to 1979. From this measurement, an annual sedimentation rate of approximately 2.3 acre-feet per square mile of watershed was estimated. Based on this rate, the current storage of the reservoir is estimated to be approximately 370,700 acre-feet; a reduction of approximately 2.6 percent of total capacity since construction. The invert of the dam's controlled outlet establishes the top of the inactive pool, which was estimated to have a storage capacity of 20,000 acre-feet.

The watershed contributing to Lake Sonoma encompasses an area of 130 square miles, which is approximately 9 percent of the Russian River watershed. The average annual inflow into Lake Sonoma is approximately 170,000 acre-feet per year, with a peak annual inflow of 392,000 acre-feet in 1995 and a minimum of 41,000 acre-feet in 2014. All of the reservoir inflows come from unimpaired flows.

The USACE operates Lake Sonoma recreational facilities, which include hiking trails, picnic areas, campgrounds, and boat launches. These facilities provide opportunities for boating, swimming, and hunting. The privately-owned Lake Sonoma Marina Resort is located on the Warm Springs Dam of Lake Sonoma and has a boat launch, boat rentals, fuel sales, and a day use area.

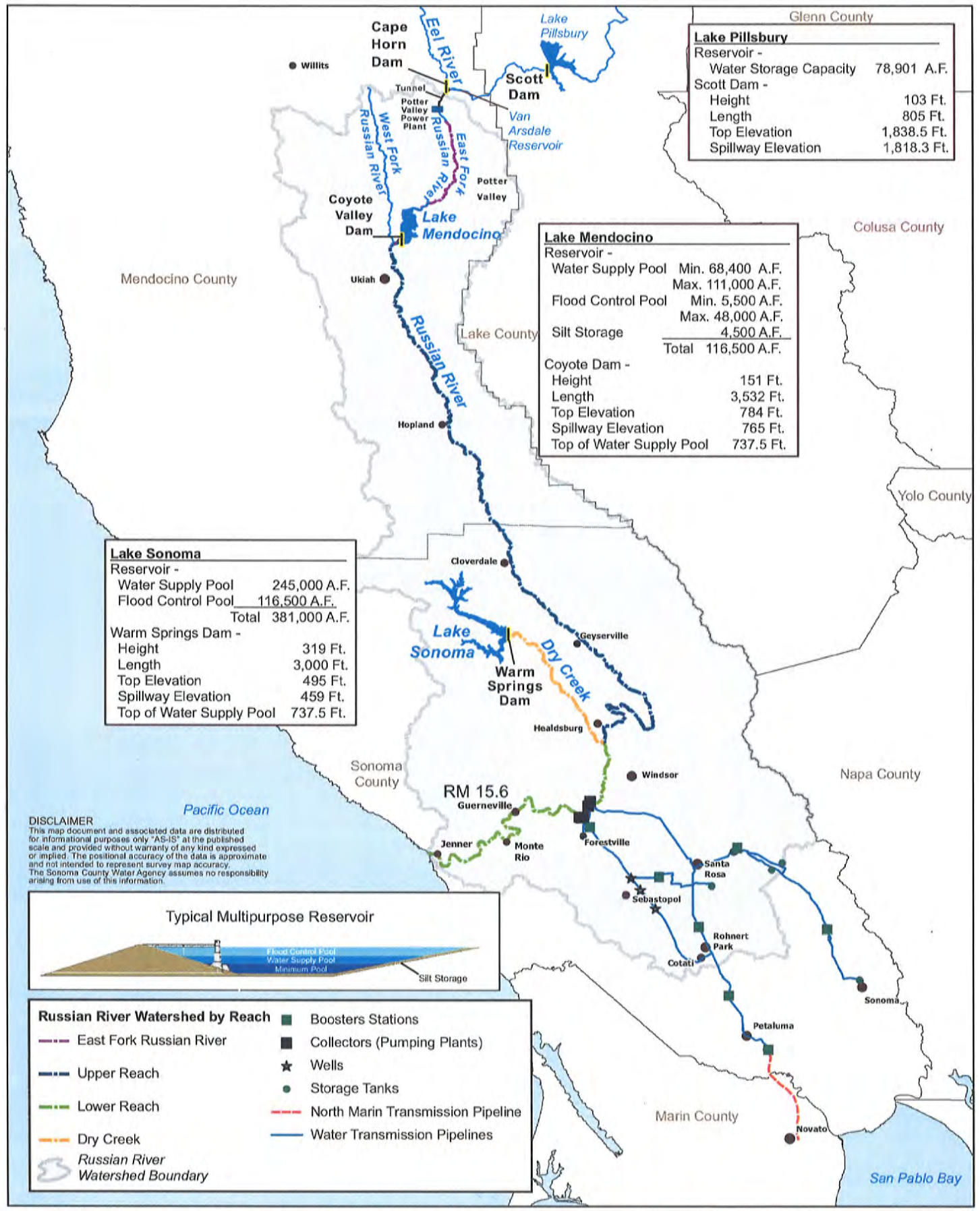
The USACE manages water releases from Warm Springs Dam and Lake Sonoma during flood management operations according to the Warm Springs Dam (WSD) and Lake Sonoma Water Control Manual. The WSD Water Control Manual includes a reservoir guide curve that establishes the maximum limit for water supply storage in Lake Sonoma and does not vary seasonally. The flood control pool is defined as the volume above the reservoir guide curve and below the top of the flood pool. When water storage in Lake Sonoma is above the reservoir guide curve and in the flood control pool, the USACE normally manages releases from Warm Springs Dam. Under typical flood management operations, water is temporarily detained in the flood control pool until the risk of downstream flooding has diminished. The USACE will then release water from the reservoir to bring storage levels down to the level defined by the reservoir guide curve. These releases are initiated in accordance with schedules established in the WSD Water Control Manual.

The Water Agency is the local sponsor for Lake Sonoma and is responsible for making water supply releases. As the local sponsor, the Water Agency has the exclusive right to control releases from the water supply pool. The Water Agency makes releases from Warm Springs Dam to maintain the minimum instream flow requirements specified in its water right permits and for downstream beneficial uses, including diversions for municipal, domestic, and industrial purposes. These releases are made by the Water Agency when reservoir storage levels are in the water supply pool, which is at or below the reservoir guide curve as established in the WSD Water Control Manual.

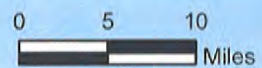
The Water Agency operates the Warm Springs Dam Hydroelectric project under a license issued by FERC. The hydroelectric plant has a total generation capacity of 2.6 MW through a single turbine and generator unit located inside the base of the dam's control structure.

As of Thursday, January 12, 2017, Lake Sonoma holds 316,681 acre-feet, again well above the water supply pool total of 245,000 acre-feet. Once these current storms subside, USACE will release this water from Lake Sonoma, after the threat of flooding downstream has passed.

Updated information showing current water storage in both Lake Mendocino and Lake Sonoma will be available at the meeting.



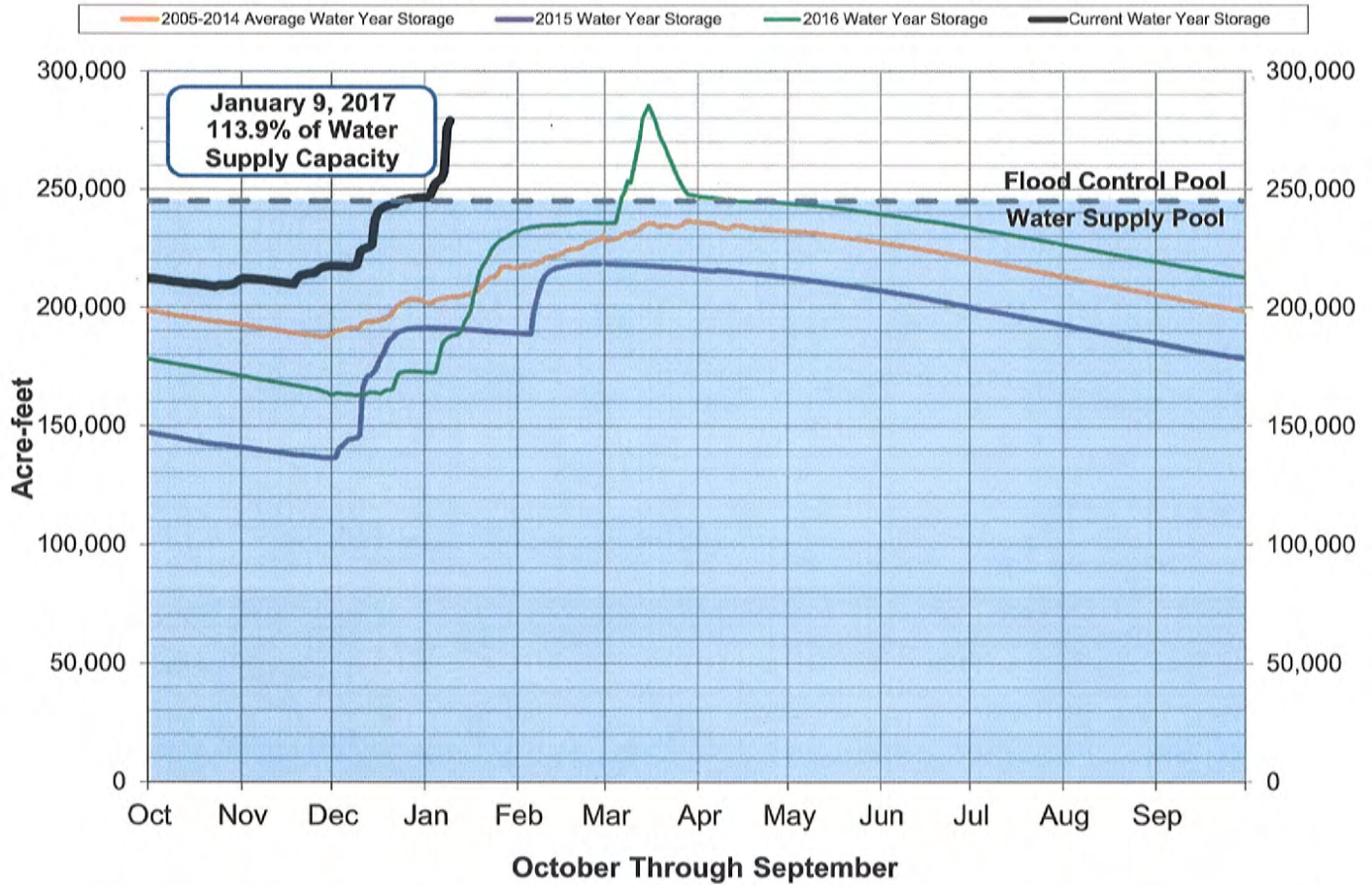
# **Fish Habitat Flows and Water Rights Project** **Russian River Water System**



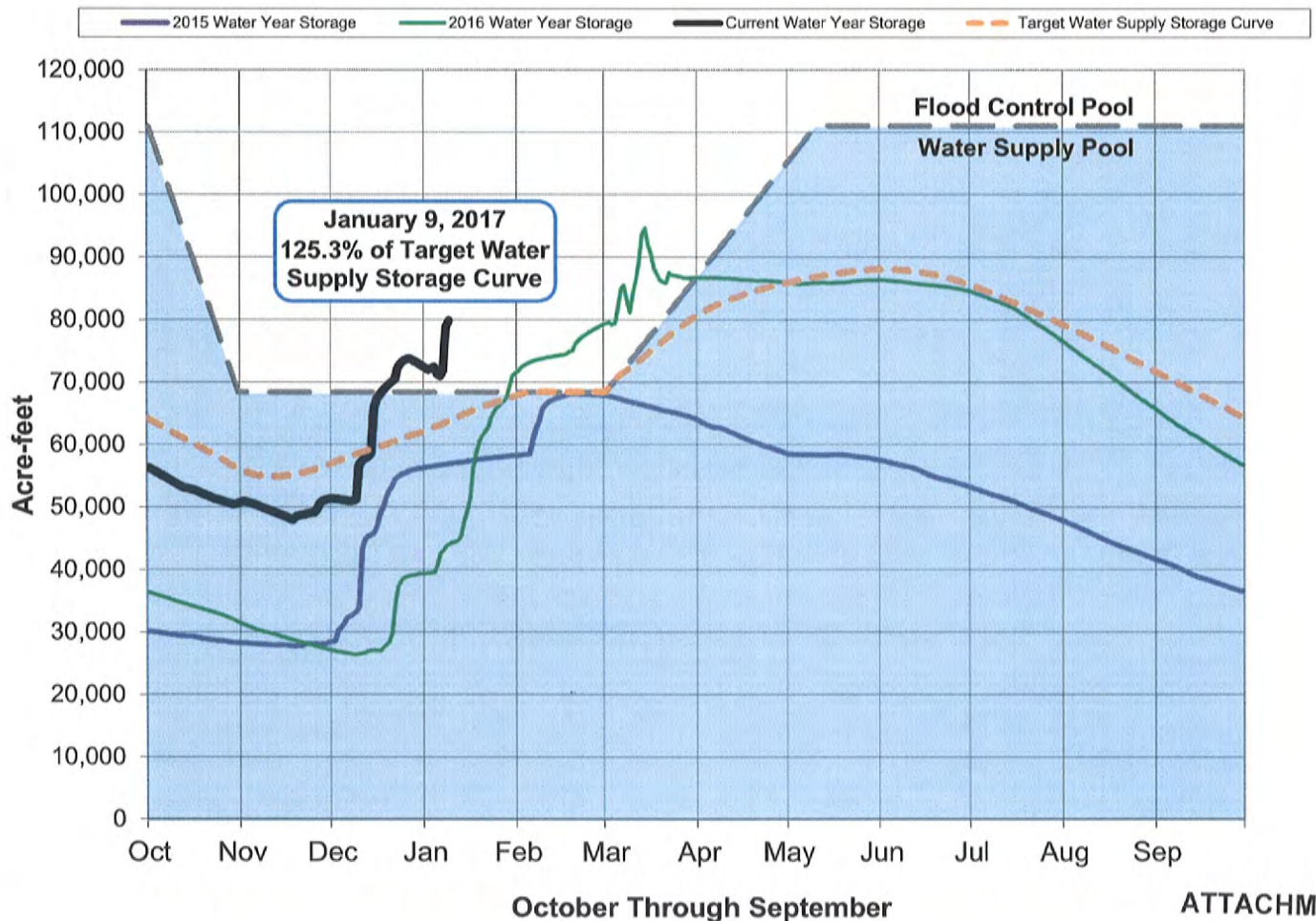
**Figure**  
**3-5**



## Lake Sonoma Water Supply Storage



## Lake Mendocino Water Supply Storage



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## MEMORANDUM

To: Board of Directors

January 13, 2017

From: Chris DeGabriele, General Manager Subj: State Water Resources Control Board – Notice of Public Workshop – Urban Water Conservation Emergency Regulation  
t:\gm\swrcbl2017\urbanwaterconservationworkshop.docx**RECOMMENDED ACTION:** Information Only**FINANCIAL IMPACT:** None at this time

Attached please find a notice of the public workshop scheduled January 18, 2017, where the State Water Resources Control Board will receive input on potential adjustments to the May 2016 Emergency Regulation on Urban Conservation (Attachment 1). The current Emergency Regulation is scheduled to expire on February 28<sup>th</sup>. If the State Water Board does act to extend it, a re-adopted Emergency Regulation would extend through October 2017. The State Water Board is interested specifically in public comment on the following questions at the workshop:

1. What elements of the existing May 2016 Emergency Regulation if any should be modified? Should the State Water Board wait until the hydrology for the current water year is known (April or later) before proposing adjustments to the current method of calculating conservation standards? And should the State Water Board allow suppliers to update or modify their conservation standard calculations (and if so, how)?
2. Should the State Water Board account for regional differences in snow pack, precipitation and lingering drought impacts differently than under the current Emergency Regulation and if so, how?
3. Should the Board act now or later if conditions warrant to a conservation standard structure like the one the Board adopted in February 2016 to achieve the mandatory reduction in water use? Should the Board set a conservation floor individually or cumulatively?

Both the District and Sonoma Marin Saving Water Partnership have submitted letters to the State Board in advance of the Urban Water Conservation Workshop. The letters are essentially the same (Attachments 2 & 3).

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State Water Resources Control Board

## NOTICE OF PUBLIC WORKSHOP

### Urban Water Conservation

Wednesday January 18, 2017  
(will not begin before 10:00 a.m.)

Joe Serna Jr. - CalEPA Headquarters Building  
Coastal Hearing Room  
1001 I Street, Second Floor  
Sacramento, CA 95814

**NOTICE IS HEREBY GIVEN** that the State Water Resources Control Board (State Water Board or Board) will hold a public workshop to receive input on extension and potential modification of the current Emergency Regulation for Statewide Urban Water Conservation. This will be an informational workshop only and the State Water Board will take no formal action.

#### BACKGROUND

On April 1, 2015, Governor Brown issued the fourth in a series of executive orders on actions necessary to address California's severe drought conditions. On May 5, 2015, the State Water Board adopted an Emergency Regulation to address specific provisions of the April 1 Executive Order, including the mandatory 25 percent statewide reduction in potable urban water use between June 2015 and February 2016. On November 13, 2015, Governor Brown issued Executive Order B-36-15, which directed the State Water Board to extend the May 2015 Emergency Regulation, if drought conditions persisted. Drought conditions continued and the emergency regulation was extended in February 2016 for another 270 days.

The State Water Board adjusted the Emergency Regulation in May 2016, in response to improved hydrologic conditions through April 2016. The May 2016 Emergency Regulation allowed urban water suppliers to self-certify information upon which a new, supply reliability-based conservation standard was imposed, based on the amount of potable water that would be available following three additional years of drought. Suppliers whose supply analysis showed a supply shortfall at the end of three additional years of drought were issued a mandatory conservation standard equal to that supply shortfall. The self-certification was voluntary; some suppliers chose to retain their mandatory conservation standard from the February 2016 emergency regulation. The Office of Administrative Law approved the extended Emergency Regulation on May 31, 2016. The Emergency Regulation is scheduled to expire on February 28, 2017 if the Board does not act to extend it. A copy of the adopted and approved regulation is located on the Water Conservation Portal - Emergency Conservation Regulation webpage.

Additionally, on May 9, 2016, Governor Brown issued Executive Order B-37-16. The Executive Order notes that while California has suffered through a severe multi-year drought, and that Californians have responded to the drought by conserving at unprecedented levels, severe drought conditions persist in many areas of the state. Issues of limited drinking water supplies, diminished water for agricultural production and environmental habitat, and severely-depleted groundwater basins have persisted, despite better precipitation during the 2015-16 water year. The Executive Order calls out four directives to help the state transition to permanent, long-term improvements in water use, including: using water more wisely, eliminating water waste, strengthening local drought resilience, and improving agricultural water use efficiency and drought planning.

Executive Order B-37-16 called on the State Water Board to adjust emergency water conservation regulations through the end of January 2017 in recognition of differing water supply conditions across the state. The State Water Board responded to this directive by updating the Emergency Regulation in May 2016 to include the self-certification process described above that recognizes supplier-specific supply conditions and drought levels.

Executive Order B-37-16 also calls on the State Water Board to develop, by January 2017, a proposal to achieve a mandatory reduction in potable urban water usage that builds off of the mandatory 25% reduction called for in earlier executive orders and lessons learned through 2016. The workshop will provide an opportunity to receive stakeholder input regarding extension and potential modification of the Emergency Regulation.

From June 2015 through November 2016, customers of the state's 411 urban water suppliers have saved 2.35 million acre-feet of water, which equates to a 18-month cumulative savings of 22.6 percent relative to the 2013 baseline. Compliance and water savings with the May 2016 Emergency Regulation remains positive. The supply reliability-based regulation that went into effect in June 2016 resulted in many suppliers having a zero percent conservation mandate, and nearly all of those suppliers are in compliance by having water production levels below 2013 levels (the baseline year for the emergency regulation). Thirty eight percent of suppliers reporting in October 2016 achieved water savings between 10 and 20 percent compared to the same month in 2013; these suppliers serve almost 18 million people. Fifty percent of suppliers, serving more than 14 million Californians, reported water savings of 20 percent or more.

## **WORKSHOP OVERVIEW**

With California still experiencing severe drought in large portions of the state, the State Water Board is proposing to extend the May 2016 Emergency Regulation. Although precipitation levels from October through December have been promising in Norther California, southern California has remained dry. Severe drought conditions over multiple years have decreased water levels in many of California's reservoirs and groundwater basins, and reduced flows in the state's rivers. Rains in parts of California this water year are encouraging so far and above normal for this date. In some regions, however, the drought continues to present challenges including water shortages, over-drafted groundwater basins and land subsidence, dying trees and increased wildfire activity, diminished water for agricultural production, degraded habitat for many fish and wildlife species, and an increased threat of saltwater intrusion. Hydrologic conditions for the water year are not yet known, making it prudent to prepare for continued drought conditions and consider adjustments when hydrologic conditions are better known.



A readopted Emergency Regulation would extend through October 2017. The State Water Board is interested specifically in public comment on the following questions at this workshop:

1. What elements of the existing May 2016 Emergency Regulation, if any, should be modified? Should the State Water Board wait until the hydrology for the current water year is known (April or later) before proposing adjustments to the current method for calculating conservation standards? And, should the State Water Board allow suppliers to update or modify their conservation standard calculations (and if so, how)?
2. Should the State Water Board account for regional differences in snowpack, precipitation, and lingering drought impacts differently than under the current emergency regulation, and if so, how?
3. Executive Order B-37-16 requires the Board to develop a proposal to achieve a mandatory reduction in potable water use that builds off the mandatory 25 percent reduction in previous Executive Orders and lessons learned through 2016. The Board, however, is not required to act on this proposal. Should the Board act now, or later if conditions warrant, to a conservation standard structure like the one the Board adopted in February 2016 to achieve a mandatory reduction in water use? Should the Board set a conservation floor, individually or cumulatively?

If the Board extends the Emergency Regulation essentially unchanged, each urban water supplier (serving more than 3,000 connections or more than 3,000 acre-feet of water annually) would continue to either 1) be assigned a conservation standard between 8 percent and 36 percent, based on their residential gallons per capita per day (R-GPCD) for the months of July through September 2014, with some adjustment factors, or; 2) self-certify a conservation standard based on the supplier's water supply reliability assessment that demonstrates the degree sufficient supplies are available to meet demand should drought conditions persist through 2019. Additional information on the Emergency Regulation and conservation standards is available at the Water Conservation Portal referenced above

The purpose of this workshop is to solicit input on potential adjustments to the May 2016 Emergency Regulation in response to precipitation levels and other drought indicators across the state since May 2016, for consideration and possible action by the State Water Board in February 2017. The workshop will include a staff presentation and information on water supply conditions followed by public comments and Board Member discussion.

#### **PROCEDURAL MATTERS**

The workshop will be informational only. While a quorum of the State Water Board may be present, the Board will not take formal action at the workshop. There will be no sworn testimony or cross-examination of participants, but the State Water Board and its staff may ask clarifying questions. The workshop is an opportunity for interested persons to provide input to the State Water Board. To ensure a productive and efficient workshop, oral comments may be limited to three (3) minutes or otherwise limited at the discretion of the Board Chair or any Board member present. So that all commenters have an opportunity to participate, presentations and questions may be time-limited.

#### **SUBMISSION OF WRITTEN COMMENTS**

Interested persons must submit written comments by 12 noon on Thursday, January 12, 2017.

Written comment letters must be submitted to the attention of:

Jeanine Townsend, Clerk to the Board  
State Water Resources Control Board  
1001 I Street, 24th floor  
Sacramento, CA 95814

Comment letters may be submitted to the Clerk of the Board via email at: [commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov) (15 megabytes, or less, in size) or by fax at (916) 341-5620.

**ADDITIONAL INFORMATION**

Please indicate in the subject line **“Comment Letter – Urban Water Conservation Workshop.”**

Comments may also be hand delivered. Couriers delivering comment letters must check in with lobby security personnel on the first floor of the CalEPA Building at the above address. Questions on comment submittals may be directed to Ms. Townsend, at (916) 341-5600.

More information on the State Water Board's Emergency Water Conservation Regulation can be found here:

[http://www.waterboards.ca.gov/water\\_issues/programs/conservation\\_portal/emergency\\_regulation.shtml](http://www.waterboards.ca.gov/water_issues/programs/conservation_portal/emergency_regulation.shtml)

For directions to CalEPA, visit: <http://www.calepa.ca.gov/EPABldg/location.htm>

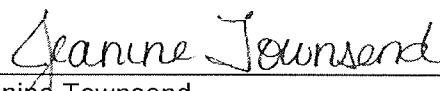
Notices and submittals are available electronically at:

[http://www.waterboards.ca.gov/board\\_info/calendar/index.shtml](http://www.waterboards.ca.gov/board_info/calendar/index.shtml)

All visitors must check-in upon arrival to CalEPA and then proceed to the meeting room. Individuals who require special accommodations are requested to contact the Clerk to the Board at (916) 341-5600.

Please direct other questions about this notice to Kathy Frevert at (916) 322-5274 or [kathy.frevert@waterboards.ca.gov](mailto:kathy.frevert@waterboards.ca.gov).

\_\_\_\_\_  
January 6, 2017  
Date

  
\_\_\_\_\_  
Jeanine Townsend  
Clerk to the Board





Via email: [commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov)

Jeanne Townsend, Clerk to the Board  
State Water Resources Control Board  
1001 I Street, 24<sup>th</sup> Floor  
Sacramento, CA 95814

Subject: Comment Letter Urban Water Conservation Workshop

Dear Chair Marcus and Members of the State Water Resources Control Board:

The North Marin Water District (NMWD or District) offers the below comments on the Urban Water Conservation Workshop to be held Wednesday, January 18, 2017. NMWD provides retail water service to 20,579 accounts principally to the community of Novato and the surrounding unincorporated area of northern Marin County. The water supply for this service area is from our local Stafford Lake (Novato Creek) and the Russian River, supplemented with Recycled water from both Novato Sanitary District and Las Gallinas Valley Sanitary District. NMWD also provides retail water service to the small coastal communities at the base of Tomales Bay in West Marin County (780 accounts), via a separate small water system using the underflow from Lagunitas Creek as the source of supply.

In June 2016 NMWD conducted a self-certification analysis in response to the extended Emergency Regulation resulting in a Conservation Standard of 0%. To-date, NMWD's aggregate June 2015 through November 2016 conservation savings is 25% relative to the same period in 2013. In light of the current hydrologic conditions in our region and conservation performance since June 2015, NMWD respectfully requests the Emergency Regulation be rescinded or be allowed to expire on its sunset date of February 28, 2017.

In response to specific questions posed by the State Water Board in the Notice of Public Workshop, we offer the following:

1. The hydrology for the current water year in NMWD's service area is known because all surface water reservoirs providing water supply for NMWD are full, and the Russian River, Lagunitas Creek and other local rivers and creeks are at flood stage as a result of recent storms. We ask that no elements of the existing May 2016 Emergency Regulation be modified, and that the Emergency Regulation be rescinded or expire on February 28, 2017. Should the existing regulation be extended or modified, NMWD requests previously submitted self-certification remain an acceptable compliance mechanism so that previous analysis and reported water conservation savings remain valid and the duplicate effort which re-submittal would require can be avoided.
2. The State Water Board should account for regional hydrologic differences and for those areas experiencing above average precipitation and full surface water reservoirs, such as NMWD, the Emergency Regulation should be rescinded or left to expire on February 28, 2017.

3. The State Water Board should act now to rescind the Emergency Regulation or let expire on February 28, 2017 for NMWD. The State Water Board should not revert to a conservation standard structure like the one the Board adopted in February 2016 which does not take local water supply conditions into consideration nor should the State Water Board set a conservation floor.

Thank you for the opportunity to comment.

Sincerely,



Chris DeGabriele  
General Manager  
North Marin Water District





Via email: [commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov)

Jeanne Townsend, Clerk to the Board  
State Water Resources Control Board  
1001 I Street, 24<sup>th</sup> Floor  
Sacramento, CA 95814

Subject: Comment Letter Urban Water Conservation Workshop

Dear Chair Marcus and Members of the State Water Resources Control Board:

The Sonoma Marin Saving Partnership (SMSWP or Partnership) respectfully submits the following comments on the Urban Water Conservation Workshop to be held Wednesday, January 18, 2017. SMSWP members include the Cities of Cotati, Petaluma, Rohnert Park, Santa Rosa, Sonoma, Town of Windsor and the Marin Municipal, North Marin and Valley of the Moon Water Districts, Cal-American Water (Larkfield-Wikiup) and Sonoma County Water Agency. Together we serve over 600,000 people in the Sonoma-Marin region and we appreciate the opportunity to provide input on the Emergency Regulation for Statewide Urban Water Conservation.

In June 2016 Partnership members conducted self-certification analysis in response to the extended Emergency Regulation resulting in a Conservation Standard of 0% for each member. To-date, the Partnership has continued to perform admirably as the aggregate June 2015 through November 2016 conservation savings is 22% relative to the same period in 2013. In light of the current hydrologic conditions in our region, and conservation performance since June 2015 the Partnership members respectfully request the Emergency Regulation be rescinded or be allowed to expire on its sunset date of February 28, 2017.

In response to specific questions posed by the State Water Board in the Notice of Public Workshop, we offer the following:

1. The hydrology for the current water year in the Sonoma-Marin region is known because all surface water reservoirs providing water supply for the Partnership are full, a deviation with the Army Corps of Engineers to encroach into the Lake Mendocino flood control pool has been requested which may allow for additional water supply in the years to come, and the Russian River and local rivers and creeks are at flood stage as a result of recent storms. We ask that no elements of the existing May 2016 Emergency Regulation be modified, and that the Emergency Regulation be rescinded or expire on February 28, 2017. Should the existing regulation be extended or modified, the Partnership requests previously submitted self-certification remain an acceptable compliance mechanism so that previous analysis and reported water conservation savings remain valid and the duplicate effort which re-submittal would require can be avoided.

2. The State Water Board should account for regional hydrologic differences and for those areas experiencing above average precipitation and full surface water reservoirs, such as Sonoma-Marin, the Emergency Regulation should be rescinded or left to expire on February 28, 2017.
3. The State Water Board should act now to rescind the Emergency Regulation or let expire on February 28, 2017 for Sonoma Marin Saving Water Partnership members. The State Water Board should not revert to a conservation standard structure like the one the Board adopted in February 2016 which does not take into consideration local water supply conditions. The State Water Board should not set a conservation floor.

Thank you for the opportunity to comment.

Sincerely,



Chris DeGabriele  
General Manager  
North Marin Water District  
Chair Technical Advisory  
Committee to SCWA

13



## MEMORANDUM

To: Board of Directors  
 From: Drew McIntyre, Assistant General Manager/Chief Engineer  
 Subject: North Bay Water Reuse Authority Board Meeting – December 19, 2016

January 13, 2017

R:\Folders by Job No\7000 Jobs\7127\Board Memos\7127 NBRWA Update 12\_19\_16.doc

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

Supplemental information is provided as follows using item numbers referenced in the attached meeting agenda and draft minutes (Attachment 1). A complete agenda packet is available via [www.nbwra.org](http://www.nbwra.org).

**2. Roll Call**

Director Schoonover was not able to attend due a sudden medical appointment conflict.

**6. Report from the Chair****6a. Consultant Progress Reports**

Ginger Bryant and The Ferguson Group, TFG (NBWRA's federal lobbyist) are working to expand potential funding sources beyond the Bureau of Reclamation's Title XVI program. TFG continues to: (1) advocate for funding opportunities that could be authorized in pending drought relief legislation and (2) work on options to address NBWRA Phase 2 funding authorization ambiguities. Brown and Caldwell (B&C) has been busy with MMWD and City of American Canyon regarding benefits of joining NBWRA as Phase 2 members (with recent news that MMWD will once again join the ranks as a Phase 2 member)

**6.b Financial Report**

As of the date of this meeting, NMWD's FY17 budget was still \$57,179 as approved on April 25, 2016. Refer to Item 8 for more budget related discussion.

**6.c Recognize Supervisor Keith Caldwell's Contributions**

Supervisor Caldwell completes his second and final term in 2016 as Napa County District 5 Supervisor. He was acknowledged for his many years of service and is now looking forward to being a full-time grandfather!

**8. FY16-17 Budget Amendments**

Since the October 24, 2016 meeting, the consultants and TAC representatives have continued to work on developing an acceptable cost allocation between Phase 1 and Phase 2 member agencies. At the December 19, 2016 meeting, the Board unanimously approved an updated cost allocation methodology that was summarized in the December 2 2016 NMWD Board summary. It is currently estimated that NMWD's total FY17 contribution will decrease ~\$7,500 below the initial FY17 budget of \$57,179 due to reduced FY17 Program Manager (Chuck Weir) and SCWA administrative expenditures. As NBWRA administrator, SCWA



anticipates providing an update on final Phase 1 grant allocations between the four remaining Phase 1 participants that still have ongoing projects (which includes NMWD).

**9. Program Development, Federal and State Advocacy**

In December, President Obama signed the Water Infrastructure Improvements for the Nation (WIIN) Act that was authored by Senate Majority leader Kevin McCarthy and Senator Dianne Feinstein and includes \$25M per year for the old Title XVI program (with an individual applicant cap of \$4M per year). This Act also created a new Title XVI program with \$50M per year available for unauthorized programs. At the state level, Pilar opined that some wastewater agencies may not oppose Senator Hertzberg's efforts to re-introduce his ocean discharge reduction mandate legislation if compliance levels are lowered. Dates for the 2017 NBWRA Day in the Capitol tour are still being finalized.

**10. Engineering, Environmental and Public Involvement**

If both MMWD and City of American Canyon commit to join by the end of January 2017, the Phase 2 EIR/EIS could be approved by July 2018. It is anticipated that the first Title XVI grant application for initial Phase 2 costs (except EIR/EIS expenditures which are not eligible) will be submitted this fall.

**North Bay Water Reuse Authority  
Board of Directors Meeting  
Minutes  
December 19, 2016**

**1. Call to Order**

Chair Rabbitt called the meeting to order at 9:35 a.m. on Monday, December 19, 2016 at the Novato Sanitary District, 500 Davidson Street, Novato, CA. Consultants and others who were unable to attend participated via telephone, 1 (602) 567-4030, access code 2231;  
<https://Conferencing.brwncaid.com/conference/2231>

**2. Roll Call**

<b>PRESENT:</b>	David Rabbitt, Chair	Sonoma County Water Agency
	Bill Long, Vice Chair	Novato Sanitary District
	Keith Caldwell	Napa County
	Rabi Elias	Las Gallinas Valley Sanitary District
	Jack Gibson	Marin Municipal Water District
	Jason Holley	City of American Canyon
	Pam Jeane	Sonoma Valley County Sanitation District
	Drew McIntyre	North Marin Water District
	Dan St. John	City of Petaluma
	Jill Techel	Napa Sanitation District

**ABSENT:** Marin County

**OTHERS**

<b>PRESENT:</b>	Chuck Weir, Program Manager	Weir Technical Services
	Kevin Booker	Sonoma County Water Agency
	Ginger Bryant	Bryant & Associates
	Jill Chamberlain	Brown and Caldwell
	Anne Crealock	Sonoma County Water Agency
	David Graves	Napa Sanitation District
	Sandeep Karkal	Novato Sanitary District
	Mark Millan	Data Instincts
	Phil Miller	Napa County
	Pilar Oñate-Quintana	The Oñate Group (by telephone)
	Mike Savage	Brown and Caldwell
	Brad Sherwood	Sonoma County Water Agency
	Jake Spaulding	Sonoma County Water Agency
	Dawn Taffler	Kennedy Jenks Consultants (by telephone)
	Leah Walker	City of Petaluma
	Mark Williams	Las Gallinas Valley Sanitary District

**3. Public Comments**

There were no comments from the public

#### **4. Introductions**

Introductions were not made.

#### **5. Board Meeting Minutes of October 24, 2016.**

A motion by Director Caldwell, seconded by Director Long to approve the October 24, 2016 minutes as presented was approved with one abstention.

#### **6. Report from the Chair**

##### **a. Consultant Progress Reports**

The Board reviewed the consultant progress reports for October and November 2016.

##### **b. Financial Reports**

The Board reviewed the Financial Reports for the period ending November 30, 2016.

##### **c. Recognize Supervisor Keith Caldwell's Contributions**

The Chair and the Board recognized Supervisor Keith Caldwell for his many years of service to the region, Napa County, and NBWRA. Chair Rabbitt presented Supervisor Caldwell with a plaque. Vice Chair Long noted that Supervisor Caldwell participated in NBWRA before he was elected to the Board of Supervisors and appointed to the NBWRA Board. Supervisor Caldwell noted that it has been an honor and a privilege to work with NBWRA and NBWA. He cited the quality of the organizations and projects.

#### **7. Board Information Requests**

Chair Rabbitt provided an update to the Membership Brochure development. The brochure will be finalized after decisions are made on new members at the January 2017 meeting.

#### **8. FY2016/17 Budget Amendments**

Chair Rabbitt and Mike Savage provided a summary. Chair Rabbitt noted that the budget for the rest of FY16/17 needs to be approved to continue business through the end of the fiscal year. Savage noted that the cost sharing may change if additional agencies join NBWRA in January 2017. Jake Spaulding discussed the status of the reconciliation of Phase 1 costs and that a detailed report would be presented at the January 23, 2017 meeting.

A motion by Director Elias, seconded by Director Caldwell, to approve the FY2016/17 Budget Amendments was unanimously approved.

#### **9. Program Development, Federal, and State Advocacy Update**

Ginger Bryant provided a summary of Program Development and Federal Advocacy, including a summary of The Water Infrastructure Improvements for the Nation Act (WIIN) that was sponsored by Senator Feinstein. The Act includes RIFIA loans and WaterSMART grants. In addition, there are now two Title XVI Programs. She also noted that Rep. Cathy McMorris Rodgers (R-WA) has been nominated to head the Department of Interior and that they are tracking other appointment in the new administration.

Pilar Oñate-Quintana provided a summary of State Advocacy activities, including the fact that the Democrats now have a 2/3 supermajority in both houses. SB 5 (DeLeon) and AB 18 (Garcia) have been introduced as major water related bonds. Both are multi-billion dollar items and are likely to be combined at some point. She also described the likelihood that Senator Hertzberg

will reintroduce his ocean discharge reduction mandate legislation. She has also been working with WaterReuse in the development of legislation for direct potable reuse (DPR). Lastly she noted that they are working on possible dates for the next NBWRA Day in the Capitol and the possibility of organizing a tour for newly elected Assemblywoman Cecilia Aguilar-Curry and her staff.

#### **10. Engineering, Environmental, and Public Involvement Services Report**

Mark Millan discussed progress on updating the 4 page overview and preparing a one-sheet brochure for potential new members. Jill Chamberlain provided an update on the status of the Feasibility Study Report as well as the future schedule for the EIR/EIS analysis.

#### **11. Items for Future Discussion and Action**

Chair Rabbitt gave a brief summary of items for the January 23, 2017 meeting, including State legislative issues, Federal administration, Federal legislation and funding opportunities, and a discussion on the FY 17/18 Budget. Ginger Bryant noted that the schedule for meetings in 2017 will also need to be discussed.

#### **12. Comments from Chair and Board Members**

Dan St. John indicated that the City of Petaluma is conducting a rate study that will include NBWRA costs. .

#### **13. Adjournment**

Chair Rabbitt adjourned the meeting at 10:45 a.m. The next meeting will be Monday, January 23, 2017 at 9:30 a.m. at Novato City Hall Council Chambers.

Minutes approved by the Board \_\_\_\_\_.

Charles V. Weir  
Program Manager

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**14**

## MEMORANDUM

To: Board of Directors  
 From: Chris DeGabriele, General Manager  
 Subject: Technical Advisory Committee Meeting – January 9, 2017  
t:\gm\scwa\tac minutes and agenda\2016\tac cd notes 010917.doc

January 13, 2017

**RECOMMENDED ACTION:** Information Only

**FINANCIAL IMPACT:** None

Agenda and supporting information included.

**4. Water Supply Conditions and Temporary Deviation at Lake Mendocino**

See the earlier agenda item #11, Typical Multi-Purpose Reservoir of Russian River Project for Water Supply Conditions. The request for Temporary Deviation to the water control manual is included in the TAC agenda packet.

**5. Sonoma Marin Saving Water Partnership**

- i. Water Production Relative to 2013 Benchmark – On a whole SMSWP members have reduced water production by 22% from June 2015 through November 2016.
- ii. SWRCB Proposed Water Conservation Framework – see agenda item #13 State Water Resources Control Board Notice of Public Workshop – Urban Water Conservation Emergency Regulations
- iii. Civic Smart Water Fellow – the Water Agency has on staff this year an Ameri-Corp Civic Smart Water Fellow who is charged with evaluating the Sonoma Marin Saving Water Partnership as the Partnership MOU expires on June 30, 2018 unless extended or terminated earlier. The Civic Smart Water Fellow will be interviewing TAC members, WAC members and is serving other regional water conservation organizations to determine whether SMSWP scope remains valid or should be modified.

**6. SCWA Draft FY 2017/18 Budget**

We have not yet seen a draft of the budget but the budget subcommittee has a meeting scheduled on January 18<sup>th</sup> where the first review will occur. It's likely that a special WAC meeting will be needed in April (April 3, 2017) to approve the Agency budget.

**7. Biological Opinion Status Update**

The written update is included with this TAC agenda.

FOR ACCESSIBLE  
MEETING INFORMATION  
CALL: (707) 543-3350  
ADD: (707) 543-3031



**TECHNICAL ADVISORY COMMITTEE  
MONDAY: JANUARY 9, 2017**

Utilities Field Operations Training Center  
35 Stony Point Road, Santa Rosa, CA

**9:00 a.m. (Note Location)**

1. Check In
2. Public Comment
3. Recap from December 5, 2016 TAC Meeting and Approval of Minutes
4. Water Supply Conditions and Temporary Deviation at Lake Mendocino
5. Sonoma Marin Saving Water Partnership -
  - i. Water Production Relative to 2013 Benchmark
  - ii. SWRCB Proposed Water Conservation Framework
  - iii. Civic Smart Water Fellow
6. SCWA Draft FY 2017/18 Budget
7. Biological Opinion Status Update
8. Items for next agenda
9. Check Out

\*Draft Minutes of Technical Advisory Committee  
35 Stony Point Road, Santa Rosa, California  
December 5, 2016

Attendees: Linda Reed, City of Santa Rosa  
Jennifer Burke, City of Santa Rosa  
Rocky Vogler, City of Santa Rosa  
Lauren Curiel, City of Santa Rosa  
Casey Rainey, City of Santa Rosa  
Toni Bertolero, Town of Windsor  
Paul Piazza, Town of Windsor  
Elizabeth Cargay, Town of Windsor  
Mary Grace Pawson, City of Rohnert Park  
Marc Bautista, City of Rohnert Park  
Kent Carothers, City of Petaluma  
Leah Walker, City of Petaluma  
Craig Scott, City of Cotati  
Dan Takasugi, City of Sonoma  
Chris DeGabriele, North Marin Water District  
Drew McIntyre, North Marin Water District  
Dan Muelrath, Valley of the Moon Water District  
Mike Ban, Marin Municipal Water District  
Grant Davis, SCWA  
Pam Jeane, SCWA  
Brad Sherwood, SCWA  
Carrie Pollard, SCWA  
Michael Gossman, SCWA  
Ann Dubay, SCWA  
Lynne Rosselli, SCWA

Public Attendees: Bob Anderson, United Winegrowers  
J. Dietrich Stroeh, Stuber-Stroeh Engineering Group  
Dawna Gallagher-Stroeh

1. Check-in

Chair Chris DeGabriele called the meeting to order at 9:06 a.m.

2. Public Comment

None

3. Water Supply Conditions

Grant Davis, SCWA, reported that Lake Sonoma is at 88.5% of the target storage, and Lake Mendocino is at (almost) 90% of water supply pool capacity.

4. Sonoma Marin Saving Water Partnership

a. Water Production Relative to 2013 Benchmark

Chris DeGabriele, North Marin Water District, reviewed the table that was made available to the committee members.



b. SWRCB Urban Water Advisory Group

Jennifer Burke, Santa Rosa Water, provided an update of the SWRCB Urban Water Advisory Group. The draft framework report on making Water Conservation a California way of life, has been made available. The comment period has been extended to 12/19/16. There is an Urban Advisory Group meeting scheduled on 12/7/16 in Sacramento. The State Water Board will be looking at extending emergency water conservation regulations, for another 270 days. If there is a dry winter the State Water Board may need to reinstate a 25% cut back. Carrie Pollard, SCWA, informed the members of a Landscape Area Measurement Workshop on December 14<sup>th</sup> in LA. Webinar is available. Questions and comments followed from the members and the SMSWP agreed to send a comment letter.

5. Biological Opinion Status Update

Pam Jeane, SCWA, reviewed the update that was made available to the committee members. Fish Habitat Flows Project DEIR has a projected date of completion for the end of 2017. Comments followed from other members.

Brad Sherwood gave update on Water Resources Development Act. The bill is scheduled to pass in both the House and Senate on December 5, 2016. Comments followed from other members.

6. Items for Next Agenda

Water Supply Conditions and Temporary Urgency Change Order  
Sonoma Marin Saving Water Partnership  
Biological Opinion Status Update

7. Check Out

Next TAC meeting scheduled for January 9, 2017  
Next WAC/TAC meeting is February 6, 2016

Meeting was adjourned at 9:42 a.m.



CF/49-4.1-11 Coyote Valley Dam & Lake  
Mendocino Operations (ID 1414)

December 16, 2016

LTC John Morrow  
District Commander, San Francisco District  
United States Army Corps of Engineers  
1455 Market Street, 16<sup>th</sup> Floor  
San Francisco, CA 94103

**Re: Request for Temporary Deviation to the Water Control Manual – Coyote Valley Dam**

Dear LTC Morrow:

This letter serves as a request for a temporary deviation to the Water Control Manual for Coyote Valley Dam. As the local, non-federal sponsor of Coyote Valley Dam and Lake Mendocino, the Sonoma County Water Agency (Water Agency) appreciates our cooperative relationship with the United States Army Corps of Engineers (USACE) in operating the facility for flood control and water supply benefits for the region.

As you are aware, Coyote Valley Dam and Lake Mendocino are operated in accordance with the terms of the facility's Water Control Manual. The most recent revision of the manual was released in August, 1986. Since the preparation of the Water Control Manual, significant changes have occurred throughout the Russian River system. These changes include the listing of Chinook, coho and steelhead as threatened or endangered; and most importantly, significant reductions of inflow to Lake Mendocino due to lower diversions from Pacific Gas & Electric's Potter Valley Project (PVP).

Recent reductions in releases from PVP are the result of an Order issued by the Federal Energy Regulatory Commission in January 2004 that amended PG&E's operating license. Since 2006, when PG&E began operating under the amended license, there has been approximately a 60 percent reduction of the annual transfer of Eel River water into the Russian River Watershed. As shown in Figure 1, the average annual transfer through PVP between 1922 and 2006 was approximately 150,000 acre-feet. The average annual transfer through PVP between 2007 and 2016 was reduced to approximately 65,000 acre-feet.

More importantly, a considerable portion of the reduced transfer occurs between March 1<sup>st</sup> and June 1<sup>st</sup>. As shown in Figure 2, the average transfer through PVP between March 1<sup>st</sup> and June 1<sup>st</sup> from 1922 through 2006 was approximately 40,000 acre-feet. From 2007 through 2016, the average transfer between March 1<sup>st</sup> and June 1<sup>st</sup> was 15,000 acre-feet. This coincides with the time period that the water conservation pool in Lake Mendocino begins increasing by 600 acre-feet per day, raising the water conservation pool from

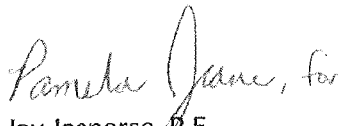
LTC John Morrow  
District Commander, San Francisco District  
United States Army Corps of Engineers  
December, 16, 2016  
Page 2 of 2

68,400 acre-feet to 111,000 acre-feet. Consequently, Lake Mendocino has become reliant on late spring storm events to adequately fill to meet minimum instream flow requirements, downstream demands and maintain a cold water pool for the fall Chinook salmon migration.

Because late spring storm events do not reliably occur, there has been a number of years since 2006 that Lake Mendocino has not had sufficient storage to meet water supply needs without risking draining the reservoir. As a result, the Water Agency has needed to file Temporary Urgency Change Petitions with the State Water Resources Control Board in 2007, 2009, 2013, 2014 and 2015 to reduce minimum instream flow requirements in order to prevent draining Lake Mendocino.

Consequently, the Water Agency is requesting USACE approval of a deviation from the existing Water Control Manual to increase storage of the conservation pool by 5,825 acre-feet through March 15, 2017. The request is being made to take advantage of water conservation opportunities to offset reduced transfers of Eel River water through PVP that have resulted in significant water supply impacts to Lake Mendocino. This is consistent with the temporary deviation authorized and successfully implemented last year by USACE. The deviation resulted in greater end of water year storage, which improved Lake Mendocino's water supply and cold water pool for the fall Chinook salmon migration. The Water Agency appreciates your prompt consideration of our request. Please do not hesitate to contact me if you have any questions or require any additional information.

Sincerely,



Jay Jasperse, P.E.

Water Agency Chief Engineer

(707) 547-1959

Jay.Jasperse@scwa.ca.gov

c: Grant Davis, Pam Jeane, Don Seymour, Chris Delaney – Sonoma County Water Agency  
Michael Dillabough, Joseph Forbis – United States Army Corps of Engineers

**Figure 1 - Cumulative Diversions to Potter Valley Project by Water Year**

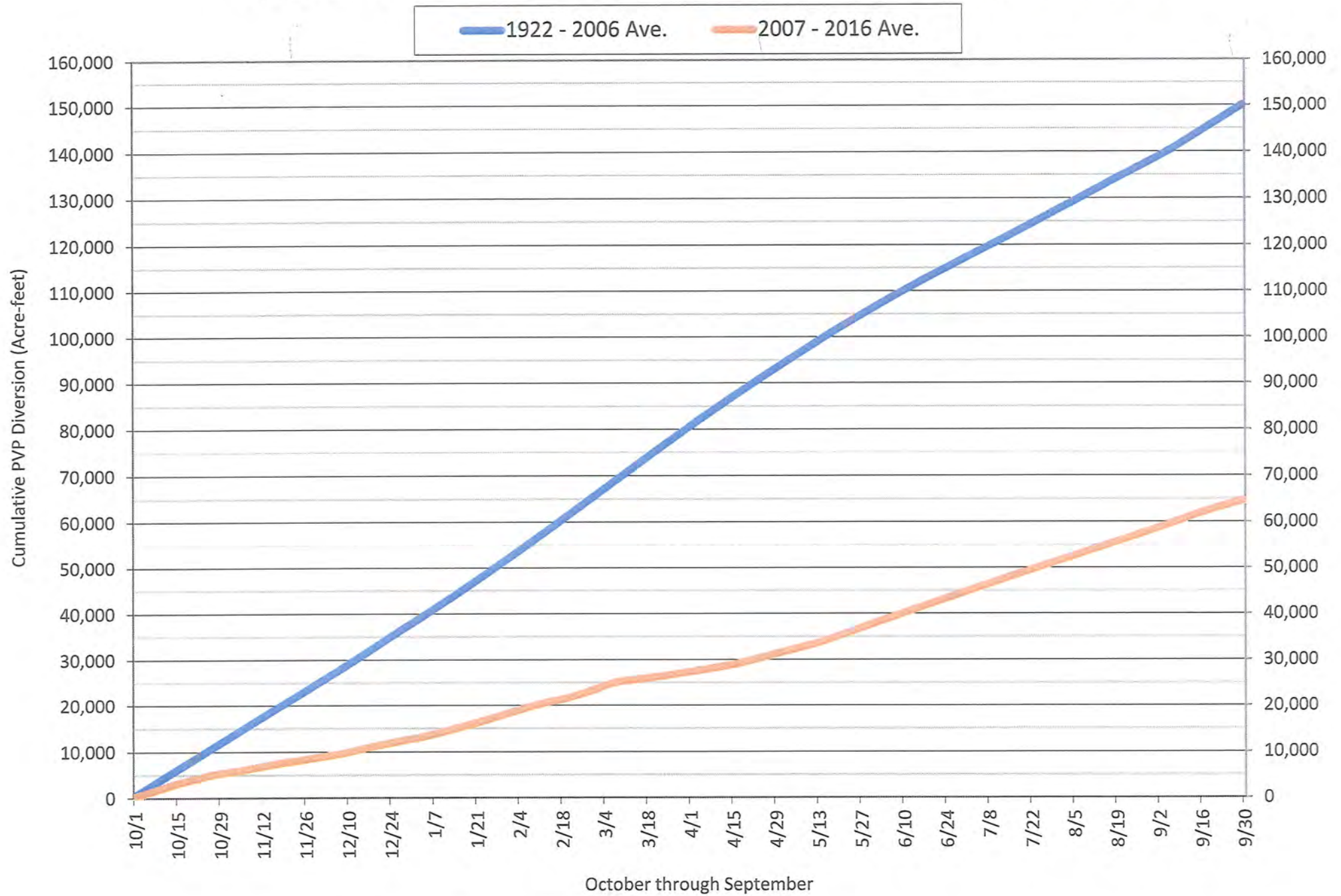
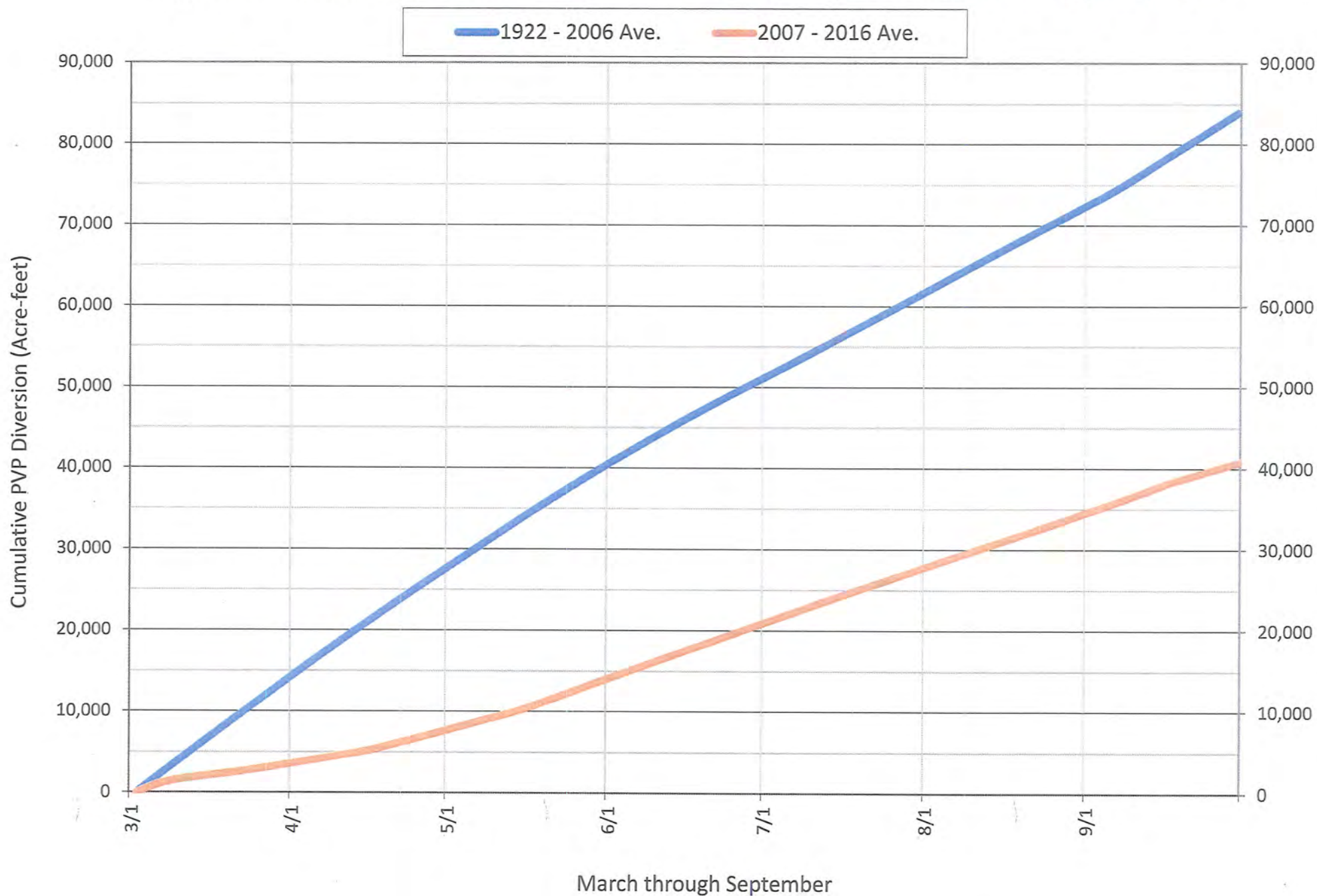




Figure 2 - Cumulative Diversions to Potter Valley Project March 1 through Sept 30



## State Water Resources Control Board Conservation Standard Tracking for the Sonoma-Marín Saving Water Partnership

**Table 1: Monthly Water Use Relative to 2013 Benchmark**

Water Retailer	November 2016 (Gallons)	2013 Benchmark (Gallons)	Savings Relative to 2013 Benchmark	November 2016 GPCD*	FY 2015/2016 Conservation Standard
Cal Am	16,504,353	22,987,000	28%	61	25%
Cotati	14,989,146	23,591,612	36%	69	20%
Marin Municipal	474,054,552	681,029,482	30%	83	20%
North Marin	133,630,746	229,000,000	42%	73	24%
Petaluma	154,779,225	238,845,506	35%	83	16%
Rohnert Park	88,566,302	115,000,000	23%	68	16%
Santa Rosa	332,263,244	486,628,234	32%	64	16%
Sonoma	30,667,956	49,008,055	37%	88	28%
Valley of the Moon	45,645,241	74,000,859	38%	64	20%
Windsor	56,316,177	89,332,169	37%	68	16%
<b>SMSWP Total</b>	<b>1,347,416,940</b>	<b>2,009,422,918</b>	<b>33%</b>	<b>74</b>	<b>19%</b>

\* GPCD is provided as information only

**Table 2: Aggregate June 2015 to Current Month Relative to 2013 Benchmark**

Water Retailer	Aggregate June 2015 to Date (Gallons)	2013 Benchmark (Gallons)	Savings Relative to 2013 Benchmark	FY 2015/2016 Conservation Standard
Cal Am	382,529,514	490,680,000	22%	25%
Cotati	407,998,388	517,288,463	21%	20%
Marin Municipal	11,631,381,785	14,411,779,723	19%	20%
North Marin	3,915,677,206	5,230,000,000	25%	24%
Petaluma	3,871,484,609	5,043,392,415	23%	16%
Rohnert Park	2,142,105,372	2,618,000,000	18%	16%
Santa Rosa	8,553,284,535	11,239,874,615	24%	16%
Sonoma	860,500,902	1,206,012,953	29%	28%
Valley of the Moon	1,198,751,014	1,662,976,241	28%	20%
Windsor	1,586,649,330	2,039,871,642	22%	16%
<b>SMSWP Total</b>	<b>34,550,362,654</b>	<b>44,480,719,789</b>	<b>22%</b>	<b>19%</b>



## **Russian River Biological Opinion Update – January 2016**

The Sonoma County Water Agency is continually planning and implementing the Russian River Biological Opinion requirements. The following project updates provide a brief synopsis of current work. For more detailed information about these activities, please visit [www.sonomacountywater.org](http://www.sonomacountywater.org).

### **Fish Flow Project**

On August 19, the Water Agency released the Environmental Impact Report for the Fish Habitat Flows and Water Rights Project. Open House workshops were held on August 22 (Cloverdale) and on August 24 (Monte Rio) and a public hearing was held on September 13, in Santa Rosa. The Board of Directors later extended the Fish Flow Project Draft EIR public comment period to February 14, 2017 (a total of 180 days) and added public hearings in Cloverdale (November 16) and Guerneville (November 17). About 20 members of the public attended the Cloverdale hearing and there was one verbal comment. Approximately 120 people attended the Guerneville hearing, and there were 25 verbal comments.

### **Dry Creek Habitat Enhancement Project**

- Miles 2 and 3: In-stream construction is complete for the season on 0.6 miles of creek downstream of the Truett Hurst Winery and on a 0.3 mile reach downstream of the Westside Road Bridge. Water Agency Staff are working with property owners to finalize designs and right-of-way agreements for remaining Mile 2 and 3 sites planned for construction in 2017.
- Miles 4-6: Planning, preliminary field investigation and design are under way for Miles 4 - 6.
- The US Army Corps is using information from Mile 2-6 to complete two feasibility studies that should pave the way for federal funding. The first Army Corps study under the Continuing Authorities Program (CAP) will help complete Miles 2 and 3. A draft CAP study was recently completed and recommends Army Corps construction of reach 4a (total length 0.4 miles) at a total federal cost of \$3.28 million. The second Army Corps effort for Mile 4-6 planning, called a General Investigation (GI) Ecosystem Restoration study, has less funding restrictions and should be completed by 2018.

### **Fish Monitoring**

A total of 1,027 adult Chinook salmon were counted at the Mirabel inflatable dam in 2016 and the newly operational video system at the new fish ladder on the west side of the river provided incredible images of migrating adults. Because of high flows, Mirabel dam was deflated for the season on November 20 which is prior to the end of the typical Chinook migration season. This, along with the fact that the east-side fish ladder video system was only operational for a brief period in November, means that the number of adult Chinook counted in 2016 is not as indicative of the actual population migrating upriver to spawn as previous years and therefore not comparable to Chinook counts at Mirabel from previous years. Nevertheless, the data collected provide important evidence that the recently completed Mirabel fish ladder is working as intended.

Water Agency biologists continue to record adult fish entering Dry Creek and are currently performing spawning ground surveys in Dry Creek and tributary streams throughout the lower Russian River watershed.



### Russian River Estuary Management Project

- The 2016 Lagoon Management Period ended on October 15.
- During the 2016 management season, the mouth of the Russian River closed five times:
  - May 31: An outlet channel was implemented on June 7, but scoured open later that day.
  - June 15: An outlet channel was implemented on June 27, which scoured open that evening.
  - July 1: The estuary self-breached on July 12.
  - September 11: The estuary self-breached on September 30.
  - October 12: Water Agency artificially breached the barrier beach on October 20.
- During the past two years, studies were conducted to determine if and how the historic Goat Rock State Park jetty impacts the formation of the barrier beach and lagoon water surface elevation. Comments have been received on the draft report, and a final report is anticipated to be released this month.

### Interim Flow Changes

The Water Agency filed a Temporary Urgency Change Petition (TUCP) with the State Water Board in order to comply with the Biological Opinion flow requirements. The State Water Board issued a TUC order in May, and the order ended in October. Reports are due in April.

### Public Outreach, Reporting & Legislation

- Outreach continues to be focused on the Fish Flow Draft EIR, including publicizing the availability of the document, community workshops and hearings.
- Incoming Water Agency Director and 4<sup>th</sup> District Supervisor Lynda Hopkins toured the Water Agency facilities in December, and visited the coho broodstock program, Truett-Hurst site and Russian River Fish Ladder and Viewing Gallery.
- The annual Public Policy Facilitating Committee meeting is scheduled for Monday, March 13, 9 a.m. – 11 a.m.



*Director Lynda Hopkins with Coho Broodstock hatchery manager Ben White, December 21, 2016.*



15

**DISBURSEMENTS - DATED JANUARY 12, 2017**

Date Prepared 1/10/17

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

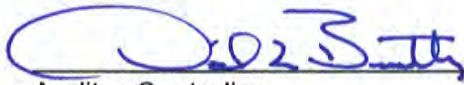
Seq	Payable To	For	Amount
P/R*	Employees	Net Payroll PPE 12/31/16	\$134,066.52
EFT*	US Bank	Federal & FICA Taxes PPE 12/31/16	\$60,486.45
EFT*	State of California	State Taxes & SDI PPE 12/31/16	\$10,769.61
EFT*	CalPERS	Pension Contribution PPE 12/31/16	\$35,026.21
1	Arnal, Darlene	Novato "Toilet Rebate" Program	200.00
2	Athens Administrators	Replenishment Check Written (12/1-12/31/16) (\$2,188) & Jan Workers' Comp Admin Fee	3,187.91
3	AT&T	Leased Lines	678.28
4	Automation Direct	Circuit Breakers (6), DIN Rail Mounting Channel & PLC Analog Input Cards (4)(\$332)	394.00
5	AYS Engineering Group	Prog Pymt#4: Consultation, Monitoring, Soil Profiling & Testing for O.M. Disposal Fields Proj (Balance Remaining on Contract \$19,378)	170.00
6	Backflow Distributors	Fire Service & Double Check Repair Kits	2,847.70
7	Buck's Saw Service	16" Chain Saw Chain & Premix Gas for Construction Equipment (\$122)	171.66
8	CDW-Government	PLC Battery Backups (Woodland Hts P/S)	103.12
9	Cilia, Joseph	Exp Reimb: Safety Boots	200.00
10	Costco Wholesale	Dishwasher Detergent (3)	48.90
11	DB Claims Services Group	Donut Works Claim Adjustment	490.12
12	Environmental Resource Assoc	Annual Lab Performance Test	793.02
13	Equipco	pH Sensor (STP)	299.47
14	Ferguson Waterworks	12" Gaskets (12), 6" Spools (2) (\$294), 2 1/2" Hydrant (2) (\$3,904) & Hydrant Extensions (2)	4,469.64

Seq	Payable To	For	Amount
15	Flodraulic Group	Cartridge Filters for Sodium Chlorite Line (STP) (2)	162.20
16	Friedman's Home Improvement	Metal Gate Material (Pt. Reyes Tanks)	319.23
17	Ghilotti Construction	Prog Pymt#2: RW Expansion Central Service Area (Balance Remaining on Contract \$4,898,846)	834,815.84
18		Vision Reimbursement	152.37
19	Grainger	Sump Pump (\$241), Synthetic Gear Oil (2 gal) (\$183), Hose Bib, Visqueen (2 rolls - 12" x 100') (\$141), Hip Boots (C. Kehoe, Foster & Steele) (\$317), Levels (2), PLC Signal Wire (1,000') (\$342), Knee Boots (Davenport) (\$62), Kneeling Pad (16" x 28"), Battery & Wire Duct Cover	1,370.15
20	HERC Rentals	5 yd Dump Truck Rental (1 month) ('02 Int'l Dump Down for Repair)	1,794.38
21	InfoSend	November Processing Fee for Water Bill (\$1,228) & Postage (\$4,652)	5,880.65
22	International Fire	Annual Fire Extinguisher Service (71)	1,670.78
23	ITRON Service Center	Annual Hand-Held Meter Reading Device Maintenance Agreement	1,595.52
24		Cafeteria Plan: Uninsured Medical Reimbursement	13.00
25	Jennison, Marco	Exp Reimb: Safety Boots	190.30
26	JW Mobile	Hydraulic Hose (\$236) & Smog Test ('99 F550)	386.16
27	Kaiser Foundation Health Plan	DMV/DOT Physical (Watkins)	115.00
28	Leighton Stone	Solenoid Valve Rebuild Kit (4) (STP)	570.95
29	McLellan, WK	Olive Avenue RW Main Paving Project (\$22,020) & Misc Paving Compaction Testing	32,162.77
30	Miller, C	Refund Overpayment on Closed Account	71.84
31	NMWD Employee Association	Dues (10/31/16-12/31/16)	1,205.00

Seq	Payable To	For	Amount
32	Novato Sanitary District	Annual Outside Lab Test of STP Discharge to NSD & FY16 Electric Power for Deer Island Recycled Water Facility (\$2,106)	2,400.50
33	Pace Supply	3/4" Couplings (12) (\$166), Ball Valves (7) (\$145) & Corp Stops (24) (\$964)	1,276.02
34	Pape Machinery	Gas Filled Hood Supports ('09 JD Backhoe)	155.34
35	Phillips, Anthony	Novato "Washer Rebate" Program	50.00
36	Putman, Rowena	Novato "Toilet Rebate" Program	100.00
37	Rockwell Engineering & Equipment	Replacement Pump Ends (Pump#1 @ O.M.)	16,894.52
38	Ross, Alan	Novato "Washer Rebate" Program	50.00
39	Soiland	Asphalt (6 tons)	128.26
40	Solar, Rosalia	Novato "Washer Rebate" Program	50.00
41	SWRCB Accounting Office	Recycled Water Fees	627.90
42		Cafeteria Plan: Uninsured Medical Reimbursement	25.00
43	Streakwave Wireless	Radio Antenna for Sunset Tank (\$262) & SCADA Radios (2)	437.53
44	Telstar Instruments	Calibration Checks on 5 Flow Meters	1,125.00
45	Thomas Scientific	Safety Gloves (1,000) (Lab)	174.82
46	Tidwell, Monica	Novato "Toilet Rebate" Program	100.00
47	USA BlueBook	Sample Tests (1,200) (STP)	288.64
48	Van Bebber Bros	Trench Plate (60" x 96") & Trim Existing Plate	902.68
49	Verizon Wireless	Cellular Charges: Data (\$194) & Airtime (\$85) (19)	279.19
50	Vierra, Jean	Refund Overpayment on Closed Account	103.60
51	Waste Management	Misc Debris (5 yds)	185.59
52	White Cap Construction	Repair Mortar (15 gal)	311.08

Seq	Payable To	For	Amount
53	Young, Katie	Vision Reimbursement	55.00
		<b>TOTAL DISBURSEMENTS</b>	<b><u>\$1,162,599.42</u></b>

The foregoing payroll and accounts payable vouchers totaling \$1,162,599.42 are hereby approved and authorized for payment.



Auditor-Controller

1/10/17

Date



General Manager

1/10/2017

Date

## ***DISBURSEMENTS - DATED JANUARY 5, 2017***

Date Prepared 1/3/17


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


<b>Seq</b>	<b>Payable To</b>	<b>For</b>	<b>Amount</b>
1	A.S.T.I.	Annual Fire Service Testing (116 Backflow/Bypass Devices)	\$16,075.00
2	AT&T	Internet Service @ PRTP	89.00
3	Bisco Industries	Clamps for Level Sensor Boxes @ STP	96.98
4	Bold & Polisner	Board Vacancy (\$105), Civil Grand Jury (\$42), Conflict of Interest (\$315), Consulting Agreement (\$693), Letter to Editor (\$357), Potter Valley Relic (\$105), Sub-metering (\$399), SWRCB Drought Regulation (\$126) & Watershed Maintenance (\$126)	2,268.00
5	Calif Dept of Toxic Substance	Annual Fee for EPA Verification & Manifest Fees	150.00
6	Calpico	T-Caps (27)	88.09
7	CalPERS	January Health Insurance Premium (Employees \$40,766, Retirees \$10,521 & Employee Contrib \$11,617)	62,904.08
8	Cel Analytical	Lab Testing	473.00
9	Danadoost, Pari	Refund of Deposit-New Development Water Conservation Restriction	1,000.00
10	DeGabriele, Chris	Exp Reimb: Dec Mileage	153.90
11	Dietz, Larry	Novato "Washer Rebate" Program	50.00
12	Digital Prints & Imaging	Conformed Specification Books for RW Central East Project (12)	728.81
13	Durham, Greg	Novato "Smart Irrigation Controller" & "Water Smart Landscape Efficiency" Residential Rebate Program (\$290)	360.00
14	Fastenal	Disposable Gloves (400)	69.01

Seq	Payable To	For	Amount
15	GHD	Prog Pymt#7: AMI CEQA Assistance (Balance Remaining on Contract \$17,527)	4,925.70
16	Ghilotti Construction	Prog Pymt#2: Stafford Dam Piezo Wellhead Rehabilitation (Balance Remaining on Contract \$56,133)	19,750.00
17	Golden Gate Petroleum	Grease, Hydraulic Oil & Gear Oil (STP) & Gasoline (\$2.20/gal) & Diesel (\$2.34/gal) (\$2,352)	2,601.87
18	Gonda, William	Refund Overpayment on Open Account	532.34
19	Hopkins Technical Products	Replacement Diaphragm (STP)	468.58
20	Hurley, Erin	Novato "Washer Rebate" Program	50.00
21	Irish & Son Welding	Welding Services (Shell Station)	500.00
22	Landeros, Dianne	Exp Reimb: Electronic Filing Fees of Quarterly Federal 941 & CA DE9 Forms	31.40
23	Larsengines	New Engine for Valve Turning Machine	1,027.82
24	Lincoln Life Employer Serv	Deferred Compensation PPE 12/31/16	15,102.74
25	Maltby Electric	PLC Wire (500') & Data Cable (500') (\$298)	378.88
26	Marin Reprographics	Bond Paper (36" x 500') (2)	84.84
27	Mutual of Omaha	January Group Life Insurance Premium	882.97
28	Nationwide Retirement Solution	Deferred Compensation PPE 12/31/16	1,580.00
29	NSI Solutions	Quality Control Sample (Lab)	171.25
30	Pace Supply	3/4" Valves (5), Couplings (32) (\$1,169), Meter Spuds (50) (\$381), Bushings (22) (\$184), Hub Adaptors (5) (\$346) & Nipples (11) (\$723)	2,883.07
31	Parkinson Accounting Systems	November Software Services: Modified Employee Benefit Accrual	370.00
32	Red Wing Shoe Store	Safety Boots (Ielmorini)	190.85
33	Reed, Corey	Exp Reimb: D-4 Exam and Certificate Fees	235.00
34		Cafeteria Plan: Uninsured Medical Reimbursement	119.85

Seq	Payable To	For	Amount
35	Sequoia Safety Supply	Overalls, Brief Relief Urine Bags (100) (\$253) & Safety Gloves (24) (\$56)	348.46
36	SPG Solar	November Energy Delivered Under Solar Services Agreement	7,861.47
37	State Water Resources Control	D3 Certification Exam Fee (Foster) (\$100), Application Fee for T5 Operation Certificate (Stompe) (\$105) & T2 Certification Exam Fee (Steele) (\$60)	265.00
38	State Water Resources Control	Annual Permit Fee - Waste Discharge Requirement (7/1-6/30/17) (O.M.)	17,017.00
39	Stompe, Brad	Exp Reimb: T5 Exam Fee & Parking	162.50
40	Thomas Scientific	Tergajet Detergent (4lbs) (Lab)	47.10
41	Univar	Sodium Hypochloride (200 gal) (STP)	397.69
42	Utiliworks Consulting	Project Pymt#9: Automated Meter Information Project (Balance Remaining on Contract \$80,512)	2,192.50
43	Verizon Wireless	December CIMIS Station Data Transfer Fee	58.06
44	Ward, Brian	Prog Pymt#1: Norman Tank Rehabilitation (Balance Remaining on Contract \$2,235)	1,050.00
45	White & Prescott	Prog Pymt#11: Crest Pump Station Site Plan (Balance Remaining on Contract \$14,880)	2,400.00
46	Wiley Price & Radulovich	FSR Job Descriptions Review	348.50
		<b>TOTAL DISBURSEMENTS</b>	<b><u>\$168,541.31</u></b>

The foregoing payroll and accounts payable vouchers totaling \$168,541.31 are hereby approved and authorized for payment.


1/3/17  
 Auditor-Controller Date


1/3/2017  
 General Manager Date



# MEMORANDUM

To: Board of Directors

January 13, 2017

From: David L. Bentley, Auditor-Controller

Subj: Self-Insured Workers' Comp – 2nd Quarter Status Report

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## RECOMMENDED ACTION: None

## FINANCIAL IMPACT: Cumulative Savings of \$621,975

The District returned to self-insuring its workers compensation liability effective July 1, 2011, after the low-cost proposal for first-dollar workers' compensation coverage increased 20% over the prior year, to \$159,331. The avoided-cost since returning to self-insurance is calculated at \$592,785. When the Reserve for Future Medical (which is the estimated cost to fully resolve open claims) is added, the total cash outlay avoided to date, including interest earned on the cost avoided, is \$621,975. This cash is set-aside in a reserve for future claims.

Through the first half of FY17, the District incurred three claims. Attached are charts showing a 10-year history of annual claims cost (average \$37,000 per year) and 10-year history of claims frequency (average 7 claims per year).

	FY12 through FY14	FY15	FY16	FY17 through 12/31/16	Cumulative
Premium Avoided	\$641,669 <sup>1</sup>	\$203,722 <sup>2</sup>	\$212,135 <sup>3</sup>	\$95,500 <sup>4</sup>	\$1,153,026
<b>Self-Insurance Cost</b>					
Medical/Indemnity Cost	(173,381)	(1,324)	(7,772)	(10,618)	(193,094)
Third Party Administration	(36,000)	(12,000)	(12,000)	(6,000)	(66,000)
Excess Insurance Premium <sup>5</sup>	(142,584)	(50,708)	(54,462)	(27,699)	(275,453)
Legal/Miscellaneous	(20,597)	(1,048)	(2,946)	(1,102)	(25,694)
Net Cost Avoided	\$269,106	\$138,642	\$134,955	\$50,081	\$592,785
Reserve for Future Medical	0	0	0	13,370	13,370
Total Cash Outlay Avoided	\$269,106	\$138,642	\$134,955	\$63,451	\$606,155
Interest on Cash Outlay Avoided	1,478	3,953	6,022	4,367	15,820
Savings	\$270,584	\$142,595	\$140,977	\$67,818	\$621,975

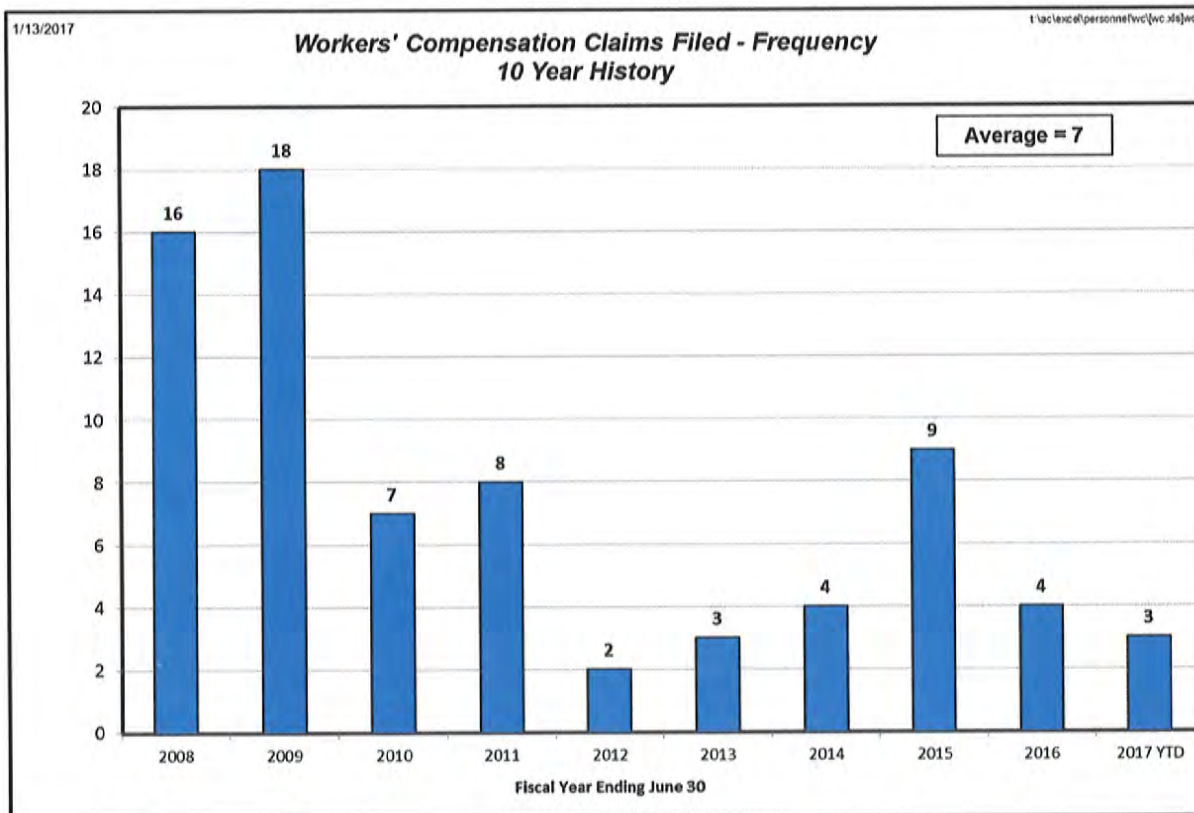
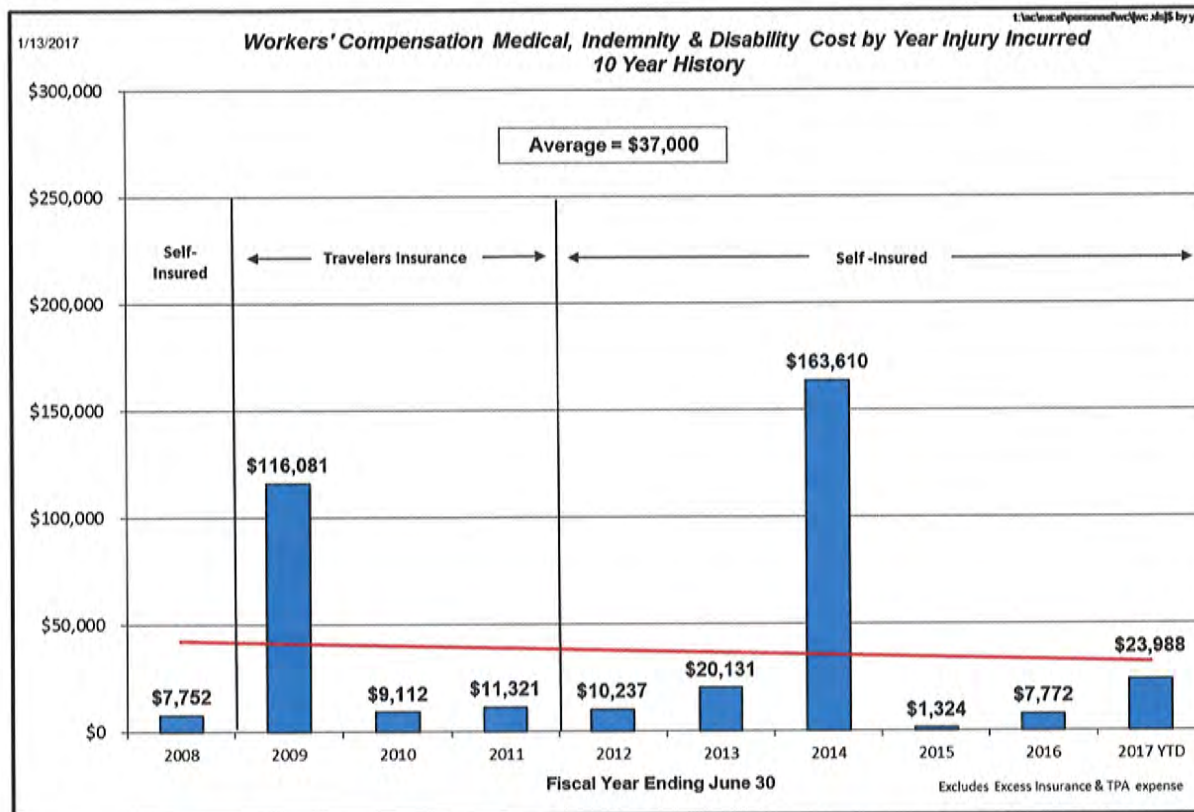
<sup>1</sup> Proposed annual premium of \$159,331 (FY12), \$170,574 (FY13) and \$311,764 (FY14).

<sup>2</sup> Alaska National Insurance Company was the low cost proposal with an annual premium of \$203,722.

<sup>3</sup> New York Marine and General Insurance Company was the low cost proposal with an annual premium of \$212,135.

<sup>4</sup> Allied World Assurance was the low cost proposal with an annual premium of \$191,000.

<sup>5</sup> Excess Insurance Protects the District against Catastrophic Loss Exceeding \$750,000.



## MEMORANDUM

To: Board of Directors

January 13, 2017

From: David L. Bentley, Auditor-Controller

Subj: Information – Renewal of Oceana Marin Liability Insurance

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### **RECOMMENDED ACTION: Information**

### **FINANCIAL IMPACT: \$1,903 Expense for Oceana Marin Sewer**

The 2017 premium for Oceana Marin sewer improvement district's \$1 million liability insurance policy is up 1% (\$16) from 2016. This coverage is provided via the California Sanitation Risk Management Authority (CSRMA), a Joint Powers Authority that also provides coverage for the sanitary districts in Novato, Central Marin, Las Gallinas, San District's 1&5, Sausalito-Marin City, San Rafael, and the Sewerage Agency of Southern Marin. \$2,000 was budgeted for this purchase.

Note from the attached chart that Oceana Marin's insurance premium decreased significantly in 2010, and continues at a moderate level. CSRMA changed carriers three years ago to Allied World Assurance Company based on their more competitive proposal than the prior carrier. The Allied policy retains the limit of \$1 million per occurrence and \$3 million aggregate, but includes a \$1,000 deductible, compared to zero deductible with the previous policy.

Allied World Assurance Company carries an A.M. Best Rating of A XV. The A indicates excellent financial strength, and the XV indicates financial size is the largest rated (>\$2 billion statutory surplus).

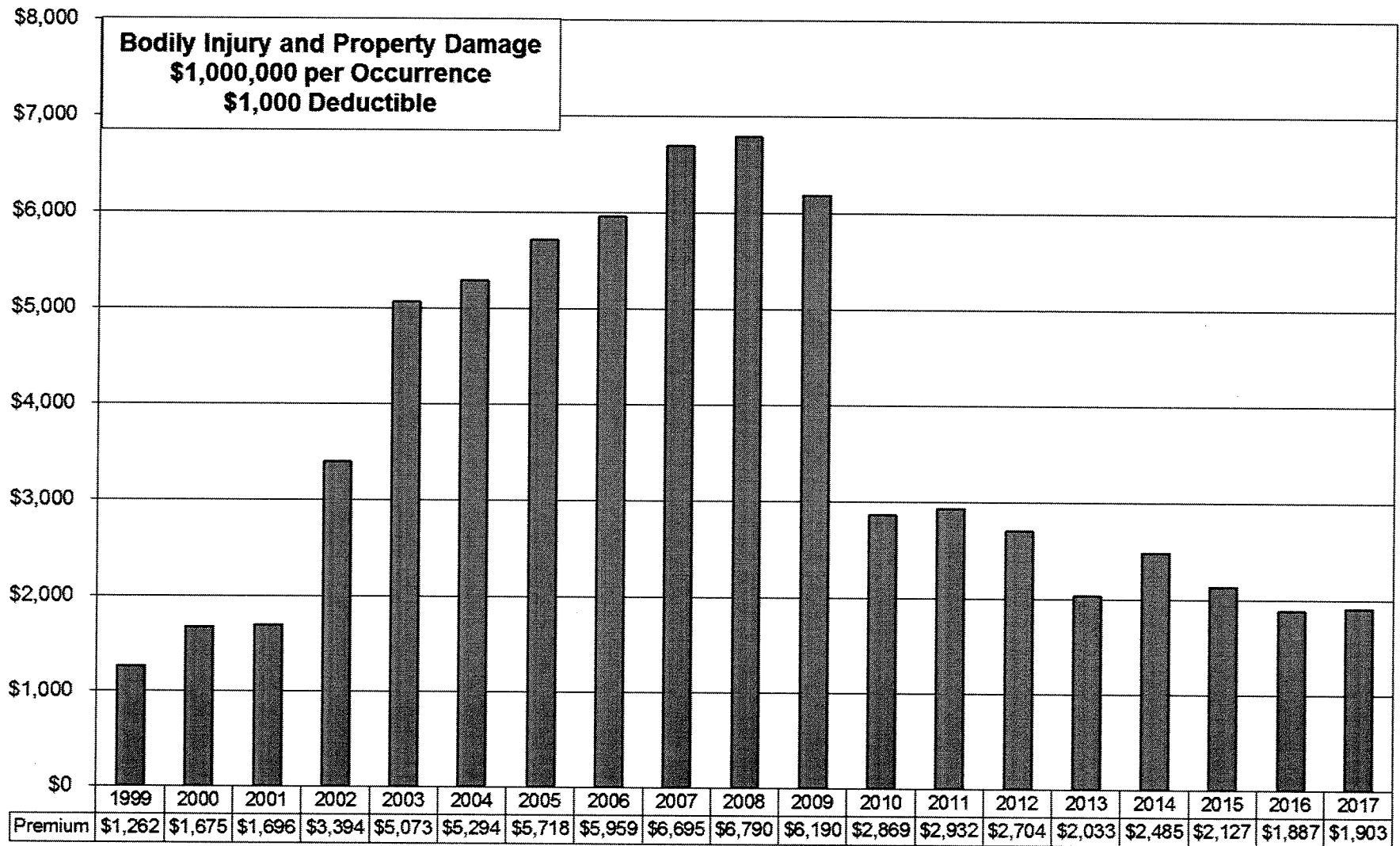
The premium cost for each of Oceana Marin's 231 dwelling units is \$8 per year. CSRMA reports that the average cost of the 575 sewer overflow claims incurred over the ten year period ending in 2015 was \$17,864, which equates to \$77 per Oceana Marin customer absent insurance. In February 2008 a sewer main in Oceana Marin ruptured, and CSRMA reimbursed the Oceana Marin district \$50,370 for clean-up costs. Since 1999, when the District initially purchased liability insurance for Oceana Marin, and including the 2017 premium, annual premium payments total \$68,685.

1/3/2017

t:\ac\excel\insurance\csma premium history.xls\data

# Oceana Marin Liability Insurance Premium

Renews January 1



## Katie Young

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**From:** Rainey, Casey <CRainey@srcity.org>  
**Sent:** Monday, January 09, 2017 11:34 AM  
**Subject:** Santa Rosa Water Director

Hi All,

Passing along the announcement regarding the new Director for Santa Rosa Water. Thanks!

**Casey Rainey | Administrative Secretary**

Santa Rosa Water | 35 Stony Point Road | Santa Rosa, CA 95401

Tel. Direct (707) 543-3931 Fax (707) 543-4285

[crainey@srcity.org](mailto:crainey@srcity.org)



### BENNETT HORENSTEIN SELECTED AS WATER DIRECTOR

Santa Rosa City Manager, Sean McGlynn, announced today the appointment of Bennett Horenstein as Water Director. Mr. Horenstein will begin his new position with the City of Santa Rosa on March 6, 2017.

Regarding this appointment, Mr. McGlynn stated, "I believe Ben's extensive experience working in two high performing public utility agencies, complemented by his leadership skills and professional engineering licensure and certification, made him the obvious choice. Ben is a recognized leader in the public utility sector, with leadership roles at the regional, state and national levels. I look forward to working with Ben as a member of the city's executive team."

Mr. Horenstein brings approximately 30 years of extensive experience and increasing levels of responsibility in a wide range of wastewater and water recycling programs and activities. These include the management of operations in wastewater treatment and water recycling facilities, oversight of the full range of regulatory issues and associated activities, capital program planning and implementation, budget and rate development, union relations and renewable energy/sustainability programs. Most recently, he served as the Director of the Wastewater Department for the East Bay Municipal Utility District (EBMUD) where he was responsible for an annual budget of \$105M with a 5-year \$250M Capital Improvement Projects and a staff of 275.

Prior to joining the EBMUD team, Mr. Horenstein worked as a Process Engineer with the City of Los Angeles, working for the Bureau of Sanitation for 5 years. During his tenure with the City of Los Angeles, Mr. Horenstein worked on projects ranging from routine operations support to process optimization, regulatory compliance and small-scale design and construction management.

Regarding his appointment, Mr. Horenstein stated, "It is quite a privilege to have this opportunity, to come work for the City's Water Department, which has done such great work over the years, including receiving recognition at the national level."

Mr. Horenstein holds a Bachelor of Science in Environmental Engineering from the University of Florida, is a registered Professional Engineer, and holds a Wastewater Operator, Grade V Certification.

Mr. Horenstein is currently a board member of both the National Association of Clean Water Agencies and the Bay Area Clean Water Agencies, and is the chair of the Utility Leadership Committee of the California Association of Sanitation Agencies.

utes of the game, but Novato senior Sydney Spina scored two of her own to tie the game just before halftime.

"[Spina] is a special player," Novato head coach Tricia Johnson said. Spina leads the

#### BRANSON REMAINS UNDEFEATED

In a 6-0 victory over San Marin on Jan. 5, the Branson Bulls got two goals each from seniors Sydney Westley and Francesca Camahort, and

over San Marin. The Red-tailed Hawks (5-1-0 MCAL, 5-3-1 overall) are riding a three-game winning streak as they fight to strengthen their position among the NCS Division 2 ranks.

a bloody nose. San Rafael (3-7-0) picked up a solid win amid two losses. Mathieu Isanove (220) won two matches by pinfall.

port the fight against the third leading cause of cancer deaths worldwide.

## MARIN COUNTY LAND 867 ACRES

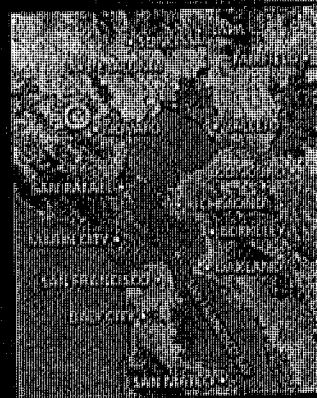
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ENVIRONMENTAL PROTECTION

## State Water Resources Control Board

JAN 10 2017

### Disclosure of Public Water System Well Location Information on GeoTracker GAMA

To Whom It May Concern:

This letter is to inform you that the State Water Resources Control Board (State Water Board) is ceasing its practice of obscuring or redacting the actual locations of public water system wells.

Since 2001, the State Water Board has obscured the actual locations of certain wells in the GeoTracker and GeoTracker GAMA information systems. Actual well locations have been shown for site cleanup monitoring wells; however, the State Water Board has obscured the actual locations of public water system wells (and some other groundwater wells) by displaying only a randomly-generated point within approximately one mile of the well's actual location. In addition, the State Water Board has redacted documents to remove the actual locations of public water system wells that were provided to the public in response to Public Records Act requests.

Water Code section 13752 was amended in June 2015 to allow public access to water well completion reports, commonly referred to as "well logs." Water well completion reports, which typically include actual well location information, are now publicly available by request from the Department of Water Resources.

In August 2015, the State Water Board solicited comments from interested parties regarding potential changes to the State Water Board's practice for the disclosure of well locations in GeoTracker and GeoTracker GAMA in light of the amendment to Water Code section 13752. Comments were received from many parties, including state and federal agencies, national laboratories, the University of California, agricultural coalitions, non-governmental organizations, irrigated agriculture, industry, and water agencies.

I have evaluated the comments, and I believe that the public interest in access to accurate, complete, and centrally located groundwater data outweighs the public interest in maintaining the confidentiality of the actual locations of public water system wells. Public access to the actual well locations is consistent with the Legislature's clear policy direction regarding the transparency of groundwater data. Public access will also facilitate efforts by governmental agencies and nongovernmental organizations to identify individuals and communities that are in need of infrastructure and replacement water supplies, as well as general research regarding groundwater quality.

The State Water Board is revising the public interface to GeoTracker and GeoTracker GAMA to allow public access to the actual locations of the public water system wells. As discussed with several organizations representing public water systems, public access will only be granted to individuals who request a password, in order to provide a level of accountability and reduce

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR

concerns about unrestricted public access. In addition, at the request of the Army and the Marine Corps, the locations of several groundwater wells that serve military personnel will remain obscured. It is expected that the revisions to GeoTracker and GeoTracker GAMA will be completed in January.

Questions may be directed to GAMA staff at [WB.GAMA@waterboards.ca.gov](mailto:WB.GAMA@waterboards.ca.gov).

Sincerely,

  
Thomas Howard  
Executive Director



# An explanation of Sonoma County's atmospheric river

**STEPHEN NETT**

FOR THE PRESS DEMOCRAT | January 11, 2017, 1:17PM | Updated 3 hours ago.

Wet and weary Sonoma County residents may not appreciate it, but the giant system of wind and rain that blasted us this week was severe enough to capture headlines across the U.S., Europe and even China.

What just hit us?

It's what meteorologists call an atmospheric river event, sometimes referred to as "pineapple express," a recently discovered phenomenon that's responsible for many of California's wild swings in weather, from widespread flooding to record-setting drought.

California has long experienced weather extremes, but up until the mid-'90s scientists were not sure why. Most of California's winter storms are born in the cold, far western Pacific near Russia. They ride the jet stream east toward North America, and spin out great arcing arms of moisture, hundreds of miles long.

If the storm bands reach California, they bring rain and snow. These cyclonic storms are regions of very low pressure in the atmosphere, and like a great spinning vacuum, they pull in air from far away.

Down along the Earth's equator, conditions are very different. There, perpetual tropical sun and heated air each day evaporate vast amounts of water from the ocean.

If conditions are right, some of that warm, wet tropical air can be sucked north by the spinning deep low pressure storms off our coast.

When that happens, a "river" of warm, moisture-laden clouds carrying huge amounts of water vapor develops, barely 100 to 200 miles wide, propelled by very high winds and very close to the ocean's surface.

Stretching up from the tropics, drawn by the spinning low pressure center, they take aim at the coast of California.

They can race across thousands of miles of ocean in a few days. And when these atmospheric rivers roar ashore and meet mountains like those on the Sonoma County coast, they're pushed up, dropping some of their moisture in the form of dense rain as they cool. The longer they linger, the more rain they release before moving inland, up to 8 to 10 inches or more in a day.

The water these atmospheric rivers carry can be vast. Meteorologists compare them to giant fire hoses. A moderate one transports 7 to 15 times the amount of water discharged by the Mississippi River in a week, and they are unstoppable.

The resulting storms can produce widespread flooding. All the great California floods in recent decades have been caused by atmospheric rivers.

But not every atmospheric river is a flood-spawning monster. What's important is that on average, these tropical atmospheric rivers deliver up to half of all the state's precipitation each year. And when they don't arrive, we experience drought.

Are there more of these rivers out there with California in the bull's-eye? And what, if anything, can be done to reduce the unpredictability and impacts of atmospheric river extremes, drought and flood?

Those questions are on the top of the agenda for Sonoma County's Water Agency, which is responsible for the managing the region's water resources. According to Chief Engineer Jay Jasperse, that includes the water on the ground, and increasingly, water in the sky that has yet to fall to Earth.

Jasperse and other Water Agency staff are now spearheading advanced projects in partnership with an elite team of federal, state and university agencies, to handle atmospheric rivers and the wild variability in water resources they create.

At present, Jasperse said, the agency's efforts are often hampered by outdated tools and policies that date to the 1950s.

For example, the radar system being used by the National Weather Service to track our weather was designed for thunderstorms in the flat Midwest, not for California's rugged terrain. As a result, local agencies are blind to rain events at low elevation, like atmospheric rivers, which can lead to severe underestimates of the rainfall they may produce. Jasperse's agency knew this week's big storm was coming, but couldn't accurately predict how much rain would be deposited locally.

It's a problem, considering that up to 70 percent of flooding in the North Bay has resulted from atmospheric rivers that can't be detected with the conventional radar.

Can anything be done to reduce the unpredictability and impacts of atmospheric river extremes, drought and flood?

Armed with a \$19 million state grant, the agency is working to build a new Bay Area information system using X-Band radar and other instruments specifically designed to monitor and measure atmospheric rivers. That data will create a better picture of what these storms look like in real time so better decisions can be made about storing excess rainwater for later use and help to reduce some flooding.

Jasperse said the agency is also working on joint programs with NOAA, Scripps Marine Laboratory, National Weather Service, California State Water Resource Board and Army Corp of Engineers that would provide more flexible management of water reservoirs, based on advanced atmospheric storm tracking and computer models.

At Lake Mendocino, they are developing what could be the model for a new system that would allow better management of the water levels in statewide reservoirs.

Currently, the Army Corps of Engineers applies rigid and very conservative rules about releasing water from area reservoirs when they start to fill. For example, with Lake Mendocino at 147.9 percent of storage capacity Wednesday, the Corps made plans to release water on Thursday. Unfortunately, if future storms fail to materialize after the water has been released, the county will be left with inadequate supplies for a long, dry summer. That happened in 2013.

If the agency could more accurately predict in real time how much moisture an approaching storm may drop, better decisions could be made about when and how much

water should be released, without releasing too much, or too much all at once. Since new dam building is not in the cards, getting the most from existing water management systems is crucial.

Understanding atmospheric rivers is crucial to the managing the state's water as well. While Sonoma County's drought was ended last year by two atmospheric river storms, the remainder of California has not been so lucky. And, unfortunately, the warm tropical rains that ride in on the atmospheric rivers can cause snow to melt in the Sierra Nevada during the winter, rather than adding to the snow pack that melts slowly during summer months.

Since nature can't be relied upon to provide just the right amount of rain at the right time, Sonoma County farmers, ranchers and residents are well advised to keep one eye on the sky, and take some comfort in knowing that a small team of dedicated professionals are working to smooth out the peaks and valleys of our unpredictable, extreme weather.

Stephen Nett is a Bodega Bay-based Certified California Naturalist,  
[snett@californiasparks.com](mailto:snett@californiasparks.com).

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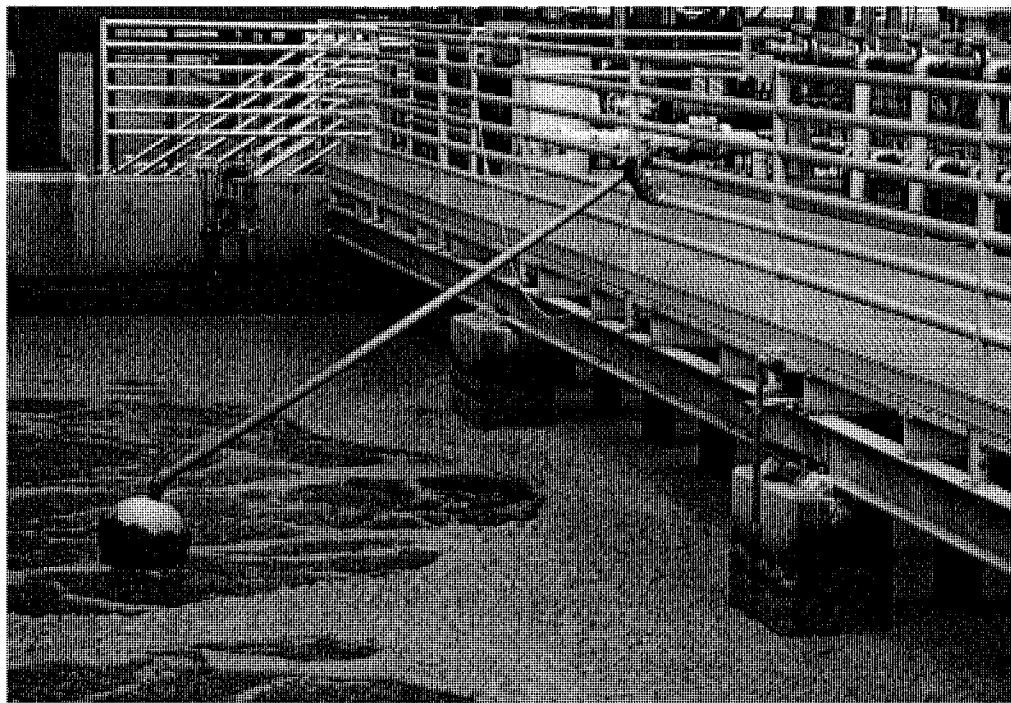
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[http://napavalleyregister.com/news/local/american-canyon-considering-recycled-water-to-boost-city-resources/article\\_45f0b1b6-5d1f-5e6a-bc8c-b4b08e0c2040.html](http://napavalleyregister.com/news/local/american-canyon-considering-recycled-water-to-boost-city-resources/article_45f0b1b6-5d1f-5e6a-bc8c-b4b08e0c2040.html)

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CITY SERVICES

## American Canyon considering recycled water to boost city resources

NOEL BRINKERHOFF [nbrinkerhoff@americancanyoneagle.com](mailto:nbrinkerhoff@americancanyoneagle.com) Updated 11 hrs ago

Noel Brinkerhoff, Eagle

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American Canyon's Water Reclamation Facility, which treats and recycles wastewater for irrigation, might someday be expanded to produce recycled water for drinking.

**AMERICAN CANYON** — American Canyon is exploring ways to expand its water supply sources after enduring years of drought-related cutbacks from the state.

Wanting to reduce its reliance on the State Water Project, city planners are studying two far-off options that would involve getting water from a distant reservoir and using recycled water in homes.

Both options are years away from becoming a reality, even if the city leaders choose to go in these directions.

The City Council is expected to discuss future water supply opportunities in January and instruct the Public Works Department which direction to go.

"There's been a longstanding desire to diversify the water portfolio" for the city, said Public Works Director Jason Holley, whose staff worked with a consultant during 2016 on finding new water sources.

After watching American Canyon's State Water Project's annual allocation get reduced to as little as 5 percent during the drought, council members told Holley to locate other ways of filling taps and toilets for residents.



Urged on by Councilmember Mark Joseph, Holley’s team explored the possibility of purchasing water from Lake Curry, located in the eastern hills of Napa County.

But the more Holley looked into Lake Curry, the less viable it became, he said.

Holley told the council last month that the city of Vallejo, which owns the lake, and Solano County may want to use it to provide water to residents in Green Valley. Plus, mercury was discovered leaking into Lake Curry last summer, making it an even less attractive option for American Canyon.

Instead, Holley and Deputy Public Works Director Steve Hartwig found another reservoir idea that might provide the city with more water.

About a hundred miles to the north, off Interstate 5 in Colusa County, is the proposed Sites Reservoir, a long dormant water project that’s been getting more attention lately from communities like American Canyon seeking water supply alternatives.

If built, Sites Reservoir could hold as much as 1.8 million acre feet of water, according to Hartwig. That would make it slightly larger than Lake Berryessa, which holds 1.6 million acre feet. An acre foot is equivalent to about 326,000 gallons.

Hartwig said American Canyon could join a consortium of urban and agricultural interests seeking to develop Sites Reservoir. The city would seek water rights providing up to 2,000 acre feet annually from the project, he said.

To put this amount of water in perspective, American Canyon is projecting to need 2,700 acre feet of water in 2017.

Sites Reservoir is more than a decade away from being built, he said. Still, “It’s well regarded” as a long-term water option, according to Hartwig, because it would be a reliable source that American Canyon could count on for decades to come.

Another new, but distant water supply option would involve the controversial idea of turning recycled water into drinking water.

Currently, American Canyon recycles water only to irrigate landscaping.

But Sachi Itagaki with Kennedy/Jenks Consultants, which was hired by the city to study water supply opportunities, said recycling water for potable (drinking) use is gaining traction in California.

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“There are a number of places where the technology is being piloted” for potable reuse, said Itagaki, citing Orange and Santa Clara counties and the cities of San Diego and Monterey. “It’s pretty accepted technology.”

But there are restrictions on the use of recycled water for potable use, she added. State regulations currently demand that such water be injected into groundwater sources first before it can be extracted and ultimately delivered to homes.

New regulations may be coming by next decade, Itagaki said, that would allow cities like American Canyon that lack an aquifer to still utilize recycled water for potable reuse.

“The public health community is moving cautiously and deliberately with regulations before going forward, so that’s why it has a long time frame ahead of it,” said Itagaki, who estimated the new state rules may be 8-10 years away.

Even if the state eases restrictions on recycled water, the city would have to purchase new technology and infrastructure for its sewage treatment plant to clean recycled water enough to make it potable.

The price tag for this investment could be \$25 million, she said.

Still another hurdle for this option would be public acceptance of the idea.

Resident Doug Lindsey, who ran unsuccessfully for mayor in November, called the potable reuse concept "a public agenda nightmare."

"Explain to the public what's going on there," Lindsey told the council on Dec. 20. "You're taking your sewer [water], what you flush down your toilet and putting it right back into your water."

"Figure that one out with the public and let me know how that comes off," he said.

## Currents



Photos: Scenes from the red carpet at the 74th annual Golden Globe Awards



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