SAN GORGONIO PASS WATER AGENCY
1210 Beaumont Avenue, Beaumont, CA
Board of Directors Meeting
Agenda
March 4, 2019 at 1:30 p.m.

1. Call to Order, Flag Salute, Invocation and Roll Call

2. Adoption and Adjustment of Agenda

3. Public Comment: Members of the public may address the Board at this time concerning items relating to any matter within the Agency's jurisdiction. To comment on specific agenda items, please complete a speaker's request form and hand it to the board secretary. Speakers are requested to keep their comments to no more than five minutes. Under the Brown Act, no action or discussion shall take place on any item not appearing on the agenda, except that the Board or staff may briefly respond to statements made or questions posed for the purpose of directing statements or questions to staff for follow up.

4. Consent Calendar: If any board member requests that an item be removed from the Consent Calendar, it will be removed so that it may be acted upon separately.

A. Approval of the Minutes of the Regular Board Meeting, February 19, 2019* (p. 3)
B. Approval of the Finance and Budget Workshop Report, January 28, 2019* (p. 7)
C. Approval of the Minutes of the Finance and Budget Workshop, February 25, 2019, 2018* (p. 8)
D. Approval of the Finance and Budget Workshop Report, February 25, 2019* (p. 10)

5. Reports:

A. General Manager's Report
    1. Operations Report
    2. Water Supply Update* (p. 22)
    3. General Agency Updates
B. Directors Reports
C. Committee Reports

6. New Business:

A. Discussion and Possible Action on Municipal Water Quality Investigations Funding Agreement* (p. 27)
B. Discussion and Possible Action on Municipal Water Quality Investigations Specific Project Committee Agreement* (p. 27)
C. Appointment of Ad Hoc Committee on Function and Use of Agency Administration Building

7. Topics for Future Agendas

8. Announcements:

A. Engineering Workshop/Water Rate Workshop March 11, 2019 at 1:30 p.m.
B. Water Conservation & Education Workshop, March 14, 2019 at 1:30 p.m.
C. Regular Board Meeting, March 18, 2019 at 1:30 p.m.
D. Finance and Budget Workshop, March 25, 2019 at 1:30 p.m.

9. Closed Session (2 Items)

A. CONFERENCE WITH REAL PROPERTY NEGOTIATORS
Pursuant to Government Code section 54956.8
Property: Potential water rights/supplies offers from Casitas MWD
Agency negotiator: Jeff Davis, General Manager
Negotiating parties: Mike Flood
Under negotiation: price and terms of payment

B. CONFERENCE WITH REAL PROPERTY NEGOTIATORS
Pursuant to Government Code section 54956.8
Property: Potential water rights/supplies
Agency negotiator: Jeff Davis, General Manager
Negotiating parties: Ron Gastelum
Under negotiation: price and terms of payment

10. Adjournment

***Information included in Agenda Packet**

(1) Materials related to an item on this Agenda submitted to the Board of Directors after distribution of the agenda packet are available for public inspection in the Agency's office at 1210 Beaumont Avenue, Beaumont during normal business hours. **(2)** Pursuant to Government Code section 54957.5, non-exempt public records that relate to ope
n session agenda items and are distributed to a majority of the Board less than seventy-two (72) hours prior to the meeting will be available for public inspection at the Agency's office, located at 1210 Beaumont Avenue, Beaumont, California 92223, during regular business hours. When practical, these public records will also be made available on the Agency's Internet Web site, accessible at: www.sgpwa.com **(3)** Any person with a disability who requires accommodation in order to participate in this meeting should telephone the Agency (951 845-2577) at least 48 hours prior to the meeting in order to make a request for a disability-related modification or accommodation.

SAN GORGONIO PASS WATER AGENCY
1210 Beaumont Avenue, Beaumont, California 92223
Minutes of the
Board of Directors Meeting
February 19, 2019

Directors Present:	Ron Duncan, President Lenny Stephenson, Vice President Stephen Lehtonen, Treasurer Blair Ball, Director (left at 3:00) David Fenn, Director David Castaldo, Director Michael Thompson, Director
Staff Present:	Jeff Davis, General Manager Thomas Todd, Finance Manager

1. **Call to Order, Flag Salute, Invocation, and Roll Call:** The meeting of the San Gorgonio Pass Water Agency Board of Directors was called to order by Board President Duncan at 1:30 p.m., February 19, 2019 in the Agency Boardroom at 1210 Beaumont Avenue, Beaumont, California. President Duncan led the Pledge of Allegiance to the flag. Director Thompson gave the invocation. A quorum was present.

2. **Adoption and Adjustment of Agenda:** *President Duncan asked if there were any adjustments to the agenda.* There being none the agenda was adopted as published.

3. **Public Comment:** *President Duncan asked if there were any members of the public that wished to make a public comment on items that are within the jurisdiction of the Agency that are not on today's agenda.* Lonnie Granlund, Director for the Yucaipa Valley Water District, speaking on behalf of the YVWD Board of Directors, read a statement suggesting a series of meetings between Agency staff, SBVMWD staff, and YVWD staff to discuss improving operational efficiencies among the three entities and to explore better ways to serve common customers. Paul Kielhold, Director for the San Bernardino Valley MWD, spoke in response to Ms. Granlund's comments and offered any support his Board could provide to the process, indicating that he values good relationships with other public agencies. He mentioned that the three parties may wish to hold a joint board meeting at the end of the process. There were no other members of the public that wished to comment at this time.

4. **Consent Calendar:**
   A. Approval of the Minutes of the Engineering Workshop, January 14, 2019
   B. Approval of the Minutes of the Regular Board Meeting, January 22, 2019
   C. Approval of the Minutes of the Finance and Budget – Water Rate Workshop, January 28, 2019
   D. Approval of the Minutes of the Engineering Workshop, February 11, 2019

   President Duncan asked for a motion on the Consent Calendar. Director Castaldo made a motion, seconded by Director Lehtonen, to adopt the consent calendar. Motion passed 7-0.

5. Reports:

A. General Manager's Report:

(1) Operations Report: General Manager Davis reported that the Agency is currently not delivering any water due to a shutdown of the East Branch Extension to replace leaky discharge valves at Crafton Hills Pump Station.

(2) California Water Fix Update: General Manager Davis updated the Board on Governor Newsom's decision to downsize the project to a single tunnel. This leaves many questions to answer, including the capacity of the single tunnel, whether the Central Valley Project contractors will participate, and how to handle the CEQA/NEPA document. He indicated that these questions will be answered in the months to come. He noted that the Department of Water Resources has indicated that this will lead to a 2-1/2 year delay in the planning phase of the project.

(3) Water Supply Report: General Manager Davis reported on the snowpack in the Sierras, precipitation in northern California, and storage in Lake Oroville using graphs from the DWR website that were made available to the Board members and the public. He noted that water in San Luis Reservoir will begin to be reclassified starting this week, possibly causing the Agency (and others) to lose carryover water. He informed the Board that he is working on a possible water deal to save some or all of the water that could potentially be lost. Having the EBX shut down makes it more difficult for the Agency to take advantage of Article 21 water at this time. He indicated that it is very unusual for this to happen with a 15% allocation, but the extremely wet February caught the Contractors by surprise.

(**4) General Agency Updates:** General Manager Davis reported on the following:

a. At a meeting of the retail managers last week, support was shown for a possible Agency capacity fee, but it could take much of this year to adopt such a fee. With the DWR power cost up to $331 per AF this year, the Agency may have to adopt a rate increase for 2019 just to deal with power costs, with a longer-term, more robust rate that could take into account the capacity fee not going into effect until 2020.
b. An initial meeting of the Riverside County Special Districts Association is scheduled for this Thursday. He encouraged Board members who are able to attend.
c. For Directors attending the ACWA conference in Monterey in May, hotel reservations should be made soon, as they sell out quickly.

B. Directors Reports:

1) Director Ball reported that he attended a BCVWD Board meeting and a YVWD workshop. **2) Director Lehtonen** reported that he attended the Watermaster meeting and the Beaumont Chamber of Commerce breakfast. **3) Director Stephenson** reported that he attended two YVWD workshops, a YVWD board meeting, and a YVWD strategic planning workshop. He also attended South Mesa Water Company's board meeting. **4) Director Fenn** reported that he also attended the Watermaster meeting. **5) Director Thompson** reported that he, too, attended the Watermaster meeting. **6) President Duncan** reported that he attended several of the meetings already

mentioned, including the BCVWD Board meeting, the Beaumont Chamber breakfast, and the Watermaster meeting.

C. Committee Reports: No committees reported having met since the previous Board meeting.

6. New Business:

A. Consideration and Possible Action of Sponsoring an Event Honoring Former General Manager Steve Stockton. A staff report, letter from the Los Angeles Section of American Society of Civil Engineers, sponsorship information, and two possible ads were included in the agenda package. General Manager Davis explained that the Los Angeles Section is awarding Life Memberships, an annual event, at a lunch on March 2 and Steve Stockton will be among those honored. The Agency was invited to buy up to one full page in the event program as a congratulatory message to Mr. Stockton, at a cost not to exceed $200. Director Ball moved, seconded by Director Thompson, to sponsor a full page ad congratulating Mr. Stockton for $200. The motion passed 7-0.

B. **Consideration of Acceptance of 2017 Water Conditions Report.** A copy of the report and a staff report were included in the agenda package. General Manager Davis mentioned that the draft report was discussed in detail at the January Engineering workshop. The Board at that time had requested that a sentence be deleted from the report. General Manager Davis reported that the sentence had been deleted. Director Fenn moved, seconded by Director Thompson, to accept and file the 2017 Water Conditions Report. Motion Passed 7-0.

7. Topics for Future Agendas: 1. Director Ball requested that staff report to the Board on power costs and how they have changed since 2003, and also to report on how the Agency has participated in Article 21 and Turnback Pool programs in the past. **2.** Director Thompson requested that staff bring back to the Board a briefing on the legality of de-annexation from the Agency.

8. Announcements:

A. Finance and Budget Workshop, February 25, 2019 at 1:30 pm.
B. San Gorgonio Pass Regional Water Alliance, February 27, 2019 at 5:00 p.m. – Banning City Hall
C. Regular Board Meeting, March 4, 2019 at 1:30 pm.
D. Engineering Workshop, March 11, 2019 at 1:30 p.m.

9. Closed Session (2 Items) Time: 2:27 p.m.

A. CONFERENCE WITH REAL PROPERTY NEGOTIATORS
Pursuant to Government Code section 54956.8
Property: Potential water rights/supplies offers from the City of Ventura
Agency negotiator: Jeff Davis, General Manager
Negotiating parties: Lynn Takaichi
Under negotiation: price and terms of payment

B. CONFERENCE WITH REAL PROPERTY NEGOTIATORS
Pursuant to Government Code section 54956.8
Property: Potential water rights/supplies

Agency Negotiator: Jeff Davis, General Manager
Negotiating Parties: Ron Gastelum
Under Negotiation: price and terms of payment

The meeting reconvened to open session at: Time: 3:20 pm

General Manager Davis stated that there was no action taken during closed session that is reportable under the Brown Act

10. Adjournment Time: 3:20 pm

Draft – Subject to Board Approval
Jeffrey W. Davis, Secretary of the Board

Finance and Budget Workshop Report

From Treasurer Steve Lehtonen, Chair of the Finance and Budget Committee

The Finance and Budget Workshop was held on January 28, 2019. The following recommendations were made:

1. The Board ratify payment of Invoices of $1,946,414.89 and Payroll of $35,998.66 as detailed in the Check History Report for Accounts Payable and the Check History Report for Payroll for December, 2018 for a combined total of $1,982,413.55.

2. The Board authorize payment of the following vendor's amounts:

   Best, Best & Krieger LLP $5,605.04

3. The Board acknowledge receipt of the following:
   A. Wells Fargo bank reconciliation for December, 2018
   B. Budget Report for December, 2018

4. The Board accept the following:
   A. Cash Reconciliation Report for December, 2018
   B. Investment Report for December, 2018
   C. Reserve Allocation Report for December, 2018

SAN GORGONIO PASS WATER AGENCY
1210 Beaumont Avenue
Beaumont, California 92223
Minutes of the
Board Finance and Budget Workshop
February 25, 2019

Directors Present: Ron Duncan, President
Lenny Stephenson, Vice-President
Steve Lehtonen, Treasurer
Blair Ball, Director
David Castaldo, Director
David Fenn, Director
Mike Thompson, Director

Staff and Consultants Present:
Jeff Davis, General Manager
Tom Todd, Jr., Finance Manager

1. **Call to Order, Flag Salute and Roll Call:** The Finance and Budget workshop of the San Gorgonio Pass Water Agency Board of Directors was called to order by Chair Steve Lehtonen at 1:30 pm, February 25, 2019, in the Agency Conference Room at 1210 Beaumont Avenue, Beaumont, California. Chair Lehtonen led the Pledge of Allegiance to the flag. A quorum was present.

2. **Adoption and Adjustment of Agenda**: The agenda was adopted as published.

3. **Public Comment: N**o members of the public requested to speak at this time.

4. **New Business:**
   A. Ratification of Paid Invoices and Monthly Payroll for January, 2019 by Reviewing Check History Reports in Detail: After review and discussion, a motion was made by Director Ball, seconded by Director Fenn, to recommend that the Board ratify paid monthly invoices of $1,347,750.72 and payroll of $35,648.76 for the month of January, 2019, for a combined total of $1,383,399.48. The motion passed 7 in favor, no opposed.

   B. Review Pending Legal Invoices: After review and discussion, a motion was made by Director Ball, seconded by Director Duncan, to recommend that the Board approve payment of the pending legal invoice for January, 2019 for $9,234.11. The motion passed 7 in favor, no opposed.

   C. Review of January, 2019 Bank Reconciliation: After review and discussion, a motion was made by Director Duncan, seconded by Director Stephenson, to recommend that the Board acknowledge receipt of the Wells Fargo bank

reconciliation for January, 2019 as presented. The motion passed 7 in favor, no opposed.

D. Review of Budget Report for January, 2019: After review and discussion, a motion was made by Director Duncan, seconded by Director Stephenson, to recommend that the Board acknowledge receipt of the Budget Report for January, 2019. The motion passed 7 in favor, no opposed.

5. Announcements

A. Regular Board Meeting, March 4, 2019, 1:30 pm
B. Engineering Workshop, March 11, 2019, 1:30 pm
C. Regular Board Meeting, March 18, 2019, 1:30 pm

6. Adjournment: The Finance and Budget workshop of the San Gorgonio Pass Water Agency Board of Directors was adjourned at 1:50 pm.

Draft - Not Approved

Jeffrey W. Davis, Secretary of the Board

Finance and Budget Workshop Report

From Treasurer Steve Lehtonen, Chair of the Finance and Budget Committee

The Finance and Budget Workshop was held on February 25, 2019. The following recommendations were made:

1. The Board ratify payment of Invoices of $1,347,750.72 and Payroll of $35,648.76 as detailed in the Check History Report for Accounts Payable and the Check History Report for Payroll for January, 2019 for a combined total of $1,383,399.48.

2. The Board authorize payment of the following vendor's amounts:

   Best, Best & Krieger LLP $9,234.11

3. The Board acknowledge receipt of the following:
   A. Wells Fargo bank reconciliation for January, 2019
   B. Budget Report for January, 2019

SAN GORGONIO PASS WATER AGENCY

1210 Beaumont Ave, Beaumont, CA 92223
Board Finance & Budget Workshop
Agenda
February 25, 2019, at 1:30 p.m.

1. **Call to Order, Flag Salute**

2. **Adoption and Adjustment of Agenda**

3. **Public Comment:** Members of the public may address the Board at this time concerning items relating to any matter within the Agency's jurisdiction. To comment on a specific agenda item, please complete a speaker's request form and hand it to the Board secretary. Speakers are requested to keep their comments to no more than five minutes. Under the Brown Act, no action or discussion shall take place on any item not appearing on the agenda, except that the Board or staff may briefly respond to statements made or questions posed for the purpose of directing statements or questions to staff for follow up.

4. **New Business (Discussion and possible recommendations for action at a future regular Board meeting)**
   A. Ratification of Paid Invoices and Monthly Payroll for January, 2019 by Reviewing Check History Reports in Detail*
   B. Review of Pending Legal Invoices*
   C. Review of January, 2019 Bank Reconciliation*
   D. Review of Budget Report for January, 2019*

5. **Announcements**
   A. Regular Board Meeting, March 4, 2019, 1:30 pm
   B. Engineering Workshop, March 11, 2019, 1:30 pm
   C. Regular Board Meeting, March 18, 2019, 1:30 pm

6. **Adjournment**

*Information Included In Agenda Packet

1. Materials related to an item on this agenda submitted to the Board of Directors after distribution of the agenda packet are available for public inspection in the Agency's office at 1210 Beaumont Ave., Beaumont, CA 92223 during normal business hours. 2. Pursuant to Government Code section 54957.5, non-exempt public records that relate to open session agenda items and are distributed to a majority of the Board less than seventy-two (72) hours prior to the meeting will be available for public inspection at the Agency's office, during regular business hours. When practical, these public records will also be available on the Agency's Internet website, accessible at http://www.sgpwa.com. 3. Any person with a disability who requires accommodation in order to participate in this meeting should telephone the Agency (951-845-2577) at least 48 hours prior to the meeting to make a request for a disability-related modification or accommodation.

San Gorgonio Pass Water Agency
Check History Report
January 1 through January 31, 2019

ACCOUNTS PAYABLE

Date	Number	Name	Amount
01/07/2019	119111	AT&T MOBILITY	190.01
01/07/2019	119112	AUTOMATION PRIDE	100.00
01/07/2019	119113	BEAUMONT-CHERRY VALLEY WATER DISTRICT	438.78
01/07/2019	119114	BDL ALARMS, INC.	78.00
01/07/2019	119115	BEST BEST & KRIEGER	7,025.78
01/07/2019	119116	BEAUMONT HOME CENTER	129.29
01/07/2019	119117	GOPHER PATROL	51.00
01/07/2019	119118	MACRO COMMUNICATIONS	375.00
01/07/2019	119119	PITNEY BOWES RESERVE ACCOUNT	300.00
01/07/2019	119120	CHERYLE M. STIFF	599.81
01/07/2019	119121	UNDERGROUND SERVICE ALERT	16.60
01/07/2019	119122	UNLIMITED SERVICES BUILDING MAINT.	295.00
01/07/2019	119123	WASTE MANAGEMENT INLAND EMPIRE	97.06
01/13/2019	119124	BEAUMONT COPY & GRAPHICS	46.28
01/13/2019	119125	FRONTIER COMMUNICATIONS	1,268.15
01/13/2019	119126	STEPHEN J. LEHTONEN	662.95
01/13/2019	119127	SOUTHERN CALIFORNIA GAS	258.18
01/13/2019	119128	VALLEY OFFICE EQUIPMENT, INC.	182.22
01/22/2019	119129	ACWA BENEFITS	866.41
01/22/2019	119130	ACWA JPIA	1,028.19
01/22/2019	119131	ALBERT WEBB ASSOCIATES	30,051.69
01/22/2019	119132	ERSC	15,357.45
01/22/2019	119133	FEDERAL EXPRESS	22.10
01/22/2019	119134	DAVID L. FENN	605.04
01/22/2019	119135	HEEMSTRA SIGNS	145.00
01/22/2019	119136	MATTHEW PISTILLI LANDSCAPE SERVICES	350.00
01/22/2019	119137	NICE-INCONTACT	45.45
01/22/2019	119138	PRO-CRAFT CONSTRUCTION, INC.	7,410.00
01/22/2019	119139	THOMAS W. TODD, JR.	917.53
01/22/2019	119140	WELLS FARGO ELITE CREDIT CARD	985.32
01/28/2019	119141	I. E. RESOURCE CONSERVATION DISTRICT	1,950.00
01/28/2019	119142	OFFICE SOLUTIONS	349.75
01/28/2019	119143	SOUTHERN CALIFORNIA EDISON	138.08
01/30/2019	119144	STANDARD INSURANCE COMPANY	561.45
01/15/2019	547673	EMPLOYMENT DEVELOPMENT DEPARTMENT	923.41
01/30/2019	504470	EMPLOYMENT DEVELOPMENT DEPARTMENT	1,360.09
01/15/2019	555726	ELECTRONIC FEDERAL TAX PAYMENT SYSTEM	6,270.51
01/30/2019	516086	ELECTRONIC FEDERAL TAX PAYMENT SYSTEM	7,569.69
01/13/2019	900219	DEPARTMENT OF WATER RESOURCES	258,858.00
01/15/2019	900220	CALPERS RETIREMENT	6,820.95
01/22/2019	900221	CALPERS HEALTH	8,057.33
01/30/2019	900222	CALPERS RETIREMENT	6,846.17
01/31/2019	900223	DEPARTMENT OF WATER RESOURCES	978,147.00
		TOTAL ACCOUNTS PAYABLE CHECKS	1,347,750.72

San Gorgonio Pass Water Agency
Check History Report
January 1 through January 31, 2019

PAYROLL

Date	Number	Name	Amount
01/14/2019	801659	JEFFREY W. DAVIS	4,998.40
01/14/2019	801660	KENNETH M. FALLS	3,556.25
01/14/2019	801661	CHERYLE M. STIFF	2,246.71
01/14/2019	801662	THOMAS W. TODD, JR.	3,463.51
01/29/2019	801663	BLAIR M. BALL	1,237.90
01/29/2019	801664	JEFFREY W. DAVIS	4,998.40
01/29/2019	801665	RONALD A. DUNCAN	1,237.90
01/29/2019	801666	KENNETH M. FALLS	3,247.87
01/29/2019	801667	DAVID L. FENN	1,237.90
01/29/2019	801668	STEPHEN J. LEHTONEN	1,237.90
01/29/2019	801669	LEONARD C. STEPHENSON	1,237.90
01/29/2019	801670	CHERYLE M. STIFF	2,246.71
01/29/2019	801671	MICHAEL D. THOMPSON	1,237.90
01/29/2019	801672	THOMAS W. TODD, JR.	3,463.51
		TOTAL PAYROLL	35,648.76
		TOTAL DISBURSEMENTS FOR JANUARY, 2019	1,383,399.48

SAN GORGONIO PASS WATER AGENCY

LEGAL INVOICES
ACCOUNTS PAYABLE INVOICE LISTING

VENDOR	INVOICE NBR	COMMENT	AMOUNT
BEST, BEST & KRIEGER	190131	LEGAL SERVICES FEB19	9,234.11

TOTAL PENDING INVOICES FOR FEBRUARY 2019 9,234.11

SAN GORGONIO PASS WATER AGENCY
BANK RECONCILIATION
January 31, 2019

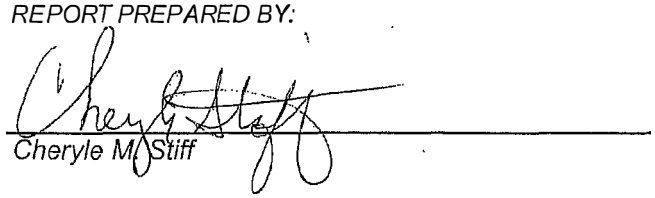
BALANCE PER BANK AT 01/31/2019 - CHECKING ACCOUNT		630,334.77
Pending Partial ACH to CALPERS Retirement		-1,580.00

LESS OUTSTANDING CHECKS

CHECK NUMBER	AMOUNT	CHECK NUMBER	AMOUNT
119103	923.00	119141	1,950.00
119131	30,051.69	119142	349.75
119132	15357.45	119143	138.08
		119144	561.45
	46,332.14		2,999.28

TOTAL OUTSTANDING CHECKS		-49,331.42
BALANCE PER GENERAL LEDGER		**579,423.35**
BALANCE PER GENERAL LEDGER AT 12/31/2018		142,547.75
CASH RECEIPTS FOR JANUARY		**1,572,626.32**
CASH DISBURSEMENTS FOR JANUARY		
ACCOUNTS PAYABLE - CHECK HISTORY REPORT	-1,347,750.72	
PAYROLL TRANSFER - BANK OF HEMET	-38,000.00	
		-1,385,750.72
BANK CHARGES		0.00
TRANSFER FROM LAIF		250,000.00
BALANCE PER GENERAL LEDGER AT 1/31/2019		**579,423.35**

REPORT PREPARED BY:



Cheryle M. Stiff

SAN GORGONIO PASS WATER AGENCY
DEPOSIT RECAP
FOR THE MONTH OF JANUARY 2019

DATE	RECEIVED FROM	DESCRIPTION	AMOUNT	TOTAL DEPOSIT AMOUNT
DEPOSIT TO CHECKING ACCOUNT				
1/10/19	YVWD	WATER SALES	726.15	726.15
1/15/19	RIVERSIDE COUNTY	PROPERTY TAXES	1,077,005.65	1,077,005.65
1/16/19	VARIOUS	MEMORIAL FLOWERS	180.00	180.00
1/16/19	RON DUNCAN	REPAYMENT EVENT PERSONAL	80.00	80.00
1/18/19	RIVERSIDE COUNTY	PROPERTY TAXES	78,391.72	78,391.72
1/18/19	BCVWD	WATER SALES	364,233.00	364,233.00
1/22/19	YVWD	WATER SALES	8,185.41	8,185.41
1/28/19	RIVERSIDE COUNTY	PROPERTY TAXES	9,966.62	9,966.62
1/28/19	TVI	CD - BOND INTEREST	33,817.42	33,817.42
1/29/19	DAVIS	REPAYMENT	40.35	40.35
		TOTAL FOR JANUARY 2019	1,572,626.32	1,572,626.32

SAN GORGONIO PASS WATER AGENCY
BUDGET REPORT FY 2018-19
BUDGET VS. REVISED BUDGET VS. ACTUAL
FOR THE SEVEN MONTHS ENDING ON JANUARY 31, 2019

	FOR THE FISCAL YEAR JULY 1, 2018 - JUNE 30, 2019				
	ADOPTED BUDGET	REVISIONS TO BUDGET	TOTAL REVISED BUDGET	ACTUAL YTD	REMAINING PERCENT OF BUDGET
GENERAL FUND - INCOME				Comparison:	42%
INCOME					
WATER SALES	5,600,000		5,600,000	2,285,891.36	59.18%
TAX REVENUE	2,650,000		2,650,000	1,154,332.35	56.44%
INTEREST	200,000		200,000	270,058.41	-35.03%
DESIGNATED REVENUES	1,750,000		1,750,000	0.00	100.00%
CAPACITY FEE	0		(	0.00	-
OTHER (REIMBURSEMENTS, TRANSFERS)	29,000		29,000	27,821.25	4.06%
TOTAL GENERAL FUND INCOME	10,229,000	0	10,229,000	3,738,103.37	63.46%
GENERAL FUND - EXPENSES					
COMMODITY PURCHASE					
PURCHASED WATER	6,000,000		6,000,000	1,539,512.23	74.34%
TOTAL COMMODITY PURCHASE	6,000,000	0	6,000,000	1,539,512.23	74.34%
SALARIES AND EMPLOYEE BENEFITS					
SALARIES	470,000		470,000	276,207.24	41.23%
PAYROLL TAXES	41,000		41,000	21,231.83	48.22%
RETIREMENT	312,000		312,000	91,257.96	70.75%
OTHER POST-EMPLOYMENT BENEFITS (OPEB)	22,000		22,000	13,085.44	40.52%
HEALTH INSURANCE	67,000		67,000	42,732.04	36.22%
DENTAL INSURANCE	4,800		4,800	3,212.00	33.08%
LIFE INSURANCE	1,600		1,600	1,058.32	33.86%
DISABILITY INSURANCE	5,000		5,000	2,950.58	40.99%
WORKERS COMP INSURANCE	3,700		3,700	1,854.76	49.87%
SGPWA STAFF MISC. MEDICAL	10,000		10,000	3,583.11	64.17%
EMPLOYEE EDUCATION	1,000		1,000	0.00	100.00%
TOTAL SALARIES AND EMPLOYEE BENEFITS	938,100	0	938,100	457,173.28	51.27%

SAN GORGONIO PASS WATER AGENCY
BUDGET REPORT FY 2018-19
BUDGET VS. REVISED BUDGET VS. ACTUAL
FOR THE SEVEN MONTHS ENDING ON JANUARY 31, 2019

	FOR THE FISCAL YEAR JULY 1, 2018 -JUN E 30, 2019				
	ADOPTED BUDGET	REVISIONS TO BUDGET	TOTAL REVISED BUDGET	ACTUAL YTD	REMAINING PERCENT OF BUDGET
GENERAL FUND - EXPENSES				Comparison:	42%
ADMINISTRATIVE & PROFESSIONAL					
DIRECTOR EXPENDITURES					
DIRECTORS FEES	111,000		111,000	55,062.88	50.39%
DIRECTORS TRAVEL & EDUCATION	15,000		15,000	3,984.62	73.44%
DIRECTORS MISC. MEDICAL	23,000		23,000	7,306.14	68.23%
OFFICE EXPENDITURES					
OFFICE EXPENSE	22,000		22,000	9,137.22	58.47%
POSTAGE	600		600	609.84	-1.64%
TELEPHONE	12,000		12,000	5,792.14	51.73%
UTILITIES	4,000		4,000	2,512.24	37.19%
SERVICE EXPENDITURES					
COMPUTER, WEB SITE AND PHONE SUPPORT	9,000		9,000	2,034.64	77.39%
GENERAL MANAGER & STAFF TRAVEL	20,000		20,000	10,887.93	45.56%
INSURANCE & BONDS	24,000		24,000	19,819.00	17.42%
ACCOUNTING & AUDITING	21,000		21,000	19,900.00	5.24%
STATE WATER CONTRACT AUDIT	5,500		5,500	5,315.00	3.36%
DUES & ASSESSMENTS	31,500		31,500	58,736.17	-86.46%
OUTSIDE PROFESSIONAL SERVICES	10,000		10,000	2,846.00	71.54%
BANK CHARGES	1,500		1,500	459.38	69.37%
MISCELLANEOUS EXPENSES	500		500	40.45	91.91%
MAINTENANCE & EQUIPMENT EXPENDITURES					
TOOLS PURCHASE & MAINTENANCE	500		500	0.00	100.00%
VEHICLE REPAIR & MAINTENANCE	7,000		7,000	1,312.15	81.26%
MAINTENANCE & REPAIRS - BUILDING	15,000		15,000	7,505.24	49.97%
MAINTENANCE & REPAIRS - FIELD	4,000		4,000	293.24	92.67%
CONTRACT OPERATIONS AND MAINTENANCE	150,000		150,000	24,403.68	83.73%
COUNTY EXPENDITURES					
LAFCO COST SHARE	7,000		7,000	5,286.99	24.47%
ELECTION EXPENSE	125,000		125,000	0.00	100.00%
TAX COLLECTION CHARGES	12,500		12,500	2,271.57	81.83%
TOTAL ADMINISTRATIVE & PROFESSIONAL	631,600	0	631,600	245,516.52	61.13%

SAN GORGONIO PASS WATER AGENCY
BUDGET REPORT FY 2018-19
BUDGET VS. REVISED BUDGET VS. ACTUAL
FOR THE SEVEN MONTHS ENDING ON JANUARY 31, 2019

FOR THE FISCAL YEAR JULY 1, 2018 - JUNE 30, 2019

	ADOPTED BUDGET	REVISIONS TO BUDGET	TOTAL REVISED BUDGET	ACTUAL YTD	REMAINING PERCENT OF BUDGET
GENERAL FUND - EXPENSES				Comparison:	42%
GENERAL ENGINEERING					
GRANT WRITER	20,000		20,000	0.00	100.00%
NEW WATER					
PROGRAMATIC EIR	0		0	0.00	-
UPDATED STUDY ON AVAILABLE SOURCES	7,500		7,500	0.00	100.00%
SGMA SUPPORT	200,000		200,000	644.35	99.68%
STUDIES					
USGS	115,000		115,000	45,151.87	60.74%
WATER RATE NEXUS STUDY	25,000		25,000	19,864.23	20.54%
WATER RATE FINANCIAL MODELING	12,000		12,000	4,850.00	59.58%
CAPACITY FEE NEXUS STUDY UPDATE	25,000		25,000	0.00	100.00%
WHEELING RATE STUDY	10,000		10,000	0.00	100.00%
OTHER PROJECTS					
BASIN MONITORING TASK FORCE	18,000		18,000	13,712.00	23.82%
EAST BRANCH MEETINGS	18,000		18,000	6,570.19	63.50%
GENERAL AGENCY - CEQA AND GIS SERVICES	10,000		10,000	0.00	100.00%
TOTAL GENERAL ENGINEERING	460,500	0	460,500	90,792.64	80.28%
LEGAL SERVICES					
LEGAL SERVICES - GENERAL	190,000		190,000	73,856 12	61.13%
TOTAL LEGAL SERVICES	190,000	0	190,000	73,856.12	61.13%
CONSERVATION & EDUCATION					
SCHOOL EDUCATION PROGRAMS	14,000		14,000	4,450.00	68.21%
ADULT EDUCATION PROGRAMS	5,000		5,000	0.00	100.00%
OTHER CONSERVATION, EDUCATION AND P. R.	35,000		35,000	10,000.00	71.43%
TOTAL CONSERVATION & EDUCATION	54,000	0	54,000	14,450.00	73.24%

SAN GORGONIO PASS WATER AGENCY
BUDGET REPORT FY 2018-19
BUDGET VS. REVISED BUDGET VS. ACTUAL
FOR THE SEVEN MONTHS ENDING ON JANUARY 31, 2019

	FOR THE FISCAL YEAR JULY 1, 2018 - JUNE 30, 2019				
	ADOPTED BUDGET	REVISIONS TO BUDGET	TOTAL REVISED BUDGET	ACTUAL YTD	REMAINING PERCENT OF BUDGET
GENERAL FUND - EXPENSES				Comparison:	42%
GENERAL FUND CAPITAL EXPENDITURES					
BUILDING & EQUIPMENT					
BUILDING	10,000		10,000	0.00	100.00%
FURNITURE & OFFICE EQUIPMENT	10,000		10,000	0.00	100.00%
OTHER EQUIPMENT	0		0	0.00	-
TRANSPORTATION EQUIPMENT	0		0	0.00	-
FIESTA RECHARGE FACILITY					
POST DESIGN	450,000		450,000	228,336.77	49.26%
CONSTRUCTION	3,950,000		3,950,000	1,529,459.14	61.28%
FENCING	100,000		100,000	0.00	100.00%
MITIGATION	15,000		15,000	0.00	100.00%
LANDSCAPING/POWER/WATER	60,000		60,000	0.00	100.00%
BUNKER HILL CONJUNCTIVE USE PROJECT	10,000		10,000	0.00	100.00%
NOBLE TURNOUT EXPANSION					
DESIGN	25,000		25,000	13,170.65	47.32%
CONSTRUCTION	295,000		295,000	7,410.00	97.49%
POST DESIGN	30 000		30,000	0.00	100.00%
SITES RESERVOIR	0		0	0.00	-
MONITORING WELLS USGS	1,020,000		1,020,000	3,747.53	99.63%
TOTAL GENERAL FUND CAPITAL EXPENDITURES	5,975,000	0	5,975,000	1,782,124.09	70.17%
TRANSFERS TO OTHER FUNDS	0		0	0.00	
TOTAL GENERAL FUND EXPENSES	14,249,200	0	14,249,200	4,203,424.88	70.50%
WITHDRAWALS FROM RESERVES	4,575,000		4,575,000		
TOTAL TRANSFERS TO/FROM RESERVES	4,575,000		4,575,000	0.00	
GENERAL FUND NET INCOME YEAR TO DATE	554,800	0	554,800	-465,321.51	

SAN GORGONIO PASS WATER AGENCY
BUDGET REPORT FY 2018-19
BUDGET VS. REVISED BUDGET VS. ACTUAL
FOR THE SEVEN MONTHS ENDING ON JANUARY 31, 2019

	FOR THE FISCAL YEAR JULY 1, 2018 - JUNE 30, 2019				
	ADOPTED BUDGET	REVISIONS TO BUDGET	TOTAL REVISED BUDGET	ACTUAL YTD	REMAINING PERCENT OF BUDGET
DEBT SERVICE FUND - INCOME				Comparison:	42%
INCOME					
TAX REVENUE	23,586,539		23,586,539	6,856,998.93	70.93%
INTEREST	415,000		415,000	394,359.97	4.97%
GRANTS	0		0	0.00	-
DWR CREDITS - BOND COVER, OTHER	2,977,993		2,977,993	1,459,773.37	50.98%
TOTAL DEBT SERVICE FUND INCOME	26,979,532	0	26,979,532	8,711,132.27	67.71%
DEBT SERVICE FUND - EXPENSES					
EXPENSES					
SALARIES	58,000		58,000	35,225.24	39.27%
PAYROLL TAXES	4,500		4,500	2,694.75	40.12%
BENEFITS	33,000		33,000	19,948.85	39.55%
SWC CONTRACTOR DUES	75,000		75,000	65,122.00	13.17%
STATE WATER CONTRACT PAYMENTS	19,200,000		19,200,000	11,592,455.00	39.62%
WATER TRANSFERS	2,250,000		2,250,000	2,249,470.50	0.02%
STATE WATER PROJECT LEGAL SERVICES	0		0	105.73	-
USGS	0		0	0.00	0.00%
CONTRACT OPERATIONS AND MAINTENANCE	150,000		150,000	24,403.68	83.73%
SWP ENGINEERING	75,000		75,000	226,958.76	-202.61%
DEBT SERVICE UTILITIES	11,000		11,000	6,093.84	44.60%
TAX COLLECTION CHARGES	70,000		70,000	14,687.10	79.02%
TOTAL DEBT SERVICE FUND EXPENSES	21,926,500	0	21,926,500	14,237,165.45	35.07%
TRANSFERS FROM RESERVES	0		0	0.00	
DEBT SERVICE NET INCOME YEAR TO DATE	5,053,032	0	5,053,032	-5,526,033.18	

Northern Sierra Precipitation: 8-Station Index, February 28, 2019

Percent of Average for this Date: 133%

2016-2017 Daily Precip (wettest) 94.7

1982-1983 (2nd wettest) 88.5

1997-1998 82.4

47.7

Average (1966-2015) 51.8

2017-2018 Daily Precip 41.0

2014-2015 Daily Precip 37.2

1976-1977(2nd driest & driest thru Aug) 19.0

Cumulative Daily/Monthly Precipitation (inches)

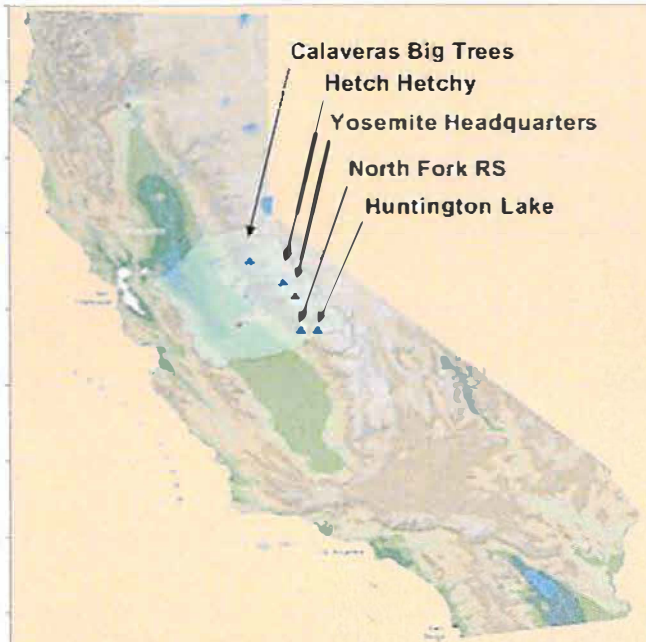
Total Water Year Precipitation

100 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0

Oct 1 Nov 1 Dec 1 Jan 1 Feb 1 Mar 1 Apr 1 May 1 Jun 1 Jul 1 Aug 1 Sep 1 Oct 1

Water Year (October 1 - September 30)

San Joaquin Precipitation: 5-Station Index, February 28, 2019



Percent of Average for this Date: 127%

1982-1983 (wettest) 77.4

2016-2017 Daily Precip (2nd wettest) 72.7

1997-1998 65.2

Average (1966-2015) 40.2

34.3

2017-2018 Daily Precip 29.7

2014-2015 Daily Precip 19.0

15.4

1976-1977(2nd driest & driest thru Aug)

Cumulative Daily/Monthly Precipitation (inches)

0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90

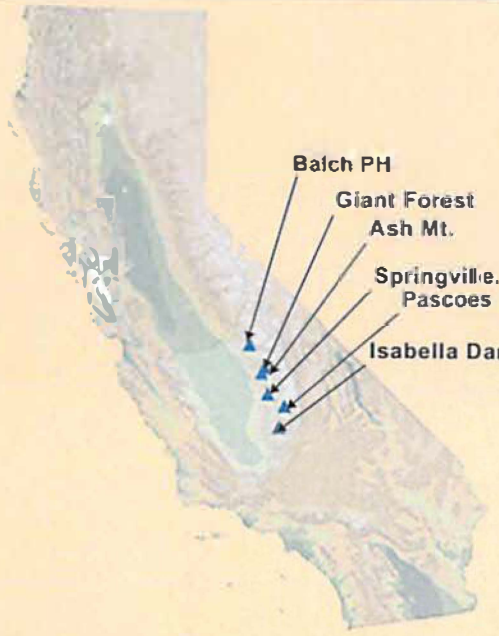
Oct 1 Nov 1 Dec 1 Jan 1 Feb 1 Mar 1 Apr 1 May 1 Jun 1 Jul 1 Aug 1 Sep 1 Oct 1

Water Year (October 1 - September 30)

Total Water Year Precipitation

23/83

Tulare Basin Precipitation: 6-Station Index, February 28, 2019



Percent of Average for this Date: 122%

1968-1969 (Wettest) 56.3

54.2

1997-1998 (2nd wettest)

46.9

2016-2017 Daily Precip

Average (1966-2015) 28.8

23.6

2017-2018 Daily Precip 17.9

2014-2015 Daily Precip 13.5

10.9

1976-1977 Daily Precip (Driest)

Cumulative Daily/Monthly Precipitation (inches)

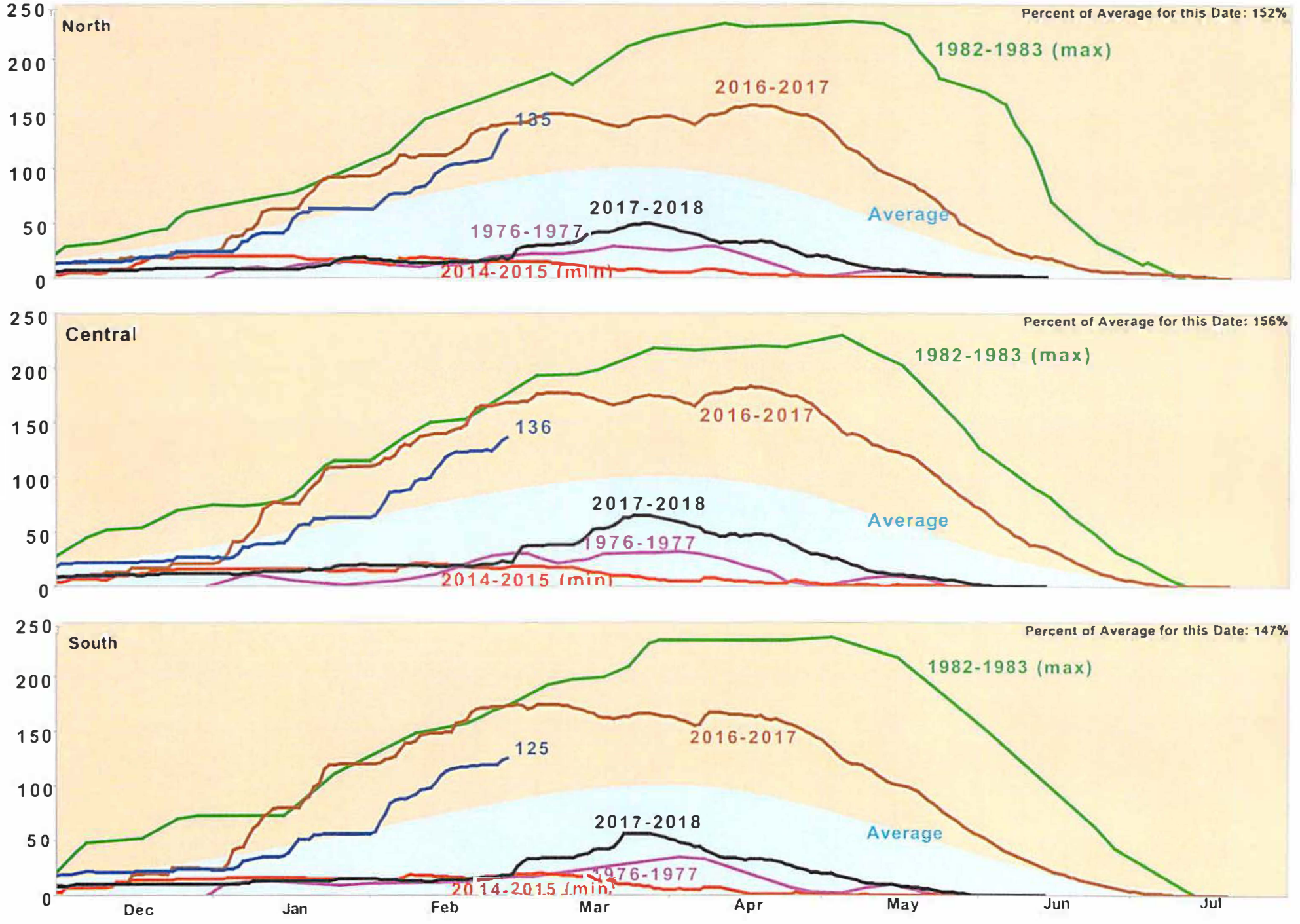
70 65 60 55 50 45 40 35 30 25 20 15 10 5 0

Oct 1 Nov 1 Dec 1 Jan 1 Feb 1 Mar 1 Apr 1 May 1 Jun 1 Jul 1 Aug 1 Sep 1 Oct 1

Water Year (October 1 - September 30)

Total Water Year Precipitation

California Snow Water Content, February 28, 2019, Percent of April 1 Average

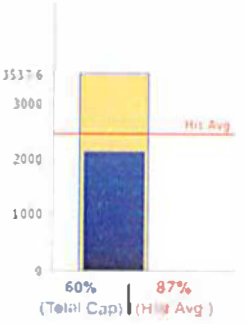


25/83

Statewide Percent of April 1: 133%

Statewide Percent of Average for Date: 153%

OROVILLE - STORAGE CONDITIONS AS OF FEBRUARY 27, 2019



Data as of Midnight February 27, 2019

- Current Storage: 2130646 AF
- 60% of Total Capacity
- 87 % of Historical Avg For This Date
- (Total Capacity: 3537577.0 AF)
- (Avg. Storage for February 27: 2460486.0 AF)

Change Date: 27-Feb-2019

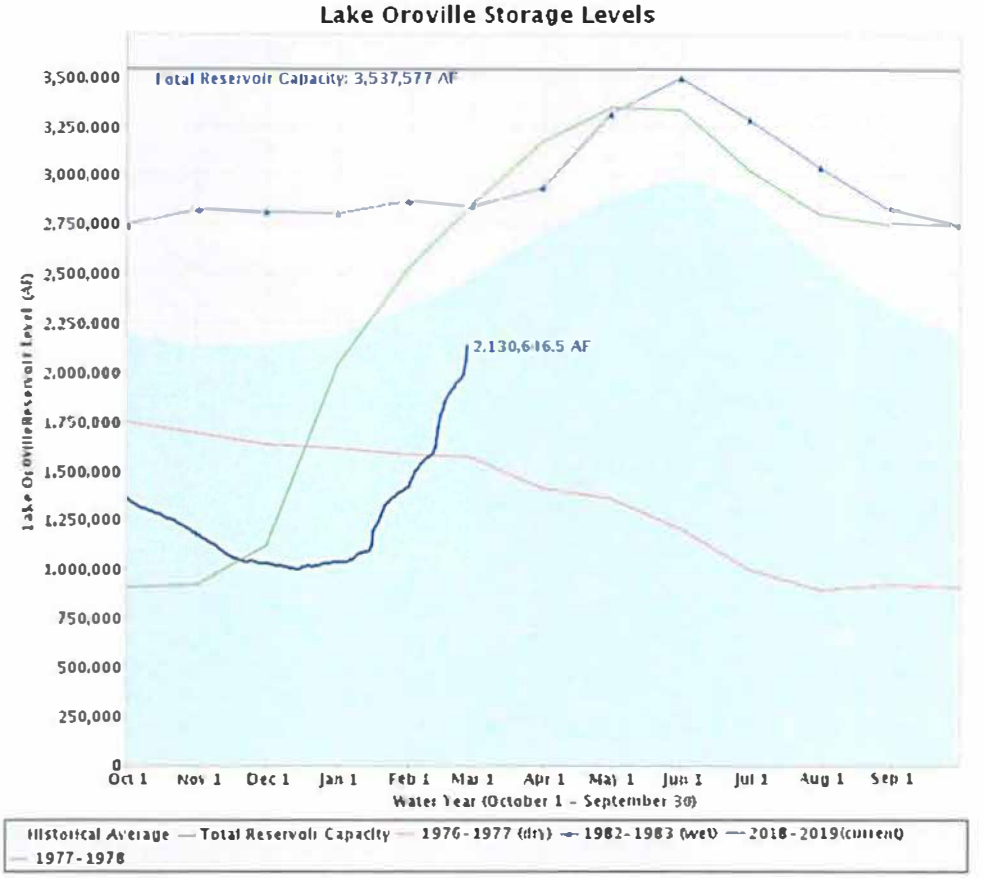
Major Reservoir Current Conditions Graphs

Printable Version of Current Data

Oroville Storage Level Graph: Choose water years to plot:

1976-1977 (dry)
1977-1978
1982-1983 (wet)
1988-1989
1989-1990
1990-1991

(ctrl+click for multiple selections)



MEMORANDUM

TO: Board of Directors

FROM: General Manager

RE: 2020-2022 Municipal Water Quality Investigations Program

DATE: March 4, 2019

Summary:
The Agency has long been a participant in the Municipal Water Quality Investigations Program in partnership with other Contractors and the Department of Water Resources (DWR). The purpose of this proposed action item is to determine if the Board wishes to continue participation for the next three years, from 2020 through 2022.

Background:
The urban Contractors some time ago formed the Municipal Water Quality Investigations Specific Project Committee in order to monitor water quality throughout the State Water Project on a frequent, and later, real-time, basis. For a number of years this Committee was under the State Water Project Contractors Authority (SWPCA). Last year it was moved under the State Water Contractors Inc. but with no substantive changes in the program.

Typically, the Committee forms a work plan each year and enters into a cost sharing agreement and a specific project committee agreement for three years. The Specific Project Agreement is among the Contractors who participate in the program. The cost sharing agreement is a funding agreement and includes the participating Contractors as well as DWR. Both agreements are in the agenda package for consideration by the Board.

Detailed Report:
The Committee has performed a lot of good work on important water quality issues over the years. These issues are important to the retail agencies that purchase water from the Agency, whether that water is

recharged into a groundwater basin or treated at a filtration plant. The work has primarily focused on water quality assessments throughout the State Water Project and real time data forecasting. This enables Contractors and retail water agencies to make real-time operational decisions that optimize water quality parameters to meet their specific needs. The 2019 MWQI Work Plan is included in the agenda package as a reference for the Board.

Most of the cost of the program is included in the Statement of Charges. The program expends a maximum of $3.1 million per year, of which $2.4 million is collected via the Statement of Charges. Up to a maximum of $700,000 can also be expended on supplemental programs each year as they are identified and approved by the Committee. In addition to the Statement of Charges costs, which are paid via the ad valorem tax rate, the program costs the Agency approximately $1500 per year.

Fiscal Impact:
The impact of approving the agreements would be to continue the expenditures for this program for three additional years. The cost of the program is negligible for the Agency.

Recommendation:
Staff recommends that the Board approve two agreements by separate actions:

(1) Approval of the MWQI Funding Agreement between DWR and the participating Contractors; and
(2) Approval of the MWQI Specific Project Agreement among the participating Contractors.

Municipal Water Quality Investigations Program
Work Plan
January - December 2019

FINAL WORK PLAN

State of California
Natural Resources Agency
DEPARTMENT OF WATER RESOURCES

MWQI Work Plan Version Control	Edit made:
1. Final Work Plan (original- v1), dated November 15th, 2018	Original document
2. Final Work Plan (v2), dated January 11, 2019	Adjusted Endothall Monitoring (5.2.3) language and made adjustments to the project labor requirements.
3. Final Work Plan (v3), dated February 13, 2019	Adjusted language in North Valley Regional Recycled Water Program (7.2) to clarify that CVRWQCB gave the permit approval, not the SWC. Also, refined sampling locations map (Fig 2) and table (Table 5) to reflect new information.
4.	
5.	

Municipal Water Quality Investigations Program
Work Plan
January – December 2019

Updated: February 13, 2019

MWQI Work Plan Authors

Shaun Philippart, Environmental Program Manager
and
Steven San Julian, Senior Environmental Scientist (Supervisor)
and
Mark Bettencourt, Senior Environmental Scientist (Specialist)

Division of Environmental Services
Office of Water Quality
Municipal Water Quality Investigations Program Branch
West Sacramento, California

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List of Acronyms and Terms

BDO	Department of Water Resources Bay Delta Office
CCWD	Contra Costa Water District
CDEC	California Data Exchange Center
CVP	Central Valley Project
CY	Calendar Year
DES	Division of Environmental Services
DMC	Delta-Mendota Canal
DO	Dissolved Oxygen
DOC	Dissolved Organic Carbon
DSM2	Delta Simulation Model 2
DWR	California Department of Water Resources
EC	Specific Electric Conductivity
EPA	U.S. Environmental Protection Agency
EMP	DES Environmental Monitoring Program
FDOM	Fluorescence of Dissolved Organic Matter
FY	Fiscal Year
IC	Ion Chromatography
IEP	Interagency Ecological Program
IO	Internal Order number
MEO	Mobile Equipment Office
MWQI	Municipal Water Quality Investigations
MWQI SPC	Municipal Water Quality Investigations Specific Projects Committee
Na	Sodium
NEMDC	Natomas East Main Drainage Canal
O&M	DWR Division of Operations and Maintenance
O&M EAB	Division of Operations and Maintenance Environmental Assessment Branch
OC	Organic Carbon
OCO	Operation Controls Office (DWR O&M)
OE&E	Operating Expenses and Equipment
P/G	Pumping/Generation
PY	Position Year
QA/QC	Quality Assurance/Quality Control
QC	Quality Control
RA	Resource Agreement
RTDF	Real-time Data and Forecasting Program
RTDF-CP	Real-time Data and Forecasting – Comprehensive Program
RTM	Real Time Monitoring
SBA	South Bay Aqueduct
SCWA	Solano County Water Agency
SOP	Standard Operating Procedure
SPC	Specific Project Committee
SWP	State Water Project
SWPC	State Water Project Contractors
TBD	To Be Determined
TOC	Total Organic Carbon
WDL	California Water Data Library

1. MISSION STATEMENT

The mission of the Municipal Water Quality Investigations (MWQI) Program is to:

1. Support the effective and efficient use of the State Water Project (SWP) as a source water supply for municipal purposes through monitoring, forecasting, and reporting of Sacramento San Joaquin Delta and the SWP water quality;
2. Provide early warning of changing conditions in source water quality used for municipal purposes;
3. Provide data and knowledge-based support for operational decision-making on the SWP; and
4. Provide scientific support to the Department of Water Resources (DWR), the State Water Contractors (SWC) MWQI Specific Project Committee (MWQI SPC), participating SWP Contractors, and other governmental entities.

2. INTRODUCTION

2.1 MWQI Program Background

The MWQI Program continues to study and monitor water quality in the Sacramento-San Joaquin Delta (Delta). MWQI generated data are incorporated with other data to produce a comprehensive information base that provides State Water Contractors and other interested parties with details related to source water conditions as water makes its way to their facilities. The information is disseminated via daily and weekly reports, and the Real-Time Data and Forecasting – Comprehensive Program (RTDF-CP) web site located at:
https://water.ca.gov/Programs/Environmental-Services/Water-Quality-Monitoring-And-Assessment

MWQI managers, supervisors, and staff participate in various activities external to the Program. Examples include, involvement with regulatory activities that occur in the Delta through the SWRCB, and/or the Central Valley Regional Water Quality Control Board (CVRWQCB), participation in the CVRWQCB's Nutrient Stakeholder and Technical Advisory Group (STAG) which is determining whether nutrient objectives are needed for the Delta, and assisting with pathogen and nutrient monitoring under the Delta Regional Monitoring Program (RMP). MWQI staff also assist with the Delta smelt related turbidity transect study, Oroville Dam response, and may help support new Fish Restoration Program monitoring stations as they come online.

Finally, MWQI staff support database infrastructure management, the administration of essential program management activities mandated by DWR's policies and procedures including implementing quality control measures, and efforts to ensure the health and safety of workplace staff.

2.2 MWQI Program – Program Partners

The MWQI Program has several Program Partners who work in other DWR Divisions (see the organization chart below) including O&M's Environmental Assessment Branch (EAB), the Operations Control Office (OCO), the Bay-Delta Office (BDO), and Quality Assurance Quality Control (QA/QC) Support Services. The MWQI Program and its Program Partners use Resources Agreements to manage workloads, staff resources, and budgets across DWR Divisions. Each Resources Agreement (RA) is prepared, reviewed, approved, and kept on-file by program managers involved in the agreement. Typically, the duration of a RA is one to three years and agreements are renewed when workloads change. For this work plan cycle, MWQI Program has in place 3-year resource agreements for the following Program Partners:

O&M - Environmental Assessment Branch
OCO - Regulatory Compliance & Reporting
BDO - Delta Modeling Section

2.3 MWQI Program Core Elements

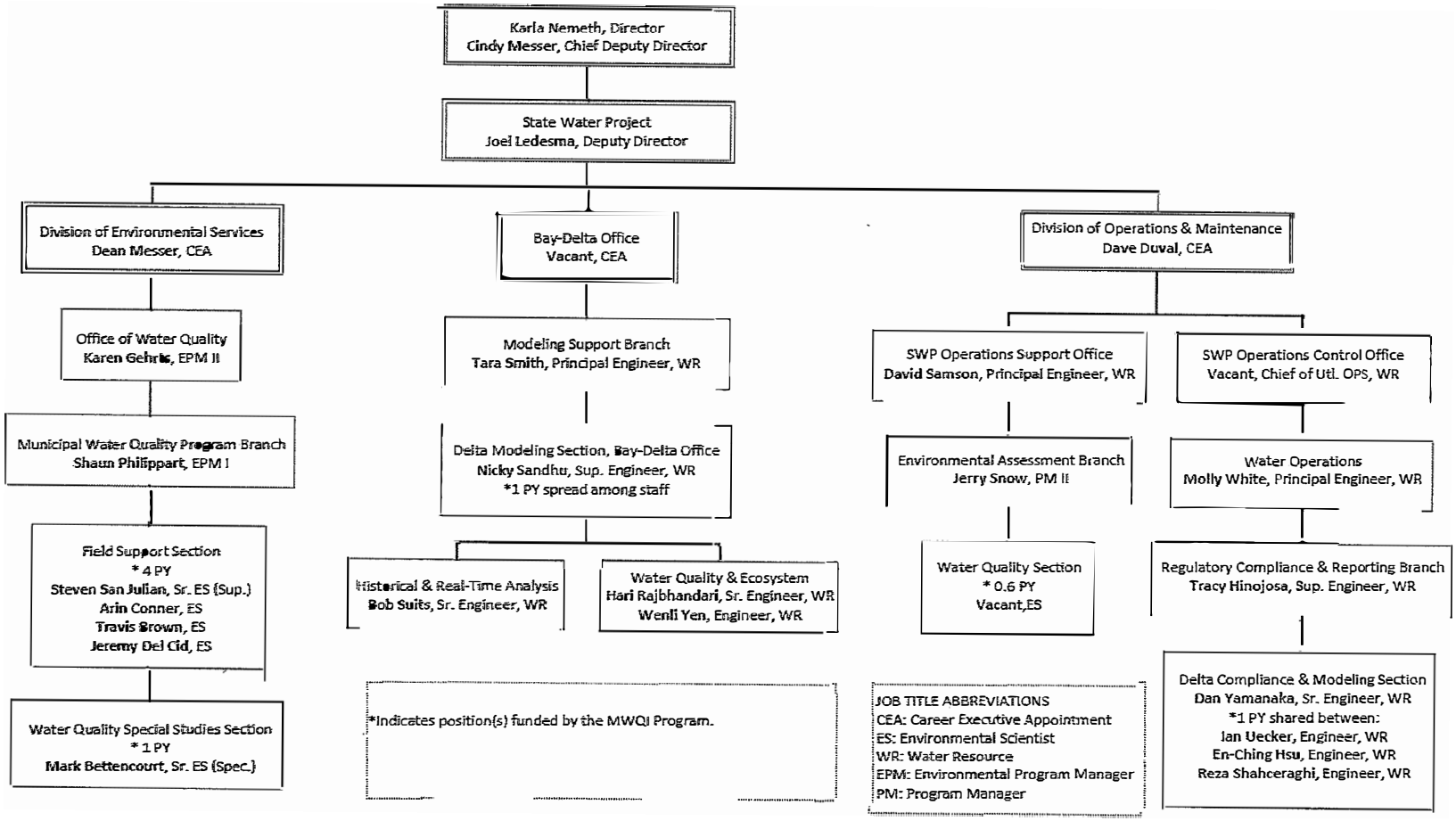
Although MWQI Program core elements will receive priority, staff time may occasionally shift away from work described in this work plan. Examples include work on drought activities, CA WaterFix, EcoRestore, or Oroville spillway and fire recovery efforts. If it becomes apparent that core elements will be affected, adjustments will be made to keep the program moving forward.

Core elements are listed in priority of importance to the MWQI SPC:

1. Water quality monitoring (both real-time and discrete) at existing stations and sites.
2. Modeling duties associated with producing short term water quality forecasts and performing historical updates of existing models.
3. Production and dissemination of daily and weekly RTDF reports
4. Data management activities pertaining to database infrastructure enhancement and improvement of long-term RTDF data storage and retrieval.
5. Program management activities listed in the MWQI funding agreement and those mandated by DWR health and safety. This includes RTDF Steering Committee meetings, budget updates, Bulletin 132 updates, and support to department emergency, drought, and O&M programs.
6. Other required Program activities mandated by DWR or essential to the MWQI Program (i.e. purchasing, contracts, budgeting, 2019 DWR Environmental Scientist Workshop, safety and policy training, specific meetings and conferences).

2.4 DWR MWQI Program Organization Chart

Figure 1. DWR org chart showing positions funded by MWQI Program funds.



3. PROGRAM FUNDING NEEDS

3.1 MWQI Agreement and MWQI Specific Project Agreement

The Municipal Water Quality Investigations Agreement (MWQI Agreement) between the Department of Water Resources, the State Water Contractors (SWC), and the MWQI Committee of the State Water Contractors provide the funding authority for DWR's MWQI Program costs. DWR's MWQI Program costs include salaries, benefits and overhead of DWR staff working for the MWQI Program, and equipment, supplies and operating expenses associated with the Program. These DWR MWQI Program costs are funded through the annual statement of charges of those SWP Contractors who participate in the MWQI Program. The current MWQI Funding Agreement is in effect from January 1, 2017 to December 31, 2019 which covers the timeframe of this calendar year (CY) based annual work plan.

The State Water Contractors MWQI Program Specific Project Agreement (MWQI Specific Project Agreement) establishes an independent, supplemental funding authority to support the objectives of the MWQI Program. SWP Contractors who are signatories to the MWQI Specific Project Agreement collectively form the MWQI Specific Project Committee (MWQI SPC) which carries out the work. Funds collected from the participating contractors form the MWQI SPC Account. In addition, the Contra Costa Water District which is not a SWP Contractor and not a signatory to the MWQI Specific Project Agreement provides some funding to help with MWQI Program expenses. The MWQI SPC Fund is generally used to pay for MWQI Program related costs that are not administered by DWR. These costs include hiring and retaining consultants, special studies or investigations, administrative and related costs, and if emergency or urgent needs warrant, the purchase of equipment or supplies for the MWQI Program or facilities. The current MWQI Specific Project Agreement is in effect from January 1, 2017 through December 31, 2019.

The CY 2019 MWQI Program budget total is $3.1 million with $2,620,443 ($2,424,315 of which is allocated in the 2019 workplan – see Table 1) assigned to the DWR MWQI Program, and the remaining portion for the MWQI SPC fund. The MWQI SPC will continue to budget on a FY basis.

The estimated budget expenses for this work plan CY are shown in Table 1.

This work plan covers January to December 2019. The12-month budget is presented in Table 1 below and is followed by an explanation of MWQI Program expenditures in Table 2. Partner staffing in this budget reflects 1 Position Year (1 PY = 1778 hours/year = 221 working days) each for the BDO and OCO, and 0.6 PY for the Division of O&M EAB.

Table 1. January – December 2019 Program Element Costs for MWQI Program

Workplan Element		Program Element	2019 IO#	Labor Hours	Labor Cost	Contracts	OE&E	Total Cost
5		Water Quality Assessment						
	5.1	Routine Monitoring Program	VWQASSMENT13	1937	$236,555		$40,000	$276,555
	5.2	Short-term Monitoring (included with 5.1)	VWQASSMENT13					
	5.2.1	Delta Boundary Inputs Monitoring	VWQASSMENT13	190	$32,500			$32,500
	5.2.2	Cache Complex, Stage 2 Monitoring	VWQASSMENT13	200	$34,000			$34,000
	5.2.3	Endothall Monitoring	VWQASSMENT13	60	$6,900		$30,000	$36,900
6		RTDF-Comprehensive Program						
	6.1	6.1.1 MWQI Real Time Stations	VRTMONITOR13	2755	$330,185	$44,000	$200,000	$574,185
		6.1.2 Gianelli WQ Station	VGIANNELLI13	1017	$116,955	$14,000	$20,000	$150,955
	6.2	6.2.1 Bay Delta Office Modeling	VRTBDOMODL13	1628	$276,760			$276,760
		6.2.2 Operations Control Office Modeling	VRTOCOMODL13	1438	$244,460			$244,460
		6.2.3 Improve Aqueduct Pump-In Dynamics	VPUMPINDYN15	220	$37,400			$37,400
		6.2.4 Compare WQ Forecasts to Actual Conditions	VCOMPAREWQ15	120	$26,400			$26,400
	6.3	RTDF-CP Information Management and Data Dissemination	VRTDDISRPT13	800	$125,000			$125,000
7		Special Studies						
	7.1	FDOM Project	VFDOMPOCS013	100	$11,500			$11,500
	7.2	NVR Recycled Water Program	VFDOMPOCS013	40	$4,600			$4,600
	7.3	Support for Nutrient Concerns	VFDOMPOCS013	160	$21,600			$21,600
	7.4	Pesticide and Herbicide Use in the Delta	VFDOMPOCS013	40	$4,600			$4,600
8		Other MWQI Funded Program Activities						
	8.1	Administration Work	VDWRRQDDPC13	2628	$383,900		$48,000	$431,900
9		Other Required Program Costs						
	9.1	MEO Insurance & Fuel & Maintenance					$5,000	$5,000
	9.2	MEO New Boat and New Truck					$130,000	$130,000
		Total		13,333	$1,893,315	$58,000	$473,000	$2,424,315

* DWR assessments are equally charged to programs to cover costs of Departmental overhead expenses. For example, administration, legal, and executive offices.
**The MWQI Program includes 5 PY for staff and 2.6 PY's for program partners in OCO, BDO, and O&M. Labor rates are estimated at: ES - $115/hour, Sr ES Spec - $135/hour, Sr ES Sup - $175/hour, WR Engineer - $170/hour

3.2 Explanation of Program Element Costs for Work Plan Projects

Table 2. January – December 2019 MWQI Program Contract and Operating Expenses & Equipment (OE&E) Costs

Program element:		OEE for the WP	Justification	CY 2019 Cost
5.1	WQ Assessment	Routine Monitoring Program		$40,000
5.2	WQ Assessment	Endothall monitoring - contract lab costs		$30,000
6.1.1	RTDF	MWQI Real Time Stations - equipment & filter replacement		$50,000
6.1.1	RTDF	YSI EXO2 Sondes with chlorophyll and FDOM probes	See Section 6.4	$150,000
6.1.1	RTDF	All Cal Services - portable toilet at Hood real time station		$2,000
6.1.1	RTDF	Thermo-Fisher service contract for 3 Dionex IC analyzers (Banks, Vernalis, Jones)		$23,000
6.1.1	RTDF	GE/Sievers - service contract for 4 organic carbon analyzers (Hood, Banks, Jones, Vernalis)		$19,000
6.1.2	Gianelli WQ Station	Thermo-Fisher service contract for 1 Dionex IC analyzers (Gianelli)		$9,000
6.1.2	Gianelli WQ Station	GE/Sievers - service contract for 1 organic carbon analyzers (Gianelli)		$5,000
6.1.2	Gianelli WQ Station	Equipment repairs and replacement, filters, reagents, etc.		$20,000
8.1	MWQI Administration	Facility Maintenance, meetings, conferences, training for MWQI staff		$40,000
8.1	MWQI Administration	4 new computers		$8,000
9.1	Mobile Equipment Office	Replacement Truck, new	See Section 9	$40,000
9.1	Mobile Equipment Office	Replacement Boat, new	See Section 9	$90,000
9.1	Mobile Equipment Office	Vehicle maintenance, fuel, and insurance		$5,000
		TOTAL Contract & OEE COSTS:		$531,000

4 WORKLOAD ASSESSMENT

For this work plan cycle, January 1 through December 31, 2019, MWQI Program management conducted a workload assessment to determine whether staff had enough work to occupy 100% of their time. This assessment is based on 8 staff members which includes MWQI Program staff and our MWQI Program funded partner staff in OCO, BDO, and O&M. The assessment assumes that staff have 1778 hours of production time during the year. The assessment does not use the total hours in a year (2080) because total hours includes vacation, holidays, sick, etc. where staff do not produce work. The workload assessment has proved to be a vital tool in managing staff workloads, shifts in workloads, and impacts to the MWQI budget. Table 3 lists the current workload assessment.

Tab le 3. Workload Assessment

Draft MWQP Branch Staff Labor Plan CY2019 MWQI Work Plan	Routine Monitoring Program (VWQASSMENT13)	Short-term Monitoring (VWQASSMENT13)	Delta Boundary Imputs Study (VWQASSMEN13)	Cache Slough Complex, Stage 2 (VWQASSMENT13)	Endothall Monitoring (VWQASSMENT13)	MWQI Real Time Stations (VRTMONITOR13)	Gianelli WQ Station (VGIANNELLI13)	BDO- Bay Delta Office Modeling (VRTBDOMODL13)	OCO- Operations Control Office Modeling (VRTOCOMODL13)	Improve Aqueduct Pump-In Dynamics (VPUMPINDY15)	Compare WQ Forecasts to Actual Conditions (VCOMPAREWQ15)	RTDF Data Dissemination and Reporting (VRTDDISRPT13)	Fluorescence of Dissolved Organic Matter (FDOM) (VFDOMPOCS013)	North Valley Regional Recylced Water Program	Support for Nutrient Concerns	Pesticide and Herbicide Use in the Delta	Administration work/training/RTDF/Modeling meetings (VDWRRQDDPC13)	Staff Hours Committed (1778 work hours/year = 221 day; 2080 hours /year includes vacation, holidays, sick, etc.)
Work Plan Element	5.1	5.2	5.2.1	5.2.2	5.2.3	6.1.1	6.1.2	6.2.1	6.2.2	6.2.3	6.2.4	6.3.1	7.1	7.2	7.3	7.4	8.1	Total
MWQI Field Section	combined																	
Arin Conner	539		0	0	20	709	0	0	0	0	0	10	0	0	0	40	400	1718
Travis Brown	544		0	0	20	714	0	0	0	0	0	0	0	40	0	0	400	1718
Jeremy Del Cid	534		0	0	20	664	0	0	0	0	0	0	100	0	0	0	400	1718
Steven San Julian	210		40	200	0	0	0	0	0	0	0	0	0	0	0	0	1328	1778
RTDF-CP & Data Dissemination																		
Mark Bettencourt	60		0	0	0	668	0	0	0	0	0	790	0	0	160	0	100	1778
Non-MWQP Staff																		
Vacant	50		0	0	0	0	1017	0	0	0	0	0	0	0	0	0	0	1067
OCO - Hsu/Shahcheraghi	0		0	0	0	0	0	0	1438	220	120	0	0	0	0	0	0	1778
BDO - Yin/Rajbhandari	0		150	0	0	0	0	1628	0	0	0	0	0	0	0	0	0	1778
Total Hours	1937		190	200	60	2755	1017	1628	1438	220	120	800	100	40	160	40	2628	13333
PYs	1.09		0.11	0.11	0.03	1.55	0.57	0.92	0.81	0.12	0.07	0.45	0.06	0.02	0.09	0.02	1.48	7.50

5 WATER QUALITY ASSESSMENT

Water quality assessment has been a key feature of the MWQI Program since its inception in 1983. MWQI's monitoring data are used by many groups including DWR and other agencies, the MWQI SPC, non-governmental organizations, and by the public. MWQI monitoring data are used in drinking water supply studies, to identify long-term trends in drinking water quality, and to help DWR and other agencies research and mitigate drinking water issues in Delta waters and the SWP. Additionally, in collaboration with the BDO, O&M EAB, and OCO, monitoring data are used to further develop the "early warning" system that provides *advance notice* to Delta water users of possible drinking water quality problems. Monitoring data are collected by two different monitoring strategies; 1) discrete grab samples, and 2) continuous real-time monitoring via remotely located instrumentation. This section focuses on discrete or 'grab sample' monitoring for January-December 2019. Section 6.1 focuses on continuous, remote real-time monitoring.

The discrete monitoring program underwent major revisions for 2019. The twelve stations that are part of MWQI's long-term, routine monitoring program (Section 5.1) continue, but the short-term monitoring projects have changed. Table 4 lists all sites that have been discontinued, changed, or added this year. Completed in December 2018 were the Cache Slough Complex Pre-Restoration Monitoring Project and the Delta Simulation Model 2 (DSM2) Nutrient Monitoring Project, which both began in 2013. Two new, but related, projects have been added in their place. These new projects are described in section 5.2.

See Table 5 for the full list of 2019 monitoring locations with associated analytes, and see Figure 2 for the discrete and real-time sampling sites map. Table 6 lists the routine and special project discrete grab sample deliverables and timelines.

Table 4. Discontinued, Changing, and New Sampling Sites for 2019.

Station Name	Project	Reason
		Discontinued:
Mokelumne River at Benson Ferry	DSM2 Nutrient	There are safety concerns about site access. The site is also too close to the mouth of the Cosumnes River which can negatively affect representativeness. A replacement site has been added to address these concerns.
Sacramento River at Westin Boat Dock	DSM2 Nutrient	Upstream sites—Sac River at West Sac Intake, NEMDC, and American River—can be used to calculate conditions at Westin which makes sampling this site unnecessary.
Wildlands	Cache Slough Complex	Study goals met. We will continue monitoring Liberty Cut which is representative of Wildlands.
Shag Slough @ Liberty Is bridge	DSM2 Nutrient and Cache Slough Complex	Study goals met. We will continue monitoring Liberty Cut which is representative of Shag Slough.
Miner Slough at Highway 84 bridge	Cache Slough Complex	Study goals met. We will continue monitoring Miner Slough below Prospect Island which is representative of Miner at Highway 84.
Sacramento Deepwater Ship Channel	Cache Slough Complex	Study goals met. We will continue monitoring Cache Slough at Ryer Island which is representative of Sacramento Deepwater Shipping Channel.
		Changing:
Sacramento River at Mallard Island	Routine and DBIM	We will no longer collect at the Mallard Station, but the EMP will collect this sample mid-channel on their monthly water quality boat run. This change is part of the DES monitoring efficiency project.
Old River at Bacon Island	Routine	We will no longer collect at Bacon Island, but the EMP will collect a sample mid-channel on their monthly water quality boat run. This change is part of the DES monitoring efficiency project.
San Joaquin River nr Vernalis	Routine and DBIM	We will continue sampling at this location but will also be collecting the Vernalis sample for the EMP program as part of the DES monitoring efficiency project.
		New Sites:
Old River at Clifton Court	EMP Compliance Monitoring	We are taking over this site from DWR's Environmental Monitoring Program as part of the DES monitoring efficiency project.
Mokelumne River at New Hope Road	DBIM	This site is replacing Benson's Ferry site. It is upstream of that location which should remove the seasonal influence of the Cosumnes River on the quality of the sample.
Cosumnes River at Twin Cities Road	DBIM	During the dry season, the Cosumnes River operates as a slough as there are limited to no flows contributed to the Delta. This new site will be monitored only when Cosumnes River is contributing sufficient flow downstream.
Cache Creek at Yolo Bypass	Cache Slough Complex	Cache Creek inputs to the Yolo Bypass will be monitored during storm events that result in sufficient flows.
Putah Creek at Mace Blvd.	Cache Slough Complex	Putah Creek inputs to the Yolo Bypass will be monitored during storm events that result in sufficient flows.
Ulatis Creek at Cache Slough	Cache Slough Complex	Ulatis Creek inputs to the Cache Slough will be monitored during storm events that result in sufficient flows.
Willow Slough at County Road 102	Cache Slough Complex	Willow Slough inputs to the Yolo Bypass will be monitored during storm events that result in sufficient flows.

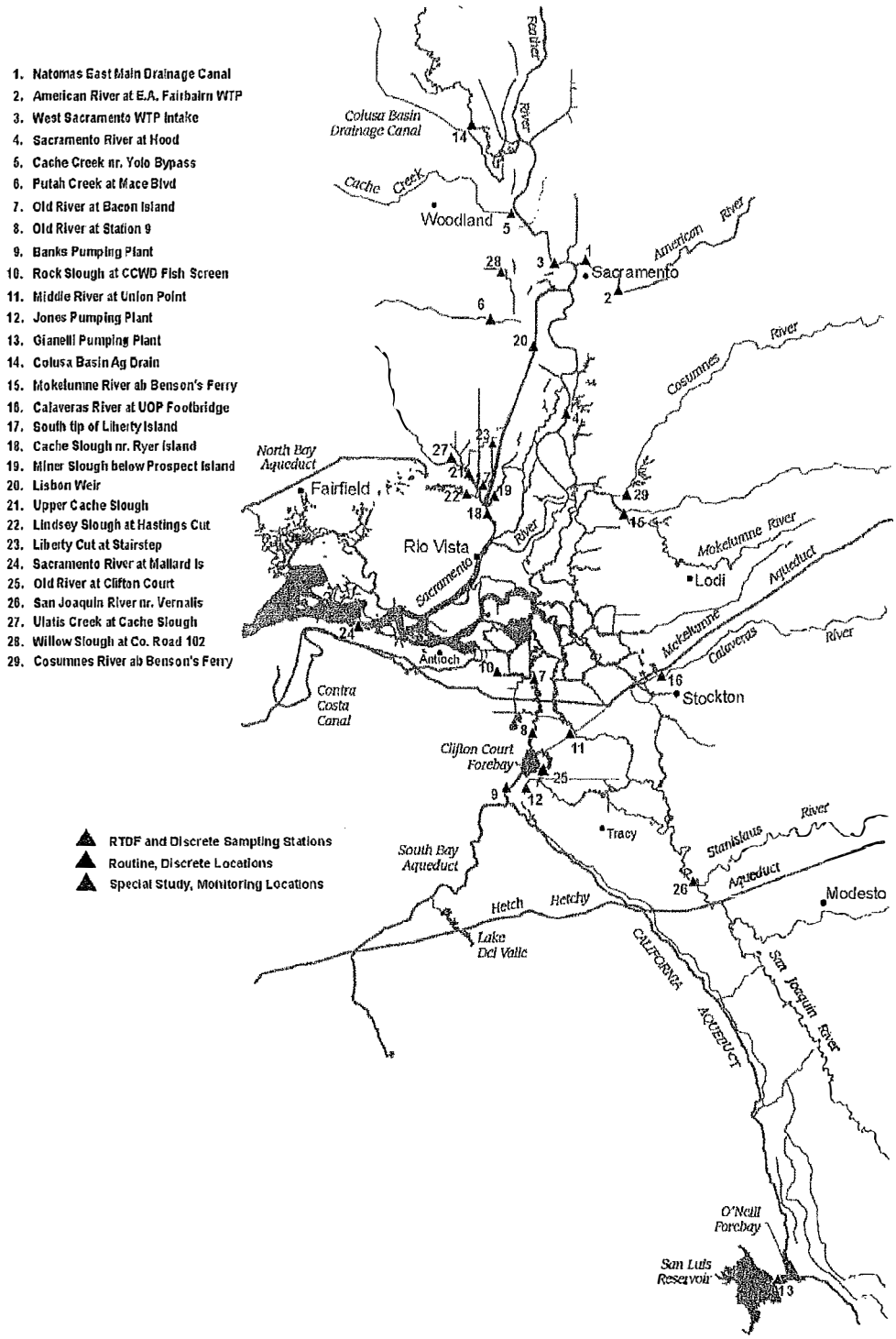
Table 5. MWQI Program's Discrete and Grab Sampling Stations

#	Stations	WDL Stations (ID)	Analytes Collected	Frequency	Study
1	Natomas East Main Drainage Canal	NATOMAS EMDC at EL CAMINO RD (A0V83671280)	Std. Mineral, nutrients, TOC, DOC, bromide, chlorophyll, metals	Monthly	Routine
2	American River at E.A. Fairbairn WTP Intake	American River at W.T.P. (A0714010)	Std. Mineral, nutrients, TOC, DOC, bromide, chlorophyll	Monthly	Routine
3	Sacramento River at West Sacramento WTP Intake	Sacramento River at W. Sac Intake Structure (A0210451)	Std. Mineral, nutrients, TOC, DOC, bromide, chlorophyll	Monthly	Routine
4	Sacramento River at Hood	Sacramento R A Hood (B9D82211312)	Std. Mineral, nutrients, TOC, DOC, bromide, chlorophyll	Monthly	Routine, RTDF
5	Cache Creek at Yolo Bypass	TBD	Std. Mineral, nutrients, TOC, DOC, bromide, chlorophyll	Flow Based, Monthly	DBIM
6	Putah Creek at Mace Blvd	Putah C SF A Liberty Is Rd (A0910500)	Std. Mineral, nutrients, TOC, DOC, bromide, chlorophyll	Flow Based, Monthly	DBIM
7	Old River at Bacon Island (D28A)	Old River @ Rancho Del Rio B9D75821344	Std. Mineral, nutrients, TOC, DOC, bromide, chlorophyll (EMP collecting)	Monthly	Routine
8	Old River at Station 9	Old R. nr. Bryon (St 9) (NEAR HWY 4) (B9D75351342)	Std. Mineral, nutrients, TOC, DOC, bromide, chlorophyll	Monthly	Routine
9	Banks Pumping Plant at Headworks	Delta P.P. Headworks at H.O. Banks PP (KA000331)	Anions, TOC, DOC (MWQI); Std. Mineral, turbidity, UVA, TOC, DOC, bromide, total phosphorous, total suspended solids, phytoplankton, purgeable organics, taste and odor (MIB & geosim), asbestos, and radiological, pesticides and herbicides (O&M collecting)	Monthly; Monthly or quarterly	Routine, RTDF
10	Rock Slough at CCWD Fish Screen	Contra Cost Canal at Rock Slough Fish Screen (B9C75861385)	Std. Mineral, nutrients, TOC, DOC, bromide, chlorophyll	Monthly	Routine
11	Middle River @ Union Point	Middle River A Union Point (B9D75351292)	Std. Mineral, nutrients, TOC, DOC, bromide, chlorophyll	Monthly	Routine
12	Jones Pumping Plant at DMC	Delta Mendota Canal intake at Jones PP (B9C74781351)	Anions, TOC, DOC	Monthly	RTDF
13	Gianelli Pumping/Generating Plant	Gianelli WQ Station nr. Pumping Plant (ON003050)	Anions, TOC, DOC	Monthly	RTDF
14	Colusa Ag Drain nr. Sacramento River	Ag Drain on Colusa Basin Main Drain (A0294500)	Std. Mineral, nutrients, TOC, DOC, bromide, suspended solids, chlorophyll	Monthly	Routine

#	Stations	WDL Stations (ID)	Analytes Collected	Frequency	Study
15	Mokelumne River @ New Hope Road	MOKELUMNE R A NEW HOPE-GALT RD (B9D81421251)	Std. Mineral, nutrients, TOC, DOC, bromide, suspended solids, chlorophyll	Monthly	DBIM
16	Calaveras River @ UOP Footbridge	Calaveras R @ UOP (B9D75851208)	Std. Mineral, nutrients, TOC, DOC, bromide, suspended solids, chlorophyll	Flow Based, Monthly	DBIM
17	Southern tip of Liberty Island	S. Liberty Is. (B9D81461410)	Std. Mineral and nutrients, TOC, DOC, suspended solids, chlorophyll	Monthly	Cache Complex
18	Cache Slough nr Ryer Island	Cache Sl nr. Ryer Is (B9D81281401)	Std. Mineral and nutrients, TOC, DOC, suspended solids, chlorophyll	Monthly	Cache Complex
19	Miner Slough below Prospect	Miner Sl below P (B9D81410400)	Std. Mineral and nutrients, TOC, DOC, suspended solids, chlorophyll,	Monthly	Cache Complex
20	Lisbon Weir (Yolo Bypass East Toe Drain)	YOLOBYLISBON (B9D82851352)	Std. Mineral and nutrients, TOC, DOC, suspended solids, chlorophyll (AES collected)	Monthly	Cache Complex
21	Upper Cache Slough	Upper Cache Sl (B9S81841416)	Std. Mineral and nutrients, TOC, DOC, suspended solids, chlorophyll	Monthly	Cache Complex
22	Lindsey Slough at Hastings Island Bridge	Lindsey Sl. at Bridge (B9D81481421)	Std. Mineral and nutrients, TOC, DOC, suspended solids, chlorophyll,	Flow Based, Monthly	Cache Complex
23	Liberty Cut at Stair-step	LibertyCut at StairStep (B9D82011400)	Std. Mineral and nutrients, TOC, DOC, suspended solids, chlorophyll,	Monthly	Cache Complex, DBIM
24	Sacramento River @ Chipps Island- D10 (Replaces Mallard Island-D10A)	Sacramento River at Chipps Island- D10 B9D80281551	Std. Mineral, nutrients, TOC, DOC, bromide, chlorophyll (EMP collecting)	Monthly	Routine, DBIM
25	Old River at Clifton Court	West Canal at Clifton Court FB Intake (B9D74971331)	Std. Mineral, nutrients, TOC, DOC, bromide, chlorophyll	Monthly	EMP
26	San Joaquin River near Vernalis	San Joaquin R. nr. Vernalis (B0702000)	Std. Mineral, nutrients, TOC, DOC, bromide, chlorophyll	Monthly	Routine, RTDF, DBIM, EMP
27	Ulatis Creek at Cache Slough	Cache Slough @ Vallejo P.P (B9D81781448 or TBD)	Std. Mineral, nutrients, TOC, DOC, bromide, chlorophyll	Flow Based, Monthly	Cache Complex
28	Willow Slough at County Road 102	(TBD)	Std. Mineral, nutrients, TOC, DOC, bromide, chlorophyll	Flow Based, Monthly	DBIM

- 1 Mallard Island is a monthly routine monitoring location, but for the DSM2 Nutrient study samples are collected every two weeks.
- Physical Parameters collected at all sites: Temperature, pH, Turbidity, Dissolved Oxygen, and Specific Conductance
- Standard Mineral analysis includes: Ca, Mg, Na, K, B, Alkalinity, Chloride, Bromide, Nitrate, Sulfate, Dissolved Solids, Specific Conductance, Standard Nutrient analysis includes: Nitrate + Nitrite, Ammonia, Organic Nitrogen and Ammonia, Total Phosphorus (unfiltered), and Orthophosphate
-

Figure 2. MWQI Discrete and RTDF Monitoring Locations, CY 2019



5.1 Routine Monitoring Program

Collection at long-term, routine monitoring locations remains unchanged from the previous work plan. The only difference being that two of the sites, Sacramento River at Mallard Island and Old River at Bacon Island, will be collected by the Environmental Monitoring Program (EMP) instead of MWQI, as part of the DES Monitoring Efficiency Project. For RTDF station quality control (Sec. 6), discrete samples are collected once per month at the Banks Pumping Plant, Jones Pumping Plant, Gianelli Pumping Plant, and Hood and Vernalis river stations. These river and canal samples are collected to examine instrument performance but can also be used as discrete data representative of the sample location. Discrete sample data are available through DWR's Water Data Library (WDL). Deliverables and timelines associated with discrete sample collection are shown in Table 6.

5.2 Short-term Monitoring

Aside from MWQI's routine monitoring, other samples are collected for short-term monitoring projects. These projects are described below.

5.2.1 Delta Boundary Inputs Monitoring

Principle Investigator – Steven San Julian
Project Partners – Hari Rajbhandari & Leslie Palencia

The Delta Simulation Model 2 (DSM2) nutrient monitoring study ended in December 2018, but continued and refined monitoring at some locations is justified to fill data gaps. Therefore, MWQI will monitor some sites on a monthly time step, and other sites seasonally based on the stream's calculated flow contribution. The data will be useful for MWQI and contractor analysis and also be available for further DSM2 model development. Sites monitored for this study will be:

- Sacramento River at Hood (monthly)
- Mokelumne River at New Hope Road (monthly)
- San Joaquin River near Vernalis (monthly)
- Sacramento River near Mallard Island (monthly)
- Liberty Cut in Yolo Bypass (monthly)
- Cosumnes River at Twin Cities Rd? (sampled only when flow threshold met)
- Calaveras at UOP (sampled only when flow threshold met)

The need for this continued monitoring will be re-assessed each year at the time of new workplan development. The Delta Boundary Inputs Monitoring project deliverables and timelines for the memorandum report are shown in Table 6.

5.2.2 Cache Slough Complex, Stage 2 Monitoring

Principle Investigator –Steven San Julian
Project Partners – Justin Pascual and Leslie Palencia

In December 2018, Cache Slough Complex baseline monitoring ended after about 5 years of twice monthly sampling. The original study goals were: 1) to describe water

quality conditions in the Complex prior to restoration occurring, and 2) determine if an existing tidally restored site (Wildlands) increased concentrations of constituents of concern in the Complex. Although, these questions have been answered, other questions have grown out of this study. In Stage 2 monitoring, we will be adjusting monitoring to meet the new study goals. The new goals are 1) determine where/what occurs in the west side stream watersheds that results in seasonal spikes in concentrations of key constituents, and 2) to continue to grow the database of data in the Cache Slough Complex over the next year, albeit on a smaller scale than conducted previously. See Figure 2 for map of locations and Table 5 for the constituent list.

Aside from Stage 2 Cache Slough monitoring, there are discussion about producing a report on the 2013-2018 Cache Slough data findings. At the time of workplan development, no decision has been made on if a report will be written, what the report will entail, or by who. This will be decided over the next few months and will be addressed in RTDF meetings.

The Cache Slough Complex Study deliverables and timelines are shown in Table 6.

5.2.3 Endothall Monitoring

Project Partners – Steven San Julian (MWQI) & Leslie Palencia (SWC)

MWQI collaborated with O&M and the MWQI SPC to monitor Endothall at Clifton Court Forebay and O'Neil Forebay in 2018. Applications in the SWP have been effective in treating aquatic vegetation, but Endothall degradation is complex and affected by environmental conditions. If Endothall does not breakdown, it may adversely affect human health. The drinking water MCL for Endothall is set at 0.1 mg/L.

Therefore, monitoring is planned to assess chemical degradation in the treatment forebays and adjacent waterways. O&M has tentative plans to treat again in 2019. If treatment occurs, MWQI plans to support O&M monitoring efforts by supplying field staff, autosamplers, and other resources, as needed.

Table 6. Routine and Special Project Discrete Sample Deliverables and Timelines

Deliverables	Participants	Start Date	Estimated Completion Date
Records of monthly and bi-weekly monitoring data.	MWQI	N/A	Currently available upon request
Records of periodic calibration of field monitoring equipment	MWQI	N/A	Currently available upon request
Records demonstrating consistent and timely application of QA/QC procedures	MWQI	N/A	Currently available upon request
Timely analysis and posting of results to the WDL	MWQI	N/A	Monthly, available on-line
Delta Boundary Inputs Monitoring	MWQI	January 2019	Reassess Dec 2019
Cache Slough Complex, Stage 2 Monitoring	MWQI	January 2019	Reassess Dec 2019
Cache Slough Complex, Stage 1 Report	TBD	TBD	TBD
Conduct Endothall Treatment monitoring	O&M EAB, MWQI	TBD	TBD

6 REAL-TIME DATA AND FORECASTING COMPREHENSIVE PROGRAM

The RTDF-CP focuses on providing real-time water quality data and related information gathered from multiple sources. This enables water managers to make operational decisions based on observed and forecasted changes in water quality. The RTDF-CP includes a network of real-time water quality monitoring stations that provide current water quality conditions, and a modeling component that provides both historical and predictive water quality characterizations. Monitoring performed by the RTDF-CP encompasses the Delta, watersheds of the Delta, the SWP, and portions of the federal Central Valley Project (CVP). In addition, funded positions within the MWQI Program are also found within DWR's BDO, OCO, and O&M Environmental Assessment Branch.

The RTDF-CP Consists of Three Principle Activities:

1. Remote instrumentation that provides real-time water quality data
2. Modeling that provides historical water quality fingerprints and water quality forecasting
3. Information management and data dissemination

Real-time monitoring, forecasting and data dissemination activities are guided by the RTDF Steering Committee, a group of technical experts composed of MWQI Program staff, CCWD staff and participating MWQI SPC agencies.

6.1 Real-Time Monitoring

The real-time monitoring section of the RTDF-CP produces water quality data that supports the development of water quality forecasting tools, provides current and advanced notice of water quality conditions, provides information for water quality and water supply planning studies, and can be used by drinking water treatment plant operators to make informed operational decisions.

This program element is comprised of:

1. Instrumentation installed at key remote locations in and around the Delta.
2. Field operations that provide timely repair and maintenance of all station equipment.
3. Timely dissemination of real-time data.
4. Standard Operating Procedure documentation and instrument QA/QC documentation.
5. Implementation and documentation of data QA/QC.

6.1.1 MWQI Program Real Time Stations

The RTDF-CP continues to operate five remote real-time monitoring stations; four located in the Delta and one south of the Delta (Table 7). The Delta stations include Hood, located on the Sacramento River near the town of Hood, Banks Pumping Plant, located at the head of the SWP, Jones Pumping Plant, located at the head of the Delta-Mendota Canal (part of the CVP) and Vernalis, located on the San Joaquin River near the town of Vernalis. The southern station, at Gianelli Pumping Plant, is located within O&M's San Luis Field Division on O'Neill Forebay below San Luis Reservoir. Table 8 summarizes the tasks associated with these real-time monitoring stations.

Table 7 summarizes station locations, MWQI Program and non-MWQI Program water quality parameters, and the automated analyzers used by the MWQI Program RTM element. Figure 2 shows the location of the RTM stations.

Field office labor associated with real-time monitoring (RTM) includes:

1. Ordering RTM supplies, phone consultation with instrument manufacturers
2. Creation of RTM Quality Control (QC) sampling runs
3. Creation of instrument-specific chemical standards, solutions and reagents
4. Repairs to station peripheral components
5. Maintenance of equipment used on RTM field runs
6. Analysis of all RTM data
7. Remote operation of instruments.

Table 7. MWQI Program Real-Time station locations, parameters, and equipment

MWQI Program Station/CDEC Station	MWQI Program Parameters & Instruments	Non-MWQI Program Parameters
Sacramento River at Hood (CDEC = SRH)	TOC, DOC (Suez, Sievers 900)	Water: chlorophyll, EC, DO, pH, temperature and turbidity. Atmospheric: solar radiation, temperature, wind speed and direction.
San Joaquin River near Vernalis (CDEC = SJR)	TOC, DOC (Suez, Sievers 5310) bromide, chloride, nitrate, sulfate, (Thermo-Fisher Dionex ICS-2100)	Water: chlorophyll, DO, EC, pH, river flow and stage, temperature and turbidity. Atmospheric: solar radiation, temperature, wind speed and direction
Banks Pumping Plant - Delta Headworks (CDEC = HRO)	TOC, DOC (Suez, Sievers 5310), bromide, chloride, nitrate, sulfate, (Thermo-Fisher Dionex ICS-2100)	Water: EC, fluorescence, pH, pump discharge, temperature, turbidity Atmospheric: temperature, wind speed and direction.
Jones Pumping Plan (CDEC = TRP)	TOC, DOC, (Suez, Sievers 5310), bromide, chloride, nitrate, sulfate, (Thermo-Fisher Dionex ICS-2100)	Water: EC, pump discharge, temperature.
Gianelli P/G Plant (CDEC = ONG)	TOC, DOC (Suez, Sievers 5310), EC, temp, turbidity, DO, pH (YSI 6600) bromide, chloride, nitrate, sulfate (Thermo-Fisher Dionex ICS-2100)	Pump and Generation discharge

6.1.2 Gianelli WQ Station

To track time and expenditures related to the Gianelli water quality station, a separate IO was created (VGIANNELLI13). Most of the funding for this station goes toward the salary of an Environmental Scientist position held within the O&M EAB (Environmental Assessment Branch). Responsibilities for this position are similar to those at the MWQI stations.

Table 8. Real-Time Monitoring Tasks

Deliverable	Participants	Estimated Start Date	Estimated Completion Date
Continue operation of automated stations at Hood, Banks, Jones, Vernalis, and Gianelli	MWQI Program, O&M Water Quality	Ongoing	Ongoing
A) Update SOPs: documenting maintenance, operation and QA/QC of all in-situ equipment.	MWQI Program, O&M Water Quality	N/A	A) Ongoing
B) Continue to work towards standardizing, streamlining, and consolidating DWR's in-situ equipment, data quality control, and data dissemination.	MWQI Program, O&M Water Quality, North Central Regional Office, and IEP	N/A	B) Ongoing
Evaluate the need and planning for other installations per the RTDF-CP (together with RTDF Steering Committee).	RTDF SC	Jul 2008	Ongoing

6.2 RTDF-CP Water Quality Forecasting

The modeling/forecasting component of the RTDF-CP continues to update and improve existing models to further develop their capabilities. The objective of this effort is to better incorporate modeling insight with water quality monitoring to maximize the use of modeling results by water quality managers.

The modeling effort continues to focus on Historical representations (fingerprints), Short-Term Aqueduct Forecasts and Seasonal Forecasts. These efforts are scheduled to continue through this work plan cycle.

6.2.1. BDO Modeling

BDO staff, the model mechanics, periodically work on MWQP/RTDF model issues and special projects as needed. They will continue to be involved when model issues arise, and the models require adjustment. (This includes potential work to incorporate aqueduct turn-in water into the seasonal and short-term aqueduct models. The goal being to see how model output is affected by this water.) New projects may also be added to this task, with further discussion between MWQP staff and the MWQI SPC. The MWQI SPC will work with BDO staff to discuss the feasibility of a new project on Delta Salinity Constituents Relationships, which is a continuation of work previously conducted by the MWQI SPC on developing constituent relationships between salinity, and chloride, and bromide. Other areas where assistance from BDO may be needed are technical input into a MWQI SPC project on Improving Seasonal Forecasts (Project 6.2.4) and possibly developing a volumetric fingerprint for the Aqueduct model (Project 6.2.3).

6.2.2. OCO Modeling

OCO staff, the model operators, continue to produce seasonal forecasts, short-term aqueduct forecasts and monthly historical fingerprints. Working with the BDO modelers, if need be, they continue to update and work on improving model reliability. (Since OCO staff run the models, they will also be involved with turn-in water model dynamics and work to incorporate this data.) OCO will provide a justification for alternative method for forecasting DOC (short-term) and will complete additional calibration with more DOC data.

6.2.3. Improve Aqueduct Pump-in Dynamics in the MWQI Program Water Quality Forecasts

Principal Investigator – OCO Staff Member (TBD) and MWQI Program Staff (TBD)
Project Partner –Tony Liudzius

Although the original intention of this project was to incorporate pump-ins into the short-term and seasonal forecasts, it is desired to allocate additional effort into running the Aqueduct model with historical pump-ins first. In 2018, OCO provided Aqueduct model results at checks 25, 29, 41 and 66 with and without pump-ins for bromide and EC using 2014 historical data. For this 2019 workplan, it is desired that OCO continue running

the Aqueduct model with additional historic data (ie 2012 to 2018) and additional constituents like nitrate, chromium and arsenic.

The project will also include developing a protocol so that pump-in data is transferred on a regular basis to OCO, such that OCO will continuously update the historical aqueduct simulation to include pump-ins (updated monthly, analogous to the historical Delta simulation).

Short-Term Forecasts
Interested SWP contractors and MWQI Program staff will investigate whether scheduled near-term aqueduct pump-in (defined here as less than 2 months) data is available and whether obtaining this information on an ongoing basis is feasible. If this information is available, the effort will include establishing procedures for acquiring the information and determining if any support tools are needed to help automate and process the data. The goal would be to include accurate, up-to-date pump-in information in the MWQI Program short-term water quality forecasts.

Seasonal Forecasts
This task is the same as described above except that the desired pump-in information will be for the current year (or slightly longer) in order to conform to the timeframe used in the seasonal water quality forecasts.

6.2.4. Comparison of Water Quality Forecasts to Actual Conditions

The original intention of this project was to improve the accuracy of the long-term forecasts, as the forecasts do not match well with actual conditions, particularly the earlier forecasts. The MWQI SPC has decided to retain a consultant to investigate sources of uncertainty in order to possibly improve seasonal forecast results. Technical support may be needed from both BDO and OCO.

6.3 RTDF-CP Information Management and Data Dissemination

This program element includes data dissemination and information management tasks associated with the synthesis of real-time data and related information that is derived from the RTDF-CP and a variety of federal and state water quality monitoring programs. The element produces, gathers, organizes and disseminates this information via the WDL (http://wdl.water.ca.gov/), the California Data Exchange Center (CDEC) (http://cdec.water.ca.gov/) and the RTDF-CP web page:

https://water.ca.gov/Programs/Environmental-Services/Water-Quality-Monitoring-And-Assessment

In addition, daily and weekly summary emails containing a subset of information including real time data, Delta commentary, weather updates and hydrological conditions are sent to interested parties. (This information is also posted on the RTDF-CP web site.) Information provided on the RTDF-CP web page gives users a single location to search for related water quality information.

6.3.1. RTDF Data Dissemination and Reporting

Information management and data dissemination tasks performed by MWQI and the Technical Consultant, TetraTech include:

1. Continued refinement of the WDL data set
2. Continued refinement of the MWQI Program database
3. Continued development and enhancement of online tools for editing, evaluating, and interpreting MWQI Program water quality data (QA/QC and data visualization).
4. Improve means to distribute daily and weekly water quality reports via the internet
5. Improve database functionality

Tasks for the data dissemination portion of the RTDF program are shown below in Table 9.

6.4 Addition of YSI EXO Sondes to Real-Time Water Quality Stations

To further enhance the capabilities of the real-time monitoring program, the RTDF section will be installing YSI EXO sondes at the Banks, Jones, and Gianelli water quality monitoring stations. FDOM sensors will be provided to another section (the DWR Environmental Monitoring Program Section) to monitor this consistent at the other two stations, Sacramento River at Hood and San Joaquin River at Vernalis. The YSI EXO sondes instruments will measure algal concentrations. Algal blooms can cause problems for drinking water contractors, so monitoring will give treatment facilities an early warning when algal concentrations begin to increase. Besides FDOM, the sondes will also provide turbidity and any other constituent of interest that the probes are capable of monitoring, such as pH, dissolved oxygen, and specific conductance. The cost of the five YSI XO2s that were purchased is $100,000, the remaining $50,000 in OE&E will be held in reserve for probes or other equipment purchases that are deemed necessary.

Table 9. Information Management and Data Dissemination Deliverables and Timelines

Task	Participants	Start Date	Ongoing
Improve/Upgrade database infrastructure	MWQI Program		
A) Continue to implement updates and patches as appropriate.		A) Began Jan 2009	A) Ongoing
B) Continued enhancement of manual and automated QA/QC processes		B) Began Jan 2009	B) Ongoing
C) Continue to develop the station journal database and applications.		C) Began Jan 2010	C) Ongoing
D) Continue to develop desktop data management tools, enhance plotting capabilities, link time series and QA/QC.		D) Began Jan 2010	D) Ongoing
E) Continue to document and maintain infrastructure.		E) Began Jul 2009	E) Ongoing
F) Add new sensors to the database as needed		F) Began Jan 2010	F) Ongoing
Improve Field Data Communications	MWQI Program		
A) Continue to develop, test and enhance intranet/ internet components.		A) Began Jan 2011	A) Ongoing
B) Develop and implement as feasible procedures, practices and standards for supporting the reliability of field data systems.		B) Began Jul 2011	B) Ongoing
Development and enhancement of RTDF data dissemination products	MWQI Program		
A) As needed, add new stations & sensors to the website or daily summary table.		A) N/A	A) Ongoing as needed
B) As needed, enhance the website presentation.		B) N/A	B) Ongoing as needed
C) Enhance procedures for emailing the daily summary report.		C) N/A	C) Ongoing as needed

7. SPECIAL STUDIES

Although the special studies group has disbanded, the studies outlined below will be worked on this year by existing staff. Aside from the new, the FDOM study is being carried forward to the 2019 workplan.

7.1 Fluorescence of Dissolved Organic Matter (FDOM) Project

Principal Investigator – Jeremy Del Cid
Project Partner – Alex Rabidoux/Justin Pascual/Steven San Julian

The purpose of this project is to investigate the use of FDOM as a proxy for organic carbon measurements. Literature reviews have shown significant relationships between FDOM and DOC and it may be possible to use FDOM as a proxy for DOC measurements. For this project, a fluorometer (Turner Designs Cyclops 7) was installed on the SWP at the Banks Pumping Plant (Banks).

In Early 2016, the two FDOM studies were reorganized into a single study. Phase 1 of the FDOM study, was renamed the FDOM Interim Report, and Phase 2 was renamed the FDOM Final Report. The FDOM Interim Report covered data collected between July 2013 and July 2014 and was completed July 2016. This report investigated the relationships between FDOM and DOC, and FDOM and UVA254.

The FDOM Final Report, expands on the relationships investigated in the interim report and encompasses the full set of data collected between July 2013 and September 2015. The final report will expand on the correlation between FDOM and DOC by including unfiltered and 100 micron filtered water along with the 0.45 filtered samples collected during the initial study phase. Final report completion date is March 2019 to allow the study lead time to edit and finalize the draft report.

7.2 North Valley Regional Recycled Water Program

Principal Investigator – Travis Brown
Project Partner – Steven San Julian

The Central Valley Regional Water Quality Control Board adopted a discharge permit in February 2016 that permits the cities of Modesto and Turlock to discharge up to 59,000 acre-feet of recycled tertiary treated waste-water into the Central Valley Project Delta Mendota Canal (DMC). The recycled water will be transferred to the Del Puerto Water District and to the Central Valley Project Improvement Act. The city of Modesto began discharging recycled water into the DMC in December 2017, while the city of Turlock will not start discharging into the DMC until late 2019. A monitoring study was implemented by the city of Turlock in December 2016 to assess if there are water quality effects as the result of the addition of recycled water into the DMC.

With the addition of the City of Modesto and the City of Turlock treated wastewater effluent being discharged directly into the Delta Mendota Canal, there is concern about the possibility of increased nutrient loading and resultant algal blooms down-stream. The City of Turlock has reached an agreement with the SWC to monitor for

ammonia, nitrate, TKN, dissolved ortho P, total P, temp, EC, pH and DO at upstream and downstream locations of the discharge. They will also monitor for algal biomass, chlorophyll-a, pheophytin-a and algal toxins at McCabe and upstream of the discharge. For this project, DWR staff should evaluate the City of Turlock's data as well as data already collected by DWR at McCabe, Check 13, Gianelli and Pacheco. Questions to be answered are:

- Did concentrations of ammonia, nitrate, TKN, dissolved ortho P, total P, temp, EC, pH and DO change at the downstream location once Turlock began discharging in 2019? What are the baseline concentrations at the downstream location prior to start of Turlock discharge?
- Are the upstream and downstream locations statistically different for ammonia, nitrate, TKN, dissolved ortho P, total P, temp, EC, pH and DO, prior to Turlock discharge?
- Are the upstream and downstream locations statistically different for ammonia, nitrate, TKN, dissolved ortho P, total P, temp, EC, pH and DO, once Turlock discharge commenced?
- Have concentrations of algal biomass, chlorophyll-a, pheophytin-a and algal toxins changed at McCabe, Check 13, Gianelli and Pacheco once Turlock began discharging in 2019? What are the baseline concentrations at these locations prior to Turlock discharge?

A spreadsheet with the constituent graphs and a short summary of any notable data and trends will be provided to the contractors bi-annually.

7.3 Support for Nutrient Concerns

Principal Investigator – Mark Bettencourt
Project Partner – Shaun Philippart

MWQI staff will investigate the feasibility of installing a real-time ammonia analyzer at the Sacramento River at Hood Station. This is an important location because Sacramento Regional Sanitation's (Regional San) WWTP outflow is just upstream of Hood and is a major contributor of ammonia into the Sacramento River. Regional San has been mandated to switch to tertiary treatment by 2021, which will greatly reduce the amount of ammonia entering the system. MWQI would like to establish a baseline ammonia level before the treatment process is switched to monitor any changes that may occur to North Delta water quality. MWQI staff will also investigate the feasibility of monitoring for phosphate at the San Joaquin River at Vernalis station due to the possibility that agricultural inputs upstream of the station may affect phytoplankton blooms in the southern Delta. MWQI staff will also look into equipment needed to monitor phosphorus using the Dionex at Banks.

7.4 Pesticide and Herbicide Use in the Delta

Principal Investigator – Arin Conner
Project Partner – Steven San Julian

The increased use of chemicals to control floating and submerged vegetation in Delta waterways is of concern to downstream water contractors. This study will collect and

summarize historical pesticide and herbicide usage in Delta waterways from the Dept. of Boating and Waterways. Any chemical use trends based on location and or timing should be noted. Questions for the study could be:
-What locations had the highest annual usage of pesticides or herbicides (lbs. or gallons)?
-For locations with higher chemical usage, are the chemicals applied in certain months or seasons?
-Has aquatic vegetation been increasing in recent years?

Data may be best displayed graphically. This data will serve to confirm the increased use of pesticides and herbicides, as well as increased vegetative growth. The information will be presented to the contractors on annual basis to discern trends in pesticide and herbicide use.

8. ADMINISTRATION WORK

In general, time and budget expense that fall under the Administrative Work IO include repair and maintenance costs to office facilities; meetings, conferences and training attended by staff; and all non-project specific office duties that are billable to the MWQI program. First level program management costs (majority of Steve San Julian's time) are also billed here.

MWQI staff are occasionally requested to support other DWR activities. For example, staff may be asked to provide technical assistance, review and revise plans, or provide support that improves workplace safety practices. Such assistance may directly or indirectly benefit the MWQI Program stakeholders and the MWQI SPC, and therefore will be charged to the MWQI budget.

MWQI Program staff will continue to inform the RTDF Steering Committee and MWQI SPC about work related to these tasks. MWQI will achieve this through updates during the RTDF meetings, by providing details in this and future work plans, and through monthly expenditure reports.

9. OTHER REQUIRED PROGRAM COSTS

Other Required Program Costs are items not directly billed to MWQI program IOs. This includes Mobile Equipment Office charges and other costs that the MWQI program would be responsible to bear in the absence of other work.

Charges that MWQI is responsible to bear are unallocated labor hours and budget. The labor and money associated with this are available for work on other MWQI projects, non-MWQI funded projects (Section 10, below), and for the purchase of other equipment and supplies as required by the program. Any such expenditures will be addressed in RTDF meetings prior to allocation.

DWR's Mobile Equipment Office (MEO) provides insurance and fuel to support the vehicles used by the Field Support Section staff for their routine water quality assessment efforts. The MEO office staff will continue to support the MWQI Program by providing customer support through cost effective fleet management and maintenance of mobile equipment owned by DWR.

In addition to fuel & insurance, this cost allocation allows for the recommended annual services on each vehicle at 6K and 12K, for miscellaneous incidental costs (such as towing, flat repair, etc.), and includes an amount for catastrophic repairs that the older vehicles may require.

MEO expenditures are not assigned to any specific program element but are tracked and reported as MEO, line item 9.1, is in the column entitled "Operating Equipment and Expenses" in Table 1, and on the monthly expenditure reports. These monthly expenditure report will be provided as handouts prior to the RTDF Steering Committee meetings.

In 2019, the MWQI Field Section plans to purchase a new, replacement truck, and a new replacement boat. MWQI's current truck has reached the end of its useful life (according to DGS guidelines) and therefore needs to be exchanged for a new, replacement truck. The current MWQI boat also meets the DGS guidelines for replacement, but the main justification for boat replacement is the need for a larger boat for MWQI's monitoring activities. The boat we currently possess is very small (~15 feet) and does not provide the space, or proper conditions for MWQI's monitoring activities. The new boat will be sized appropriately for our branch's work and to improve the safety of staff operating the field.
The process for such replacement can be lengthy but these funding was set aside in the 2018 CY with the hopes that the truck and boat would be replaced during that year. Although these items have "ordered" in the MEO system, in is not clear if the money will come out of our budget during 2018 or 2019. The RTDF Committee will be informed when information regarding this purchase is known. Estimated expenditure for these items are $40,000 for a new truck, and $90,000 for a new boat.

10. NON-MWQI FUNDED PROGRAM

Since DWR is a matrix management organization, staff may be requested to assist with supporting various DWR activities by providing technical support, data analysis, timely document and plan reviews, and may occasionally attend meetings. Some of these support activities are not funded by the MWQI Program budget. For example, the MWQI Program staff who assist with the turbidity transects will charge their work time to the respective program's budget, and not to MWQI funds.

The amount of work time that staff spend on non-MWQI funded activities is still limited, but has increased over the past few years and can impact MWQI workload. MWQI

Program staff members serve as DWR's technical drinking water quality experts. Work done on non-MWQI projects is beneficial to DWR and is indirectly beneficial to the MWQI stakeholders.

STATE OF CALIFORNIA
NATURAL RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
MUNICIPAL WATER QUALITY INVESTIGATIONS
AGREEMENT

BETWEEN THE STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES,
STATE WATER CONTRACTORS AND
PARTICIPATING URBAN STATE WATER PROJECT CONTRACTORS
SWPAO NO. 19-300

THIS AGREEMENT is made this ___ day of _____, 2019, pursuant to the provisions of the California Water Resources Development Bond Act, the State Central Valley Project Act, and other applicable laws of the State of California, between the State of California, acting by and through the Department of Water Resources (DWR), the State Water Contractors (SWC) and participating urban State Water Project (SWP) contractors located in the State of California (urban SWP Contractors).

RECITALS

WHEREAS, DWR and the urban SWP Contractors have entered into and subsequently amended long-term water supply contracts, herein referred to as the Water Supply Contracts, providing that DWR will supply certain quantities of water to the urban SWP Contractors and providing that the urban SWP Contractors shall make certain payments to DWR, and setting forth the terms and conditions of such supply and such payment;

WHEREAS, DWR conducts various studies and activities to protect and improve the quality of SWP drinking water supplies;

WHEREAS, DWR's Municipal Water Quality Investigations (MWQI) Program endeavors to monitor, evaluate, report-on, and forecast water quality conditions, and identify and evaluate the sources of contaminants that affect the municipal drinking water supplies of the urban SWP Contractors;

WHEREAS, DWR must have a source of funding to repay the costs of the MWQI Program;

WHEREAS, the urban SWP Contractors believe the MWQI Program is necessary to provide this important water quality information in a timely way to insure the best available source water is conveyed by the SWP, to efficiently operate their drinking water treatment facilities and to plan for and design cost effective drinking water treatment facilities to meet future drinking water quality standards;

WHEREAS, DWR and the urban SWP Contractors are endeavoring to increase the value that DWR provides to the contractors;

WHEREAS, this Agreement will allow the SWC to provide supplemental water-quality related services to the MWQI Program;

WHEREAS, the SWC have formed an MWQI Specific Project Committee (SPC) made up of many SWC members that are urban SWP Contractors and are participants in the MWQI Program;

WHEREAS, the MWQI SPC will perform supplemental water quality-related services to the MWQI Program with the intent to offer sufficient flexibility to complete required activities;

WHEREAS, urban SWP Contractors are willing to enter into this Agreement to pay their share of the MWQI Program costs and accordingly the urban SWP Contractors will be included in decisions related to the budget, scope, schedule, and activities of the MWQI Program;

WHEREAS, Santa Barbara County Flood Control and Water Conservation District (District) is an urban SWP Contractor and has authorized the Central Coast Water Authority (CCWA) to represent the District in the DWR MWQI Program and to enter into this Agreement on behalf of the District for the 2020-2022 term (See Letter of Authorization attached as **Exhibit A** to this Agreement.) DWR will invoice the District in their Statement of Charges.

AGREEMENT

. **NOW THEREFORE**, it is mutually agreed that the following terms, conditions, and procedures hereby apply to the implementation and funding of the MWQI Program:

1. Definitions. When used in this Agreement, the following definitions shall apply:

(a) **"Bond Act"** means the California Water Resources Development Bond Act, comprising Chapter 8, commencing at Section 12930, of Part 6 of Division 6 of the Water Code, as enacted in Chapter 1762 of the Statutes of 1959.

(b) **"Calendar Year"** means the calendar year beginning January 1 through December 31.

(c) **"Field Support Section" or "FSS"** means a Section of staff within the MWQI Program which routinely conducts water quality monitoring (both real-time and discrete) at sites in the Delta for municipal and industrial uses, and provides water quality data and knowledge-based data support to the Real-Time Data and Forecasting Comprehensive Program (RTDF-CP), and other programs within DWR.

(d) **"Municipal Water Quality Investigations Program" or "MWQI Program"** means a program to determine and evaluate the sources of contaminants in the SWP system and evaluate their impacts on municipal drinking water supplies to urban SWP Contractors. This includes work conducted by DWR staff in the following programs: the RTDF-CP, FSS, and the program partners in the Division of Operations & Maintenance (O&M) Regulatory Compliance & Reporting Branch and the Environmental Assessment Branch, and the Bay Delta Office (BDO) Delta Modeling Section. The MWQI Program includes work done under the direction of DWR management with guidance and support from the SWC and urban SWP Contractors.

(e) **"Municipal Water Quality Program (MWQP)"** means a branch within the

DWR Division of Environmental Services that manages the MWQI Program with oversight on administrative functions and work conducted by the MWQI Program.

(f) **"MWQI Modeling and Forecasting Program Partners"** means DWR staff in the O&M Environmental Assessment Branch which routinely conducts water quality monitoring (both real time and discrete) at SWP facilities in the San Luis Field Division, including the Gianelli Monitoring Station and DWR staff in the O&M Operations Control Office Regulatory Compliance and Reporting Branch and the BDO Delta Modeling Section, who provide modeling and forecasting support through MWQI Program resource agreements.

(g) **"MWQI SPC Account"** means an account established by the SWC to fund consultant work and supplemental water quality services not funded through the Statements of Charges.

(h) **"MWQI SPC Charge"** means the charge to be collected by the SWC each fiscal year through invoices from the SWC to those Participating Contractors that have agreed in their MWQI Specific Project Agreement to pay a portion of the total MWQI Program costs into the MWQI SPC Account for MWQI Program work that is performed by the MWQI SPC during the Fiscal Year.

(i) **"MWQI Specific Project Agreement"** An agreement entered into by urban SWP Contractors as members of the MWQI Committee of the SWC to permit the MWQI SPC to perform supplemental water quality related services as identified in Appendix 1 of the MWQI Work Plan in addition to the work performed by DWR.

(j) **"MWQI Specific Project Committee (SPC)"** consists of urban SWP Contractors as members of the MWQI Committee of the SWC that have signed the MWQI Specific Project Agreement.

(k) **"MWQI Statements of Charges (SOC) Charge"** means the charge, based on projected costs, to be collected each calendar year by DWR through the SOC for MWQI Program work that is performed by DWR during the Calendar Year.

(l) **"MWQI Work Plan"** means a plan for work to be performed by DWR and the MWQI SPC during a given Calendar Year.

(m) **"Participating Contractor"** means an urban SWP Contractor that has executed this Agreement.

(n) **"Project Management Plans (PMP)"** means a plan developed using the DWR accepted Project Management Body of Knowledge (PMBOK) standard for managing individual projects. PMP include documentation

describing how the project will be designed, initiated, planned, executed, monitored, and closed. PMP will also include a site safety plan and a quality assurance project plan (QAPP).

(o) **"Real-Time Data and Forecasting Comprehensive Program (RTDF-CP)"** is a program within the MWQI Program that conducts modeling studies; produces water quality forecasts; and incorporates the FSS's and O&M's SWP drinking water quality monitoring data to create and disseminate daily, weekly, and web based reports on the sources and concentrations of contaminants in the Delta and SWP system. The RTDF-CP also provides historical and seasonal trends, MWQI Program web site updates, and conducts data management activities pertaining to database infrastructure enhancement and development to improve long-term storage and retrieval of RTDF-CP data.

(p) **"Real-Time Data and Forecasting Steering Committee (RTDF Steering Committee)"** consists of representatives from the MWQP branch, the DWR program partners, the SWC, and urban SWP Contractors.

(q) **"Real-Time Data and Forecasting (RTDF) Section"** means a Section of staff within the MWQP branch that routinely supports and sustains the RTDF-CP program.

(r) **"Resource Agreements"** means a written program-partnering agreement to manage the workloads, staff resources, deliverables, and budgets across DWR Divisions in respective programs. MWQP has individual 3-year resource agreements (RA) with the: O&M Regulatory Compliance & Reporting Branch, the O&M Environmental Assessment Branch, and the BDO Delta Modeling Section.

(s) **"Statements of Charges (SOC)"** means the annual charges distributed to each Water Supply Contractor on July 1 of each year, as defined in Article 29 of the Water Supply Contract.

(t) "**SWP**" means the State Water Project, which includes the Delta for purposes of the MWQI Program work plan projects.

(u) **"SWP Project Interest Rate"** means the weighted average of the interest rates paid by the State on bonds issued under the Bond Act without regard to any premiums received on the sale thereof. Until bonds are issued and sold under the Bond Act, the project interest rate shall be four percent (4%) per annum, and after said bonds have been issued said rate shall be computed as a decimal fraction to five places.

(v) "**Water Supply Contract**" means a long-term contract between the State of California and each urban SWP Contractor for a water supply from the SWP of the type contained in DWR's Bulletin 141 dated November 1965.

(w) **"Water Supply Contractor"** means a public agency that has a current Water Supply Contract.

2. Work Plan Development.

(a) DWR shall develop a proposed annual MWQI Work Plan, budget, and workload assessment by September 15 for the upcoming Calendar Year for presentation to, and to receive recommendations from, the RTDF Steering Committee and for the concurrence of the MWQI SPC for work performed under their MWQI SPC Account.

DWR will hold monthly meetings/conference calls with the MWQI RTDF Steering Committee and provide a report on the status and progress of the MWQI Work Plan projects with monthly updates on expenditures. The final MWQI Work Plan shall be developed by December 15 of each year for the upcoming Calendar Year.

(b) In developing the MWQI Work Plan each year, all comments and suggestions from the Participating Contractors will be processed through the MWQI SPC. The MWQI SPC will submit a unified set of comments to DWR.

(c) The MWQI Work Plan shall, at a minimum, include:

(1) A description of the water quality assessment work to be accomplished, including planned field and laboratory work, with monitoring projects broken down into routine or short-term;

(2) A description of the RTDF-CP work including the real-time monitoring program, production and dissemination of daily, weekly, and website RTDF-CP reports on hydrologic and water quality conditions, and information and data management activities;

(3) A description of the water quality modeling and forecasting work including production and dissemination, of Delta fingerprint modeling, short-term forecasts and seasonal forecasts;

(4) A description of other MWQI Program funded activities;

(5) Specifications for deliverables related to individual MWQI Program components; and

(6) Budget for each MWQI Program component, along with a total budget and workload assessment.

3. MWQI Real-Time Data Forecasting Steering Committee (RTDF Steering Committee). The MWQI RTDF Steering Committee shall meet as needed to

review, refine, and recommend changes to the MWQI Work Plan.

4. MWQI Work Plan Implementation.

(a) MWQI Program work shall be implemented upon final approval of the MWQI Work Plan by DWR and the MWQI SPC, and will be conducted in accordance with the MWQI Work Plan.

(b) Adjustments to the MWQI Program may be made as needed by DWR in response to conditions or opportunities that may arise at any time in a Calendar Year. These changes will be submitted to the RTDF Steering Committee for concurrence, and as needed to the MWQI SPC at their next scheduled meeting.

5. Program Deliverables. At a minimum, DWR will provide the RTDF Steering Committee the Program Deliverables listed below, subject to modification by decision of DWR, and with the concurrence of the RTDF Steering Committee and the MWQI SPC:

(a) Monthly status reports and an assessment of recent MWQI Program expenditures in relation to the program budget at the last week of the month or at the next scheduled RTDF Steering Committee meeting.

(b) All MWQI Program FSS data collected will be made available through the Water Data Library or the California Data Exchange Center. All MWQI Program final RTDF-CP reports will be posted on the MWQI website.

(c) MWQI RTDF-CP monitoring and forecasting reports shall be completed in a timely manner given staffing and financial constraints.

6. MWQI SOC Charge.

(a) DWR shall recover its costs for the MWQI Program through the MWQI SOC Charge. The MWQI SOC Charge shall recover costs incurred by DWR for the MWQI Program consistent with the annual MWQI Work Plan during the term of this Agreement. Each Participating Contractor's share of the annual MWQI SOC Charge for the term of the Agreement will be calculated each year based upon the annual MWQI SOC Charge multiplied by their proportionate share of the M&I Table A amount, except that of Kern County Water Agency. Kern County Water Agency shall be limited to 79,000 acre-feet and the remainder of the Participating Contractors' share shall increase proportionately, as shown in Table 1 and Table 2.

(b) To facilitate billing on a calendar year basis, each Participating Contractor's share of the MWQI SOC Charge will be computed and included in the Participating Contractor's annual SOC under the

Transportation Minimum OMP&R component, and, except as otherwise expressly provided in this Agreement, shall be collected under the same terms and conditions as charges are collected under that Water Supply Contract. The MWQI SOC Charge shall initially be based on projections of costs determined pursuant to development of the annual MWQI Work Plan. The MWQI SOC Charge shall then be subject to re-determination each year by DWR so that the charges may accurately reflect the increases or decreases in costs as compared to the projections of costs and all other factors that are determinative of such charges. Adjustments to the annual charges resulting from a re-determination shall be reflected in each Participating Contractor's share of the MWQI SOC Charge in the following calendar year with interest at the current SWP Project Interest Rate.

(c) The MWQI SOC Charge plus the MWQI SPC Charge will not exceed $3,100,000 for any Calendar Year.

7. **Performance.** Implementation of the MWQI Program will require staff involvement of various organizational units within DWR. DWR will take steps to ensure sufficient staffing and coordination occurs consistent with the adopted MWQI Work Plan. From time to time due to other assigned duties, individual staff assigned to the MWQI Program may devote less than 100 percent of their effort to identified tasks in the MWQI Work Plan. DWR will not bill Participating Contractors for staff efforts not included in the MWQI Work Plan.

8. **MWQI SPC Account.** Work to be completed by the MWQI SPC shall be identified in Appendix 1 of the MWQI Work Plan. Appendix 1 shall be developed by DWR and the MWQI RTDF Steering Committee and submitted to the MWQI SPC for approval prior to any work being performed. Appendix 1 shall, at a minimum, include: a description of all professional services to be rendered; all equipment, supplies or services to be purchased; a description of the work to be accomplished, broken down into individual MWQI Work Plan components; descriptions of planned field and laboratory work; specifications for deliverables related to individual work elements; and, budgets for each work element, along with a total budget. The MWQI SPC Account costs for supplemental water quality related services will be collected through the MWQI SPC Charge. Payments from Contra Costa Water District (CCWD) for its participation in the MWQI Program activities may be used to offset the MWQI SPC Charge as necessary. The MWQI SPC Charge shall not exceed $700,000 annually. The MWQI SPC will obtain the necessary goods and services using funds from the MWQI SPC Account to accomplish its share of the MWQI Work Plan.

9. **MWQI SPC Charge.** Each year as necessary, the SWC shall invoice Participating Contractors to collect funds for the MWQI SPC Account. Each Participating Contractor's share of the annual MWQI SPC Charge for the term of the Agreement will be calculated each year based on the annual MWQI SPC Charge multiplied by their proportionate share of the M&I Table A amount except

that of Kern County Water Agency. Kern County Water Agency shall be limited to 79,000 acre-feet and the remainder of the Participating Contractors' share shall increase proportionately, as shown in Table 2. The MWQI SPC Account shall be used to implement the MWQI SPC activities identified in the annual MWQI Work Plan. The MWQI SPC Charge shall initially be based on projections of costs determined pursuant to development of the MWQI Work Plan. The MWQI SPC Charge shall then be subject to re-determination each year by the MWQI SPC so that the charges may accurately reflect the increases or decreases in costs as compared to the projections of costs and all other factors that are determinative of such charges. Adjustments to the annual charges resulting from a re-determination shall be reflected in each Participating Contractor's share of the MWQI SPC Charge in the following calendar year with interest at the current SWP Project Interest Rate.

10. **Disposition of Property and Equipment.** Any property or equipment obtained by the SWC through the MWQI SPC Account, at the discretion of the MWQI SPC, may be given to DWR "as is." DWR, at its sole discretion, may choose to accept such property or equipment. Upon acceptance, such property or equipment shall become the property of the State of California, and neither the SWC nor any Water Supply Contractor shall have any further responsibility or liability for such property or equipment. The SWC do not and shall not provide any express or implied warranties for any property or equipment given to and accepted by DWR. However, to the extent permitted, the SWC will transfer to DWR any warranties provided by the manufacturer or other third parties for such property or equipment.

11. **Services Provided by the MWQI SPC on State Property.** With the approval of DWR for specific activities, the SWC on the recommendation or approval of the MWQI SPC may provide for services to be completed on State property as part of the MWQI Work Plan in Appendix 1. The SWC shall hold the State harmless for any litigation resulting from any claims that may arise from the participating vendor, contracted by the SWC, providing the services.

12. **Water Supply Contract**. Except as specified in this Agreement, the provisions of the Participating Contractor's Water Supply Contract shall be applicable to this Agreement.

13. **State Law**. This Agreement is made under and shall be construed in accordance with the laws of the State of California.

14. **MWQI Staff Out-of-State Travel.** If requested by the MWQI SPC, MWQI Program staff may be required to attend out of state scientific conferences to ensure that the MWQI Program provides the best available water quality information to the MWQI SPC and ensures that scientific studies are designed in the most innovative, cost-effective manner possible to meet future drinking water quality standards. Travel expenses will come out of DWR's MWQI Program Budget.

15. **Adjustment of Table 2 Proportionate Use Factors**. Table 2 Proportionate Use Factors are based upon the best information available of Participating Contractors that will be paying into the MWQI SPC Charge at the time this Agreement is executed. These Proportionate Use Factors may be adjusted if a Participating Contractor requests not to pay into the MWQI SPC Account and the request is approved by the MWQI SPC. The total of the Participating Contractors Table A Amount in Table 2 shall not be less than 2,300,000 acre-feet. Any Participating Contractor not paying into the MWQI SPC Account through the MWQI SPC Charge will still be subject to Paragraph 16, the Final Program Accounting.

16. **Final Program Accounting**.

(a) At the end of the Agreement, DWR and the SWC will work together to summarize all Participating Contractor's MWQI SOC Charges, MWQI SPC Charges and those MWQI SPC Account costs paid for by the payments from CCWD and all actual MWQI Program costs incurred during the term of this Agreement. This Final Program Accounting will determine if each Participating Contractor has paid its proportionate share of the total actual MWQI Program costs through its payments to both the MWQI SOC Charge and the MWQI SPC Charge during the term of the Agreement. Each Participating Contractor's proportionate share of the total MWQI Program costs will be in the same proportion as its M&I Table A Amount shown in Table 1 bears to the total of all Participating Contractor's M&I Table A Amounts shown in Table 1.

(b) If a new MWQI Agreement, similar to this MWQI Agreement, is implemented effective January 1, 2023, DWR will account for each Participating Contractor's Final Program Accounting over and under payment to the MWQI SOC Charge in the 2024 MWQI SOC Charge. If a new MWQI Agreement, similar to this MWQI Agreement is not implemented, DWR will invoice each Participating Contractor for its Final Program Accounting over or under payment in the 2024 SOC.

(c) If a new MWQI Agreement, similar to this MWQI Agreement is implemented effective January 1, 2023, the SWC will provide for each Participating Contractor's Final Program Accounting over and under payment to the MWQI SPC Charges for the Calendar Year 2023 - 2024 MWQI SPC Charge. If a new MWQI Agreement, similar to this MWQI Agreement is not implemented, the SWC will issue either a check or invoice to each Participating Contractor for its Final Program Accounting over or under payment by July 1, 2023.

(d) The MWQI SPC may vote to not conduct the Final Program Accounting at the end of the 2020-2022 MWQI Agreement if the M&I Table A amounts of the Contractors participating in both the SOC and SPC charges exceed

2,300,000 acre-feet. The MWQI SPC will provide DWR written notice of the vote by July 1, 2022.

17. **Term of Agreement**. This Agreement shall take effect on January 1, 2020, only if this MWQI Agreement is executed by the Participating Contractors that together have M&I Table A Amounts totaling at least 2,300,000 acre-feet. This Agreement shall terminate on December 31, 2022, except for payments or credits found through re-determination pursuant to Paragraph 16 of this Agreement. This Agreement may be terminated by any party with a twelve months written notice. Written notice of termination shall be delivered by certified mail with receipt for delivery returned to the sender. If any party provides notice of termination, the SWC and DWR will renegotiate the budget for the time remaining in the twelve-month period. DWR shall perform such work as is necessary for the orderly completion of work scheduled for the twelve-month period. The cost of such work shall not exceed the budget for that twelve-month period. If the Participating Contractors decide to continue to fund the MWQI Program starting January 1, 2023, the MWQI SPC will provide DWR with a Letter of Intent no later than February 1, 2022, of that intent. This will allow DWR time to prepare the preliminary estimates for the 2023 SOC.

18. **Agreement Execution**. This Agreement may be executed in counterpart, each will be deemed to be an original and all of which together will be deemed to be the same document. Each entity certifies that the person signing below on the respective entity's behalf has the authority to bind that entity to the covenants made in this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date first above written.

APPROVED AS TO LEGAL FORM
AND SUFFICIENCY

STATE OF CALIFORNIA, DEPARTMENT OF WATER RESOURCES

By: _____
Chief, Division of Environmental Services

Name:_____
Date: _____

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

By: _____
General Manager
Name:_____
Date: _____

ALAMEDA COUNTY WATER DISTRICT

By: _____
General Manager
Name:_____
Date: _____

ANTELOPE VALLEY-EAST KERN WATER AGENCY

By: _____
General Manager
Name:_____
Date: _____

SANTA CLARITA VALLEY WATER AGENCY

By: _____
General Manager
Name:_____
Date: _____

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

By: _____
Executive Director
Central Coast Water Authority
Name:_____
Date: _____

CRESTLINE-LAKE ARROWHEAD WATER AGENCY

By: _____
General Manager
Name:_____
Date: _____

KERN COUNTY WATER AGENCY

By: _____
General Manager
Name:_____
Date: _____

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

By: _____
Group Manager, Water Resource Management
Name:_____
Date: _____

MOJAVE WATER AGENCY

By: _____
General Manager
Name:_____
Date: _____

NAPA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

By: _____
District Engineer

Name:_____
Date: _____

PALMDALE WATER DISTRICT

By:

General Manager
Name:_____
Date: _____

SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT

By:

General Manager
Name:_____
Date:

SAN GORGONIO PASS WATER AGENCY

By:

General Manager and Chief Engineer
Name:_____
Date:_____

SAN LUIS OBISPO COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

By:_____
Public Works Director
Name:_____
Date:

SANTA CLARA VALLEY WATER DISTRICT

By:

Chief Executive Officer
Name:_____
Date:_____

SOLANO COUNTY WATER AGENCY

By:

General Manager
Name:_____
Date:_____

STATE WATER CONTRACTORS

By:

General Manager
Name:_____
Date:_____

STATEMENT OF CHARGES ALLOCATION FACTORS
TABLE 1

	M&I Table A	Proportionate Share
ALAMEDA CO FC&WCD - ZONE 7	80,619	0.02841469
ALAMEDA COUNTY WD	42,000	0.01480317
ANTELOPE VALLEY-EAST KERN WA	144,844	0.05105120
SANTA CLARITA VALLEY WATER AGENCY	95,200	0.03355385
SANTA BARBARA COUNTY FC &WCD	45,486	0.01603183
CRESTLINE-LAKE ARROWHEAD WA	5,800	0.00204425
KERN COUNTY WATER AGENCY	79,000	0.02784406
METROPOLITAN WD OF SC	1,911,500	0.67372050
MOJAVE WATER AGENCY	89,800	0.03165059
NAPA COUNTY FC&WCD	29,025	0.01023005
PALMDALE WD	21,300	0.00750732
SAN BERNARDINO VALLEY MWD	102,600	0.03616203
SAN GORGONIO PASS WA	17,300	0.00609750
SAN LUIS OBISPO CO. FC&WCD	25,000	0.00881141
SANTA CLARA VALLEY WD	100,000	0.03524564
SOLANO COUNTY WA	47,756	0.01683191
TOTAL	2,837,230	1.00000000

MWQI SPECIFIC PROJECT COMMITTEE CHARGE FACTORS
TABLE 2

	M&I Table A	Proportionate Share
ALAMEDA CO FC&WCD - ZONE 7	80,619	0.02866729
ALAMEDA COUNTY WD	42,000	0.01493477
ANTELOPE VALLEY-EAST KERN WA	144,844	0.05150503
SANTA CLARITA VALLEY WATER AGENCY	95,200	0.03385214
SANTA BARBARA COUNTY FC &WCD	45,486	0.01617435
CRESTLINE-LAKE ARROWHEAD WA	5,800	0.00206242
KERN COUNTY WATER AGENCY	79,000	0.02809159
METROPOLITAN WD OF SC	1,911,500	0.67970970
MOJAVE WATER AGENCY	89,800	0.03193195
NAPA COUNTY FC&WCD	29,025	0.01032099
PALMDALE WD	21,300	0.00757406
SAN BERNARDINO VALLEY MWD	102,600	0.03648350
SAN GORGONIO PASS WA	17,300	0.00615170
SANTA CLARA VALLEY WD	100,000	0.03555897
SOLANO COUNTY WA	47,756	0.01698154
TOTAL	2,812,230	1.00000000

EXHIBIT A

Santa Barbara County Public Works Department
Flood Control & Water Agency & Project Clean Water

December 14, 2018

Ms. Karen A. Joelson
Senior Staff Counsel
Department of Water Resources
State Water Project Analysis Office
1416 9th Street
Sacramento, CA 95814

Subject: **Central Coast Water Authority - Authorization to Participate in Department Water Resources' Municipal Water Quality Investigation Program**

Dear Ms. Joelson:

The purpose of this letter is to inform you that the Santa Barbara County Flood Control and Water Conservation District (District) has authorized the Central Coast Water Authority (CCWA) to represent the District in the Department of Water Resources' (DWR) Municipal Water Quality Investigations (MWQI) Program. Further, we authorize CCWA to enter into both the MWQI Agreement and the Special Projects (SPC) Agreement for the 2020 to 2022 term on behalf of the District. CCWA will be responsible for all costs related to participating in the MWQI Program, as stipulated in the MWQI and SPC Agreements for the 2020 to 2022 term.

If you have any questions, please email me at tfayram@cosbpw.net or call me at (805) 568-3436.

Sincerely,

Thomas D. Fayram
Deputy Public Works Director

Scott D. McGolpin
Public Works Director

Naomi [illegible] Building
130 E. Victoria Street, Suite [illegible] Barbara, California 93101
PH: 805 568-3440 FAX: 805 568-3434 http://cosb.countyofsb.org/pwd/water/

Thomas D. Fayram
Deputy Public Works Director

STATE WATER CONTRACTORS

MWQI PROGRAM

SPECIFIC PROJECT AGREEMENT

Recitals

WHEREAS, the parties to this Municipal Water Quality Investigation (MWQI) Program Specific Project Agreement ("Specific Project Agreement") are members of the State Water Contractors ("SWC"); and

WHEREAS, State Water Project water quality issues are of considerable importance to the parties; and

WHEREAS, the parties to this Specific Project Agreement ("Specific Project Members" or "Parties") will execute an agreement ("MWQI Agreement") with the Department of Water Resources ("DWR") providing for the parties' participation in the MWQI Program for the period January 1, 2020 through December 31, 2022; and

WHEREAS, the MWQI Agreement will establish an MWQI Specific Project Committee ("SPC") Account, not to exceed $700,000 annually, whereby the MWQI SPC can use these funds to perform supplemental water quality related services for the MWQI Program to ensure that work is completed in a timely and cost-effective manner and to provide additional value to the MWQI Program;

WHEREAS, Santa Barbara County Flood Control and Water Conservation District (District) is an urban SWP Contractor and has authorized the Central Coast Water Authority (CCWA) to represent the District in the DWR MWQI Program and to enter into this Agreement on behalf of the District for the 2020-2022 term (See Letter of Authorization attached as **Exhibit A** to this Agreement.).

NOW, THEREFORE, it is agreed by and between the Parties as follows:

1. This Specific Project Agreement, upon execution, hereby supersedes and replaces in total all previous MWQI Program Specific Project Agreements.

2. This Specific Project Agreement shall become effective upon execution by Specific Project Members whose combined Maximum Table A amounts, as identified in Table 1 attached hereto, total 2.3 million acre-feet. This Specific Project Agreement shall terminate on December 31, 2022, except for payments or credits identified through re-determination pursuant to Paragraph 16 of the MWQI Agreement entered into between DWR, the SWC, and the Specific Project Members for the period January 1, 2020 through December 31, 2022.

3. The Specific Project Members hereby form the MWQI Specific Project Committee ("Committee") of the SWC. Each Specific Project Member shall appoint a representative to the Committee to exercise the Member's voting rights and may appoint an alternate to the Committee. In the representative's absence, the alternate shall function as the representative.

4. The Committee anticipates that DWR will request the SWC General Manager to perform certain water quality related services through the MWQI SPC Account.

5. On behalf of the SWC, the Committee shall each year review and approve the MWQI Work Plan items and budget prepared pursuant to the MWQI Agreement, and authorize the SWC General Manager to perform supplemental water quality related services as specified in the MWQI Agreement.

6. On behalf of the SWC, the Committee shall (a) select, pursuant to a competitive process, direct and receive work performed by consultants; (b) direct the SWC General Manager's administration of consultant contracts; and (c) undertake any ancillary work related thereto.

7. Individual Specific Project Member voting rights, as a percentage of all voting rights shall be allocated in the same percentages as costs are allocated in attached Table 1 – MWQI Specific Project Account. Committee actions shall only be effective if approved by a majority of the Specific Project Members and by a majority of the Members' voting rights.

8. A project could include a study requested by certain Specific Project Members who share an interest in investigating a specific water quality matter (a "Special Project"). If the Committee seeks approval of a Special Project outside of the annual MWQI SPC Account $700,000 limit allowed under the MWQI Agreement, the Committee shall direct the SWC General Manager to carry out such work only after the Committee establishes a scope of work, schedule, and budget and notifies each Specific Project Member in writing of its cost sharing proportion of the proposed Special Project. Any Specific Project Member may choose to "opt in" to participate in the Special Project by providing written notice within ten working days of notification. Each participating Specific Project Member's cost share of the proposed Special Project shall be allocated based upon its Table 1 value in proportion to all participating Specific Project Members' Table 1 values that "opt-in" to the proposed Special Project or as otherwise agreed to amongst the participating Specific Project Members. The General Manager shall, as soon as practicable, invoice only the participating Specific Project Members for the resulting costs incurred by the SWC.

9. The Committee recognizes that the Committee will incur administrative costs resulting from, but not limited to, participation in meetings, negotiations, analysis and general operational overhead administrative costs not to exceed $50,000 per year. Administrative costs shall be billed to the Specific Project Members or, in the case of Special Projects, to participating Specific Project Members,as appropriate, depending upon the direct or indirect nature of the charges.

10. Specific Project Members may from time to time provide direct services to the Committee through use of their facilities and staff. Prior to carrying out such work, the Specific Project Member shall provide an estimate of the value of such services to the Committee for their review and approval. Such services shall be administered by the SWC in the same manner as other consultant services, following the same procedures and limitations. The SWC shall compensate Specific Project Members for such services and recover the costs in accordance with Paragraphs 4 or 8 of this Specific Project Agreement as appropriate.

11. The Committee shall elect a Chairperson, Vice Chairperson, and such other officers, with titles and duties as determined by the Committee.

12. A Specific Project Member may terminate its participation in this Specific Project Agreement upon 30 days' notice to the SWC General Manager. Any terminating Member shall only be responsible for its share of any and all costs incurred or committed by the SWC prior to the notice.

13. This Specific Project Agreement shall not be considered to be a precedent.

14. The Specific Project Members agree to severally assume any liability of the SWC resulting from this Specific Project Agreement in proportion to their respective shares of costs. Each Specific Project Member agrees that all members of the SWC that are not participating in this Specific Project Agreement shall not incur any liability as a result of the SWC undertaking the work provided for by this Specific Project Agreement.

15. This Specific Project Agreement may be executed in counterparts.

16. The terms and conditions of the MWQI Agreement are incorporated by reference in this Specific Project Agreement.

IN WITNESS WHEREOF, the Parties hereto have executed this Specific Project Agreement by authorized officials thereof on the dates indicated below.

STATE WATER CONTRACTORS

By: General Manager
Name: _____
Date: _____

Metropolitan Water District of Southern California

By: _____
Name: _____
Date: _____

Alameda County FC&WCD, Zone 7

By: _____
Name: _____
Date: _____

Mojave Water Agency

By: _____
Name: _____
Date: _____

Alameda County Water District

By: _____
Name: _____
Date: _____

Antelope Valley-East Kern Water Agency

By: _____
Name: _____
Date: _____

Santa Clarita Valley Water Agency

By: _____
Name: _____
Date: _____

Santa Barbara County Flood Control and Water Conservation District

By: _____
Name: _____
Date: _____

Crestline-Lake Arrowhead Water Agency

By: _____
Name: _____
Date: _____

Napa County Flood Control and Water Conservation District

By: _____
Name: _____
Date: _____

Palmdale Water District

By: _____
Name: _____
Date: _____

San Bernardino Valley Municipal Water District

By: _____
Name: _____
Date: _____

San Gorgonio Pass Water Agency

By: _____
Name: _____
Date: _____

Santa Clara Valley Water District

By: _____
Name: _____
Date: _____

Solano County Water Agency

By: _____
Name: _____
Date: _____

Kern County Water Agency

By: _____
Name: _____
Date: _____

Table 1 - MWQI Specific Project Account

Participating SWP Contractor	Maximum Table A (acre-feet)*	Cost Allocation*
Alameda County Flood Control and Water Conservation District, Zone 7	80,619	0.02866729
Alameda County Water District	42,000	0.01493477
Antelope Valley-East Kern Water Agency	144,844	0.05150503
Santa Clarita Valley Water Agency	95,200	0.03385214
Santa Barbara County Flood Control & Water Conservation District	45,486	0.01617435
Crestline-Lake Arrowhead Water Agency	5,800	0.00206242
Kern County Water Agency	79,000	0.02809159
Metropolitan Water District of Southern California	1,911,500	0.67970970
Mojave Water Agency	89,800	0.03193195
Napa County Flood Control and Water Conservation District	29,025	0.01032099
Palmdale Water District	21,300	0.00757406
San Bernardino Valley Municipal Water District	102,600	0.03648350
San Gorgonio Pass Water Agency	17,300	0.00615170
Santa Clara Valley Water District	100,000	0.03555897
Solano County Water Agency	47,756	0.01698154
Total:	2,812,230	1.00000000

* Cost allocation is based on SWP contract Maximum Table A amounts (KCWA amount is based on Municipal and Industrial use for two member units).

EXHIBIT A

Santa Barbara County Public Works Department
Flood Control & Water Agency & Project Clean Water

December 14, 2018

Ms. Karen A. Joelson
Senior Staff Counsel
Department of Water Resources
State Water Project Analysis Office
1416 9th Street
Sacramento, CA 95814

Subject: **Central Coast Water Authority - Authorization to Participate in Department Water Resources' Municipal Water Quality Investigation Program**

Dear Ms. Joelson:

The purpose of this letter is to inform you that the Santa Barbara County Flood Control and Water Conservation District (District) has authorized the Central Coast Water Authority (CCWA) to represent the District in the Department of Water Resources' (DWR) Municipal Water Quality Investigations (MWQI) Program. Further, we authorize CCWA to enter into both the MWQI Agreement and the Special Projects (SPC) Agreement for the 2020 to 2022 term on behalf of the District. CCWA will be responsible for all costs related to participating in the MWQI Program, as stipulated in the MWQI and SPC Agreements for the 2020 to 2022 term.

If you have any questions, please email me at tfayram@cosbpw.net or call me at (805) 568-3436.

Sincerely,

Thomas D. Fayram
Deputy Public Works Director

Scott D. McGolpin
Public Works Director

Naomi Schwartz Building
130 E. Victoria Street, Suite 83 / 83 bara, California 93101
PH: 805 568-3440 FAX: 805 568-... ...sb.countyofsb.org/pwd/water/

Thomas D. Fayram
Deputy Public Works Director