



NORTH MARIN WATER DISTRICT
AGENDA - REGULAR MEETING
 April 4, 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.	CALL TO ORDER	
	1.	APPROVE MINUTES FROM REGULAR MEETING , March 21, 2017
	2.	GENERAL MANAGER'S REPORT
	3.	OPEN TIME: (Please observe a three-minute time limit) This section of the agenda is provided so that the public may express comments on any issues not listed on the agenda that are of interest to the public and within the jurisdiction of the North Marin Water District. When comments are made about matters not on the agenda, Board members can ask questions for clarification, respond to statements or questions from members of the public, refer a matter to staff, or direct staff to place a matter of business on a future agenda. The public may also express comments on agenda items at the time of Board consideration.
	4.	STAFF/DIRECTORS REPORTS
	CONSENT CALENDAR The General Manager has reviewed the following items. To his knowledge, there is no opposition to the action. The items can be acted on in one consolidated motion as recommended or may be removed from the Consent Calendar and separately considered at the request of any person.	
	5.	Consent – Approve Open House/Retirement Recognition Budget
	6.	Consent – Approve Customer Service Questionnaire Incentive
	ACTION CALENDAR	
	7.	Approve: New On-Call Telephone Answering Service
	8.	Approve: Cinquini & Passarino Consulting Services Agreement - Land Surveying
	9.	Approve: RW Central - Norman Tank Rehab – Award Construction Contract (Piazza Construction)
	10.	Approve: Steelhead Habitat Survey in Upper Novato Creek
	11.	Approve: Support Letters AB 1654 & AB 968
	INFORMATION ITEMS	
	12.	WAC/TAC Meeting – April 3, 2015
	13.	NBWA Meeting - April 7, 2015
	14.	MISCELLANEOUS Disbursements

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
		Postage Rates Request from Special Districts to Move to Even-Numbered Year Elections <u>News Articles:</u> Novato water district rolls out 'smart' meter pilot project Sonoma County on path to regulating groundwater supplies Smart water meters are different Russian River's future draws diverse crowd to conference Rains filled our local reservoirs Five Reasons Water Efficiency and Recycling Are a Perfect Match My Word: State water regulations could flush recycled water projects Marin Voice: Why it's raining rate hikes at Marin Municipal Water District
	15.	Closed Session: In accordance with California Government Code Section 54957 for Public Employee Performance Evaluation (One), Title: General Manager
8:30 p.m.	16.	ADJOURNMENT

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DRAFT
NORTH MARIN WATER DISTRICT
MINUTES OF REGULAR MEETING
OF THE BOARD OF DIRECTORS
March 21, 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. Present were Directors Jack Baker, Rick Fraites, Michael Joly, Stephen Petterle, and John Schoonover. Also present were General Manager Chris DeGabriele, District Secretary Katie Young, Assistant General Manager Drew McIntyre, Chief Engineer Rocky Vogler and Auditor-Controller David Bentley.

District employees Robert Clark (Operations/Maintenance Superintendent) and Tony Arendell (Construction/Maintenance Superintendent) were in the audience.

Mr. DeGabriele advised the Board that there was an error in tonight's agenda and Item #8 – NBWRA Update and Path Forward was intended to be an action item.

On motion of Director Schoonover, seconded by Director Baker the Board approved the modification to the agenda by the following vote:

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

NOES: None

MINUTES

Director Baker provided amendments to the draft minutes from the previous meeting.

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

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

NOES: None

GENERAL MANAGER'S REPORT

Marin Grand Jury

Mr. DeGabriele advised the Board that the Marin Civil Grand Jury members have asked for a tour of the Stafford Lake Water Treatment Plant. He noted that this is scheduled for Friday at 10:30am and will be led by Robert Clark.

1 Nicasio Community Water Supply

2 Mr. DeGabriele informed the Board that Supervisor Rodoni has asked that the District
3 participate in a meeting with Marin Municipal to talk about how they can assist the Nicasio
4 community with water supply. He reminded the Board that Marin LAFCo had recommended in their
5 comprehensive Countywide Water Service Study to evaluate local needs in that area. He noted that
6 Mr. McIntyre and he will attend the meeting next Monday.

7 Marin LAFCo

8 Mr. DeGabriele advised the Board that he and Mr. McIntyre met with the Marin LAFCo
9 Executive Officer, Keene Simonds, last Friday as he is starting on the Sphere of Influence update
10 for the District.

11 **OPEN TIME**

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

14 **STAFF / DIRECTORS' REPORTS**

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

17 Tony Arendell advised that Novato Police Department informed the District that they will no
18 longer provide after-hours answering service to the District. He stated that he is searching for
19 alternatives and is evaluation three different companies. He will advise further when a new
20 answering service has been identified.

21 Mrs. Young advised the Board that the District will hold an open house on 4/21 including a
22 hot tap demonstration, water taste test and Automated Metering Information (AMI) video. She
23 stated that the open house will also include recognition of the General Manager's retirement and
24 food, soft drinks and dessert will be provided. She noted that invitations are forthcoming.

25 Mr. Bentley provided an update on the AMI pilot project advising that 9 meters remain to be
26 installed and that Director Joly's meter will be included in the pilot phase. He further advised that an
27 article will appear in tomorrow's Marin Independent Journal on the project.

28 Mr. McIntyre advised that he will attend and represent the District at the North Bay Water
29 Reuse Authority State Capitol visit tomorrow.

1 **MONTHLY PROGRESS**

2 Mr. DeGabriele provided the Board with the Monthly Progress Report for February. He
3 stated that water production is up by 21% year to date compared to last fiscal year but February
4 production is still down 8% compared to February 2013, the State's benchmark for water
5 conservation. He informed the Board that in West Marin, water production is down 2% compared to
6 one year ago year-to-date and down 25% compared to February 2013. He advised the Board that
7 today Novato has received over 38" of rain and Stafford Lake is still spilling. He noted that this
8 month was the 13th wettest February with 1998 being the wettest February on record. Mr.
9 DeGabriele informed the Board that on the Russian River, Lake Mendocino holds just under
10 80,000AF and Lake Sonoma just over 245,000AF, both of these reservoirs are slightly encroaching
11 into their respective flood control pools. He stated that at Oceana Marin, District staff are doing a
12 great job controlling the storage and treatment pond water levels and that discharge to the disposal
13 fields continues. He noted that the District is still receiving a high number of bill complaints but total
14 complaints are down 24% compared to February 2016.

15 Mr. Bentley provided the Monthly Investment Report, and stated that to-date the District
16 holds \$12.6M in its investment portfolio down \$857,000 from last month due to payments associated
17 with construction of the recycled water central service area expansion project and the average
18 weighted portfolio rate of return was 0.91%.

19 **ACTION CALENDAR**

20 **RATE INCREASE LETTER TO NOVATO CUSTOMERS**

21 Mr. Bentley reminded the Board that California law requires that customers be notified of a
22 water rate increase at least 45 days prior to the public hearing where the Board considers adoption
23 of said increase. He stated that a public hearing is scheduled for Tuesday, May 16, 2017 at 7:00 PM
24 at the District office. He noted that the May 16th date requires that the letters be mailed by April 1,
25 2017. Mr. Bentley advised the Board that postage, stationary and copying cost to distribute the
26 letters to customers is estimated at \$10,300. He informed the Board that the proposed commodity
27 and bimonthly service charge rate increase for Novato customers is 5%. He stated that the median
28 single-family residential customer will see a \$2.75 per month increase (\$5.50 bimonthly) on their
29 typical bill.

30 Mr. Bentley advised the Board that the Annual Water Cost Calculator on the District's
31 website allows each customer to see the impact of the proposed increase based upon their water
32 use over the past 12 months. He should examples to the Board.

33 Director Baker stated he had suggested edits to the letter in order to make it flow better.

1 Director Fraites asked how many consecutive years of rate increases the District has had.

2 Mr. Bentley responded that he doesn't have the information currently but the District had a
3 5% increase last year, and 3% the year prior. He stated that for future budget projections to propose
4 annual 5% increases. He noted that back in the mid 1990's there were several years without rate
5 increases when development in Novato was booming and a large amount of connection fees were
6 collected.

7 President Petterle suggested that language be included to clarify that billing is bi-monthly.

8 Director Joly inquired about having an infrastructure surcharge. Mr. Bentley responded that
9 the District has an annual budget of \$2.5M each year in "pay go" for Capital Improvement Projects
10 and continues to improve the District's maintenance management program.

11 Mr. McIntyre advised the Board that the Novato water master plan will be updated this year
12 and a part of that update will be to closely look at long term infrastructure replacement costs.

13 On motion of Director Fraites, seconded by Director Baker, the Board approved mailing the
14 rate increase letter to customers by the following vote:

15 AYES: Director Baker, Fraites, Joly, Petterle, and Schoonover

16 NOES: None

17 **NBWRA UPDATE AND PATH FORWARD**

18 Mr. McIntyre advised that the primary focus of the meeting was to review alternatives for
19 continued participation in NBWRA now that Phase I activities are expected to be completed in 2018.
20 For many months, NBWRA member agencies have discussed how to share the costs for
21 administration, program development, federal/state advocacy and public outreach.

22 Since the District is not participating in Phase 2, the cost difference between Alternative 1
23 versus Alternative 2 is only attributed to state advocacy. At the NBWRA Board meeting on Monday,
24 March 27, 2017 a decision will be made which path will be taken for the 2017/18 year. Staff is
25 recommending that the Board approve participation at the Alternative 2 level.

26 On motion of Director Schoonover, seconded by Director Baker the Board approved annual
27 participation at the Alternative 2 level by the following vote:

28 AYES: Director Baker, Fraites, Joly, Petterle, and Schoonover

29 NOES: None

1 **INFORMATION ITEMS**

2 **RATE INCREASE NOTICE ON WATER BILL**

3 Mr. Bentley advised the Board on the rate increase message that is being included on each
4 water bill mailing as of March 16th.

5 **STAFFORD DAM SAFETY REPORT**

6 Mr. McIntyre provided the Board with a chronological review of Stafford Dam starting from
7 construction in 1951 and including major improvements/studies over the years to ensure its' safety
8 and long term reliability.

9 Director Joly inquired if someone rated the dam. Mr. McIntyre stated that the State rates the
10 dam as a High Hazard Dam, meaning that if a catastrophic failure occurs, more than 1,000 people
11 will be impacted.

12 **MISCELLANEOUS**

13 The Board received the following miscellaneous information: Disbursements, Pipe Worker
14 Assistant Promotion, Potter Valley Project Relicensing Stakeholder Meeting, and Public Policy
15 Facilitating Committee Meeting.

16 The Board received the following news articles: Governor Brown Appoints Doduc, Esquivel
17 to State Water Board, Water District to test high-tech meters, and Marin's dams deemed safe.

18 **ADJOURNMENT**

19 President Petterle adjourned the meeting at 8:06p.m.

20 Submitted by

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22
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24 Katie Young
25 District Secretary

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MEMORANDUM

To: Board of Directors
From: Katie Young, District Secretary
Subject: Open House/Retirement Recognition
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March 31, 2017

RECOMMENDED ACTION: Approve Budget for NMWD Open House

FINANCIAL IMPACT: \$4,300

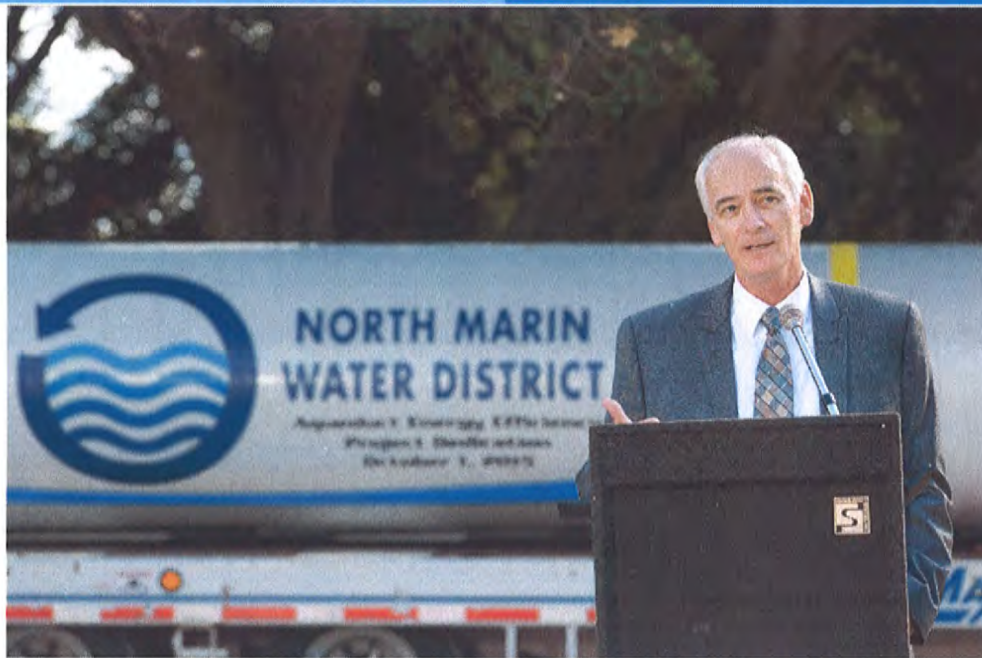
April 21st (12:00pm-2:30pm) is the date for the Open House/Retirement Acknowledgement for Chris DeGabriele at the District and attached is a preliminary budget. The date and time was noticed to all invited guests (via email or USPS) along with postings on the District Facebook page and website.

The open house is still in the planning stage, but there will be a formal recognition, visual displays, live demonstrations (hot tap, best tasting water contest and Automated Meter Information (AMI) system) and lunch will be served (sandwiches, chips, soda, water and dessert). Your comments and ideas are encouraged.

RECOMMENDATION

Approve \$4,300 budget for the Open House/Retirement Recognition.

Approved by GM CDDate 3/31/2017



You are cordially invited to attend the

**Open House and Retirement of
Chris DeGabriele
at the
North Marin Water District**

**Friday, April 21st
12:00 p.m. to 2:30 p.m.**

999 Rush Creek Place
Novato, California

Recognition, Hot Tap Demo, Best Tasting Water Contest &
Automated Meter Information System Info
Lunch Provided

RSVP by 04/17/17

<https://nmwdopenhouse.eventbrite.com>
Or email info@nmwd.com



**NORTH MARIN
WATER DISTRICT**

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MEMORANDUM

To: Board of Directors
From: David L. Bentley, Auditor-Controller
Subj: Customer Service Questionnaire Incentive
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March 31, 2017

RECOMMENDED ACTION: Approve**FINANCIAL IMPACT: \$500 Expense**

The District mails a short (5-question) customer service questionnaire with a postage-paid return envelope to customers who call with a complaint or concern that requires dispatch of a Field Service Representative. The purpose of the questionnaire is to solicit customer feedback as to whether the District responded to the concern or complaint in a prompt, competent and courteous manner. Customers are asked to check "Agree", "OK, Neutral", or "Disagree", and are invited to leave written comments. On average, 40 questionnaires are mailed each month and 9 are received back, a 24% return rate. Typically the District receives a 90%+ "Agree" rating from customers who return the survey. The Board sees a summary of customer responses quarterly as an attachment to the Monthly Progress Report.

The cost to mail a questionnaire to the customer is just over \$1, and includes two first-class postage stamps and the survey form. Given the 24% return rate, the District is paying about \$4 for each returned survey. Staff proposes to provide a \$2 incentive to entice customers to complete the questionnaire to test whether the return rate can be increased to 50%. Customers returning the questionnaire would receive a \$2 credit on the water bill.

A sticker will be placed on the questionnaire stating "For a limited time, customers who return the questionnaire will receive a \$2 credit on their next water bill." Assuming a return rate of 50%, the incentive would cost \$480 annually (480 surveys X 50% return rate X \$2 credit). However, with a 50% return rate, the cost per returned survey would drop from \$4 to \$2, so adding the \$2 incentive would bring the cost back to the \$4 the District is currently paying.

Recommendation:

Authorize staff to offer a \$2 incentive (maximum \$500 total expenditure) to customers who return the Customer Service Questionnaire and to report back when the \$500 is expended on the effectiveness of the incentive in increasing the response rate.

Approved by GM LD
Date 3/31/2017



North Marin Water District

999 Rush Creek Place
P.O. Box 146
Novato, CA 94948
(415) 897-4133
e-mail: info@nmwd.com

CUSTOMER SERVICE QUESTIONNAIRE

Our goal is to provide prompt, competent and courteous service on a timely basis. Your input is vital to our success. Please help us serve you and others by taking a few minutes to answer the questions below. Thank you for responding.

Chris DeGabriele, General Manager

What was the nature of your contact with us?

- | | |
|--|---------------------------------------|
| <input type="checkbox"/> Water Quality | <input type="checkbox"/> Leak |
| <input type="checkbox"/> Billing | <input type="checkbox"/> Noisy Pipes |
| <input type="checkbox"/> Pressure | <input type="checkbox"/> Other, _____ |

STATEMENTS	Check (✓) As Appropriate		
	Agree	OK, Neutral	Disagree
Staff was courteous and helpful.			
Staff provided complete, accurate information to you.			
Service was prompt.			
My needs were resolved to my satisfaction.			
My overall experience was positive.			

Comments:

Are there any issues you feel North Marin Water District should address in the future:



Please fold this survey in thirds, with District address on outside Tape and mail. Postage will be paid by NMWD.

SERVICE ADDRESS _____

Customer Service Questionnaire Summary

3/28/17

t:\ac\excel\cons srvc\customer srvc questionnaire summary.xlsxsheet1

Quarter Ending	Questionnaires		% Returned	Cost @ \$1/ea	
	Sent Out	Returned			
3/31/17	100	25	25%	\$4	est
12/31/16	169	11	7%	\$15	
9/30/16	161	33	20%	\$5	
6/30/16	97	38	39%	\$3	
3/31/16	94	36	38%	\$3	
12/31/15	94	26	28%	\$4	
9/30/15	121	33	27%	\$4	
6/30/15	108	26	24%	\$4	
3/31/15	158	24	15%	\$7	
12/31/14	102	31	30%	\$3	
	1,204	283	24%	\$4	
Annual Avg	482	113			
Mo Avg	40	9			

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MEMORANDUM

To: Board of Directors

March 31, 2017

From: Tony Arendell, Construction/Maintenance Superintendent 

Subj: New Answering Service

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RECOMMENDED ACTION: Approve Agreement with Direct Line Tele Response**FINANCIAL IMPACT: Approximately \$200 Initial Charge**

The Novato Police Department notified the District that NPD dispatch will no longer provide after-hours answering service to NMWD. NPD has provided this service to NMWD for a flat fee of \$200 per month since November of 2000.

We solicited answering service proposals from three providers:

1. A.B. Communications in Novato;
2. Access Answering Service in Vacaville;
3. Direct Line Tele Response in Berkeley.

We received proposals from Access and Direct Line. Both services have a fee structure comprised of a flat charge with a minute allowance, and an additional charge for overage.

	<u>Monthly</u>	<u>Minutes</u>	<u>Overage/Min</u>	<u>Setup Fee</u>
Direct Line	\$150	100	\$1.10	\$110
Access	\$350	200	\$2.00	\$150

The District receives 5-6 after-hours calls per week, which will average about 100 minutes per month to receive calls and dispatch the on-call employee. An attractive answering service feature is the ability to send the customer name, address and phone number via text message to the on-call employee, eliminating the need to write the information, and facilitating customer call-back by simply touching the phone number in the text message. If the employee does not respond that the text was received within 5 minutes, a phone call will be made to the employee. If there is no answer, a voice message is left. If there is no response to the voice message within a subsequent 5 minutes, a District supervisor will be contacted. The District will procure two smart phones (\$72 plus \$50/month) to facilitate the text message feature.

References on both services were positive. Direct Line's references include Alameda County Water District, Napa Sanitation District, Veolia Water (Richmond) and Westborough Water (So San Francisco). These utilities all had good things to say about Direct Line.

Recommendation:

Authorize the Auditor-Controller to enter into an agreement with Direct Line Tele Response to provide after-hours answering service to NMWD.

8

MEMORANDUM

TO: Board of Directors
 FROM: Rocky Vogler, Chief Engineer *RV*
 RE: Cinquini & Passarino Consulting Services Agreement - Land Surveying
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March 31, 2017

RECOMMENDED ACTION: Authorize General Manager to execute a Consulting Services Agreement between NMWD and Cinquini & Passarino with a not to exceed limit of \$30,000

FINANCIAL IMPACT: \$30,000

BACKGROUND

Due to the varied type of engineering work related to District Capital Improvement Projects (CIP), it is necessary to request surveying services from a California Licensed Land Surveyor on an as needed basis. The purpose of this memo is to request a new consulting services agreement with Cinquini & Passarino (C&P) for periodic surveying services to assist staff with District workload demands. C&P has a proven track record with the District going back to 2010 with the Stafford Lake Sediment Survey Project.

Attached is an agreement for C&P to provide said survey support services with a not to exceed limit of \$30,000. If approved, the consulting services agreement will be executed based on individual task orders on a job-by-job basis. One of the first task orders to be funded through this Agreement will be to provide detailed topographical survey information including existing utilities and roadway limits for the Ridge Road Pipeline Replacement project. This first task order will be \$7,300.

A summation of contract billings for C&P surveying services for the last three years is provided as follows:

TABLE I

Contract Issuance Year	Billing Year	Total Billings
FY14-15	2014	\$6,200
	2015	\$10,000
	2016	\$9,990

A cost breakdown for the \$30,000 FY14-15 contract by task is summarized as follows:

TABLE 2

Starting Contract Amount	\$30,000
Projects (Authorized Task Orders)	
So. Novato Blvd. @ Rowland	<\$6,200>
Bear Valley Topo Survey	<\$10,000>
PR Tank 4A Land Surveying	<\$9,990>
Remaining Balance on Contract	\$3,810

RECOMMENDATION

Board authorize the General Manager to execute a Consulting Services Agreement between NMWD and Cinquini & Passarino with a not to exceed limit of \$30,000

AGREEMENT FOR CONSULTING SERVICES

The following is an agreement between **North Marin Water District**, hereinafter "**NMWD**", and **Cinquini & Passarino**, hereinafter, "**Consultant**".

WHEREAS, Consultant is a duly qualified consulting firm, experienced in land surveying.

WHEREAS, in the judgement of the Board of Directors of the NMWD, it is necessary and desirable to employ the services of the Consultant for various surveying projects on an as-needed basis.

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

PART A -- SPECIFIC PROVISIONS:

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

- a. The scope of work and fee amount covered by this agreement shall be that specified on a task by task basis.
- b. The fee for all task orders assigned as part of work of this agreement shall not exceed \$30,000 without prior written authorization by NMWD.

PART B -- GENERAL PROVISIONS

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

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

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

- a. With respect to professional services under this agreement, Consultant shall assume the defense of and defend NMWD, its directors, officers, agents, and employees in any action at law or in equity in which liability is claimed or alleged to arise out of, pertain to, or relate to, either directly or indirectly, the intentional or willful misconduct, recklessness, or negligent act, error, or omission of Consultant (or any person or organization for whom Consultant is legally liable) in the performance of the activities

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

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

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

4. PROSECUTION OF WORK: The execution of this agreement shall constitute the Consultant's authority to proceed immediately with the performance of this contract. Performance of the services hereunder shall be completed by December 31, 2018, provided, however, that if the performance is delayed by earthquake, flood, high water or other Act of God or by strike, lockout or similar labor disturbance, the time for the Consultant's performance of this contract shall be extended by a number of days equal to the number of days the Consultant has been delayed.

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

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

Consultant:
Cinquini & Passarino
1360 N. Dutton Ave., #150
Santa Rosa, CA 95401
Attention: Jim Dickey

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

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

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

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

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

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

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

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

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

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

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

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

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

14. INSURANCE REQUIREMENTS FOR CONSULTANTS

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

Minimum Scope of Insurance

Coverage shall be at least as broad as:

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

Minimum Limits of Insurance

Consultant shall maintain limits no less than:

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

Verification of Coverage

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

Subcontractors

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

Self-Insured Retentions

Any self-insured retentions must be declared to and approved by the District. At the option of the District, either: the insurer shall reduce or eliminate such self-insured retentions as respects the District, its officers, officials, employees and volunteers; or the Consultant shall provide a financial guarantee satisfactory to the District (such as a surety bond) guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

Other Insurance Provisions

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

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

Acceptability of Insurers

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

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

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

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

17. REASONABLE ASSURANCES: Each party to this agreement undertakes the obligation that the other's expectation of receiving due performance will not be impaired. When reasonable grounds for insecurity arise, with respect to performance of either party, the other may, in writing, demand adequate assurance of due performance and until the requesting party receives such assurance may, if commercially reasonable, suspend any performance for which the agreed return has not been received. "Commercially reasonable" includes not only the conduct of the party with respect to performance under this agreement but also conduct with respect to other agreements with parties to this agreement or others. After receipt of a justified demand, failure to provide within a reasonable time, not to exceed 30 days, such assurance of due performance as is adequate under the circumstances of the particular case is a repudiation of this agreement. Acceptance of any improper delivery, service, or payment does not prejudice the aggrieved party's right to demand adequate assurance of future performance.

18. PREVAILING WAGE REQUIREMENTS: Prevailing Wage Rates apply to all Consultant personnel performing work under the Agreement for which wage determinations have been made by the Director of Industrial Relations pursuant to California Labor Code Sections 1770–1782,. Consultant shall comply with all applicable prevailing wage labor code requirements

**NORTH MARIN WATER DISTRICT
"NMWD"**

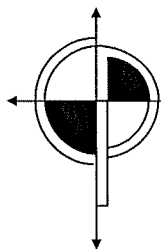
Dated: _____

Chris DeGabriele, General Manager

**CINQUINI & PASSARINO
"CONSULTANT"**

Dated: _____

James Dickey



CINQUINI & PASSARINO INC.

LAND SURVEYING

▲ BOUNDARY ▲ TOPOGRAPHIC ▲ CONSTRUCTION ▲ INFRASTRUCTURE

EXHIBIT C
HOURLY FEE SCHEDULE
MARCH 1, 2017 TO FEBRUARY 28, 2018

OFFICE AND PROFESSIONAL

Professional Land Surveyor (4 HOUR MINIMUM) EXPERT WITNESS, DEPOSITIONS & CONSULTATIONS	\$415.00 per hour
Professional Land Surveyor LEGAL RESEARCH & COURT EXHIBITS	\$225.00 per hour
Principal Professional Land Surveyor	\$180.00 per hour
Senior Professional Land Surveyor	\$170.00 per hour
Professional Land Surveyor	\$145.00 - \$155.00 per
Office Calculations and Field Crew Preparation	hour \$110.00 - \$125.00 per
CAD Drafting and Plotting	hour \$100.00 - \$120.00 per hour (PLUS MATERIAL)
Word Processing, Clerical and Deliveries	\$ 90.00 per hour

FIELD CREWS

THE FOLLOWING INCLUDES VEHICLES, EQUIPMENT, MILEAGE & MATERIAL

1 Person Field Party	\$175.00 per hour
1 Person GPS Party	\$200.00 per hour
2 Person Field Party FIELD CREW CONSISTS OF PARTY CHIEF & CHAINMAN	\$260.00 per hour
3 Person Field Party FIELD CREWS CONSIST OF PARTY CHIEF, 2 CHAINMEN OR CHAINMAN & FLAGPERSON.	\$360.00 per hour
4 - Person Field Party FIELD CREWS CONSIST OF PARTY CHIEF, 3 CHAINMEN OR CHAINMAN & 2 FLAGPERSONS.	\$410.00 per hour

SUPPLEMENTAL ITEMS

Outside Contract Work	Cost plus 15%
Overtime Work	1.2 x base rate
Over 8 Hours on Saturday, all day on Sundays or Holiday	1.4 x base crew rate
Travel Time for 2-Man Crew (BEYOND 1 HOUR OF TRAVEL OUTSIDE AN 8 HOUR WORKDAY)	\$110.00 per hour

Schedule 2017/2018

9

MEMORANDUM

To: Board of Directors March 31, 2017

From: Rocky Vogler, Chief Engineer *RJ*
Carmela Chandrasekera, Associate Engineer *AC*

Subject: Recycled Water Expansion Central Service Area – Norman Tank: Award Construction Contract (Piazza Construction)

R:\Folders by Job No\6000 jobs\6058\BOD Memos\6058.50 RWC Norman Tank Contract Award to Piazza Const BOD Memo 4-17.doc

RECOMMENDED ACTION: Approve award of the contract to Piazza Construction and authorize the General Manager to execute an agreement with Piazza Construction

FINANCIAL IMPACT: \$873,164.50 plus \$44,000 contingency (5%)

Background

The Norman Tank project includes construction of surface preparation and complete recoating of interior and exterior surfaces and associated rehabilitation work on the District's 50' diameter, 35' tall, 500,000 gallon capacity welded steel recycled water storage tank in Novato, California. Associated rehabilitation work includes but is not limited to installation of a spiral stair and stairway security enclosure, inside ladder and platform, shell manway, roof hatch, sample tap, inlet/outlet pipe modifications, screen replacement, cathodic protection system, tank foundation and rock anchors installation and other project components and appurtenances. The project also includes modification of existing yard piping and related appurtenances at a second tank site (Plum Street Tank).

This project was originally approved for bid advertisement at the September 20, 2016 Board meeting, and included a bid opening date of November 15, 2016. Although the October 18, 2016 mandatory pre-bid meeting was well attended, only one bid (Piazza Construction) was received for the project. In an effort to improve competition and attract more bidders, the Board rejected the lone bid and approved advertisement for new bids on December 20, 2016.

The re-advertisement date for this project was January 20, 2017 with a bid opening on March 14, 2017. The District advertised the project in the Marin IJ and posted the project on www.ebidboard.com. Thirteen (13) contractors, including ten (10) prime contractors, attended the mandatory pre-bid meeting on February 9, 2017. The bid period was approximately seven (7) weeks and included two addenda. Two bids were received.

	CONTRACTOR	BID
1.	Piazza Construction, Penngrove	\$873,164.50
2.	Spieß Construction, Santa Maria	\$1,026,650.00

The Engineer's Estimate was \$760,000. The bid variance between the Number 1 and Number 2 bidders was \$153,485.50 (for a variance of 17.5%). The previous lone bid that was rejected by the Board on December 20, 2016, was \$881,436. Therefore, the low bid decreased by \$8,272 (1%) as a result of re-bidding the project.

Bid Evaluation

Piazza Construction (Piazza) of Penngrove, California, submitted the lowest responsive bid of \$873,164.50 which is ~\$113,164 (15%) above the Engineer's construction cost estimate of \$760,000. A bid evaluation (Attachment 1) was performed by The Covello Group (Covello), the District's construction manager for the Central Service Area recycled water projects. The attached analysis shows that Piazza and Spiess Construction (Spiess) complied with the bidding requirements.

The bids of Piazza and Spiess were reviewed for compliance with SRF Disadvantaged Business Enterprise (DBE) requirements and Davis-Bacon State Revolving Fund requirements. Only Piazza Construction met these requirements.

Project Financing

The project receives Water SMART grant funds via Bureau of Reclamation awards and grant/loan funds from the State SRF program as summarized with the Board at the March 3, 2017 meeting when the Board approved bid advertisement of the Highway 101 Crossing Pipeline project.

RECOMMENDATION

That the Board approve award of the contract to Piazza Construction and authorize the General Manager to execute an agreement with Piazza Construction.



March 21, 2017

Mr. Rocky Vogler
North Marin Water District
999 Rush Creek Place
Novato, CA 94948

Subject: Bid Review
Project: Recycled Water Expansion – Central Service Area Norman Tank Project Re-Bid
Project No: 5 6058.50

Dear Mr. Vogler:

Two sealed bids for the Project were received and opened on March 13, 2017, at 3:00pm. One bid was received from Piazza Construction (Piazza) in the amount of \$873,164.50. The second bid was received from Spiess Construction (Spiess) in the amount of \$1,026,650.00. The lowest bid was \$113,164.5 above the Engineer's Estimate (EE) of \$760,000.

Number of Bids Submitted: Considering this was the re-bid of the Project that originally received only one bid, receiving two (2) bids was not a surprise. The primary reason for the limited number of bids was the fact that the contractors are too busy.

Another reason is that some of the contractors were more interested in being subcontractors and not necessarily eager to be the prime contractor on the Project. The Project consists of disciplines with significant percentages of work, which may affect the contractors' desire to be the prime contractor. In this regard, Piazza has indicated on their bid forms that subcontractors will be performing 57.5% of the Work. As a comparison, Spiess has indicated that subcontractors will be performing 42% of the Work.

Prices for Base Bid Items: The Base Bid Schedule consisted of 15 bid items; 13 were lump sum, and two (2) bid items were unit price. Bid Item No. 3 "Install tank ring wall foundation, tank anchors, rock anchors, etc." had the largest variance between the Bid and EE. The EE estimate was \$100,000 and the Bid amounts were \$211,675 (Piazza) and \$314,400 (Spiess) for the two bidders. This \$111,675 difference accounts for approximately 98% of the bid variance. In fact, when removing Bid Item 3 from the comparison between the EE and low apparent Bid, there is less than a 0.2% difference.

Our understanding is that the EE for Bid Item 3 was primarily based on tank foundation work on the District's Crest Tank. The foundation work at Crest Tank includes cast-in-place concrete and other specialty work, such as rock anchors and welded tank anchoring. The major differences related to foundation work between the Norman Tank and Crest Tank is that Crest was a new tank and Norman is a retrofit of an existing steel tank. As one example of these differences, the foundation for the Norman Tank will require excavation beneath the existing tank to construct the concrete foundation. Another example are the structural anchoring/rock anchors required to be installed connected to and adjacent to the existing Norman Tank. This type of work is difficult to construct and similarly difficult to bid/estimate as the contractor's risk is much greater working beneath and adjacent to an existing tank. It is likely these conditions affected the contractor's bid for this Work.

Bid Forms: As verified by District staff and presented in the attached spreadsheet, Piazza submitted all required bid forms at the time of bid. It was noted that the word “thousand” was omitted from the TOTAL BASE BID amount, in words on form 00310 – Bid Schedule. This is construed as an inadvertent grammatical omission and would not constitute grounds for rejection of the bid as unresponsive.

SRF Documentation: As verified by District staff, Piazza provided the required EPA DBE Subcontractor Utilization Forms and Good Faith Documentation. No exceptions were noted.

Bidder Experience: Piazza submitted documents that substantiate that they have the necessary experience and qualifications to perform the Work. Piazza has performed similar construction for both Marin Municipal Water District and the City of Santa Rosa; reference checks concluded that based on their agencies experience, Piazza is a capable contractor that submitted reasonable bids, performed good work and was not claims oriented. Also, NMWD has experience with Piazza and had similar comments on their qualifications.

Licenses and Public Works Registration Numbers: Piazza and all of their listed subcontractors have active licenses and are in good standing. Similarly, all of their Public Works Contractor Registration, Numbers are current. The table lists their licenses and registration numbers:

Contractor	License	Registration	Work Percentage
Piazza	406456	100008021	42.5
Olympus & Assoc.	777677	100007287	32.0
Paso Robles Tank, et. al.	784971	100002079	12.0
Hillside Drilling	478991	100002589	8.0
West Coast Reinforcing	859902	100021087	3.0
Cantarutti Electrical	639809	100017441	2.0
Cal-Con Pumping	962387	100013903	0.5

Safety Qualifications: Piazza provided three (3) years (2104, 2015 and 2016) Experience Modification Rates (EMR) to demonstrate their Safety Qualifications. Piazza’s three (3) year average EMR is 0.78, which is less than the 1.00 maximum specified by the Contract. Thus, Piazza meets the minimum safety requirements for the Project.

Financial Qualifications: The District received Piazza’s financial information in the form of Income Statements and Balance Sheets for 2014 and 2105, and an Independent Accountant’s Review Report on March 21, 2017. The Contract Documents required submittal of this financial information within five (5) days of the bid opening. We did not observe any irregularities in Piazza’s Financial Qualifications; the District could consider requesting their Finance Manager to review this information. The Accountant’s Report states that they “...are not aware of any material modifications that should be made to the accompanying financial statements in order for them to be in accordance with accounting principles generally accepted in the United States of America.”

Spiess also submitted the required financial information on March 21, 2017.

The Financial Qualifications, Section 00420 D. also required the contractors to provide information related to claims filed against the bidder and claims filed by the bidder within the last five (5) years. Piazza noted on the bid form that the requested claim information is not applicable at this time. The District could consider asking its Legal Counsel to review claim related databases to which they may have access, to verify Piazza's claims history over the past five (5) years.

Material Suppliers: Piazza listed various material manufacturers and suppliers. It has not been verified that Piazza's listed manufacturers comply with District requirements and it is suggested that the District confirm their acceptability.

Conclusions:

1. Based on our review, Piazza is a responsible bidder. Piazza did not submit their Financial Qualifications within five (5) days as required by Contract. They did submit this information on March 21, 2017, promptly upon the District's specific request. This late submittal could result in rejection of the bid by the District, as not being responsive to the Invitation to Bid. The late submittal of their Financial Qualifications should not be construed as a statement of Piazza's financial health. In fact, their historical performance and bonding capacity provides reasonable assurance that the corporation is in good standing. Thus, we recommend the District consider this a minor omission and not grounds for Bid rejection.
2. Rebidding of the Project achieved the District's goal of receiving multiple bids. Additionally, Piazza's rebid was \$8,271.50 below their bid submitted in November 2016.

Based on the factors above, the apparent low bidder, Piazza, has submitted a responsive and responsible bid, apart from the minor irregularities noted above. Accordingly, it is recommended that the District award the Contract to Piazza.

Sincerely,

Covello




Gary Skrel, PE

Project Manager

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MEMORANDUM

To: Board of Directors
From: Chris DeGabriele, General Manager 
Subj: Steelhead Habitat Survey in Upper Novato Creek
\\gn\mms steelhead recovery plan\icf contract amendment memo.docx

March 31, 2017

RECOMMENDED ACTION: Authorize Staff to Enter Into a Contract Amendment for Steelhead Habitat Survey in Upper Novato Creek

FINANCIAL IMPACT: up to \$16,000

At the September 6, 2016 Board of Directors Meeting, staff was authorized to enter into an agreement with ICF International to perform a Steelhead Habitat Survey in Upper Novato Creek. At that time, the Board was informed that consultants from Cardno Associates, who had been engaged during mid-December 2015 to perform a field reconnaissance evaluation of Novato Creek both upstream and downstream of Stafford Dam and make a preliminary assessment of Steelhead habitat, had moved on to ICF International and HDR Consultants.

The December 2015 reconnaissance investigation information was reported to NMFS in NMWD comments on the Coastal Multi-Species Recovery Plan submitted on January 8, 2016. The reconnaissance investigation identified that Novato Creek primarily provides highly degraded steelhead spawning and rearing habitat both upstream and downstream of Stafford Dam. Upstream of Stafford Dam the biologists determined that available juvenile rearing habitat is probably negligible in most years during summer and fall months and that there is probably no surface flow in this segment during most summers. Therefore benefits of fish passage facility at Stafford Dam would be negligible unless the habitat features of the creek upstream of the dam were very greatly enhanced during summer and fall months.

The habitat survey authorized in September 2016 was conducted at a reconnaissance level on November 4, 2016 to add to the observations from the initial stream assessment conducted in December 2015. That report is included as Attachment 1 and recommends that two continuous ~1,000ft long sections of the stream that contain habitat and conditions representative of the upper stream reach and lower stream reach above Stafford Dam should be surveyed for habitat mapping. The consultant also recommended deployment of habitat monitoring equipment (level gauges) to determine when water is present in these particular stream reaches.

ICF has returned with a proposed contract amendment, which would add up to \$16K to the currently authorized funding in this fiscal year to conduct the habitat mapping in these two

reaches and provide assistance with stream gauging which provides information on the amount and duration of stream flow in the upper and lower reaches of Novato creek above Stafford Lake.

RECOMMENDED ACTION:

Board authorize the General Manager to enter into a consulting services contract amendment with ICF for an additional \$16,000 to perform steelhead habitat survey in Upper Novato Creek and assist with stream gauging.



Memorandum

To: Chris DeGabriele, North Marin Water District

From: Jean Baldrige, ICF
Sarah Horwath, ICF

Date: January 30, 2017

Re: 2016 Novato Creek Stream Habitat Assessment

Introduction

A reconnaissance-level stream habitat survey of Novato Creek upstream of Stafford Dam (Upper Novato Creek) was conducted on November 4th, 2016. The purpose of the survey was to add to the observations from an initial stream assessment of Novato Creek conducted in 2015, and to inform a future habitat suitability assessment for steelhead (*O. mykiss*) that is to be conducted in 2017.

During the 2016 survey, qualitative observations of flow in the stream channel was described, observations of any aquatic wildlife in the stream or immediate vicinity were noted, and potential fish passage barriers were identified. Additionally, suitable areas for subsequent habitat mapping surveys and locations for potential habitat monitoring efforts were identified.

The survey was conducted from 0900 to 1420. Weather was partly cloudy to clear. Precipitation accumulation recorded at the Novato Library from October 1 to November 4, 2016 was 4.41 inches. Prior to the December 2015 survey, precipitation accumulation at the Novato Library during the month of December was 3.19 inches, and no stream flow was observed in Upper Novato Creek during that survey.

For the purpose of this survey, Upper Novato Creek was divided into four stream reaches (Figure 1). Reach delineation was based on property access and on general habitat conditions and stream features observed during the 2015 survey.

Observations

Reach 1:

Reach 1 is Upper Novato Creek from upstream end of Stafford Lake to the second bridge crossing.



The first 2,000 feet of the reach, up to near Bridge 1, is heavily overgrown with willow and blackberry. Substrate in the area is primarily sand and silt with some small gravel. When the lake is full, this stream section is likely inundated by the reservoir.

Upstream of the overgrown section, the stream channel is wider and more open. Substrate is predominantly sandy, with interspersed sections of small to medium gravel. Upon further inspection, it was observed that the gravels were present on the surface of the substrate, on top of predominantly sandy sub-surface substrate.

Ponded water was located in isolated larger depressions in the stream channel. Three-spined stickleback (*Gasterosteus aculeatus*) were observed in one of these small pools. No surface flow was observed until the upstream end of the reach, below Bridge 2. Observed surface flow was roughly 0.5 to 1 gallons per minute. The mid-channel bridge drop structure appeared to hold back surface water, possibly acting as a concentration point of subsurface flow, and as the surface water source.

Reach 2:

Reach 2 runs from the second bridge crossing up to the western Grossi property boundary.

In the lower portion of Reach 2, between Bridge 2 and Bridge 3, substrate composition was similar to the upstream end of Reach 1, described above. Observed pools were larger than those observed in Reach 1. Stream flow was more regular and some connectivity between habitat units was observed. Overall, flow conditions were considered low and discontinuous where flow went subsurface. The channel was relatively confined and evidence of previous bank failure was apparent throughout the lower portion of the reach below Bridge 3. Given the steep banks, thick understory, and presence of many downed trees, access through the lower end of Reach 2 is difficult.

Similar to Bridge 2, the mid channel drop structure of Bridge 3 was acting as a small dam, holding back surface waters from recent rains and or seepage from the surrounding fields. Downstream of Bridge 3, where flow appeared to have been concentrated by the drop structure, flow was estimated at 1 to 2 gallons per minute. The backwater from the drop structure extended approximately 350 feet upstream of Bridge 3.

Upstream of the inundation, intermittent surface flow was observed and estimated at 0.75 to 1.5 gallons per minute. Substrates in this area appeared similar to those observed lower in Reach 2 and in the upper portion of Reach 1. Moving further upstream of the Bridge 3 backwater, substrates became noticeably coarser. Substrate composition was estimated to be 80 percent large gravel and 20 percent small cobble in some sections. The first noticeable change in natural stream gradient was observed to be generally correlated to the presence of coarser substrates. Short step sections (each approximately 100 feet in length) were present at the slightly higher gradient. The stream channel was generally similar that found downstream of Bridge 3. The channel was more confined than downstream areas, but in some small sections the stream meandered within a slightly less confined channel.



In the upstream end of Reach 2, recent bank failure and fine sediment point sources were much more apparent compared to downstream areas. Horsetail ferns (*Equisetum* sp.) were observed mid channel in the upstream end of the reach, suggesting a small on-stream spring. Minimal stream flow was present at the upstream end of the reach and connectivity between wetted habitats was much more irregular than that observed in the downstream end of Reach 2. Where surface flow was observed, it was estimated at 0.75 to 1.5 gallons per minute. Five to ten stickleback were observed in a small isolated pool found at the upstream end of Reach 2.

Reach 3:

Reach 3 was not accessible during the 2016 survey.

There is an elevation change of approximately 100 feet between the downstream end of Reach 3 (at 320 feet above mean sea level) and the upstream end of the reach (at 420 feet above mean sea level). Given this elevation change over the 1.3-mile long reach, other observations of increased stream gradient in the upstream end of Reach 2, and high-gradient features observed in Reach 4, there is potential for a stream gradient barrier or other barrier feature to be present within Reach 3.

Reach 4:

Reach 4 is located upstream of Novato Boulevard.

No ponded water or stream flow was observed in Reach 4. Most of the stream channel within Reach 4 is low gradient and meandering. Bank failure was present but tended to be limited to one side of the stream at any point. Substrates alternated between mixed gravel sections and sandy gravel sections in lower gradient areas. In higher gradient areas, substrates consisted of coarser material with large gravel, cobble, and boulders present.

The majority of Reach 4 is low gradient but there are two extremely high gradient sections within the reach (Figure 2). These are large steps located between low gradient sections. At the time of the survey, the flow through both of these locations was broken through multiple large boulder sections with no observable water depth. These sections are potential natural barriers to upstream fish migration.

Summary of Observations & Recommendations

During the previous 2015 survey, no stream flow was observed in Upper Novato Creek. At the time of the 2016 survey, stream flow was present in some areas and was estimated to range from 0.5 to 2 gallon per minute; however, flow was not continuous throughout Upper Novato Creek. The most surface flow connectivity was observed within Reach 2. Surface flow was observed downstream of Bridge 3 where a concrete drop structure held back surface water that appeared to be providing a concentration point for surface and subsurface flow. Surface flow was also observed as inflow to the backwater upstream of Bridge 3, and in the upper portion of Reach 2 where a small in-channel spring may be



present. Stream flow in Reach 1 was generally intermittent; the most surface flow was observed where the drop structure at Bridge 2 held back water and concentrated downstream flow. Isolated pools were observed in deep depressions within the lower portion of Reach 1. No stream flow was observed in Reach 4. Small numbers of three-spined stickleback were found holding in small pools in two locations; one in Reach 1 and one in Reach 2. Two sections of extreme changes in stream gradient were observed in Reach 4 and were identified as potential natural barriers to upstream fish migration. Further assessment of these sections with flow present is necessary to evaluate barrier severity.

Locations suitable for conducting future habitat mapping surveys were identified in the three surveyed reaches of Upper Novato Creek (Figure 2). The target stream length to be mapped is 10% of the approximately 30,000 feet of Novato Creek that is upstream of Stafford Lake, or approximately 1,000 feet per accessible reach (Reaches 1, 2, and 4). In Reach 1 and in Reach 4, continuous 1,000-foot long sections of stream that contain habitat and conditions representative of each reach are recommended to be surveyed for habitat mapping. In Reach 2, in order to obtain the full target stream length for habitat mapping (1,000 feet) and to capture representative habitat conditions, at least two of the identified sections are recommended to be surveyed for habitat mapping.

Multiple locations in each reach would be suitable for deployment of habitat monitoring equipment. Deployment of instruments in the vicinity of Bridge 1, upstream of the gravel extraction location, in the vicinity of Bridge 3, and near georeference point 853 (Figure 2) could allow for monitoring of the range of hydrologic conditions observed in Upper Novato Creek habitats. These locations also provide for relatively good accessibility and equipment security. Further discussion on the types of data desired and suitable equipment available is needed to determine if monitoring would be beneficial at each location.

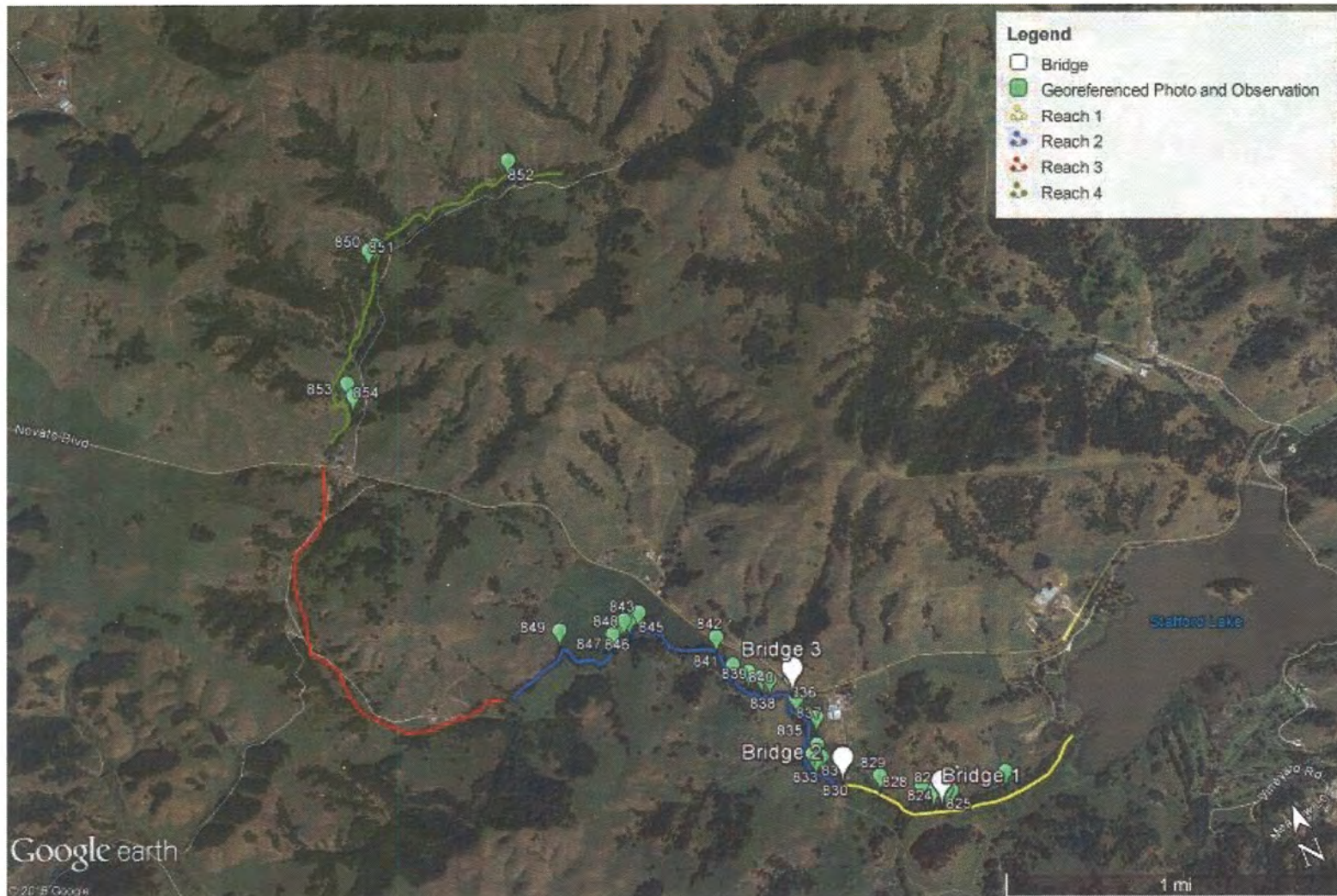


Figure 1. Reach delineation, bridges, and georeferenced points for photos and observations made during the survey.

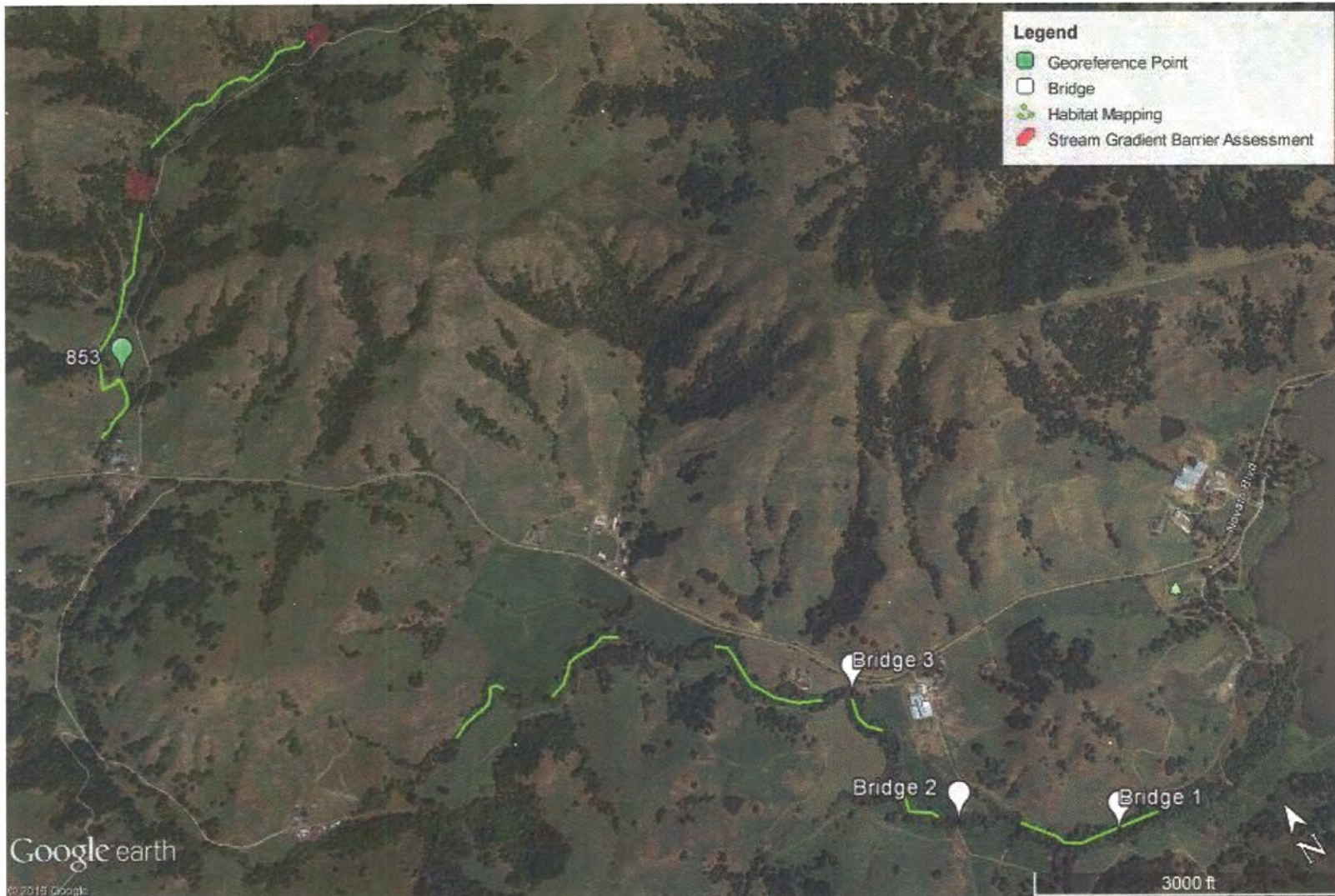






Figure 2. Potential Locations for 2017 habitat mapping survey, monitoring location, and potential passage barrier assessment.

Selected Photographs from Upper Novato Creek – November 4, 2016



<p>Photo P1000955</p> <p>Waypoint: 823</p> <p>Reach: 1</p> <p>Description: Dry channel with fine sediment substrate. Representative of habitat in lower portion of Reach 1.</p>	
<p>Photo P1000957</p> <p>Waypoint: 824 & 825 (redundant)</p> <p>Reach: 1</p> <p>Description: Dry channel with mixed substrate. Representative of habitat in lower portion of Reach 1 habitat.</p>	

<p>Photo P1000958</p> <p>Waypoint: 826</p> <p>Reach: 1</p> <p>Description: Isolated pool habitat. Stickleback observed.</p>	
<p>Photo P1000960</p> <p>Waypoint: 827</p> <p>Reach: 1</p> <p>Description: Dry channel in Reach 1. Gravel surface substrate with sandy subsurface substrate.</p>	

<p>Photo P1000961</p> <p>Waypoint: 828</p> <p>Reach: 1</p> <p>Description: Dry, with evidence of being wet. Woody debris.</p>	
<p>Photo P1000962</p> <p>Reach 1</p> <p>Waypoint 828 (second photo at this waypoint)</p> <p>Description: Gravel surface substrate with sandy subsurface substrate.</p>	



North Marin Water District
2016 Novato Creek Stream Habitat Assessment

<p>Photo P1000964</p> <p>Reach 1</p> <p>Waypoint 830</p> <p>Description: Ponded water at Bridge 2</p>	 A photograph showing a small, dark, ponded area of water surrounded by dense, green vegetation and trees. The water is still, reflecting the surrounding foliage. A concrete bridge structure is visible in the lower left corner of the frame.
<p>Photo P1000966</p> <p>Reach 2</p> <p>Waypoint 831</p> <p>Description: Minor flow, small gravel and sand substrates</p>	 A photograph showing a stream bed with a mix of small gravel and sand substrates. The water is shallow and flows over the bed. The surrounding area is covered with dense, green vegetation and trees.



North Marin Water District
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Photo P1000968

Reach 2

Waypoint 833

Description:
Dry section upstream of
Bridge 2



Photo P1000969

Reach 2

Waypoint 836

Description:
Turbid water held back by
Bridge 3 drop structure





North Marin Water District
2016 Novato Creek Stream Habitat Assessment

<p>Photo P1000970</p> <p>Reach 2</p> <p>Waypoint 836 (second photo at this waypoint)</p> <p>Description: Backwater upstream of Bridge 3 drop structure</p>	A photograph showing a stream with a large, dark tree trunk on the right bank. The water is calm and reflects the surrounding green foliage. The stream is surrounded by dense vegetation.
<p>Photo P1000973</p> <p>Reach 2</p> <p>Waypoint 838</p> <p>Description: Upstream end of inundation created by Bridge 3 drop structure</p>	A photograph showing a stream with a large, dark tree trunk on the right bank. The water is calm and reflects the surrounding green foliage. The stream is surrounded by dense vegetation.

Photo P1000974

Reach 2

Waypoint 839

Description:
Fine and coarse sediments
in dry gap upstream of
Bridge 3 backwater area.



Photo P1000977

Reach 2

Waypoint 842

Description:
Representative section in
middle of Reach 2,
example location for
habitat mapping.





<p>Photo P1000978</p> <p>Reach 2</p> <p>Waypoint 842 (second photo at this waypoint)</p> <p>Description: Example of steep banks.</p>	
<p>Photo P1000981</p> <p>Reach 2</p> <p>Waypoint 844</p> <p>Description: Recent bank failure.</p>	

Photo P1000982

Reach 2

Waypoint 844
(second photo at this
waypoint)

Description:
Upper portion of Reach 2,
downstream of potential
in-channel spring. Coarser
substrates and stickleback
observed.



Photo P1000984

Reach 2

Waypoint 846

Description:
Large scour and severe
erosion.





North Marin Water District
2016 Novato Creek Stream Habitat Assessment

Photo P1000985

Reach 2

Waypoint 846
(second photo taken at
this waypoint)

Description:
Coarser substrate in upper
portion of Reach 2.



Photo P1000986

Reach 2

Waypoint 847

Description:
Boulder section.



Photo P1000988

Reach 2

Waypoint 848

Description:
100 feet upstream gets
thicker vegetation,
horsetail present. Flow
may be from in-stream
spring.



Photo P1000990

Reach 2

Waypoint 849

Description:
Bedrock chute section.





<p>Photo P1010002</p> <p>Reach 4</p> <p>Waypoint 854</p> <p>Description: Dry, gravel mixture.</p>	
<p>Photo P1000999</p> <p>Reach 4</p> <p>Waypoint 853</p> <p>Description: Dry, Fine sediment to small gravel and some cobble substrate.</p>	

Photo P1000994

Reach 4

Waypoint 850

Description:
First high gradient barrier
in Reach 4. Some very
limited ponding, no
running pool depth.



Photo P1000998

Reach 4

Waypoint 852

Description:
Second high gradient
barrier in Reach 4.





March 22, 2017

Chris DeGabriele
North Marin Water District
999 Rush Creek Place
Novato, CA 94945

Subject: Contract Amendment for Job No. 1.4056.00 - Performance of Steelhead Habitat Survey in Upper Novato Creek

Dear Mr. DeGabriele:

Due to changing schedules and evolution of deliverables, ICF Jones & Stokes, Inc. (an ICF company, hereafter "ICF") is requesting an extension and cost adjustment for Job No. 1.4056.00 with NMWD, entered into by ICF and NMWD on October 14, 2016, which expired on February 3, 2017. ICF proposes to extend the contract to December 31, 2017 to accommodate surveys planned for the spring of 2017. ICF also requests additional funding of \$8,790 to accommodate for the extension of contract time, increased level of effort for previously scoped deliverables, and an additional deliverable outside of those originally scoped in the attached proposal dated September 11, 2016 and included as an Attachment to this letter. ICF also presents below a scope and estimate for an optional Task 5 to assist NMWD with the design, siting, and installation of temporary stream gages in Upper Novato Creek. Optional Task 5 would require additional funding of \$5,836 if authorized.

Task 2 – Stream Surveys

The September 11, 2016 proposal included one full day of stream surveys by 2 biologists and one half-day stream survey by one biologist. However, following discussions with NMFS and NMWD, it was decided an additional full-day survey would be conducted to look for stream gaging areas and determine if habitat had changed from the previous half-day survey. This habitat assessment was completed in November 2016, and additional spot checks of Upper Novato Creek were also made to evaluate stream flow conditions prior to the survey.

Per discussions with NMWD on March 21, 2017, ICF will identify appropriate locations for future stream gage installations. This will be completed during the upcoming spring 2017 habitat survey, and will require additional field time (a half-day for 2 biologists) as well as data management and mapping efforts. Total additional funding requested for Task 2 is \$3,960.

Task 3 – Reporting of Results

A single Draft Technical Memorandum describing available information, the survey methodology, and survey results was scoped in the original scope of work. This Draft Technical Memorandum evolved through early discussions with NMWD and NMFS into a more thorough memo than anticipated in the scope with the inclusion of maps and georeferenced photographs and notes as well as being tied into the survey in 2015.

Additionally, two memos will be produced by the ICF team: one describing results of the November 2016 survey (already completed), and a second draft incorporating the results of the upcoming spring 2017 habitat mapping survey and discussion of future stream gage installation locations; however, only one memo was anticipated in the

original scope. The additional cost to produce this second memo is captured in our cost estimate. Total additional funding requested for Task 3 is \$2,260.

Task 4 – Project Management

ICF will continue to coordinate internal project management processes of schedule and budget control; however, this was originally scoped only through February 2017 and for fewer deliverables. Additional project management will be required to manage the remainder of the project as it extends through the spring surveys and development of results including meetings, coordination, contract management, and invoicing. The estimate for these hours is captured in the additional funding request of \$2,520.

Optional Task 5 - Assistance with Stream Gaging

Per discussion with NMWD on March 21, 2017, NMWD may be interested in having ICF assist NMWD with the design, siting, and installation of temporary stream gages (pressure transducers) in Upper Novato Creek. This optional scope and cost estimate is provided should the Board choose to move forward on this monitoring element.

Data collected from the stream gaging would provide information on the quantity and duration of stream flow in the upper and lower reaches of the creek above Stafford Lake. Stream flow measurements will need to be taken at multiple discharge levels in order to develop a rating curve that allows for streamflow to be calculated from the stage data. The scope for this task includes coordination with NMWD to determine the appropriate equipment for purchase and assistance with their set up. One biologist would accompany NMWD staff in the field to install the pressure transducers and assist with identification of flow measurement sites. It is assumed that NMWD would conduct the subsequent stream flow measurements necessary for development of the rating curve. After installation, data would be downloaded periodically by NMWD staff. It is assumed that ICF would provide monthly assistance and training with equipment and data management software (2 hours per month, for 4 months). Time for senior technical advisor assistance is included in this estimate. Additional funding requested for this task is \$5,700.

Schedule

The schedule for stream surveys and development of the Draft and Final Survey Report from ICF's original scope of work remains the same. These surveys are anticipated to be performed in the spring of 2017. ICF is requesting an extension of the contract through December 31, 2017 to accommodate any further delays to the survey or technical memorandum development schedule.

Cost Estimate

The attached spreadsheet shows our estimated additional cost for the above scope by task and with additional direct reimbursable expenses.

This additional funding requested for Tasks 2 through 4 would increase the funding available to ICF from \$20,803 to \$29,593. ICF will not exceed a total project cost of \$29,593 without prior written authorization by NMWD.

If NMWD elects to authorize the Optional Task 5, funding available to ICF will increase from \$29,679 to \$35,429. ICF will not perform any work described under Optional Task 5 without written authorization by NMWD. In the event Optional Task 5 is authorized, ICF will not exceed a total project cost of \$35,429 without prior written authorization by NMWD. ICF proposes to invoice costs monthly, on a time and materials basis.

North Marin Water District
March 22, 2017
Page 3

ICF shall provide services, as outline above, under the terms and conditions of its existing contract number 1.4056.00 with North Marin Water District dated October 14, 2016. If you have any questions or need additional information, please call Project Director Jean Baldrige at (925) 899-8112.

Sincerely,

A handwritten signature in cursive script that reads "Trina L. Prince".


Trina L. Prince
Contracts Administrator
Enclosure/Attachment:
September 11, 2016 Proposal
Additional Cost Estimate

Table 1. Additional Funding Request Cost Estimate for North Marin Water District - Novato Creek

Task	Employee Name	Consulting Staff			Subcontractor		Production Staff			Labor Total	Direct Expenses	Total Price
		Baldrige J	Horwath S		DeGabriele Thomas							
	Project Role	Project Director	Biologist		HDR							
	Labor Classification	Sr Proj Dir	Sr Consult I	Subtotal	Consultant	Subtotal	Editor	Invoicing	Subtotal			
Task 1 - Review of Available Information and Survey Planning				\$0		\$0			\$0	\$0		
Task 2 - Stream Survey (includes travel)			6	\$810	18	\$3,150			\$0	\$3,960		
Task 3 - Additional Technical Memo and Additional Effort for Scoped Memo		2	6	\$1,290	5	\$875	1		\$95	\$2,260		
Task 4 - Project Management for Additional Time		6	4	\$1,980	2	\$350		2	\$190	\$2,520		
Optional Task 5 - Assistance with stream gaging		4	4	\$1,500	24	\$4,200			\$0	\$5,700		
Total hours		12	20		49		1	2				
ICF E&P 2016 Billing Rates		\$240	\$135		\$175		\$95	\$95				
Subtotals (without Optional Task 5)		\$1,920	\$2,160	\$4,080	\$4,375	\$4,375	\$95	\$190	\$285	\$8,740		
Subtotals (with Optional Task 5)		\$2,880	\$2,700	\$5,580	\$8,575	\$8,575	\$95	\$190	\$285	\$14,440		
Direct Expenses												
523.05 Travel, Auto, incl. Mileage at current IRS rate (.535/mile)	(Optional Task 5 - field site visit from Sacramento to Stafford Lake roundtrip = 160 miles)										\$86	
529.00 Other Reimbursable Expenses	Task 2 - stream velocity meter rental - 1 day										\$50	
529.00 Other Reimbursable Expenses	(Optional Task 5 - stream velocity meter rental - 1 day)										\$50	
Direct expense subtotal (without Optional Task 5)											\$50	
Direct expense subtotal (with Optional Task 5)											\$186	
Total price (without Optional Task 5)												\$8,790
Total price (with Optional Task 5)												\$14,626

11

MEMORANDUM

To: Board of Directors
From: Chris DeGabriele, General Manager 
Subj: Support letter for AB 968 and AB 1654
L:\gm\bod misc 2017\memo ab 968 and 1654.docx

March 31, 2017

RECOMMENDED ACTION: Authorize General Manager to execute support letter re: AB 968 and AB 1654.

FINANCIAL IMPACT: None at this time

On May 9, 2016, Governor Jerry Brown issued Executive Order B-37-16, which was the most recent of his executive orders pertaining to the 2013-15 California drought. This Executive Order, entitled "Making Water Conservation a California Way of Life," included a range of actions directed to State agencies to address various water management topics. One of these directives required the Department of Water Resources (DWR) to work with the State Water Resources Control Board (SWRCB) to develop new water use targets that build on existing state law requirements that the state achieve a 20% reduction in urban water use by 2020 (SB x7-7 of 2009.) The Governor specified that these water use targets would be customized to the unique conditions of each water agency, shall generate more statewide water conservation than existing requirements and shall be based on strengthened standards for indoor use, outdoor irrigation, commercial, industrial and institutional water use, and water lost through leaks.

Another directive required DWR to update requirements for urban water shortage contingency plans, to include adequate actions to respond to droughts lasting at least five years, as well as more frequent and severe periods of drought. Urban water supply agencies are currently required to prepare and submit plans to address three year droughts to DWR every five years, as part of Urban Water Management Plans.

DWR, the SWRCB and their sister agencies (called the "EO agencies") conducted a stakeholder advisory group process last fall, which culminated in the release of a draft report on November 30, 2016, entitled "Making Water Conservation a California Way of Life: Implementing Executive Order B-37-16." This report provides some details of the proposed legislative mechanism(s) to implement the Governor's directives. To date, no legislation has been introduced by the Administration, although there are some spot bills from various authors.

In response to the draft report, 114 water supply agencies throughout the state (*including NMWD*) submitted a joint comment letter on December 19, 2016. This letter laid out a number of points of agreement and disagreement with the State's draft proposal.

Based on this letter, draft legislative language was prepared and reviewed by a subcommittee of the State Legislative Committee of the Association of California Water Agencies (ACWA.) As of March 24, ACWA's full State Legislative Committee approved support for this language to become two water supplier-sponsored bills; one relating to water shortage contingency plans and the other to updated standards for water use efficiency.

These bills have now been introduced by Assemblywoman Blanca Rubio from the San Gabriel Valley, who is a member of the Assembly Water Parks and Wildlife Committee. The bills are AB 1654, which relates to water use efficiency standards and AB 968, which relates to water shortage contingency planning.

Attached is a fact sheet that describes these bills (Attachment 1) and copies of AB 1654 and AB 968 (Attachments 2 & 3). The draft letter of support is included as Attachment 4.

RECOMMENDATION:

Authorize General Manager to execute support letter re: AB 968 and AB 1654.

**Local Water Agencies' Proposal for Long-Term Drought Preparation
and Water Use Efficiency Improvements**

Background

In January 2014, Governor Brown proclaimed a State of Emergency due to historic dry conditions, and subsequently issued three Executive Orders under the Statewide Drought Emergency in April 2014, April 2015, and May 2016. Under Executive Order B-37-16 ("EO"), issued in May 2016, Governor Brown directed five state agencies to develop a framework to implement various elements of the EO. In part, the EO included direction to the Department of Water Resources to work with the State Water Resources Control Board to develop, by January 10, 2017, new water use targets as part of a permanent framework that builds on existing requirements established by SB x7-7 (2009) to reduce urban water use by 20 percent by 2020, as well as additional water shortage contingency plan requirements under the Urban Water Management Planning Act.

Implementation of the final Administration framework (which, as of March 22, 2017, has not been released) will require the Legislature to act to create new authorities for State Agencies as well as new requirements for local water agencies under State law. The positions described by 116 California water suppliers and association signatories in a December 19, 2016 comment letter on the Water Use Target Setting and Urban Water Management Plan elements of the framework are outlined below. While the water supplier comment letter expressed support for many of the provisions proposed by the State, there were several important areas of disagreement.

Water suppliers from throughout the state are uniting around a comprehensive approach to long-term drought preparation and water use efficiency improvements that would:

- 1. Enhance drought planning, preparation, and reporting.***
- 2. Ensure a balanced approach between the development of resilient sources of supply and continued improvements in water use efficiency.***
- 3. Maintain the Legislature's control over long-term water use target setting.***

Long-Term Water Use Efficiency Target Setting

Preserve the Legislature's Authority – The Legislature must retain its control and oversight over water use target setting. Any revisions of standards or performance measures beyond the initially adopted standards must be approved by the Legislature, not implemented through ongoing regulatory authority.

Incorporate Multiple Compliance Methods for Water Use Targets – SB x7-7 (2009) established four methods that water suppliers can use to determine compliance with water use efficiency requirements. The draft Framework's proposal to impose a single method for target setting does not account for the diversity of water supply conditions and uses across the State. Additional compliance methods that are based on the proven alternatives in SB x7-7 should be maintained, including the regional compliance option.

No Impact on Water Rights – Water Code section 1011, which allows water right holders to use or transfer conserved water, must continue to apply. The new legislation should not adversely impact water supply contracts or water rights.

Enhance and Incentivize Sustainable Water Management – As described in the California Water Action Plan, both water use efficiency improvements and development of additional resilient water supplies will be required to sustainably manage California's water. New laws or regulations must not result in stranded water resource assets nor discourage continued regional or local investments in these critical new water supplies.

Maintain Existing Enforcement Measures – The current sanction for failure to meet efficiency targets—ineligibility for State water grant funds—should be maintained, but not expanded.

Ensure that Any Landscape Area Data Used in Target Setting is Accurate – Consistent with the EO's call for a water use target based in part on landscape area, the State should provide validated land use data of the irrigable area at the parcel level to each water supplier in a timely manner, and defer to water suppliers that choose to utilize their own validated data sets if a supplier opts to use the landscape based compliance method. Compliance deadlines must be extended if the State fails to meet its commitment to provide necessary land use data.

Incorporate Proven Efficiency Standards into Water Use Targets – Proven efficiency standards, such as the 55 gallons per capita per day standard for indoor residential use and the appropriate Model Water Efficient Landscape Ordinance (MWELO) for irrigable areas, should be incorporated into one of the compliance options. A stakeholder consultation process should be used to develop performance measures for commercial, industrial and institutional uses, and to develop variances for unique circumstances that cannot be fully addressed through a standardized methodology.

Account for Recycled Water – Consistent with existing law, recycled water should be excluded from calculations of water use targets and corresponding efficiency standards, as it is already a highly regulated and efficient beneficial reuse of water.

Urban Water Management Planning and Water Shortage Contingency Analyses

Enhance Existing UWMP Plan Requirements – Urban Water Management Plans should include a Water Shortage Contingency Analysis that utilizes a five-year drought planning sequence, and include a communications strategy, specific compliance and exemption procedures, monitoring and reporting protocols, and a regular review process.

Provide the State with Annual Water Supply and Demand Forecast – Water suppliers should provide State agencies with an annual supply and demand assessment to facilitate better understanding of regional hydrology and local supply conditions throughout the State. This annual assessment should include any projected shortage and actions to be taken to reduce demand or augment supply.

Provide Monthly Reporting to the State When a Shortage Occurs – Water suppliers that implement a water shortage contingency stage should report water use and demand reduction actions monthly.

Rely on Local Water Supplier Planning and Preparation for Drought – Water supplies that are documented to be available to a water supplier during drought conditions shall not be subject to state-mandated reductions in use. Any actions to conserve water in response to a shortage shall be at the discretion of a local water supplier.

Proposed Long-Term Water Use Efficiency Legislation
(Deletions from existing law in bold strikeout, insertions in bold italics)

DIVISION 6. CONSERVATION, DEVELOPMENT, AND UTILIZATION OF STATE

WATER RESOURCES [10000 - 12999]

(Heading of Division 6 amended by Stats. 1957, Ch. 1932.)

PART 2.55. SUSTAINABLE WATER USE AND DEMAND REDUCTION [10608 - 10608.64]

(Part 2.55 added by Stats. 2009, 7th Ex. Sess., Ch. 4, Sec. 1.)

CHAPTER 1. General Declarations and Policy [10608 - 10608.8]

(Chapter 1 added by Stats. 2009, 7th Ex. Sess., Ch. 4, Sec. 1.)

10608.

The Legislature finds and declares all of the following:

- (a) Water is a public resource that the California Constitution protects against waste and unreasonable use.
- (b) Growing population, climate change, and the need to protect and grow California's economy while protecting and restoring our fish and wildlife habitats make it essential that the state manage its water resources as efficiently as possible.
- (c) Diverse regional water supply portfolios will increase water supply reliability and reduce dependence on the Delta.
- (d) Reduced water use through *long-term water use efficiency and* conservation provides significant energy and environmental benefits, and can help protect water quality, improve streamflows, and reduce greenhouse gas emissions.
- (e) The success of state and local water *use efficiency* ~~conservation~~ programs ~~to increase efficiency of water use~~ is best determined on the basis of measurable outcomes related to water use or efficiency.
- (f) Strengthening local and regional drought resilience is essential to increasing water supply reliability and the sustainable management of the state's water resources.*
- (fg)* Improvements in technology, *infrastructure*, and management practices offer the potential for increasing water efficiency in California over time, providing an essential water management tool to meet the need for water for urban, agricultural, and environmental uses.

~~(gh)~~ The Governor has called for ~~a 20 percent per capita reduction in urban water use statewide by 2020~~ *implementation of a comprehensive California Water Action Plan.*

~~(hi)~~ The factors used to formulate *long-term* water use efficiency targets can vary significantly from location to location based on factors including *climate weather*, patterns of urban and suburban development, *water supplies*, and past efforts to enhance water use efficiency. *It is necessary, therefore, to plan for and implement water use efficiency measures at the regional and local level to reflect and best meet the water supply needs of each community and achieve effective water planning and management.*

~~(ij)~~ Per capita water use is ~~a valid one~~ *one* measure of ~~a an urban~~ *an urban* water ~~provider's supplier's~~ *provider's* efforts to ~~reduce urban water use~~ *improve water use efficiency* within its service area. However, per capita water use is less useful for measuring relative water use efficiency between different water providers. Differences in *climate, weather*, historical patterns of urban and suburban development, and density of housing in a particular location need to be considered when assessing per capita water use as a measure of efficiency.

10608.4.

It is the intent of the Legislature, by the enactment of this part, to do all of the following:

(a) Require all water suppliers to ~~increase the efficiency of~~ *promote the efficient* use of this essential resource.

(b) Establish a *long-term* framework ~~to meet the state targets~~ for urban water *use efficiency*. ~~conservation identified in this part and called for by the Governor.~~

~~(c) Measure increased efficiency of urban water use on a per capita basis.~~

~~(d) Establish a method or methods for urban retail water suppliers to determine targets for achieving increased water use efficiency by the year 2020, in accordance with the Governor's goal of a 20-percent reduction.~~

(ec) Establish consistent water use efficiency planning and implementation standards for urban water suppliers and agricultural water suppliers.

(fd) Promote urban water ~~conservation use efficiency standards~~ that ~~is are~~ consistent with ~~the California Urban Water Conservation Council's adopted best management practices and~~ the requirements for demand management in Section 10631.

(ge) Establish standards that recognize and provide credit to water suppliers that made substantial capital investments in urban water *use efficiency conservation, sustainable drought resilient supplies, and emergency supplies* since the drought of the early 1990s.

(hf) Recognize and account for the investment of urban retail water suppliers in providing recycled water for *both potable and non-potable* beneficial uses, *and the need for greater investment in water recycling and other sustainable drought-resilient supplies.*

(g) Recognize that water recycling is an efficient use of water and the application of recycled water in landscape irrigation is extensively regulated, which ensures its efficient use.

(ih) Require implementation of specified efficient water management practices for agricultural water suppliers.

(ji) Support the economic productivity of California’s agricultural, commercial, and industrial sectors.

(kj) Advance regional water resources management.

(k) Empower water suppliers to utilize local and regional water use efficiency measures that reflect their unique water supply and demand circumstances that best meet the needs of their individual communities.

(l) Ensure that whatever legal access to water a water supplier possessed prior to the enactment of this part, notwithstanding adherence to the requirements imposed by it, that the supplier shall retain that same legal access to its water supplies as provided under law to enhance local and regional water supply reliability and drought resilience as well as to voluntarily contribute to water supply reliability in other regions of the State as appropriate under law.

10608.8.

(a)(1) Nothing in this Part alters existing water rights law, or authorizes or enhances the authority of the State Water Resources Control Board to alter any existing water rights beyond its powers to do so prior to enactment.

(2) Water use efficiency measures adopted and implemented pursuant to this part or Part 2.8 (commencing with Section 10800) are water conservation measures subject to the protections provided under Section 1011.

(23) Because an urban agency is not required to meet its urban water use target until 2020 pursuant to subdivision (b) of Section 10608.24, an urban retail water supplier’s failure to meet those targets shall not establish a violation of law for purposes of any state administrative or judicial proceeding prior to January 1, 2021. Nothing in this paragraph limits the use of data reported to the department or the board in litigation or an administrative proceeding. This paragraph shall become inoperative on January 1, 2021.

(4) Because an urban agency is not required to meet its urban water efficiency target until 2025 pursuant to subdivision (c) of Section 10608.25, an urban retail water supplier’s failure to meet that target shall not establish a violation of law for purposes of any state administrative or judicial proceeding prior to January 1, 2026. Nothing in this paragraph limits the use of data reported to the department or the board in litigation or an administrative proceeding.

(35) To the extent feasible, the department and the board shall provide for the use of water conservation reports required under this part to meet the requirements of Section 1011 for water conservation reporting.

(b) This part does not limit or otherwise affect the application of Chapter 3.5 (commencing with Section 11340), Chapter 4 (commencing with Section 11370), Chapter 4.5 (commencing with Section 11400), and Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the Government Code.

(c) This part does not require a reduction in the total water used in the agricultural or urban sectors, because other factors, including, but not limited to, changes in agricultural economics or population growth may have greater effects on water use. This part does not limit the economic productivity of California's agricultural, commercial, or industrial sectors.

(d) The requirements of this part do not apply to an agricultural water supplier that is a party to the Quantification Settlement Agreement, as defined in subdivision (a) of Section 1 of Chapter 617 of the Statutes of 2002, during the period within which the Quantification Settlement Agreement remains in effect. After the expiration of the Quantification Settlement Agreement, to the extent conservation water projects implemented as part of the Quantification Settlement Agreement remain in effect, the conserved water created as part of those projects shall be credited against the obligations of the agricultural water supplier pursuant to this part.

CHAPTER 2. Definitions [10608.12]

(Chapter 2 added by Stats. 2009, 7th Ex. Sess., Ch. 4, Sec. 1.)

10608.12.

Unless the context otherwise requires, the following definitions govern the construction of this part:

(a) "Agricultural water supplier" means a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding recycled water. "Agricultural water supplier" includes a supplier or contractor for water, regardless of the basis of right, that distributes or sells water for ultimate resale to customers. "Agricultural water supplier" does not include the department.

(b) "Base daily per capita water use" means any of the following:

(1) The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

(2) For an urban retail water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, the urban retail water supplier may extend the calculation described in paragraph (1) up to an additional five

years to a maximum of a continuous 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

(3) For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.

(c) "Baseline commercial, industrial, and institutional water use" means an urban retail water supplier's base daily per capita water use for commercial, industrial, and institutional users.

(d) "Commercial water user" means a water user that provides or distributes a product or service.

(e) "Compliance daily per capita water use" means the gross water use during the final year of the reporting period, reported in gallons per capita per day.

(f) "Disadvantaged community" means a community with an annual median household income that is less than 80 percent of the statewide annual median household income.

(g) "Gross water use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, *as the distribution system is so defined by the urban retail water supplier*, excluding all of the following:

(1) Recycled water, *as defined in section 10608.12(n)*, that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, *or recycled water used to augment water supplies, including, but not limited to, recycled water used to augment a surface water reservoir or recycled water percolated or injected into a groundwater basin for the purposes of augmenting the common groundwater supply and then extracted by an urban retail water supplier.*

(2) The net volume of water that the urban retail water supplier places into long-term storage.

(3) The volume of water the urban retail water supplier conveys for use by another urban water supplier.

(4) The volume of water *the urban retail water supplier delivered delivers for commercial or non-commercial agricultural purposes, for agricultural use*, except as otherwise provided in subdivision (f) of Section 10608.24.

(h) "Industrial water user" means a water user that is primarily a manufacturer or processor of materials as defined by the North American Industry Classification System code sectors 31 to 33, inclusive, or an entity that is a water user primarily engaged in research and development.

(i) “Institutional water user” means a water user dedicated to public service. This type of user includes, among other users, higher education institutions, schools, courts, churches, hospitals, government facilities, and nonprofit research institutions.

(j) “Interim urban water use target” means the midpoint between the urban retail water supplier’s base daily per capita water use and the urban retail water supplier’s urban water use target for 2020.

(k) “Locally cost effective” means that the present value of the local benefits of implementing an agricultural efficiency water management practice is greater than or equal to the present value of the local cost of implementing that measure.

(l) “Performance measures” means best management practices that improve the efficiency of water use within the commercial, industrial and institutional sector, including the use of new technologies and improvements in water management as identified in the report developed pursuant to section 10608.45(b).

(m) “Process water” means water used for producing a product or product content or water used for research and development, including, but not limited to, continuous manufacturing processes, water used for testing and maintaining equipment used in producing a product or product content, and water used in combined heat and power facilities used in producing a product or product content. Process water does not mean incidental water uses not related to the production of a product or product content, including, but not limited to, water used for restrooms, landscaping, air conditioning, heating, kitchens, and laundry.

(nn) “Recycled water” means recycled water, as defined in subdivision (n) of Section 13050, that is used to offset potable demand, including, but not limited to, recycled water supplied for non-potable reuse, recycled water supplied for the uses identified and defined in Section 13561, or recycled water supplied for direct use and indirect potable reuse, that meets the following requirements, where applicable:

(1) For ***reservoir augmentation and*** groundwater recharge, including recharge through spreading basins ***or injection***, water supplies that ***meet are*** all of the following ***elements***:

(A) ***Metered*** ***The use of the water supply is metered.***

(B) Developed through planned investment by the urban water supplier, ***a water replenishment district***, or a wastewater treatment agency.

(C) Treated to a minimum tertiary level.

(D) Delivered within the service area of an urban retail water supplier or its urban wholesale water supplier that helps an urban retail water supplier meet its urban water use target.

~~(2) For reservoir augmentation, water supplies that meet the criteria of paragraph (1) and are conveyed through a distribution system constructed specifically for recycled water.~~

(no) “Regional water resources management” means sources of supply resulting from watershed-based planning for sustainable local water reliability or any of the following alternative sources of water:

- (1) The capture and reuse of stormwater or rainwater.
- (2) The use of recycled water.
- (3) The desalination of brackish groundwater *or seawater*.
- (4) The conjunctive use of surface water and groundwater in a manner that is consistent with the safe yield of the groundwater basin.

(op) “Reporting period” means the years for which an urban retail water supplier reports compliance with the urban water use targets.

(pq) “Urban retail water supplier” means a water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet of potable water annually at retail for municipal purposes.

(qr) “Urban water use target” means the urban retail water supplier’s targeted future daily per capita water use.

(rs) “Urban wholesale water supplier,” means a water supplier, either publicly or privately owned, that provides more than 3,000 acre-feet of water annually at wholesale for potable municipal purposes.

(t) “Water efficiency target” means the target established by an urban retail water supplier pursuant to section 10608.25.

(u) “Water loss” means the difference between the potable distribution system input volume and authorized consumption as consistent with the American Water Works Association M36 Water Audits and Loss Control Programs Manual and subsequent amendments.

CHAPTER 3. Urban Retail Water Suppliers [10608.16 - 10608.44]

(Chapter 3 added by Stats. 2009, 7th Ex. Sess., Ch. 4, Sec. 1.)

10608.17.

After December 31, 2020, urban retail water suppliers shall achieve water use efficiency as provided for in this chapter.

10608.20.

(a) (1) Each urban retail water supplier shall develop urban water use targets and an interim urban water use target by July 1, 2011. Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis, as provided in subdivision (a) of Section 10608.28, and may determine the targets on a fiscal year or calendar year basis.

(2) It is the intent of the Legislature that the urban water use targets described in paragraph (1) cumulatively result in a 20-percent reduction from the baseline daily per capita water use by December 31, 2020.

(b) An urban retail water supplier shall adopt one of the following methods for determining its **2020** urban water use target pursuant to subdivision (a):

(1) Eighty percent of the urban retail water supplier's ~~baseline~~ per capita daily water use.

(2) The per capita daily water use that is estimated using the sum of the following performance standards:

(A) For indoor residential water use, 55 gallons per capita daily water use as a provisional standard. Upon completion of the department's 2016 report to the Legislature pursuant to Section 10608.42, this standard may be adjusted by the Legislature by statute.

(B) For landscape irrigated through dedicated or residential meters or connections, water efficiency equivalent to the standards of the Model Water Efficient Landscape Ordinance set forth in Chapter 2.7 (commencing with Section 490) of Division 2 of Title 23 of the California Code of Regulations, as in effect the later of the year of the landscape's installation or 1992. An urban retail water supplier using the approach specified in this subparagraph shall use satellite imagery, site visits, or other best available technology to develop an accurate estimate of landscaped areas.

(C) For commercial, industrial, and institutional uses, a 10-percent reduction in water use from the baseline commercial, industrial, and institutional water use by 2020.

(3) Ninety-five percent of the applicable state hydrologic region target, as set forth in the state's draft 20x2020 Water Conservation Plan (dated April 30, 2009). If the service area of an urban water supplier includes more than one hydrologic region, the supplier shall apportion its service area to each region based on population or area.

(4) A method that shall be identified and developed by the department, through a public process, and reported to the Legislature no later than December 31, 2010. The method developed by the department shall identify per capita targets that cumulatively result in a statewide 20-percent reduction in urban daily per capita water use by December 31, 2020.

In developing urban daily per capita **2020** water use targets, the department shall do all of the following:

- (A) Consider climatic differences within the state.
- (B) Consider population density differences within the state.
- (C) Provide flexibility to communities and regions in meeting the targets.
- (D) Consider different levels of per capita water use according to plant water needs in different regions.
- (E) Consider different levels of commercial, industrial, and institutional water use in different regions of the state.
- (F) Avoid placing an undue hardship on communities that have implemented conservation measures or taken actions to keep per capita water use low.

(c) If the department adopts a regulation pursuant to paragraph (4) of subdivision (b) that results in a requirement that an urban retail water supplier achieve a reduction in daily per capita water use that is greater than 20 percent by December 31, 2020, an urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may limit its urban water use target to a reduction of not more than 20 percent by December 31, 2020, by adopting the method described in paragraph (1) of subdivision (b).

(d) The department shall update the method described in paragraph (4) of subdivision (b) and report to the Legislature by December 31, 2014. An urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may adopt a new urban daily per capita water use target pursuant to this updated method.

(e) An urban retail water supplier shall include in its urban water management plan due in 2010 pursuant to Part 2.6 (commencing with Section 10610) the baseline daily per capita water use, its **2020** urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.

(f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using **a combination of** federal, state, and local population reports and projections.

(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).

(h) (1) The department, through a public process, and in consultation with the California Urban Water Conservation Council, shall develop technical methodologies and criteria for the consistent implementation of this part, including, but not limited to, both of the following:

(A) Methodologies for calculating base daily per capita water use, baseline commercial, industrial, and institutional water use, compliance daily per capita water use, gross water use, service area population, indoor residential water use, and landscaped area water use.

(B) Criteria for adjustments pursuant to subdivisions (d) and (e) of Section 10608.24.

(2) The department shall post the methodologies and criteria developed pursuant to this subdivision on its Internet Web site, and make written copies available, by October 1, 2010. An urban retail water supplier shall use the methods developed by the department in compliance with this part.

(i) (1) The department shall adopt regulations for implementation of the provisions relating to process water in accordance with subdivision (l) of Section 10608.12, subdivision (e) of Section 10608.24, and subdivision (d) of Section 10608.26.

(2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.

(j) (1) An urban retail water supplier is granted an extension to July 1, 2011, for adoption of an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) due in 2010 to allow the use of technical methodologies developed by the department pursuant to paragraph (4) of subdivision (b) and subdivision (h). An urban retail water supplier that adopts an urban water management plan due in 2010 that does not use the methodologies developed by the department pursuant to subdivision (h) shall amend the plan by July 1, 2011, to comply with this part.

(2) An urban wholesale water supplier whose urban water management plan prepared pursuant to Part 2.6 (commencing with Section 10610) was due and not submitted in 2010 is granted an extension to July 1, 2011, to permit coordination between an urban wholesale water supplier and urban retail water suppliers.

10608.24.

(a) Each urban retail water supplier shall meet its interim urban water use target by December 31, 2015.

(b) Each urban retail water supplier shall meet its **2020** urban water use target by December 31, 2020.

(c) An urban retail water supplier's compliance daily per capita water use shall be the measure of progress toward achievement of its **2020** urban water use target.

(d) (1) When determining compliance daily per capita water use, an urban retail water supplier may consider the following factors:

(A) Differences in evapotranspiration and rainfall in the baseline period compared to the compliance reporting period.

(B) Substantial changes to commercial or industrial water use resulting from increased business output and economic development that have occurred during the reporting period.

(C) Substantial changes to institutional water use resulting from fire suppression services or other extraordinary events, or from new or expanded operations, that have occurred during the reporting period.

(2) If the urban retail water supplier elects to adjust its estimate of compliance daily per capita water use due to one or more of the factors described in paragraph (1), it shall provide the basis for, and data supporting, the adjustment in the report required by Section 10608.40.

(e) When developing the **2020** urban water use target pursuant to Section 10608.20, an urban retail water supplier that has a substantial percentage of industrial water use in its service area may exclude process water from the calculation of gross water use to avoid a disproportionate burden on another customer sector.

(f) (1) An urban retail water supplier that includes agricultural water use in an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) may include the agricultural water use in determining gross water use. An urban retail water supplier that includes agricultural water use in determining gross water use and develops its urban water use target pursuant to paragraph (2) of subdivision (b) of Section 10608.20 shall use a water efficient standard for agricultural irrigation of 100 percent of reference evapotranspiration multiplied by the crop coefficient for irrigated acres.

(2) An urban retail water supplier, that is also an agricultural water supplier, is not subject to the requirements of Chapter 4 (commencing with Section 10608.48), if the agricultural water use is incorporated into its urban water use target pursuant to paragraph (1).

10608.25.

(a) Each urban retail water supplier shall develop a water efficiency target for 2025 in its 2020 urban water management plan required to be submitted by July 1, 2021, pursuant to Section 10621. An urban retail water supplier may determine the water efficiency target on a fiscal year or calendar year basis. An urban retail water supplier may adjust and update the water efficiency target, as appropriate, based upon population growth, changes in irrigable landscape acreage, and other changes that affect water use when the supplier reports its compliance in achieving the water efficiency targets and its implementation of the identified performance measures in its 2025 urban water management plan, required to be submitted by July 1, 2026, pursuant to Section 10621.

(1) An urban retail water supplier that adopts the method described in subdivision (b)(2) for determining its water efficiency target shall identify proposed performance measures as appropriate for efficient water use by its commercial, industrial and institutional customers, consistent with the recommendations identified in the report required under section 10608.45(b), in its 2020 urban water management plan.

(b) An urban retail water supplier shall adopt one of the following methods for determining its water efficiency target pursuant to subdivision (a):

(1) Seventy-five percent of the urban retail water supplier's base daily per capita water use calculated using the methodology developed by the department pursuant to section 10608.20.

(2) Establishment of a retail-level water efficiency target that is the sum of the following:

(A) The residential population multiplied by fifty-five gallons of water use per person per day.

(B) For irrigable landscape served by a residential or dedicated irrigation meter, an estimate of total irrigation demands within the supplier's service area, based on the following factors:

(i) Evapotranspiration adjustment factor of 1.0 for parcels developed before 1992 and for special landscape areas.

(ii) Evapotranspiration adjustment factor of 0.8 for parcels developed between January 1, 1992 and December 31, 2009;

(iii) Evapotranspiration adjustment factor of 0.7 for parcels developed between January 1, 2010 and December 31, 2015;

(iv) Evapotranspiration adjustment factor of 0.55 for residential parcels developed after January 1, 2016;

(v) Evapotranspiration adjustment factor of 0.45 for commercial parcels developed after January 1, 2016;

(vi) Parcels in commercial or non-commercial agricultural use may be included by the urban retail water supplier, at its sole discretion, using an evapotranspiration factor of 1.0 in the calculation of the water use efficiency target or in the calculation for compliance of the target.

(C) A volume of water to account for the variances taken by the water supplier due to unique situations within their service area and developed under subsection (e).

(3) Ninety percent of the applicable hydrologic region target, as set forth in the State's 20x2020 water conservation plan, dated February 2010. If the service area of an urban retail water supplier includes more than one hydrologic region, the supplier shall apportion its service area to each region based on population or area.

(c) Each urban retail water supplier shall meet its adjusted 2025 water efficiency targets by December 31, 2025, unless the supplier reports to the department that economic or hydrologic conditions beyond the supplier's control rendered it impossible for the supplier to do so. Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis, as provided in subdivision (a) of Section 10608.28, and may determine the targets on a fiscal year or calendar year basis. An urban retail water supplier shall report on its compliance with this section in its 2025 urban water management plan required to be submitted by July 1, 2026, pursuant to Section 10621.

(d) An urban retail water supplier shall calculate its compliance with subsection (c) based on the method by which it set its water efficiency target. An urban retail water supplier shall base its adjusted water efficiency target and compliance with that adjusted target on the best available information concerning population, irrigable landscape acreage, and other factors that affect water use within its service area.

(1) An urban retail water supplier that determines its water efficiency target under subdivision (b)(1) shall calculate its compliance with subsection (c) by comparing the adjusted water efficiency target with the urban retail water supplier's compliance daily per capita water use.

(2) An urban retail water supplier that determines its water efficiency target under subdivision (b)(2) shall calculate its compliance with subsection (c) by comparing the water efficiency target with the total volume of gross water use measured through residential and dedicated irrigation meters during the final year of the reporting period.

(A) If an urban retail water supplier includes parcels in agricultural use in its water efficiency target pursuant to subsection (2)(B)(vi), the urban retail water supplier shall include water use for those parcels in its compliance calculation.

(B) An urban retail water supplier that determines its water efficiency target under subdivision (b)(2) shall include in its report on compliance with subsection (c) a report on its implementation of the performance measures for efficient commercial, industrial and institutional water use identified in its urban water management plan.

(3) An urban retail water supplier that determines its water efficiency target under

subdivision (b)(3) shall calculate its compliance with subsection (c) by comparing the adjusted water efficiency target with the urban retail water supplier's compliance daily per capita water use.

(4) Water use or loss caused by conditions of disaster or extreme peril to the safety of persons and property, including such conditions, whether natural or human-caused, as fire, flood, storm, drought, epidemic, riot, earthquake or other conditions, shall be excluded from compliance with the water efficiency target.

(5) The deadline for urban retail water suppliers to submit their plans under Section 10621(e) shall be extended if the department does not release the final database under section 10608.47 by July 1, 2019. That extension shall equal the length of time between July 1, 2019 and the department's release of that final database.

(6) Each urban retail water supplier shall have the discretion to achieve its water efficiency target under this Section, and to design and utilize any rate structure, in any manner otherwise consistent with that supplier's legal authority.

(7) Each urban retail water supplier shall have the discretion to measure progress towards achieving its water efficiency target under this Section by considering the factors described in Section 10608.24(d), (e) and (f).

(8) Notwithstanding the method used by an urban retail water supplier to calculate compliance with subsection (c), each urban retail water supplier shall address water loss within its service area pursuant to section 10608.34.

(e) The department, in consultation with the Urban Stakeholder Committee, shall develop standardized variance methodologies for livestock, swamp coolers, significant transient population increases, construction water for soil compaction and dust control, potable water used to supplement ponds and lakes to sustain wildlife, vegetation irrigated for fire protection, and landscapes irrigated with recycled water having high levels of total dissolved solids, or other water quality concerns. The department, in consultation with the Urban Stakeholder Committee, shall also develop standardized variance methodologies for other factors identified by the committee, and shall develop a process for agencies to submit supporting documentation for other variances that shall be included into the calculation of the urban retail supplier's water efficiency target as described under subsection (b)(2).

(f) The department, in conjunction with the Urban Stakeholder Committee, shall develop a methodology to calculate the irrigable area associated with special landscape areas by aerial imagery or date of parcel establishment so that the urban retail water supplier may develop its appropriate water efficiency target as described under subsection (b)(2).

(g) For purposes of this section, the term "special landscape area" means an area of the landscape dedicated solely to edible plants, recreational areas, areas irrigated with recycled water, or water features using recycled water designed within and have the same

evapotranspiration adjustment factor as contained in the Model Water Efficient Landscape Ordinance, adopted September 15, 2015 .

10608.45.

(a) By January 1, 2018, the department, in consultation with the board, shall convene a commercial, industrial and institutional water use efficiency task force consisting of urban retail water suppliers, urban wholesale water suppliers, academic experts, economic development interests, business community representatives, environmental organizations, commercial water users, industrial water users, and institutional water users. The urban retail water suppliers included on the task force shall include a broad spectrum of commercial, industrial, and institutional customers throughout the State, and include representation of combined retail water and wastewater agencies. The task force's overall objective shall be to recommend appropriate water efficiency measures for various segments of the commercial, industrial, and institutional water use sector.

(b) By December 31, 2019, the task force, in consultation with the department and the board, shall submit a report to the Legislature that shall recommend appropriate performance measures for commercial, industrial or institutional water use which shall rely, to the extent appropriate, on the 2013 report to the Legislature entitled CII Task Force Water Use Best Management Practices Report to The Legislature and supports the economic productivity of California's commercial, industrial, and institutional sectors. The report required by this subdivision shall include, among other content, the following:

(1) Appropriate commercial, industrial and institutional classifications that address significant uses of water and are consistent with the classifications and standards developed by the North American Industry Classification System; and

(2) Recommendations for appropriate thresholds by which urban water suppliers could require commercial, industrial, and institutional water users to participate in audits and the development of water management plans; and

(3) Evaluation of feasibility criteria and cost-effectiveness of separating mixed-use meters and equivalent technologies, and recommendations on when separating mixed-use meters should not be required.

(c) Using available funds, the department shall provide technical and financial assistance to the task force to enable the completion of the reports under this Section within the required time frame and assist water suppliers and water users to comply with any new requirements described therein.

10608.46

(a) The department shall reconvene its Urban Stakeholder Committee by April 1, 2018. The committee shall consist of a mix of small, medium and large urban retail water suppliers from throughout the state, including at least one representative from each hydrologic region. The committee shall also include academic experts, urban wholesale water suppliers, business

organizations, and environmental organizations, as well as representation of combined retail water and wastewater agencies.

(b) By July 1, 2019, the department shall consult with the committee to develop the variance methodologies required by section 10608.25(e).

(c) By July 1, 2019, the department shall consult with the committee to develop the methodology to calculate the irrigable area associated with a special landscape area as required by section 10608.25(f).

(d) By January 1, 2020 and every five years thereafter, the committee shall develop a report to provide information and recommendations to the department and the Legislature on new demand management measures, technologies, and approaches. The department shall review the committee report and include in the final report to the Legislature the department's recommendations and comments regarding the committee process and the committee's recommendations.

(e) By December 31, 2025, the committee, in consultation with the department and the board, shall submit a report to the Legislature that makes recommendations for potential adjustments to 2030 water efficiency targets and commercial, industrial and institutional performance measures, consistent with the report provided to the Legislature under section 10608.45(b), for implementation no sooner than 2030. If the committee recommends a change in the water efficiency targets or performance measures, the report shall:

(1) State the technical changes or scientific basis that justifies a change in the targets or performance measures.

(2) Evaluate potential unintended consequences created by the proposed changes which could negatively impact California's economy, wastewater infrastructure, or local investments in water infrastructure and supplies, including specific impacts to the amount of recycled water or desalinated water available within the state.

(f) Using available funds, the department shall provide technical and financial assistance to the committee to enable the completion of the reports under this Section within the required timeframe and assist water suppliers to comply with any new requirements described therein.

(g) The Legislature shall determine if changes to the efficiency targets is warranted based on the report submitted.

10608.47.

(a)(1) By July 1, 2019, the department shall provide to urban retail water suppliers, in electronic form, a database of validated aerial imagery and measured irrigable area for all residential and commercial, industrial and institutional areas within each water supplier's service area. The database shall correlate the relevant irrigable areas with assessor parcels within each water supplier's service area and shall state the year of parcel development. The database shall contain downloadable reference evapotranspiration data with representative

climate zones for all urban retail water suppliers. The database's aerial imagery data shall be suitable for determining the appropriate amount of irrigation for a variety of vegetation, including without limitation large trees and irrigable area under native tree canopy. The department shall update the database by December 31, 2025 and every five years thereafter.

(2) The department and all urban retail water suppliers shall maintain the confidentiality of the information in the department's database to the extent consistent with the Public Records Act (Gov. Code §§ 6250 et seq.).

(3) Prior to releasing the database under this subdivision, the department shall conduct a statistically valid review of the accuracy of the information in the database. In conducting this review, the department shall consult with a representative sample of urban retail water suppliers representing each of the state's hydrologic regions.

(4) An urban retail water supplier may use its own database of validated aerial imagery, measured irrigable area and date of parcel development for properties within its service areas for purposes of section 10608.25(b)(2)(B), if the water supplier certifies that it is of comparable or better quality than the relevant information included in the department's database.

Proposed Changes to the UWMP Act

(Deletions from existing law in bold strikeout, insertions in bold italics)

DIVISION 6. CONSERVATION, DEVELOPMENT, AND UTILIZATION OF STATE

WATER RESOURCES [10000 - 12999]

(Heading of Division 6 amended by Stats. 1957, Ch. 1932.)

PART 2.56.

10609.

- (a) *In addition to and separate from the urban water management plans required by Part 2.6, each urban retail water supplier shall report annually, by June 15, to the department the status of its water supplies for that year, and whether such supplies will be adequate to meet projected customer demand.*
- (1) *If an urban retail water supplier reports under this section that all available water supplies for the applicable water year will not be adequate to meet projected customer demand, then the supplier shall implement the appropriate responses as described in its water shortage contingency analysis. If demand is projected to exceed all available supply sources and mandatory water demand reduction measures are required, the annual report shall describe the water supply shortage stage and the measures that the supplier will take to reduce water demand consistent with its water shortage contingency analysis.*
- (2) *If an urban retail water supplier determines that it cannot meet demands with all available water supplies and is required to implement the mandatory demand reduction measures as described in its water shortage contingency analysis under subdivision (1), it shall do all of the following:*
- (a) *The urban retail water supplier shall continue to implement the mandatory demand reduction measures as described in its water shortage contingency analysis until hydrologic, water supply or other conditions have changed to the point that the supplier finds that it is able to meet projected customer demand over the next 12 months without continued implementation of the mandatory demand reduction measures.*
- (b) *During the period that the urban retail water supplier is implementing the mandatory demand reductions measures described in its water shortage contingency analysis, the supplier shall file a report with the department by the fifteenth day of each month describing on how the supplier is implementing its plan.*
- (3) *If supplies are adequate to meet projected customer demand, an urban retail water supplier may, at its sole discretion, declare any stage of its water shortage contingency*

analysis to balance supply and demand through the augmentation of supplies or to encourage water demand reduction as a precautionary measure. If an urban retail water supplier declares a stage of its water shortage contingency analysis under this subsection, it shall have no additional obligation to report to the department on the implementation of its plan.

- (b) Multiple urban retail water suppliers within the same hydrologic region may file a joint report with the department if those suppliers' water supplies are interrelated and if each supplier determines that a joint report most accurately reflects the condition of their respective water supplies. Regardless of whether a joint report is submitted, an urban retail water supplier may submit an individual report to the department.*
- (c) An urban wholesale water supplier shall provide its retail agencies with information on the status of the wholesaler's water supplies annually by the date determined under subsection 2 so that an urban retail water supplier reliant on the wholesale supply has sufficient data to comply with subsection (a).*
 - (1) To assist urban wholesale water suppliers in determining their water supply availability, urban retail water suppliers shall provide their urban wholesale water suppliers with information regarding their estimated annual demand for water from each wholesaler by the date determined under subsection 2.*
 - (2) Urban retail water suppliers and their wholesalers shall meet and determine the process and dates by which they will comply with the requirements of this subsection.*
- (d) An urban water supplier shall not be required to comply with any requirement in Part 2.6 for any action taken or report made pursuant to this section. Such actions and reports are not considered part of, amendments to, or changes to an urban water management plan.*
- (e) The department shall establish an electronic portal through which suppliers will provide the reports required by this section. The department shall provide the board with access to the report and data submitted through the portal.*

PART 2.6. URBAN WATER MANAGEMENT PLANNING [10610 - 10656]

(Part 2.6 added by Stats. 1983, Ch. 1009, Sec. 1.)

CHAPTER 2. Definitions [10611-10617]

(Chapter 2 added by Stats. 1983, Ch. 1009, Sec. 1.)

10613.5.

“Emergency supply” means a water supply identified in an urban water supplier’s Urban Water Management Plan that has been developed to increase an urban water supplier’s water supply reliability during times of shortage, including but not limited to unplanned service

disruptions, and is in addition to the supplies that the agency draws upon during non-shortage times to meet water demands within its service area.

CHAPTER 3. Urban Water Management Plans [10620 - 10645]

(Chapter 3 added by Stats. 1983, Ch. 1009, Sec. 1.)

ARTICLE 1. General Provisions [10620 - 10621]

(Article I added by Stats. 1983, Ch. 1009, Sec. 1.)

10621.

(a) Each urban water supplier shall update its plan at least once every five years on or before ***July 1 December 31***, in years ending in ***one and six five and zero***, ~~except as provided in subdivisions (d) and (e).~~

(b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days before the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.

(c) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).

~~(d) Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.~~

~~(e) Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.~~

ARTICLE 2. Contents of Plans [10630 - 10634]

(Article 2 added by Stats. 1983, Ch. 1009, Sec. 1.)

10631.

A plan shall be adopted in accordance with this chapter that shall do all of the following:

(a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.

(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a).

(1) If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:

(A1) A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.

(B2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For basins that a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.

(C3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(D4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(2) If an emergency supply is identified as an existing or planned source of water available to the supplier, the supplier shall describe how the supply has been established to increase water supply reliability during times of shortage and how the supply is in addition to the supplies that the agency draws upon during non-shortage times to meet water demands within its service area.

(c) (1) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:

(A) An average water year.

(B) A single-dry water year.

(C) ~~Multiple-dry water years~~ *Five consecutive dry years, consisting of a repeat of the five consecutive historic driest years that the supplier has experienced, unless the supplier finds that a shorter multiple-year dry period would more severely impact its water supplies, in which case the supplier shall use that shorter period.*

(2) For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.

(d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

(e) (1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:

(A) Single-family residential.

(B) Multifamily.

(C) Commercial.

(D) Industrial.

(E) Institutional and governmental.

(F) Landscape.

(G) Sales to other agencies.

(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.

(I) Agricultural.

(J) ~~Potable~~ distribution system water loss.

(2) The water use projections shall be in the same five-year increments described in subdivision (a).

(3) (A) ~~For the 2015 urban water management plan update, the distribution system water loss shall be quantified for the most recent 12-month period available. For all subsequent updates,~~ The *potable* distribution system water loss shall be quantified for each of the five years preceding the plan update.

(B) The *potable* distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.

(4) (A) If available and applicable to an urban water supplier, water use projections may display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.

(B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following: (i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections.

(ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.

(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following: (1) (A) For an urban retail water supplier, as defined in Section

10608.12, a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years. The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.(B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:

- (i) Water waste prevention ordinances.
- (ii) Metering.
- (iii) Conservation pricing.
- (iv) Public education and outreach.
- (v) Programs to assess and manage *potable* distribution system real loss.
- (vi) Water conservation program coordination and staffing support.
- (vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.(2) For an urban wholesale water supplier, as defined in Section 10608.12, a narrative description of the items in clauses (ii), (iv), (vi), and (vii) of subparagraph (B) of paragraph (1), and a narrative description of its distribution system asset management and wholesale supplier assistance programs.

(g) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use, as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

(h) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

~~(i) For purposes of this part, urban water suppliers that are members of the California Urban Water Conservation Council shall be deemed in compliance with the requirements of subdivision (f) by complying with all the provisions of the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated December 10, 2008, as it may be amended, and by submitting the annual reports required by Section 6.2 of that memorandum.~~

~~(i-j)~~ An urban water supplier that relies upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided

by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).

10631.7.

~~The department, in consultation with the California Urban Water Conservation Council, shall convene an independent technical panel to provide information and recommendations to the department and the Legislature on new demand management measures, technologies, and approaches. The panel shall consist of no more than seven members, who shall be selected by the department to reflect a balanced representation of experts. The panel shall have at least one, but no more than two, representatives from each of the following: retail water suppliers, environmental organizations, the business community, wholesale water suppliers, and academia. The panel shall be convened by January 1, 2009, and shall report to the Legislature no later than January 1, 2010, and every five years thereafter. The department shall review the panel report and include in the final report to the Legislature the department's recommendations and comments regarding the panel process and the panel's recommendations.~~

10632.

(a) The plan shall provide an urban water shortage contingency analysis that includes each of the following elements that are within the authority of the urban water supplier:

(1) ~~Stages~~ *Anticipated stages* of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions that ~~would trigger~~ *are applicable to* each stage.

(2) ~~An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.~~ *Communications strategies to inform customers, state agencies, elected officials and others whenever water supply shortage conditions require the implementation of the stages of action described in subdivision (1).*

(3) ~~Anticipated A~~actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.

(4) Additional, *anticipated* mandatory prohibitions against specific water use practices during water shortages, ~~including, but not limited to, prohibiting the use of potable water for street cleaning.~~

(5) ~~Consumption reduction methods in the most restrictive stages~~ *Anticipated actions to balance water supply and demand for each water supply shortage stage, including the use of emergency supplies, demand reduction methods, reoperation, or any combination thereof.* Each urban water supplier may use any type of consumption reduction, *reoperation approach, or supply augmentation* methods in its water shortage contingency analysis that would ~~reduce water use~~ *balance supply and demand*, are appropriate for its area, and have the ability to *successfully respond to each water supply shortage stage.* ~~achieve a water use reduction~~

~~consistent with up to a 50 percent reduction in water supply. If an urban water supplier has established an emergency supply, the supplier shall include in the description of actions to be taken when the emergency supply will be used to balance water supply and demand, and the quantity of water from the emergency supply that is planned to be used. An emergency supply designated for use during a water supply shortage shall be fully available for use by the supplier during a shortage and its use shall be at the sole discretion of the urban water supplier.~~

~~(6) Penalties or charges for excessive use, where applicable. Anticipated processes for monitoring and ensuring compliance by customers with mandatory prohibitions against specific water use practices, and mechanisms to enforce such compliance. The analysis also shall include a description of the urban water supplier's established method to identify and discourage excessive water use as required by Section 366 and 367.~~

(7) An analysis of the impacts of each of the actions and conditions described in ~~subdivisions~~**paragraphs** (1) to (6), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.

~~(8) A draft water shortage contingency resolution or ordinance. A description of the water supplier's source of authority for implementing the water shortage actions, as identified in subdivision 5 above, including any adopted resolutions or ordinances.~~

~~(9) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.~~

~~(b) Commencing with the urban water management plan update due July 1, 2016, for purposes of developing the water shortage contingency analysis pursuant to subdivision (a), the urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.~~

ARTICLE 2.5. Water Service Reliability [10635 - 10635]

(Article 2.5 added by Stats. 1995, Ch. 854, Sec. 11.)

10635.

(a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and ~~multiple dry water years~~ *five consecutive dry years, consisting of a repeat of the five consecutive historic driest years that the supplier has experienced, unless the supplier finds that a shorter multiple-year dry period would more severely impact its water supplies, in which case the supplier shall use*

that shorter period. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.

(b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.

(c) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.

(d) Nothing in this article is intended to change existing law concerning an urban water supplier's obligation to provide water service to its existing customers or to any potential future customers.

CHAPTER 4. Miscellaneous Provisions [10650 - 10656]

(Chapter 4 added by Stats. 1983, Ch. 1009, Sec. 1.)

10658.

(a) It is the intent of the Legislature, by the enactment of this section, to do all of the following:

- (1) Encourage continued investment in water supply reliability and diversification;*
- (2) Incentivize new and protect existing local investments made by urban water suppliers in drought resiliency and drought resilient supplies in order to better prepare local communities and the state for drought and times of shortage;*
- (3) Incentivize new and protect existing local investments in water recycling and potable reuse;*
- (4) Encourage local agencies to develop emergency supplies, including storage of flood flows in water banks throughout the state, to better protect California from the effect of drought;*
- (5) Encourage local agencies to take steps to prepare for the effects of climate change; and*
- (6) Ensure that urban water suppliers have adequate supplies, or take appropriate measures to reduce demand during times of drought.*

(b) During a statewide or local drought or water shortage, an urban water supplier shall not be required to reduce its use or reliance on any water supply available for its use and identified in its Urban Water Management Plan, or be required to take additional actions beyond those specified in its water shortage contingency analysis for the level of

shortage that is anticipated in the annual report required by section 10609 or the level of shortage that it is currently experiencing, whichever is greater.

***Letters of support must be submitted to the Assembly Water, Parks and Wildlife
Committee
by 5:00 p.m. on Friday, April 14th.***

***Support letters should be emailed to Chinook Shin, Committee Secretary, at
Chinook.Shin@asm.ca.gov***

The Honorable Blanca Rubio
State Capitol, Room 5175
Sacramento, CA 95814

April 5, 2017

**Re: AB 1654 (Rubio); Urban Water Management Planning
AB 968 (Rubio); Long Term Water Use Efficiency**

Position: SUPPORT

Dear Assemblymember Rubio:

On behalf of North Marin Water District, I am writing to express our support for AB 1654 and AB 968, your measures which would enhance existing urban water management planning requirements, strengthen water suppliers' abilities to plan and prepare for future droughts, and ensure a balanced approach to providing drought resilient water supply including use of recycled water and enhanced long term water use efficiency.

AB 1654 would enhance existing reporting and drought response requirements related to water shortage contingency analyses. Under the bill, urban retail water suppliers ("water suppliers") would report annually to the Department of Water Resources on the status of their water supplies for that year and whether supplies will be adequate to meet projected customer demand. If supplies are not adequate to meet demand, the water supplier would be required to implement the appropriate responses as described in their water shortage contingency analysis.

AB 1654 would also prohibit a water supplier from being required to reduce its use or reliance on any water supply available beyond the steps specified in its water shortage contingency analysis, protecting water suppliers' and their customers' investments in resilient water supply sources.

AB 968 provides for an alternative to the complicated, and likely costly retail-level water efficiency target calculation proposed in the November 2016 framework "Making Water Conservation a California Way of Life," and assures that investments

in resilient recycled water supplies can be relied upon during normal and shortage conditions to meet customer needs.

For these reasons, North Marin Water District supports AB 1654 and AB968. If you or your staff have any questions, please contact me at 415-897-4133 or cdegabriele@nmwd.com.

Sincerely,

Chris DeGabriele
NMWD General Manager

CC:

The Honorable Eduardo Garcia, Chair, Assembly Water, Parks, and Wildlife Committee
Honorable Members of the Assembly Water, Parks, and Wildlife Committee
Marc Levine, 10th Assembly District
Jim Wood, 2nd Assembly District

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



**WATER ADVISORY COMMITTEE
AND
TECHNICAL ADVISORY COMMITTEE**

MONDAY: APRIL 3, 2017

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

9:00 a.m. Note location

This is a combined WAC and TAC meeting.

1. Check In
2. Public Comment
3. Recap from the February 6, 2017 WAC/TAC Meeting and Approval of Minutes
4. Recap from the March 6, 2017 TAC Meeting and Approval of Minutes
5. Water Supply Coordination Council
6. Water Supply Conditions and Temporary Urgency Change Petition
7. Sonoma Marin Saving Water Partnership
 - a. Water Production Relative to 2013 Benchmark
 - b. DWR 2016 IRWM Water-Energy Grant
 - c. Approve Water Advisory Committee Resolution Supporting May as Water Awareness Month
8. Approve FY 2017/18 SCWA Budget
9. SCWA Climate Adaptation Plan
10. Biological Opinion Status Update
11. SCWA Washington D.C. Visit
12. Integrated Regional Water Management Planning
13. Items for Next Agenda

*Draft Minutes of Water Advisory Committee and Technical Advisory Committee
35 Stony Point Road, Santa Rosa, California
February 6, 2017

Attendees: Tom Schwedhelm, City of Santa Rosa
Linda Reed, City of Santa Rosa
Jennifer Burke, City of Santa Rosa
Casey Rainey, City of Santa Rosa
Colin Close, City of Santa Rosa
Mark Millan, Town of Windsor
Toni Bertolero, Town of Windsor
Paul Piazza, Town of Windsor
Elizabeth Cargay, Town of Windsor
Susan Harvey, City of Cotati
Craig Scott, City of Cotati
Mark Heneveld, Valley of the Moon Water District
Dan Muelrath, Valley of the Moon Water District
David Cook, City of Sonoma
Dan Takasugi, City of Sonoma
Jake Mackenzie, City of Rohnert Park
Joseph Callinan, City of Rohnert Park
Mary Grace Pawson, City of Rohnert Park
Mike Healy, City of Petaluma
Kent Carothers, City of Petaluma
Rick Fraites, North Marin Water District
Jack Baker, North Marin Water District
Chris DeGabriele, North Marin Water District
Drew McIntyre, North Marin Water District
Rocky Vogler, North Marin Water District
Larry Russell, Marin Municipal Water District
Mike Ban, Marin Municipal Water District
James Gore, Board of Supervisors/SCWA
Grant Davis, SCWA
Michael Thompson/SCWA
Jay Jesperse, SCWA
Ann DuBay, SCWA
Brad Sherwood, SCWA
Lynne Rosselli, SCWA
Carley Cabrer, SCWA
Melissa James, SCWA

Public Attendees: Brenda Adelman, RRWPC
Bob Anderson, United Wine Growers
Dietrich Stroeh, Stuber-Stroeh Engineering Group
Dawna Stroeh, Stuber-Stroeh Engineering Group
David Keller, Friends of the Eel River
Jim Downey, Penngrove/Kenwood Water District
Margaret DiGenova, California American Water
Evan Jacobs, California American Water
Lloyd Iversen, BAP Tac

1. Check-in

- a. Mike Healy, WAC Chair, called the meeting to order at 9:06 a.m.

2. Public Comments

None

3. Election of WAC Vice Chair

Mark Millan appointed as Vice Chair of WAC. Unanimously approved.

4. 2017 WAC/TAC Meeting Schedule

No comment

5. Recap from the November 7, 2016 WAC/TAC Meeting and Approval of Minutes

Moved by Susan Harvey, City of Cotati, seconded by Mark Heneveld, Valley of the Moon, to approve the minutes of the November 7, 2016 WAC/TAC meeting; unanimously approved.

6. Recap from the January 9, 2017 TAC Meeting and Approval of Minutes

Moved by Dan Muelrath, Valley of the Moon and seconded by Linda Reed, City of Santa Rosa, to approve the minutes of the January 9, 2017 TAC meeting; unanimously approved.

7. Water Supply Coordination Council

Mike Healy advised that no water supply coordination council was held in advance of today's WAC meeting.

8. Water Supply Conditions

Grant Davis, SCWA gave update on Water Supply Conditions. Water supply conditions are very good and the US Army Corps of Engineers has approved the request for minor deviation to store more water in Lake Mendocino this winter.

9. Sonoma Marin Saving Water Partnership

a. SMSWP Annual Report (available at the meeting) and 2016 GPCD Memo

Chris DeGabriele, North Marin Water District stated that copies are not yet available and should be available next week.

b. Water Production Relative to 2013 Benchmark

Chris DeGabriele, North Marin Water District reviewed the handout of the monthly water use relative to 2013 benchmark that was made available to the committee members.

c. Extended SWRCB Emergency Urban Water Conservation Regulations

There is a State Water Board meeting on Wednesday February 28, 2017, to consider an extension of the Emergency Water Conservation Regulation. Comments followed by Jennifer Burke. State Water Board recommending a 270-day extension. They may reconsider earlier. Stress Tests may be submitted before March 15th 2017, however our region currently has a conservation standard of 0% and it is not recommended to resubmit stress tests. All other current regulations to remain the same. The State will continue to

monitor drought conditions. Chris DeGrabriele advised that NMWD will request the Governor rescind his drought declaration.

10. FY 2017/18 Draft SCWA Budget

Grant Davis, SCWA commented introduced Lynne Rosselli to provide update to WAC/TAC. The TAC budget subcommittee has met twice with SCWA staff to review and propose budget changes. The TAC will receive a presentation on the budget at the March 6, 2017 TAC meeting. A special WAC meeting will be held on April 3, 2017 to consider the proposed budget. Rosselli offered SCWA presentations to Boards and Councils during the month of March on the proposed budget.

11. Biological Opinion Status Update

a. Fish Habitat Flows and Water Rights Project DEIR

Ann DuBay, SCWA, reviewed the update that was made available to the committee members. Comments followed from the members.

She advised that on Monday March 13, 2017 at 9am there is a Public Policy facilitating meeting scheduled.

12. Integrated Regional Water Management Plan(s) Update

Grant Davis, SCWA provided an update on the North Coast Resource Partnership. A meeting is scheduled on April 21, 2017, hosting the 10-year anniversary of North Coast Resource Partnership. Comments followed by Public.

13. Items for next TAC Agenda on March 6

- a. Sonoma Marin Saving Water Partnership
- b. Water Supply Conditions
- c. Biological Opinion Status Update

James Fore, SCWA informed the WAC that the Russian River Conference is scheduled on March 24, 2017 at Shone Farm in Forestville. See russianriverconference.org for more information and to register.

14. Check Out

- a. Next TAC meeting is March 6
- b. Next WAC TAC meeting is April 3
- c. Meeting was adjourned at 9:38 a.m.

Draft Minutes of Technical Advisory Committee
35 Stony Point Road, Santa Rosa, California
March 6, 2017

Attendees: Ben Horenstein, City of Santa Rosa
Linda Reed, City of Santa Rosa
Jennifer Burke, City of Santa Rosa
Casey Rainey, City of Santa Rosa
Paul Piazza, Town of Windsor
Elizabeth Cargay, Town of Windsor
Mary Grace Pawson, City of Rohnert Park
Mike Healy, City of Petaluma
Kent Carothers, City of Petaluma
Dan Takasugi, City of Sonoma
Chris DeGabriele, North Marin Water District
Drew McIntyre, North Marin Water District
Rocky Vogler, North Marin Water District
Dan Muelrath, Valley of the Moon Water District
Mike Ban, Marin Municipal Water District
Grant Davis, SCWA
Michael Thompson, SCWA
Carrie Pollard, SCWA
Lynne Rosselli, SCWA
Michael Gossman, SCWA
Barry Dugan, SCWA
Mollie Asay, SCWA
Misha Bailey, SCWA
Steve Kolds, SCWA
Ann DuBay, SCWA
Pam Jeanne, SCWA

Public Attendees: Bob Anderson, United Winegrowers
J. Dietrich Stroeh, Stuber-Stroeh Engineering Group
David Keller, Friends of the Eel River

1. Check-in

Chair Chris DeGabriele called the meeting to order at 9:05 a.m.

2. Public Comment

None

3. Water Supply Conditions

Grant Davis, SCWA, reported that Lake Mendocino is at 121% of the target storage, and Lake Sonoma is at 120% of water supply pool capacity. Comments followed from other members.

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. Water production is down 22% compared to State's Benchmark, from June 2015 through January 2017. Chris DeGabriele expressed thanks for everyone's support who contributed.

b. SWRCB Urban Water Advisory Group

Jennifer Burke, Santa Rosa Water, provided an update of the SWRCB Urban Water Advisory Group. There are no updates on the long term frame work. One the Pilot project for landscape cover analysis, the state is close to sharing data. Department of Water Resources released a report for water loss. Comments followed by Carrie Pollard, SCWA.

5. SCWA Local Hazard Mitigation Plan Update

Presentation was given by Ken Gylfe, SCWA. Handouts were given on local Hazard Mitigation Plan Update. SCWA has received \$4.4M in grants to date with another \$8.9M anticipated as a result of the LHMP development. The updated plan must be approved by State OES and FEMA by August 2018.

6. SCWA Draft FY 2017/18 Budget

Presentation was given by Lynne Rosselli, SCWA on Draft FY 2017/2018 Budget. Chris DeGabriele expressed thanks to everyone who worked on proposed budget and rates. Comments and questions followed presentation by committee members. Grant Davis, SCWA expressed thanks to TAC. The TAC voted to recommend Budget approval by the WAC at the April 3rd meeting.

7. Russian River Confluence – March 24, 2017

Ann DuBay, SCWA gave an update on Russian River Confluence being held on March 24, 2017 at Shone Farm. Time is 8:00am-4:30pm, followed by a reception. This event is focused around opportunity to bring in folks not typically involved to discuss their visions of watershed. Website is russianriverconfluence.org. Comments and questions followed by committee members.

8. Biological Opinion Status Update

Pam Jeanne, SCWA, reviewed the update that was made available to the committee members. Questions and comments followed by committee members.

9. Items for Next Agenda

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

10. Check Out

Next TAC meeting scheduled for June 5, 2017
Next WAC/TAC meeting is April 3, 2017

Meeting was adjourned at 10:13 a.m.

Chris DeGabriele

From: Carrie Pollard <Carrie.Pollard@scwa.ca.gov>
Sent: Thursday, March 23, 2017 12:16 PM
To: Colin Close; Keith Bancroft; Ryan Grisso; Daniel Muelrath; Dan Takasugi; Paul Piazza; Marc Bautista; Margaret. DiGenova; Chelsea Thompson
Cc: Chris DeGabriele
Subject: Fwd: New Grant Award - Water-Energy Rebate Program for Restaurants

All-
We have officially been awarded! For those of you participating, look for details in the coming months.
Carrie

Sent from my iPhone

Begin forwarded message:

Congratulations everyone! Today DWR announced award of the 2016 Water-Energy IRWM Grants.

The Water Agency was awarded \$370,500 to help implement a rebate program for restaurants within the Sonoma-Marin Saving Water Partnership service area. The Rebate Program will target restaurants in the Partnership service area, encouraging them to replace inefficient equipment with water-efficient and energy-efficient equipment. Because they frequently lease equipment, restaurants in the region have long maintained that savings associated with lower water and energy usage alone cannot justify the cost of purchasing new efficient equipment. The Rebate Program will allow restaurants to purchase new water-efficient and energy-efficient equipment in lieu of leasing it. The new equipment will significantly lower water and energy usage, provide permanent cost savings associated with reduced water and energy costs, and lower greenhouse gas emissions.

DWR is awarding approximately \$17.72 million to 11 entities for 14 projects that will save water and energy and reduce greenhouse gas emissions. The Final Awards are posted at the following link:
<http://www.water.ca.gov/waterenergygrant/awards.cfm>

Joan Hultberg
Grants and Funded Projects Manager
Sonoma County Water Agency
T. 707-547-1902

**Water-Energy Grant Program
2016 Final Awards**

Applicant	Proposal Title and Application Evaluation	Grant Award*	Total Project Cost
<u>Amador Tuolumne Community Action Agency</u>	<u>A-TCAA DAC Residential Water-Energy Conservation Program</u>	\$ 720,770	\$ 720,770
<u>Association of California Community and Energy Services</u>	<u>Low Income Residential Water Measures</u>	\$ 1,960,297	\$ 1,960,297
<u>California State University Foundation</u>	<u>Water and Energy Efficiency Retrofits for the California State University</u>	\$ 1,272,654	\$ 1,272,654
<u>City of Rialto</u>	<u>Rialto Water Savings Initiative</u>	\$ 191,250	\$ 196,250
<u>Ecology Action</u>	<u>WaterLink-Monterey Bay Area</u>	\$ 2,468,585	\$ 2,491,085
<u>Ecology Action</u>	<u>WaterLink-South San Francisco Bay Area</u>	\$ 2,463,609	\$ 2,478,609
<u>Long Beach Water Department</u>	<u>Commercial Food Service Pre-Rinse Spray Valve and Faucet Aerator Project</u>	\$ 28,445	\$ 37,762
<u>Pasadena Water and Power</u>	<u>Water and Energy Direct Install Program (WeDIP) Expansion</u>	\$ 1,245,570	\$ 1,620,570
<u>Proteus, Inc.</u>	<u>Billion Gallon Challenge: Tulare & Kern Counties</u>	\$ 3,000,000	\$ 3,000,000
<u>Proteus, Inc.</u>	<u>Billion Gallon Challenge: Fresno & Kings Counties</u>	\$ 3,000,000	\$ 3,000,000
<u>SEMCU Foundation Inc.</u>	<u>SEMCU Residential Washer Rebate Program</u>	\$ 199,500	\$ 199,500
<u>Sonoma County Water Agency</u>	<u>Sonoma-Marin Saving Water Partnership Water-Energy Rebate Program for Restaurants</u>	\$ 370,500	\$ 392,806
<u>West Basin Municipal Water District</u>	<u>Cash For Kitchens</u>	\$ 294,125	\$ 550,998
<u>West Basin Municipal Water District</u>	<u>DAC Water-Energy Savings Initiative Program</u>	\$ 506,500	\$ 641,047
		\$ 17,721,805	\$18,562,348


*Approximately \$1.28 million will be utilized to meet post project monitoring requirements of the Air Resources Board (ARB) "Funding Guidelines for Agencies that Administer California Climate Investments." DWR considered two monitoring options: 1) third party monitoring by the University of California and 2) provide additional funding directly to grantees to carry out the necessary monitoring. After considering public comments, DWR will move forward with both monitoring options. Some applicants will be awarded additional funding for ARB monitoring. Exact amounts will be based on approved ARB monitoring plans.

April 3, 2017 WAC/TAC Mtg

MEMORANDUM

To: Water Advisory Committee

March 30, 2017

From: Chris DeGabriele, TAC Chairman 

Subject: Approve FY 2017/18 SCWA Budget

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RECOMMENDED ACTION: WAC approve the SCWA FY 2017/18 Budget

The latest draft of the Sonoma County Water Agency Water Transmission System Budget for Fiscal Year 2017/18 will be available at the April 3 meeting. At the March 6th TAC meeting, the TAC received a presentation from SCWA on the proposed budget, and voted to recommend approval by the WAC.

The budget proposes deliveries next year at 41,446 Acre Feet (AF) consistent with prescriptive requirements of the Restructured Agreement and approximately 1,000AF below the deliveries used in the current year budget. The total O & M charge proposed is \$717.36/AF. With the addition of Storage, Common Facilities, Aqueduct Bond Charges, and Aqueduct Capital Charges the total rate, depending on delivery aqueduct, ranges from \$846.78 to \$994.56/AF, an increase of 4.98% to 5.58% from FY 2016/17. This rate increase is less than the 7% projected in the SCWA long range financial plan.

SCWA will make a presentation on the budget to the WAC at the April 3 meeting. SCWA staff has previously met with the TAC budget subcommittee and made budget presentations to the TAC, Santa Rosa BPU and City Council, and the Petaluma City Council. Pursuant to the Restructured Agreement, the SCWA Board of Directors must approve the budget and wholesale water rates by April 30.

RECOMMENDATION:

WAC approve the FY 2017/18 SCWA Budget.

**DRAFT
17-XX**

**WATER ADVISORY COMMITTEE RESOLUTION SUPPORTING
MAY AS WATER AWARENESS MONTH**

WHEREAS, the Restructured Agreement for Water Supply, executed on June 23, 2006, by and between the Sonoma County Water Agency (SCWA), the Cities of Cotati, Petaluma, Rohnert Park, Santa Rosa, Sonoma and Forestville, the North Marin and Valley of the Moon Water Districts and the Town of Windsor, collectively known as the Water Contractors, creates the Water Advisory Committee (WAC) and Technical Advisory Committee (TAC); and

WHEREAS, the Water Contractors, along with SCWA and Marin Municipal Water District and California American Water-Larkfield, are members of the Sonoma-Marin Saving Water Partnership (Partnership), through which these members have joined together to provide a regional approach to water use efficiency; and

WHEREAS, these Partnership members recognize that establishing common water conservation projects on a regional basis and applicable across the political and jurisdictional boundaries of each member may be a means of cost effectively conserving more water than would otherwise be conserved on an individual member-by-member basis; and

WHEREAS, the Partnership, through its many water efficiency programs, educational seminars and outreach campaigns, is working to educate communities in our region about the importance of conserving water resources and curbing water-wasting behaviors; and

WHEREAS, implementation of long term water efficiency measures and preserving available water resources remain a priority; and

WHEREAS, the Month of May 2017 has been designated statewide as "Water Awareness Month".

NOW, THEREFORE, BE IT RESOLVED the WAC does hereby proclaim May 2016 as "Water Awareness Month" in the Sonoma-Marin Region and urges all residents to join in the effort to use water wisely; and

BE IT FURTHER RESOLVED that this resolution shall take effect upon its adoption.

PASSED AND ADOPTED by the WAC on this 1st day of May, 2017.

AYES:
NOES:
ABSTAIN:
ABSENT:

Michael T. Healy, Chairman
Water Advisory Committee to Sonoma County Water
Agency



Russian River Biological Opinion Update – April 2017

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.

Fish Flow Project

On August 19, 2016, the Water Agency released the Draft Environmental Impact Report for the Fish Habitat Flows and Water Rights Project. Open House workshops were held in August 2016 and public hearings were held in Santa Rosa, Cloverdale and Guerneville. The public comment period closed on March 10, 2017. About 450 comment letters were received, including a few hundred form letters. Water Agency staff have begun organizing and responding to comments. It is anticipated that the Final EIR will be released in 2017.

Dry Creek Habitat Enhancement Project

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. Combined with previous project phases, more than one and a half miles have been constructed since 2013. This spring, staff will begin an evaluation of the impact to the projects of the recent large storms and high flows.

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 this year. Planning, preliminary field investigation and design are under way for Miles 4 through 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

Fish monitoring during the winter focused on operation of an acoustic (sonar) counting station on Dry Creek and spawning ground surveys in tributary streams. The tributary monitoring is part of the State Coastal Monitoring Plan grant awarded to the Water Agency and UC Sea Grant. This year, a near-record number of hatchery released coho salmon (nearly 500 fish) have returned to spawn in tributaries as adult two-and three-year fish. In Dry Creek, the sonar device or DIDSON (Dual Identification Sonar unit) has counted 6,272 adult salmonids. This total includes a mix of Chinook, steelhead and coho.

Russian River Estuary Management Project

The 2016 Lagoon Management Period ended on October 15. During the 2016 management season (May 15-October 15), the mouth of the Russian River closed five times. An outlet channel was implemented twice, both ended in self-breaches; the estuary self-breached twice; and the Water Agency artificially breached the barrier beach on October 20 after the end of the lagoon management season.

Water Agency biologists and the Stewards of the Coast and Redwoods, which coordinates volunteers to monitor harbor seals and other pinnipeds, before, during and after lagoon management, held a training on February 27, and are continuing to seek new volunteers for this citizen science program.

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Interim Flow Changes

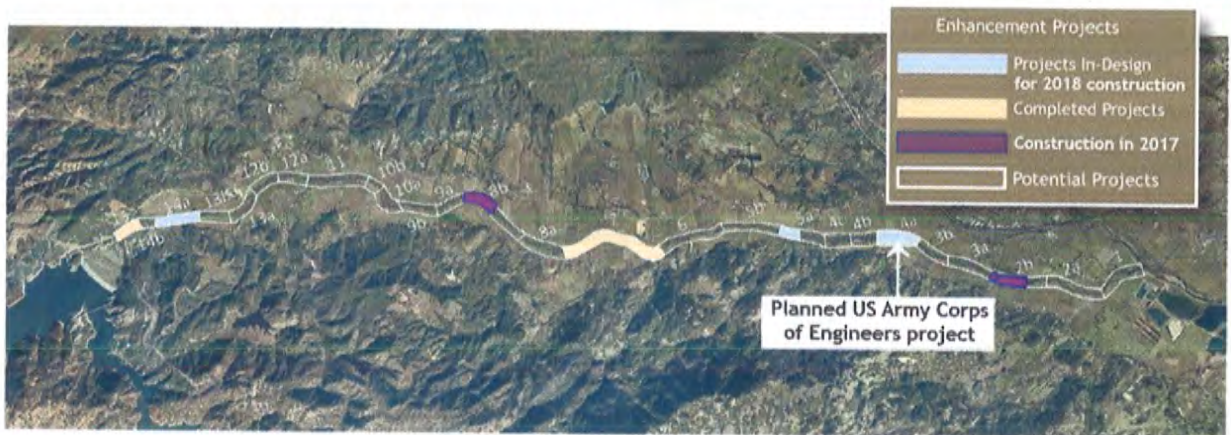
The Water Agency is preparing to file a 2017 Temporary Urgency Change Petition (TUCP) with the State Water Board in order to comply with the Biological Opinion flow requirements. Reports for the 2016 Temporary Urgency Change Order are due this month.

Public Outreach, Reporting & Legislation

- About 80 people attended the annual Public Policy Facilitating Committee meeting on March 13.
- The annual Dry Creek Community meeting was held on February 15. About 50 people attended to see the presentations, learn about this year's construction schedule and ask questions.

DRY CREEK HABITAT ENHANCEMENT PROJECT REACHES AND TIMELINE

COMPLETED AND IN-DESIGN PROJECTS, 2016



	Milestone 1	Milestone 2	Decision point	Milestone 3
Complete design phase. Permitting. Landowner agreements. Begin construction	1 mile of habitat in Dry Creek completed and work on miles 2 & 3 begins	Complete enhancement of miles 2 & 3	Evaluate the success of the enhancement projects	Enhance 3 additional miles of habitat in Dry Creek for a total of 6 miles
2012	2014	2017	2018	2020



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	February 2017 (Gallons)	2013 Benchmark (Gallons)	Savings Relative to 2013 Benchmark	February 2017 GPCD*	FY 2015/2016 Conservation Standard
Cal Am	14,243,000	15,601,000	9%	57	25%
Cotati	13,359,891	17,824,050	25%	65	20%
Marin Municipal	392,099,767	498,422,343	21%	74	20%
North Marin	133,177,291	148,000,000	10%	77	24%
Petaluma	137,834,973	168,775,481	18%	79	16%
Rohnert Park	80,029,006	90,000,000	11%	66	16%
Santa Rosa	315,974,065	375,588,310	16%	65	16%
Sonoma	31,183,941	31,575,003	1%	96	28%
Valley of the Moon	46,362,080	49,825,942	7%	70	20%
Windsor	51,254,081	61,177,302	16%	67	16%
SMSWP Total	1,215,518,095	1,456,789,430	17%	71	19%

* 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	429,061,514	543,296,000	21%	25%
Cotati	452,053,444	576,397,834	22%	20%
Marin Municipal	12,931,295,921	16,031,065,804	19%	20%
North Marin	4,368,027,669	5,711,000,000	24%	24%
Petaluma	4,312,035,161	5,584,233,974	23%	16%
Rohnert Park	2,401,417,598	2,935,000,000	18%	16%
Santa Rosa	9,597,014,321	12,565,654,305	24%	16%
Sonoma	982,680,135	1,310,752,354	25%	28%
Valley of the Moon	1,355,150,924	1,844,824,147	27%	20%
Windsor	1,746,506,943	2,237,112,443	22%	16%
SMSWP Total	38,575,260,151	49,381,024,338	22%	19%

13



North Bay Watershed Association

Board Meeting Notice

April 7th, 2017

9:30 a.m. – 11:30 a.m.
Novato Sanitary District
500 Davidson Street
Novato, CA

Meeting Agenda

- | | |
|--|------------|
| 1. Call to Order
<i>Jack Gibson, Chair</i> | 9:30 a.m. |
| 2. Public Comment | |
| 3. Approval of Agenda | 1 minute |
| 4. Approval of Minutes | 5 minutes |
| 5. Treasurer's Report
<i>Accept</i> | 1 minute |
| 6. Director's Report
<i>Information and questions</i> | |
| 7. Winter 2016/2017:
How did the North Bay fare?
Lessons learned – Presentation and Q&A
<i>Rick Thomasser, Watershed & Flood Control Operations
Manager, Napa County</i> | 9:45 a.m. |
| 8. Marin RCD's Permit Coordination
Program; speeding conservation efforts
Presentation and Q&A
<i>Elise Suronen, Marin Resource Conservation District</i> | 10:30 a.m. |
| 9. NBWA 2017/18 Budget
Discussion and recommended approval
<i>Judy Kelly, NBWA Executive Director</i> | 11:00 a.m. |
| 10. Items of Interest
<i>Description</i> | 11:20 a.m. |
| 11. Items for Next Agenda | 11:25 a.m. |
| <ul style="list-style-type: none"> ○ Status of North Bay fish – Gregory Andrews (MMWD), Jon Kohler (Napa RCD), and Dave Manning (SCWA) ○ Update on NBWA-supported project: stormwater permit readiness | |

Next Meeting

May 5th, 2017 - 9:30 a.m.
Petaluma Community Center
320 McDowell Blvd.
Petaluma, CA

14

DISBURSEMENTS - DATED MARCH 30, 2017

Date Prepared 3/28/17

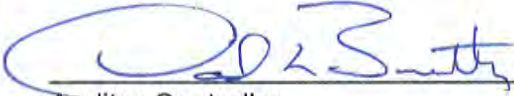
The following demands made against the District are listed for approval and authorization for payment in accordance with Section 31302 of the California Water Code, being a part of the California Water District Law:

Seq	Payable To	For	Amount
P/R*	Employees	Net Payroll PPE 3/15/17 PPE	\$130,481.85
EFT*	US Bank	Federal & FICA Taxes 3/15/17 PPE	59,013.07
EFT*	State of California	State Taxes & SDI 3/15/17 PPE	10,550.59
EFT*	CalPERS	Pension Contribution 3/15/17 PPE	35,270.40
1	Alpha Analytical Labs	Lab Testing	2,483.00
2	Athens Administrators	Workers' Comp Bill Review Fees	47.59
3	Automation Direct	PLC Parts Pressure Transducers (3)	375.00
4	Badger Meter	February Cellular Meter Charge (18)	15.84
5	Bennett Trenchless Engineers	Prog Pymt #11 & #12: RW Expansion Project Hwy 101 Crossing (Bal Remaining on Contract \$5,077)	2,340.00
6		Cafeteria Plan: Uninsured Medical Reimbursement	1,457.00
7	Caye, Christy	Refund Overpayment on Closed Account	56.73
8	Coast Counties Peterbilt	Spacers (2) & Washers (4) (\$76)	83.45
9	Core Utilities	Consulting Services: February IT Support (\$5,000), Frosty Acres SCADA Programming (\$250), Troubleshoot O.M. Ponds Alarm (\$425), Valve Pit (\$75), SCADA (\$125), Modified Meter Reading Report (\$300), Website Security Upgrade (\$275), AMI Project (\$5,525) & PCI Compliance (\$250)	12,225.00
10		Cafeteria Plan: Unreimbursed Medical Reimbursement	31.53
11	Equarius Waterworks	Progress Pymt#2: AMI Gateway Collectors (8) (Balance Remaining on Contract \$278,256)	75,950.00
12	Evoqua Water Technologies	Service on Deionization System	396.40

Seq	Payable To	For	Amount
13	Fastenal	Warehouse Cart -500 lb Capacity (Kane)	157.67
14	Fisher Scientific	Autoclave Deodorant (2) (Lab)	66.70
15	Gefter, Alex	Novato "Toilet" Rebate Program	100.00
16	Go, Alexander	Novato "Toilet" Rebate Program	100.00
17	Golden Gate Petroleum	Gasoline (\$2.64/gal) & Diesel (\$2.39/gal)	2,357.71
18	Grainger	Hole Saw (2) (\$45), Chalk Paint (36-17oz cans) (\$178) & Tape Measures (8-30') (\$123)	238.98
19	Irish & Son Welding	Welding Services	260.00
20	JRL Machine & Driveline	Fabricate Piece to Repair 18" Butterfly Valve	745.74
21	Maltby Electric	Circuit Breaker & Electrical Wire (2,000') (\$277)	302.49
22	McClary, Bob	Novato "Toilet" Rebate Program	100.00
23	Point Reyes Prop Mgmt Assn	March HOA Fee (25 Giacomini Rd)	75.05
24	Primex	Program STP PLC to New Hach SC200 Controllers	1,494.00
25	Sequoia Safety Supply	Ibuprofen (600), Safety Gloves (24) (\$56) & Lens Wipes (400)	129.05
26	Shahin, Maher	Novato "Washer" Rebate Program	50.00
27	Shirrell Consulting Services	March Dental Insurance Admin Fee	310.75
28		Cafeteria Plan: Uninsured Medical Reimbursement	274.60
29	SRT Consultants	Prog Pymt#6: Stafford Watershed Sanitary Survey (Balance Remaining on Contract \$23,890)	1,960.00
30	Staples Business Advantage	Desk Chair (McIntyre)	325.49
31		Cafeteria Plan: Uninsured Medical Reimbursement	220.63
32	Syar Industries	Asphalt (4 tons)	493.71
33	Thomas Scientific	Safety Gloves (1,000) (Lab)	174.82
34	Township Building Services	February Janitorial Services	2,047.84

Seq	Payable To	For	Amount
35	Van Bebber Bros	Fabricate Valve Keys (4)	391.67
36	Albert Rocky Vogler	COBRA Reimbursement-3 months	4,896.63
37	Winzer	Battery Cable & Electrical Terminals	419.59
		TOTAL DISBURSEMENTS	<u><u>\$348,470.57</u></u>

The foregoing payroll and accounts payable vouchers totaling \$348,470.57 are hereby approved and authorized for payment.



Auditor-Controller

3/28/17

Date



General Manager

3/28/2017

Date

DISBURSEMENTS - DATED MARCH 23, 2017

Date Prepared 3/21/17

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:


<u>Seq</u>	<u>Payable To</u>	<u>For</u>	<u>Amount</u>
52871*	Northbay Nissan	2016 Nissan Frontier S Model Pickup (Budget \$22,000)	\$21,844.00
EFT*	CalPERS	Health Insurance Premium (Employees \$45,172, Retirees \$10,521 & Employee Contribution \$11,987)	67,751.08
1	101 Office Products	Ink Cartridges (STP) (3)	113.47
2	AC3	Annual Inspection of Cranes in Auto Shop, Forklift Room & Pump Station @ STP	1,100.00
3	ACWA	2017 Spring Conference in Monterey (5/9-5/12) (Bentley)	699.00
4	Agilent Technologies	Iron Lamp (Lab)	280.47
5	All Star Rents	Trencher Rental (1 Day)	224.04
6	Alpha Analytical Labs	Lab Testing	103.00
7	American Family Life Insurance	March Employer Accident, Disability & Cancer Insurance	3,668.39
8	AWWA CA-NV SEC	Water Quality Lab Analyst Grade 3 Lucchesi (Budget \$0) (6/17-6/19)	55.00
9	AYS Engineering Group	Progress Pymt#6: Consultation Monitoring, Soil Profiling & Testing for Oceana Marin Disposal Fields Proj (Balance Remaining on Contract \$12,748)	6,290.00
10	Beck Communications	Fiber Optic Cable Installation from SCADA Office to Servers in IT Room	6,613.00
11	California Water Service	December March Water service (0 Ccf) (O.M.)	36.49
12	Caltest Analytical Laboratory	Lab Testing	35.00
13	Calvary Baptist Church	Refund Overpayment on Closed Account	44.27
14	CDW-Government	PC Battery Backups (3) (Atherton & SCADA)	368.56


Seq	Payable To	For	Amount
15	Chemtrac	New Motor, Probe & Piston, Yoke & Pin Rod End on Analyzer (STP)	1,465.00
16	Clipper Direct	April Commuter Benefit Program (2)	66.00
17	E & M	Service Contract for Distribution & STP SCADA Software	6,162.22
18	Environmental Express	Standards (Lab)	86.38
19	Equarius Waterworks	AMI Gateway Collectors (9)	85,443.75
20	Ferguson Waterworks	3/4" Couplings (13) (\$396), Box Lids (4) (\$344), Check Valves (2) (PR Pump #1 & 2) (\$314) (Less Credit of \$889 for Erroneous Lids)	166.33
21	Fisher Scientific	Reagent (Lab)	89.84
22	Friedman's Home Improvement	Check Valves (4)	56.72
23	Gonzalez, Laura	Refund Overpayment on Closed Account	67.37
24	Grainger	Hydraulic Oil (10 gal) (Outlet Tower Gates) (\$484), Visqueen (2 Rolls) (100' x 20') (\$301), analyzer Batteries (2) (STP) (\$118), Coated Gloves (4), Wire Terminals (50) (\$51), 4 1/2" Angle Grinder (\$119), 'D' Batteries (48), Trailer Jack Leg ('90 Trailer Excel) (\$111), Expanded Sheet (STP) (4' X 4') (\$296), Fuel Cylinder, PVC Cement (144 oz) (\$183), Lubricant (192 oz) (\$55), Diamond Saw Blade (\$216), Knee Boots (Lucchesi & Bena), Pry Bar, Pipe Wrench, Wheel Chocks (4) (\$86), Carbide Hole Saw, Hand Cleaner (12 5oz Bottles), Check Valves (10) (\$214) & Carbide Hole Saw	2,590.87
25		Vision Reimbursement	16.26
26	Maltby Electric	Transformers (2) (\$501), Distribution Panel, Conduit Fittings (3), Disconnect Switches (\$633), Ground Rods (2), Pulling Lube & Conduit Bell Ends	1,713.92
27	Marin County Treasurer	Semi-Annual Bond Service PRE-1 Revenue	13,250.00
28	Noll & Tam Architects	Prog Pymt#1: NMWD Headquarters Upgrade Master Plan (Balance Remaining on Contract \$93,545)	5,435.00

Seq	Payable To	For	Amount
29	Northbay Nissan	Oil Filter	7.37
30	Novato Sanitary District	Semi-Annual Billing for Sewer Charges for 2016/17 (\$2,278) & October 2016 Recycled Water Operating Expense (\$7,945)	10,223.31
31	Olin	Caustic Soda (392 Dry Tons) (STP)	4,704.00
32	Pace Supply	Gaskets (4), Meter Stops (15) (\$494) & Double Check Valve Assembly (2) (\$4,498)	5,000.70
33	Peterson Trucks	Reprogram Transmission During Exhaust Brake Operation ('12 Int'l Dump) (\$259) & Mirror ('02 Int'l 5yd Dump)	352.93
34	PG&E	Power: Bldgs/Yard (\$3,371), Rect/Controls (\$562), Pumping (\$15,924), Treatment (\$125) & Other (\$66) & Utility Bill for Apartment (1/25/17-2/23/17) (\$18)	20,066.00
35	Ramudo, Pablo	Exp Reimb: Mileage and Parking for ACWA WQ Committee Meeting on 3/9/17 in Sacramento	102.16
36	Roselius, Kristine	Refund Overpayment on Closed Account	40.70
37	School Fuel	Sponsorship of the 2017 Tour of Novato	250.00
38	Sequoia Safety Supply	Ear Plugs (600)	96.74
39	Sierra Chemical	Chlorine (2,000 lbs) (STP)	1,176.69
40	Starkes, Jim	Refund on Closed Account	55.68
41	State Water Resources Control	D3 Certification Renewal (Garrett) (8/17-8/20) (Budget \$90)	90.00
42	Syar Industries	Asphalt (6 tons)	880.72
43	Tank Industry Consultants	Prog Pymt#1: Engineering Consultation for Coating/Corrosion & Inspection of NMWD Tank (Balance Remaining on Contract \$26,500)	3,500.00
44	Tap Plastics	Lining Replacement for Sludge Trough @ Centrifuge (STP)	204.31
45	TelePacific Communications	February Telephone Charges	664.29
46	T & T Valve & Instrument	Isolation Valves (6) (STP)	1,243.00


Seq	Payable To	For	Amount
47	Univar	Sodium Hypochlorite (624 gal)	1,049.52
48	USA BlueBook	Flange Gasket	54.71
49	U.S. Bank	Parking for SWRCB Meeting (\$16) (DeGabriele), Birthday Breakfasts (\$137) (DeGabriele), iAnnotate (McIntyre) (\$10), Commercial Diesel Class (\$400) (Watkins), Valve Turning Counter (\$359) (Watkins), Lithium Batteries (8) (\$116) (STP), Breakfast Meeting (\$25) (DeGabriele), Hwy 101 Crossing Bid Ad (\$556) & Garden Hose Adaptors (12)	1,673.26
50	US Postal Service	Meter Postage	1,000.00
51	Van Bebber Bros	Reinforcement Plate for tap (12" x 24") (Novato Theater)	121.91
52	Verizon Wireless	Cellular Charges: Data (\$193) & Airtime (\$79) (19)	271.84
53	WQI	Water Treatment Class in Vacaville 5/1-5/3/17 (Steele) (\$700) & Water Distribution Review Grades 1 & 2 (\$1,500) (Davenport, Breit & Sjoblom)	2,200.00
TOTAL DISBURSEMENTS			<u>\$280,865.27</u>

The foregoing payroll and accounts payable vouchers totaling \$280,865.27 are hereby approved and authorized for payment.

 3/20/17
 Auditor-Controller Date

 3/21/2017
 General Manager Date

MEMORANDUM

To: Board of Directors
From: Dianne Landeros, Accounting/HR Supervisor 
Subject: Information – Postage Rates
t:\cons srv\postage machine\rates 2017.docx

March 31, 2017

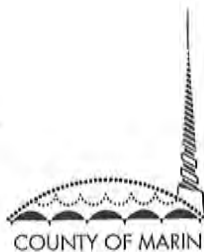
RECOMMENDED ACTION: Information Only

FINANCIAL IMPACT: \$1,100 Decrease in Annual Postage Cost

The US Postal Service decreased postage rates on January 1, 2017. The bulk rate for the water bills decreased by 0.8¢ to 37.3¢ per bill when sorted by zip code and mailed in bundles of 500 or more. Postage for regular first class letters decreased by 2¢ to 46¢. Last calendar year we spent approximately \$6,000 on general postage and \$48,000 for water bill postage. Conversely, the District's Waterline Newsletters postage cost (\$6,000 cost last year) will increase 2.5%. Cumulatively, the District's postage expense will decrease by about \$1,100¹ annually.

¹ Regular 1st Class Postage Savings will be \$250 ($\$6,000 \times \$0.02 \div \0.48)
Water Bill Postage Savings will be \$1,000 ($\$48,000 \times \$0.008 \div \0.381)
Waterline Additional Cost will be \$150 ($\$6,000 \times \$0.004 \div \0.1616)

BOD MISC
File



BOARD OF SUPERVISORS

RECEIVED

MAR 20 2017

North Marin Water District

VICE PRESIDENT
Damon Connolly
1ST DISTRICT

March 15, 2017

Via U.S. Mail and email

Katie Rice
2ND DISTRICT

2ND VICE PRESIDENT
Kathrin Sears
3RD DISTRICT

Re: Request from Special Districts to Move to Even-Numbered Year Elections

Dennis Rodoni
4TH DISTRICT

PRESIDENT
Judy Arnold
5TH DISTRICT

Matthew H. Hymel
COUNTY ADMINISTRATOR
CLERK OF THE BOARD

Our office is notifying you, as required by Section 10404 of the Elections Code, that several special districts have submitted resolutions to the Board of Supervisors to change their regularly scheduled elections for governing board members from odd-numbered years to even-numbered years. The following districts have submitted resolutions: Alto Sanitary District, Bel Marin Keys Community Services District, Bolinas Community Public Utility District, Homestead Valley Sanitary District, Inverness Public Utility District, Kentfield Fire Protection District, Las Gallinas Valley Sanitary District, Marinwood Community Services District, North Marin Water District, Novato Fire Protection District, Novato Sanitary District, Richardson Bay Sanitary District, Sanitary District No. 5, Sausalito-Marín City Sanitary District, Southern Marin Fire Protection District, Stinson Beach Fire Protection District, Tamalpais Community Services District and the Tiburon Fire Protection District have adopted resolutions to move to even-numbered elections.

Marin County Civic Center
3501 Civic Center Drive
Suite 329
San Rafael, CA 94903
415 473 7331 T
415 473 3645 F
415 473 6172 TTY
www.marincounty.org/bos

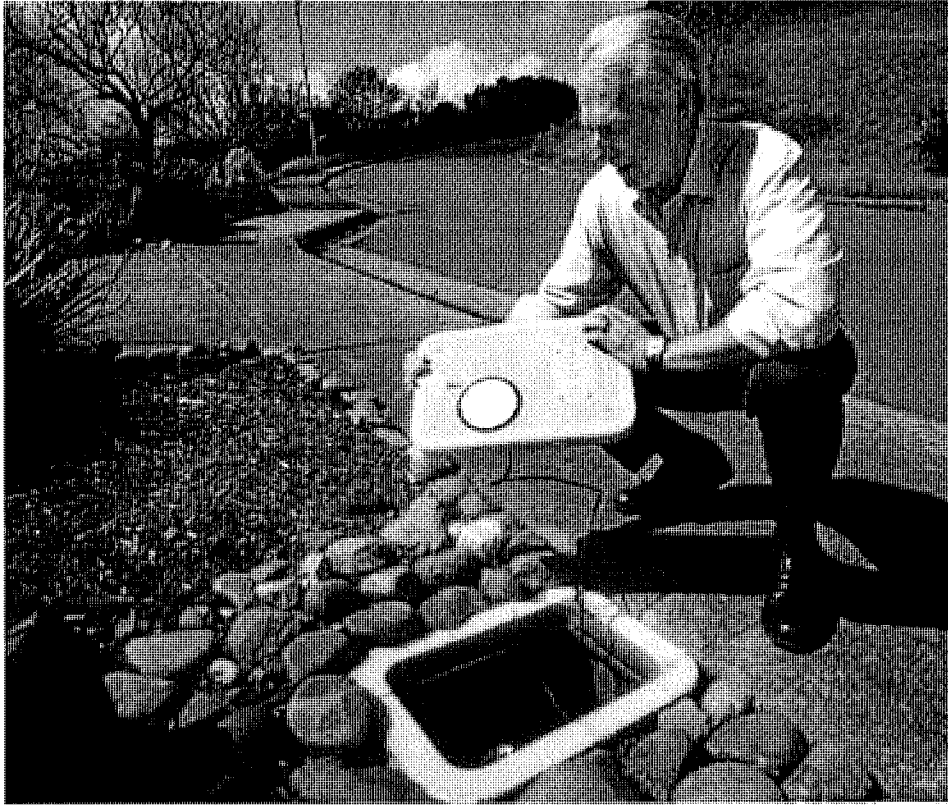
Copies of the resolutions from the above-named districts requesting the change are available for review in the Clerk of the Board Office. The Marin County Elections Department/Registrar of Voters will be advising the Board of Supervisors that it will be able to facilitate the requested changes.

Pursuant to Section 10404 of the Elections Code, the Board of Supervisors is now offering you the option of providing input regarding the effect of the move. However, you are not required to submit input. Comments on the plans submitted by the above-named districts can be presented at the March 21, 2017 Board of Supervisors' meeting, or written comments may be submitted to the Clerk of the Board, to be received no later than 12:00 p.m. on Monday, March 20, 2017. (Written comments are to be submitted to the Clerk of the Board, Room 329, Marin County Civic Center, San Rafael, CA 94903. The start time of the March 21, 2017 meeting can be obtained by viewing the posted agenda on-line at <http://www.marincounty.org/depts/bs/meeting-archive> or by calling the Clerk of the Board office at 415-473-7331.)

Sincerely,

DIANE PATTERSON
Assistant Clerk of the Board

Novato water district rolls out 'smart' meter pilot project



David Bentley, finance manager for the North Marin Water District, holds a lid to a water meter which is also the antenna for the district's remote water meters. Data will be sent to 26 antennas atop district water tanks and then to district headquarters. Robert Tong — Marin Independent Journal

By Mark Prado, Marin Independent Journal

POSTED: 03/21/17, 6:17 PM PDT | UPDATED: 2 HRS AGO 0 COMMENTS

The North Marin Water District has embarked on a pilot program that will feed data to its headquarters in real time, a change that will help the public and utility save water, according to officials.

The district — which serves 60,000 people in Novato and parts of West Marin — now relies on a crew of three to read 20,500 meters, logging in water use totals into hand-held computers while making the rounds. Meter readers have been on the job for the utility since 1948.

Now North Marin is launching an \$850,000 pilot project to test Advanced Meter Information technology. With the last of the pilot system hardware set up this week, testing will start and results are expected next week.

ADVERTISING

The district has installed 200 of the new “smart” meters at homes. Those meters will send data to 26 antennas atop district water tanks, with the information then relayed to district headquarters at 999 Rush Creek Place in Novato.

There, staff will be able to track water usage in real time, instead of waiting for meter readers to input data. Customers also will be able to look up their water use online.

“This will be helpful for customers who are looking to conserve water,” said David Bentley, finance manager for the utility. “They can see how much water they are using right away. Now, they get a bill once every two months.”

The antennas placed on top of the water tanks — in all sectors of the city — range from 10 to 26 feet, with the typical one being 14 feet. The new meters have been placed near the street fronting a customer’s property.

All water utilities are under a state mandate to conserve water, with goals set for 2020 and 2025. The new technology will be able to better track how water is being used and inadvertently wasted by providing hourly consumption data.

“It will help us and the customers to detect leaks right away,” Bentley said.

The new meters rely on cellphone signals to transfer data. With Novato’s hilly topography, the pilot project will determine how reliable the service is.

If it works, the utility will upgrade all 20,500 of its meters over the next two years to the new smart meters at a cost of \$5.5 million. The state would provide a low interest loan for the program as it promotes conservation around the state. The current meter readers would be re-deployed by the district to assist residents with conservation efforts.

Bentley said the use of the meters is a concern among some customers worried about the use of cellular signals to transmit data. Four of the 200 people designated for the pilot opted out after receiving letters about the plan.

“We tell them the system uses less power than a cellphone or a microwave oven,” Bentley said. A public meeting was held on Dec. 13 to address concerns.

Chris DeGabriele, general manager of the district, believes the system will be helpful if fully implemented.

“If the pilot program is successful and (Advanced Meter Information) is installed throughout our service area, customers will have access to their individual water consumption data online, which can assist their knowledge about water use patterns and water conservation, provide early leak detection and more reliable meter reading information,” he said.

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The Marin Municipal Water District, which has 190,000 customers between San Rafael and Sausalito, is considering implementing the system in the future for residential customers.

In 2015 the water district received a state Proposition 84 drought grant for \$975,000 and will provide \$325,000 of its dollars to use the technology on 800 irrigation accounts. That is expected to happen later this year.

“It will take about six months to roll out,” said Lon Peterson, Marin Municipal spokesman.

Sonoma County on path to regulating groundwater supplies

DEREK MOORE

THE PRESS DEMOCRAT | March 24, 2017, 6:47AM | Updated 59 minutes ago.



The first of three meetings to gather public feedback on a new regulatory framework for groundwater in Sonoma County drew a standing-room only crowd in Petaluma on Thursday night.

Concerns raised about the new regulations ranged from who is to be subjected to them, to how the rules will be enforced. Out-of-pocket costs were another worry.

"How much are we looking at?" asked Norma Giddings, who lives west of Petaluma and was among more than 100 people at the Petaluma Community Center.

The question underscored the many unknowns with the Sustainable Groundwater Management Act, which seeks to regulate groundwater for the first time in California when the law goes into effect in 2022.

Officials on Thursday went over in detail, as they have in previous meetings, the progress they've made toward establishing local agencies to implement the state-mandated groundwater program.

They said much more will be known once those governing boards are in place.

The longer-term implications of the program seem much less clear. That includes how the five agencies forming the Petaluma Valley's "groundwater sustainability agency" are to divvy up the estimated \$470,000 startup costs for the new group.

"We're figuring out how we are splitting up the pie right now, which is making for some interesting conversations," said Kara Heckert with the Sonoma Resource Conservation District, which is the lead agency.

The state law gives newly formed local boards the authority to assess fees, require monitoring on wells, set new standards and implement capital projects and other measures in an effort to maintain the health of regional groundwater supplies.

Local authorities, including city and county governments, water agencies and special districts, face a June 30 deadline to have the governance structure in place.

Sonoma County Supervisor David Rabbitt, whose district includes Petaluma, estimated costs for the program would amount to \$2 or \$3 a month.

"We're not talking a huge cost," Rabbitt said.

But officials said they don't know yet how that cost structure will be applied, such as whether fees will be assessed only on well owners, or on all parcel owners within basins being monitored.

The law identified three basins out of 14 in Sonoma County that would require a management plan.

Petaluma Valley's encompasses 46,000 acres spanning roughly the valley floor between Railroad Avenue in the north and San Pablo Bay in the south. The other basins are the Sonoma Valley and the Santa Rosa Plain.

Petaluma Valley's groundwater management agency would be administered by the city of Petaluma, Sonoma County, the Sonoma County Water Agency, the Sonoma Resource Conservation District and the North Bay Water District. It also would include a 10-member advisory group.

Some in attendance Thursday expressed worry the new agency won't be responsive to their concerns or, conversely, that the group will be another burdensome bureaucracy they have to deal with in their personal and professional lives.

"This is another layer of crap," Bonnie Merrill, a cattle rancher outside Petaluma, said.

But officials stressed local control of the groundwater rules is preferable to the alternative.

"If we don't regulate, the state will step in," said Leah Walker, Petaluma's environmental services manager.

The next two public sessions on the management plan are:

Sonoma Valley, Monday, 6-8 p.m., Sonoma Charter School multi-purpose room, 17202 Sonoma Highway

Santa Rosa Plain, April 3, 6-8 p.m., Santa Rosa Utilities field office, 35 Stony Point Road.

You can reach Staff Writer Derek Moore at 707-521-5336

Smart water meters are different

The March 22 story regarding North Marin Water District's installation of a pilot program of wireless meters represents the confusion that the public has with regard to wireless meter technology.

In order to prevent premature failure of the wireless meter's battery — due to excessive usage — the meters are placed in what is called "sleep" mode. "Sleep" mode can only be interrupted by a call from the utility base when the base asks the meter for information. Once the meter is activated and the information obtained, the meter reverts back to "sleep" mode. Think of a person who constantly leaves their cellphone on; the cellphone battery runs out and must be recharged more frequently.

"Sleep" mode allows the utility to extend a meter's battery life to 10 years — 10 years being the cost break-even point for the utility. Thus, the fear of wireless meters causing cancer due to constant emanation of radio waves is non-existent.

One of the only drawbacks to wireless meter reading is the fact that the meter box installation is rarely if ever examined. With most water utilities being responsible for the state of the meter installation and with wireless meter reading resulting in the installation being rarely if ever inspected, the utility becomes more vulnerable to lawsuits resulting from a tripping hazard caused by an uninspected installation.

In order to lessen the possibility of lawsuits due to a damaged installation, the utility has to make a proactive inspection of that installation every six months. This inspection by the former meter readers results in less cost recovery via the elimination of meter reader salaries and benefits.

Just prior to the installation of San Francisco's wireless meters, a citizen's wife broke her ankle on a faulty meter box (inspected by the meter reader every two months) which had been crushed by trucks repeatedly running over it.

One part of the damages claimed by the injured party was loss of connubial bliss.

Russian River's future draws diverse crowd to conference

GUY KOVNER

THE PRESS DEMOCRAT | March 24, 2017, 6:47PM



Environmentalists, bureaucrats, public officials, Native Americans and a patron of the arts gathered Friday to plot a future for the Russian River, the waterway they all consider a foundation for communities throughout the North Bay.

The river, which snakes 110 miles from the Mendocino County highlands near Willits to the Pacific Ocean at Jenner in Sonoma County, is a magnet for boaters, bird-watchers, swimmers and anglers, a water supply for 600,000 North Bay residents and the main artery of a 1,500-square-mile watershed.

It also faces a host of challenges over poor water quality and competing demands to support endangered fish, tourism, water storage, flood control and human needs ranging from raw thirst to pure inspiration.

Sonoma County Supervisor James Gore convened the Russian River Confluence, which drew about 220 people Friday to Santa Rosa Junior College's Shone Farm, located about 2 miles east of the river in the Forestville area.

"We're trying to create a movement," Gore said in an interview. "And this is the starting gun."

The supervisor's goal in drawing together diverse interests from the public, private and nonprofit sectors is to "drive toward creating a one-watershed plan," he said.

"It's about owning our stake in the future."

The crowd included state and federal water regulators; conservationists; river advocates; officials from Sonoma County parks, open space, agriculture and planning departments; city council members from Ukiah, Cloverdale, Windsor, Healdsburg and Sebastopol;

Mendocino County Supervisor Carre Brown and Sonoma County Supervisor Lynda Hopkins.

Dave White, former chief of the U.S. Natural Resources Conservation Service, said he was impressed by the multilateral effort to “sit down and forge a common vision” for the river.

“This is unique,” said White, co-founder of the 9b Group, a Washington-based conservation consulting and lobbying organization. “I think they’re doing it right.”

White, who was Gore’s former boss at the federal agency, showed the crowd slides illustrating taxpayer-funded conversion of despoiled private lands into productive landscapes.

The examples of soil, water and wetlands restoration across the country are “a few threads of what has become an incredibly rich tapestry,” he said.

Opening the conference, three Pomo tribal leaders offered a prayer and song, shaking wooden rattles and speaking in English and their native language.

“We thank you for this special day,” said Lorraine Laiwa, head of the Ukiah-based Indian Child and Family Preservation Program.

“We all have this great desire to do things that are right for our land.”

Laiwa was accompanied by her daughter, Liz Elgin DeRouen, and granddaughter, Laila DeRouen, both leaders of the Ya-Ka-Ama organization, an Indian education and development nonprofit located next to Shone Farm.

Perspectives on the river came from a range of sources.

David Manning, the Sonoma County Water Agency’s environmental resources manager, showed how a tiny tag embedded in a juvenile fish nicknamed “Lynda Hopkins” enabled researchers to track it from the Russian River estuary at Duncans Mills 25 miles upstream to a man-made backwater built off Dry Creek, then farther upstream to Grape Creek.

The fish is now thought to be out in the ocean, and “we’re waiting for her return,” Manning said.

A network of 60 antennas detects tag-bearing fish as they swim around the watershed.

Penny Sirota of Santa Rosa described how Friends of the Mark West Watershed, a community group, has become dedicated “to understanding a complex system under tremendous pressure.”

The 34-square-mile Mark West Watershed has been designated a “priority conservation area” by the Association of Bay Area Governments, she said.

While some Mark West residents had been wary of regulation, Sirota said the drought and Lake County wildfires prompted the community to “sit up and take notice.”

Margo Warnecke Merck told how her family has hosted artists from throughout the United States and Europe in a residency program at their 265-acre ranch on a bend in the river in Alexander Valley.

Merck urged public officials to “welcome an artist to be part of their scientific process.”

Kara Heckert, executive director of the Sonoma Resource Conservation District, said in an interview that collaboration among stakeholders is essential to maintaining the river’s health.

“If it goes down the tubes, we’ve lost the lifeblood of our communities, the ecosystem and our local economy,” she said. “It’s not about protecting one or the other.”

You can reach Staff Writer Guy Kovner at 707-521-5457 or guy.kovner@pressdemocrat.com. On Twitter @guykovner.

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Rains filled our local reservoirs

MIKE HEALY

BY MIKE HEALY | March 29, 2017, 8:55AM | Updated 38 minutes ago.



As California emerges from drought, the water supply situation for Sonoma and Marin Counties is the best it has been for years. The water supply pools of both major regional reservoirs, Lake Sonoma and Lake Mendocino, are over 100 percent full. And yet the situation could still be significantly better.

Both reservoirs serve two vitally important purposes: water supply and flood protection. And these two goals conflict. If one were to operate a reservoir solely for water supply, one would always want it to be as full as possible. Conversely, if a reservoir was operated solely for flood control, it should be as empty as possible to be able to capture rain from an upcoming storm.

This tension is resolved by splitting the total capacity of the reservoirs into two "pools:" a water supply pool and a flood control pool. For Lake Sonoma, the first 245,000 acre feet of storage constitutes the water supply pool, and the remainder of the lake's total storage of 381,000 acre feet is the flood control pool.

The tension between these two uses was illustrated by an event last year. A major storm in March 2016 caused total storage in Lake Sonoma to reach 285,000 acre feet. But as soon as the storm threat passed, 40,000 acre feet of water was released downstream to the ocean to empty the flood control pool.

How much water is 40,000 acre feet? A football field, minus the end zones, is about one acre. So, 40,000 acre feet would be a football field covered by a column of water seven and a half miles high. It is a lot of water.

Looked at another way, 40,000 acre feet is as much water as all Petaluma water customers use in five years.

The situation from last year is now repeating itself. The recent storms raised storage in Lake Sonoma to 325,000 acre feet. As you read this, the 80,000 acre feet of water above the water supply pool is being released downstream to the ocean.

In this era of climate change and uncertain water supplies, the obvious question is this: Can reservoir operations be modernized to retain more water for water supply without compromising

flood control?

The answer is probably yes. Two aspects of the operations of our region's other reservoir, Lake Mendocino, provide guidance. Lake Mendocino is a much smaller reservoir and efforts have been underway for years to stretch its water supply mission.

First, unlike Lake Sonoma, Lake Mendocino's water supply pool varies by time of year. During the rainy season, its water supply pool is 68,400 acre feet. But during the summer months, when major storms are unlikely in California, the flood control pool shrinks while the water supply pool grows to 112,000 acre feet.

The Lake Sonoma watershed is subject to the same weather patterns and storm systems as the Lake Mendocino watershed, so Lake Sonoma's water supply pool should also grow in the drier months when major storms are unlikely.

A second aspect of Lake Mendocino operations should also be extended to Lake Sonoma. In recent years the responsible government agencies have collaborated on a new demonstration management program for Lake Mendocino called "Forecast Informed Reservoir Operations," or FIRO.

Under FIRO, "exceedances" above the water supply pool are allowed to remain as long as weather forecasts do not show a major storm approaching, which would require water to be released to free up capacity in the flood control pool.

The same March 2016 storm that filled Lake Sonoma beyond the water supply pool also did the same at Lake Mendocino, which filled to 26,000 acre feet above the water supply pool. Most of that water was saved, rather than released to the ocean, because of the combination of these two policies. And that water was used beneficially over the next year.

Improved weather forecasting capabilities in recent decades allow reservoir operations to be modernized to increase water supply without harming flood control.

Congressman Jared Huffman's bill in the 113th Congress, H.R. 3988, would have been an important step in the right direction. Further efforts need to be made.

(Mike Healy is a member of the Petaluma City Council and chair of the Water Advisory Committee to the Sonoma County Water Agency.)

Five Reasons Water Efficiency and Recycling Are a Perfect Match

In order to ensure that Californians are meeting the requirements of California's long-term conservation framework, water efficiency and conservation should complement recycled water efforts, writes NRDC's Tracy Quinn.

WRITTEN BY
Tracy Quinn

PUBLISHED ON
□ Mar. 24, 2017



A sign urges water conservation in front of recycled wastewater in a holding pond used to recharge an underground aquifer at the Orange County Water District recharge facility in Anaheim, Calif. Chris Carlson, AP

In a recent op-ed by Contra Costa Water District board president Lisa M. Borba and Central Contra Costa Sanitary District director Paul H. Causey, the duo state that California's efforts to advance water efficiency will diminish recycled water investments and disincentivize future recycled water projects.

As a civil engineer/water policy analyst who has worked on California water issues for 15 years, I draw the exact opposite conclusion: Water efficiency and conservation measures complement investments in recycled water.

Here are the five facts underlying my conclusion:

1. Water conservation and efficiency improvements are almost always the least expensive, fastest and most environmentally sound way to meet our water needs.
- Water conservation strategies save energy, reduce greenhouse gas emissions, lessen water and wastewater treatment costs and defer or eliminate the need for costly new water and wastewater infrastructure.
- The development of centralized infrastructure like recycled water projects can be expensive, raising the cost of water service to ratepayers and exacerbating affordability concerns. So we want to make sure that we maximize the value of these important investments by using recycled water efficiently, too.
- Including recycled water in new water-use standards helps to ensure that we don't oversize or overinvest in unnecessary new infrastructure, therefore maintaining affordability. Using recycled water efficiently maximizes the value of investments in

infrastructure that is appropriately sized to meet demand.

1. Conservation and sustainable supplies development are complementary not competing strategies. The purpose of the long-term water conservation framework, “Making Water Conservation a California Way of Life,” is to reduce stress on our water resources from the Sierra Nevada Mountains, the Sacramento-San Joaquin Delta and the Colorado River; this is best achieved by combining conservation and local supply development, as we do in the energy sector with energy efficiency requirements and standards and a renewable portfolio standard.
2. The state’s recommended approach to making water conservation a way of life leaves implementation largely to local decision-makers. If a water supplier prefers to utilize recycled water for outdoor demands, they can focus efficiency efforts on potable uses by improving indoor water efficiency or reducing leaks in their distribution system.
3. The \$725 million for recycled water in Proposition 1 is an effective incentive to drive recycled water use. There isn’t any evidence to suggest that this distinct efficiency framework will impact the development and operation of new local

supplies, and therefore there hasn't been a demonstrated need for this exemption.

4. Exempting recycled water creates a needless loophole in the new framework. Exempting recycled water from the new conservation framework for recycled water would punch a hole in the new framework and send a confusing message to Californians that water conservation is needed for some water sources but not others. This undercuts the new water ethic we have collectively worked so hard to foster, which prioritizes the efficient use of all water resources in California.

Water recycling should be strongly encouraged and supported, but in our water-limited state, it is important that all of our water – from whatever sources – be used wisely and efficiently.

The views expressed in this article belong to the author and do not necessarily reflect the editorial policy of Water Deeply.

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Opinion > Commentary



My Word: State water regulations could flush recycled water projects



A sign designates the Central Contra Costa Sanitary District recycled water filling station in Martinez, Calif., on Wednesday, Oct. 12, 2016. Recycle water for landscape irrigation is provided free of charge to homeowners. (Anda Chu/Bay Area News Group)

By **LISA M. BORBA AND PAUL H. CAUSEY** |

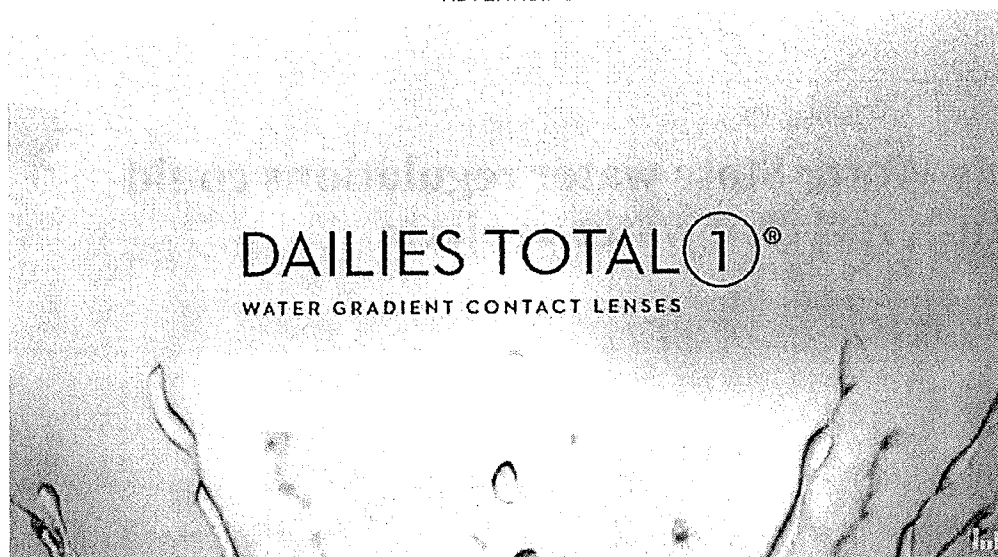
January 20, 2017 at 1:56 pm

One significant takeaway from this drought is that investments in local, resilient water supplies are imperative to get through extended dry periods.

In the most recent drought, customers have sacrificed and conserved. Locally, Central Contra Costa Sanitary District's (Central San) recycled water efforts combined with Contra Costa Water District's (CCWD) conservation, storage, and regional connections have helped navigate several dry/drought years.

As state officials examine long-term water use efficiency regulations that propose major changes to the state's authority over local water use, we are concerned that they are not giving proper recognition for investments in recycled water, and you, as a paying customer, should be too.

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State officials have recently released a new water use efficiency framework entitled, "Making Water Conservation a California Way of Life." This framework outlines a new approach to the state's regulatory oversight on residential water use and targets to which local water agencies will be held accountable.

This is a change from the previous regulation of 20 percent conservation by 2020, and would implement more complex measurements of local water use and conservation goals. This step by the state raises concerns about taking over local control and overlooking unique conditions depending on location.

CCWD provided comments to the state regarding concerns about how new regulations would be enforced and accounted for on a local basis — including how recycled water is accounted for as part of a local supply.

CCWD and Central San agree that the state's proposed framework diminishes existing investments made in recycled water and eliminates incentives to invest in future recycled water projects. This should be amended.

CCWD has worked with Central San and others to implement projects to provide recycled water for landscape irrigation and industrial use. In fact, approximately 10 percent of all CCWD's water demand is met with recycled water provided by local wastewater agencies.

Central San has been delivering recycled water since the 1970s and is currently providing more than 200 million gallons of recycled water annually to commercial and irrigation customers in Pleasant Hill, Concord and Martinez.

During the drought, Central San opened fill stations for residents to access free recycled water for use at their homes. The response from residents was tremendous with nearly two thousand residents signing up for the program and faithfully filling their containers and totes to take home recycled water for lawns and landscapes. This was new for residents and the response shows another valued service that can be met with recycled water.

Recycled water will play a significant role in new development as well. With the need for separate pipes to distribute recycled water, it is difficult to implement in existing neighborhoods without major disruptions, and it is expensive to dig up streets to lay down miles of new pipes and other facilities.

New planned developments, like the Concord Reuse Project at the old Concord Naval Weapons Station site, provide fresh opportunity to lay out the pipes and pumps before the roads, homes and businesses are built.

CCWD and Central San have joined with the city of Concord to use recycled water for public parks, medians and commercial/residential landscaping for the Concord Reuse Project.

CCWD and Central San are concerned that the state's proposed framework for regulations does not adequately credit local water systems for using alternative sources like recycled water.

In effect, the state will be taking away years of customers' investments in their local water supply projects, significantly devaluing these investments. The framework is also missing an opportunity to provide incentives for local agencies to invest in new recycled water projects.

We need to ensure the state hears our concerns and makes changes accordingly to support customers' investments in a reliable water supply.

We need to avoid heavy-handed state approaches that rob local water agencies' ability to implement projects that make sense for our community. We encourage residents to contact their state representatives and support us in protecting local control.

Lisa M. Borba, AICP, is the board president of the Contra Costa Water District and Paul H. Causey, P.E., is president of the Central Contra Costa Sanitary District Board of Directors.

Tags: Water Rates




Lisa M. Borba and Paul H. Causey

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By  HONDA

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Marin Voice: Why it's raining rate hikes at Marin Municipal Water District

By Dick Tait

POSTED: 03/22/17, 10:44 AM PDT | UPDATED: 15 HRS AGO 21 COMMENTS

On April 11, Marin Municipal Water District will conduct a workshop to inform its customers that the district is doing a great job by providing us top-quality water for about a penny a gallon and why rates must again be raised to do so.

Staff and its consultant, Carollo Engineers, will outline the need to replace worn pipeline and storage facilities in a staged manner to avoid another large rate increase, such as occurred in 2016.

Instead, the district is proposing to increase rates 7 percent per year for the next two years. But wait, there's more. The Carollo study recommends that rates continue to increase 7 percent, then 8 percent for the following two additional years, which would result in a compounded rate increase of 32 percent during the next four years.

While most of the rate increase will be for funding improvements, what staff and Carollo won't discuss is why management has allowed personnel costs to increase so rapidly that funds that would have been available for facility improvements have instead been diverted to excessive salaries, benefits and staffing.

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MMWD claims that high salaries are necessary to remain a competitive employer. The district's compensation policy is to match the average salary of those with comparative job titles in public works organizations. These salaries are determined by surveying only those organizations that are mutually agreed to by the employees' union.

No survey of private organizations is made, even though fewer than 15 percent of the district's 109 position titles relate to treatment plant operator or other water provider specialists.

While Citizens for Sustainable Pension Plans isn't focused on salaries per se, salaries are of interest to us because excessive pensions derived from excessive salaries — in combination with overly generous pension formulas — together result in unsustainable pensions and the need for increasing contributions.

In 2015, MMWD contributed \$5.5 million to CalPERS, the state's largest public pension fund. In 2021, the district estimates its contribution will increase to \$11.6 million. The latest CalPERS actuarial report — 2015 — indicates the district's unfunded liability to be \$74 million.

Regarding fringe benefits, the district's vacation, sick leave, holiday pay, retirement and retiree medical contributions costs add over 80 percent to the salary costs of its employees. These benefits increased some 23 percent the year after the last rate increase, even though the number of employees did not change.

Current labor agreements lock in salaries, fringe benefits and cost-of-living increases until they expire in June 2018. These agreements also include lifetime retiree medical subsidies for both the retiree and spouse.

Nearly all Marin public agencies modified their retiree benefits after 2012 to exclude spousal medical coverage. Since then, the district's annual retiree medical contribution has increased from \$3.7 million to \$4.8 million. Its unfunded actuarial medical care liability as of June 2015 was \$34 million.

Combining unfunded pension and retiree medical benefit liabilities, the district's retiree-related debt is well over \$100 million.

With respect to staffing, the district has four employees devoted to public information and eight employees who work on information systems. It appears as though MMWD is more concerned with good PR and maintaining an overly compensated workforce than in fiscal prudence or giving its customers a break from burdensome rate hikes.

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Looking ahead to personnel cost control, compensation surveys should include the costs of fringe benefits, as they are substantial. They also should survey private-sector employers.

These surveys should be initiated this year so that comparative data is available when the next round of negotiations begins.

In addition, the district should retain a consultant to review the district's management structure and staffing, use of outsourcing functions that are more general in nature such as PR, human resources, administrative duties, etc. and to develop recommendations for improving operational efficiency.

We urge the board take these steps to eliminate or at least reduce the magnitude of future rate increases.

Dick Tait of Mill Valley is a founding member of Citizens for Sustainable Pension Plans, a Marin group focused on public employee pensions.

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