

# CHINO BASIN WATERMASTER



## NOTICE OF MEETING

Thursday, March 24, 2016

11:00 a.m. – Watermaster Board Meeting

LUNCH WILL BE SERVED

AT CHINO BASIN WATERMASTER OFFICES  
9641 San Bernardino Road  
Rancho Cucamonga, CA 91730  
(909) 484-3888

# **CHINO BASIN WATERMASTER**

**Thursday, March 24, 2016**

11:00 a.m. – Watermaster Board Meeting

***AGENDA***

**CHINO BASIN WATERMASTER  
WATERMASTER BOARD MEETING**

11:00 a.m. – March 24, 2016

**WITH**

*Mr. Steve Elie – Chair*

*Mr. James Curatalo – Vice-Chair*

**At The Offices Of**

**Chino Basin Watermaster**

9641 San Bernardino Road

Rancho Cucamonga, CA 91730

**AGENDA**

**CALL TO ORDER**

**PLEDGE OF ALLEGIANCE**

**PUBLIC COMMENTS**

**AGENDA - ADDITIONS/REORDER**

**I. CONSENT CALENDAR**

**Note: All matters listed under the Consent Calendar are considered to be routine and non-controversial and will be acted upon by one motion in the form listed below. There will be no separate discussion on these items prior to voting unless any members, staff, or the public requests specific items be discussed and/or removed from the Consent Calendar for separate action.**

**A. MINUTES**

1. Minutes of the Watermaster Board Meeting held February 25, 2016 (*Page 1*)

**B. FINANCIAL REPORTS**

1. Cash Disbursements for the month of January 2016 (*Page 5*)
2. Watermaster VISA Check Detail for the month of January 2016 (*Page 17*)
3. Combining Schedule for the Period July 1, 2015 through January 31, 2016 (*Page 21*)
4. Treasurer's Report of Financial Affairs for the Period January 1, 2016 through January 31, 2016 (*Page 25*)
5. Budget vs. Actual Report for the Period July 1, 2015 through January 31, 2016 (*Page 29*)

**C. OBMP SEMI-ANNUAL STATUS REPORTS 2013-2 AND 2014-1 (*Page 45*)**

Adopt the Semi-Annual OBMP Status Reports 2013-2 and 2014-1, along with filing a copy with the Court, subject to any necessary non-substantive changes.

**D. SAN ANTONIO WATER COMPANY – APPLICATION FOR RECHARGE (*Page 67*)**

Notice of Application for Recharge – On January 22, 2016, San Antonio Water Company submitted an Application for Recharge for up to 200,000 acre-feet to be recharged into Montclair 2, 3, and 4, and Brooks recharge basins.

**E. EXHIBIT “G” PHYSICAL SOLUTION TRANSFERS (*Page 155*)**

1) Find that Auto Club Speedway (California Speedway Corporation), California Steel Industries, and NRG California South LP are in compliance with the Restated Judgment, Exhibit “G” ¶9(g), authorizing 2015-2016 Exhibit “G” Physical Solution Transfers, 2) Approve levy of assessments and subsequent payments for same.

**F. PERSONNEL POLICY – ADOPTION OF THE REVISED VACATION POLICY TO INCLUDE A VACATION BUY-BACK PROVISION, POLICY 3.5.2 (Page 159)**

Approve the Adoption of the Vacation Buy-Back Policy 3.5.2 as Part of the Current Chino Basin Watermaster Employee Manual.

**II. BUSINESS ITEMS**

**A. SUPPORT FOR CHINO BASIN BOUNDARY MODIFICATION REQUEST SUBMITTED PURSUANT TO THE SUSTAINABLE GROUNDWATER MANAGEMENT ACT (SGMA) (Page 165)**

Adopt Resolution 2016-03, expressing support for the request to modify the Chino Basin Boundaries in Bulletin 118, made by Western Municipal Water District, Inland Empire Utilities Agency, and Three Valleys Municipal Water District.

**B. APPROVAL OF THE CHINO BASIN WATERMASTER SUBMITTAL OF ANNUAL REPORTING REQUIREMENTS FOR ADJUDICATED BASINS PURSUANT TO THE SUSTAINABLE GROUNDWATER MANAGEMENT ACT (SGMA) (Page 175)**

Approve the submittal, with direction to staff to file the information/reports with the DWR.

**III. REPORTS/UPDATES**

**A. LEGAL COUNSEL REPORT**

1. February 26, 2016 Hearing
2. April 8, 2016 Hearing
3. 36<sup>th</sup> Annual Report (Fiscal Year 2012/13)

**B. CFO REPORT**

1. Fiscal Year 2016/17 Budget Schedule

**C. ENGINEERING REPORT**

1. MZ3 Water Levels (Follow-Up on Director Galleano's Request)

**D. GM REPORT**

1. Appropriative Pool Voting on Advisory Committee
2. SGMA Update
3. Business Plan Update
4. East Declez Project Status
5. Other

**IV. INFORMATION**

1. Cash Disbursements for February 2016 (Page 183)

**V. BOARD MEMBER COMMENTS**

**VI. OTHER BUSINESS**

**VII. CONFIDENTIAL SESSION - POSSIBLE ACTION**

Pursuant to Article 2.6 of the Watermaster Rules & Regulations, a Confidential Session may be held during the Watermaster committee meeting for the purpose of discussion and possible action.

**VIII. FUTURE MEETINGS AT WATERMASTER**

3/21/16	Mon	9:00 a.m.	Ground-Level Monitoring Committee
3/24/16	Thu	11:00 a.m.	Watermaster Board
4/14/16	Thu	9:00 a.m.	Appropriative Pool
4/14/16	Thu	11:00 a.m.	Non-Agricultural Pool
4/14/16	Thu	1:30 p.m.	Agricultural Pool
4/18/16	Mon	1:30 p.m.	Fiscal Year 2016/17 Budget Distribution
4/21/16	Thu	8:00 a.m.	Appropriative Pool Strategic Planning (Confidential Session Only)
4/21/16	Thu	9:00 a.m.	Advisory Committee
4/21/16	Thu	9:30 a.m.	Recharge Investigations and Projects Committee (RIPCom)
4/26/16	Tue	8:30 a.m.	Watermaster Board Workshop (Held at CBWCD)
4/27/16	Wed	9:00 a.m.	Fiscal Year 2016/17 Budget Workshop #1
4/28/16	Thu	11:00 a.m.	Watermaster Board
5/02/16	Mon	10:00 a.m.	Fiscal Year 2016/17 Budget Workshop #2 (If Needed)

**ADJOURNMENT**

# **CHINO BASIN WATERMASTER**

## **I. CONSENT CALENDAR**

### **A. MINUTES**

1. Watermaster Board Meeting held on February 25, 2016

**DRAFT MINUTES**  
**CHINO BASIN WATERMASTER**  
**WATERMASTER BOARD MEETING**

February 25, 2016

The Watermaster Board meeting was held at the offices of the Chino Basin Watermaster located at 9641 San Bernardino Road, Rancho Cucamonga, CA on February 25, 2016.

**WATERMASTER BOARD MEMBERS PRESENT**

Steve Elie, Chair

James Curatalo, Vice-Chair

Bob Kuhn, Secretary/Treasurer

Paul Hofer

Geoffrey Vanden Heuvel

Jim Bowman

Bob Bowcock

Tom Thomas

Inland Empire Utilities Agency

Cucamonga Valley Water District

Three Valleys Municipal Water District

Agricultural Pool – Crops

Agricultural Pool – Dairy

City of Ontario

Calmat Company (Vulcan Materials Co.)

City of Upland

**WATERMASTER BOARD MEMBER ABSENT**

Don Galleano

Western Municipal Water District

**WATERMASTER STAFF PRESENT**

Peter Kavounas

Danielle Maurizio

Joseph Joswiak

Anna Truong

General Manager

Assistant General Manager

Chief Financial Officer

Recording Secretary

**WATERMASTER CONSULTANTS PRESENT**

Scott Slater

Brad Herrema

Andy Malone

Brownstein Hyatt Farber Schreck, LLP

Brownstein Hyatt Farber Schreck, LLP

Wildermuth Environmental, Inc.

**OTHERS PRESENT**

Pete Hall

Jeff Pierson

Terry Catlin

Bob Feenstra

Ron Craig

Teri Layton

Manny Martinez

Raul Garibay

Dave Crosley

Eunice Ulloa

Sheri Rojo

Curtis Paxton

Rick Hansen

David DeJesus

Robert Tock

Tim Barr

Darron Poulsen

Justin Scott-Coe

Art Kidman

Chad Blais

State of California – CIM

Agricultural Pool – Crops

Inland Empire Utilities Agency

Agricultural Pool – Dairy

City of Chino Hills

San Antonio Water Company

Monte Vista Water District

City of Pomona

City of Chino

Chino Basin Water Conservation District

Fontana Water Company

Chino Basin Desalter Authority

Three Valleys Municipal Water District

Three Valleys Municipal Water District

Jurupa Community Services District

Western Municipal Water District

City of Pomona

Monte Vista Water District

Kidman Law, LLP

City of Norco

**CALL TO ORDER**

Chair Elie called the Watermaster Board meeting to order at 11:00 a.m.

**PLEDGE OF ALLEGIANCE**

**PUBLIC COMMENTS**

(0:00:40) Mr. Tim Barr of Western Municipal Water District introduced himself as the new Director of Water Resources. Chair Elie welcomed him to the Watermaster family.

**AGENDA - ADDITIONS/REORDER**

(0:01:23) Mr. Kavounas suggested that the Engineering Report on MZ3 Water Levels is removed from the agenda since Director Galleano requested the report and is absent today.

(0:01:49)

*Motion by Vice-Chair Curatalo, seconded by Mr. Tom Thomas, and carried unanimously*

***Moved to approve adding a personnel discussion to the agenda under Confidential Session***

**I. CONSENT CALENDAR**

**A. MINUTES**

1. Minutes of the Watermaster Board Meeting held January 28, 2016

**B. FINANCIAL REPORTS**

1. Cash Disbursements for the month of December 2015
2. Watermaster VISA Check Detail for the month of December 2015
3. Combining Schedule for the Period July 1, 2015 through December 31, 2015
4. Treasurer's Report of Financial Affairs for the Period December 1, 2015 through December 31, 2015
5. Budget vs. Actual Report for the Period July 1, 2015 through December 31, 2015

**C. WATER TRANSACTION**

The purchase of 500.000 acre-feet of water from San Antonio Water Company by Cucamonga Valley Water District. This purchase is made from San Antonio Water Company's storage Account. Date of application: September 8, 2015

(0:02:18)

*Motion by Mr. Bob Kuhn, seconded by Mr. Jim Bowman, and carried unanimously*

***Moved to approve Consent Calendar as presented***

**II. BUSINESS ITEMS**

**A. MID-YEAR REVIEW OF FISCAL YEAR 2015/16 (Information Only)**

(0:02:44) Mr. Joswiak gave a report. A discussion ensued.

(0:14:55)

*Motion by Mr. Tom Thomas, seconded by Mr. Geoffrey Vanden Heuvel, and carried unanimously*

***Moved to approve Business Item II.A. as presented***



**III. REPORTS/UPDATES**

**A. LEGAL COUNSEL REPORT**

- 1. Motion re 2015 Safe Yield Reset Agreement
- 2. Non-Ag Pool Request for Entry of Order re Filing and Service

(0:15:12) Mr. Slater gave a report.

**B. CFO REPORT**

None

**C. ENGINEERING REPORT**

- 1. MZ3 Water Levels (Follow-Up on Director Galleano’s Request)

Report not given; see above in Agenda - Additions/Reorder.

**D. GM REPORT**

- 1. Basin Boundary Modification Update
- 2. Business Plan Update
- 3. Overlying Non-Agricultural Pool Available Water Per Restated Judgment Exhibit “G”
- 4. Achievement of Hydraulic Control in Chino Basin
- 5. Other

(0:21:40) Mr. Kavounas gave a report and handed off to Mr. Malone of Wildermuth Environmental to give a report on the achievement of hydraulic control.

(0:27:57) Mr. Malone gave a presentation. A discussion ensued.

(0:56:49) Mr. Kavounas gave the remainder of his report.

**IV. INFORMATION**

- 1. Cash Disbursements for January 2016

**V. BOARD MEMBER COMMENTS**

None

**VI. OTHER BUSINESS**

None

**VII. CONFIDENTIAL SESSION - POSSIBLE ACTION**

Chair Elie called for a confidential session at 12:00 p.m. to have a personnel discussion. Confidential session concluded at 12:27 p.m. with no reportable action.

**ADJOURNMENT**

Chair Elie adjourned the Watermaster Board meeting at 12:27 p.m.

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

Approved: \_\_\_\_\_

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# CHINO BASIN WATERMASTER

## I. CONSENT CALENDAR

### B. FINANCIAL REPORTS

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# CHINO BASIN WATERMASTER

9641 San Bernardino Road, Rancho Cucamonga, Ca 91730  
Tel: 909.484.3888 Fax: 909.484.3890 www.cbwm.org

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PETER KAVOUNAS, P.E.  
General Manager

## STAFF REPORT

DATE: March 24, 2016  
TO: Board Members  
SUBJECT: Cash Disbursement Report - Financial Report B1 (January 31, 2016)

### SUMMARY

Issue: Record of Cash Disbursements for the month of January 31, 2016.

Recommendation: Receive and file Cash Disbursements for January 31, 2016 as presented.

Financial Impact: Funds disbursed were included in the FY 2015/16 "Amended" Watermaster Budget.

### Future Consideration

Watermaster Board: March 24, 2016; Receive and File (Normal Course of Business)

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### ACTIONS:

March 10, 2016 – Appropriative Pool – Unanimously approved  
March 10, 2016 – Non-Agricultural Pool – Moved unanimously to receive and file, without approval  
March 10, 2016 – Agricultural Pool – Unanimously approved  
March 17, 2016 – Advisory Committee – Unanimously approved  
March 24, 2016 – Watermaster Board –

## BACKGROUND

A monthly cash disbursement report is provided to keep all members apprised of Watermaster expenditures.

## DISCUSSION

Total cash disbursements during the month of January 2016 were \$322,673.66.

The most significant expenditures during the month were to Wildermuth Environmental, Inc. in the amount of \$138,064.96 (check number 19148 dated January 13, 2016).

## ATTACHMENTS

1. Financial Report - B1

CHINO BASIN WATERMASTER  
Cash Disbursements For The Month of  
January 2016

Type	Date	Num	Name	Memo	Account	Paid Amount
Bill Pmt -Check	01/08/2016	ACH 010816	PUBLIC EMPLOYEES' RETIREMENT SYSTEM	Payor #3493	1012 · Bank of America Gen'l Ckg	
General Journal	12/31/2015	12/31/2015	PUBLIC EMPLOYEES' RETIREMENT SYSTEM	CalPERS Retirement for 12/20/15-01/02/16	2000 · Accounts Payable	6,045.30
TOTAL						<u>6,045.30</u>
Bill Pmt -Check	01/12/2016	19117	CHARTER COMMUNICATIONS	8245100651455350	1012 · Bank of America Gen'l Ckg	
Bill	01/01/2016	8245100651455350		1/06/16-2/05/16	6053 · Internet Expense	68.97
TOTAL						<u>68.97</u>
Bill Pmt -Check	01/12/2016	19118	COSTCO WHOLESALE	7003-7309-1000-2744	1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	7003730910002744		Miscellaneous office supplies	6031.7 · Other Office Supplies	34.99
				Toner for various office printers	6031.7 · Other Office Supplies	657.89
TOTAL						<u>692.88</u>
Bill Pmt -Check	01/12/2016	19119	DE BOOM, NATHAN	Ag Pool Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	12/08/2015	12/08 Ag Pool Mtg		12/08/15 Ag Pool Meeting held at MPC	8470 · Ag Meeting Attend -Special	125.00
TOTAL						<u>125.00</u>
P7 Bill Pmt -Check	01/12/2016	19120	DE HAAN, HENRY	Ag Pool Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	12/08/2015	12/08 Ag Pool Mtg		Ag Pool Member Compensation	8411 · Compensation	25.00
				12/08/15 Ag Pool Meeting held at MPC	8470 · Ag Meeting Attend -Special	100.00
TOTAL						<u>125.00</u>
Bill Pmt -Check	01/12/2016	19121	DIRECTV	019447404	1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	019447404		12/19/15 - 1/18/16	6031.7 · Other Office Supplies	110.98
TOTAL						<u>110.98</u>
Bill Pmt -Check	01/12/2016	19122	EGOSCUE LAW GROUP	11113	1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	11113		Ag Pool Legal Services - December 2015	8467 · Ag Legal & Technical Services	15,685.00
TOTAL						<u>15,685.00</u>
Bill Pmt -Check	01/12/2016	19123	FEENSTRA, BOB	Ag Pool Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	12/08/2015	12/08 Ag Pool Mtg		12/08/15 Ag Pool Special Meeting held at MPC	8470 · Ag Meeting Attend -Special	125.00
TOTAL						<u>125.00</u>
Bill Pmt -Check	01/12/2016	19124	HALL, PETE*	Ag Pool Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	12/08/2015	12/08 Ag Pool Mtg		12/08/15 Ag Pool Meeting held at MPC	8470 · Ag Meeting Attend -Special	125.00
TOTAL						<u>125.00</u>
Bill Pmt -Check	01/12/2016	19125	HOGAN LOVELLS	2952391	1012 · Bank of America Gen'l Ckg	

**CHINO BASIN WATERMASTER**  
**Cash Disbursements For The Month of**  
**January 2016**

Type	Date	Num	Name	Memo	Account	Paid Amount
Bill	12/01/2015	2952391		Non-Ag Pool Legal Services - November 2015	8567 · Non-Ag Legal Service	2,761.37
TOTAL						2,761.37
Bill Pmt -Check	01/12/2016	19126	HUITSING, JOHN	Ag Pool Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	12/08/2015	12/08 Ag Pool Mtg		12/08/15 Ag Pool Meeting held at MPC	8470 · Ag Meeting Attend -Special	125.00
TOTAL						125.00
Bill Pmt -Check	01/12/2016	19127	KOOPMAN, GENE	Ag Pool Member Meeting Compensation	1012 · Bank of America Gen'l Ckg	
Bill	12/08/2015	12/08 Ag Pool Mtg		12/08/15 Ag Pool Meeting held at MPC	8470 · Ag Meeting Attend -Special	125.00
TOTAL						125.00
Bill Pmt -Check	01/12/2016	19128	OFFICE TEAM		1012 · Bank of America Gen'l Ckg	
Bill	12/18/2015	44709042		Week ending 12/18/15	6017.2 · Office Specialist Services	1,108.00
Bill	12/28/2015	44714703		Week ending 12/25/15	6017.2 · Office Specialist Services	443.20
TOTAL						1,551.20
Bill Pmt -Check	01/12/2016	19129	PARK PLACE COMPUTER SOLUTIONS, INC.	506	1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	506		IT Consulting Services - December 2015	6052.1 · Park Place Comp Solutn	1,950.00
TOTAL						1,950.00
Bill Pmt -Check	01/12/2016	19130	PAYCHEX	2015122400	1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	2015122400		December 2015	6012 · Payroll Services	260.90
TOTAL						260.90
Bill Pmt -Check	01/12/2016	19131	PIERSON, JEFFREY	Ag Pool Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	12/08/2015	12/08 Ag Pool Mtg		12/08/15 Ag Pool Meeting held at MPC	8470 · Ag Meeting Attend -Special	125.00
TOTAL						125.00
Bill Pmt -Check	01/12/2016	19132	PUBLIC EMPLOYEES' RETIREMENT SYSTEM	Payor #3493	1012 · Bank of America Gen'l Ckg	
Bill	01/01/2016	100000014683177		Annual unfunded accrued liability	60180 · Employers PERS Expense	3,077.00
TOTAL						3,077.00
Bill Pmt -Check	01/12/2016	19133	PURCHASE POWER	8000909000168851	1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	8000909000168851		New postage machine installed on 12/10/15	6042 · Postage - General	160.84
TOTAL						160.84
Bill Pmt -Check	01/12/2016	19134	READY REFRESH BY NESTLE	0023230253	1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	0023230253		Office Water Bottle - December 2015	6031.7 · Other Office Supplies	71.89
TOTAL						71.89

CHINO BASIN WATERMASTER  
Cash Disbursements For The Month of  
January 2016

Financial Report - B1

Type	Date	Num	Name	Memo	Account	Paid Amount
Bill Pmt -Check	01/12/2016	19135	RR FRANCHISING, INC.	15732	1012 · Bank of America Gen'l Ckg	
Bill	01/04/2016	15732		Janitorial Services - January 2016	6024 · Building Repair & Maintenance	740.00
TOTAL						740.00
Bill Pmt -Check	01/12/2016	19136	SANTA ANA RIVER WATER COMPANY		1012 · Bank of America Gen'l Ckg	
Bill	12/04/2015	12/04 Admin Mtg		12/04/15 Admin. Meeting - Arnold Rodriguez	6311 · Board Member Compensation	125.00
Bill	12/21/2015	12/21 Admin Mtg		12/21/15 Admin. Meeting - Arnold Rodriguez	6311 · Board Member Compensation	125.00
TOTAL						250.00
Bill Pmt -Check	01/12/2016	19137	SOUTHERN CALIFORNIA WATER COMMITTEE	26770	1012 · Bank of America Gen'l Ckg	
Bill	01/04/2016	26770		Stormwater Task Force	6111 · Membership Dues	1,000.00
TOTAL						1,000.00
Bill Pmt -Check	01/12/2016	19138	STANDARD INSURANCE CO.	Policy # 00-649299-0009	1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	006492990009		Policy # 00-649299-0009	60191 · Life & Disab.Ins Benefits	689.35
TOTAL						689.35
Bill Pmt -Check	01/12/2016	19139	STAPLES BUSINESS ADVANTAGE		1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	8037294210		Miscellaneous office supplies	6031.7 · Other Office Supplies	242.19
Bill	12/31/2015	8037202444		Toner for office printers	6031.7 · Other Office Supplies	125.67
TOTAL						367.86
Bill Pmt -Check	01/12/2016	19140	STATE COMPENSATION INSURANCE FUND	1970970-15	1012 · Bank of America Gen'l Ckg	
Bill	01/01/2016	1970970-15		1970970-15	60183 · Worker's Comp Insurance	961.58
TOTAL						961.58
Bill Pmt -Check	01/12/2016	19141	UNION 76	7076-2245-3035-5049	1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	7076224530355049		Fuel - December 2015	6175 · Vehicle Fuel	69.20
TOTAL						69.20
Bill Pmt -Check	01/12/2016	19142	UNITED HEALTHCARE	0039374721	1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	0039374721		Dental Insurance Premium - January 2016	60182.2 · Dental & Vision Ins	712.68
TOTAL						712.68
Bill Pmt -Check	01/12/2016	19143	UNITED PARCEL SERVICE	2x81x0	1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	2x81x0		Ship package, schedule a pickup	6042 · Postage - General	25.10
TOTAL						25.10
Bill Pmt -Check	01/12/2016	19144	VANDEN HEUVEL, GEOFFREY	Board Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	12/08/2015	12/08 Ag Pool Mtg		12/08/15 Ag Pool Special Meeting at MPC	6311 · Board Member Compensation	125.00



**CHINO BASIN WATERMASTER**  
**Cash Disbursements For The Month of**  
**January 2016**

Type	Date	Num	Name	Memo	Account	Paid Amount
TOTAL						125.00
Bill Pmt -Check	01/12/2016	19145	VANDEN HEUVEL, ROB	Ag Pool Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	12/08/2015	12/08 Ag Pool Mtg		12/08/15 Ag Pool Meeting held at MPC	8470 · Ag Meeting Attend -Special	125.00
TOTAL						125.00
Bill Pmt -Check	01/12/2016	19146	VISION SERVICE PLAN	00-101789-0001	1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	00-101789-0001		Vision Insurance Premium - January 2016	60182.2 · Dental & Vision Ins	73.46
TOTAL						73.46
Bill Pmt -Check	01/12/2016	19147	YUKON DISPOSAL SERVICE	08-K2 213849	1012 · Bank of America Gen'l Ckg	
Bill	01/01/2016	08-k2 213849		Disposal Service - January 2016	6024 · Building Repair & Maintenance	111.57
TOTAL						111.57
Bill Pmt -Check	01/13/2016	19148	WILDERMUTH ENVIRONMENTAL INC		1012 · Bank of America Gen'l Ckg	
Bill	11/30/2015	2015348		2015348	6906.31 · OBMP-Pool, Adv. Board Mtgs	8,844.65
Bill	11/30/2015	2015349		2015349	6906.32 · OBMP-Other General Meetings	215.00
Bill	11/30/2015	2015350		2015350	6906.71 · OBMP-Data Req.-CBWM Staff	19,295.50
Bill	11/30/2015	2015351		2015351	6906.72 · OBMP-Data Req.-Non CBWM Staff	333.75
Bill	11/30/2015	2015352		2015352	6906.23 · SGMA Reporting Requirements	608.75
Bill	11/30/2015	2015353		2015353	6906 · OBMP Engineering Services	3,511.25
Bill	11/30/2015	2015354		2015354	6906.1 · OBMP-Watermaster Model Update	41,475.30
Bill	11/30/2015	2015355		2015355	7103.3 · Grdwtr Qual-Engineering	18,250.60
Bill	11/30/2015	2015356		2015356	7104.3 · Grdwtr Level-Engineering	11,891.06
Bill	11/30/2015	2015357		2015357	7107.2 · Grd Level-Engineering	4,258.40
				Zumasys	7107.6 · Grd Level-Contract Svcs	68.00
Bill	11/30/2015	2015358		2015358	7108.3 · Hydraulic Control-Engineering	186.25
Bill	11/30/2015	2015359		2015359	7108.3 · Hydraulic Control-Engineering	316.90
Bill	11/30/2015	2015360		2015360	7108.31 · Hydraulic Control - PBHSP	5,645.65
Bill	11/30/2015	2015361		2015361	7109.3 · Recharge & Well - Engineering	1,564.25
Bill	11/30/2015	2015362		2015362	7202.2 · Engineering Svc	8,102.12
Bill	11/30/2015	2015363		2015363	7402 · PE4-Engineering	866.25
Bill	11/30/2015	2015364		2015364	7402.10 · PE4 - MZ1 Pomona Project	9,767.28
Bill	11/30/2015	2015365		2015365	7502 · PE6&7-Engineering	1,550.00
Bill	11/30/2015	2015366		2015366	6906.73 · OBMP-Safe Yield Recalculation	230.00
Bill	11/30/2015	2015367		2015367	6910.1 · IRP Groundwater Modeling - WEI	1,084.00
TOTAL						138,064.96
Check	01/15/2016	01/15/2016	Service Charge	Service Charge	1012 · Bank of America Gen'l Ckg	
				Service Charge	6039.1 · Banking Service Charges	424.75

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**CHINO BASIN WATERMASTER**  
**Cash Disbursements For The Month of**  
**January 2016**

Type	Date	Num	Name	Memo	Account	Paid Amount
TOTAL						424.75
General Journal	01/16/2016	01/16/2016	Payroll and Taxes for 01/03/16-01/16/16	Payroll and Taxes for 01/03/16-01/16/16	1012 · Bank of America Gen'l Ckg	
				Direct Deposits for 01/03/16-01/16/16	1012 · Bank of America Gen'l Ckg	23,662.84
				Payroll Taxes for 01/03/16-01/16/16	1012 · Bank of America Gen'l Ckg	9,711.00
			ICMA-RC	457(f) Employee Deductions for 01/03/16-01/16/16	1012 · Bank of America Gen'l Ckg	3,643.75
			ICMA-RC	401(a) Employee Deductions for 01/03/16-01/16/16	1012 · Bank of America Gen'l Ckg	1,189.58
TOTAL						38,207.17
Bill Pmt -Check	01/20/2016	19149	APPLIED COMPUTER TECHNOLOGIES	2642	1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	2642		Database Consulting Services - December 2015	6052.2 · Applied Computer Technol	3,319.00
TOTAL						3,319.00
Bill Pmt -Check	01/20/2016	19150	CORELOGIC INFORMATION SOLUTIONS	81630319	1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	81630319		81630319	7103.7 · Grdwtr Qual-Computer Svc	62.50
				81630319	7101.4 · Prod Monitor-Computer	62.50
TOTAL						125.00
Bill Pmt -Check	01/20/2016	19151	RAUCH COMMUNICATION CONSULTANTS, LLC Dec-1504		1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	Dec-1504		Annual Report work completed-November 30, 2015	6061.3 · Rauch	4,971.00
TOTAL						4,971.00
Bill Pmt -Check	01/26/2016	19152	ACWA JOINT POWERS INSURANCE AUTHORITY	0389559	1012 · Bank of America Gen'l Ckg	
Bill	01/13/2016	0389559		Prepayment - February 2016	1409 · Prepaid Life, BAD&D & LTD	131.09
				January 2016	60191 · Life & Disab.Ins Benefits	126.66
TOTAL						257.75
Bill Pmt -Check	01/26/2016	19153	BANK OF AMERICA	XXXX-XXXX-XXXX-9341	1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	XXXX-XXXX-XXXX-9341		Overnight payment to Great America-copier lease	6043.1 · Ricoh Lease Fee	35.18
				Lunch provided to staff for basin tour	7204 · Comp Recharge-Supplies	122.46
				Phone case for AGM's work cell	6031.7 · Other Office Supplies	14.99
				Registration-Joswiak-ACWA/JPIA HR training	6193.2 · Conference - Registration Fee	30.00
				Registration-Wilson-01/28/16 IAAP mtg at CVWD	6193.2 · Conference - Registration Fee	10.00
				Registration-Wilson-01/09/16 IAAP Adobe Acrobat	6193.2 · Conference - Registration Fee	35.00
				Registration-Truong-01/09/16 IAAP Adobe Acrobat	6193.2 · Conference - Registration Fee	35.00
				Purchase Annual Quickbooks Service Plan	6054 · Computer Software	1,799.00
				Renewal-Go To Meeting Annual Plan-conferencing	6022 · Telephone	374.40
				Hotel-PK-December 2015 ACWA Fall Conference	6191 · Conferences - General	723.79
				Meal-PK-December 2015 ACWA Fall Conference	6191 · Conferences - General	42.80
				Meal-PK-December 2015 ACWA Fall Conference	6191 · Conferences - General	27.68

**CHINO BASIN WATERMASTER**  
**Cash Disbursements For The Month of**  
**January 2016**

Type	Date	Num	Name	Memo	Account	Paid Amount
				Internet expense for GM-invoice lost in mail	6053 · Internet Expense	64.99
				Holiday staff luncheon	6141.3 · Admin Meetings	302.03
				Registration-PK-Feb. 8-9, 2016 SGMA Workshop	6193.2 · Conference - Registration Fee	430.00
				PK meeting w/Poulsen, City of Pomona	8312 · Meeting Expenses	41.67
				Flight-PK-Feb. 8-9, 2016 GRA SGMA Workshop	6191 · Conferences - General	148.46
				Early bird check-in for above flight	6191 · Conferences - General	25.00
				Registration-PK-Feb. 2016 AGWA-AGWT Conf.	6193.2 · Conference - Registration Fee	295.00
				PK meeting w/Zvirbulis, CVWD	8312 · Meeting Expenses	27.07
				PK meeting w/Bowcock	6312 · Meeting Expenses	20.87
				Flight-PK-Jan. 8, 2016 mtg w/Iris Priestaf	6909.1 · OBMP Meetings	459.46
				Early bird check-in for above flight	6909.1 · OBMP Meetings	25.00
				Hotel-Maurizio-December 2015 ACWA Fall Conf.	6191 · Conferences - General	423.94
				Lunch for field staff interviews	6141.3 · Admin Meetings	70.26
TOTAL						5,584.05
Bill Pmt -Check	01/26/2016	19154	CALPERS	1394905143	1012 · Bank of America Gen'l Ckg	
Bill	01/15/2016	1394905143		Medical Insurance Premium - 1394905143	60182.1 · Medical Insurance	7,533.91
TOTAL						7,533.91
<b>P12</b>						
Bill Pmt -Check	01/26/2016	19155	COMPUTER NETWORK		1012 · Bank of America Gen'l Ckg	
Bill	12/30/2015	100393		USB portable hard drive	6055 · Computer Hardware	270.00
Bill	01/06/2016	100422		(3) Hard drives - Seagate 32mb buffer	6055 · Computer Hardware	275.40
Bill	01/06/2016	100423		(1) Video card XFX AMD Radeon HD 5450	6055 · Computer Hardware	70.20
Bill	01/06/2016	100426		(2) Power supplies	6055 · Computer Hardware	97.20
Bill	01/06/2016	100427		(3) Portable external hard drive	6055 · Computer Hardware	405.00
Bill	01/07/2016	100430		(6) APC uninterruptible power supply	6055 · Computer Hardware	939.60
Bill	01/08/2016	100436		Replacement battery for Lenovo laptop	6055 · Computer Hardware	64.80
TOTAL						2,122.20
Bill Pmt -Check	01/26/2016	19156	CORELOGIC INFORMATION SOLUTIONS	81647756	1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	84647756		81647756	7103.7 · Grdwtr Qual-Computer Svc	62.50
				81647756	7101.4 · Prod Monitor-Computer	62.50
TOTAL						125.00
Bill Pmt -Check	01/26/2016	19157	CUCAMONGA VALLEY WATER DISTRICT	Lease due February 1, 2016	1012 · Bank of America Gen'l Ckg	
Bill	01/18/2016			Lease due February 1, 2016	1422 · Prepaid Rent	6,371.16
TOTAL						6,371.16
Bill Pmt -Check	01/26/2016	19158	GREAT AMERICA LEASING CORP.	18159935	1012 · Bank of America Gen'l Ckg	
Bill	01/18/2016	18159935		Invoice	6043.1 · Ricoh Lease Fee	3,285.29

**CHINO BASIN WATERMASTER**  
**Cash Disbursements For The Month of**  
**January 2016**

Type	Date	Num	Name	Memo	Account	Paid Amount
TOTAL						3,285.29
Bill Pmt -Check	01/26/2016	19159	HR DIRECT / GNEIL	INV3544354	1012 · Bank of America Gen'l Ckg	
Bill	01/13/2016	INV3544354		2016 Poster guard protection-Federal HR Posters	6031.7 · Other Office Supplies	75.59
TOTAL						75.59
Bill Pmt -Check	01/26/2016	19160	LEGAL SHIELD	0111802	1012 · Bank of America Gen'l Ckg	
Bill	01/21/2016	0111802		Employee deductions - January 2016	60194 · Other Employee Insurance	51.80
TOTAL						51.80
Bill Pmt -Check	01/26/2016	19161	LEVEL 3 COMMUNICATIONS	09470254	1012 · Bank of America Gen'l Ckg	
Bill	01/21/2016	09470254		1/10/16-2/09/16	6053 · Internet Expense	1,055.23
TOTAL						1,055.23
Bill Pmt -Check	01/26/2016	19162	MAURIZIO, DANIELLE	Employee Reimbursement of Expenses	1012 · Bank of America Gen'l Ckg	
Bill	01/22/2016			Field staff interviews/lunch	6016 · New Employee Search Costs	185.16
				Meal for 2015 ACWA Fall Conference	6191 · Conferences - General	3.78
				Purchase supplies for w/q	7103.6 · Grdwtr Qual-Supplies	20.70
TOTAL						209.64
Bill Pmt -Check	01/26/2016	19163	OFFICE TEAM	44838557	1012 · Bank of America Gen'l Ckg	
Bill	01/21/2016	44838557		Week ending 1/08/16	6017.2 · Office Specialist Services	1,108.00
TOTAL						1,108.00
Bill Pmt -Check	01/26/2016	19164	PREMIERE GLOBAL SERVICES	20131141	1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	20131141		WM coordination call on 11/30	6909.1 · OBMP Meetings	16.54
				WM coordination call on 12/07	6909.1 · OBMP Meetings	18.46
				WM coordination call on 12/07	6909.1 · OBMP Meetings	12.96
				WM coordination call on 12/07	6909.1 · OBMP Meetings	19.62
				San Sevaine Basin call on 12/08	6909.1 · OBMP Meetings	13.35
				San Sevaine Basin call on 12/08	6909.1 · OBMP Meetings	22.92
				Administrative call on 12/11	6141.3 · Admin Meetings	18.01
				WM coordination call on 12/14	6909.1 · OBMP Meetings	5.48
				WM coordination call on 12/14	6909.1 · OBMP Meetings	10.38
				WM coordination call on 12/14	6909.1 · OBMP Meetings	5.06
				WM coordination call on 12/14	6909.1 · OBMP Meetings	24.03
				Fee - Confidential Line	6022 · Telephone	49.00
				Fee - General line	6022 · Telephone	49.00
				Service fee	6022 · Telephone	5.97
TOTAL						270.78

CHINO BASIN WATERMASTER  
Cash Disbursements For The Month of  
January 2016

Financial Report - B1

Type	Date	Num	Name	Memo	Account	Paid Amount
Bill Pmt -Check	01/26/2016	19165	PUBLIC EMPLOYEES' RETIREMENT SYSTEM	Payor #3493	1012 · Bank of America Gen'l Ckg	
Bill	01/13/2016	1394905143		1959 Survivor Benefit - PEPRA staff	60180 · Employers PERS Expense	84.00
Bill	01/14/2016	1394905143		1959 Survivor Benefit - Classic staff	60180 · Employers PERS Expense	252.00
TOTAL						336.00
Bill Pmt -Check	01/26/2016	19166	R&D PEST SERVICES	0197483	1012 · Bank of America Gen'l Ckg	
Bill	01/13/2016	0197483		Pest control-ants and fleas	6024 · Building Repair & Maintenance	100.00
TOTAL						100.00
Bill Pmt -Check	01/26/2016	19167	RR FRANCHISING, INC.	16767	1012 · Bank of America Gen'l Ckg	
Bill	01/13/2016	16767		Carpet cleaning on 1/09/16	6024 · Building Repair & Maintenance	600.00
TOTAL						600.00
Bill Pmt -Check	01/26/2016	19168	SAN BERNARDINO COUNTY FLOOD CONTROL	P-11998284, File No. 1-801/2.04	1012 · Bank of America Gen'l Ckg	
Bill	01/22/2016	Permit P-11998284		Annual Inspection Fee for San Sevaine Channel	6909.3 · Other OBMP Expenses	1,315.00
TOTAL						1,315.00
P14 Bill Pmt -Check	01/26/2016	19169	STANDARD INSURANCE CO.	Policy # 00-649299-0009	1012 · Bank of America Gen'l Ckg	
Bill	01/18/2016	006492990009		Policy # 00-649299-0009	60191 · Life & Disab.Ins Benefits	736.72
TOTAL						736.72
Bill Pmt -Check	01/26/2016	19170	STAPLES BUSINESS ADVANTAGE	8037539615	1012 · Bank of America Gen'l Ckg	
Bill	01/21/2016	8037539615		Miscellaneous office supplies	6031.7 · Other Office Supplies	167.92
TOTAL						167.92
Bill Pmt -Check	01/26/2016	19171	STAULA, MARY L	Retiree Medical	1012 · Bank of America Gen'l Ckg	
Bill	01/31/2016			Amount effective January 2016	60182.4 · Retiree Medical	23.62
TOTAL						23.62
Bill Pmt -Check	01/26/2016	19172	THREE VALLEYS MUNICIPAL WATER DIST	2/18/16 Leadership Breakfast	1012 · Bank of America Gen'l Ckg	
Bill	01/15/2016			2/18/16 Leadership Breakfast for Peter Kavounas	6192 · Seminars - General	20.00
TOTAL						20.00
Bill Pmt -Check	01/26/2016	19173	UNITED HEALTHCARE	039622701	1012 · Bank of America Gen'l Ckg	
Bill	01/21/2016	0039622701		Dental Insurance Premium - February 2016	60182.2 · Dental & Vision Ins	833.15
TOTAL						833.15
Bill Pmt -Check	01/26/2016	19174	VERIZON	012519128144592510	1012 · Bank of America Gen'l Ckg	
Bill	01/21/2016	012519128144592510		012519128144592510	6022 · Telephone	145.29

CHINO BASIN WATERMASTER  
Cash Disbursements For The Month of  
January 2016

Type	Date	Num	Name	Memo	Account	Paid Amount
TOTAL						145.29
Bill Pmt -Check	01/26/2016	19175	VERIZON WIRELESS	642073270-00001	1012 · Bank of America Gen'l Ckg	
Bill	01/24/2016	642073270-00001		642073270-00001	7103.7 · Grdwtr Qual-Computer Svc	100.04
TOTAL						100.04
Bill Pmt -Check	01/26/2016	19176	ZAPIEN, ENRIQUE	Employee Reimbursement	1012 · Bank of America Gen'l Ckg	
Bill	01/18/2016			Reimburse for purchase-safety shoes for field work	6154 · Uniforms	168.93
TOTAL						168.93
Bill Pmt -Check	01/26/2016	19177	VERIZON WIRELESS	470810953-00001	1012 · Bank of America Gen'l Ckg	
Bill	01/15/2016	470810953-00001		470810953-00001	6022 · Telephone	299.61
TOTAL						299.61
Bill Pmt -Check	01/26/2016	ACH 012616	PUBLIC EMPLOYEES' RETIREMENT SYSTEM	Payor #3493	1012 · Bank of America Gen'l Ckg	
General Journal	01/16/2016	01/16/2016	PUBLIC EMPLOYEES' RETIREMENT SYSTEM	CalPERS Retirement for 01/03/16-01/16/16	2000 · Accounts Payable	6,437.65
TOTAL						6,437.65
<b>P15</b> Bill Pmt -Check	01/27/2016	19178	APPLIED COMPUTER TECHNOLOGIES	2657	1012 · Bank of America Gen'l Ckg	
Bill	01/25/2016	2657		Database Consulting Services - January 2016	6052.2 · Applied Computer Technol	3,319.00
TOTAL						3,319.00
Bill Pmt -Check	01/27/2016	19179	DIRECTV	019447404	1012 · Bank of America Gen'l Ckg	
Bill	01/26/2016	019447404		1/19/16 - 2/18/16	6031.7 · Other Office Supplies	110.98
TOTAL						110.98
Bill Pmt -Check	01/27/2016	19180	OFFICE TEAM	44898604	1012 · Bank of America Gen'l Ckg	
Bill	01/26/2016	44898604		Week ending 1/15/16	6017.2 · Office Specialist Services	1,153.29
TOTAL						1,153.29
Bill Pmt -Check	01/27/2016	19181	PARK PLACE COMPUTER SOLUTIONS, INC.	507	1012 · Bank of America Gen'l Ckg	
Bill	01/26/2016	507		IT Consulting Services - January 2016	6052.1 · Park Place Comp Solutn	1,575.00
TOTAL						1,575.00
Bill Pmt -Check	01/27/2016	19182	RAUCH COMMUNICATION CONSULTANTS, LLC Jan-1616		1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	Jan-1616		Annual Report work through December 31, 2015	6061.3 · Rauch	11,911.25
TOTAL						11,911.25
Bill Pmt -Check	01/27/2016	19183	READY REFRESH BY NESTLE	0023230253	1012 · Bank of America Gen'l Ckg	
Bill	01/26/2016	0023230253		Office Water Bottle - January 2016	6031.7 · Other Office Supplies	53.93

**CHINO BASIN WATERMASTER**  
**Cash Disbursements For The Month of**  
**January 2016**

Type	Date	Num	Name	Memo	Account	Paid Amount
TOTAL						53.93
Bill Pmt -Check	01/27/2016	19184	SANDERS, LAURA		1012 · Bank of America Gen'l Ckg	
Bill	01/26/2016			Transcript for 1/22/16 Court Hearing	6046 · Legal Publications/Services	228.00
TOTAL						228.00
Bill Pmt -Check	01/27/2016	19185	STAPLES BUSINESS ADVANTAGE	8037638222	1012 · Bank of America Gen'l Ckg	
Bill	01/26/2016	8037638222		Miscellaneous office supplies	6031.7 · Other Office Supplies	194.34
TOTAL						194.34
Bill Pmt -Check	01/27/2016	19186	STATE COMPENSATION INSURANCE FUND	1970970-15	1012 · Bank of America Gen'l Ckg	
Bill	02/01/2016	1970970-15		1970970-15	60183 · Worker's Comp Insurance	961.58
TOTAL						961.58
General Journal	01/30/2016	01/30/2016	Payroll and Taxes for 01/17/16-01/30/16	Payroll and Taxes for 01/17/16-01/30/16	1012 · Bank of America Gen'l Ckg	
				Direct Deposits for 01/17/16-01/30/16	1012 · Bank of America Gen'l Ckg	23,001.03
				Payroll Taxes for 01/17/16-01/30/16	1012 · Bank of America Gen'l Ckg	8,568.40
				Payroll Checks for 01/17/16-01/30/16	1014 · Bank of America P/R Ckg	564.90
			ICMA-RC	457(f) Employee Deductions for 01/17/16-01/30/16	1012 · Bank of America Gen'l Ckg	3,874.52
			ICMA-RC	401(a) Employee Deductions for 01/17/16-01/30/16	1012 · Bank of America Gen'l Ckg	1,189.58
TOTAL						37,198.43
General Journal	01/29/2016	01/29/16	Payroll and Taxes for 01/29/16	Payroll and Taxes for 01/29/16	1012 · Bank of America Gen'l Ckg	
				Direct Deposit for 01/29/16	1012 · Bank of America Gen'l Ckg	1,320.42
				Payroll Taxes for 01/29/16	1012 · Bank of America Gen'l Ckg	293.33
			ICMA-RC	401(a) Employee Deduction for 01/29/16	1012 · Bank of America Gen'l Ckg	66.24
TOTAL						1,679.99
General Journal	01/31/2016	01/31/2016	Wage Works FSA Direct Debits - Jan. 2016	Wage Works FSA Direct Debits - Jan. 2016	1012 · Bank of America Gen'l Ckg	
				Wage Works FSA Direct Debits - Jan. 2016	1012 · Bank of America Gen'l Ckg	511.14
				Wage Works FSA Direct Debits - Jan. 2016	1012 · Bank of America Gen'l Ckg	692.14
				Wage Works FSA Direct Debits - Jan. 2016	1012 · Bank of America Gen'l Ckg	76.25
TOTAL						1,279.53
<b>Total Disbursements:</b>						<b>322,673.66</b>

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# CHINO BASIN WATERMASTER

9641 San Bernardino Road, Rancho Cucamonga, Ca 91730  
Tel: 909.484.3888 Fax: 909.484.3890 www.cbwm.org

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PETER KAVOUNAS, P.E.  
General Manager

## STAFF REPORT

DATE: March 24, 2016  
TO: Board Members  
SUBJECT: VISA Check Detail Report - Financial Report B2 (January 31, 2016)

### SUMMARY

Issue: Record of VISA credit card payment disbursed for the month of January 31, 2016.

Recommendation: Receive and file VISA Check Detail Report for January 31, 2016 as presented.

Financial Impact: Funds disbursed were included in the FY 2015/16 "Amended" Watermaster Budget.

### Future Consideration

Watermaster Board: March 24, 2016; Receive and File (Normal Course of Business)

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### ACTIONS:

March 10, 2016 – Appropriative Pool – Unanimously approved  
March 10, 2016 – Non-Agricultural Pool – Moved unanimously to receive and file, without approval  
March 10, 2016 – Agricultural Pool – Unanimously approved  
March 17, 2016 – Advisory Committee – Unanimously approved  
March 24, 2016 – Watermaster Board –



## BACKGROUND

A monthly VISA Check Detail report is provided to keep all members apprised of Watermaster expenditures charged against the General Manager, Assistant General Manager, and Chief Financial Officer's Bank of America VISA card.

## DISCUSSION

The total cash disbursement during the month of January 2016 was \$5,584.05. The payment was processed by check number 19153 dated January 26, 2016. The monthly charges for January 2016 of \$5,584.05 were for routine and customary expenditures and properly documented with receipts.

## ATTACHMENTS

1. Financial Report - B2

CHINO BASIN WATERMASTER  
VISA Check Detail Report  
January 2016

Type	Num	Date	Name	Memo	Account	Paid Amount
Bill Pmt -Check	01/26/2016	19153	BANK OF AMERICA	XXXX-XXXX-XXXX-9341	1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	XXXX-XXXX-XXXX-9341		Overnight payment to Great America-copier lease	6043.1 · Ricoh Lease Fee	35.18
				Lunch provided to staff for basin tour	7204 · Comp Recharge-Supplies	122.46
				Phone case for AGM's work cell	6031.7 · Other Office Supplies	14.99
				Registration-Joswiak-ACWA/JPIA HR training	6193.2 · Conference - Registration Fee	30.00
				Registration-Wilson-01/28/16 IAAP mtg at CVWD	6193.2 · Conference - Registration Fee	10.00
				Registration-Wilson-01/09/16 IAAP Adobe Acrobat	6193.2 · Conference - Registration Fee	35.00
				Registration-Truong-01/09/16 IAAP Adobe Acrobat	6193.2 · Conference - Registration Fee	35.00
				Purchase Annual Quickbooks Service Plan	6054 · Computer Software	1,799.00
				Renewal-Go To Meeting Annual Plan-conferencing	6022 · Telephone	374.40
				Hotel-PK-December 2015 ACWA Fall Conference	6191 · Conferences - General	723.79
				Meal-PK-December 2015 ACWA Fall Conference	6191 · Conferences - General	42.80
				Meal-PK-December 2015 ACWA Fall Conference	6191 · Conferences - General	27.68
				Internet expense for GM-invoice lost in mail	6053 · Internet Expense	64.99
				Holiday staff luncheon	6141.3 · Admin Meetings	302.03
				Registration-PK-Feb. 8-9, 2016 SGMA Workshop	6193.2 · Conference - Registration Fee	430.00
				PK meeting w/Poulsen, City of Pomona	8312 · Meeting Expenses	41.67
				Flight-PK-Feb. 8-9, 2016 GRA SGMA Workshop	6191 · Conferences - General	148.46
				Early bird check-in for above flight	6191 · Conferences - General	25.00
				Registration-PK-Feb. 2016 AGWA-AGWT Conf.	6193.2 · Conference - Registration Fee	295.00
				PK meeting w/Zvirbulis, CVWD	8312 · Meeting Expenses	27.07
				PK meeting w/Bowcock	6312 · Meeting Expenses	20.87
				Flight-PK-Jan. 8, 2016 mtg w/Iris Priestaf	6909.1 · OBMP Meetings	459.46
				Early bird check-in for above flight	6909.1 · OBMP Meetings	25.00
				Hotel-Maurizio-December 2015 ACWA Fall Conf.	6191 · Conferences - General	423.94
				Lunch for field staff interviews	6141.3 · Admin Meetings	70.26
					<b>Total Disbursements:</b>	<b><u>5,584.05</u></b>

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TOTAL

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# CHINO BASIN WATERMASTER

9641 San Bernardino Road, Rancho Cucamonga, Ca 91730  
Tel: 909.484.3888 Fax: 909.484.3890 www.cbwm.org

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PETER KAVOUNAS, P.E.  
General Manager

## STAFF REPORT

DATE: March 24, 2016  
TO: Board Members  
SUBJECT: Combining Schedule of Revenue, Expenses and Changes in Net Assets for the Period July 1, 2015 through January 31, 2016 - Financial Report B3 (January 31, 2016)

### SUMMARY

Issue: Record of Revenue, Expenses and Changes in Net Assets for the Period July 1, 2015 through January 31, 2016.

Recommendation: Receive and file Combining Schedule of Revenue, Expenses and Changes in Net Assets for the Period July 1, 2015 through January 31, 2016 as presented.

Financial Impact: Funds disbursed were included in the FY 2015/16 "Amended" Watermaster Budget.

### Future Consideration

Watermaster Board: March 24, 2016; Receive and File (Normal Course of Business)

---

### ACTIONS:

March 10, 2016 – Appropriative Pool – Unanimously approved  
March 10, 2016 – Non-Agricultural Pool – Moved unanimously to receive and file, without approval  
March 10, 2016 – Agricultural Pool – Unanimously approved  
March 17, 2016 – Advisory Committee – Unanimously approved  
March 24, 2016 – Watermaster Board –

## BACKGROUND

A Combining Schedule of Revenue, Expenses and Changes in Net Assets for the period July 1, 2015 through January 31, 2016 is provided to keep all members apprised of the FY 2015/16 cumulative Watermaster revenues, expenditures and changes in net assets for the period listed.

## DISCUSSION

The Combining Schedule of Revenue, Expenses and Changes in Net Assets has been created from various financial reports and statements created from Intuit QuickBooks Enterprise Solutions 15.0, the Watermaster accounting system. The Combining Schedule provided balances to the supporting documentation in the Watermaster accounting system as presented.

## ATTACHMENTS:

1. Financial Report - B3

CHINO BASIN WATERMASTER  
COMBINING SCHEDULE OF REVENUE, EXPENSES AND CHANGES IN NET ASSETS  
FOR THE PERIOD JULY 1, 2015 THROUGH JANUARY 31, 2016

Financial Report - B3

	WATERMASTER ADMINISTRATION	OPTIMUM BASIN MANAGEMENT	POOL ADMINISTRATION & SPECIAL PROJECTS			GROUNDWATER OPERATIONS		LAIF VALUE ADJ.	GASB 68 BEG. NET POSITION	GRAND TOTALS	AMENDED BUDGET 2015-2016
			APPROPRIATIVE POOL	AG POOL	NON-AG POOL	GROUNDWATER REPLENISHMENT	SB222 FUNDS				
<b>Administrative Revenues:</b>											
Administrative Assessments			3,569,781		151,739					3,721,520	8,934,215
Interest Revenue			9,201	837	60					10,098	22,050
Mutual Agency Project Revenue	157,349									157,349	157,941
Miscellaneous Income										-	0
<b>Total Revenues</b>	<b>157,349</b>	<b>-</b>	<b>3,578,982</b>	<b>837</b>	<b>151,800</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3,888,968</b>	<b>9,114,206</b>
<b>Administrative &amp; Project Expenditures:</b>											
Watermaster Administration	780,112									780,112	1,227,268
Watermaster Board-Advisory Committee	91,322									91,322	222,418
Ag Pool Misc. Expense - Ag Fund										-	400
Pool Administration			28,316	249,208	55,605					333,129	595,933
Optimum Basin Mgmt Administration		1,138,138								1,138,138	1,473,093
OBMP Project Costs		1,239,162								1,239,162	3,525,355
Debt Service		304,376								304,376	460,200
Basin Recharge Improvements		386,128								386,128	3,472,477
Mutual Agency Project Costs										-	10,000
<b>Total Administrative/OBMP Expenses</b>	<b>871,434</b>	<b>3,067,803</b>	<b>28,316</b>	<b>249,208</b>	<b>55,605</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4,272,367</b>	<b>10,987,144</b>
<b>Net Administrative/OBMP Expenses</b>	<b>(714,085)</b>	<b>(3,067,803)</b>									
Allocate Net Admin Expenses To Pools	714,085		516,993	173,623	23,469					-	
Allocate Net OBMP Expenses To Pools		2,377,300	1,721,150	578,019	78,131					-	
Allocate Debt Service to App Pool		304,376	304,376							-	
Allocate Basin Recharge to App Pool		386,128	386,128							-	
Agricultural Expense Transfer*			1,000,851	(1,000,851)						-	
<b>Total Expenses</b>			<b>3,957,813</b>	<b>-</b>	<b>157,204</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4,272,367</b>	<b>10,987,144</b>
<b>Net Administrative Income</b>			<b>(378,831)</b>	<b>837</b>	<b>(5,404)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(383,398)</b>	<b>(1,872,938)</b>
<b>Other Income/(Expense)</b>											
Replenishment Water Assessments										-	0
Non-Ag Stored Water Purchases										-	0
Exhibit "G" Non-Ag Pool Water										-	0
Interest Revenue						2,403				2,403	0
MWD Water Purchases										-	0
Non-Ag Stored Water Purchases										-	0
Exhibit "G" Non-Ag Pool Water										-	0
MWD Water Purchases										-	0
Groundwater Replenishment										-	0
LAIF - Fair Market Value Adjustment										-	0
Other Post-Employment Benefits (OPEB)										-	0
Refund-Excess Reserves										-	0
Refund-Recharge Debt										-	0
<b>Net Other Income/(Expense)</b>			<b>-</b>	<b>-</b>	<b>-</b>	<b>2,403</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,403</b>	<b>0</b>
<b>Net Transfers To/(From) Reserves</b>		<b>(380,996)</b>	<b>(378,831)</b>	<b>837</b>	<b>(5,404)</b>	<b>2,403</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(380,996)</b>	<b>(1,872,938)</b>
<b>Net Assets, July 1, 2015</b>			<b>6,346,620</b>	<b>481,130</b>	<b>69,774</b>	<b>1,388,080</b>	<b>158,251</b>	<b>3,446</b>	<b>(740,195)</b>	<b>7,707,106</b>	
<b>Net Assets, End of Period</b>			<b>5,967,788</b>	<b>481,968</b>	<b>64,370</b>	<b>1,390,482</b>	<b>158,251</b>	<b>3,446</b>	<b>(740,195)</b>	<b>7,326,110</b>	<b>7,326,110</b>
<b>13/14 Assessable Production</b>			<b>100,165.551</b>	<b>33,638.883</b>	<b>4,546.972</b>					<b>138,351.406</b>	
<b>13/14 Production Percentages</b>			<b>72.399%</b>	<b>24.314%</b>	<b>3.287%</b>					<b>100.000%</b>	

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\*Fund balance transfer as agreed to in the Peace Agreement.

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# CHINO BASIN WATERMASTER

9641 San Bernardino Road, Rancho Cucamonga, Ca 91730  
Tel: 909.484.3888 Fax: 909.484.3890 www.cbwm.org

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PETER KAVOUNAS, P.E.  
General Manager

## STAFF REPORT

DATE: March 24, 2016

TO: Board Members

SUBJECT: Treasurer's Report of Financial Affairs for the Period January 1, 2016 through January 31, 2016 - Financial Report B4 (January 31, 2016)

### SUMMARY

Issue: Record of increases or decreases in the cash position, assets and liabilities of Watermaster for the Period of January 1, 2016 through January 31, 2016.

Recommendation: Receive and file Treasurer's Report of Financial Affairs for the Period January 1, 2016 through January 31, 2016 as presented.

Financial Impact: Funds disbursed were included in the FY 2015/16 "Amended" Watermaster Budget.

### Future Consideration

Watermaster Board: March 24, 2016; Receive and File (Normal Course of Business)

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### ACTIONS:

March 10, 2016 – Appropriative Pool – Unanimously approved

March 10, 2016 – Non-Agricultural Pool – Moved unanimously to receive and file, without approval

March 10, 2016 – Agricultural Pool – Unanimously approved

March 17, 2016 – Advisory Committee – Unanimously approved

March 24, 2016 – Watermaster Board –



## BACKGROUND

A Treasurer's Report of Financial Affairs for the Period January 1, 2016 through January 31, 2016 is provided to keep all members apprised of the total cash in banks (Bank of America, LAIF, and CalTRUST) and on hand at the Watermaster office (petty cash) at the end of the period stated. The Treasurer's Report details the change (increase or decrease) in the overall cash position of Watermaster, as well as the changes (increase or decrease) to the assets and liabilities section of the balance sheet. The report also provides a detailed listing of all deposits and/or withdrawals in the California State Treasurer's Local Agency Investment Fund (LAIF) and/or CalTRUST, the most current effective yield as of the last quarter, and the ending balance in LAIF as of the reporting date.

## DISCUSSION

The Treasurer's Report of Financial Affairs has been created from various financial reports and statements created from Intuit QuickBooks Enterprise Solutions 15.0, the Watermaster accounting system. The Treasurer's Report provided, balances to the supporting documentation in the Watermaster accounting system, as well as the supporting bank statements.

## ATTACHMENTS

1. Financial Report - B4

**CHINO BASIN WATERMASTER  
TREASURER'S REPORT OF FINANCIAL AFFAIRS FOR THE PERIOD  
JANUARY 1, 2016 THROUGH JANUARY 31, 2016**

Financial Report - B4

**DEPOSITORIES:**

Cash on Hand - Petty Cash			\$	500
Bank of America				
Governmental Checking-Demand Deposits	\$	35,754		
Zero Balance Account - Payroll	\$	-		35,754
Local Agency Investment Fund - Sacramento				8,988,927
<b>TOTAL CASH IN BANKS AND ON HAND</b>		<b>1/31/2016</b>	<b>\$</b>	<b>9,025,181</b>
<b>TOTAL CASH IN BANKS AND ON HAND</b>		<b>12/31/2015</b>		<b>9,331,120</b>
<b>PERIOD INCREASE (DECREASE)</b>			<b>\$</b>	<b>(305,939)</b>

**CHANGE IN CASH POSITION DUE TO:**

Decrease/(Increase) in Assets:			\$	(11,705)
Accounts Receivable				9,104
Assessments Receivable				9,349
Prepaid Expenses, Deposits & Other Current Assets				247,980
(Decrease)/Increase in Liabilities:				1,882
Accounts Payable				2,248
Accrued Payroll, Payroll Taxes & Other Current Liabilities				(564,797)
Long Term Liabilities				
Transfer to/(from) Reserves				
<b>PERIOD INCREASE (DECREASE)</b>			<b>\$</b>	<b>(305,939)</b>

**SUMMARY OF FINANCIAL TRANSACTIONS:**

	Petty Cash	Govt'l Checking Demand	Zero Balance Account Payroll	Local Agency Investment Funds	Totals
Balances as of 12/31/2015	\$ 500	\$ 347,863	\$ -	\$ 8,982,757	\$ 9,331,120
Deposits	-	10,564	-	6,170	16,734
Transfers	-	(89,617)	(65,765)	-	(155,382)
Withdrawals/Checks	-	(233,057)	65,765	-	(167,292)
<b>Balances as of 1/31/2016</b>	<b>\$ 500</b>	<b>\$ 35,754</b>	<b>\$ -</b>	<b>\$ 8,988,927</b>	<b>\$ 9,025,181</b>
<b>PERIOD INCREASE OR (DECREASE)</b>	<b>\$ -</b>	<b>\$ (312,110)</b>	<b>\$ -</b>	<b>\$ 6,170</b>	<b>\$ (305,939)</b>

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CHINO BASIN WATERMASTER  
 TREASURER'S REPORT OF FINANCIAL AFFAIRS FOR THE PERIOD  
 JANUARY 1, 2016 THROUGH JANUARY 31, 2016

INVESTMENT TRANSACTIONS

Effective Date	Transaction	Depository	Activity	Redeemed	Days to Maturity	Interest Rate(*)	Maturity Yield
1/15/2016	Interest		\$ 6,170				
<b>TOTAL INVESTMENT TRANSACTIONS</b>			<b>\$ 6,170</b>	<b>-</b>			

\* The earnings rate for L.A.I.F. is a daily variable rate; 0.37% was the effective yield rate at the Quarter ended December 31, 2015.

INVESTMENT STATUS  
 January 31, 2016

Financial Institution	Principal Amount	Number of Days	Interest Rate	Maturity Date
Local Agency Investment Fund	\$ 8,988,927			
<b>TOTAL INVESTMENTS</b>	<b>\$ 8,988,927</b>			

Funds on hand are sufficient to meet all foreseen and planned Administrative and project expenditures during the next six months.

All investment transactions have been executed in accordance with the criteria stated in Chino Basin Watermaster's Investment Policy.

Respectfully submitted,



Joseph S. Joswiak  
 Chief Financial Officer  
 Chino Basin Watermaster

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# CHINO BASIN WATERMASTER

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PETER KAVOUNAS, P.E.  
General Manager

## STAFF REPORT

DATE: March 24, 2016  
TO: Board Members  
SUBJECT: Budget vs. Actual Report for the Period July 1, 2015 through January 31, 2016 -  
Financial Report B5 (January 31, 2016)

### SUMMARY

Issue: Record of revenues and expenses of Watermaster for the Period of July 1, 2015 through January 31, 2016.

Recommendation: Receive and file Budget vs. Actual Report for the Period July 1, 2015 through January 31, 2016 as presented.

Financial Impact: Funds disbursed were included in the FY 2015/16 "Amended" Watermaster Budget.

### Future Consideration

Watermaster Board: March 24, 2016; Receive and File (Normal Course of Business)

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### ACTIONS:

March 10, 2016 – Appropriative Pool – Unanimously approved  
March 10, 2016 – Non-Agricultural Pool – Moved unanimously to receive and file, without approval  
March 10, 2016 – Agricultural Pool – Unanimously approved  
March 17, 2016 – Advisory Committee – Unanimously approved  
March 24, 2016 – Watermaster Board –

## BACKGROUND

A Budget vs. Actual Report for the period July 1, 2015 through January 31, 2016 is provided to keep all members apprised of the total revenues and expenses for the current fiscal year. The expense section is categorized into four distinct sections. Those sections are: General and Administrative Expenses; Optimum Basin Management Program Expenses; Project Expenses; and Other Income/Expenses. The Budget vs. Actual report has been created from Intuit QuickBooks Enterprise Solutions 15.0, the Watermaster accounting system. The Budget vs. Actual report provided, balances to the supporting documentation in the Watermaster accounting system, as well as the supporting bank statements.

## DISCUSSION

### CURRENT MONTH – JANUARY 2016

Year-To-Date (YTD) for the seven months ending January 31, 2016, all but six categories were at or below the projected budget. The categories over budget were Watermaster Legal Services expenses (6070's) which were over budget by \$20,522 or 15.8% as a result of increased miscellaneous legal expenses, additional personnel related expenses, and the unanticipated CCG Motion related legal expenses not budgeted for FY 2015/16; Training, Conferences and Seminars expenses (6190's) which were over budget by \$2,710 or 19.5% as a result of a membership in Vistage which provides leadership training and development; Agricultural Legal Services expenses (8467) which were over budget by \$88,076 or 73.7% as a result of ongoing Safe Yield Redetermination and Reset efforts; Agricultural Pool Meeting Attendance expenses (8470's) which were over budget by \$5,875 or 45.4% as a result of the Agricultural Pool's Special Meetings which were not anticipated when the FY 2015/16 budget was developed; OBMP expenses (6900's) were over budget by \$200,131 or 22.5% as a result of engineering and legal services supporting the ongoing Safe Yield Redetermination and Reset efforts; and Production Monitoring expenses (7101's) which were over budget by \$16,909 or 50.5% as a direct result of ongoing efforts of Watermaster staff in production reporting.

The Watermaster budget for FY 2015/16 is divided into 12-monthly amounts and allocated accordingly. As the fiscal year progresses, several of the above listed categories might level out over time and be within the budget levels.

Overall, the Watermaster (YTD) Actual Expenses were \$3,602,218 or 45.7% below the (YTD) Budgeted Expenses of \$7,874,585.

### PREVIOUSLY REPORTED ACTIONS (Descending Order)

#### July 2015:

During the month of July 2015, the "Carry Over" funding was calculated. The Total "Carry Over" funding amount of \$1,872,937.85 has been posted to the general ledger accounts. The total amount of \$1,872,937.85 consisted of \$1,686,955.86 from Capital Improvement Projects, \$136,696 from Engineering Services, \$29,285.99 from Chino Hills ASR, and \$20,000 from the Administrative section for the Annual Reports. More detailed information is provided regarding this issue under the "Carry Over" Funding section.

The Amended Budget for FY 2015/16 is \$10,987,143.85 which includes \$1,872,937.85 for the prior years "Carry Over" funding. The Original Approved budget for FY 2015/16 of \$9,114,206 was approved by the Watermaster Board on May 28, 2015 ( $\$9,114,206 + \$1,872,937.85 = \$10,987,143.85$ ).

## SALARIES EXPENSE

### CURRENT MONTH – JANUARY 2016

As of January 31, 2016, the total (YTD) Watermaster salary expenses were \$71,281 or 7.7% below the (YTD) budgeted amount of \$930,795. The overall staffing budget was developed with a staffing level of

nine Full-Time Equivalent (FTE's), and staffing is currently at nine Full-Time Equivalent (FTE's).

Watermaster completed the recruiting process for the position of Field Operations Specialist which became vacant as of August 27, 2015. Rick Zapien started on Monday, January 4, 2016.

On September 16, 2015, Office Specialist/Receptionist was placed on Pregnancy Disability Leave (PDL) by her physician. Based upon the PDL leave and concurrently running FMLA leave, the employee was scheduled, and did return on Monday, February 22, 2016. During her absence, Watermaster utilized a temporary employee to perform the duties and responsibilities.

Watermaster utilizes an in-house database time and attendance system to track and record staff's actual hours worked and records those hours to a specific project or activity. This time and attendance database of captured staff hours and activities is the basis for the bi-weekly payrolls which are processed using an external payroll processing service. Watermaster staff can record time to a large number of activities but the five most used categories are as follows (1) General Administrative activities; (2) Paid Leaves of vacation, sick or holiday; (3) Pools, Advisory or Board Meeting attendance; (4) OBMP activities; and (5) OBMP Implementation Program Elements 1 through 9 activities.

When the FY 2015/16 budget was developed, basic assumptions were used in allocating how staff's time would be spent and on which of the projects or activities. The staffing dollars were then allocated into those specific areas and budgeted on a 1/12 monthly budget. When actual staffing activities vary from the budgeted assumptions, a positive or negative variance can be created. Currently, the allocations are tracking within budget.

The table summarizes the Year-To-Date (YTD) Actual Watermaster salary costs compared to the Year-To-Date (YTD) Budget as of January 31, 2016. Please be advised that the "\$ Over Budget" and the "% of Budget" columns are a comparison of the (YTD) Actual to the (YTD) Budget, not the 12-month Annual Budget. The 12-month Annual Budget column is presented only to provide the data in a full and complete format. The following details are provided:

	<u>Jul '15 - Jan '16</u> <u>Actual</u>	<u>Jul '15 - Jan '16</u> <u>Budget</u>	<u>\$ Over Budget</u>	<u>% of Budget</u>	<u>FY 2015/16</u> <u>Annual Budget</u>
<b>WM Salary Expense</b>					
6011 · WM Staff Salaries	495,503.08	502,806.00	-7,302.92	98.55%	848,891.00
6017 · Temporary Services	0.00	12,250.00	-12,250.00	0.0%	21,000.00
6017.2 · Office Specialist Services	7,385.46	0.00	7,385.46	100.0%	0.00
6201 · Advisory Committee - WM Staff Salaries	9,516.93	13,193.00	-3,676.07	72.14%	22,274.00
6301 · Watermaster Board - WM Staff Salaries	17,550.52	21,843.00	-4,292.48	80.35%	36,879.00
8301 · Appropriative Pool - WM Staff Salaries	18,022.30	17,603.00	419.30	102.38%	29,719.00
8401 · Agricultural Pool - WM Staff Salaries	12,212.89	15,453.00	-3,240.11	79.03%	26,090.00
8501 · Non-Agricultural Pool - WM Staff Salaries	10,464.64	9,224.00	1,240.64	113.45%	15,574.00
6901 · OBMP - WM Staff Salaries	79,080.79	73,866.00	5,214.79	107.06%	124,709.00
7101.1 · Production Monitor - WM Staff Salaries	49,958.46	33,049.00	16,909.46	151.17%	55,797.00
7102.1 · In-line Meter - WM Staff Salaries	2,708.23	5,457.00	-2,748.77	49.63%	9,212.00
7103.1 · Grdwater Quality - WM Staff Salaries	5,008.67	32,288.00	-27,279.33	15.51%	54,511.00
7104.1 · Grdwater Level - WM Staff Salaries	37,356.77	25,142.00	12,214.77	148.58%	42,447.00
7108.1 · Hydraulic Control - WM Staff Salaries	0.00	1,458.00	-1,458.00	0.0%	2,464.00
7108.11 · Prado Basin - WM Staff Salaries	3,587.65	4,919.00	-1,331.35	72.94%	8,305.00
7201 · Comp Recharge - WM Staff Salaries	30,559.69	26,214.00	4,345.69	116.58%	44,259.00
7301 · PE3&5 - WM Staff Salaries	0.00	8,820.00	-8,820.00	0.0%	14,892.00
7401 · PE4 - WM Staff Salaries	129.67	5,356.00	-5,226.33	2.42%	9,042.00
7501.1 · PE 6&7 - WM Staff Salaries (Plume)	0.00	3,993.00	-3,993.00	0.0%	6,743.00
7501 · PE6&7 - WM Staff Salaries	0.00	2,597.00	-2,597.00	0.0%	4,383.00
7601 · PE8&9 - WM Staff Salaries	0.00	7,244.00	-7,244.00	0.0%	12,231.00
<b>Subtotal WM Staff Costs</b>	<b>779,045.75</b>	<b>822,775.00</b>	<b>-43,729.25</b>	<b>94.69%</b>	<b>1,389,422.00</b>
60185 · Vacation	38,201.39	42,279.00	-4,077.61	90.36%	72,479.00
60186 · Sick Leave	6,997.06	27,070.00	-20,072.94	25.85%	46,405.00
60187 · Holidays	35,269.88	38,671.00	-3,401.12	91.21%	46,405.00
<b>Subtotal WM Paid Leaves</b>	<b>80,468.33</b>	<b>108,020.00</b>	<b>-27,551.67</b>	<b>74.49%</b>	<b>165,289.00</b>
<b>Total WM Salary Costs</b>	<b>859,514.08</b>	<b>930,795.00</b>	<b>-71,280.92</b>	<b>92.34%</b>	<b>1,554,711.00</b>

LEGAL SERVICES  
BROWNSTEIN HYATT FARBER SCHRECK EXPENSES

CURRENT MONTH – JANUARY 2016

As of January 31, 2016, the total (YTD) Watermaster Legal Services expenses (consolidating the three categories of Watermaster Administrative Legal Services, Pool/Advisory/Board Meeting legal expenses, and OBMP legal expenses) were \$198,502 or 34.9% above the (YTD) budgeted amount of \$568,191. The Watermaster Legal Services budget was developed jointly by the Watermaster staff and Brownstein Hyatt Farber Schreck staff with specific assumptions regarding the tasks and legal activities that would occur during FY 2015/16. The "Approved" budget amount was adopted for the amount of \$933,815. The total budget was developed by multiplying the number of hours that would be required to complete the specific tasks by the hourly rate.

WATERMASTER ADMINISTRATIVE LEGAL SERVICES:

Overall, the Watermaster Administrative Legal Services expense (6070's), as of January 31, 2016, was \$20,522 or 15.8% above the budgeted amount of \$130,019. The specific items within the Administrative Legal Services expenses (6070's) which were under budget were the expenses for Court Coordination (6071) under budget by \$14,543 or 60.9%; Annotated Judgment (6072) under budget by \$23,420 or 100.0%; Interagency Issues (6074) under budget by \$17,850 or 100.0%; and the Party Status Maintenance (6077) under budget by \$16,282 or 97.3%. The specific items within the Administrative Legal Services expenses (6070's) which were over budget were the expenses for Personnel Matters (6073) over budget by \$7,965 or 29.0%; Miscellaneous (6078) over budget by \$81,571 or 395.6%; and CCG Motion (6078.12) over budget by \$3,080 or 100.0%.

Personnel Matters: As reported during the previous monthly meetings, Watermaster's legal counsel filed an appeal with CalPERS regarding CalPERS original determination (from February 2013) which rejected the base salary of the former CEO, Desi Alvarez, with regards to his retirement pension benefit. There have been several filings of appeal and we are awaiting CalPERS determination. On December 9, 2013 CalPERS notified the attorneys of record that the CalPERS Legal Office received the case on November 22, 2013 and we would be notified when the case has been assigned to an attorney who will represent CalPERS regarding the appeal. On February 27, 2014 the case was assigned to Wesley E. Kennedy, Senior Staff Attorney for CalPERS. On July 17, 2014 a document request from CalPERS was received by Watermaster related to the pending case. On August 22, 2014 the specific documents were provided to CalPERS. On September 9, 2014 Watermaster received the Notice of Hearing from CalPERS and the hearing has been scheduled for March 11-13, 2015 at the Glendale CalPERS Regional office. On October 1, 2014 Watermaster received from CalPERS a discovery request for Case No. 2013-1113. On December 31, 2014 Brownstein Hyatt Farber Schreck provided the information to Mr. Kennedy of CalPERS as requested on October 1, 2014. On January 16, 2015 a Prehearing conference along with a Settlement conference was conducted in Los Angeles. On March 2, 2015 a Motion to Continue was granted and the new Administrative Hearing (OAH Case No. 2014080757) was scheduled for November 16-18, 2015 at the Glendale CalPERS Regional Office. On September 28, 2015 the attorney for Mr. Alvarez (Mr. Jensen), at the suggestion of Mr. Kennedy, requested a short continuance of the OAH hearing because CalPERS has scheduled a full Board hearing on the claims of one of Mr. Jensen's clients for March 10, 2016 which is right in the middle of the three-day hearing scheduled for Mr. Alvarez's case. On October 9, 2015, an Order Granting Continuance; Notice of New Hearing Dates was provided by the State of California, Department of General Services, Office of Administrative Hearings. The administrative hearing was rescheduled for January 4-6, 2016 at the Glendale CalPERS Regional Office. On October 14, 2015 a Notice of Case Reassignment was received from the CalPERS providing notice that OAH Case No. 2014080757 has been reassigned from attorney Wesley Kennedy to Preet Kaur, Staff Attorney. On November 20, 2015, a Request for Continuance was issued from CalPERS to reschedule the hearing to either the period of April 4 through April 6, 2016 or April 11 through April 15, 2016. On December 11, 2015, an Order Granting Continuance; Notice of New Hearing Dates was issued from the State of California, Department of General Services, Office of Administrative Hearings to reschedule the hearing to April 11-13, 2016.

WATERMASTER POOLS, ADVISORY AND BOARD LEGAL SERVICES:

The Pools, Advisory Committee and the Board meeting legal expenses from BHFS are captured by month within the accounts (6275, 6375, 8375, 8475 and 8575). Overall, this category of legal expenses as of January 31, 2016 was \$52,285 or 41.0% below the budgeted amount of \$127,614. Normal Brownstein Hyatt Farber Schreck meeting attendance during any given month includes attendance at all three pool meetings, one Advisory Committee meeting and one Board meeting. The Watermaster parties agreed that during the month of December 2015, the three Pools, the Advisory Committee and the Watermaster Board meetings would not be held, adding additional cost savings to this category.

OBMP LEGAL SERVICES:

The OBMP legal expenses (accounts 6907.31 through 6907.90) were above the budget for the month. As of January 31, 2016 the category of OBMP legal expenses were \$230,265 or 74.1% above the budgeted amount of \$310,558. The majority of expenses within this OBMP category were under budget (Y-T-D), however, the BHFS Safe Yield Redetermination and Reset legal expenses (6907.42) continue to increase and exceed the monthly budget. As of January 31, 2016, the Safe Yield Redetermination and Reset legal expenses were \$419,445 or 406.0% above the budgeted amount of \$103,300. It should be noted that the 12-month annual legal budget for the Safe Yield Redetermination and Reset category was approved at an amount of \$103,300 and anticipated to be allocated within the first six months of the FY 2015/16 (July 2015 – December 2015). The approved BHFS legal budget anticipated 230 labor hours for consolidated legal staff time with regards to the Safe Yield Redetermination and Reset effort. The Mid-Year Review presentation during the February 2016 meetings discussed the anticipated over budget of the Safe Yield Redetermination and Reset category. The presentation suggested that in the next few months a Budget Amendment would be proposed to add additional budget to this category and the funding would come from the FY 2015/16 OBMP Budget Reserves. The OBMP Budget Reserve amount is calculated at 15% of the OBMP Approved Budget which is \$715,363 ( $\$4,769,087 \times 15\% = \$715,363$ ) for FY 2015/16.

The table listed below summarizes the Brownstein Hyatt Farber Schreck (BHFS) expenses as of January 31, 2016 compared to the Year-To-Date (YTD) budget. Please be advised that the "\$ Over Budget" and the "% of Budget" columns are a comparison of the (YTD) Actual to the (YTD) Budget, not the 12-month Annual Budget. The 12-month Annual Budget column is presented only to provide the data in a full and complete format. The following details are provided:



	Jul '15 - Jan '16 Actual	Jul '15 - Jan '16 Budget	\$ Over Budget	% of Budget	FY 2015/16 Annual Budget
<b>6070 · Watermaster Legal Services</b>					
6071 · BHFS Legal - Court Coordination	9,345.36	23,888.00	-14,542.64	39.12%	40,950.00
6072 · BHFS Legal - Annotated Judgment	0.00	23,420.00	-23,420.00	0.0%	40,150.00
6073 · BHFS Legal - Personnel Matters	35,465.21	27,500.00	7,965.21	128.96%	80,700.00
6074 · BHFS Legal - Interagency Issues	0.00	17,850.00	-17,850.00	0.0%	30,600.00
6076 · BHFS Legal - Storage Issues	0.00	0.00	0.00	0.0%	0.00
6077 · BHFS Legal - Party Status Maintenance	459.00	16,741.00	-16,282.00	2.74%	28,700.00
6078 · BHFS Legal - Miscellaneous (Note 1)	102,191.35	20,620.00	81,571.35	495.59%	35,350.00
6078.12 · BHFS Legal - CCG Motion	3,079.82	0.00	3,079.82	100.0%	0.00
<b>Total 6070 · Watermaster Legal Services</b>	<b>150,540.74</b>	<b>130,019.00</b>	<b>20,521.74</b>	<b>115.78%</b>	<b>256,450.00</b>
6275 · BHFS Legal - Advisory Committee	9,969.74	11,900.00	-1,930.26	83.78%	20,400.00
6375 · BHFS Legal - Board Meeting	36,303.51	62,164.00	-25,860.49	58.4%	106,565.00
8375 · BHFS Legal - Appropriative Pool	9,934.09	17,850.00	-7,915.91	55.65%	30,600.00
8475 · BHFS Legal - Agricultural Pool	9,311.87	17,850.00	-8,538.13	52.17%	30,600.00
8575 · BHFS Legal - Non-Ag Pool	9,809.99	17,850.00	-8,040.01	54.96%	30,600.00
<b>Total BHFS Legal Services</b>	<b>75,329.20</b>	<b>127,614.00</b>	<b>-52,284.80</b>	<b>59.03%</b>	<b>218,765.00</b>
<b>6907.3 · WM Legal Counsel</b>					
6907.31 · Archibald South Plume	0.00	14,291.66	-14,291.66	0.0%	24,500.00
6907.32 · Chino Airport Plume	0.00	14,291.66	-14,291.66	0.0%	24,500.00
6907.33 · Desalter/Hydraulic Control	0.00	28,525.00	-28,525.00	0.0%	48,900.00
6907.34 · Santa Ana River Water Rights	869.85	14,758.34	-13,888.49	5.89%	25,300.00
6907.36 · Santa Ana River Habitat	964.80	11,491.66	-10,526.86	8.4%	19,700.00
6907.38 · Reg. Water Quality Cntrl Board	0.00	8,370.84	-8,370.84	0.0%	14,350.00
6907.39 · Recharge Master Plan	6,634.80	39,725.00	-33,090.20	16.7%	68,100.00
6907.40 · Storage Agreements	535.50	50,225.00	-49,689.50	1.07%	86,100.00
6907.41 · Prado Basin Habitat Sustainability	5,704.65	8,370.84	-2,666.19	68.15%	14,350.00
6907.42 · Safe Yield Recalculation	522,745.04	103,300.00	419,445.04	506.05%	103,300.00
6907.44 · SGMA Compliance	3,368.70	0.00	3,368.70	100.0%	0.00
6907.90 · WM Legal Counsel - Unanticipated	0.00	17,208.34	-17,208.34	0.0%	29,500.00
<b>Total 6907 · WM Legal Counsel</b>	<b>540,823.34</b>	<b>310,558.34</b>	<b>230,265.00</b>	<b>174.15%</b>	<b>458,600.00</b>
<b>Total Brownstein, Hyatt, Farber, Schreck Costs</b>	<b>766,693.28</b>	<b>568,191.34</b>	<b>198,501.94</b>	<b>134.94%</b>	<b>933,815.00</b>

Note 1: The types of legal activities that have been charged against the "Miscellaneous" legal category account 6078 are as follows: (1) Correspondence and discussions with Watermaster staff regarding current issues/topics; (2) Correspondence with Watermaster staff regarding special projects (assessment package, annual report, audit report, business plan, etc.); (3) Brownstein's status review of ongoing Watermaster projects and issues; (4) Brownstein's update of the outstanding issues list; (5) Coordination of ongoing Watermaster projects; (6) Review of draft documents; (7) Review transfer documents; (8) Land Subsidence Committee reports/meetings; (9) Review process and criteria for re-appointment of the Watermaster 9 member Board; (10) Review current California issued drought regulations; (11) Review and comment on Waters of the United States rule making; (12) Review and draft documents for basin boundary regulations; and (13) Miscellaneous legal research on current and pending issues.

## OBMP ENGINEERING SERVICES AND LEGAL COSTS

### CURRENT MONTH – JANUARY 2016

Reviewing in total the OBMP Engineering Services and Legal Costs (consolidating the four categories of OBMP Watermaster Staff and SAWPA, OBMP Engineering Services, OBMP Legal Costs, and OBMP Other Expenses) for the seven month period ending January 31, 2016, the actual expenses of \$1,088,071 were above the budgeted amount of \$887,940 by \$200,131 or 22.5%. For a detailed discussion, the following is provided.

For January 31, 2016, the accounts 6901-6903 (Optimum Basin Mgmt Program) section was above the Year-To-Date (YTD) budget by \$4,874 or 5.6%. Watermaster utilizes an in-house database time and attendance system to record and document staff's actual hours worked and also allocates those hours to a specific project or activity. Watermaster staff time could be charged to Administrative, OBMP, or Implementation Project categories. Recently, Watermaster staff spent more time on specific OBMP

related areas and less time on administrative related tasks. As a result, Watermaster staff allocated more actual time to the OBMP project as budgeted, which resulted in an over budget variance of \$5,215 or 7.1%. The remaining expense was the Santa Ana Watershed Project Authority (SAWPA) FY 2015/16 Basin Monitoring Program Task Force Contribution which was budgeted at \$12,500 but actual expenses were billed at \$12,159 which was below the budget by \$341 or 2.7% as of January 31, 2016.

For January 31, 2016, the accounts 6906 (Optimum Basin Mgmt Program Engineering Services) section was below the Year-To-Date (YTD) budget by \$30,074 or 6.2%. For FY 2015/16, the OBMP-Safe Yield Redetermination and Reset expenses (6906.73) did not have a budget amount assigned. For the month of January 2016, there were expenses totaling \$12,292 charged to the OBMP-Safe Yield Redetermination and Reset expenses. As of the Year-To-Date (YTD), this account was over budget by \$91,685 or 100.0%. The OBMP-Watermaster Model Update and the Material Physical Injury Request expenses had a budget provided for the month, but there was a small amount of activity and Engineering expenses recorded for this period. These two expenses, along with several other engineering related line items within the (6906's) assisted in reducing the overall budget variance and is a large factor as to why this expense category was under budget for the month.

Within the category 6907 (Optimum Basin Mgmt Program Legal Fees) are the remaining Brownstein Hyatt Farber Schreck (BHFS) Watermaster's legal expenses. Within the legal expense category, some individual line item activities were above the budget by \$422,814 while some other line item activities were below the budget by \$192,549. Above the budget line items were the Safe Yield Redetermination and Reset of \$419,445; and the SGMA Compliance of \$3,369. Please note the SGMA Compliance is a new GL account created in January 2016 to capture these costs. The individual legal projects/activities that were below budget for the Year-To-Date (YTD) period were the Archibald South Plume of \$14,292; the Chino Airport Plume of \$14,292; the Desalter/Hydraulic Control of \$28,525; the Santa Ana River Water Rights of \$13,888; the Santa Ana River Habitat of \$10,527; the Regional Water Quality Control Board of \$8,371; the Recharge Master Plan of \$33,090; Storage Agreements of \$49,690; the Prado Basin Habitat Sustainability of \$2,666; and the WM Unanticipated of \$17,208. For the seven months ended January 31, 2016, the overall cumulative (YTD) budget was \$310,558 and the actual (BHFS) legal expenses totaled \$540,823 which resulted in an over budget variance of \$230,265 or 74.1%.

As mentioned in the Brownstein Hyatt Farber Schreck section, the annual legal budget for the Safe Yield Redetermination and Reset was approved at an amount of \$103,300. The approved BHFS legal budget anticipated 230 labor hours for consolidated legal staff time with regards to the Safe Yield Redetermination and Reset effort. The budget assumed these expenses would be recorded during the period of July 2015 through December 2015. The Mid-Year Review presentation during the February 2016 meetings discussed the anticipated over budget of the Safe Yield Redetermination and Reset category. The presentation suggested that in the next few months a Budget Amendment would be proposed to add additional budget to this category and the funding would come from the FY 2015/16 OBMP Budget Reserves. The OBMP Budget Reserve amount is calculated at 15% of the OBMP Approved Budget which is \$715,363 ( $\$4,769,087 \times 15\% = \$715,363$ ) for FY 2015/16.

The OBMP Other Expenses (6909's) were below the budget for the month. These expenses are typically conference calls, meeting expenses, supplies, annual inspection fees, and other miscellaneous type expenses. As of January 31, 2016 this category of expenses was \$4,934 or 62.7% below the budgeted amount of \$7,875.

The Integrated Resource Plan expenses (6910's) is billed directly to IEUA on the following month once the payment has been issued to Wildermuth Environmental, Inc. per the contract. As of January 31, 2016 this category of expenses was fully invoiced to IEUA in the amount of \$50,738.

Overall, the Optimum Basin Management Program (OBMP) category was \$1,088,071 compared to a (YTD) budget of \$887,940 for an over budget of \$200,131 or 22.5% as of January 31, 2016.

The table listed below summarizes the Optimum Basin Management Program (OBMP) expenses as of January 31, 2016 compared to the Year-To-Date (YTD) budget. Please be advised that the "\$ Over

Budget” and the “% of Budget” columns are a comparison of the (YTD) Actual to the (YTD) Budget, not the 12-month Annual Budget. The 12-month Annual Budget column is presented only to provide the data in a full and complete format. The following details are provided:

	Jul '15 - Jan '16 Actual	Jul '15 - Jan '16 Budget	\$ Over Budget	% of Budget	FY 2015/16 Annual Budget
6900 · Optimum Basin Mgmt Plan					
6901 · WM Staff Salaries	79,080.79	73,866.00	5,214.79	107.06%	124,709.00
6903 · OBMP SAWPA Group	12,159.00	12,500.00	-341.00	97.27%	12,500.00
Total 6901-6903 · OBMP WM Staff/SAWPA	91,239.79	86,366.00	4,873.79	105.64%	137,209.00
6906 · OBMP Engineering Services					
6906.1 · OBMP - Watermaster Model Update	172,007.80	217,264.44	-45,256.64	79.17%	279,340.00
6906.21 · State of the Basin Report	0.00	0.00	0.00	0.0%	0.00
6906.22 · Water Rights Compliance Reporting	15,593.75	14,235.65	1,358.10	109.54%	24,404.00
6906.23 · SGMA Reporting Requirements	3,836.25	10,145.35	-6,309.10	37.81%	17,392.00
6906.31 · OBMP - Pool, Advisory, Board Mtgs.	42,184.03	51,134.41	-8,950.38	82.5%	87,659.00
6906.32 · OBMP - Other General Meetings	12,257.62	19,178.25	-6,920.63	63.91%	32,877.00
6906.33 · OBMP - App. Pool Issue Resolution	0.00	32,062.34	-32,062.34	0.0%	54,964.00
6906.71 · OBMP - Data Requests - CBWM Staff	84,316.53	37,370.66	46,945.87	225.62%	64,064.00
6906.72 · OBMP - Data Requests - Non CBWM	7,706.75	22,288.00	-14,581.25	34.58%	38,208.00
6906.73 · OBMP - Safe Yield Recalculation	91,684.60	0.00	91,684.60	100.0%	0.00
6906.74 · OBMP - Mat'l Phy. Injury Requests	1,501.25	64,341.66	-62,840.41	2.33%	110,300.00
6906 · OBMP Engineering Services - Other	21,977.75	15,120.00	6,857.75	145.36%	25,920.00
Total 6906 · OBMP Engineering Services	453,066.33	483,140.76	-30,074.43	93.78%	735,128.00
6907 · OBMP Legal Fees					
6907.3 · WM Legal Counsel					
6907.31 · Archibald South Plume	0.00	14,291.66	-14,291.66	0.0%	24,500.00
6907.32 · Chino Airport Plume	0.00	14,291.66	-14,291.66	0.0%	24,500.00
6907.33 · Desalter/Hydraulic Control	0.00	28,525.00	-28,525.00	0.0%	48,900.00
6907.34 · Santa Ana River Water Rights	869.85	14,758.34	-13,888.49	5.89%	25,300.00
6907.36 · Santa Ana River Habitat	964.80	11,491.66	-10,526.86	8.4%	19,700.00
6907.38 · Reg. Water Quality Cntrl Board	0.00	8,370.84	-8,370.84	0.0%	14,350.00
6907.39 · Recharge Master Plan	6,634.80	39,725.00	-33,090.20	16.7%	68,100.00
6907.40 · Storage Agreements	535.50	50,225.00	-49,689.50	1.07%	86,100.00
6907.41 · Prado Basin Habitat Sustainability	5,704.65	8,370.84	-2,666.19	68.15%	14,350.00
6907.42 · Safe Yield Recalculation	522,745.04	103,300.00	419,445.04	506.05%	103,300.00
6907.44 · SGMA Compliance	3,368.70	0.00	3,368.70	100.0%	0.00
6907.90 · WM Legal Counsel - Unanticipated	0.00	17,208.34	-17,208.34	0.0%	29,500.00
Total 6907 · WM Legal Counsel	540,823.34	310,558.34	230,265.00	174.15%	458,600.00
Total 6907 · OBMP Legal Fees	540,823.34	310,558.34	230,265.00	174.15%	458,600.00
6909 · OBMP Other Expenses					
6909.1 · OBMP Meetings	1,626.22	875.00	751.22	185.85%	1,500.00
6909.3 · Other OBMP Expenses	1,315.00	1,166.66	148.34	112.72%	2,000.00
6909.6 · OBMP Expenses - Miscellaneous	0.00	5,833.34	-5,833.34	0.0%	10,000.00
Total 6909 · OBMP Other Expenses	2,941.22	7,875.00	-4,933.78	37.35%	13,500.00
6910 · Integrated Resource Plan					
6910.1 · IRP Groundwater Modeling - WEI	50,737.75	0.00	50,737.75	100.0%	0.00
6910.15 · IRP Groundwater Modeling - IEUA	-50,737.75	0.00	-50,737.75	100.0%	0.00
Total 6910 · Integrated Resource Plan	0.00	0.00	0.00	0.0%	0.00
Total 6900 · Optimum Basin Mgmt Plan	1,088,070.68	887,940.10	200,130.58	122.54%	1,344,437.00

ENGINEERING SERVICES - OBMP IMPLEMENTATION PROJECTS COSTS  
WILDERMUTH ENVIRONMENTAL, INC.

CURRENT MONTH – JANUARY 2016

As of January 31, 2016, the total (YTD) Engineering Services expenses were \$547,196 or 31.7% below the (YTD) budget amount of \$1,724,885. The OBMP Implementation Projects (consolidated accounts 7100's – 7700's) were all (Under) budget as of January 31, 2016.

Wildermuth Environmental, Inc. provides Watermaster an Estimated Cost at Completion (ECAC) report each quarter. The purpose of this ECAC report is to update Watermaster on whether or not the Engineering Services budget will be above or below budget at the end of the fiscal year. If the Engineering Services budget is expected to be above budget at fiscal year-end, a Budget Amendment or Budget Transfer Form would need to be approved to ensure funding.

The Second ECAC report was provided as part of the FY 2015/16 Mid-Year Review during the February 2016 meetings. The ECAC report for the period ending December 31, 2015 showed a projected under budget of \$19,870. Watermaster does not plan to present any Budget Transfers or Budget Amendments at this time.

#### PREVIOUSLY REPORTED ACTIONS (Descending Order)

##### November 2015:

The first ECAC report for the current fiscal year has been provided for the period ending September 30, 2015 and showed a projected over budget of \$30,411. The second ECAC report is scheduled to be issued in mid-February 2016 for the period July 2015 through December 2015.

##### July 2015:

The breakdown of the total FY 2015/16 Task Order amount of \$2,595,942 includes direct labor costs for Wildermuth Environmental, Inc. (80%) along with other direct charges such as equipment rental, laboratory fees, travel costs, reproduction costs, and outside professional services (20%).

The approved "Original" Engineering Services budget of \$2,595,942 was increased by "Carry Over" funding in the amount of \$136,696 to the "Amended" amount of \$2,732,638 for FY 2015/16 as provided in the Engineering Services Task Order. The "Carry Over" amount of \$136,696 from FY 2014/15 to the FY 2015/16 budget are expenses related to the ongoing long-term pumping test (\$9,813 for account 7107.2 and \$34,770 for account 7107.6), the PBHSP monitoring program (\$12,127 for account 7108.31 and \$35,986 for account 7108.41), the hydraulic control monitoring program Adaptive Management Plan (\$33,000 for account 7107.8), and expenses related to the upload of GeoTracker and EnviroStor data (\$11,000 for account 7502). All of the "Carry Over" funding is for projects or activities that have bridged previous fiscal years and are expected to be completed in the FY 2015/16 timeframe.

The table listed below summarized the Year-To-Date (YTD) Actual Wildermuth Environmental, Inc., (WEI) and other Engineering costs compared to the Year-To-Date (YTD) Budget as of January 31, 2016. Please be advised that the "\$ Over Budget" and the "% of Budget" columns are a comparison of the (YTD) Actual to the (YTD) Budget, not the 12-month Annual Budget. The 12-month Annual Budget column is presented only to provide the data in a full and complete format. The following details are provided:

	Jul '15 - Jan '16 Actual	Jul '15 - Jan '16 Budget	\$ Over Budget	% of Budget	FY 2015/16 Annual Budget
6906 · OBMP Engineering Services - Other	21,977.75	15,120.00	6,857.75	145.36%	25,920.00
6906.1 · OBMP - Watermaster Model Update	172,007.80	217,264.44	-45,256.64	79.17%	279,340.00
6906.21 · State of the Basin Report	0.00	0.00	0.00	0.0%	0.00
6906.22 · Water Rights Compliance Reporting	15,593.75	14,235.65	1,358.10	109.54%	24,404.00
6906.23 · SGMA Reporting Requirements	3,836.25	10,145.35	-6,309.10	37.81%	17,392.00
6906.31 · OBMP - Pool, Advisory, Board Mtgs.	42,184.03	51,134.41	-8,950.38	82.5%	87,659.00
6906.32 · OBMP - Other General Meetings	12,257.62	19,178.25	-6,920.63	63.91%	32,877.00
6906.33 · OBMP - App. Pool Issue Resolution	0.00	32,062.34	-32,062.34	0.0%	54,964.00
6906.71 · OBMP - Data Requests - CBWM Staff	84,316.53	37,370.66	46,945.87	225.62%	64,064.00
6906.72 · OBMP - Data Requests - Non CBWM	7,706.75	22,288.00	-14,581.25	34.58%	38,208.00
6906.73 · OBMP - Safe Yield Recalculation	91,684.60	0.00	91,684.60	100.0%	0.00
6906.74 · OBMP - Mat'l Physical Injury Requests	1,501.25	64,341.66	-62,840.41	2.33%	110,300.00
7103.3 · Grdwtr Qual-Engineering	72,119.84	70,301.00	1,818.84	102.59%	120,516.00
7103.5 · Grdwtr Qual-Lab Svcs	48,037.00	22,869.59	25,167.41	210.05%	39,205.00
7104.3 · Grdwtr Level-Engineering	104,798.79	102,917.50	1,881.29	101.83%	176,430.00
7104.8 · Grdwtr Level-Contracted Services	0.00	5,833.34	-5,833.34	0.0%	10,000.00
7104.9 · Grdwtr Level-Capital Equipment	0.00	5,250.00	-5,250.00	0.0%	7,000.00
7107.2 · Grd Level-Engineering	29,683.84	36,957.84	-7,274.00	80.32%	56,347.00
7107.3 · Grd Level-SAR Imagery	29,000.00	63,750.00	-34,750.00	45.49%	85,000.00
7107.6 · Grd Level-Contract Svcs	1,799.50	102,605.25	-100,805.75	1.75%	151,059.00
7107.8 · Grd Level-Capital Equipment	0.00	3,266.66	-3,266.66	0.0%	5,600.00
7108.3 · Hydraulic Control-Engineering	12,973.70	29,148.00	-16,174.30	44.51%	49,968.00
7108.31 · Hydraulic Control-PBHSP	82,148.91	80,388.09	1,760.82	102.19%	129,146.00
7108.32 · Hydraulic Control-Adaptive Mgmt Plan	49,016.97	43,176.00	5,840.97	113.53%	43,176.00
7108.4 · Hydraulic Control-Lab Svcs	4,464.00	14,630.59	-10,166.59	30.51%	25,081.00
7108.41 · Hydraulic Control-PBHSP	22,930.00	43,633.50	-20,703.50	52.55%	49,096.00
7108.6 · Hydraulic Control-Outside Professionals	0.00	52,500.00	-52,500.00	0.0%	90,000.00
7108.7 · Hydraulic Control-Prado Basin Habitat	4,428.00	0.00	4,428.00	100.0%	0.00
7109.3 · Recharge & Well - Engineering	3,709.75	11,589.09	-7,879.34	0.0%	19,867.00
7202.2 · Comp Recharge-Engineering Services	38,788.32	93,044.00	-54,255.68	41.69%	159,504.00
7303 · PE3&5-Engineering - Other	0.00	13,640.66	-13,640.66	0.0%	23,384.00
7402 · PE4-Engineering	8,347.50	49,413.00	-41,065.50	16.89%	84,708.00
7402.10 · PE4-MZ1 Pomona Project	168,456.66	295,315.41	-126,858.75	57.04%	506,255.00
7403 · PE4-Contract Svcs	4,800.00	11,666.66	-6,866.66	41.14%	20,000.00
7502 · PE6&7-Engineering	24,583.50	52,323.34	-27,739.84	46.98%	81,840.00
7602 · PE8&9-Engineering	14,536.00	37,524.66	-22,988.66	38.74%	64,328.00
<b>Total Engineering Services Costs</b>	<b>1,177,688.61</b>	<b>1,724,884.94</b>	<b>-547,196.33</b>	<b>68.28%</b>	<b>2,732,638.00</b> *

\* Wildermuth and Subcontractor Engineering Budget of \$2,595,942 plus Carryover Funds from FY 2014/15 of \$136,696 = \$2,732,638  
Carryover Funds from FY 2014/15 = \$9,813 (7107.2); \$34,770 (7107.6); \$12,127 (7108.31); \$35,986 (7108.41); \$33,000 (7108.7); and \$11,000 (7502) = \$136,696

## PRADO BASIN HABITAT SUSTAINABILITY PROGRAM

The Prado Basin Habitat Sustainability Program came about as a result of the Peace II Agreement SEIR mitigation measure 4.4-3 and was adopted by IEUA's Board in October, 2010. The purpose of the mitigation measure is to ensure that the Prado Basin riparian habitat will not be impacted by Hydraulic Control. The basic program tasks are to convene a committee that will develop this adaptive management plan, to install necessary monitoring wells, to complete vegetation and aerial surveys, and to implement photo station monitoring. In terms of the financial aspects of this program, there is a cost sharing agreement, which was approved by the Watermaster Board in September, 2012 for a total budget of \$440,000. The cost sharing agreement between IEUA and Watermaster was increased from \$220,000 to \$300,000 effective August 22, 2013 with the approval of the Board. This is a 50/50 cost sharing agreement between Watermaster and IEUA with a not to exceed amount of \$300,000 for each party. Included in that cost is hiring a consultant to develop the adaptive management plan, WEI performing the project management tasks related to the monitoring well installation, hiring a contractor to construct and install up to seventeen monitoring wells at nine separate sites, and United States Bureau of Reclamation

performing vegetation monitoring every three years. Grants have been applied for to offset the cost of this program; however, the Grants were not approved.

The process of invoicing IEUA for their 50% portion of the (WEI) invoices will be completed by Watermaster staff at the end of every quarter. The information listed below is provided for the period of May 1, 2012 through January 31, 2016:

	Wildermuth Environmental, Inc.	50% Billing "TO" IEUA	50% Billing "FROM" IEUA	Costs For Watermaster	Watermaster Staff "Hours"	Watermaster Staff "Costs"
May 2012 - Jun. 2012	\$ 11,143.75	\$ (5,571.88)	\$ -	\$ 5,571.88	4.00	\$ 411.38
Jul. 2012 - Jun. 2013	\$ 120,945.28	\$ (60,472.64)	\$ 6,275.92	\$ 66,748.56	73.00	\$ 7,837.27
Jul. 2013 - Jun. 2014	\$ 21,722.09	\$ (10,861.05)	\$ 474.09	\$ 11,335.14	56.00	\$ 5,719.30
Jul. 2014 - Jun. 2015	\$ 198,138.44	\$ (99,069.22)	\$ -	\$ 99,069.22	9.00	\$ 1,141.63
Jul. 2015 - Jan. 2016	\$ 4,428.00	\$ (2,214.00)	\$ -	\$ 2,214.00	30.00	\$ 3,587.65
<b>Totals</b>	<b>\$ 356,377.56</b>	<b>\$ (178,188.78)</b>	<b>\$ 6,750.01</b>	<b>\$ 184,938.79</b>	<b>172.00</b>	<b>\$ 18,697.23</b>
	7108.7	7108.71, 7108.72	7108.75			7108.11

OTHER INCOME AND EXPENSE

There were no other significant items to report within the category of Other Income and Expenses for the month ending January 31, 2016.

PREVIOUSLY REPORTED ACTIONS (Descending Order)

July 2015:

Per section VI.D.3 of the Groundwater Storage Program Funding Agreement No. 49960 in the Chino Basin with The Metropolitan Water District of Southern California, the FY 2015/16 annual administrative fee invoice was issued on July 1, 2015 in the amount of \$157,349.47 under invoice number DYY 15-01. On August 3, 2015 payment in the amount of \$157,349.47 was received from The Metropolitan Water District of Southern California.

"CARRY OVER" FUNDING

CURRENT MONTH – JANUARY 2016

As of January 31, 2016, the total (YTD) amount remaining of the "Carried Over" funding is \$1,476,243.40 (\$1,872,937.85 - \$396,694.45 = \$1,476,243.40). The following details are provided:

"Carried Over" Expenses At June 30, 2015

			<u>GL Account</u>		
Printing - Annual Report	\$ 5,000.00	A	6045	FY 2014/15	ADM
Rauch Communication Consultants - Annual Report	\$ 15,000.00	B	6061.3	FY 2014/15	ADM
Ground Level Monitoring - Engineering	\$ 9,813.00	C	7107.2 <sup>1</sup>	FY 2014/15	ENG
Ground Level - Contracted Services	\$ 34,770.00	D	7107.6 <sup>1</sup>	FY 2014/15	ENG
Chino Hills ASR Project	\$ 29,285.99	E	7107.62	FY 2014/15	ASR
Hydraulic Control Engineering - PBHSP	\$ 12,127.00	F	7108.31 <sup>2</sup>	FY 2014/15	ENG
Hydraulic Control Monitoring Lab Services - PBHSP	\$ 35,986.00	G	7108.41 <sup>2</sup>	FY 2014/15	ENG
Hydraulic Control Monitoring - Adaptive Mgmt Plan	\$ 33,000.00	H	7108.32 <sup>3</sup>	FY 2014/15	ENG
Jurupa Pumping Station (TO #5)	\$ 37,981.33	I	7209.1	FY 2014/15	PROJ
Wineville Basin Proof of Concept (TO #6)	\$ 35,397.53	J	7209.2	FY 2014/15	PROJ
PE 6&7 - Engineering Services	\$ 11,000.00	K	7502 <sup>4</sup>	FY 2014/15	ENG
Hickory Basin Recharge Improvement Project	\$ 3,877.00	L	7690.3	FY 2014/15	PROJ
San Sevaine Recharge Improvement Project (TO #8)	\$ 475,000.00	M	7690.4	FY 2014/15	PROJ
CB20 Turnout Noise Abatement Project	\$ 80,000.00	N	7690.5	FY 2014/15	PROJ
GWR SCADA Upgrades (TO #4)	\$ 383,200.00	O	7690.61	FY 2014/15	PROJ
SCADA Communication Upgrades (TO #3)	\$ 547,500.00	P	7690.62	FY 2014/15	PROJ
Upper Santa Ana River HCP (TO #7)	\$ 75,000.00	Q	7690.7	FY 2014/15	PROJ
Lower Day Basin RMPU (TO #2)	\$ 49,000.00	R	7690.8	FY 2014/15	PROJ
<b>Total Balance, June 30, 2015</b>	<b>\$ 1,872,937.85</b>				

"Carried Over" Balance, July 1, 2015 \$ 1,872,937.85

Less: (Invoices Received To Date FY 2015/16)

Rauch Communication Consultants - Annual Report	\$ (15,000.00)	B	6061.3	FY 2014/15	ADM
Hydraulic Control Monitoring Lab Services - PBHSP	\$ (9,820.00)	G	7108.41 <sup>2</sup>	FY 2014/15	ENG
Hydraulic Control Monitoring - Adaptive Mgmt Plan	\$ (33,000.00)	H	7108.32 <sup>3</sup>	FY 2014/15	ENG
San Sevaine Recharge Improvement Project (TO #8)	\$ (111,118.08)	M	7690.4	FY 2014/15	PROJ
CB20 Turnout Noise Abatement Project	\$ (25,207.74)	N	7690.5	FY 2014/15	PROJ
GWR SCADA Upgrades (TO #4)	\$ (56,514.47)	O	7690.61	FY 2014/15	PROJ
SCADA Communication Upgrades (TO #3)	\$ (97,034.16)	P	7690.62	FY 2014/15	PROJ
Lower Day Basin RMPU (TO #2)	\$ (49,000.00)	R	7690.8	FY 2014/15	PROJ
<b>Updated Balance as of January 31, 2016</b>	<b>\$ 1,476,243.40</b>				

<sup>1</sup> Long-Term Pumping Test

<sup>3</sup> Adaptive Management Plan

<sup>2</sup> Prado Basin Habitat Sustainability Program monitoring program

<sup>4</sup> Upload GeoTracker and EnviroStor sites

## BACKGROUND OF "CARRY OVER" FUNDING

Once the FY 2014/15 period as of June 30, 2015 was closed, the amount of unfinished capital projects and related engineering costs was calculated and the "Carry Over" funding amount was added to the current FY 2015/16 budget. The Total "Carry Over" funding amount of \$1,872,937.852 was posted to the accounts as of January 31, 2016. The total amount of \$1,872,937.85 consisted of \$1,686,955.86 from Capital Improvement Projects; \$136,696.00 from Engineering Services; \$29,285.99 from the Chino Hills ASR Project; and \$20,000.00 from the Administration budget for completion of the Annual Reports.

Several projects were completed during FY 2014/15 and have remaining funds available to be either (1) transferred to other project(s) that need additional funding, (2) keep amounts on reserve for future Capital

Improvement Projects, or (3) refunded back to the Appropriative Pool when the Assessment package is invoiced. The funding amounts available are as follows: Jurupa Pumping Station in the amount of \$37,981.33 (account 7209.1); Wineville Basin Proof of Concept in the amount of \$35,397.53 (account 7209.2); and Hickory Basin Recharge Improvement Project in the amount of \$3,877.00 (account 7690.3). The total amount available is \$77,255.86 ( $\$37,981.33 + \$35,397.53 + \$3,877.00 = \$77,255.86$ ).

The San Sevaime Recharge Improvement Project-Task Order #8 has a remaining funded budget balance of \$475,000 in account (7690.4); the CB 20 Turnout project has a remaining funded budget balance of \$80,000 in account (7690.5); the GWR SCADA Upgrades-Task Order #4 has a remaining funded budget balance of \$383,200 in account (7960.61); the SCADA Communication Upgrades-Task Order #3 has a remaining funded budget balance of \$547,500 in account (7690.62); the Upper Santa Ana River HCP-Task Order #7 has a remaining funded balance of \$75,000 in account (7690.7); and the Lower Day Basin RMPU-Task Order #2 has a remaining funded budget balance of \$49,000 in account (7690.8). The total funded budget for these combined projects is \$1,609,700.

Unspent funds related to ongoing projects and associated activities from the Engineering Services budget from FY 2014/15 in several accounts totaling \$136,696 were "Carried Over" into the current FY 2015/16 budget. These funds were from the Ground Level Monitoring-Engineering (7107.2) in the amount of \$9,813; Ground Level Monitoring-Contracted Services (7107.6) in the amount of \$34,770; Hydraulic Control Monitoring-Engineering-PBHSP (7108.31) in the amount of \$12,127; Hydraulic Control Monitoring-Lab Services-PBHSP (7108.41) in the amount of \$35,986; Hydraulic Control Monitoring-Adaptive Management Plan (7108.7) in the amount of \$33,000; and Cooperative Efforts/Salt Management Engineering Services (7502) in the amount of \$11,000.

The ongoing Chino Hills ASR Project continues into FY 2015/16 and previous years funding of \$29,285.99 has been carried over into account (7107.62).

Unspent funds of \$20,000 related to the ongoing Annual Reports for development, production, and printing from the Administrative budget from FY 2014/15 from two accounts were "Carried Over" into the current FY 2015/16 budget. These funds were from the Printing-Annual Report (6045) in the amount of \$5,000; and Rauch Communication Consultants-Annual Report (6061.3) in the amount of \$15,000.

As invoices are received from the vendors and booked against these items listed above, the "Carried Over" balance will be reduced throughout the current fiscal year. At June 30, 2016, any remaining balances of the FY 2015/16 and prior years funding (if any), along with any new FY 2015/16 expenses, will then be "Carried Over" into the FY 2016/17 budget.

## AUDIT FIELD WORK

### FY 2015/16

Auditors from the audit firm of Fedak & Brown LLP are scheduled to be onsite at the Watermaster offices on March 29 and March 30, 2016. This will be the start of the interim field work for the period of July 1, 2015 through January 31, 2016. The final field work for the period of February 1, 2016 through June 30, 2016 is planned for August 2016, with the Annual Financial and Audit Reports presented to the Watermaster Board at the November 17, 2016 Board meeting. The Annual Financial and Audit Reports for FY 2015/16 will be posted to the Watermaster website in December 2016.

### FY 2014/15

Auditors from the audit firm of Fedak & Brown LLP were onsite at the Watermaster offices on August 10 and August 11, 2015. This was the final field work and the start of the development of the audited financial reports and statements for FY 2014/15. The initial field work was completed on June 15 and June 16, 2015. On November 19, 2015, the Senior Manager of Fedak & Brown, LLP presented the Annual Financial and Audit Reports to the Watermaster Board. The Annual Financial and Audit Reports for FY 2014/15 were posted to the Watermaster website on November 23, 2015.



## ASSESSMENT INVOICING

### CURRENT MONTH – JANUARY 2016

As discussed during the FY 2015/16 Mid-Year Review during the February 2016 meetings, if the Safe Yield Redetermination and Reset is resolved and completed during the April 8, 2016 court hearing, the FY 2015/16 Assessment Package (Production Year FY 2014/15) could be completed and presented in the June or July 2016 timeframe. If the Assessment invoices were then issued in July 2016, payment would be due to Watermaster in August 2016. As presented during the FY 2015/16 Mid-Year Review, Watermaster projects the current cash flow could sustain Watermaster until late September 2016.

### PREVIOUSLY REPORTED ACTIONS (Descending Order)

#### December 2015:

Due to the Safe Yield Reset process this year, and the effects that it had on the Assessment Package, production of the Assessment Package was delayed. The Assessment Package will not be produced until the Court has considered the Safe Yield Reset Agreement, which is expected in a few months. However, Watermaster cannot wait until that time to collect assessments, as the funds will be needed sooner than that in order to keep Watermaster operational.

On November 19, 2015 the Watermaster Board approved staff's recommendation for collection of an interim partial assessment based upon fifty percent of last year's Appropriative Pool Admin and OBMP assessments, including those paid on behalf of the Agricultural Pool, in addition to fifty percent of last year's Recharge Debt and Recharge Improvement assessments, and to collect fifty percent of last year's Non-Ag Pool Admin and OBMP assessments. The balance, accounting for the interim assessment, would be collected when the Assessment Package is produced, following consideration of the Safe Yield Reset Agreement by the Court. Note that if a Party has an amount due of less than \$500 (including special assessments), collection was deferred until the final assessment invoice later in the fiscal year.

Included as part of the interim assessment invoicing, the Non-Agricultural Pool had a Special Assessment of \$60,000 as approved during a Confidential Session on November 12, 2015. The \$60,000 was allocated to the Non-Agricultural Pool members based upon the tentative actual production numbers from 2014/15 and will be adjusted once all Water Activity Reports (WARs) have been received.

The Watermaster staff issued and emailed the "interim" Assessment invoices on Thursday, November 19, 2015. The Assessment invoices were due 30 days from invoice date, on or before Monday, December 21, 2015. New for this payment cycle is the ability for parties to pay their invoice either by check or by wire transfer.

All "interim" Assessment invoice payments have been received.

### ATTACHMENTS

1. Financial Report - B5

	1/12th (8.33%) of the Total Budget				7/12th (59%) of the Total Budget				100% of the Total Budget			
	For The Month of January 2016				Year-To-Date as of January 31, 2016				Fiscal Year End as of June 30, 2016			
	Actual	Budget	\$ Over(Under)	% of Budget	Actual	Budget	\$ Over(Under)	% of Budget	Projected	Budget	\$ Over(Under)	% of Budget
<b>Income</b>												
4010 · Local Agency Subsidies	0.00	0.00	0.00	0.0%	157,349.47	157,941.00	-591.53	99.63%	157,941.00	157,941.00	0.00	100.0%
4110 · Admin Asmnts-Approp Pool	0.00	0.00	0.00	0.0%	3,569,781.01	8,637,418.00	-5,067,636.99	41.33%	8,637,418.00	8,637,418.00	0.00	100.0%
4120 · Admin Asmnts-Non-Agri Pool	0.00	0.00	0.00	0.0%	151,739.47	296,797.00	-145,057.53	51.13%	296,797.00	296,797.00	0.00	100.0%
4700 · Non Operating Revenues	0.00	0.00	0.00	0.0%	10,098.46	11,025.00	-926.54	91.6%	22,050.00	22,050.00	0.00	100.0%
4900 · Miscellaneous Income	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
<b>Total Income</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.0%</b>	<b>3,888,968.41</b>	<b>9,103,181.00</b>	<b>-5,214,212.59</b>	<b>42.72%</b>	<b>9,114,206.00</b>	<b>9,114,206.00</b>	<b>0.00</b>	<b>100.0%</b>
<b>Gross Profit</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.0%</b>	<b>3,888,968.41</b>	<b>9,103,181.00</b>	<b>-5,214,212.59</b>	<b>42.72%</b>	<b>9,114,206.00</b>	<b>9,114,206.00</b>	<b>0.00</b>	<b>100.0%</b>
<b>Expense</b>												
6010 · Admin. Salary/Benefit Costs	72,026.04	78,074.00	-6,047.96	92.25%	498,291.77	520,934.00	-22,642.23	95.65%	877,531.46	880,591.00	-3,059.54	99.65%
6020 · Office Building Expense	9,213.85	9,432.00	-218.15	97.69%	59,620.89	65,289.00	-5,668.11	91.32%	105,814.08	110,381.00	-4,566.92	95.86%
6030 · Office Supplies & Equip.	1,689.49	2,630.00	-940.51	64.24%	14,258.91	18,910.00	-4,651.09	75.4%	30,638.84	32,560.00	-1,921.16	94.1%
6040 · Postage & Printing Costs	3,718.39	4,102.00	-383.61	90.65%	27,190.97	38,118.00	-10,927.03	71.33%	59,445.16	60,032.00	-586.84	99.02%
6050 · Information Services	11,049.40	11,570.00	-520.60	95.5%	65,550.17	80,490.00	-14,939.83	81.44%	129,001.54	131,840.00	-2,838.46	97.85%
6060 · Contract Services	0.00	0.00	0.00	0.0%	22,940.75	48,100.00	-25,159.25	47.69%	54,381.50	55,600.00	-1,218.50	97.81%
6070 · Watermaster Legal Services	16,983.67	16,144.00	839.67	105.2%	150,540.74	130,019.00	20,521.74	115.78%	267,114.14	256,450.00	10,664.14	104.16%
6080 · Insurance	0.00	0.00	0.00	0.0%	26,083.25	26,776.00	-692.75	97.41%	27,583.25	27,916.00	-332.75	98.81%
6110 · Dues and Subscriptions	9,057.50	4,267.00	4,790.50	212.27%	18,478.80	20,085.00	-1,606.20	92.0%	20,842.60	21,335.00	-492.40	97.69%
6140 · WM Admin Expenses	440.96	75.00	365.96	587.95%	1,391.29	1,425.00	-33.71	97.63%	2,400.66	2,700.00	-299.34	88.91%
6150 · Field Supplies	474.99	0.00	474.99	100.0%	658.59	950.00	-291.41	69.33%	1,117.20	1,450.00	-332.80	77.05%
6170 · Travel & Transportation	1,869.48	2,005.00	-135.52	93.24%	12,347.59	14,665.00	-2,317.41	84.2%	22,456.22	25,320.00	-2,863.78	88.69%
6190 · Training, Conferences, Seminars	2,773.86	0.00	2,773.86	100.0%	16,593.89	13,884.00	2,709.89	119.52%	27,640.06	22,400.00	5,240.06	123.39%
6200 · Advisory Comm - WM Board	3,223.00	3,754.00	-531.00	85.86%	19,525.28	25,677.00	-6,151.72	76.04%	34,104.56	43,674.00	-9,569.44	78.09%
6300 · Watermaster Board Expenses	10,533.28	15,084.00	-4,550.72	69.83%	71,796.63	104,598.00	-32,801.37	68.64%	137,526.70	178,744.00	-41,217.30	76.94%
8300 · Appr PI-WM & Pool Admin	4,467.42	11,491.00	-7,023.58	38.88%	28,315.86	79,640.00	-51,324.14	35.56%	122,696.88	136,069.00	-13,372.12	90.17%
8400 · Agri Pool-WM & Pool Admin	3,977.08	5,107.00	-1,129.92	77.88%	22,723.47	35,053.00	-12,329.53	64.83%	47,492.78	59,690.00	-12,197.22	79.57%
8467 · Ag Legal & Technical Services	41,732.50	17,084.00	24,648.50	244.28%	207,660.00	119,584.00	88,076.00	173.65%	331,855.00	205,000.00	126,855.00	161.88%
8470 · Ag Meeting Attend -Special	2,200.00	1,850.00	350.00	118.92%	18,825.00	12,950.00	5,875.00	145.37%	33,250.00	22,200.00	11,050.00	149.78%
8471 · Ag Pool Expense	0.00	0.00	0.00	0.0%	0.00	32,500.00	-32,500.00	0.0%	30,000.00	65,000.00	-35,000.00	46.15%
8485 · Ag Pool - Misc. Exp. - Ag Fund	0.00	0.00	0.00	0.0%	0.00	200.00	-200.00	0.0%	100.00	400.00	-300.00	25.0%
8500 · Non-Ag PI-WM & Pool Admin	7,491.06	9,077.00	-1,585.94	82.53%	55,604.68	63,124.00	-7,519.32	88.09%	97,727.24	107,974.00	-10,246.76	90.51%
9400 · Depreciation Expense	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	5,500.00	0.00	5,500.00	100.0%
9500 · Allocated G&A Expenditures	-19,097.90	-33,442.00	14,344.10	57.11%	-133,835.18	-234,096.00	100,260.82	57.17%	-229,474.56	-401,307.00	171,832.44	57.18%
6900 · Optimum Basin Mgmt Plan	205,777.17	110,785.44	94,991.73	185.74%	1,088,070.68	887,940.10	200,130.58	122.54%	1,614,587.02	1,344,437.00	270,150.02	120.09%
6950 · Mutual Agency Projects	0.00	0.00	0.00	0.0%	0.00	10,000.00	-10,000.00	0.0%	0.00	10,000.00	-10,000.00	0.0%
9501 · G&A Expenses Allocated-OBMP	3,602.05	10,721.34	-7,119.29	33.6%	50,067.61	75,049.34	-24,981.73	66.71%	92,931.12	128,656.00	-35,724.88	72.23%
7101 · Production Monitoring	11,047.82	4,998.50	6,049.32	221.02%	50,395.96	33,486.50	16,909.46	150.5%	78,696.28	56,547.00	22,149.28	139.17%
7102 · In-line Meter Installation	0.00	5,638.91	-5,638.91	0.0%	4,123.55	39,217.41	-35,093.86	10.52%	33,247.10	67,087.00	-33,839.90	49.56%
7103 · Grdwtr Quality Monitoring	454.49	18,642.27	-18,187.78	2.44%	126,268.38	129,022.77	-2,754.39	97.87%	251,627.78	220,342.00	31,285.78	114.2%
7104 · Gdwtr Level Monitoring	25,987.11	21,270.00	4,717.11	122.18%	143,742.43	146,247.00	-2,504.57	98.29%	235,510.64	247,627.00	-12,116.36	95.11%
7105 · Sur Wtr Qual Monitoring	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
7107 · Ground Level Monitoring	24,387.20	35,285.25	-10,898.05	69.11%	60,483.34	235,865.74	-175,382.40	25.64%	247,192.28	327,291.99	-80,099.71	75.53%

	1/12th (8.33%) of the Total Budget				7/12th (59%) of the Total Budget				100% of the Total Budget			
	For The Month of January 2016				Year-To-Date as of January 31, 2016				Fiscal Year End as of June 30, 2016			
	Actual	Budget	\$ Over(Under)	% of Budget	Actual	Budget	\$ Over(Under)	% of Budget	Projected	Budget	\$ Over(Under)	% of Budget
7108 · Hydraulic Control Monitoring	29,876.88	25,551.18	4,325.70	116.93%	179,549.23	269,853.18	-90,303.95	66.54%	374,344.70	397,236.00	-22,891.30	94.24%
7109 · Recharge & Well Monitoring Prog	0.00	1,655.59	-1,655.59	0.0%	3,709.75	11,589.09	-7,879.34	32.01%	12,419.50	19,867.00	-7,447.50	62.51%
7200 · PE2- Comp Recharge Pgm	12,328.19	17,373.66	-5,045.47	70.96%	364,604.19	795,234.52	-430,630.33	45.85%	1,010,552.00	1,078,549.86	-67,997.86	93.7%
7300 · PE3&5-Water Supply/Desalte	0.00	3,849.00	-3,849.00	0.0%	0.00	26,544.00	-26,544.00	0.0%	0.00	45,276.00	-45,276.00	0.0%
7400 · PE4- Mgmt Plan	50,737.14	51,921.91	-1,184.77	97.72%	183,344.66	363,209.41	-179,864.75	50.48%	565,215.04	622,505.00	-57,289.96	90.8%
7500 · PE6&7-CoopEfforts/SaltMgmt	1,278.75	6,887.34	-5,608.59	18.57%	24,583.50	58,913.34	-34,329.84	41.73%	71,609.50	92,966.00	-21,356.50	77.03%
7600 · PE8&9-StorageMgmt/Conj Use	0.00	6,471.82	-6,471.82	0.0%	14,589.18	44,972.82	-30,383.64	32.44%	49,178.36	76,909.00	-27,730.64	63.94%
7690 · Recharge Improvement Debt Pymt	0.00	1,133,200.00	-1,133,200.00	0.0%	690,503.45	3,369,227.00	-2,678,723.55	20.49%	2,786,006.90	3,932,677.00	-1,146,670.10	70.84%
7700 · Inactive Well Protection Prgm	0.00	41.66	-41.66	0.0%	0.00	291.66	-291.66	0.0%	0.00	500.00	-500.00	0.0%
9502 · G&A Expenses Allocated-Projects	15,495.85	22,720.91	-7,225.06	68.2%	83,767.57	159,046.41	-75,278.84	52.67%	136,543.44	272,651.00	-136,107.56	50.08%
<b>Total Expense</b>	<b>564,796.72</b>	<b>1,635,318.78</b>	<b>-1,070,522.06</b>	<b>34.54%</b>	<b>4,272,366.83</b>	<b>7,874,585.29</b>	<b>-3,602,218.46</b>	<b>54.26%</b>	<b>9,796,406.97</b>	<b>10,987,143.85</b>	<b>-1,190,736.88</b>	<b>89.16%</b>
<b>Net Ordinary Income</b>	<b>-564,796.72</b>	<b>-1,635,318.78</b>	<b>1,070,522.06</b>	<b>34.54%</b>	<b>-383,398.42</b>	<b>1,228,595.71</b>	<b>-1,611,994.13</b>	<b>-31.21%</b>	<b>-682,200.97</b>	<b>-1,872,937.85</b>	<b>1,190,736.88</b>	<b>36.42%</b>
<b>Other Income</b>												
4210 · Approp Pool-Replenishment	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
4220 · Non-Ag Pool-Replenishment	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
4225 · Interest Income	0.00	0.00	0.00	0.0%	2,402.77	0.00	2,402.77	100.0%	4,800.00	0.00	4,800.00	100.0%
4226 · LAIF Fair Market Value	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
4600 · Groundwater Sales	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
<b>Total Other Income</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.0%</b>	<b>2,402.77</b>	<b>0.00</b>	<b>2,402.77</b>	<b>100.0%</b>	<b>4,800.00</b>	<b>0.00</b>	<b>4,800.00</b>	<b>100.0%</b>
<b>Other Expense</b>												
5010 · Groundwater Replenishment	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
5100 · Other Water Purchases	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
9200 · Interest Expense	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
9251 · Other Post Employment Benefits	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
9996 · Refund-Excess Reserves-Approp.	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
9997 · Refund-Excess Reserves-NonAg	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
9998 · Refund-Recharge Debt-Approp.	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
9999 · To/(From) Reserves	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
<b>Total Other Expense</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.0%</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.0%</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.0%</b>
<b>Net Other Income</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.0%</b>	<b>2,402.77</b>	<b>0.00</b>	<b>2,402.77</b>	<b>100.0%</b>	<b>4,800.00</b>	<b>0.00</b>	<b>4,800.00</b>	<b>100.0%</b>
<b>Net Income</b>	<b>-564,796.72</b>	<b>-1,635,318.78</b>	<b>1,070,522.06</b>	<b>34.54%</b>	<b>-380,995.65</b>	<b>1,228,595.71</b>	<b>-1,609,591.36</b>	<b>-31.01%</b>	<b>-677,400.97</b>	<b>-1,872,937.85</b>	<b>1,195,536.88</b>	<b>36.17%</b>

Note: Please see the staff report (Financial Report-B5) for additional detailed information on the account categories.

# **CHINO BASIN WATERMASTER**

## **I. CONSENT CALENDAR**

### **C. OBMP SEMI-ANNUAL STATUS REPORTS 2013-2 AND 2014-1**



# CHINO BASIN WATERMASTER

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PETER KAVOUNAS, P.E.  
General Manager

## STAFF REPORT

DATE: March 24, 2016  
TO: Board Members  
SUBJECT: Semi-Annual Optimum Basin Management Program Status Reports 2013-2 and 2014-1

### SUMMARY

Issue: Watermaster produces the Semi-Annual Optimum Basin Management Program (OBMP) Status Reports. The reports for the period July to December 2013 and January to June 2014 have been drafted.

Recommendation: Adopt the Semi-Annual OBMP Status Reports 2013-2 and 2014-1, and direct staff to file a copy with the Court, subject to any necessary non-substantive changes.

Financial Impact: The costs of preparing the Semi-Annual OBMP Status Report and filing it with the Court are included in the Watermaster budget.

### Future Consideration

Watermaster Board: March 24, 2016 Adopt the Semi-Annual OBMP Status Reports 2013-2 and 2014-1, and direct staff to file a copy with the Court, subject to any necessary non-substantive changes [Discretionary Function]

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### ACTIONS:

March 10, 2016 – Appropriative Pool – Recommend to the Advisory Committee to recommend to the Board Semi-Annual OBMP Status Reports 2013-2 and 2014-1, along with filing a copy with the Court, subject to any necessary non-substantive changes.

March 10, 2016 – Non-Agricultural Pool – Direct Advisory Committee representatives to support the Advisory Committee recommending to the Board to adopt Semi-Annual OBMP Status Reports 2013-2 and 2014-1, along with filing a copy with the Court, subject to any necessary non-substantive changes, and subject to any changes they deem necessary.

March 10, 2016 – Agricultural Pool – Recommend to the Advisory Committee to recommend to the Board to adopt Semi-Annual OBMP Status Reports 2013-2 and 2014-1, along with filing a copy with the Court, subject to any necessary non-substantive changes.

March 17, 2016 – Advisory Committee – Recommend to the Watermaster Board to adopt Semi-Annual OBMP Status Reports 2013-2 and 2014-1, along with filing a copy with the Court, subject to any necessary non-substantive changes.

March 24, 2016 – Watermaster Board –

## BACKGROUND

Semi-Annual OBMP Status Report 2013-2 covers the period from July to December 2013; Semi-Annual OBMP Status Report 2014-1 covers the period from January to June 2014. The reports describe work conducted, and the current status of the nine Program Elements of the Optimum Basin Management Program during the six-month period.

## DISCUSSION

Semi-Annual OBMP Status Reports 2013-2 and 2014-1 have been drafted. The reports have been reviewed by the Committees and are being recommended for approval. Once adopted by the Board, the Semi-Annual OBMP Status Reports will be filed with the Court.

## ATTACHMENTS

1. Semi-Annual Optimum Basin Management Program Status Report 2013-2
2. Semi-Annual Optimum Basin Management Program Status Report 2014-1

## Optimum Basin Management Program

### Staff Status Report 2013-2: July to December 2013



CHINO BASIN WATERMASTER

Optimum Basin Management Program

### Highlighted Activities

- In December 2013, Watermaster and IEUA submitted an updated Maximum Benefit Monitoring Program Work Plan and Proposed Schedule for Achieving Hydraulic Control to the Regional Water Quality Control Board. The updated Work Plan states that Watermaster and IEUA will recalibrate the Chino Basin groundwater model every five years and use the model to estimate groundwater discharge from Chino-North to the Santa Ana River (i.e. annual underflow past the Chino Creek Well Field) and determine whether Hydraulic Control has been achieved.
- As a requirement of Mitigation Measure 4.4-3 from the Peace II Subsequent Environmental Impact Report, Watermaster, Inland Empire Utilities Agency (IEUA), and Orange County Water District (OCWD) continued to develop a Prado Basin Habitat Sustainability Program (PBHSP). During this reporting period, a PBHSP Committee meeting to develop the Adaptive Management Plan was held on September 3, 2013. The IEUA began the bidding process to hire a contractor to perform the CPT and well installation, and continued property acquisition and permitting.
- Watermaster and IEUA continued to work together toward the Turner Basins/Guasti Park Recharge Expansion Project in MZ-2, which is projected to recharge an additional 300 acre-feet of storm runoff annually. Also, Watermaster and IEUA continued the Wineville Basin Proof-of-Concept investigation during the reporting period. Construction of the six test cells was completed in September 2013, and infiltration rate testing occurred in October and November 2013. In addition, during the reporting period, Watermaster and IEUA continued to develop a series of projects outside of the 2013 Amendment to the 2010 Recharge Master Plan (2013 RMPUA) effort that will increase stormwater and supplemental water recharge reliability, and have jointly agreed to fund these projects. Watermaster and IEUA began holding monthly meetings in order to provide regular updates to the Watermaster Parties on these new joint projects.
- Watermaster continued work on the 2013 RMPUA. The Recharge Master Plan Update Steering Committee (Steering Committee) met twice per month to complete the 2013 RMPUA. During this period, the Steering Committee recommended specific recharge projects and the implementation plan, received and reviewed the 2013 RMPUA Draft Report, provided comments and finalized the 2013 RMPUA Report. The recommended projects are projected to increase the stormwater recharge in the Chino Basin by approximately 6,900 acre-feet per year at a capital cost of approximately \$57 million. The 2013 RMPUA report was approved by the Watermaster Board in September and filed with the Court in October 2013.
- During this reporting period, approximately 1,368 acre-feet of stormwater and 7,377 acre-feet of recycled water were recharged. No imported water was recharged.
- The Judgment, OBMP Implementation Plan, and Watermaster's Rules and Regulations require the Safe Yield to be re-determined. The redetermination process continued during this reporting period. The evaluation of the Safe Yield began in 2013. The results of the effort were presented during a workshop in July 2013. Watermaster also held a second workshop in August 2013, a third workshop in December 2013, and various other meetings during this reporting period.

### Important Court Hearings and Orders

- OCTOBER 2, 2013-  
NOTICE OF RULING RE WATERMASTER'S EX PARTE APPLICATION TO CONTINUE HEARING ON MOTION TO REVISE SECTION 5 OF THE 2013 RECHARGE MASTER PLAN UPDATE AND RESTATED JUDGMENT; NOTICE OF HEARING
- NOVEMBER 22, 2013-  
NOTICE OF ORDER GRANTING EX PARTE APPLICATION TO SHORTEN TIME ON MOTION FOR COURT APPROVAL OF A TEMPORARY SUBSTITUTE RATE FOR PHYSICAL SOLUTION TRANSFERS UNDER EXHIBIT "G" TO THE JUDGMENT; NOTICE OF HEARING
- DECEMBER 13, 2013 -  
NOTICE OF RULING RE WATERMASTER'S EX PARTE APPLICATION TO CONTINUE HEARING ON MOTION TO REVISE SECTION 5 OF THE 2013 RECHARGE MASTER PLAN UPDATE AND RESTATED JUDGMENT; NOTICE OF HEARING

# Optimum Basin Management Program

## Program Element 1: Develop and Implement a Comprehensive Monitoring Program

### Groundwater Level Monitoring

Watermaster initiated a basin-wide groundwater-level monitoring program as part of the implementation of the OBMP. The monitoring program has been refined over time to satisfy the evolving needs of the Watermaster and Inland Empire Utilities Agency (IEUA), such as new regulatory requirements, and to increase efficiency. The groundwater-level monitoring program supports many Watermaster functions, such as the periodic reassessment of Safe Yield, the monitoring and management of land subsidence, the assessment of Hydraulic Control, the analysis of desalter pumping impacts at private wells, and the triennial re-computation of ambient water quality that is mandated by the Water Quality Control Plan for the Santa Ana Basin. The data are also used to update and re-calibrate Watermaster's computer-simulation groundwater-flow model, to understand directions of groundwater flow, to compute storage changes, to interpret water quality data, and to identify areas of the basin where recharge and discharge are not in balance.

The current groundwater-level monitoring program is comprised of about 1,000 wells. At about 800 of these wells, water levels are measured by well owners, which include municipal water agencies, the California Department of Toxic Substances Control (DTSC), the Counties, and various private consulting firms. Watermaster collects these water level data at least semi-annually. At the remaining 200 wells, water levels are measured by Watermaster staff using manual methods once per month or by using pressure transducers that record data once every 15 minutes. These wells are mainly Agricultural Pool wells located south of the 60 freeway.

### Groundwater Quality Monitoring

Watermaster initiated a comprehensive groundwater-quality monitoring program as part of the implementation of the OBMP. The groundwater-quality monitoring program consists of the following four components:

1. An Annual Key-Well Water-Quality Monitoring Program consisting of 111 wells, which are mostly privately-owned agricultural wells in the southern portion of Chino Basin that are otherwise not included in an established sampling program. Twenty of these wells are sampled every year, and the remaining wells are sampled once every three years. The wells sampled annually are for the continuous monitoring of areas of concern associated with the southern edge of the Archibald South (formerly OIA) volatile organic compound (VOC) plume, the southern region of the Chino Airport Plume, and the Kaiser Steel Plume, and includes two multi-port MZ-3 monitoring wells.
2. Annual sampling at nine HCMP multi-port monitoring wells strategically placed between the Chino Desalter well fields and the Santa Ana River. Results of the annual sampling are used to analyze the effect of desalter pumping over time on Hydraulic Control, by comparing water quality of the native groundwater and the Santa Ana River.
3. Quarterly sampling at four near-river wells to characterize the interaction between the Santa Ana River and nearby groundwater. These shallow monitoring wells along the Santa Ana River consist of two former USGS National Water Quality Assessment Program (NAWQA) wells (Archibald 1 and Archibald 2), and two wells (Well 9 and Well 11) owned by the Santa Ana River Water Company.
4. A cooperative basin-wide data-collection effort known as the Chino Basin Data Collection (CBDC) program, which relies on municipal producers and other government agencies to supply groundwater-quality data on a cooperative basis. These sources include the Appropriators, DTSC, Regional Water Quality Control Board (RWQCB), US Geological Survey (USGS), the Counties, and other cooperators.



Chino Basin Desalter Authority Plant #2

All groundwater-quality data are checked by Watermaster staff and uploaded to a centralized database management system that can be accessed online through HydroDaVE<sup>SM</sup>. Groundwater-quality data are used by Watermaster for: the biennial State of the Basin report; the triennial ambient water quality update mandated by the Basin Plan; and the demonstration of Hydraulic Control—a maximum benefit commitment in the Basin Plan. Data are also used for monitoring nonpoint source groundwater contamination and plumes associated with point source discharges and to assess the overall health of the groundwater basin. Groundwater-quality data are also used in conjunction with numerical models to assist Watermaster and other parties in evaluating proposed groundwater remediation strategies.



# Optimum Basin Management Program

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## Program Element 1: Develop and Implement a Comprehensive Monitoring Program (Continued)

### Groundwater Production Monitoring

All active wells (except for minimum user wells) are now metered. Watermaster reads the agricultural production data from the meters on a quarterly basis and enters these data into Watermaster's relational database. Minimum user well production is estimated annually by Watermaster, and entered into the database.

### Surface Water Monitoring

**Water Quality and Quantity in Recharge Basins.** Watermaster and IEUA continually measure the quantity of storm and supplemental water entering the recharge basins. Pressure transducers or staff gauges are used to measure water levels during recharge operations. In addition to these quantity measurements, imported water quality data for State Water Project water are obtained from the Metropolitan Water District of Southern California (MWDSC) and recycled water quality data for the RP-1 and RP-4 treatment plant effluents are obtained from IEUA. Combining the measured flow data with the respective water qualities enables the calculation of the blended water quality in each recharge basin, the New Yield to the Chino Basin, and the adequate dilution of recycled water.

**Surface Water Monitoring in the Santa Ana River.** Watermaster measures selected water quality parameters quarterly at two sites along the Santa Ana River (Santa Ana River at River Road and Santa Ana River at Etiwanda). Along with data collected at four near-river wells, these data are used to characterize the interaction between the Santa Ana River and nearby groundwater. These data are also combined with discharge data from permanent USGS stream gauges, discharge data from publicly owned treatment works (POTWs), and groundwater modeling to assess the state of Hydraulic Control.

### Hydraulic Control

In January 2004, the Regional Water Quality Control Board (RWQCB) amended the Water Quality Control Plan (Basin Plan) for the Santa Ana River Basin to incorporate an updated total dissolved solids (TDS) and nitrogen (N) management plan. The Basin Plan Amendment includes both "antidegradation" and "maximum benefit" objectives for TDS and nitrate-nitrogen for the Chino-North and Cucamonga groundwater management zones. The application of the "maximum benefit" objectives relies on Watermaster and IEUA's implementation of a specific program of projects and requirements, which are an integral part of the OBMP. On April 15, 2005, the RWQCB adopted resolution R8-2005-0064, thus approving the Surface Water Monitoring Program and Groundwater Monitoring Program in support of maximum benefit commitments in the Chino-North and Cucamonga Basins.

One of the main maximum-benefit commitments is to achieve and maintain "hydraulic control" of the Chino Basin so that downstream beneficial uses of the Santa Ana River are protected. Hydraulic Control is defined by the Basin Plan as the elimination of groundwater discharge from the Chino-North Management Zone to the Santa Ana River or its reduction to a *de minimus* level. In October 2011, the RWQCB indicated that groundwater discharge in an amount less than 1,000 acre-feet per year would be considered *de minimus* by the RWQCB.

In 2012, the Basin Plan was amended to remove all references to the specific monitoring locations and sampling frequencies required for groundwater and surface water monitoring, thus allowing the program to be modified over time, with approval of the Executive Officer of the RWQCB. The Basin Plan amendment was approved by the RWQCB on February 12, 2012 and by the State Office of Administrative Law on December 6, 2012. This amendment was adopted based on demonstrations made by Watermaster and the IEUA showing that the surface water monitoring program, as included in the Basin Plan, was not meaningfully adding to the body of evidence required to demonstrate Hydraulic Control. In the place of specific monitoring requirements, the Basin Plan Amendment required that Watermaster and IEUA submit for approval by the Executive Officer a new surface water monitoring program work plan by February 25, 2012 and a new groundwater monitoring program work plan by December 31, 2013. In February 2012, Watermaster and the IEUA submitted, and the RWQCB approved, a new surface water monitoring program that reduced the 2004 monitoring program from bi-weekly water quality measurements at 17 sites and direct discharge measurements at six sites, to quarterly water quality sampling at two sites. The new work plan including these changes was adopted by the RWQCB in March 2012.

In December 2013, Watermaster and IEUA submitted an updated Maximum Benefit Monitoring Program Work Plan and Proposed Schedule for Achieving Hydraulic Control to the RWQCB. The updated Work Plan states that Watermaster and IEUA will recalibrate the Chino Basin groundwater model every five years and use the model to estimate groundwater discharge from Chino-North to the Santa Ana River (i.e. annual underflow past the Chino Creek Well Field [CCWF]) and determine whether Hydraulic Control has been achieved.

# Optimum Basin Management Program

## Program Element 1: Develop and Implement a Comprehensive Monitoring Program (Continued)

During this reporting period, Watermaster measured 453 manual water levels at 78 private wells throughout the Chino Basin, conducted downloads at 107 wells containing pressure transducers, and collected 29 groundwater quality samples and four surface water quality samples. In addition, the state of Hydraulic Control was evaluated using the re-calibrated 2013 Watermaster groundwater model, which found that Hydraulic Control would be achieved under a projected range of CCWF production volumes. These model results were transmitted to the RWQCB in October 2013.

### Prado Basin Habitat Sustainability Program

A requirement of Mitigation Measure 4.4-3 from the Peace II Subsequent EIR is for Watermaster, IEUA and Orange County Water District (OCWD) to develop an Adaptive Management Plan for the Prado Basin Habitat Sustainability Program (PBHSP). The objective of this plan is to ensure that the riparian habitat in Prado Basin is not adversely impacted by drawdown associated with the implementation of the Peace II activities. Seventeen monitoring wells at nine sites will be constructed as part of the monitoring program for the PBHSP. During this reporting period, a PBHSP Committee meeting to develop the Adaptive Management Plan was held on September 3, 2013. The IEUA began the bidding process to hire a contractor to perform the CPT and well installation, and continued property acquisition and permitting.

### Chino Basin Groundwater Recharge Program

Watermaster, IEUA, the Chino Basin Water Conservation District (CBWCD), and the San Bernardino County Flood Control District (SBCFCD) jointly sponsor the Chino Basin Groundwater Recharge Program. This is a comprehensive water supply program to enhance water supply reliability and improve the groundwater quality in local drinking water wells throughout the Chino Basin by increasing the recharge of storm water, imported water, and recycled water. The recharge program is regulated under RWQCB Order No. R8-2007-0039 and Monitoring and Reporting Program No. R8-2007-0039.

**Recharge Activities.** Ongoing recycled water recharge occurred in the Brooks, 7th Street, 8th Street, Turner, Victoria, San Sevaine, Ely, Hickory, RP-3, and Banana Basins this reporting period. Stormwater was recharged at 16 recharge basins across all management zones of the Chino Basin during this reporting period. No imported water was recharged this reporting period.

**Monitoring Activities.** Watermaster and IEUA collect weekly water quality samples from recharge basins that are actively recharging recycled water and from lysimeters installed within those recharge basins. During this reporting period, approximately 184 recharge basin and lysimeter samples were collected and 27 recycled water samples were collected for alternative monitoring plans that include the application of a correction factor for soil-aquifer treatment determined from each recharge basin's start-up period. Monitoring wells located down-gradient of the recharge basins were sampled quarterly at a minimum; however, some monitoring wells were sampled more frequently during the reporting period for a total of 97 samples.



Turner Basin 4

**Reporting.** Watermaster and IEUA completed the following required reports concerning the recharge program during the reporting period:

- 2Q-2013 Quarterly Report, submitted to the RWQCB – August 2013
- 3Q-2013 Quarterly Report, submitted to the RWQCB – November 2013

### Land Surface Monitoring

In response to the occurrence of land subsidence in the City of Chino, the Watermaster prepared and submitted the MZ-1 Subsidence Management (MZ-1 Plan) to the Court for approval and, in November 2007, the Court ordered its implementation (see Program Element 4: Develop and Implement a Comprehensive Groundwater Management Plan for Management Zone 1). The MZ-1 Plan calls

# Optimum Basin Management Program

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## Program Element 1: Develop and Implement a Comprehensive Monitoring Program (Continued)

for several monitoring and mitigation measures to minimize or abate the future occurrence of land subsidence and ground fissuring in the western Chino Basin. These measures and activities include:

- Continuing the scope and frequency of monitoring within the so-called Managed Area (southwest MZ-1) that was conducted during the period when the MZ-1 Plan was being developed.
- Expanding the monitoring of the aquifer system and land subsidence into other areas of MZ-1 and Chino Basin where the data indicate concern for future subsidence and ground fissuring.
- Monitoring of horizontal strain across the historical zone of ground fissuring.
- Evaluating the potential contribution of groundwater production in northern MZ-1 on conditions in southern MZ-1.
- Conducting additional testing and monitoring to refine the MZ-1 Guidance Criteria.
- Developing alternative pumping plans for the MZ-1 producers that are impacted by the MZ-1 Plan.
- Constructing and testing a lower-cost cable extensometer facility at Ayala Park.
- Evaluating and comparing ground-level surveying and Interferometric Synthetic Aperture Radar (InSAR), and recommending future monitoring protocols for both techniques.
- Conducting an ASR (aquifer storage recovery) feasibility study at a City of Chino Hills production well within the MZ-1 Managed Area (Well 16).
- Providing for recovery of groundwater levels in the MZ-1 Managed Area.

During the reporting period, Watermaster undertook the following activities called for in the MZ-1 Plan:

- The continuation of detailed water-level monitoring at wells within the Managed Area and across much of the western portion of Chino Basin. All monitoring equipment is inspected at least quarterly and is repaired and/or replaced as necessary. The data collected were checked and analyzed to assess the functionality of the monitoring equipment and for compliance with MZ-1 Plan.
- The continuation of monitoring and maintenance at the extensometer facilities including: Ayala Park, Chino Creek, and Daniels sites.
- The collection of InSAR data from radar satellites during August and October 2013, which will be analyzed for ground motion in early 2014.
- The conducting of a ground-level survey at established benchmarks in the area surrounding the Chino Creek Well Field. This was the third survey in this area. These initial surveys are establishing a ground-level “baseline” prior to the start-up of the Chino Creek Well Field.
- The conducting of a ground-level survey at established benchmarks in the Managed Area. This survey was completed near full recovery of groundwater levels at PA-7 and will serve as the “baseline” for comparison should the Long-Term Pumping Test be completed in 2014.
- The installation and conducting of a ground-level survey at new benchmarks in the Pomona Area and across the San Jose Fault zone. This was the first survey in this Area. The initial survey is establishing a ground-level “baseline” for comparison with future surveys.
- Assisted the City of Chino Hills in required quarterly reporting for its DWR grant to support the ASR pilot test.

## Program Element 2: Develop and Implement a Comprehensive Recharge Program

The average stormwater recharge of the Chino Basin Facilities Improvement Program (CBFIP) facilities is approximately 13,000 acre-feet per year, the supplemental “wet”<sup>1</sup> water recharge capacity is approximately 60,600 acre-feet per year, and the in lieu supplemental water recharge capacity ranges from 25,000 to 40,000 acre-feet per year. There is also a demonstrated well

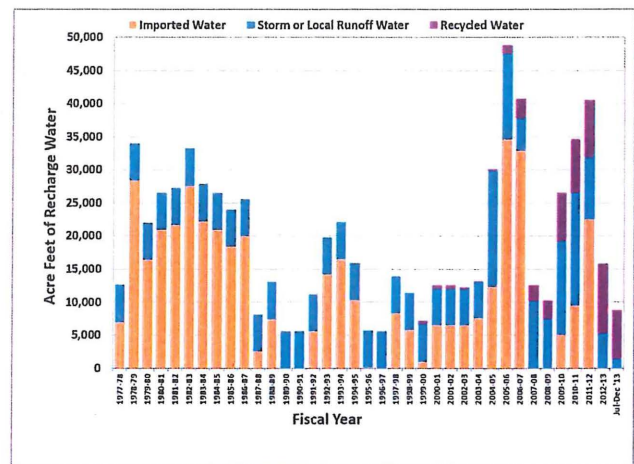
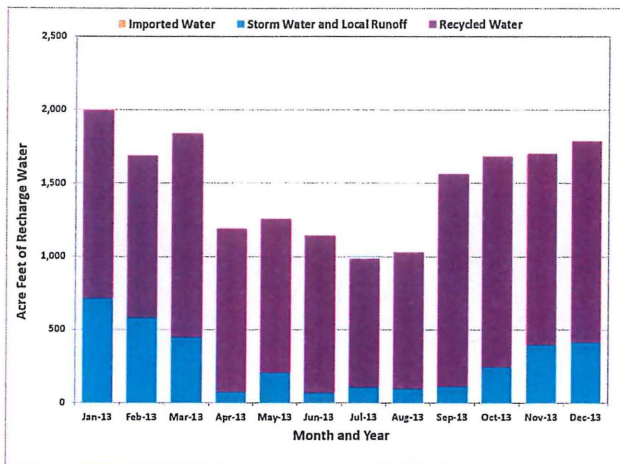
<sup>1</sup>The modifier “wet” means actual physical water is being recharged in spreading basins as opposed to the dedication of water from storage or in-lieu recharge.

# Optimum Basin Management Program

## Program Element 2: Develop and Implement a Comprehensive Recharge Program (Continued)

injection capacity of 5,600 acre-feet per year. Current total supplemental water recharge capacity ranges from 91,200 to 106,200 acre-feet per year, which is greater than projected supplemental water recharge capacity required of Watermaster.

Stormwater recharge during this reporting period was approximately 1,368 acre-feet. Recycled water recharge during this reporting period was approximately 7,377 acre-feet. No imported water was recharged during this reporting period. The IEUA and Watermaster recharge permit was amended in fiscal year 2009/10 to allow for underflow dilution and extended the dilution period from a running 60 months to a running 120 months. The significance of this permit amendment was to reduce the amount of imported and storm waters required for dilution. IEUA projects that dilution requirements will likely be met through 2019/20, even if no imported water were available for dilution.



The total amount of supplemental water recharged in MZ-1 since the Peace II Agreement through June 30, 2013 was approximately 41,710 acre-feet, which exceeded the target of the 39,000 acre-feet required by June 30, 2013 (annual requirement of 6,500 acre-feet). In addition, the amount of supplemental water recharged into MZ-1 during the reporting period was approximately 1,917 acre-feet.

The Groundwater Recharge Coordinating Committee (GRCC) met twice during this reporting period, in August 2013 and December 2013. Recharge basin operations and maintenance are discussed during these meetings.

Watermaster and IEUA continued work on the Turner Basins/Guasti Park Recharge Expansion Project in MZ-2. Following completion, anticipated in 2014, the expansion project is projected to recharge an additional 300 acre-feet of storm runoff annually. Also, Watermaster and IEUA continued the Wineville Proof-of-Concept project. Construction of the six test cells was completed in September 2013, and infiltration rate testing occurred in October and November 2013. The final report is expected in early 2014.

During the reporting period, Watermaster and IEUA continued to develop a series of projects outside of the 2013 Amendment to the 2010 Recharge Master Plan (2013 RMPUA) effort that will increase stormwater and supplemental water recharge reliability, and have jointly agreed to fund these projects. Watermaster and IEUA staff's meet monthly to implement and monitor the progress of these projects. Watermaster's share of the cost of these projects was included in the budget adopted by Watermaster for fiscal year 2013/14. Beginning in November 2013, Watermaster and IEUA held monthly Joint Recharge Improvement Projects Committee meetings. The purpose of the meetings was to provide regular project status updates to the Watermaster Parties.

Watermaster continued work on the 2013 RMPUA. The Recharge Master Plan Update Steering Committee (Steering Committee) met twice per month to complete the 2013 RMPUA. During this period, the Steering Committee recommended specific recharge projects and the implementation plan, received and reviewed the 2013 RMPUA Draft Report, provided comments and finalized the 2013 RMPUA Report. The recommended projects are projected to increase the stormwater recharge in the Chino Basin by

# Optimum Basin Management Program

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## Program Element 2: Develop and Implement a Comprehensive Recharge Program (Continued)

approximately 6,900 acre-feet per year at a capital cost of approximately \$57 million. The 2013 RMPUA report was approved by the Watermaster Board in September and filed with the Court in October 2013. In December 2013, the Court approved the 2013 RMPUA with the exception of Section 5 of the Final Report that dealt with the accounting for new recharge from Municipal Separate Stormwater Sewer Systems. A facilitated process to resolve the City of Fontana's challenge related to Section 5 was initiated and continued in 2014.

## Program Element 3: Develop and Implement Water Supply Plan for the Impaired Areas of the Basin; and

## Program Element 5: Develop and Implement Regional Supplemental Water Program

Construction of the Chino I Desalter Expansion and the Chino II Desalter facilities was completed in February 2006. As currently configured, the Chino I Desalter provides 2.6 million gallons per day (MGD) of treated (air stripping for VOC removal) water from Well Nos. 1-4, 4.9 MGD of treated (ion exchange for nitrate removal) water from Well Nos. 5-15, and 6.7 MGD of treated (reverse osmosis for nitrate and TDS removal) water from Well Nos. 5-15, for a total of 14.2 MGD (15,900 acre-feet per year). The Chino II Desalter provides 4.0 MGD of ion exchange treated water and 6.0 MGD of reverse osmosis treated water from eight additional wells for a total of 10.0 MGD (11,200 acre-feet per year).

Planning continued between the Chino Desalter Authority (CDA) and Western Municipal Water District (WMWD) to expand the Chino II Desalter by 10.5 MGD (11,800 acre-feet per year). To date, more than \$70 million in grant funds have been secured toward this expansion project. Raw water will be drawn from existing CDA II wells, and possible additional new wells, if needed. In addition, a new Chino Creek Desalter Well Field, required for the Hydraulic Control commitment associated with Maximum Benefit, will provide additional raw water to the Chino I Desalter, enabling some existing wells to direct production to the expanded Chino II Desalter facility. Watermaster and the CDA demonstrated continued progress on the project schedule approved by the RWQCB in June 2010. The final completion date of the expansion project is anticipated to be August 2016. However, efforts to support Hydraulic Control can begin upon completion of the Chino Creek Well Field and associated raw water pipeline. Construction of the raw water pipeline is complete and construction of Wells I-16, I-17 and I-18 is substantially complete, with start-up scheduled for January 2014. Wells I-20 and I-21 are currently scheduled to be completed by November 2014.

## Program Element 4: Develop and Implement a Comprehensive Groundwater Management Plan for Management Zone 1

### MZ-1 Management Plan

Because of the historical occurrence of pumping-induced land subsidence and ground fissuring in southwestern Chino Basin (southern MZ-1), the OBMP called for the development and implementation of an Interim Management Plan (IMP) for MZ-1 that would:

- Minimize subsidence and fissuring in the short-term,
- Collect information necessary to understand the extent, rate, and mechanisms of subsidence and fissuring, and
- Formulate a management plan to reduce to tolerable levels or abate future subsidence and fissuring.

From 2001-2005, Watermaster developed, coordinated, and conducted an Interim Monitoring Program (IMP) under the guidance of the MZ-1 Technical Committee. The investigation provided enough information for Watermaster to develop Guidance Criteria for the MZ-1 producers in the investigation area that, if followed, would minimize the potential for subsidence and fissuring during the completion of the MZ-1 Plan. The Guidance Criteria included a listing of Managed Wells and their owners subject to the criteria, a map of the so-called Managed Area, and an initial threshold water level (Guidance Level) of 245 feet below the top of the PA-7 well casing. The MZ-1 Summary Report and the Guidance Criteria were adopted by the Watermaster Board in May 2006. The Guidance Criteria formed the basis for the MZ-1 Plan, which was approved by Watermaster in October 2007. The Court approved the MZ-1 Plan in November 2007 and ordered its implementation.

During this reporting period, Watermaster continued implementation of the MZ-1 Plan. Drawdown at the PA-7 piezometer stayed above the Guidance Level during the reporting period, and very little, if any, permanent compaction was recorded at the Ayala Park Extensometer. The ongoing monitoring program called for by the MZ-1 Plan continues to be implemented.

# Optimum Basin Management Program

## Program Element 4: Develop and Implement a Comprehensive Groundwater Management Plan for Management Zone 1 (Continued)

The Land Subsidence Committee (LSC) met in October 2013. Watermaster staff and consultants provided an update on the ongoing monitoring and testing program in the MZ-1 Managed Area, and on the ASR pilot test at Chino Hills Well 16. Watermaster staff and consultants presented the draft 2012 Annual Report of the Land Subsidence Committee for review. The final 2012 Annual Report was filed with the Court in December 2013.

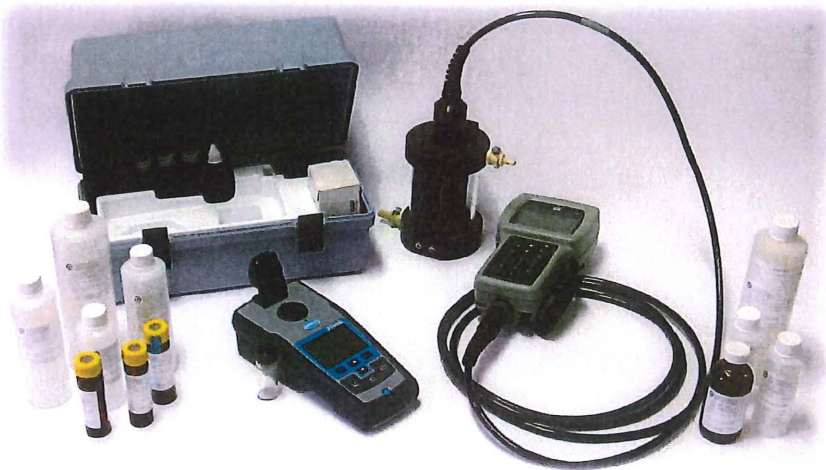
## Program Element 6: Develop and Implement Cooperative Programs with the Regional Water Quality Control Board, Santa Ana Region (Regional Board) and Other Agencies to Improve Basin Management; and

## Program Element 7: Develop and Implement a Salt Management Program

### *Archibald South Plume*

In July 2005, the RWQCB prepared draft Cleanup and Abatement Orders (CAOs) for six parties who were tenants on the Ontario International Airport (OIA) with regard to the Archibald South (trichloroethene [TCE]) Plume. The draft CAOs required the parties to "submit a work plan and time schedule to further define the lateral and vertical extent of the TCE and related VOCs that are discharging, have been discharged, or threaten to be discharged from the site" and to "submit a detailed remedial action plan, including an implementation schedule, to cleanup or abate the effects of the TCE and related VOCs." Four of the parties (Aerojet, Boeing, General Electric [GE], and Lockheed Martin) voluntarily formed a group (known as ABGL) to work jointly on a remedial investigation. Northrop Grumman declined to participate in the group. The US Air Force, in cooperation with the US Army Corps of Engineers, funded the installation of one of the four clusters of monitoring wells installed by ABGL.

In 2012, the RWQCB issued a draft CAO to the City of Ontario, the City of Upland, and IEUA concerning the former Ontario-Upland Sewage Treatment Plant (Regional Recycling Plant No. 1), located in the City of Ontario. The draft CAO states that these parties are "responsible parties subject to this Order because, as the former and current owners and operators of the WWTP and disposal areas, they are responsible for discharge of wastes that resulted in the presence of trichloroethylene (TCE) in groundwater down-gradient of the WWTP and disposal areas." In part, the draft CAO requires the parties to "supply uninterrupted replacement water service...to all residences south of Riverside Drive that are served by private domestic wells at which TCE has been detected at concentrations at or exceeding 5 µg/L..." and to report this information to the RWQCB. In addition, the parties are to "prepare and submit [a] ... feasibility study" and "prepare, submit and implement the Remedial Action Plan" to mitigate the "effects of the TCE groundwater plume."



Upon the direction of the RWQCB, sampling at residential taps in the affected area has been conducted approximately every two years (2007-2008, 2009, 2011, 2013). Several parties recently conducted additional sampling at private water supply wells in the area of the plume, and submitted the results of this sampling to the RWQCB in October 2013. With the completion of this work, all wells in the area of the plume have been sampled at least once. Alternative water systems (tanks) have been installed at residences in the area where well water contains TCE at or above 80% of the MCL for TCE. Residents who declined tank system are being provided bottled water. Watermaster also routinely samples for water quality at private wells in the area, and uses data obtained from this monitoring to delineate the plume.

# Optimum Basin Management Program

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## **Program Element 6: Develop and Implement Cooperative Programs with the Regional Water Quality Control Board, Santa Ana Region (Regional Board) and Other Agencies to Improve Basin Management; and**

## **Program Element 7: Develop and Implement a Salt Management Program (Continued)**

The RWQCB has indicated that many of the potential responsible parties issued Draft CAOs will work together to prepare a remedial action feasibility study. Discussions among those parties are ongoing to resolve details about how to proceed with that work. Many of the parties are also pursuing various grant funding opportunities to develop a remediation strategy that is long term, regional, and mutually beneficial to the Chino Basin. This includes the existing applications submitted to the United States Bureau of Reclamation.

### *Chino Airport*

The County of San Bernardino, Department of Airports is working under RWQCB CAO No. R8-2008-0064, which requires the County to define the lateral and vertical extent of the plume and prepare a remedial action plan. Beginning in 2007, Tetra Tech, the consultant to the County, conducted several off-site plume characterization studies to delineate the areal and vertical extent of the plume. Since 2003, the County has conducted quarterly monitoring events at their monitoring wells. Conclusions from this monitoring program can be found in reports posted on the RWQCB's GeoTracker website. In November 2013, Tetra Tech submitted the *Semiannual Groundwater Monitoring Report, Winter and Spring 2013, Chino Airport Groundwater Assessment, San Bernardino County, California*.

Watermaster has also collected samples from dedicated monitoring wells and private wells in and around the Chino Airport plume area. Watermaster has used its calibrated groundwater model to estimate cleanup times and contaminant concentrations in the Chino Creek Well Field (CCWF). This work will be updated, given new information about the extent of contamination, subsurface hydrogeology, well performance, and the need for habitat sustainability in the Prado Basin.

In October 2013, the RWQCB approved a work plan for Tetra Tech to conduct field work for additional characterization of contamination in soil and groundwater associated with the Chino Airport. This work plan includes cone penetrometer tests, sampling of vertical aquifer profiling borings, soil gas probe sampling, high-resolution soil sampling and analysis, the installation of long-term groundwater monitoring wells, the investigation of 20 areas of concern for soil contamination identified in the May 2013 site assessment, and an update to the conceptual site model. The County has not yet performed any groundwater remediation activities.

### *Other Water Quality Issues*

Watermaster continues to track monitoring programs and mitigation measures associated with other point sources in the Chino Basin, including: Alumax Aluminum Recycling, the California Institution for Men, Crown Coach, GE Test Cell and Flatiron, Kaiser Steel, Milliken Landfill, Upland Landfill, and the Stringfellow National Priorities List sites.

## **Program Element 8: Develop and Implement a Groundwater Storage Management Program; and Program Element 9: Develop and Implement a Storage and Recovery Program**

Groundwater storage is important to the Chino Basin. Watermaster has committed to investigate the technical and management implications of Local Storage Agreements, improve related policies and procedures, and then revisit all pending Local Storage Agreement applications.

The existing Watermaster/IEUA/MWDSC/Three Valley Municipal Water District (TVMWD) Dry-Year Yield (DYY) program continued during the reporting period. By April 30, 2011, all DYY program construction projects and a full "put" and "take" cycle had been completed, leaving the storage account with a zero balance. Watermaster, IEUA, TVMWD, and MWDSC continue to negotiate potential amendments to the current contract.

# Optimum Basin Management Program

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## **Program Element 8: Develop and Implement a Groundwater Storage Management Program; and Program Element 9: Develop and Implement a Storage and Recovery Program (Continued)**

### *Safe Yield Redetermination*

According to the Judgment, the Chino Basin Safe Yield is to be re-determined periodically. Pursuant to the OBMP Implementation Plan and Watermaster's Rules and Regulations, in year 2010/11 and every ten years thereafter, Watermaster is to compute the Safe Yield for the prior ten-year period and reset the Safe Yield for the next ten-year period.

The Basin's Safe Yield was initially set by the Judgment at 140,000 acre-feet per year. The number was arrived at after examination of the prior ten years of record, specifically 1965 through 1974. The Judgment provided that the Safe Yield would not be reexamined for at least ten years from 1978; the Safe Yield has not been reevaluated since the time of the Judgment. The OBMP Implementation Plan, which was ordered by the Court in the year 2000, includes the provision to recalculate and reset the Safe yield in 2010/11 using data collected in the period 2001-2010, and every ten years after.

In 2011, Watermaster authorized expenses to update the computer model of the Basin to recalculate the Safe Yield. The model calibration was completed in 2012, and evaluation of the Safe Yield began in 2013. The results of the effort were presented during a workshop in July 2013. Watermaster also held a second workshop in August 2013, a third workshop in December 2013, and various other meetings during this reporting period. The effort is ongoing.



## Optimum Basin Management Program

### Staff Status Report 2014-1: January to June 2014



CHINO BASIN WATERMASTER

Optimum Basin Management Program

### Highlighted Activities

- In December 2013, Watermaster and Inland Empire Utilities Agency (IEUA) submitted an updated Maximum Benefit Monitoring Program Work Plan and Proposed Schedule for Achieving Hydraulic Control to the Regional Board. The new Maximum Benefit Monitoring Program Work Plan was adopted by the Regional Water Quality Control Board (RWQCB) in April 2014.
- In January 2014, the RWQCB confirmed that the model results indicated that Hydraulic Control would be achieved under the projected range of the Chino Creek Well Field pumping. At the RWQCB's request, IEUA and Watermaster submitted a plan and schedule to increase desalter production capacity from 32,000 to 40,000 acre-feet per year to the RWQCB on May 30, 2014. The plan included the installation of three new wells—one well location being provisional. In June 2014, the RWQCB accepted the plan, and requested that the final well locations be submitted to the RWQCB by September 30, 2014.
- As a requirement of Mitigation Measure 4.4-3 from the Peace II Subsequent Environmental Impact Report, Watermaster, IEUA and Orange County Water District (OCWD) continued to develop a Prado Basin Habitat Sustainability Program. Included within this program will be the Prado Basin Habitat Sustainability Adaptive Management Plan, the installation of up to 17 monitoring wells at nine separate sites, and vegetative monitoring. During this reporting period, property acquisition and permitting continued.
- Watermaster and IEUA continued work on the Turner Basins/Guasti Park Recharge Expansion Project in MZ-2. The expansion project is projected to recharge an additional 300 acre-feet of storm runoff annually. Also, infiltration testing for the Wineville Proof-of-Concept project was completed in November 2013. The Final Report on the project was published in April 2014, and it stated that the basin showed potential for recharge. Additionally, Watermaster and IEUA continued to develop a series of projects outside of the 2013 Amendment to the 2010 Recharge Master Plan Update (2013 RMPUA) effort that will increase stormwater and supplemental water recharge reliability, and have jointly agreed to fund these projects. Watermaster and IEUA are in the process of finalizing agreements for the joint projects. Watermaster and IEUA continued to hold monthly Joint Recharge Improvement Projects Committee meetings for the purpose of providing regular project status updates to the Parties.
- During the reporting period, approximately 2,931 acre-feet of stormwater, 6,216 acre-feet of recycled water, and 795 acre-feet of imported water were recharged.
- Watermaster and IEUA began to implement the 2013 RMPUA. During the reporting period, Watermaster and IEUA began the process of developing agreements to construct the storm and supplemental water recharge projects listed in Table 8-2c of the 2013 RMPUA report, prioritizing the construction of these projects relative to the availability of grant funding, and planning subsequent implementation. Implementation of the Lower Day project began, on an accelerated timeline ahead of the other 2013 RMPUA projects because it received a \$750,000 Proposition 84 grant. Implementation of the San Sevaine project continued, also on an accelerated timeline due to its \$750,000 grant. The Recharge Master Plan Update Steering Committee now meets quarterly on the progress of implementing the 2013 RMPUA Projects. Section 5 of the RMPUA report was approved by the Court on April 25, 2014.

### Important Court Hearings and Orders

- APRIL 25, 2014-  
NOTICE OF RULINGS  
AND NOTICE OF  
HEARING; ORDER  
APPROVING SECTION  
5 OF WATERMASTER'S  
2013 AMENDMENT  
TO 2010 RECHARGE  
MASTER PLAN UPDATE

# Optimum Basin Management Program

## Program Element 1: Develop and Implement a Comprehensive Monitoring Program

### Groundwater Level Monitoring

Watermaster initiated a basin-wide groundwater-level monitoring program as part of the implementation of the OBMP. The monitoring program has been refined over time to satisfy the evolving needs of Watermaster and IEUA, such as new regulatory requirements, and to increase efficiency. The groundwater-level monitoring program supports many Watermaster functions, such as the periodic reassessment of Safe Yield, the monitoring and management of land subsidence, the assessment of Hydraulic Control, the analysis of desalter pumping impacts at private wells, and the triennial re-computation of ambient water quality that is mandated by the Water Quality Control Plan for the Santa Ana Basin. The data are also used to update and re-calibrate Watermaster's computer-simulation groundwater-flow model, to understand directions of groundwater flow, to compute storage changes, to interpret water quality data, and to identify areas of the Basin where recharge and discharge are not in balance.

The current groundwater-level monitoring program is comprised of about 1,000 wells. At about 800 of these wells, water levels are measured by well owners, which include municipal water agencies, the California Department of Toxic Substances Control (DTSC), the Counties, and various private consulting firms. Watermaster collects these water level data at least semi-annually. At the remaining 200 wells, water levels are measured by Watermaster staff using manual methods once per month or by using pressure transducers that record data once every 15 minutes. These wells are mainly Agricultural Pool wells located south of the 60 freeway.

### Groundwater Quality Monitoring

Watermaster initiated a comprehensive groundwater-quality monitoring program as part of the implementation of the OBMP. The groundwater-quality monitoring program consists of the following four components:

1. An Annual Key-Well Water-Quality Monitoring Program consisting of 111 wells, which are mostly privately-owned agricultural wells in the southern portion of Chino Basin that are otherwise not included in an established sampling program. Twenty of these wells are sampled every year, and the remaining wells are sampled once every three years. The wells sampled annually are for the continuous monitoring of areas of concern associated with the southern edge of the Archibald South (formerly OIA) volatile organic compound (VOC) plume, the southern region of the Chino Airport Plume, and the Kaiser Steel Plume, and includes two multi-port MZ-3 monitoring wells.
2. Annual sampling at nine HCMP multi-port monitoring wells strategically placed between the Chino Desalter well fields and the Santa Ana River. Results of the annual sampling are used to analyze the effect of desalter pumping over time on Hydraulic Control, by comparing water quality of the native groundwater and the Santa Ana River.
3. Quarterly sampling at four near-river wells to characterize the interaction between the Santa Ana River and nearby groundwater. These shallow monitoring wells along the Santa Ana River consist of two former USGS National Water Quality Assessment Program (NAWQA) wells (Archibald 1 and Archibald 2), and two wells owned by the Santa Ana River Water Company (Well 9 and Well 11).
4. A cooperative basin-wide data-collection effort known as the Chino Basin Data Collection (CBDC) program, which relies on municipal producers and other government agencies to supply groundwater-quality data on a cooperative basis. These sources include the Appropriators, DTSC, RWQCB, US Geological Survey (USGS), the Counties, and other cooperators.



Santa Ana River

All groundwater-quality data are checked by Watermaster staff and uploaded to a centralized database management system that can be accessed online through HydroDaVE<sup>SM</sup>. Groundwater-quality data are used by Watermaster for: the biennial State of the Basin report; the triennial ambient water quality update mandated by the Basin Plan; and the demonstration of Hydraulic Control—a maximum benefit commitment in the Basin Plan. Data are also used for monitoring nonpoint source groundwater contamination and plumes associated with point source discharges and to assess the overall health of the groundwater basin. Groundwater-quality data are also used in conjunction with numerical models to assist Watermaster and other parties in evaluating proposed groundwater remediation strategies.

# Optimum Basin Management Program

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## Program Element 1: Develop and Implement a Comprehensive Monitoring Program (Continued)

### Groundwater Production Monitoring

All active wells (except for minimum user wells) are now metered. Watermaster reads the agricultural production data from the meters on a quarterly basis and enters these data into Watermaster's relational database. Minimum user well production is estimated annually by Watermaster, and entered into the database.

### Surface Water Monitoring

**Water Quality and Quantity in Recharge Basins.** Watermaster and IEUA measure the quantity of storm and supplemental water that enters into recharge basins. Pressure transducers or staff gauges are used to measure water levels during recharge operations. In addition to these quantity measurements, imported water quality data for State Water Project water are obtained from the Metropolitan Water District of Southern California (MWDSC) and recycled water quality data for the RP-1 and RP-4 treatment plant effluents are obtained from IEUA. Combining the measured flow data with the respective water qualities enables the calculation of the blended water quality in each recharge basin, the New Yield to the Chino Basin, and the adequate dilution of recycled water.

**Surface Water Monitoring in the Santa Ana River.** Watermaster measures selected water quality parameters quarterly at two sites along the Santa Ana River (Santa Ana River at River Road and Santa Ana River at Etiwanda). Along with data collected at four near-river wells, these data are used to characterize the interaction between the Santa Ana River and nearby groundwater. These data are also combined with discharge data from permanent USGS stream gauges, discharge data from publicly owned treatment works (POTWs), and groundwater modeling to assess the state of Hydraulic Control.

### Hydraulic Control

In January 2004, the RWQCB amended the Water Quality Control Plan (Basin Plan) for the Santa Ana River Basin to incorporate an updated total dissolved solids (TDS) and nitrogen (N) management plan. The Basin Plan Amendment includes both "antidegradation" and "maximum benefit" objectives for TDS and nitrate-nitrogen for the Chino-North and Cucamonga groundwater management zones. The application of the "maximum benefit" objectives relies on Watermaster and IEUA's implementation of a specific program of projects and requirements, which are an integral part of the OBMP. On April 15, 2005, the RWQCB adopted resolution R8-2005-0064, thus approving the Surface Water Monitoring Program and Groundwater Monitoring Program in support of maximum benefit commitments in the Chino-North and Cucamonga Basins.

One of the main maximum-benefit commitments is to achieve and maintain "hydraulic control" of the Chino Basin so that downstream beneficial uses of the Santa Ana River are protected. Hydraulic Control is defined by the Basin Plan as the elimination of groundwater discharge from the Chino-North Management Zone to the Santa Ana River or its reduction to a *de minimus* level. In October 2011, the RWQCB indicated that groundwater discharge in an amount less than 1,000 acre-feet per year would be considered *de minimus* by the RWQCB.

In 2012, the Basin Plan was amended to remove all references to the specific monitoring locations and sampling frequencies required for groundwater and surface water monitoring, thus allowing the program to be modified over time, with approval of the Executive Officer of the RWQCB. The Basin Plan amendment was approved by the RWQCB on February 12, 2012 and by the State Office of Administrative Law on December 6, 2012. This amendment was adopted based on demonstrations made by Watermaster and the IEUA showing that the surface water monitoring program, as included in the Basin Plan, was not meaningfully adding to the body of evidence required to demonstrate Hydraulic Control. In the place of specific monitoring requirements, the Basin Plan Amendment required that Watermaster and IEUA submit for approval by the Executive Officer a new surface water monitoring program work plan by February 25, 2012 and a new groundwater monitoring program work plan by December 31, 2013. In February 2012, Watermaster and the IEUA submitted, and the RWQCB approved, a new surface water monitoring program that reduced the 2004 monitoring program from bi-weekly water quality measurements at 17 sites and direct discharge measurements at six sites, to quarterly water quality sampling at two sites. The new work plan including these changes was adopted by the RWQCB in March 2012.

In December 2013, Watermaster and IEUA submitted an updated Maximum Benefit Monitoring Program Work Plan and Proposed Schedule for Achieving Hydraulic Control to the RWQCB. The updated Work Plan states that Watermaster and IEUA will recalibrate the Chino Basin groundwater model every five years and use the model to estimate groundwater discharge from Chino-North to the Santa Ana River (i.e. annual underflow past the Chino Creek Well Field [CCWF]) and determine whether Hydraulic Control has been achieved. The new Maximum Benefit Monitoring Program Work Plan was adopted by the RWQCB in April 2014.

# Optimum Basin Management Program

## Program Element 1: Develop and Implement a Comprehensive Monitoring Program (Continued)

In January 2014, in a letter to IEUA and Watermaster, the RWQCB confirmed that the model results indicated that Hydraulic Control would be achieved under the projected range of Chino Creek Well Field pumping. The RWQCB also requested that IEUA and Watermaster submit a plan and schedule to increase desalter production capacity from 32,000 to 40,000 acre-feet per year by May 31, 2014. IEUA and Watermaster submitted the plan and schedule to the RWQCB on May 30, 2014 to install three new wells—one well location being provisional. In June 2014, the RWQCB accepted the plan, and requested that the final well locations be submitted to the RWQCB by September 30, 2014.

During this reporting period, Watermaster measured 455 manual water levels at 79 private wells throughout the Chino Basin, conducted downloads at 100 wells containing pressure transducers, and collected eight groundwater-quality samples and four surface-water quality samples.

### Prado Basin Habitat Sustainability Program

A requirement of Mitigation Measure 4.4-3 from the Peace II Subsequent EIR is for Watermaster, IEUA and Orange County Water District (OCWD) to develop an Adaptive Management Plan for the Prado Basin Habitat Sustainability Program (PBHSP). The objective of this plan is to ensure that the riparian habitat in Prado Basin is not adversely impacted by drawdown associated with the implementation of the Peace II activities. Seventeen monitoring wells at nine sites will be constructed as part of the monitoring program for the PBHSP. During this reporting period, the PBHSP Committee continued property acquisition and permitting.

### Chino Basin Groundwater Recharge Program

Watermaster, IEUA, the Chino Basin Water Conservation District (CBWCD), and the San Bernardino County Flood Control District (SBCFCD) jointly sponsor the Chino Basin Groundwater Recharge Program. This is a comprehensive water supply program to enhance water supply reliability and improve the groundwater quality in local drinking water wells throughout the Chino Basin by increasing the recharge of storm water, imported water, and recycled water. The recharge program is regulated under RWQCB Order No. R8-2007-0039 and Monitoring and Reporting Program No. R8-2007-0039.

**Recharge Activities.** Ongoing recycled water recharge occurred in the Brooks, 7th Street, 8th Street, Turner, Victoria, San Sevaine, Ely, Hickory, RP-3, and Banana Basins this reporting period. Also during this reporting period, stormwater was recharged at 17 recharge basins across all management zones of the Chino Basin and six recharge basins received imported water.

**Monitoring Activities.** Watermaster and IEUA collect weekly water quality samples from recharge basins that are actively recharging recycled water and from lysimeters installed within those recharge basins. During this reporting period, approximately 466 recharge basin and lysimeter samples were collected and 26 recycled water samples were collected for alternative monitoring plans that include the application of a correction factor for soil-aquifer treatment determined from each recharge basin's start-up period. Monitoring wells located down-gradient of the recharge basins were sampled quarterly at a minimum; however, some monitoring wells were sampled more frequently during the reporting period for a total of 106 samples.

**Reporting.** Watermaster and IEUA completed the following required reports concerning the recharge program during the reporting period:

- 4Q-2013 Quarterly Report, submitted to the RWQCB – February 2014
- 1Q-2014 Quarterly Report, submitted to the RWQCB – May 2014
- 2013 Annual Report, submitted to the RWQCB – May 2014



CB-20 Turnout

# Optimum Basin Management Program

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## Program Element 1: Develop and Implement a Comprehensive Monitoring Program (Continued)

### *Land Surface Monitoring*

In response to the occurrence of land subsidence in the City of Chino, the Watermaster prepared and submitted the MZ-1 Subsidence Management (MZ-1 Plan) to the Court for approval and, in November 2007, the Court ordered its implementation (see Program Element 4: Develop and Implement a Comprehensive Groundwater Management Plan for Management Zone 1). The MZ-1 Plan calls for several monitoring and mitigation measures to minimize or abate the future occurrence of land subsidence and ground fissuring in the western Chino Basin. These measures and activities include:

- Continuing the scope and frequency of monitoring within the so-called Managed Area (southwest MZ-1) that was conducted during the period when the MZ-1 Plan was being developed.
- Expanding the monitoring of the aquifer system and land subsidence into other areas of MZ-1 and Chino Basin where the data indicate concern for future subsidence and ground fissuring.
- Monitoring of horizontal strain across the historical zone of ground fissuring.
- Evaluating the potential contribution of groundwater production in northern MZ-1 on conditions in southern MZ-1.
- Conducting additional testing and monitoring to refine the MZ-1 Guidance Criteria.
- Developing alternative pumping plans for the MZ-1 producers that are impacted by the MZ-1 Plan.
- Constructing and testing a lower-cost cable extensometer facility at Ayala Park.
- Evaluating and comparing ground-level surveying and Interferometric Synthetic Aperture Radar (InSAR), and recommending future monitoring protocols for both techniques.
- Conducting an ASR (aquifer storage recovery) feasibility study at a City of Chino Hills production well within the MZ-1 Managed Area (Well 16).
- Providing for recovery of groundwater levels in the MZ-1 Managed Area.

During the reporting period, Watermaster undertook the following activities called for in the MZ-1 Plan:

- The continuation of detailed water-level monitoring at wells within the Managed Area and across much of the western portion of Chino Basin. All monitoring equipment is inspected at least quarterly and is repaired and/or replaced as necessary. The data collected were checked and analyzed to assess the functionality of the monitoring equipment and for compliance with MZ-1 Plan.
- The continuation of monitoring and maintenance at the extensometer facilities including: Ayala Park, Chino Creek, and Daniels sites.
- The collection of InSAR data from radar satellites during the reporting period, which will be analyzed for ground motion in early 2015.
- Assisted the City of Chino Hills in required quarterly reporting for its DWR grant to support the ASR pilot test.

## Program Element 2: Develop and Implement a Comprehensive Recharge Program

The average stormwater recharge of the Chino Basin Facilities Improvement Program (CBFIP) facilities is approximately 13,000 acre-feet per year, the supplemental “wet”<sup>1</sup> water recharge capacity is approximately 60,600 acre-feet per year, and the in lieu supplemental water recharge capacity ranges from 25,000 to 40,000 acre-feet per year. There is also a demonstrated well injection capacity of 5,600 acre-feet per year. Current total supplemental water recharge capacity ranges from 91,200 to 106,200 acre-feet per year, which is greater than projected supplemental water recharge capacity required of Watermaster.

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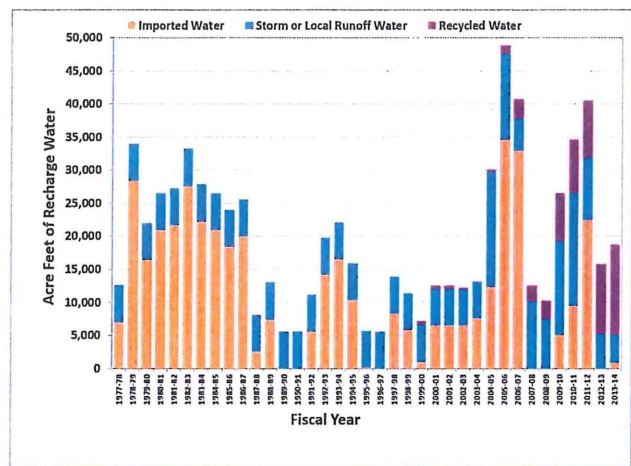
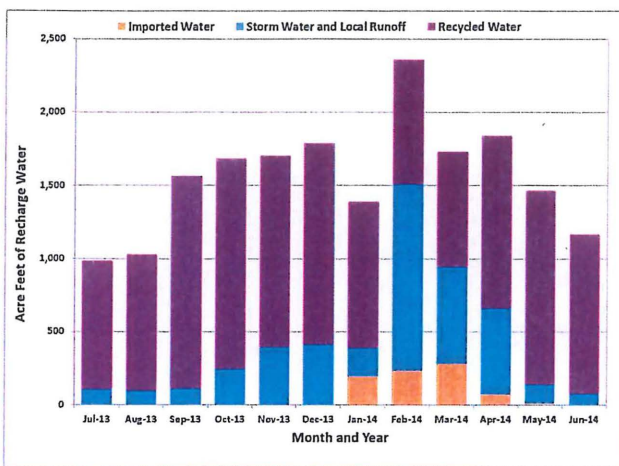
<sup>1</sup>The modifier “wet” means actual physical water is being recharged in spreading basins as opposed to the dedication of water from storage or in-lieu recharge.

# Optimum Basin Management Program

## Program Element 2: Develop and Implement a Comprehensive Recharge Program (Continued)

Stormwater recharge during this reporting period was approximately 2,931 acre-feet. Recycled water recharge during this reporting period was approximately 6,216 acre-feet. Approximately 795 acre-feet of imported water was recharged during this reporting period. The IEUA and Watermaster recharge permit was amended in fiscal year 2009/10 to allow for underflow dilution and extend the dilution period from a running 60 months to a running 120 months. The significance of this permit amendment was to reduce the amount of imported and storm waters required for dilution. IEUA projects that dilution requirements will likely be met through 2019/20, even if no imported water were available for dilution.

The total amount of supplemental water recharged in MZ-1 since the Peace II Agreement through June 30, 2014 was approximately 44,446 acre-feet, which is slightly less than the 45,500 acre-feet required by June 30, 2014 (annual requirement of 6,500 acre-feet): the shortfall of 1,054 acre-feet will be carried-over and recharged in MZ-1 in a future year. The amount of supplemental water recharged into MZ-1 during the reporting period was approximately 819 acre-feet.



The Groundwater Recharge Coordinating Committee (GRCC) met once during this reporting period, in March 2014. Recharge basin operations and maintenance are discussed during these meetings.

Watermaster and IEUA continued work on the Turner Basins/Guasti Park Recharge Expansion Project in MZ-2. Following completion, anticipated in 2014, the expansion project is projected to recharge an additional 300 acre-feet of storm runoff annually. Infiltration testing for the Wineville Proof-of-Concept project was completed in November 2013. The Final Report on the project was published in April 2014, and it stated that the basin showed potential for recharge.

During the reporting period, Watermaster and IEUA continued to develop a series of projects outside of the 2013 Amendment to the 2010 Recharge Master Plan Update (2013 RMPUA) effort that will increase stormwater and supplemental water recharge reliability and have jointly agreed to fund these projects. Watermaster’s share of the cost of these projects was included in the budget adopted by Watermaster for fiscal year 2013/14. Watermaster and IEUA are in the process of finalizing agreements for the joint projects. Watermaster and IEUA continued to hold monthly Joint Recharge Improvement Projects Committee meetings for the purpose of providing regular project status updates to the Parties.

Pursuant to the October 2013 Court Order authorizing Watermaster and IEUA to implement the 2013 RMPUA, Watermaster and IEUA have begun implementation. During the reporting period, Watermaster and IEUA began the process of developing agreements to construct the storm and supplemental water recharge projects listed in Table 8-2c of the 2013 RMPUA report, prioritizing the construction of these projects relative to the availability of grant funding, and planning subsequent implementation. Implementation of the Lower Day project began, on an accelerated timeline ahead of the other 2013 RMPUA projects because it received a \$750,000 Proposition 84 grant. Implementation of the San Sevaine project continued, also on an accelerated timeline due to its \$750,000 grant. The Recharge Master Plan Update Steering Committee (Steering Committee) now meets quarterly on the progress of implementing the 2013 RMPUA Projects. Section 5 of the RMPUA report was approved by the Court on April 25, 2014.

# Optimum Basin Management Program

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## **Program Element 3: Develop and Implement Water Supply Plan for the Impaired Areas of the Basin; and**

## **Program Element 5: Develop and Implement Regional Supplemental Water Program**

Construction of the Chino I Desalter Expansion and the Chino II Desalter facilities was completed in February 2006. As currently configured, the Chino I Desalter provides 2.6 million gallons per day (MGD) of treated (air stripping for VOC removal) water from Well Nos. 1-4, 4.9 MGD of treated (ion exchange for nitrate removal) water from Well Nos. 5-15, and 6.7 MGD of treated (reverse osmosis for nitrate and TDS removal) water from Well Nos. 5-15 for a total of 14.2 MGD (15,900 acre-feet per year). The Chino II Desalter provides 4.0 MGD of ion exchange treated water and 6.0 MGD of reverse osmosis treated water from eight additional wells for a total of 10.0 MGD (11,200 acre-feet per year).

Planning continued between the Chino Desalter Authority (CDA) and Western Municipal Water District (WMWD) to expand the Chino II Desalter by 10.5 MGD (11,800 acre-feet per year). To date, more than \$70 million in grant funds have been secured toward this expansion project. Raw water will be drawn from existing CDA II wells, and possible additional new wells, if needed. In addition, a new Chino Creek Desalter Well Field, required for the Hydraulic Control commitment associated with Maximum Benefit, will provide additional raw water to the Chino I Desalter, enabling some existing wells to direct production to the expanded Chino II Desalter facility. Watermaster and the CDA demonstrated continued progress on the project schedule RWQCB approved by the RWQCB in June 2010. The final completion date of the expansion project is anticipated to be August 2016. However, efforts to support Hydraulic Control can begin upon completion of the Chino Creek Well Field and associated raw water pipeline. Construction of the raw water pipeline of Wells I-16, I-17 and I-18 is complete. The CDA received its modification of the Chino I wellfield operating permit from the California Department of Public Health for Wells 1-16 and 1-17. Well 1-18 is not currently planned to be placed into operation due to high VOC concentrations. A nine-month pilot test for a treatment system for removal of TCE, TCP and nitrate is planned. Equipping designs of Wells 1-20 and 1-21 are complete, and the well equipping construction is planned for late 2014. Three additional wells are planned outside of the Chino Creek Well Field, which are necessary to meet the requirement for the CDA to produce 40,000 acre-feet of groundwater per year. A draft well siting study was submitted in January 2014. Property acquisition for these three sites is in progress.

## **Program Element 4: Develop and Implement a Comprehensive Groundwater Management Plan for Management Zone 1**

### *MZ-1 Management Plan*

Because of the historical occurrence of pumping-induced land subsidence and ground fissuring in southwestern Chino Basin (southern MZ-1), the OBMP called for the development and implementation of an Interim Management Plan (IMP) for MZ-1 that would:

- Minimize subsidence and fissuring in the short-term,
- Collect information necessary to understand the extent, rate, and mechanisms of subsidence and fissuring, and
- Formulate a management plan to reduce to tolerable levels or abate future subsidence and fissuring.

From 2001-2005, Watermaster developed, coordinated, and conducted an Interim Monitoring Program (IMP) under the guidance of the MZ-1 Technical Committee. The investigation provided enough information for Watermaster to develop Guidance Criteria for the MZ-1 producers in the investigation area that, if followed, would minimize the potential for subsidence and fissuring during the completion of the MZ-1 Plan. The Guidance Criteria included a listing of Managed Wells and their owners subject to the criteria, a map of the so-called Managed Area, and an initial threshold water level (Guidance Level) of 245 feet below the top of the PA-7 well casing. The MZ-1 Summary Report and the Guidance Criteria were adopted by the Watermaster Board in May 2006. The Guidance Criteria formed the basis for the MZ-1 Plan, which was approved by Watermaster in October 2007. The Court approved the MZ-1 Plan in November 2007 and ordered its implementation.

During this reporting period, Watermaster continued implementation of the MZ-1 Plan. Drawdown at the PA-7 piezometer stayed above the Guidance Level during the reporting period, and very little, if any, permanent compaction was recorded at the Ayala Park Extensometer. The ongoing monitoring program called for by the MZ-1 Plan continues to be implemented.

# Optimum Basin Management Program

## Program Element 4: Develop and Implement a Comprehensive Groundwater Management Plan for Management Zone 1 (Continued)

The Land Subsidence Committee (LSC) met in March and June 2014. Watermaster staff and consultants provided an update on the ongoing monitoring and testing program in the Areas of Subsidence Concern, and on the ASR pilot test at Chino Hills Well 16. Watermaster consultants reviewed the draft scope and budget for the Land Subsidence Monitoring Program for fiscal year 2014/15 and the draft 2013 Annual Report of the Land Subsidence Committee. Watermaster staff recommended that the MZ-1 Subsidence Management Plan be updated.

## Program Element 6: Develop and Implement Cooperative Programs with the Regional Water Quality Control Board, Santa Ana Region (Regional Board) and Other Agencies to Improve Basin Management; and

## Program Element 7: Develop and Implement a Salt Management Program

### Archibald South Plume

In July 2005, the RWQCB prepared draft Cleanup and Abatement Orders (CAOs) for six parties who were tenants on the Ontario International Airport (OIA) with regard to the Archibald South (trichloroethene [TCE]) Plume. The draft CAOs required the parties to “submit a work plan and time schedule to further define the lateral and vertical extent of the TCE and related VOCs that are discharging, have been discharged, or threaten to be discharged from the site” and to “submit a detailed remedial action plan, including an implementation schedule, to cleanup or abate the effects of the TCE and related VOCs.” Four of the parties (Aerojet, Boeing, General Electric [GE], and Lockheed Martin) voluntarily formed a group (known as ABGL) to work jointly on a remedial investigation. Northrop Grumman declined to participate in the group. The US Air Force, in cooperation with the US Army Corps of Engineers, funded the installation of one of the four clusters of monitoring wells installed by ABGL.



Groundwater Quality Sampling

In 2012, the RWQCB issued a draft CAO to the City of Ontario, the City of Upland, and IEUA concerning the former Ontario-Upland Sewage Treatment Plant (Regional Recycling Plant No. 1), located in the City of Ontario. The draft CAO states that these parties are “responsible parties subject to this Order because, as the former and current owners and operators of the WWTP and disposal areas, they are responsible for discharge of wastes that resulted in the presence of trichloroethylene (TCE) in groundwater down-gradient of the WWTP and disposal areas.” In part, the draft CAO requires the parties to “supply uninterrupted replacement water service...to all residences south of Riverside Drive that are served by private domestic wells at which TCE has been detected at concentrations at or exceeding 5 µg/L...” and to report this information to the RWQCB. In addition, the parties are to “prepare and submit [a] ...feasibility study” and “prepare, submit and implement the Remedial Action Plan” to mitigate the “effects of the TCE groundwater plume.”

Upon the direction of the RWQCB, sampling at residential taps in the affected area has been conducted approximately every two years (2007-2008, 2009, 2011, 2013-2014). Several parties recently conducted additional sampling at private water supply wells in the area of the plume, and submitted the results of this sampling to the RWQCB in October 2013 and May 2014. With the completion of this work, all wells in the area of the plume have been sampled at least once. Alternative water systems (tanks) have been installed at residences in the area where well water contains TCE at or above 80% of the MCL for TCE. Residents who declined tank system are being provided bottled water. Watermaster also routinely samples for water quality at private wells in the area, and uses data obtained from this monitoring to delineate the plume.



# Optimum Basin Management Program

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## **Program Element 6: Develop and Implement Cooperative Programs with the Regional Water Quality Control Board, Santa Ana Region (Regional Board) and Other Agencies to Improve Basin Management; and**

## **Program Element 7: Develop and Implement a Salt Management Program (Continued)**

The RWQCB has indicated that many of the potential responsible parties issued Draft CAOs will work together to prepare a remedial action feasibility study. Discussions among those parties are ongoing to resolve details about how to proceed with that work. Many of the parties are also pursuing various grant funding opportunities to develop a remediation strategy that is long-term, regional, and mutually beneficial to the Chino Basin. This includes the existing applications submitted to the United States Bureau of Reclamation.

### *Chino Airport*

The County of San Bernardino, Department of Airports is working under RWQCB CAO No. R8-2008-0064, which requires the County to define the lateral and vertical extent of the plume and prepare a remedial action plan. Beginning in 2007, Tetra Tech, the consultant to the County, conducted several off-site plume characterization studies to delineate the areal and vertical extent of the plume. Since 2003, the County has conducted quarterly monitoring events at their monitoring wells. Conclusions from this monitoring program can be found in reports posted on the RWQCB's GeoTracker website. In March 2014, Tetra Tech submitted the *Semiannual Groundwater Monitoring Report, Summer and Fall 2013, Chino Airport Groundwater Assessment, San Bernardino County, California*.

Watermaster has also collected samples from dedicated monitoring wells and private wells in and around the Chino Airport plume area. Watermaster has also used its calibrated groundwater model to estimate cleanup times and contaminant concentrations in the Chino Creek Well Field. This work will be updated, given new information about the extent of contamination, subsurface hydrogeology, well performance, and the need for habitat sustainability in the Prado Basin.

In October 2013, the RWQCB approved a work plan for Tetra Tech to conduct field work for additional characterization of contamination in soil and groundwater associated with the Chino Airport. In April 2014, the County and Tetra Tech submitted a Mid-Year Project Status Report describing the progress in implementing the work plan, which has included the completion of cone penetrometer tests and the sampling of vertical aquifer profiling borings. The remainder of the work described in the work plan, which includes the installation of long-term groundwater monitoring wells, the investigation of 20 areas of concern for soil contamination, and an update to the conceptual site model, is expected to be completed by December 2014. The County has not yet performed any groundwater remediation activities.

### *Other Water Quality Issues*

Watermaster continues to track monitoring programs and mitigation measures associated with other point sources in the Chino Basin, including: Alumax Aluminum Recycling, the California Institution for Men, Crown Coach, GE Test Cell and Flatiron, Kaiser Steel, Milliken Landfill, Upland Landfill, and the Stringfellow National Priorities List sites.

## **Program Element 8: Develop and Implement a Groundwater Storage Management Program; and Program Element 9: Develop and Implement a Storage and Recovery Program**

Groundwater storage is important to the Chino Basin. Watermaster has committed to investigate the technical and management implications of Local Storage Agreements, improve related policies and procedures, and then revisit all pending Local Storage Agreement applications.

The existing Watermaster/IEUA/MWDSC/Three Valley Municipal Water District (TVMWD) Dry-Year Yield (DYY) program continued during the reporting period. By April 30, 2011, all DYY program construction projects and a full "put" and "take" cycle had been completed, leaving the storage account with a zero balance. Watermaster, IEUA, TVMWD, and MWDSC continue to negotiate potential amendments to the current contract.

# Optimum Basin Management Program

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## **Program Element 8: Develop and Implement a Groundwater Storage Management Program; and Program Element 9: Develop and Implement a Storage and Recovery Program (Continued)**

### *Safe Yield Redetermination*

According to the Judgment, the Chino Basin Safe Yield is to be re-determined periodically. Pursuant to the OBMP Implementation Plan and Watermaster's Rules and Regulations, in year 2010/11 and every ten years thereafter, Watermaster is to compute the Safe Yield for the prior ten-year period and reset the Safe Yield for the next ten-year period.

The Basin's Safe Yield was initially set by the Judgment at 140,000 acre feet per year. The number was arrived at after examination of the prior ten years of record, specifically 1965 through 1974. The Judgment provided that the Safe Yield would not be reexamined for at least ten years from 1978; the Safe Yield has not been reevaluated since the time of the Judgment. The OBMP Implementation Plan, which was ordered by the Court in the year 2000, includes the provision to recalculate and reset the Safe yield in 2010/11 using data collected in the period 2001-2010, and every ten years after.

In 2011, Watermaster authorized expenses to update the computer model of the Basin to recalculate the Safe Yield. The model calibration was completed in 2012, and evaluation of the Safe Yield began in 2013. The effort continues. During this reporting period, a fourth workshop was held in January 2014. There were also two technical group meetings, in January and March 2014, in which Watermaster's modelers were made available to meet with the Parties' experts in order to better understand the model. Following the workshops, the Appropriative Pool sent a letter to Watermaster in April 2014 which stated that the model is sound, and in the letter, the Pool also provided some recommendations for moving forward. Also, Watermaster filed a status report with the Court in April 2014, updating the Court on the process.

# **CHINO BASIN WATERMASTER**

## **I. CONSENT CALENDAR**

### **D. SAN ANTONIO WATER COMPANY – APPLICATION FOR RECHARGE**

***CHINO BASIN WATERMASTER***

**NOTICE**

**OF**

**APPLICATION(S)**

**RECEIVED FOR**

**RECHARGE**

Date of Notice:

February 5, 2016

This notice is to advise interested persons that the attached application(s) will come before the Watermaster Board on or after 30 days from the date of this notice.

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NOTICE OF APPLICATION(S) RECEIVED

Date of Application: **January 22, 2016**

Date of this notice: **February 5, 2016**

Please take notice that the following Application has been received by Watermaster:

- Notice of Application for Recharge – Notice of Application for Recharge - On January 22, 2016, San Antonio Water Company submitted an Application for Recharge for up to 200,000 acre-feet to be recharged into Montclair 2, 3, and 4, and Brooks recharge basins.

Appropriative Pool: February 11, 2016

Non-Agricultural Pool: February 11, 2016

Agricultural Pool: February 11, 2016

This *Application* will be scheduled for consideration by the Advisory Committee *no earlier than thirty days from the date of this notice and a minimum of twenty-one calendar days* after the last pool committee reviews it.

After consideration by the Advisory Committee, the *Application* will be considered by the Board.

Unless the *Application* is amended, parties to the Judgment may file *Contests* to the *Application* with Watermaster *within seven calendar days* of when the last pool committee considers it. Any *Contest* must be in writing and state the basis of the *Contest*.

Watermaster address:

Chino Basin Watermaster  
9641 San Bernardino Road  
Rancho Cucamonga, CA 91730

Tel: (909) 484-3888  
Fax: (909) 484-3890

# CHINO BASIN WATERMASTER

## NOTICE OF APPLICATION FOR RECHARGE

Notification Dated: February 5, 2016

A party to the Judgment has submitted a proposed Application for Recharge for Watermaster approval. Unless contrary evidence is presented to Watermaster that overcomes the rebuttable presumption provided in Section 5.3(b)(iii) of the Peace Agreement, Watermaster must find that there is “no material physical injury” and approve the Application. Watermaster staff is not aware of any evidence to suggest that this recharge would cause material physical injury and hereby provides this notice to advise interested persons that this Application will come before the Watermaster Board on or after 30 days from the date of this notice. The attached staff report will be included in the meeting package at the time the Application begins the Watermaster process (comes before Watermaster).



# CHINO BASIN WATERMASTER

9641 San Bernardino Road, Rancho Cucamonga, Ca 91730  
Tel: 909.484.3888 Fax: 909.484.3890 www.cbwm.org

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PETER KAVOUNAS, P.E.  
General Manager

## STAFF REPORT

DATE: February 11, 2016  
TO: Pool Committee Members  
SUBJECT: San Antonio Water Company Application for Recharge

### SUMMARY

Issue: On January 22, 2016, San Antonio Water Company submitted an Application for Recharge for up to 200,000 acre-feet to be recharged into Montclair 2, 3, and 4, and Brooks recharge basins.

Recommendation: Approve San Antonio Water Company's Application for Recharge and direct Watermaster staff to account for this supplemental water recharged in San Antonio Water Company's existing Local Supplemental Storage account.

Financial Impact: None.

### Future Consideration

Appropriative Pool: February 11, 2016 Approval  
Non-Agricultural Pool: February 11, 2016 Approval  
Agricultural Pool: February 11, 2016 Approval  
Advisory Committee: March 17, 2016 Approval  
Watermaster Board: March 24, 2016 Approval

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### ACTIONS:

February 11, 2016 – Appropriative Pool –  
February 11, 2016 – Non-Agricultural Pool –  
February 11, 2016 – Agricultural Pool  
March 17, 2016 – Advisory Committee –  
March 24, 2016 – Watermaster Board –



## BACKGROUND

The Court approved the Peace Agreement, the OBMP Implementation Plan and the goals and objectives identified in the OBMP Phase I Report on July 13, 2000, and ordered Watermaster to proceed in a manner consistent with the Peace Agreement. Under the Peace Agreement, Watermaster approval is required for Applications to store, recapture, recharge or transfer water, as well as for Applications for credits or reimbursements and storage and recovery programs.

Where there is no Material Physical Injury, Watermaster must approve the application. Where the request for Watermaster approval is submitted by a Party to the Judgment, there is a rebuttable presumption that most of the proposed activities do not result in Material Physical Injury to a Party to the Judgment or the Basin (Storage and Recovery Programs do not have this presumption).

In December 2011, San Antonio Water Company submitted an Application for a Local Storage Agreement. The Application identified the maximum quantity of the storage account to be 2,000.00 acre-feet to be placed into a Local Supplemental Storage Account. The Application stated the purpose of storing the water is to preserve pumping right for a changed future potential use. The Application stated that the method of placement in storage is via percolation/recharge and an Application for Recharge was included. The Form 2 stated that the Upland and Montclair 1 recharge basins would be utilized, for up to 1,500.000 acre-feet.

The Application for Recharge was approved by the Board in February 2012, and Watermaster was directed to account for this supplemental water recharged in San Antonio Water Company's existing Local Supplemental Storage account. San Antonio Water Company was informed it may begin recharging the water as described in the application. However, San Antonio Water Company is recharging the water at some risk because Watermaster's approval of the storage element of the Local Supplemental Storage Agreement is subject to further Watermaster determinations concerning: (1) the determination of available capacity for Local Supplemental Storage Agreements pursuant to Section 2 of the Second Amendment to the Peace Agreement (100,000 acre-foot cap); (2) the establishment of rules concerning the priority among competing applications for Local Supplemental Storage; and (3) the general terms and conditions applicable to Storage and Preemptive Replenishment in connection with the Recharge Master Plan. Accordingly until these determinations have been made, the storage and recovery of any water recharged by San Antonio Water Company is not guaranteed. Moreover, no Party with a pending application for Local Supplemental Storage Agreements will be prejudiced by Watermaster's conditional action on San Antonio Water Company's application.

## DISCUSSION

On January 22, 2016, San Antonio Water Company submitted an Application for Recharge for up to 200.000 acre-feet. The Application states that the method of recharge is percolation into Montclair 2, 3, and 4, and Brooks recharge basins. (See Attachment 1.) The Application identifies the source of water to be diversion of the Company's surface water rights from the San Antonio Creek. Attached to the Application are the Draft 2015 San Antonio Canyon Watershed Sanitary Survey Update, an excerpt from the Opinion of Water Rights, and a surface water supply schematic for Chino Basin Recharge. (See Attachments 2, 3, and 4.) On February 2, 2016, Watermaster received a letter from San Antonio Water Company titled "Application for Recharge – Statement of Water Rights in San Antonio Creek," stating that water stream flows not captured by San Antonio Water Company flow outside of the Chino Basin, therefore making the water supplemental water to the Chino Basin. (See Attachment 5.)

If and when approved, San Antonio Water Company intends to potentially use its pending Local Storage Agreement to store this water. In the meantime, consistent with that of other Parties that have submitted Applications for Recharge that have pending Applications for Local Storage Agreements, the water will be placed in its Local Supplemental Storage account and will be tracked by Watermaster Staff. Per the Peace II Agreement and 2015 Safe Yield Reset Agreement awaiting the Court's determination, losses will

be applied to all water placed into a Local Supplemental Storage Account in a similar manner to all other water in storage. The total volume held in local storage accounts is pending a future determination, and the recommendation as written is intended to be consistent with prior recharge and storage application recommendations.

If this water is placed into storage (rather than produced during the same production year), an Application to Recapture Water in Storage will need to be submitted, prior to recapture. If the method and location of recapture from storage is to exchange with other groundwater producers in the Basin, when such an exchange is proposed, San Antonio Water Company and the other Party will need to submit appropriate water transfer forms, which include the recapture plan.

WEI performed a Material Physical Injury analysis of the Application for Recharge. WEI prepared a letter, dated February 4, 2016, which states that there will be no Material Physical Injury from the proposed Application for the recharge of San Antonio Creek water. (See Attachment 6.) The letter states that Watermaster should require the San Antonio Water Company to monitor the amount of water discharged to the San Antonio Creek, as well as sample and analyze the water quality of the San Antonio Creek water that they discharge. These data should be provided to Watermaster and Inland Empire Utilities Agency, as they are required for Watermaster accounting, regulatory reporting, and other groundwater management purposes. And, as with all water discharged into channels within the Chino Basin, San Antonio Water Company will need to coordinate their proposed diversions for recharge with the Inland Empire Utilities Agency, Chino Basin Water Conservation District, and Watermaster to ensure that their recharge activities do not interfere with other recharge operations, and that their water will be diverted and accounted for as proposed.

#### ATTACHMENTS

1. Form 2: Application for Recharge
2. Draft 2015 San Antonio Canyon Watershed Sanitary Survey Update
3. Excerpt from Opinion of Water Rights
4. Surface Water Supply Schematic for Chino Basin Recharge
5. February 2, 2016 letter from San Antonio Water Company to Watermaster: "Application for Recharge – Statement of Water Rights in San Antonio Creek"
6. February 4, 2016 letter from WEI to Watermaster: "Analysis of Material Physical Injury for the San Antonio Water Company (SAWC) Recharge Application, as submitted to the Chino Basin Watermaster on January 22, 2016"

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# San Antonio Water Company

Incorporated October 25, 1882

Serving the original Ontario Colony lands

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January 22, 2016

Ms. Danni Maurizio  
Chino Basin Watermaster  
9641 San Bernardino Road  
Ranch Cucamonga, CA 91730

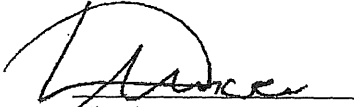
Subject: Application for Recharge

Dear Danni:

Enclosed are the forms for the San Antonio Water Company's application for recharge into Chino Basin Montclair 2, 3, 4 and Brooks Basin.

Please process our application for approval. If you have any questions, please call me at 909.982.4107.

Sincerely,

  
Charles Moorrees  
General Manager/CEO  
/cm

Cc: EUiloa/CBWCD  
File

APPLICATION FOR RECHARGE

APPLICANT

SAN ANTONIO WATER CO. Name of Party

1-22-16 Date Requested

Date Approved

139 N. EUCLID AVE. Street Address

200 Acre-feet Amount Requested

Acre-feet Amount Approved

UPLAND CA 91706 City State Zip Code

500 Projected Rate of Recharge

22 DAYS Projected Duration of Recharge

909.982.4107 Telephone:

909.920.3047 Facsimile:

SOURCE OF SUPPLY

Water from:

- State Water Project
Colorado River
Local Supplemental
Recycled Water
Other, explain

Source: SAN ANTONIO CREEK

DIVERSION OF WATER COMPANY'S SURFACE WATER RIGHTS

METHOD OF RECHARGE

PERCOLATION

Basin Name MONTCLAIR BASIN 2, 3, 4 & BROOKES BASIN

Location

INJECTION

Well Number

Location (attach map)

EXCHANGE

Facility Name

Share of Safe Yield

Carry Over-Right

Water in Storage

Pumping Capacity (cfs)

WATER QUALITY AND WATER LEVELS

What is the existing water quality and what are the existing water levels in the areas that are likely to be affected?

EXCELLENT WQ FROM SA CREEK WATERSHED - "DRAFT" SANITARY SURVEY 2015, ATTACHED. WATER LEVELS MZ-1

**MATERIAL PHYSICAL INJURY**


Is the Applicant aware of any potential Material Physical Injury to a party to the Judgment or the Basin that may be caused by the action covered by the application? Yes [ ] No [X]

If yes, what are the proposed mitigation measures, if any, that might reasonably be imposed to ensure that the action does not result in Material Physical Injury to a party to the Judgment or the Basin?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**ADDITIONAL INFORMATION ATTACHED**

Yes [X] No [ ]

  
\_\_\_\_\_  
Applicant

- DRAFT SA CREEK WATERSHED SANITARY SURVEY 2015
- OPINION OF WATER RIGHTS
- CONVEYANCE SCHEMATIC FOR RECHARGE

**TO BE COMPLETED BY WATERMASTER:**

DATE OF APPROVAL FROM NON-AGRICULTURAL POOL: \_\_\_\_\_

DATE OF APPROVAL FROM AGRICULTURAL POOL: \_\_\_\_\_

DATE OF APPROVAL FROM APPROPRIATIVE POOL: \_\_\_\_\_

HEARING DATE, IF ANY: \_\_\_\_\_

DATE OF ADVISORY COMMITTEE APPROVAL: \_\_\_\_\_

DATE OF BOARD APPROVAL: \_\_\_\_\_ Agreement # \_\_\_\_\_

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**2015**  
**SAN ANTONIO CANYON**  
**WATERSHED SANITARY SURVEY UPDATE**  
**(covering 2011 through 2015)**

for  
**San Antonio Water Company**  
**City of Pomona**  
**City of Upland**



December  
2015

Progress Draft  
for Internal  
Review



**Joseph C. Reichenberger, P.E., BCEE**  
Consulting Civil and Environmental Engineer  
Registered Professional Engineer: CA, NV, NM, AZ, HI  
529 LaMont Drive  
Monterey Park, CA 91755  
Phone (626)-437-2571  
Fax (626)-571-6099

Project Number 15-02



**2015**  
**SAN ANTONIO CANYON**  
**WATERSHED SANITARY SURVEY UPDATE**  
**(covering 2011 through 2015)**  
**Progress Review Draft**



for

**San Antonio Water Company**  
**City of Pomona**  
**City of Upland**

November 2015

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Project Number 15-02

## ABBREVIATIONS AND ACRONYMS

AWWA	American Water Works Association
AFY	Acre-ft per year
ANF	Angeles National Forest
BOD	5-Day Biochemical Oxygen Demand
CaCO <sub>3</sub>	Calcium Carbonate (standard for expressing alkalinity)
CDPH	California Department of Public Health
cfs	Cubic feet per second
CCR	Consumer Confidence Report
COD	Chemical Oxygen Demand
CT	Concentration*time product (mg-min/L)
DBP	Disinfection by-product
DBPR	Disinfectant and Disinfection by-products Rule
DF&W	California Department of Fish and Wildlife
DWSAP	Drinking Water Source Assessment and Protection
GPS	Global Positioning System
HAA5	Five Regulated Haloacetic Acids
HHS	U. S. Health and Human Services
HP	horsepower
HPC	Heterotrophic Plate Count
IESWTR	Interim Enhanced Surface Water Treatment Rule
kWh	kilowatt hour
LAC	Los Angeles County
LRAA	Locational Running Annual Average
LT2ESWTR	Long Term 2 Enhanced Surface Water Treatment Rule
MBAS	Methylene Blue Active Substances (surfactants)
MBHA	Mount Baldy Homeowners Association
MBRD	Mount Baldy Ranger District
MBSA	Mount Baldy Ski Area
MBV	Mount Baldy Village
MCL	Maximum Contaminant Level
MG	million gallons
mgd	million gallons per day
MSL	Mean sea level
MWDSC	Metropolitan Water District of Southern California
NTU	Nephelometric Turbidity Unit
PBE	Physical Barrier Effectiveness
PCA	Possible Contaminating Activity

## ABBREVIATIONS AND ACRONYMS (CONT'D)

PFP	Pedley Filter (Filtration) Plant
PUSD	Pomona Utility Services Department, Water Operations Division
PVPA	Pomona Valley Protective Association
RAA	Running Annual Average
RWQCB	Regional Water Quality Control Board
SACMSC	San Antonio Canyon Mutual Service Company
SACWTF	San Antonio Canyon Water Treatment Facility
SASF	San Antonio Spreading Facility
SAWCO	San Antonio Water Company
SBC	San Bernardino County
SUVA	Specific ultra-violet light absorption
SWTR	Surface Water Treatment Rule
TDS	Total Dissolved Solids
THM	Trihalomethane
TOC	Total Organic Carbon
TTHM	Total Trihalomethanes
TVMWD	Three Valleys Municipal Water District
UPD	Upland Water Department
UV254	Ultraviolet Light Absorption at 254 nm
WFA	Water Facilities Authority
WSS	Watershed Sanitary Survey
USACE	U. S. Army Corps of Engineers
USFS	United States Forest Service
USGS	United States Geological Survey

## SECTION 1

### INTRODUCTION

#### BACKGROUND

For water suppliers, using surface water, Title 22, California Code of Regulations Article 7, Sanitary Surveys states:

*§64665 Watershed Requirements.*

*(a) All suppliers shall have a sanitary survey of their watershed(s) completed at least every five years. The first survey shall be completed by January 1, 1996*

*(b) A report of the survey shall be submitted to the State Board not later than 60 days following completion of the survey.*

*(c) The survey and report shall include physical and hydrogeologic description of the watershed, a summary of source water quality monitoring data, a description of activities and sources of contamination, a description of any significant changes that have occurred since the last survey which could affect the quality of the source water, a description of the watershed control and management practices, an evaluation of the system's ability to meet requirements of this chapter, and recommendations for corrective actions.*

*§64665 Additional Requirements.*

*A supplier shall comply with the sanitary survey requirements specified in §64650(f)(1). [LT2ESWTR]*

A Watershed Sanitary Survey (WSS) of San Antonio Canyon was conducted for the City of Pomona, San Antonio Water Company (SAWCO), and the City of Upland (Agencies) in 1995 by Parsons and submitted to the State Department of Health Services – Drinking Water Field Operations Branch, (now the Department of Public Health), on December 19, 1995. The three water suppliers rely on San Antonio Creek as a water source for a portion of their drinking water supply. Preparation and format of the sanitary survey was based on the Watershed Sanitary Survey Guidance Manual, a 1993 publication of the California-Nevada Section of the American Water Works Association (AWWA). The 1995 WSS was updated in 2000, also by Parsons and the update included the EPA-mandated Drinking Water Source Assessment Protection Program (DWSAP) analysis. The California Department of Public Health (CDPH), the current name of the agency, Los Angeles and San Bernardino County offices performed the reviews of the previous documents. The 1995 and 2000 WSSs were prepared by Joseph C. Reichenberger PE while associated with the Parsons Corporation, Pasadena, CA.

The WSS was to be updated again in 2005. Most of the data was compiled by the City of Pomona, but was not submitted. The 2010 Update (completed in August 2011), also prepared under the direction of Joseph C. Reichenberger, PE BCEE, as an

independent consultant, included data generally from 2000 through 2010. This 2015 WSS will include data from 2011 through the end of 2015 and prepared by Joseph C. Reichenberger, PE BCEE.

## OBJECTIVES

The WSS serves as a tool in understanding the interaction between physical characteristics of the watershed and the water supply system, any changes in water quality over time, potential contaminant sources in the watershed, and current watershed control and management practices. It provides a basis for development of strategies to monitor and maintain water quality and control potential contamination in future years.

The DWSAP, which was prepared in 2000, included a delineation of the area around a drinking water source through which contaminants might move and reach that drinking water supply; an inventory of possible contaminating activities (PCAs) that might lead to the release of microbiological or chemical contaminants within the delineated area; and a determination of the PCAs to which the drinking water source is most vulnerable. This DWSAP is in the 2000 WSS and will not be updated, or included, in this 2015 WSS update as there is no change in conditions.

## CONDUCT OF THE STUDY

Joseph C. Reichenberger, P.E., BCEE conducted the 2015 WSS update of San Antonio Canyon for the Agencies. On May 13, 2015, a kickoff meeting, held in conjunction with the San Antonio Canyon Watershed Committee meeting was held at the City of Pomona Water Utility Department with representatives from Pomona, the San SAWCO and the San Antonio Mutual Services Company. At the kickoff meeting, the recommendations from the 2010 WSS were reviewed and a discussion on a proposed Environmental Impact Report Notice of Preparation (NOP) by Los Angeles County Department of Public Works which would allow hauling of potable water to parcels which otherwise have no access to a public water system or groundwater. There were a number of parcels in San Antonio Canyon that were identified in the NOP that could haul water if the proposal was adopted by the County Board of Supervisors. The Watershed Committee was concerned because this would lead to development of the parcels adjacent to the stream and the installation of more on-site wastewater disposal systems. This proposal would have an adverse effect on future water quality in the area.

The Watershed Committee provided comments on May 25, 2015 to Los Angeles County in response to the NOP and concluded with the following:

*Due to the fact that San Antonio Creek is a direct source of drinking water, the threat to water quality is significant, and the fire danger extreme, we strongly urge the County remove the parcels in the south half of the Mount San Antonio and the entire Mount Baldy quadrangle from further consideration under the Hauled Water Initiative*

On January 12, 2011, Tommy Hudspeth from San Antonio Water Company (SAWCO) met Mr. Reichenberger at the 60/40 weir box and diversion point into the pipelines leading to SAWCO (City of Upland) and the City of Pomona. On that same day, Mr. Reichenberger was able to drive the watershed from the intake to the Mt. Baldy Ski Lift Parking Lot and to the Ice House Canyon Parking Lot. The stream had significant flow and it was not advisable to take a conventional sedan across the creek to view the cabins in Barrett Canyon and elsewhere. The Mt. Baldy Ranch RV Park

adjacent to Glendora Ridge Road at Cow Canyon Saddle was also driven by. There was little activity at the RV park this time of the year.

On January 12, 2011, Mr. Reichenberger met with Colin Sked of the San Antonio Canyon Mutual Service Company (SACMSC) to discuss the wastewater systems the service company maintains.

On January 19, 2011, Mr. Reichenberger met with Nick Capogni at the City of Pomona's Pedley Water Filtration Plant to discuss plant operational changes and physical changes that have occurred since the plant was upgraded in 1998. On that same day, Mr. Reichenberger met with Mark Wiley and Nate Pendergraft at the Mt. San Antonio Water Treatment Plant and went over plant operation and physical changes.

Mr. Reichenberger contacted the California Department of Public Health (CDPH) Los Angeles, (Jeff O'Keefe), and San Bernardino office (Sean McCarthy) on January 31, 2011 to identify any concerns or issues the CDPH might have.

On March 18, 2011, Mr. Reichenberger met with L'Tanga Watson, District Ranger, and James Garner, Special Uses Administrator, for San Gabriel River District of the Angeles National Forest to solicit their input into the WSS and provide updates on the USFS activities.

On April 6, 2011, Mr. Reichenberger met with the Watershed Committee at their regular meeting at the SAWCO office and discussed the findings of the WSS as of that date.

On June 23, 2011, Mr. Reichenberger had a telephone conference with Ms. Teri Layton and Mr. Charles Moorrees of SAWCO to discuss the pre-final draft.

The products of these discussions are incorporated into the WSS update.

## **ORGANIZATION OF THE REPORT**

This WSS is organized as follows:

Section 2 contains a summary of the 2010 WSS including its findings, conclusions, and recommendations

Section 3 contains a summary of the principal activities/actions/facilities within the watershed and treatment facilities that have occurred since the 2010 WSS

Section 4 presents a summary of the water quality data from year 2011 through 2015 and comments on the changes if any.

Section 5 presents a discussion of principal upcoming regulations and any potential issues meeting those regulations

Section 6 presents a summary of findings, conclusions, and recommendations resulting from this 2015 WSS

## **AUTHORIZATION AND ACKNOWLEDGEMENTS**

The City of Pomona Water Utilities Department authorized Joseph C. Reichenberger P.E. BCEE, Monterey Park, CA, to prepare the WSS update through a professional services agreement dated October 12, 2015 based on a proposal presented to the City by Mr. Reichenberger dated February 8, 2015. The work was prepared under the direction of Joseph C. Reichenberger, P.E. BCEE. The work could not have been

## San Antonio Canyon Watershed Sanitary Survey Report

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completed without the cooperation of Nick Capogni, Water Treatment Supervisor, and Damian Martinez, Sr. Management Analyst, from the City of Pomona; Ms. Rosemary Hoerning, Public Works Director and Nate Pendergraft, City of Upland; and Charles Moorrees, General Manager, Tommy Hudspeth, and Ms. Teri Layton, Assistant Manager of Administration and Finance, San Antonio Water Company.

## SECTION 2

# WATERSHED CHARACTERISTICS, WATER SUPPLY SYSTEMS AND SUMMARY OF 2010 SANITARY SURVEY

This section contains a description of the watershed, water supply systems, wastewater disposal systems

### WATERSHED AND WATER SUPPLY SYSTEM

#### Watershed

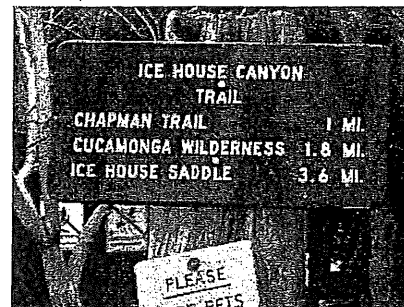
The San Antonio Canyon Watershed, located north and upstream of San Antonio Dam, near Upland, California has a total drainage area of 26.7 sq. mi. Principal features mentioned in this WSS are shown in Figure 2-1. The watershed is within the Mount Baldy Ranger District of the Angeles National Forest and is split between Los Angeles and San Bernardino Counties. The topography of the watershed area is very mountainous and rugged. Elevations in the watershed area range from 10,064 feet above mean sea level on Mount San Antonio in the north to 2,180 feet at San Antonio Dam in the south. Much of the watershed is granitic rock and quartz diorite; alluvium is found in the canyon bottoms.

San Antonio Creek has substantial slope varying from over 40 percent (2,100 ft/mile) at its headwaters on the face of Mt. Baldy to 7 percent (370 ft/mile) at the Lower Intake to the City of Pomona/SAWCO raw water pipeline. The canyon sides are very steep – typically 2.5:1 (H:V) or steeper. The steepness of the watershed results in rapid changes in stream flow and quality in response to rainfall. Residence time in the watershed is very short. Travel time in San Antonio Creek from the upper developed area at the Mt. Baldy Ski Area to the Lower Intake is only on the order of 4 hours (about 1.6 miles/hr). So if something happens in the watershed there is not much time to react to shut off the intake.



#### Land Use

Major land uses in the watershed include recreation, forestry, and low density urban use. Located near the highly populated Los Angeles Metropolitan Basin, the Angeles National Forest receives the second highest visitor numbers of national forests in California. According to data from the U.S. Department of Agriculture, national visitor monitoring program, Angeles National Forest receives over 3.6 million visits per year, with over 1.4 million using day use facilities.





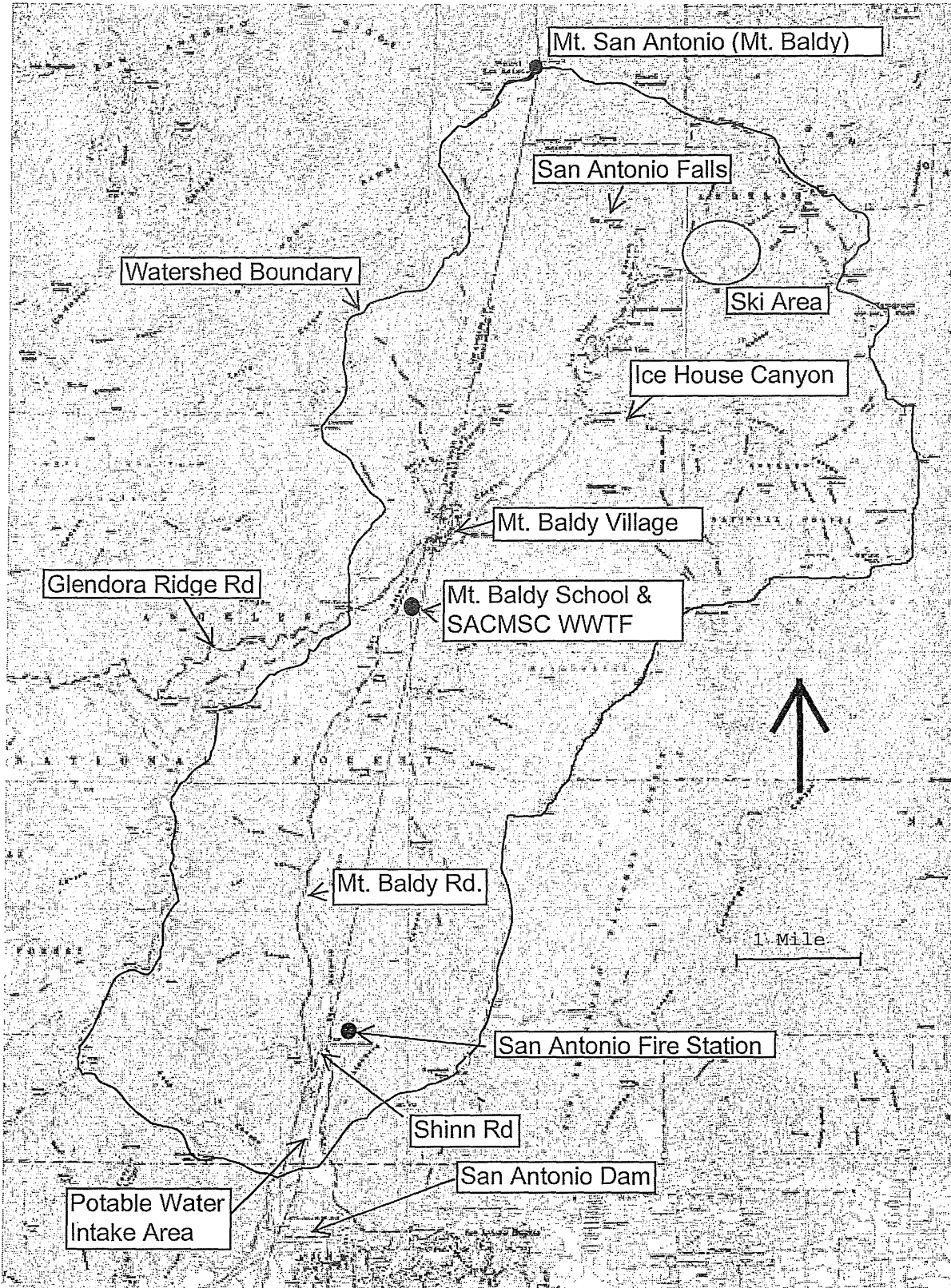


Figure 2-1  
Principal Features and Facilities Within San Antonio Creek Watershed

Recreational activities in the watershed vary depending on season and include: skiing, sledding, hiking, backpacking, mountain biking, horseback riding, driving for pleasure, family and group camping, fishing, wading and picnicking. Recreational cabin use is administered by the USFS through special use permits.

Attractions to the area are Mt. Baldy Village, San Antonio Creek, Mt. Baldy Ski Area, the USFS campground at Manker Flats, numerous trails, and the "non-permanent" resident cabins under special use permit from the USFS. Entry into the forest areas of the watershed is unrestricted. One low density urban area, Mt. Baldy Village, is located within the watershed boundaries. The village is the main population center in the watershed, but other smaller communities (cabin tracts) exist in Barrett Canyon, Bear Canyon, Icehouse Canyon, Glacier, Manker Flats, San Antonio Falls, Upper San Antonio Falls and near the Mt. Baldy Ski Area. Mt. Baldy Village includes private residences, two restaurant lodges, a private trout fishing pond facility, a school, a church, and a few small businesses.

The primary land owner in the watershed is the USFS. The percentage of land owned by the USFS is approximately 85 percent of the total watershed area. Except for Mt. Baldy Village, where the land and the cabins are privately owned, all cabins located on USFS property are privately owned by and only allowed to be occupied under a special use permit on a non-permanent basis.

Access to the watershed area is through only two major roadways. Mt. Baldy Road enters from the City of Upland to the south and Glendora Ridge Road enters from the west. Both roads meet at the southern edge of Mt. Baldy Village; Mt. Baldy Road continues north from there to the end at Mt. Baldy Ski Area. Numerous fire roads are located throughout the watershed; access roads lead from Mt. Baldy Road to the canyon floor at a few locations.

The mountains and hills of the San Antonio Canyon Watershed have been formed in recent geological time; shallow, coarse and infertile soils cover most of the steep slopes and surfaces in the canyon. Much of the watershed is prone to erosion and landslides.

Numerous species of wildlife inhabit the watershed area. Near the canyon floor, dense vegetation provides excellent habitat for wildlife and protects the streambeds from erosion. On steeper, and often rocky slopes, vegetation is scarce with trees and brush scattered on the hillsides.

The watershed has cool, wet winters and hot, dry summers. Approximately 95 percent of the rainfall occurs from November through April. Normal precipitation is from 18 inches in the lower elevations to 40 inches in the higher elevations; the latter often in the form of snow. San Antonio Creek maintains year-round flow in years with normal rainfall.



## Water Supply Systems

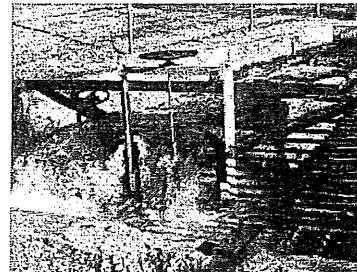
Figure 2-2 shows the principal water supply facilities in watershed.

### *San Antonio Water Company (SAWCO)*

San Antonio Water Company, a shareholder-owned mutual water company, produces and delivers potable water to 1,199 metered accounts (with potable water service to 3,371 people) within the unincorporated San Antonio Heights area located north of the City of Upland (Moorrees and Layton, 2011). It also produces and delivers both potable and untreated water to the Cities of Upland and Ontario, local irrigators, private country clubs, and aggregate plants.

Water from San Antonio Creek is diverted by SAWCO from the stream at three intakes along the San Antonio Creek. The upper and middle intakes, maintained by Southern California Edison Company (SCE), collect the stream flow for use at three hydroelectric generating plants located downhill from the upper intake. Water from the upper intake is first piped to the Edison Ontario No. 2 Hydroelectric Plant, located near the Mt. Baldy Road turnoff to Barrett and Stoddard Canyons. From this plant, the water is then piped to the Edison Sierra Hydroelectric Plant located along the floor of San Antonio Canyon approximately one mile further downstream. At this location, a second intake structure collects additional creek flows to be combined with the upper intake water exiting the Sierra Hydroelectric Power plant. The combined flow then travels in a pipeline to the lowest Edison plant, Ontario No. 1 Hydroelectric Plant, located about one-quarter mile downstream of the Lower San Antonio Ranger Station.

At this point, there is a third intake that collects additional creek water by means of a diversion structure through the “wood gate.” This diverted water first enters a settling pond where any sand and similar particles drop out. The settled water then flows into a weir structure where it is combined with the water exiting the Edison Ontario No. 1 Plant (when it is operating). During times when the hydroelectric power facilities are not operated, this surface intake is used. The weir structure serves to combine the flows and then distribute the water for delivery to SAWCO and the City of Pomona. The “60/40 weir” splits the flow between SAWCO (60%) and City of Pomona (40%) into their respective lines. SAWCO has separate water systems for irrigation customers and for domestic (potable) water customers. The irrigation water source is the 60/40 split box; the domestic source is a deep-rock tunnel which follows under San Antonio Creek for some distance up the canyon capturing infiltration beneath San Antonio Creek.



SAWCO transports their irrigation water in a pipe under the creek to the eastern side of the San Antonio Creek wash. The water flows through a V-screen to filter out any debris and then into a forebay structure. Excess flow from the infiltration tunnel can also be taken into the irrigation system supply. SAWCO delivers the water to various irrigators, the City of Upland’s San Antonio Canyon Water Treatment Plant, to a groundwater recharge in San Antonio Wash below the San Antonio Dam for spreading, and to Cucamonga Canyon Wash per a stipulated decree.

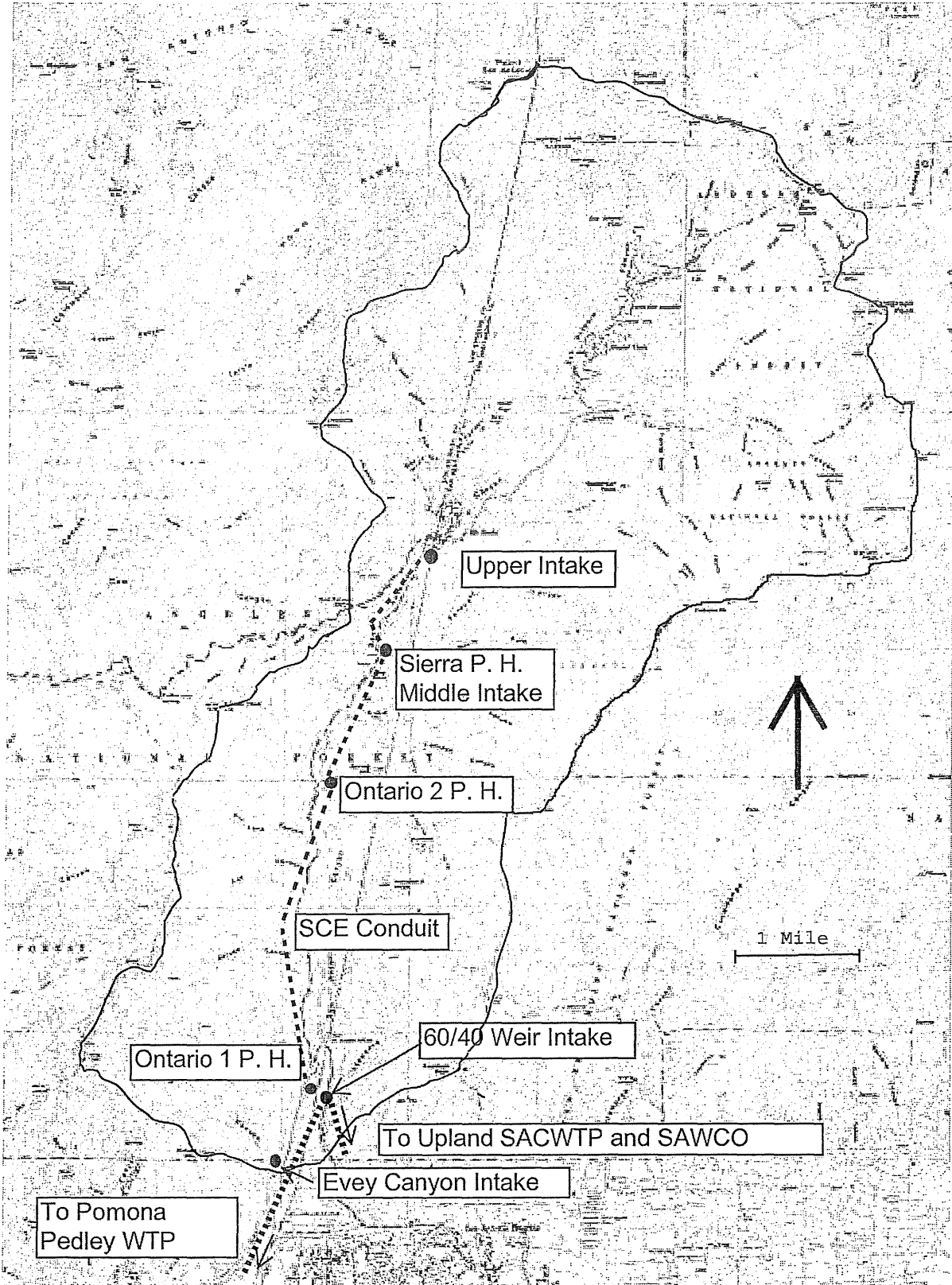


Figure 2-2  
Principal Water Supply Facilities Within San Antonio Creek Watershed

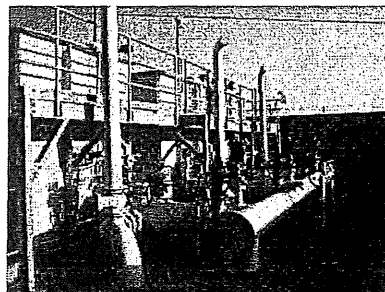
The specific pipeline which carries water from the 60/40 weir structure to SAWCO's forebay structure varies in age from fifteen to fifty-six years old. The current pipeline is a series of replacements over time dating back to the flood damage of 1938. SAWCO's potable water system has 4 reservoirs/tanks, 3 wells, and 6 booster pump stations; the irrigation system has 3 reservoir/tanks, 7 wells and 3 booster pumping stations

The facilities operated by SCE have been actively used since the early 1900's. The piping to the upper Ontario No. 2 plant went into service in 1919. This pipeline is a mix of steel and concrete pipe. The middle Sierra plant began operation in 1901 and the lower Ontario No. 1 plant was built in 1902. According to SCE officials in 1995, the only replacement of pipe in this stretch occurred in 1957, when a 132 foot piece was replaced due to storm damage. Based on the age of the SCE facilities, the SCE system is believed to have a potential for failure.

### ***City of Upland***

The City of Upland's San Antonio Canyon Water Treatment Plant (SACWTP) was constructed in 1989 and came on line in March 1990. A plant upgrade was completed in 2008. The plant has three Neptune Microfloc® package water treatment units operated in parallel. When the raw water enters the treatment facility, coagulants (aluminum sulfate [alum] and cationic polymer) and chlorine are added in a static mixer. The coagulated water then flows through a flow splitting structure which divides the flow equally to each of the three package treatment units. On entering the treatment units, the water flows through an upflow clarifier with tube settlers, where flocculation and sedimentation occur, and then downflow through a dual media (sand-antracite) gravity filter. The filtered water then flows to a clearwell. Chlorine can be added to the flow entering the clearwell.

The dual media filter system has both surface wash (rotating) and auxiliary air scour and filter-to-waste provisions. After each filter backwashes, the filter operates in filter-to-waste mode for 25 to 30 minutes to allow the filter to "ripen." The filter media has been replaced twice since the plant was new. The chlorination system is a Miox on-site sodium hypochlorite generation system. The plant has a 5.5 mgd treatment capacity but can provide CT to 6 mgd if necessary. The plant has 1720E low range turbidimeters with SC100 controllers to monitor influent turbidity, individual filter effluent turbidity and combined filter effluent turbidity. These were installed in the 2008 upgrade.



Waste backwash water and filter-to-waste flows to a series of lagoons on site for settling; the overflow is percolated by SAWCO. Waste wash water is not returned to the plant.

An alarm is initiated at 15 NTU influent turbidity and the plant shuts down at 20 NTU. Greater than 0.1 NTU in the filtered water could cause the plant to shut down also.

A standby generator is on-site and can provide emergency power for the entire plant. There is also space and piping to add a fourth package treatment unit to expand plant capacity if desired.

Treated water leaves the SACWTP and is stored in Reservoir No. 2, a 5 MG reservoir located in the upper zone of the Upland's water distribution system.

In addition to the water supply from SAWCO, the City of Upland also uses groundwater and receives treated State Project Water from the Water Facilities Authority (WFA). The State Project enters the City supply system in its Pressure Zone 3 and reportedly will exhibit a bump in the TTHMs (Pendergraft, 2011)

The City of Upland Water Department supplies treated drinking water to 67,000 persons located in the City of Upland and in a small, unincorporated area bordering the southwestern half of the city limits. The facilities maintained by Upland include 10 well pumps, 17 reservoirs, and the SACWTP.

### ***City of Pomona***

The City of Pomona conveys their water to the Pedley Filter Plant in a pipeline from the 60/40 box along the western side of the canyon. Before the pipe travels under San Antonio Dam, surface flow from Evey Canyon is diverted into the main pipe and conveyed, with the water from the 60/40 box, to the Pedley Filter Plant for treatment.

Pomona's Pedley Filter Plant was upgraded and modified to comply with the Surface Water Treatment Rule with the upgraded plant coming on line in 1998. Some upgrades and operation changes have been made to the plant since then.

Raw water from the canyon is screened to remove coarse particles and debris. Alum, polymer (optional), and sodium hypochlorite are added in a flash mix basin. The water flows into a "Superpulsator®" solids contact clarifier for removal of turbidity. The settled water flows into a baffled chlorine contact basin designed to provide sufficient retention time to meet the Surface Water Treatment Rule's CT requirements prior to filtration. The filter is a travelling bridge type that was modified as part of the 1998 upgrade to include filter-to-waste provisions. The filtered water is chlorinated and discharged to a 3.5 MG on-site prestressed concrete reservoir. The reservoir was installed with the upgrade in 1998. A second 3.5 MG clearwell was installed sometime after 2000. Hypochlorite can be added to the treated water after the clearwell reservoirs if needed.

Spent filter washwater and sludge from the Superpulsator® mix in a common sump and pumped to a decant tank for separation. The decant overflows to an adjacent spreading basin and recharged to the groundwater. No backwash water is currently recycled as problems were observed by the plant operators when this was done (Capogni, 2011a).

Raw water turbidity is continuously monitored and automatic shutdown of the plant occurs if high raw water turbidity is experienced for a preset time period. The Pedley Filter Plant Operational Permit allows for taking untreated water from the canyon up to 10 NTU before the Filter Plant automatically shuts down (Capogni 2011b). Water which is not treated in the plant is diverted to percolation ponds on site.

Process monitoring includes continuous turbidity measurement and particle counters. The plant has a Hach 1720E low range turbidimeter with SC100 controller, and new particle counters and chlorine residual analyzers which replaced equipment installed with the 1998 upgrade. The plant also monitors pH continuously. Operators perform jar testing about once per month, sometimes more often, depending on water quality.

An emergency standby generator has been installed and operates the plant during power outages. This was added since the 1998 upgrade.

Treated water leaves the Pedley Filter Plant clearwell reservoirs and flows to the rest of Pomona's water system. The City of Pomona provides drinking water to approximately 139,000 persons located in its service area and the City's facilities include 36 active wells and 18 active reservoirs. The City of Pomona supplements its supply with treated water from the Metropolitan Water District of Southern California (MWDSC) which provides a blend of Colorado River Water and State Project Water, as well as treated State Project Water from Three Valleys Municipal Water District (TVMWD) as needed.

Portions of the pipeline which runs from the 60/40 weir structure to Pomona's Pedley Filter Plant are approximately 100 years old. The line still functions properly, although some of the valves near the Pedley Filter Plant are in need of replacement due to the fact they occasionally seize up from infrequent use. Even though the line flows by gravity, the City of Pomona never lets the water back up in the pipeline for fear that the increased pressure would cause breaks in the aging pipeline. Since 2007 the City of Pomona replaced 3,800 ft of the pipeline above San Antonio Dam and repaired/replaced 20 ft of pipeline that is below the dam. The City's plans are to continue to replace portions of the aging pipeline.

### **Water Sources and Rights**

The surface water rights in San Antonio Canyon are based upon a series of adjudications between various water companies. These are described in detail in the 1995 Watershed Sanitary Survey and are not repeated here.

### **Emergency Plans**

The USFS San Gabriel River Ranger District has a Disaster/Emergency Response Plan which describes those actions for the immediate protection of life, property or natural resources which are threatened by major disasters and emergencies.

SAWCO does not have a written emergency plan, but conducts a physical observation of its facilities in the event of an emergency. During reconnaissance for a reported emergency, officials from SAWCO investigate key delivery points in the company's system and make needed corrections to handle the situation. If the water supply to customers or if other agencies are affected by the emergency, then SAWCO notifies them and coordinates appropriate response actions.

The City of Pomona and the City of Upland have developed a Water Quality Emergency Notification Plan per CDPH requirements. To avoid breaches of confidentiality, these Plans are not included in this document.

## **2.2 POTENTIAL CONTAMINANT SOURCES IN THE WATERSHED**

Wastewater is treated in on-site systems with subsurface disposal exclusively. There are two "large" systems. One system is owned by the San Antonio Canyon Mutual Service Company (SACMSC) which serves a portion of the Mt. Baldy Village and the second is owned by Mt. Baldy School. Both are maintained by the SACMSC. Since the 2000 WSS update, each of these disposal systems have been issued discharge permits from the Los Angeles Regional Water Quality Control Board. They were issued

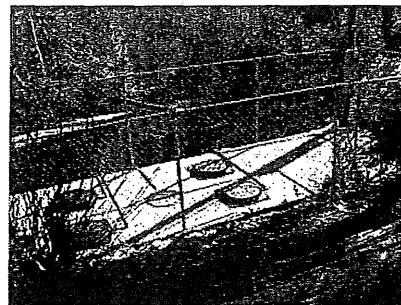
in 2001 under General Order 01-031—"Waste Discharge Requirements for Small Commercial and Multifamily Residential Subsurface Sewage Disposal System." As part of that order quarterly monitoring reports and an annual summary report are to be submitted to the Regional Water Quality Control Board. The quarterly reports must include the monthly average daily flow, population served, and a summary of the latest quarterly observation of the disposal field for overflows or surfacing of wastes. Also an annual operations and maintenance report is required. The Order requires quarterly surface water sampling and analysis of San Antonio Creek upstream and downstream of the system and just upstream of the SCE intake. Sampling and analysis of the creek water is for total and fecal coliform and nitrogen species (Regional Board, 2001). The Regional Board considers the waste treatment system a minor threat to water quality. These reports are public information and are available at the Regional Board's offices in Los Angeles.

All of the other systems are individual systems maintained by the parcel owners and permitted by either Los Angeles County or San Bernardino County Departments of Building and Safety depending on location. Most of the septic tank systems serving the cabins are old and little information exists on the condition of the systems. The USFS does monitor the special permit cabins on a semi-annual basis with its "prevention officer." The prevention officer has two primary responsibilities – fire prevention and water quality protection. A second individual works with the cabin owners to ensure compliance. Based on this vigilance and due diligence by the officers in observing malfunctioning wastewater disposal systems, the water quality concerns from the cabin wastewater disposal systems is minimized.

The water supply agencies want to make sure the individuals from the USFS who do the monitoring are trained in the water quality aspects. The training should be done in cooperation with the Agencies. The Agencies also request the USFS keep records of when the special permit cabins' septic tanks are pumped or otherwise modified or replaced. The latter should only be done under permit from the appropriate County agency. Copies of these records should be provided to the Watershed Committee on an annual basis.

### **Wastewater from Mt. Baldy Village**

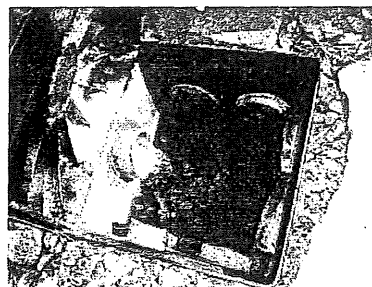
The SACMSC sewer system consists of main collector sewers with individual lateral connections to customers' houses. The system serves 52 homes, generally south of Central Avenue. A gravity trunk sewer runs along the western bank of San Antonio Creek and flows by gravity to a 12,700 gallon, two chamber, septic tank (first tank) installed in 1991. According to SACMC the average daily flow is about 8,000 gallons/day. The location is along Mt. Baldy Rd. about 1,200 ft south of the intersection of Glendora Ridge Rd. and Mt. Baldy Rd. This tank was recently retrofitted with a Pirana™ Aerobic Bacteria Generation System. The first chamber consists of an aeration system containing five submerged pumps each with a small compressed air blower. The pumps circulate the liquid through sacks of a proprietary blend of bacteria and aspirate air (oxygen) into the liquid. The contents of the chamber are vigorously circulated. The second chamber contains a single Pirana™ unit. The pumps and blowers maintain an





aerobic environment without the customary septic odors. The effluent from the first tank flows about 500 ft downstream, by gravity, in a pipe, to a 500 gallon tank (second tank) located adjacent to Mt. Baldy Road on the Mt. Baldy School site. From there the flow is by gravity, another 500 ft under Mt. Baldy Road to a drop structure located on the north side of the main leach field (leach field #3). From the drop structure, the flow passes through a distribution structure, which has adjustable outlets, to balance the flow to each leach field lateral. Leach field #3 was constructed around 1990 and consists of about 5 laterals, each about 100 ft in length. They were inspected by closed circuit TV a few years ago and found to be in very good condition (Sked, 2011). This leach field is on the west side of Mt. Baldy Road about 400 ft laterally from San Antonio Creek. It is not in any danger of being washed out and is sufficiently far removed from the Creek to have any impact.

The Pirana™ tank was observed on January 12, 2011 and found to be without septic odor and no scum or crust typically found on septic tanks. The contents appeared to well mixed. The effluent quality from the treatment system was observed in the distribution box at leach field #3 and found to be relatively clear (Reichenberger, 2011a).



The SACMSC has 2 other leach fields in addition to the main field; leach field #1 is located just south of the Pirana™ units; leach field #2 is located on the school site. Leach fields #1 and #2 are used only as standby. Leach field #1 is over 150 ft from the nearest watercourse; leach field #2 is at least 220 ft from San Antonio Creek.

The SACMSC still has their original septic tank system, constructed in the mid-1930s, as standby near the 12,700 gallon tank. Although the wastewater flows in by gravity to this old system, it has to be pumped out. This is why it is not used any longer, but kept for emergency purposes. The pumps have gasoline engine drives.

The 12,700 gallon septic tank and the standby septic tank and pump sump are located approximately 100 feet from the creek and directly upstream from the upper Edison intake in a fenced area below Mt. Baldy Road and north of the school playground.

In past sanitary surveys, there was concern for the septic tank systems due to their age and proximity to San Antonio Creek and the SCE intake, which during summer months is the primary source of water at the 60/40 weir box. However the current system appears to have adequately mitigated these concerns primarily with the installation of an "all gravity" system. However it is important the collection system be maintained to prevent any backups and sewage spills from the manholes. The installation of the gravity system for effluent disposal and the location of the third leach field are all positive mitigation measures. The fact that reports of the system operation are required by the Regional Board helps to ensure the systems are properly operated and maintained.

The systems have never leaked or caused contamination of the creek according to SACMSC officials. The potential for wastewater discharge into surface waters in the watershed is a minor problem which could only occur if there were failure in the leach fields serving the facility. This appears remote with the current treatment system.

### **Wastewater from Mt. Baldy School**

The school has an on-site, conventional septic tank system, maintained by SACMSC. The leach field is located under the volley ball court/parking lot about 200 feet west of San Antonio Creek. The system is pumped out about every 5 or 6 years (Sked, 2011). The system is located uphill and approximately 300 ft from the upper Edison intake located on San Antonio Creek. With this system having a waste discharge permit with required monitoring and reporting to the Regional Board, there is some assurance the system will be properly maintained. So wastewater contamination from this system is remote.

### **Other Septic Tank Systems in the Watershed**

Septic tank systems are widespread and divided into four categories (Mt. Baldy Village (those not connected to the SACMSC), private canyon residences, Forest Service general use, and Forest Service special permit cabins for the purpose of this survey. The respective County Health Departments inspect the septic systems and respond, (when called), to failures and complaints in San Antonio Canyon. The USFS has a prevention officer who patrols the area twice a year and looks for brush clearance and water quality issues. It is stated by the USFS that there is follow-up through a second person to ensure compliance. A request was made to the USFS to determine if a record of the patrols, observations, and the compliance orders is available (Reichenberger, 2011b). A follow-up email was sent to the USFS on April 8, 2011; to date, the USFS has not responded.

#### ***Mt Baldy Village (not SACMSC) and Along Mt. Baldy Rd.***

In Mt. Baldy Village, all houses and businesses, which are not members of SACMSC, have individual septic or graywater systems. Most of the homes in Mt. Baldy Village with septic systems are not located near surface water routes and therefore do not represent possible direct surface contamination sources as a result of overflow. The closest lots are about 150 ft from the creek which provides some protection. However groundwater seepage from leaking septic tanks and overloaded leach fields could be a source of contamination. There are a number of homes located adjacent to the minor tributary, Bear Canyon. Homes which are close to a watercourse present a possible source of contamination should one of the home's septic systems overflow or leak.

Private residences outside of Mt. Baldy Village are located throughout the watershed. Starting from the south, two ranches (Brant and Wingate) are located near the creek and north of the Mt. Baldy Road/Mountain Avenue intersection (the road to Stoddard and Barrett Canyons). The two ranches were visited (in 1995) and found to be located a sufficient distance from the creek to reasonably prevent surface contamination from septic tanks. However, due to the fact that the ground is typically sand and gravel and becomes saturated during periods of heavy rain and high flows in the creek, the possibility for groundwater contamination from a faulty septic system is not ruled out. Future construction (and replacement of existing structures or systems) should not be allowed in close proximity to perennial or ephemeral streams and wastewater disposal systems shall have adequate setback distances per the building codes of the Counties of Los Angeles and San Bernardino. (San Bernardino County requires 100 ft and 50 ft respectively for perennial and ephemeral streams. The septic tank itself needs to have at least a 50 ft separation. Measurement is from the 100-yr flood level (San Bernardino, 2007).)

Directly north of the village on Mt. Baldy Road is the Buckhorn Lodge. The lodge, which opened in 1910, is open year round and includes a motel located across the Mt. Baldy Road. The septic system was reported in the 1995 WSS to be 10 or less years old for the motel, but the lodge has been at that site for many years and the septic tank system condition is unknown. North of the lodge and across the creek bridge is a private fishing pond operation and residence on the east side of the road. The potential for contamination is not likely to occur from the private park because the location is several hundred feet from the creek. Emptying of the ponds could be a water quality concern, but no one was available to discuss the operation of the ponds since the business was closed until the summer.

Following Mt. Baldy Road north to Icehouse Canyon, there are numerous homes with septic systems. The back of the houses overlook the canyon creek. Due to the fact the homes are adjacent the stream is a cause of concern and the potential for contamination from these homes should be noted. Refer to the statement above relative to siting facilities near streambeds.

Residences and lodges are also located further north on Mt. Baldy Road up to the Snowcrest area. The Mt. Baldy Zen Center and Snowcrest Lodge both operate cabin rentals, but the stream appeared to be far enough away from the lodges to be impacted by wastewater disposal. Other homes were noted along Mt. Baldy Road between Icehouse Canyon and the ski area. These homes pose little or no threat due to septic tank contamination because generally the creek is located in a deep ravine over 150 feet from the nearest homes.

#### ***U.S. Forest Service Facilities***

The Forest Service operates several general use facilities which serve recreational visitors in the canyon. See Figure 2-3 for recreational facilities in the Upper San Antonio Canyon area. The lower San Antonio Fire Station at Shinn Road has restroom facilities, but the exact location of the septic system could not be determined. An inquiry was made to the USFS to determine if the location had been ascertained and if there were any records of pumping and maintaining the septic tank system. No clarification has been received (Reichenberger, 2011b). The Mt. Baldy Visitors Center, located in Mt. Baldy Village, has a restroom with leach system with a design capacity to handle the four or more busloads of children which visit the center daily. The center is also located several hundred yards from the creek across Mt. Baldy Road and does not present a likely potential for contamination.

**Mt. Baldy Recreation Area**  
 Sari Gabriel River Ranger District - Angeles National Forest

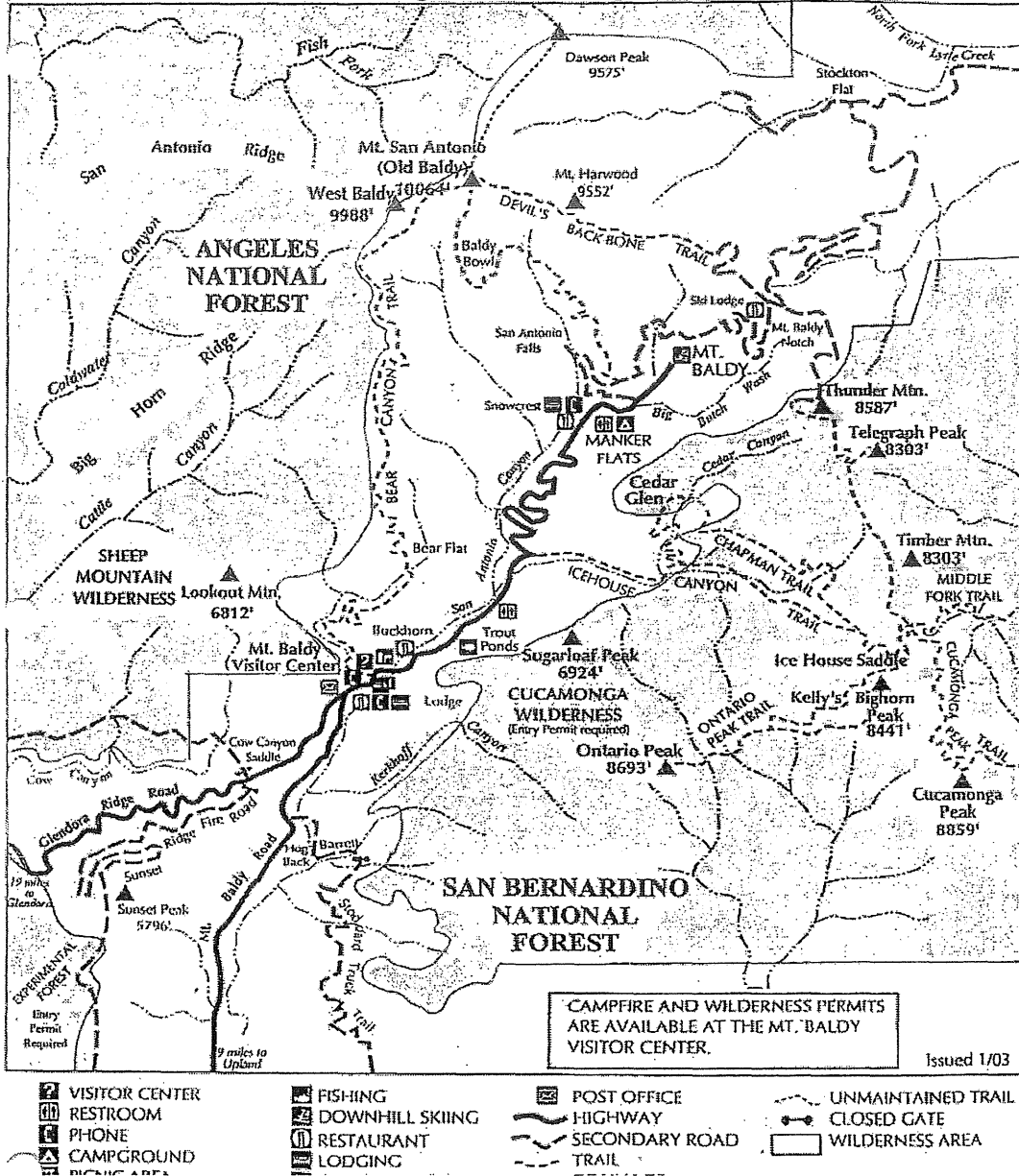
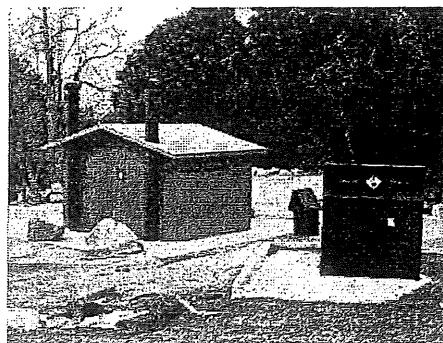


Figure 2-3  
 Recreational Facilities in Upper San Antonio Canyon

One public restroom facility exists north of the village on Mt. Baldy Road, but it too is located several hundred yards from the creek and is not considered a potential contamination source. Further north on Mt. Baldy Road is Mt. Baldy Wayside Picnic Site, a picnic area with vault toilet facilities located south of the Icehouse Canyon turnoff. This is not believed to be a contamination hazard due to its location several hundred yards from the creek. Manker Flats Campground, located in the upper reaches of the San Antonio Canyon, has restroom facilities (vault toilets). The campground has approximately 21 campsites for overnight camping, but is only opened on a seasonal basis from spring to fall. A dry wash is located behind the campground, but the area is not believed to be a significant threat because it has no normal surface flow. There are restroom facilities (vault toilets) at the Icehouse Canyon Trailhead. At the end of Mt. Baldy Rd., at the ski area parking lot, there some portable toilets available for use.



Approximately 120 recreational special use permit cabins are in the watershed area on federal land operating under a Special Use Permit which limits their use to other than permanent, i.e. weekend or vacation use. However some of the cabins are likely occupied year around. The USFS tries to enforce the “non-permanent” use, but it is difficult to determine if occupied on a full time basis when an “inspection” is made only about twice a year. With the statewide emphasis of water conservation and the mandate to reduce per capita water consumption by 20 percent by 2020, meters should be installed on all water services. Occupancy can be determined based on typical “per capita” water use in the area. The meters only would need to be “read” annually. This would help the USFS with enforcement of the permit provisions.

The cabin tracts are:

- Bear Canyon
- Barrett Canyon
- Glacier
- Icehouse Canyon
- Manker Flats
- San Antonio Falls
- Upper San Antonio Falls

The USFS monitors the cabins and the cabin residents reportedly tend to “self-police” themselves to ensure the conditions of the Special Use Permit are complied with and cabins are kept up, trash is contained etc. (USFS, 2011). As stated previously, the prevention officer walks the cabin tracts twice per year with a follow-up by a second USFS staff person to ensure compliance. If there is a non-compliance issue, the USFS will work with the cabin owner to develop a plan for compliance and if necessary suspend the Special Use Permit. If there is no compliance, the USFS will revoke the Special Use Permit and require the cabin owner to demolish the cabin and remove the debris at the cabin owner’s expense.

During the preparation of the 1995 WSS, it was reported the USFS did not intend to renew the Special Use Permits for the cabins. However, in 2008, the USFS did renew the permits for another 20 years. The USFS did state that if a cabin is 50% or more destroyed it cannot be rebuilt. However, if the damage is not due to the cabin owner's negligence, the USFS will try to find an "in lieu" parcel on which the cabin can be reconstructed. The USFS first completes an environmental evaluation of the parcel to ensure there are no endangered or threatened species. All reconstruction must be in conformance to County of Los Angeles or County of San Bernardino building requirements. The new cabins must meet all current building codes (USFS, 2011).

At the time research was being conducted for the 1995 WSS, the USFS was conducting a flood plain study of the Angeles National Forest. As part of the study, the cabins located in San Antonio Canyon Watershed were to be included and more detailed information on the condition of the cabins and their sanitary waste systems would be available upon completion of the study. In meeting with the USFS, they have no recollection of this study (USFS, 2011).

Currently fewer than 20 cabins are located in Barrett Canyon, as compared to 31 cabins under Special Use Permit in the area during 1953. (Sanitary Survey, 1953) It is clear that the number of cabins is declining over time. Most of the cabins are accessible by automobile from the Mountain Avenue turnoff on Mt. Baldy Road. Many of the cabins are only 50-100 feet from the streambeds of tributaries and septic and greywater systems may be a concern as a source of contamination to the streams. Numerous stream crossings were also encountered during the investigation of the canyons, thereby raising the issue of increased turbidity in the streams due to vehicular traffic and the potential for washing oils, vehicle lubricants, and other contamination in the stream at the crossings. These cabins were not inspected in the current WSS (2010) update due to high stream flows. However, as stated previously, the USFS prevention officer visits the cabins semi-annually and monitors for brush clearance and water quality concerns.

Further north in the upper San Antonio Canyon, the Forest Service cabins appear to be less of a hazard. The creek in the northern area is generally farther from the cabins and flows are more seasonal depending on the amount of precipitation and snowfall.

## **WATERSHED CONTROL AND MANAGEMENT PRACTICES**

The management of the USFS lands in the San Antonio Canyon Watershed is the responsibility of the San Gabriel River Ranger District of the Angeles National Forest. The San Gabriel River Ranger District Office is in Glendora. The Angeles National Forest is administered through four Ranger Districts; the supervisor's office for the forest is in Arcadia. All recreation, timber, fire management, mining, and other activities come under the responsibility of the District Ranger.

In addition to the USFS land in the watershed, private land owners are responsible for management of their own lands and conformance to local laws and regulations. While the USFS land is controlled by national policies, both public and private lands in the San Antonio Canyon come under jurisdiction of San Bernardino or Los Angeles County, depending on the location of the property. As a result, County and State of California officials enforce respective regulations and laws in the watershed concerning permits, operation, compliance, and safety of facilities used for drinking water, wastewater disposal, and general building construction. Still other organizations

such as the Agencies, SCE, Mt. Baldy Home Owners Association, and San Antonio Canyon Mutual Service Company play active roles as managers of their own facilities.

The *Land Management Plan, Part 2, Angeles National Forest Strategy* (USDA, 2005) provides management policies and actions for the San Antonio Canyon Watershed.

Two counties divide San Antonio Canyon as well as Mt. Baldy Village. In San Bernardino County (SBC) and Los Angeles County (LAC), the drinking water regulations for the systems used by MBHA and SACMSC are enforced by the California Department of Public Health (CDPH) located in San Bernardino. The San Bernardino District of the DPH regulates water systems that serve 200 or fewer persons and inspections of the canyon systems are made by officials of the CDPH. Regulations governing the City of Pomona are enforced by the Los Angeles District of the CDPH; the City of Upland's Water Treatment Plant by the San Bernardino District of the CDPH. Septic tank permitting in the San Bernardino County portion of the watershed falls under jurisdiction of the city of San Bernardino office of the San Bernardino County Department of Building and Safety. Permits are only issued for construction of new and modifications to existing facilities. Maintenance of septic systems is the homeowner's responsibility, and complaints of noncompliance or health concerns can be made to the San Bernardino County Department of Environmental Health. In the Los Angeles County portion of the watershed, septic tank regulations are handled by the Los Angeles County Department of Environmental Health Services, Rural and Mountain Systems. Septic tanks are inspected only upon construction or when public land is sold to private parties.

The San Antonio Watershed Committee comprises of the following organizations and agencies:

- City of Pomona
- City of Upland
- San Antonio Water Company
- San Antonio Canyon Mutual Services Company
- Snow Crest Heights
- Mt. Baldy Homeowners Association
- Alpine Water
- Southern California Edison
- Unites States Forest Service

The Watershed Committee's mission statement is:

*"The San Antonio Canyon Watershed Committee is committed in developing partnerships both public and private in working together toward common goals involving monitoring of source water quality, protecting the qualities of life and vitality of land users in the watershed and its beneficiaries."* (Steering Committee, 2005).

The Committee meets bimonthly to discuss matters of mutual interest.

**SUMMARY OF THE WATER QUALITY DATA FROM 2010 WSS**

**Needs updating**

The following was extracted from Section 4 of the 2010 WSS and edited to adjust the “tense” to the past condition. The tables and figures in Section 4 of the 2010 WSS are not repeated.

**City of Pomona**

**General Mineral Analysis**

The general mineral parameters of calcium, magnesium, TDS, hardness, alkalinity, chloride, and sulfate has not changed since 1994. Nitrate showed a decrease over time since 1994; nitrite plus nitrate as nitrogen decreased from 1995-2000. MBAS was measured at 0.56 mg/L in 2009 in the raw water; this was the first detection since 1995-99. The heavy metals of significance are all well below MCL or action levels and are not of concern.

**Turbidity**

A higher-than-normal raw water turbidity was observed December 2003 through March 2004 which was most likely due to the Grand Prix Fire which burned the watershed. The years 2001-2005 had greater raw water turbidity than the previous study periods. A statistical analysis was made comparing the 2001-2005 average turbidity with 1995-99 average raw water turbidity to see if there was statistically significant difference. At the 95% confidence level, there was no difference between 1995-99 and 2001-05 averages.

For the period 2006 -2010, the maximum raw water turbidity was less than in previous study periods;; ninety percent of the time the average raw water turbidity entering the Pedley Filtration Plant was less than 0.50 NTU.

**Raw Water Microbials**

Table 2-1 taken from the 2010 Watershed Sanitary Survey show the variation in microbials over time. It appears there has been a reduction in average total coliform, however, when compared to fecal coliform and HPC, there is little change over time.

Table 2-1  
Pedley Filtration Plant Raw Water Microbial Summary  
(from 2010 WSS)

	1995-99	2001-05	2006-10
Average Total Coliform (MPN/100 mL)	1486	323	731
Average Fecal Coliform(MPN/100 mL)	35	34	41
Average E. coli(MPN/100 mL)	Not determined	Not determined	35
Average HPC (CFU/mL)	132	228	164



### ***Evey Canyon Raw Water***

Water from Evey Canyon is introduced into the pipeline from the 60/40 weir box to the Pedley Filtration Plant, i.e., downstream of the 60/40 weir box. The water is sampled by the City for Total Coliform, Fecal Coliform, E. coli, and HPC. Analysis in 2010 WSS concluded that a large portion of the E. coli measured at the Pedley Filtration Plant inlet is due to the Evey Canyon intake but this should be confirmed with additional monitoring and investigation.

### ***Giardia & Cryptosporidium Sampling***

Water samples are collected and analyzed for Giardia and Cryptosporidium periodically at the inlet to the Pedley Filtration Plant and at the Upper, Middle and Lower (Edison Box) Intakes as well as Ice House Canyon. The data shows that Giardia and Cryptosporidium are not of concern. There is no definite trend showing any increases. The most recent sampling in the 2010 WSS was taken on 7/6/2010, right after the 4<sup>th</sup> of July weekend, a time when recreational use of the stream and canyon is particularly high. That sample showed no presence of either organism. In 2010 it was concluded that the watershed does not have a Giardia or Cryptosporidium problem.

Ok to here

### **City of Upland**

For the City of Upland, a separate statistical analyses was not performed on the Upland data for turbidity and microbial contaminants. The general mineral content has not changed since the 1995 WSS.

## **Finished Water Quality**

### ***City of Pomona***

The Disinfectant/Disinfection by-products (DDBP) Rule puts limits on the concentration of the disinfectant, total THMs, HAA5, bromate and chlorite. There was no sampling data for the City of Pomona available for the 2000 WSS on bromates or chlorite. It was stated that bromates are probably not present in sufficient concentrations to be a problem but chlorites could be present since the Pomona system uses liquid sodium hypochlorite as a disinfectant.

The total trihalomethane (TTHM) concentrations measured at sample points 9-1 through 9-4 in the distribution system were all well below the current 80 µg/L primary MCL. Even using the locational running annual average (LRAA), the TTHMs were still well below the primary MCL. It should be noted that the City of Pomona does use significant amounts of groundwater in the system as well as treated State Project Water from Three Valleys MWD.

Limited data on the five regulated haloacetic acids (HAA5) measured by the City of Pomona at the same locations were under 10 µg/L also well below the primary MCL of 60 µg/L.

In terms of treated water turbidity, a graph in the 2000 WSS (Figure 4-6 in the 2000 WSS) clearly showed the significant improvement in treated water turbidity since the upgraded Pedley Filtration Plant went on line in the late 1990s.

Heterotrophic Plate Count (HPC) data in the finished water from the Pedley Filtration Plant was presented. There were some spikes in HPC which were not identified as being associated with high raw or finished water turbidity spikes, or total or fecal coliform spikes.

Total coliform in the treated water in the 2000 WSS was reported as always less than 2/100 mL. The current requirement is not numeric but Presence/Absent.

#### ***Treated Water Organics***

The regulated organics in the treated water are all below detection levels.

#### ***Treated Water Disinfection by-products***

TTHM and HAA5 data for the City's system indicated the system is in compliance with the MCL for both of these DPBs even when considering the locational running annual average.

#### ***City of Upland***

For the City of Upland, the total THMs was under 20 µg/L and is not a problem with compliance. HAA5 data for 1999 from Upland indicated a maximum value of 9.8 µg/L with the annual average below 2 µg/L. Both were well below the MCL of 80 µg/L 60 µg/L respectively. The residual disinfectant, chlorine, was typically about 2 mg/L; the maximum residual disinfectant level is 4 mg/L for chlorine.

Data for the Upland Treatment Plant indicates the plant consistently provided finished water with a turbidity less than 0.4 NTU and generally always below 0.2 NTU.

Total coliform in the treated water in the 2000 WSS was reported as always less than 2/100 mL. The current requirement is not numeric but Presence/Absence.

#### ***Need to Provide Enhanced Coagulation***

The DDBP rule also has a treatment requirement to control DBP precursors through enhanced coagulation. However, if certain water quality conditions are met, the need for enhanced coagulation is waived. The conditions are:

- 1. Source water TOC < 2.0 mg/L as a quarterly running annual average*
- 2. Treated water TOC level < 2.0 mg/L as a quarterly running annual average*
- 3. Source water TOC level is < 4.0 mg/L as a quarterly running annual average and the source water alkalinity is greater than 60 mg/L as CaCO<sub>3</sub> and the total THM and HAA5 running annual averages are no greater than 0.040 mg/L and 0.030 mg/L respectively*
- 4. The total THM and HAA5 running annual averages are no greater than 0.040 mg/L and 0.030 mg/L respectively and the system uses only chlorine for primary disinfection and maintenance of a residual.*

5. *Source water specific ultraviolet light absorption (SUVA), measured monthly, is less than or equal to 2.0 L/mg-m calculated quarterly as a running average.*
6. *Treated water specific ultraviolet light absorption (SUVA), measured monthly, is less than or equal to 2.0 L/mg-m calculated quarterly as a running average.*

The City of Pomona did not have any data on the Total Organic Carbon (TOC) of San Antonio Creek for the 2000 WSS; however, the City of Upland did quarterly sampling in 1999 at locations within the distribution system. All of the sample results were "Non detect" except for one single sample at 0.88 mg/L. There was no raw water TOC data available. In reviewing the alkalinity, total THM and HAA5 data, neither the Pomona nor Upland water treatment plants need to perform enhanced coagulation as they both comply under option 4 and possibly option 3.

### **Water Quality Monitoring Program for San Antonio Creek**

The 2000 WSS recommended a reduced monitoring program from that recommended in the 1995 WSS for San Antonio Creek due to the costs and the logistics of performing the sampling.

### **FINDINGS FROM 2000 WSS**

1. The monitoring of the watershed as recommended in the 1995 WSS has not been performed. There are many reasons for this but the primary reasons are the costs and the accessibility of some of the sampling locations. The 1995 WSS monitoring requirements were modified as part of the 2000 WSS to make the sites more accessible and to make the monitoring program more practical.
2. The general mineral water quality of San Antonio Creek has not changed measurably. The constituents which are typically associated with contamination, i.e., nitrates, chlorides and sulfates have not changed.
3. Average monthly raw water turbidity in San Antonio Creek as determined by measurements at Pomona's Pedley Filter Plant has not changed significantly from the previous period.
4. Average monthly total coliform levels in San Antonio Creek as determined by measurements at Pomona's Pedley Filter Plant have changed significantly from the previous period. In the 1995 WSS covering the period 1987-1994, 90 percent of the average monthly total coliform levels were less than 1200/100 mL; the recent data (1995-99) indicates that 90 percentile value has increased to 2200/100 mL. This is a measurable deterioration.
5. Average monthly fecal coliform levels in San Antonio Creek as determined by measurements at Pomona's Pedley Filter Plant have not changed significantly from the previous period.
6. Average monthly HPC levels in San Antonio Creek as determined by measurements at Pomona's Pedley Filter Plant have improved significantly from the previous period. In the 1995 WSS covering the period 1987-1994, 90 percent of the average monthly HPC levels were just under 300 cfu/mL; the

recent data (1995-99) indicates that 90 percentile value has decreased to under 200cfu/mL.

7. THM and HAA5 levels in the treated water are well below the Disinfectant and Disinfection by-product rule requirements.
8. Sampling for Giardia cysts and Cryptosporidium oocysts on the day following the Labor Day weekend in September 2000, indicated less than 1 Giardia cyst/L; no Cryptosporidium oocysts were found. This was not appreciably different from the findings in the 1995 WSS.
9. Recreational activities in the watershed continue to be a concern particularly as they relate to disposal of trash.
10. Septic tanks and subsurface wastewater disposal systems continue to exist and still pose a threat to water quality. Some could be impacted by high flood flows.
11. Watershed signage which was recommended in the 1995 WSS has not been installed. The Agencies continue to work with the Forest Service on this issue.
12. The City of Pomona and City of Upland water treatment plants will comply with the new Stage 1 Disinfectant and Disinfection by-products rule and the Interim Enhanced Surface Water Treatment Rule. The requirement to provide continuous turbidity measurement on each filter cell, if actually required for the traveling bridge filter, may not be possible at the Pomona Pedley Filter Plant without extensive modifications.

## CONCLUSIONS AND RECOMMENDATIONS FROM THE 2000 WSS

### Conclusions

1. Land within the San Antonio Canyon Watershed is primarily controlled by the USFS. The development potential is limited. Urbanization, per se, is not occurring. Current Special User Permits in the watershed will not be extended and existing cabins are being demolished upon lease termination. *(This has since been changed and the USFS has extended these Special Use Permits for another 20 years but development is still limited since waters of San Antonio Creek are fully appropriated.)*
2. Recreational activity is significant in the watershed and the belief is that it will increase in time as other nearby, streamside recreation areas become more crowded. This will adversely impact the water quality over time. *(The USFS indicates that with the increased fuel costs and the state of the economy, people are staying "closer to home." As a result the people are going to nearby recreation areas, like San Antonio Canyon, instead of driving longer distances. The USFS believes that recreational visitors are increasing [USFS, 2011]).*
3. Winter recreation from potential expansion of the ski facilities will bring additional visitors and vehicles into the watershed. Snow and ice control sanding will increase water turbidity during snow melt periods. *(Sand is no longer used; instead a "cinder" product is used which contains no salt. The*

*County reports that the roads are swept to minimize any impacts of the "sanding" on water quality. [San Bernardino County Public Works, 2011].*

4. Spills of chemicals or contaminants due to vehicle accidents is not a significant hazard in the watershed. The road traversing the watershed serves only the national forest recreation areas and the small community of Mt. Baldy Village. The road is not a "through road" and does not attract a significant amount of traffic. *(Traffic can be a major problem on the road; the USFS has had to close the road to visitors at times when the traffic is bumper to bumper from Shinn Road to the ski area. A review of accident records from the California Highway Patrol Data Base indicated about 200 accidents on Mount Baldy Road from 2001 through September, 2009. This is about 23 accidents per year. Most are minor and involve passenger cars or light trucks. However, during the period there were 7 accidents with fatalities. About 5 to 6 accidents per year involve a rollover. No hazardous chemical spill was noted.)*
5. Fires pose a hazard to water quality in the San Antonio Canyon Watershed. Over twenty large forest fires have been noted in the watershed since the USFS began keeping records in 1911. Causes of fires have included lightning, sparks from equipment, smoking, campfires, and arson. With the foreseen increase in the recreational use of the watershed, the potential for fires is believed to increase in the future. Impacts of the watershed fires include changes in water quality, loss of vegetation and subsequent erosion, and destruction or damage to facilities. *(In 2004 the Padua Fire burned a large part of the watershed.)*
6. The quality of the water from San Antonio Creek is excellent. The Cities of Pomona and Upland have no problem meeting the current drinking water requirements with respective existing treatment facilities. The facilities have continuous turbidity monitoring of the raw water. During times of high turbidity (during and shortly after storms), water is diverted from the respective water treatment plants to local recharge basins. The City of Pomona has upgraded the Pedley Filter Plant to meet reasonably anticipated future drinking water requirements. The City of Upland's San Antonio Canyon Water Treatment Facility is anticipated to meet future drinking water requirements. *(Both facilities are meeting current drinking water requirements.)*
7. Microbiological water quality data consisting of HPC and total and fecal coliforms is available for the watershed. Occasional spikes of high total and fecal coliform occur, however, there is a consistent pattern. Higher fecal coliform counts are more likely to occur in the summer and fall than other times. High fecal coliform counts are not necessarily associated with high total coliform counts.

### Recommendations

1. Additional monitoring of the microbiological water quality was recommended to be performed to provide a baseline for evaluation of potential changes in water quality over time.
2. An aggressive education program should be conducted by the Agencies with the residents of the area to alert them of the need to protect the water quality since it is a drinking water source. The possibility of using local cable television

- should be explored. Programs with the local school and homeowners associations should be developed. *(The USFS has a "Leave No Trace" and "Tread Lightly" program to educate visitors.)*
3. Signs should be placed along the roadway, at streamside vehicle parking areas and overlooks, and at the intakes to inform visitors the water is used as a public drinking water supply. Signage should be placed at the entrance to the canyon reminding visitors not to dispose of used motor oil, other lubricants, or hazardous materials along the road. *(Since the terrorist attacks on 9/11/2001 and the USEPA's mandated vulnerability assessments, calling attention to a water source may not be prudent any longer.)*
  4. The Agencies need to be informed of any modifications to existing wastewater disposal systems. A mechanism is needed to transmit this information from the County Building Departments to the Agencies. *(The two major discharge sources, Mt. Baldy Village and the Mt. Baldy School have waste discharge permits issued by the Regional Water Quality Control Board, so that should mitigate any concerns for these facilities. These are the only two septic tank systems monitored now.)*
  5. A mechanism, including an emergency action plan, needs to be in place to alert the Agencies of vehicle accidents in the Canyon which could threaten to discharge chemicals or petroleum products into the stream.
  6. Regular patrols of the watershed area should be performed during the height of the recreation season to identify potential problems and warn offenders. *(SAWCO states that 4 or 5 times during the summer, personnel monitor the creek. Personnel also check the creek at the intake on a daily basis. USFS reports that a Prevention Officer visits the cabins twice per year and a follow-up staff person works with the cabin owners to ensure compliance with brush clearance and any water quality issues which are observed.)*
  7. The intake pipelines should be regularly inspected and tested for integrity. This should be done on an annual basis, preferably after the heavy spring runoff season. *(The City of Pomona checks the pipelines after a heavy rainfall and has been in the process of replacing old sections of pipe.)*
  8. Sampling for Giardia and Cryptosporidium should be conducted quarterly at various locations in the watershed. One sample should be collected at each location. Samples should be taken during the periods of highest activity in the canyon (e.g. after a major holiday weekend). Test results should be submitted to the Department of Health Services (now CDPH) immediately after they become available. Based on the data, the Department of Health Services will make a determination as to whether or not annual sampling during the peak recreation season is adequate. *(The Agencies have increased their Giardia and Cryptosporidium monitoring but this is not required to be sent to CDPH. This is presented in a later section of this WSS update.)*
  9. Total and fecal coliform sampling should be conducted monthly at the designated locations. Again depending on the results, the sampling frequency could be adjusted to effectively monitor water quality during periods of the year with traditionally heavier than normal or lower than normal coliform levels; however, samples shall be collected and tested bimonthly at the minimum.

*(The Agencies have increased their microbiological monitoring. This is presented in a later section of this WSS update.)*

**RECOMMENDED WATER QUALITY MONITORING PROGRAM FROM THE 2000 WSS**

The Agencies monitor water quality at their respective treatment plant sites. At the Pedley Filter Plant (PFP) and San Antonio Canyon Water Treatment Plant (SACWTP), monitoring for turbidity and chlorine residual is conducted on a 24-hour basis using automated test equipment. Turbidity is analyzed at the influent, effluent, and in each step of the treatment process. Total and fecal coliforms, as well as HPC, are monitored weekly. Frequencies of other tests are as listed below in Table 2-1 (Table 6-1 in the 2000 WSS

Table 2-1  
Testing Frequencies  
Treatment of San Antonio Canyon Surface Flow

Test	Frequency	
	PFP	SACWTP
Chemical Inorganic	1 per year	1 per year
Nitrate <sup>1</sup>	Quarterly	N/A
General Mineral	1 per year	1 per year
General Physical	1 per year	1 per year
Radiological	4 consecutive quarterly samples per 4 years	1 per 4 years
VOC	1 per 3 years	1 per year
SOC (regulated)	1 per 3 years	Waived
SOC (unregulated)	1 per 5 years	Waived

<sup>1</sup>After four quarters of nitrate monitoring, the City of Pomona may submit a written request to the Department of Health Services for a reduction of the sampling frequency to annual.

In addition it was recommended in the 2000 WSS that the following additional water quality monitoring be conducted:

Table 2-2 (Table 6-2 in 2000 WSS)  
Additional Water Quality Monitoring<sup>1</sup>

Location <sup>2</sup>	Parameter	Frequency
Evey Canyon Intake	Total Coliform Fecal Coliform	By City of Pomona, weekly anytime water is introduced to pipeline at Evey Intake
Evey Canyon Intake	Giardia Cysts Cryptosporidium Oocysts	By City of Pomona, at least semi-annually anytime water is introduced to pipeline at Evey Intake
Upper Intake, Middle Intake	Giardia Cysts	At least semi-annually <sup>1</sup>

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DRAFT November 2015  
15-02

## San Antonio Canyon Watershed Sanitary Survey Report

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	Cryptosporidium Oocysts	
Lower Intake	Giardia Cysts Cryptosporidium Oocysts	At least semi-annually; sample could be collected at the PWTP <sup>1</sup>

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<sup>1</sup> These monitoring costs should be shared among the three agencies in some equitable cost-sharing arrangement. One of the Agencies should be designated to be responsible to ensure this monitoring is performed. The locations are presented in the 2000 WSS.

### REFERENCES

USDA Forest Service National Visitor Use Monitoring.  
<http://apps.fs.usda.gov/nrm/nvum/results/A05001.aspx/Round3>



## SECTION 3

### PROGRESS AND CHANGES SINCE 2010 WSS UPDATE

#### WATERSHED CHANGES

In general there were few changes in the watershed since the 2010 WSS Update; however there were some important changes which are identified below:

1. On Oct. 10, 2014, President Barack Obama designated 342,177 acres of existing federal lands in the Angeles National Forest and 4,002 acres in the San Bernardino National Forest as the San Gabriel Mountains National Monument. The National Monument eastern boundary appears to follow the N/S section line just west of Mt. Baldy Rd. up to the Glendora Ridge Road and then follows the westerly ridge of Mt. San Antonio Canyon northward and around the Mt. Baldy ski lifts. Since most of the watershed is outside the Monument Boundary, the National Monument designation will have minimal impact on the Creek and watershed.
2. Recreational activity is still a major pastime in the watershed. With the cost of fuel and the state of the economy, visitor use has continued to increase as people look to find recreational activities closer to home. San Antonio Canyon is an ideal location (USFS, 2011). Annual visitors to the ski area and Forest Visitors stopping at the Mt. Baldy Visitor Center are estimated to be 115,000 per year (Garner, 2011). In the past there was significant recreational activity in and adjacent to the Mt. San Antonio Creek streambed as witnessed by trash and debris accumulations in the watercourse. This has been reduced and the past practice of stunning fish with dumped bleach has all but ceased. (San Antonio Canyon Watershed Committee, 2015)
3. Portable chemical toilets have been placed at strategic locations where recreational activity is occurring. During the 2011 "drive through," portable toilets were observed near the end of the road at ski area parking.
4. There vault toilets constructed at the at the Icehouse Canyon trailhead parking area.
5. Mt. Baldy Ranch RV Park, a 272 space recreational vehicle park along Glendora Ridge Road, appeared vacant during the 2011 drive through. It is not known how many sites are occupied in summer. The site is actually in the Cow Canyon Watershed and would not impact the San Antonio Creek Watershed except for the possibility of traffic up Mt. Baldy Rd and the impact on water supply.
6. It is believed the ski area will be expanded. The USFS has stated that there has been no Master Development Plan formally submitted. So any expansion would not expected until some time in the future. The designation of a portion of the "backside" of Mt. Baldy in the National Monument may limit the amount of expansion.

7. The ski area has a 9 million gallon (MG) reservoir for snow making which is fed through the Snow Crest Heights Water Association. However the USFS only permitted 6 MG of storage and has placed a limit on the amount of water than can be stored in the reservoir. The ski area has an agreement (1999) with SAWCO for water from the Falls. Any additional capacity will require concurrence from SAWCO and the USFS.
8. There is a move to designate a section of San Antonio Creek from the Falls north to its source on Mt. San Antonio as "WILD and SCENIC". This designation prohibits the federal government from licensing or permitting new hydroelectric dams or major diversions on protected stream segments. The federal government may license water resource projects upstream of downstream of protected segments as long as the projects do not unreasonably diminish the stream. Public lands within an average quarter-mile wide corridor on both sides of the stream are managed to protect their outstanding scenic, recreational, historical/cultural, fish, wildlife, ecological, geological, and hydrological values. It has no effect on existing water rights. This is still a state authority. There is a federal water right conferred by the designation, but it begins the date of designation and is junior to all other existing rights. To exercise the right the managing federal agency must apply to the state and follow existing procedures and law. (Friends of the River, undated)
9. The US Fish and Wildlife Service (USFW) recently published an undated draft "Recovery Plan for the Santa Ana Sucker (*Catostomas santaanae*) which envisions re-introducing the fish into San Antonio Creek and other rivers and creeks in the Santa Ana, San Gabriel, and Los Angeles River watershed. It is a "threatened species" under the Endangered Species Act of 1973 and as amended. The treat, as stated in the draft report is "ongoing, range-wide, hydrologic modifications which lead to degradation and loss of habitat" (USFW, undated). The goal of the plan is to control or reduce threats to the point where it no longer requires special protection and hence can be "delisted."

Figure 1 of the report clearly shows the Santa Ana Sucker is not currently found in San Antonio Creek but the report states the species is limited by artificial barriers such as dams and drop structures and that is the reason that they may not be found in some of the watersheds compared to historical conditions. Historical data is sketchy, at best, to verify if the fish ever inhabited San Antonio Creek. There is a limit where the fish are likely to occur and that is due to its ability to physically swim upstream in strong currents. The report sets the limits of the stream gradient to 7 degrees ( $\approx 12\%$ ), based on USFW observations in the North and East Forks of the San Gabriel River. San Antonio Creek does not exceed a 12% gradient until a point above Ice House Canyon, so essentially all of the stream below Ice House Canyon and the mouth of the San Antonio Canyon is potential habitat. The report states that adequate water quantity and quality are important for the persistence of the fish in urbanized areas. They need perennial flows with suitable food to support continued life.

The introduction of the fish into San Antonio Creek would not impact the sanitary quality of the water, but very likely could compromise agreements that SAWCO has with Southern California Edison relative to diversions in the Canyon and impact the ability to perform maintenance in the Creek for sediment and debris control. If streamflow must be maintained downstream of the water intakes, that

will impact the amount of water which can be diverted from the Creek. Letters of opposition have been written to USFW by SAWCO, the cities of Upland and Pomona, and the Six Basins Watermaster among others.

10. The San Antonio Canyon Watershed Committee continues to meet on a regular basis. *"The San Antonio Canyon Watershed Committee is committed in developing partnerships both public and private in working together toward common goals involving monitoring of source water quality, protecting the qualities of life and vitality of land users in the watershed and its beneficiaries."* The committee is comprised of the cities of Pomona and Upland, the San Antonio Water Company, San Antonio Canyon Mutual Service Company, Snow Crest Heights, Mt. Baldy Homeowner's Association, Alpine Water, the US Forest Service and Southern California Edison (SCE).
11. In February 2006, the San Antonio Canyon Protection Plan Steering Committee issued a Best Management Practices (BMP) guidebook (Steering Committee, 2006). The BMPs center around watershed management, water quality and education and communications. **Any updates??**
12. The California Highway Patrol Accident Reporting Database was searched for incidents along Mt. Baldy Road and Shinn Road to determine if there were any accidental spills of hazardous material. Spills have not been an issue. During the period January 2001 through September 2009, there were about 200 accidents involving motor vehicles. Most are minor; though there were 7 fatalities in the period. Rollovers, which present the greatest water quality threat, average about 5 or 6 per year.
- 13. Any fires?**
14. The Regional Water Quality Control Board, Los Angeles Region issued a waste discharge permit to SACMSC for the Mt. Baldy Village Treatment Facility and the Mt. Baldy School septic tank. This permit requires regular monitoring and reporting.
15. The US Forest Service has renewed cabin Special Use Permits in 2008 for another 20 years. Previous WSS had indicated that these permits were not to be extended. **Anything new?**
16. The City of Pomona's Pedley Filter Plant instrumentation has been upgraded within the past few years to replace the older model turbidimeters and particle counters. Also spent backwash water is no longer recycled back to through the treatment process. Another 3.5 MG prestressed concrete clearwell was added bringing the total clearwell capacity to 7 MG. **Anything new?**
17. The City of Upland's San Antonio Canyon Water Treatment Facility was upgraded in 2007 which included new turbidity instrumentation for influent turbidity, effluent turbidity, and individual filter turbidity. **Anything new? On site generation of bulk liquid hypo??**
18. The Watershed Committee continues with its annual clean-up program in the watershed and its "keep it clean" logo.
19. Samples for Giardia and Cryptosporidium were taken at regular intervals at the Evey Intake, Middle intake, Upper intake and Ice House Canyon. This data is presented herein.

20. It is recommended that the USFS "Leave No Trace" and "Tread Lightly" programs replace the formal signage. **Still ok**
21. SAWCO makes 4 or 5 "walks" of the creek during the summer to observe the condition. The intake at the 60/40 split is monitored daily. **verify**
22. The USFS makes twice per year inspections of the Special Use Permit cabins for brush clearance and water quality issues. A second staff person works with the cabin owners to develop plans for compliance. There are follow-on inspections. The Special Use Permits can be suspended or revoked. **Verify with USFS**
23. On the day of the site visit to the intake (January 12, 2011), the County of Los Angeles had a contractor cleaning debris and sediment in the creek at the Shinn Road Bridge crossing. This work raised the turbidity in the creek. Apparently the contractors working in the creek, are not aware there is a water intake downstream and their actions could cause the treatment plants to shut down. It is recommended that there be better coordination between construction and maintenance crews and the water agencies.
24. The City of Pomona regularly inspects intake pipelines after a heavy rain and annually.

#### **FOLLOW-UP ON RECOMMENDATIONS IN 2010 WATERSHED SANITARY SURVEY**

The 2010 Watershed Sanitary Survey contained a number of recommendations. A follow-up on those recommendations:

1. *The cryptosporidium and giardia monitoring currently carried out at the Upper, Middle, Lower Intake and Ice House Canyon should be reduced to once every 2 years.*

This was not agreed to by CDPH; monitoring is once per year in July.

2. *The City of Pomona should carefully monitor the total coliform and E. coli in the Evey Canyon intake and try to identify the sources if possible.*

Ongoing; intake was cleaned of debris since last sanitary survey.

3. *The USFS should keep the Watershed Committee (and the Agencies) informed of their inspections of the cabins and compliance orders.*

This is not occurring and remains an issue.

4. *The Watershed Committee should receive copies of the reports prepared by the SACMSC for the Regional Water Quality Control Board.*

This has not occurred; SACMSC agrees to furnish copies of the reports. (Watershed Committee, 2015)

5. *The intake pipelines, including the SCE pipelines should be inspected on an annual basis, preferably after the heavy spring runoff season. (This was one of the recommendations in the 1995 WSS and should be discussed at the Watershed meetings since SCE is a member of the Committee.)*

City of Pomona is doing this on an annual basis. (Watershed Committee, 2015)

6. *A mechanism needs to put in place, if it is not already in place, to alert the Agencies of vehicle accidents which could discharge chemicals or contaminants into the watercourse. (This was one of the recommendations in the 1995 WSS also.)*

This is not implemented. Passenger vehicles and small trucks could be involved in accidents releasing small amounts of fuel which pose a threat, but there are no fueling stations in the canyon, so the chances of a large spill of a hazardous chemical such as gasoline is very remote. However, there are septic tank pumpers that do travel the canyon and an accident could result in septage being dumped into the creek which could make its way to the water intakes. Some form of rapid notification should be in place so the intakes can be shut off.

7. *The Agencies in conjunction with the USFS should continue and, if possible, expand their public education program of the need to protect the San Antonio Creek watershed. (This was one of the recommendations in the 1995 WSS also.)*

This has not been implemented; the Watershed Committee continues to take the lead in this area.

8. *The County of Los Angeles and the County of San Bernardino Building and Safety Departments should notify the Watershed Committee when there are modifications or replacements of existing septic tank systems or any new systems installed or failure or overflow of existing systems.*

This has not been implemented.

9. *The USFS should locate the septic tank and leach field at the Lower San Antonio Fire Station at Shinn Road and provide the Watershed Committee with a report on when it is pumped.*

This has not been completed.

10. *The USFS should require special use cabin owners (or the septic tank pumpers) to provide records to the USFS when these cabin septic tanks are pumped. These reports should be provided to the Watershed Committee on an annual basis.*

This has not been implemented.

11. *There needs to be communication between the Los Angeles County Department of Public Works Crews and Contractors when they are planning on working in the Creek as the impact on the water supply intakes from the turbidity is significant.*

Still very important and no formal communication process has been implemented.

12. *Water meters should be installed on all water services, including the special use cabins, to monitor water use and enforce conservation.*

There is no plan to install water meters to individual residences.

**RECOMMENDED WATER QUALITY MONITORING PROGRAM**

1. The Agencies should continue to monitor water quality at the treatment plant sites and in the canyon as required by the CDPH as it relates to their water supply permit.

The Agencies are complying.

2. *Cryptosporidium* and *giardia* sampling should be reduced to once every two years. See Table 6-1

CDPH did not accept the "once every 2 year sampling" and it continues at annual intervals in July.

**Table 6-1**  
**Coliform, Giardia and Cryptosporidium Water Quality Monitoring<sup>1</sup>**

<i>Location<sup>2</sup></i>	<i>Parameter</i>	<i>Agency/Frequency</i>
<i>Ice House Canyon</i>	<i>Giardia Cysts Cryptosporidium Oocysts</i>	<i>By SAWCO, Every 2 years, in Spring when flowing</i>
<i>Evey Canyon Intake</i>	<i>Total Coliform Fecal Coliform or E. Coli</i>	<i>By City of Pomona, weekly anytime water is introduced to pipeline at Evey Intake</i>
<i>Evey Canyon Intake</i>	<i>Giardia Cysts Cryptosporidium Oocysts</i>	<i>By City of Pomona every 2 years</i>
<i>Upper Intake, Middle Intake</i>	<i>Giardia Cysts Cryptosporidium Oocysts</i>	<i>By SAWCO, Every2 years</i>
<i>Pedley Filtration Plant Raw Water Inlet<sup>2</sup></i>	<i>Giardia Cysts Cryptosporidium Oocysts</i>	<i>By Pomona, Every 2 years</i>

<sup>1</sup> These monitoring costs should be shared among the three agencies in some equitable cost-sharing arrangement. One of the Agencies should be designated to be responsible to ensure this monitoring is performed.

2. No need to sample at Lower Intake separately. The water quality from a Giardia/Cryptosporidium standpoint at the Lower Intake is expected to be similar to that obtained at the Pedley Filtration Plant inlet.

## SECTION 4

### WATER QUALITY

Data on various water quality parameters was collected for the period from 2011 through 2015 by the San Antonio Water Company, the City of Pomona and the City of Upland Water Departments. This data is presented graphically in this section. The raw data is included in Appendix A. To avoid “breaking up the text” with numerous tables and figures, all of the figures and tables are included together at the end of this section.

#### SAN ANTONIO WATER COMPANY DATA

SAWCO provided Giardia and Cryptosporidium sampling and analyses for the Icehouse Canyon and the Upper and Middle Intakes. This data is combined with the City of Pomona Giardia and Cryptosporidium sampling and analyses for the Pedley Filtration Plant Raw Water and Evey Canyon and presented later in this section.

#### CITY OF POMONA WATER QUALITY DATA

The data from the City of Pomona includes:

- Raw Water Data from Evey Canyon – primarily microbiological
- Raw Water Data from Pedley Filtration Plant consisting of flow, turbidity, microbiological, general mineral, and organics,
- Treated Water Data from Pedley Filtration Plant consisting of turbidity, microbiological, general mineral, and organics.
- Distribution system disinfection by-products

#### Pedley Filtration Plant Flow

Figures 4-1 presents the average monthly production from the Pedley Filtration Plant for the period 2011 – 2015.

2011 – 2015	Maximum Day	4.08 mgd
	Monthly Average	1.64 mgd
	Monthly Average Maximum	3.65 mgd

#### Pedley Raw Water Turbidity

Figure 4-2 presents the daily maximum raw water turbidity for the period 2011 to 2015 summarized by month. The figure shows the highest and lowest maximum raw water turbidity experienced during the month along with the monthly average maximum turbidity.

Figure 4-3a and 4-3b presents the 2011-2015 monthly average and maximum raw water turbidity in the form of a cumulative probability plot respectively. Historic data from previous watershed sanitary surveys is also presented for comparison. The data is similar to previous periods; however, in August 2014 there was a period of relatively

high raw water turbidity, 20 NTU, for several days which pushed the cumulative probability to the right, beyond that experienced in previous periods. Any reasons??? Over 90% of the time the average raw water turbidity was less than 1 NTU.

A statistical analysis was made comparing the 2011-2015 average turbidity with previous average raw water turbidity to see if there was statistically significant difference. An independent t-test was used to compare the means (averages) of the two data sets. In spite of the differences apparent on the cumulative probability plot, within a 95% confidence level, there is no difference between 1995-99 and 2001-05 averages. This needs to be done once all 2015 data is in.

### **Pedley Treated Water Turbidity**

Figure 4-4 presents a summary of daily average treated water turbidity by month for the period 2011-2015. The figure shows the maximum and minimum values recorded during the month along with the average for the month. The treated water turbidity Maximum Contaminant Level (MCL) is 0.3 NTU 95% of the time.

### **Pedley Raw Water Microbials**

Raw water Total Coliform, Fecal Coliform and Heterotrophic Plate Count (HPC) data from the inlet were analyzed for the period 2011 -2015. HPC is a measure of any heterotrophic bacteria present in a sample (Heterotrophic bacteria that use carbon for energy and cell growth.) They are not necessarily harmful bacteria (pathogens), but do provide a general indicator of the water quality condition. It is not unusual to see high counts in raw water.

Figure 4-5a presents the Total Coliform from grab samples generally taken about once per week at the raw water inlet to the treatment plant. The figure shows the maximum, minimum and geometric mean for the samples taken during the month. The geometric mean was used since this is frequently used to determine the averages of bacteria samples due to the large variations in magnitude. The concentrations of coliforms are presented as "Most Probable Number" (MPN) per 100 mL of water.

Figure 4-5b presents the fecal coliform concentrations; Figure 4-5c presents the HPC data for the Pedley Filtration Plant raw water.

Table 4-1 presents a summary of the coliform data for the period 1995-99, 2001-05, 2006-10 and 2011-15. The data in Table 4-1 show that the total coliform vary but the fecal coliform are relatively constant even over the 20 year period. (To be completed when 2015 data available)



Table 4-1  
Pedley Filtration Plant  
Coliform Summary (MPN/100 mL)

	1995-99	2001-05	2006-10	2011-15
Average Total Coliform (MPN/100 mL)	1486	323	731	
Average Fecal Coliform (MPN/100 mL)	35	34	41	
Average E. coli (MPN/100 mL)	Not determined	Not determined	35	Not determined
Average HPC (CFU/mL)	132	228	164	

Figures 4-6a through 4-6c present cumulative probability plots of total coliform, fecal coliform and HPC for 5 study periods from 1987-94 to 2011-15.

Total and fecal coliform for the period 2011 -2015 was as low as the best previous period. HPC counts are very comparable to previous periods..

The only conclusions that can be made are that the watershed is likely not changing much – the fecal coliform concentrations do not vary much for the 20 year period.

### Pedley General Physical and Mineral Quality

Table 4-2a presents the General Physical and Mineral Quality Summary for the both the raw and treated water from 2010-2015. For the most part there is little difference between the raw and treated water from a mineral standpoint since the Pedley Filtration Plant is not designed (or intended) to remove minerals or hardness. Table 4-2b presents the raw water quality for the period 2006 – 2010. Table 4-2c presents a side-by-side comparison of the raw water characteristics over time from 1994 through 2015. Reviewing Table 4-2c shows that very little change is occurring in the water quality.

### Pedley Treated Water Organics

Table 4-3 presents data on the treated water organics. All of the listed organics are shown to be below detection levels. No data was available for the period before 2006 as it was archived by the City of Pomona.

### Evey Canyon Raw Water

Water from Evey Canyon is introduced into the pipeline from the 60/40 weir box to the Pedley Filtration Plant, i.e., downstream of the 60/40 weir box. The water is sampled by the City for Total Coliform, Fecal Coliform, E. coli, and HPC. Figures 4-10a through 4-10d present the maximum, minimum and geometric mean values of the concentration of these microbials based on grab samples collected approximately weekly. It was only since 2005 that the City sampled Evey Canyon.

Figure 4-11a presents a cumulative probability plot of fecal coliform and E. coli geometric means. The figure shows that the fecal coliform at the Evey Canyon inlet is primarily E. coli. Figure 4-11b presents a cumulative plot of the mean of the E. coli measured at Evey Canyon versus the E. coli measured at the Pedley Filtration Plant Inlet. Based on Figure 4-11b, it could be concluded that a large portion of the E. coli measured at the Pedley Filtration Plant inlet is due to the Evey Canyon intake. This should be confirmed with additional monitoring and investigation.

### **City of Pomona Disinfection By-products**

Tables 4-4a and 4-4b present a summary of the quarterly sampling for Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAA5). (The "5" designates there are five individual compounds measured and totalized.) For TTHMs the maximum measured at any location in the system is shown in Table 4-4a. All of the individual values are less than the MCL of 80 µg/L. But it should be pointed out that the MCL is currently based on the system-wide annual average of the last 4 quarterly samples. Since the City of Pomona uses a lot of groundwater, which has a very low potential to form disinfection by-products, compliance is not an issue. In the near future calculation of the concentration will change to a locational running annual average (LRAA) which means that each sample station will need to comply with the MCL based on the average of the last 4 quarterly samples. Again, since the maximum value measured is less than the MCL and knowing that there will be some groundwater blended in with the treated surface water, compliance will not be an issue. The table also shows the results if the LRAA calculation method were used on the historic data.

Table 4-4b shows the haloacetic acids. The MCL is 60 µg/L again based on the same method of calculation as TTHMs. The City will not have an issue complying with the regulations in the future. The table also shows the results if the LRAA calculation method were used on the historic data.

## CITY OF UPLAND WATER QUALITY DATA

The data from the City of Upland includes:

- Raw Water Data from San Antonio Canyon Water Treatment Plant (SACWTP) Raw Water—primarily microbiological and turbidity
- Distribution system disinfection by-products

### SACWTP Plant Flow

Figures 4-12a presents the average monthly production from the SACWTP for the periods 2001 -2005. (2006 – 2010 was not provided).

2001 – 2005	Maximum	4.36mgd
	Average	1.3 mgd
2006 – 2010	Not Provided	

### SACWTP Raw Water Turbidity

Figure 4-13a presents the daily average raw water turbidity for the period 2000 to 2005 summarized by month taken from the monthly CDPH reports. The figure shows the highest and lowest average raw water turbidity experienced during the month along with the monthly average maximum turbidity.

Figure 4-13b presents the greatest and the least maximum raw water turbidity experienced during the month along with the average maximum turbidity for the month, based on daily values. Data on the average turbidity was not provided. The maximum value is 20 NTU. Note that data was not available from 2006 to 2008 and 2010.

### SACWTP Treated Water Turbidity

Figure 4-14a presents a summary of daily average treated water turbidity by month. There is one “spike” in the turbidity; but that was less than 1 NTU; this is not a “violation.” The treated water turbidity Maximum Contaminant Level (MCL) is 0.3 NTU 95% of the time.

Figure 4-14b shows the monthly average treated water turbidity from 2006 - 2010. Again the plot shows the daily maximum and minimum average turbidity during the month along with the monthly average. The values are all well below the MCL of 0.3 NTU 95% of the time.

### SACWTP Raw Water Microbials

Raw water Total Coliform, Fecal Coliform and Heterotrophic Plate Count (HPC) data were analyzed. From 2006 on, E. coli species were analyzed in lieu of generic “Fecal Coliform.” E. coli is a fecal coliform but there are also many other fecal bacteria that are measured as fecal coliform. HPC is a measure of the bacteria present in a sample. They are not necessarily harmful bacteria (pathogens), but do provide a general indicator of the water quality condition. It is not unusual to see high counts in raw water.

Figure 4-15a presents the Total Coliform from grab samples generally taken about once per week at the raw water inlet to the treatment plant for the period 2001-2005. The figure shows the maximum, minimum and mean for the samples taken during the month. The concentrations of coliforms are presented as “Most Probable Number” (MPN) per 100 mL of water. Figure 4-15b shows similar data for 2006 – 2010.

Figure 4-16a present the fecal coliform concentrations for the period 2001-05. Figure 4-16b presents the E.coli concentrations for 2006- 2010. Figure 4-17a and b present the HPC data for 2001-05 and 2006-10 respectively

Table 4-5 presents a summary of the coliform data for the period 2001-05, and 2006-10.

Table 4-5  
SACWTPt  
Raw Water Microbial Summary

	2001-05	2006-10
Average Total Coliform (MPN/100 mL)	323	97
Average Fecal Coliform(MPN/100 mL)	34	Not determined
Average E. coli(MPN/100 mL)	Not determined	6
Average HPC (CFU/mL)	228	42

Figures 4-18a and 4-18b present cumulative probability plots of total coliform, and fecal coliform or E. Coli to compare 2001—05 with 2006-10. The period 2001-05 showed much higher total and fecal coliform levels in the raw water than the period 2006 -10.

Figures 4-19a and b present a comparison between the raw water total coliform and fecal coliform (or E.coli) respectively as noted at SACWTP, Evey Canyon and the Pedley Filtration Plant. The study period for comparison was 2006 -10. The total coliform concentration in the raw water at the SACWTP is much less than that measured at Evey Canyon and the Pedley Filtration Plant inlet. The same holds true for fecal coliform or E. coli. This tends to support the previous conclusion that the large amounts of the coliform bacteria experienced at the Pedley Filtration Plant come from the Evey Canyon water. This should be evaluated further.

### City of Upland Disinfection By-products

Tables 4-6a and 4-6b present a summary of the quarterly sampling for Total Trihalomethanes (TTHMs) for the period 2001 - 05 and 2006 -10 respectively. For the TTHMs the maximum value at any location was at T-1 in pressure zone 5 where a quarterly value was 129.7 µg/L. Although the current MCL is 80 µg/L the City is in compliance, because the MCL is based on the average of 4 quarterly samples taken at all points in the distribution system. Since the City uses some groundwater, the TTHMs are “blended down” because the groundwater does not have much of a TTHM formation potential. The future MCL will be based on using the locational running annual average (LRAA) of the last 4 quarterly samples. Tables 4-6a and b show the LRAA if calculated

using the historical data. For the period 2001 -05, only T-1 would not have been in compliance (86 µg/L vs MCL = 80 µg/L).

It is also worth noting that the maximum quarterly sample concentrations dropped dramatically in the subsequent period from 2006-10 with all values being under the 80 µg/L MCL. The LRAA calculated for this period for all of the sampling locations were also well under the MCL.

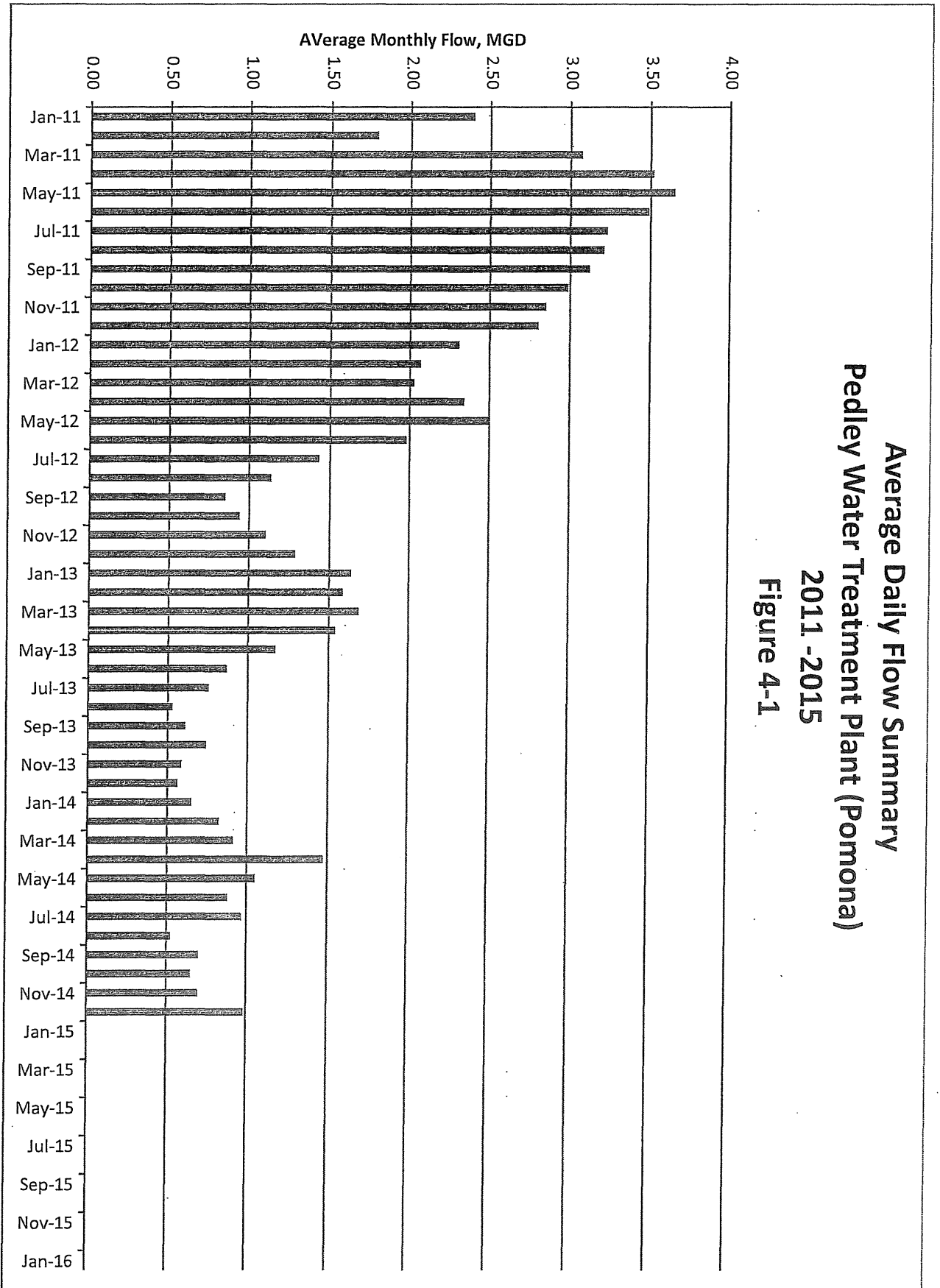
It can be concluded that the City should not have any problems meeting the LRAA for TTHMs in the future if it operates similar to the period 2006 – 10.

Table 4-7a and b present a summary of the haloacetic acids (HAA5). (The "5" designates there are five individual compounds measured and totalized.) The MCL for HAA5 is 60 µg/L again based on the same method of calculation as TTHMs. The City will not have an issue complying with the regulations in the future.

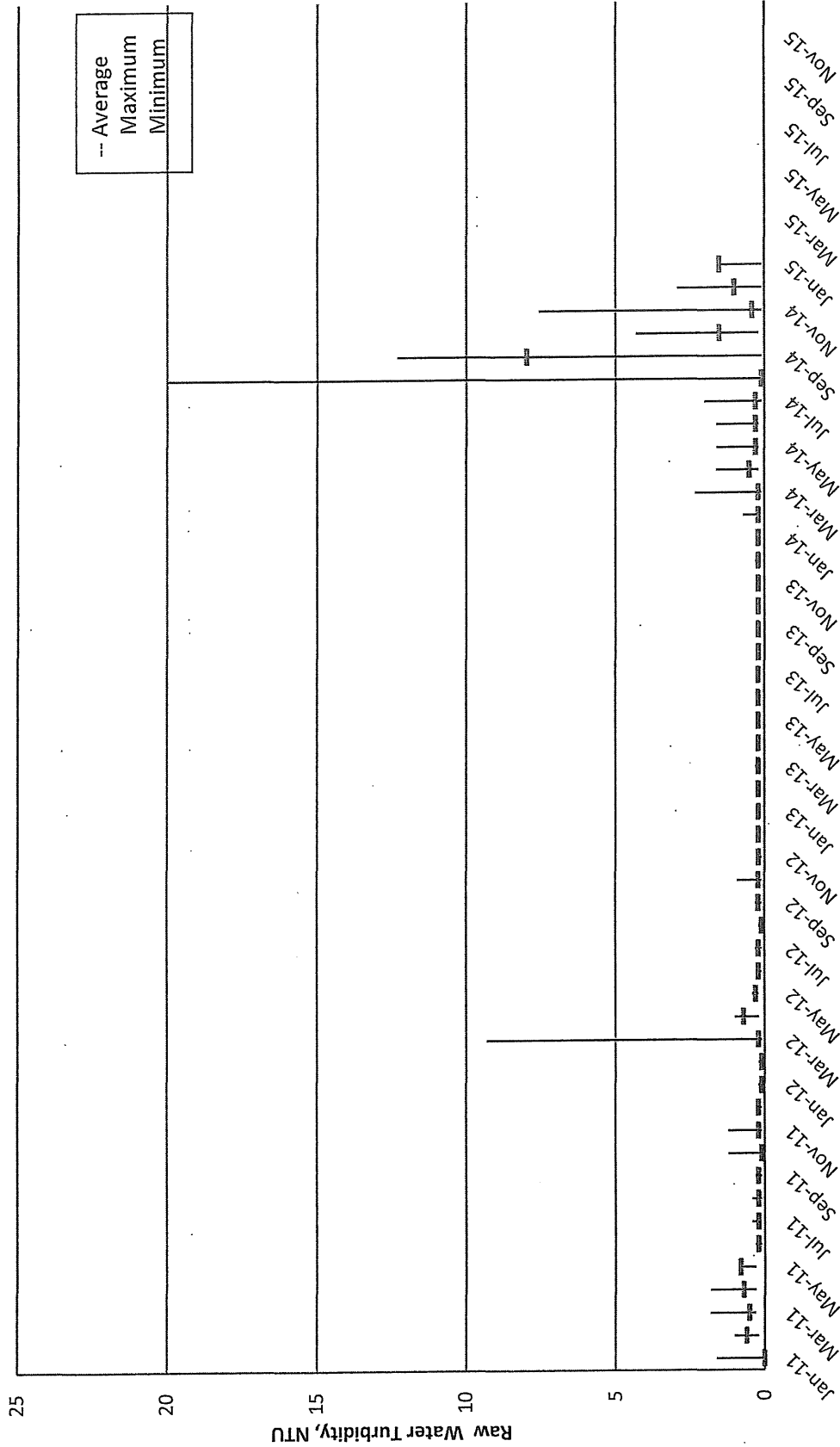
### **GIARDIA & CRYPTOSPORIDIUM SAMPLING**

Water samples are collected and analyzed for Giardia and Cryptosporidium periodically at the inlet to the Pedley Filtration Plant and at the Upper, Middle and Lower (Edison Box) Intakes as well as Ice House Canyon. The results are shown in Tables 4-8 and 4-9. The data shows that Giardia and Cryptosporidium are not of concern. There is no definite trend showing any increases. The most recent sampling 7/6/2010 was taken right after the 4<sup>th</sup> of July weekend, a time when recreational use of the stream and canyon is particularly high. That sample showed no presence of either organism.

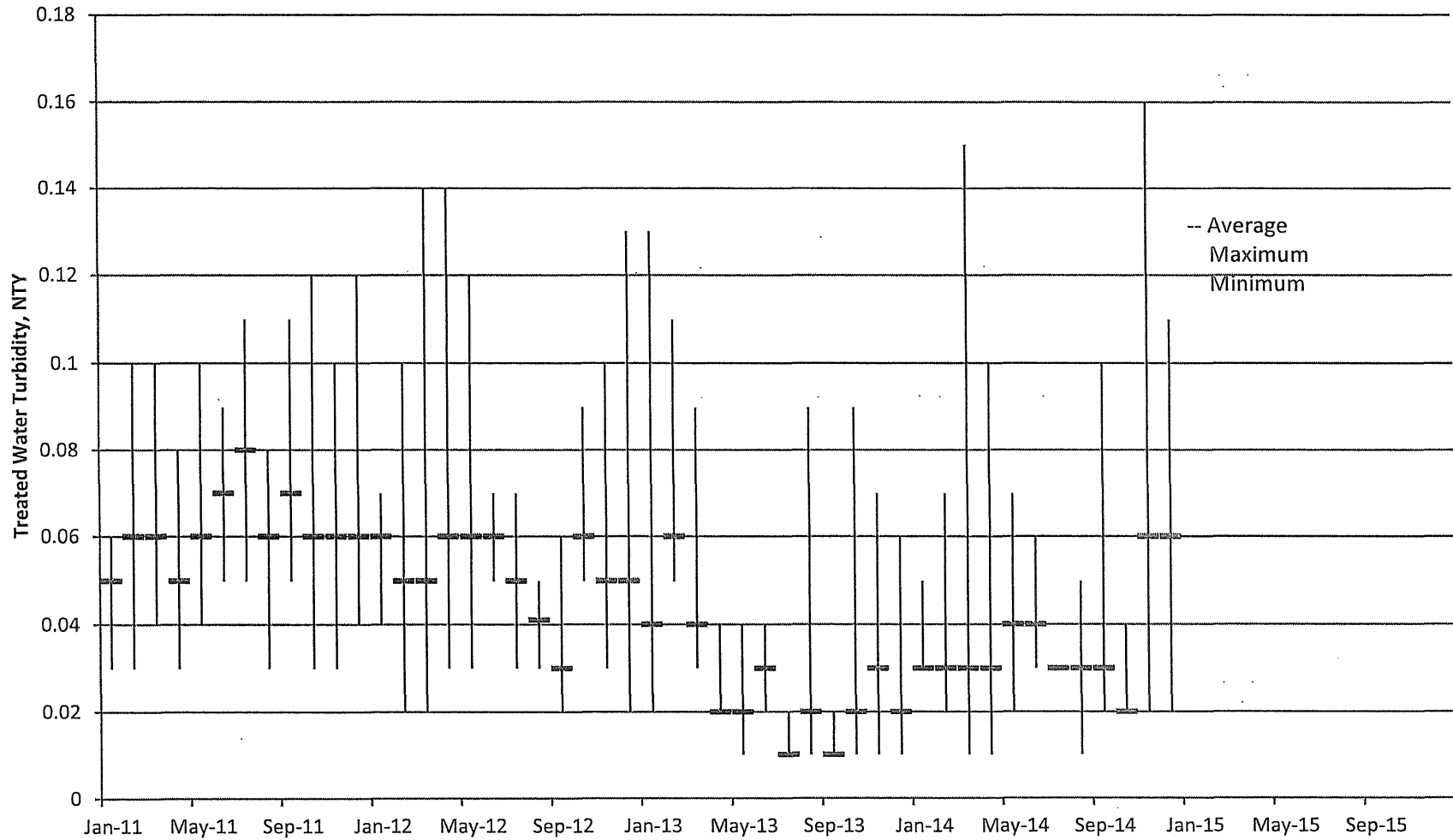
At this time that the watershed does not have a Giardia or Cryptosporidium problem.



**Pedley Filter Plant  
Monthly Raw Water Turbidity  
2011 -2015  
Figure 4- 2b**

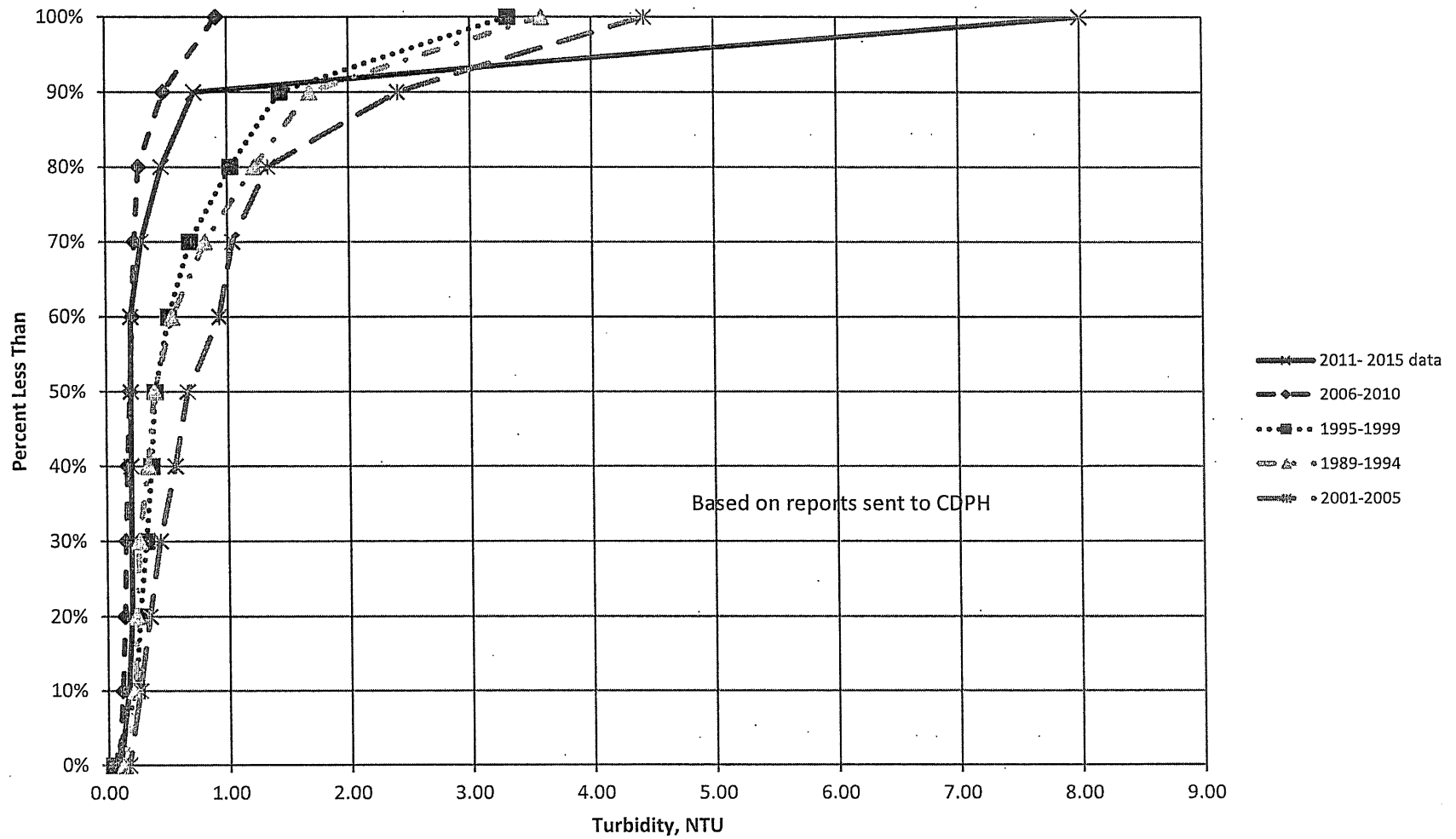


**Pedley Water Treatment Plant  
Monthly Average Treated Water Turbidity  
2011 - 2015  
Figure 4-4b**

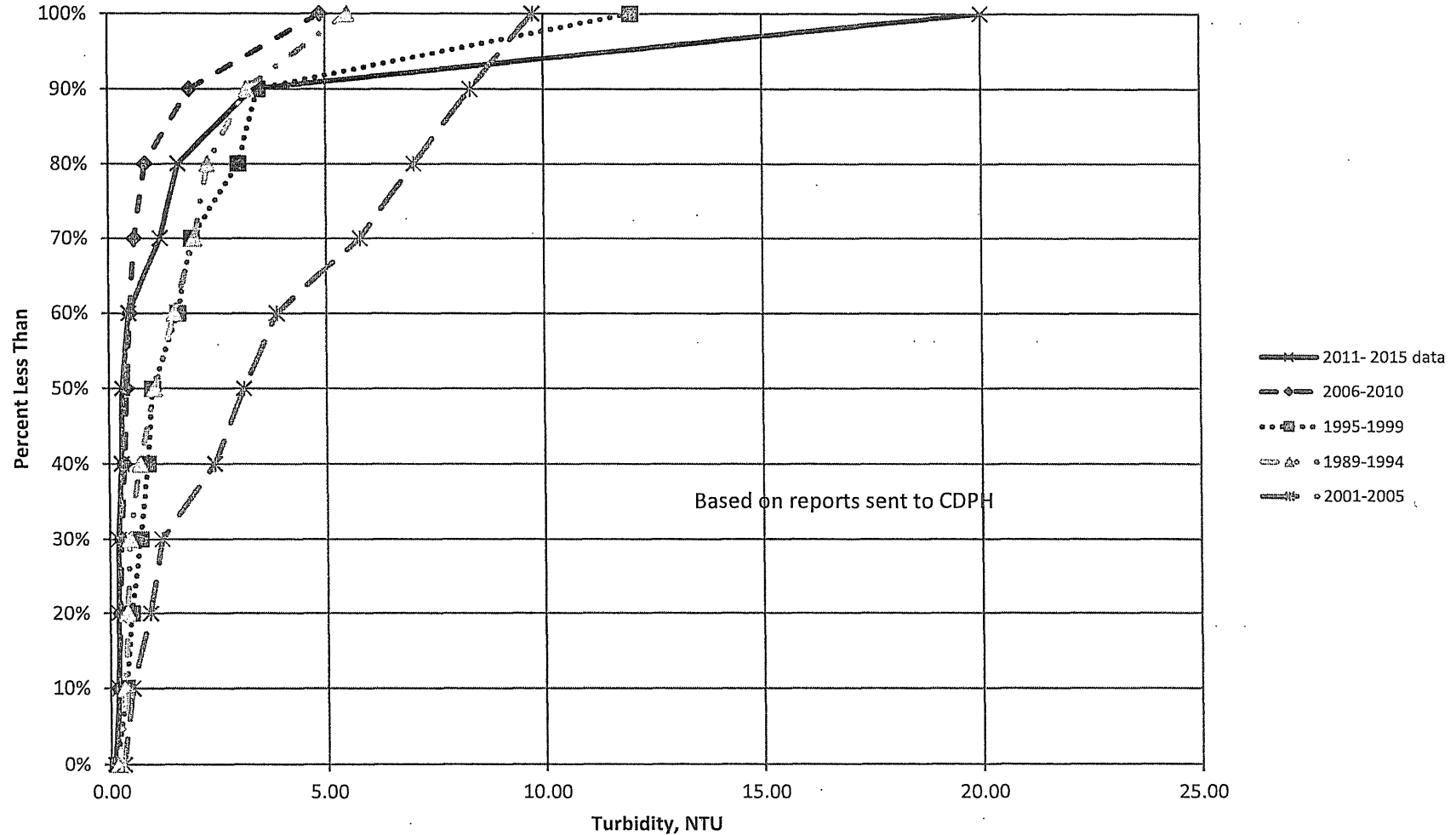




Pedley Filtration Plant  
Cumulative Probability of Average Raw Water Turbidity  
2011 -2015  
Figure 4-3b

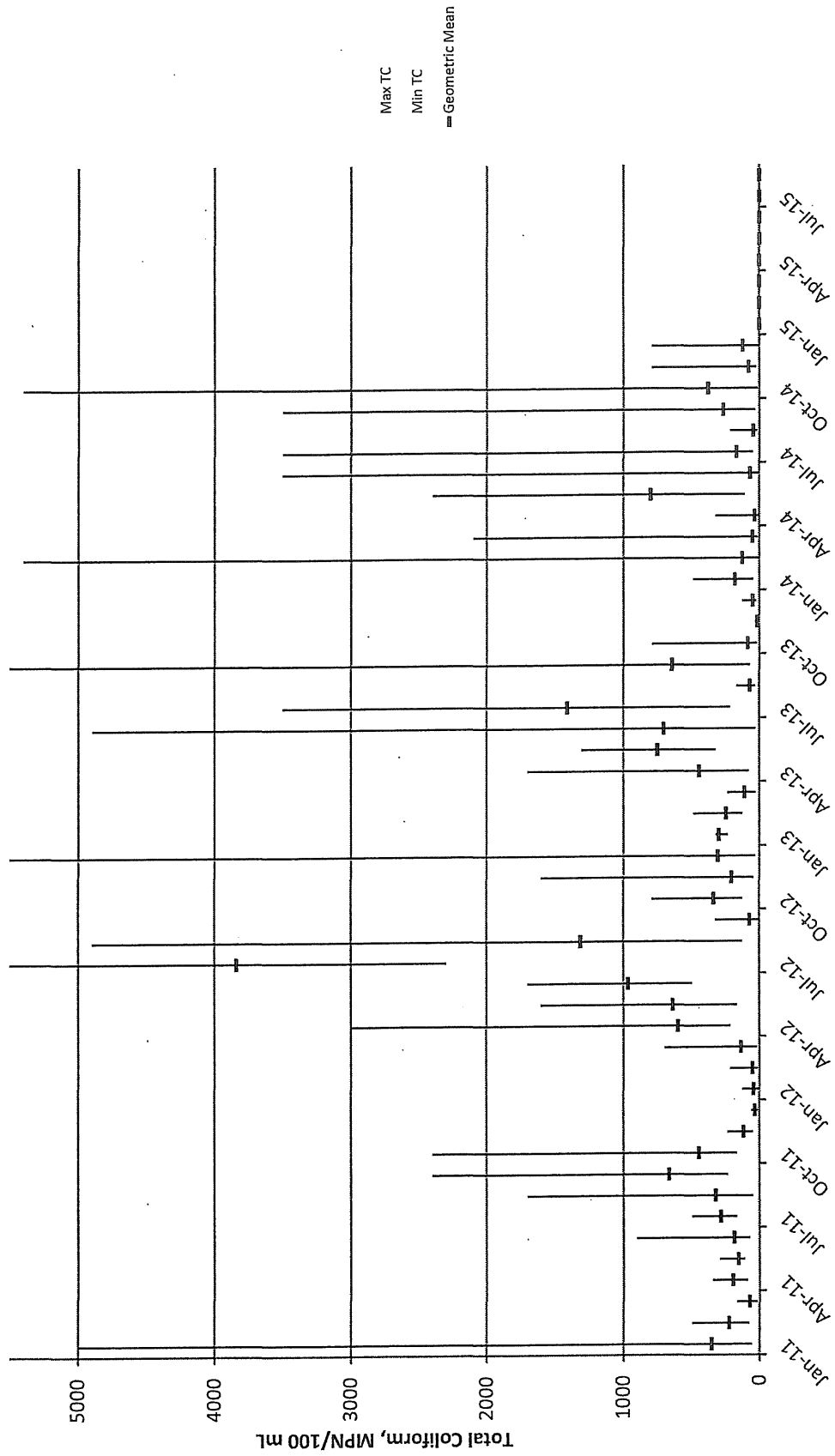


Pedley Filtration Plant  
Cumulative Probability of Maximum Raw Water Turbidity  
2011 -2015  
Figure 4-3b

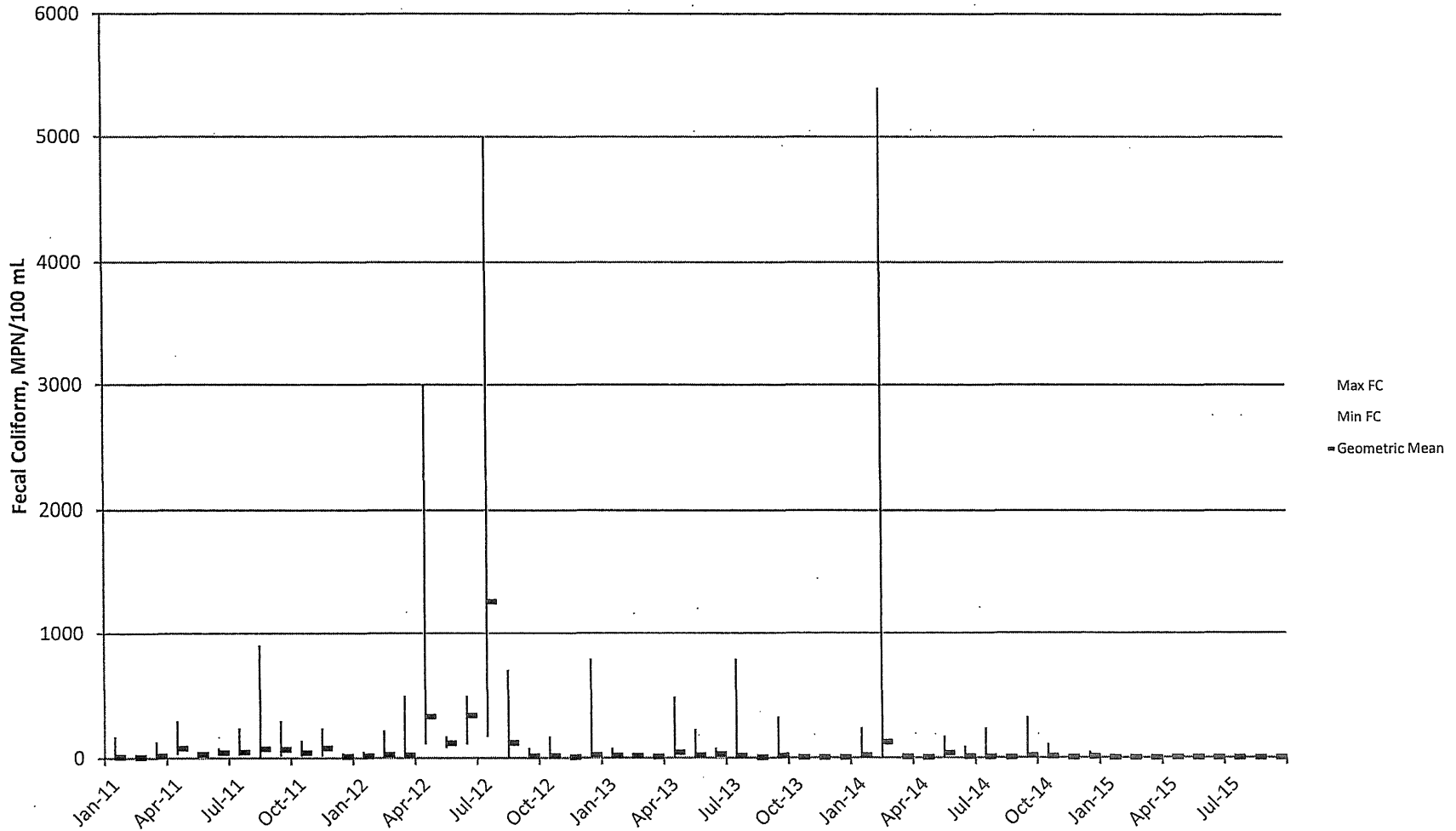


Based on reports sent to CDPH

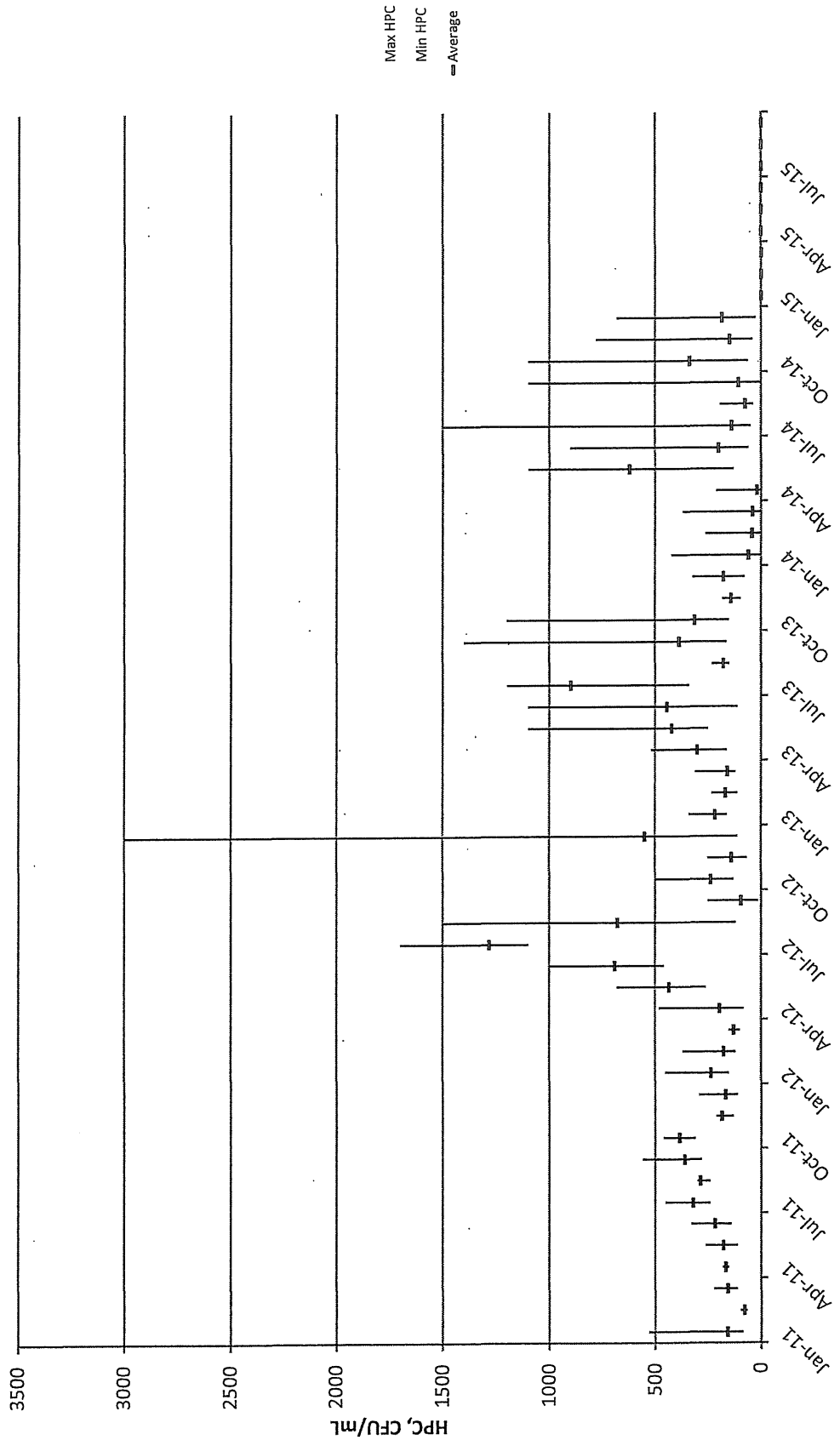
**City of Pomona  
Evey Canyon Raw Water  
Monthly Total Coliform (2011 -2015)**  
**Figure 4-10a**



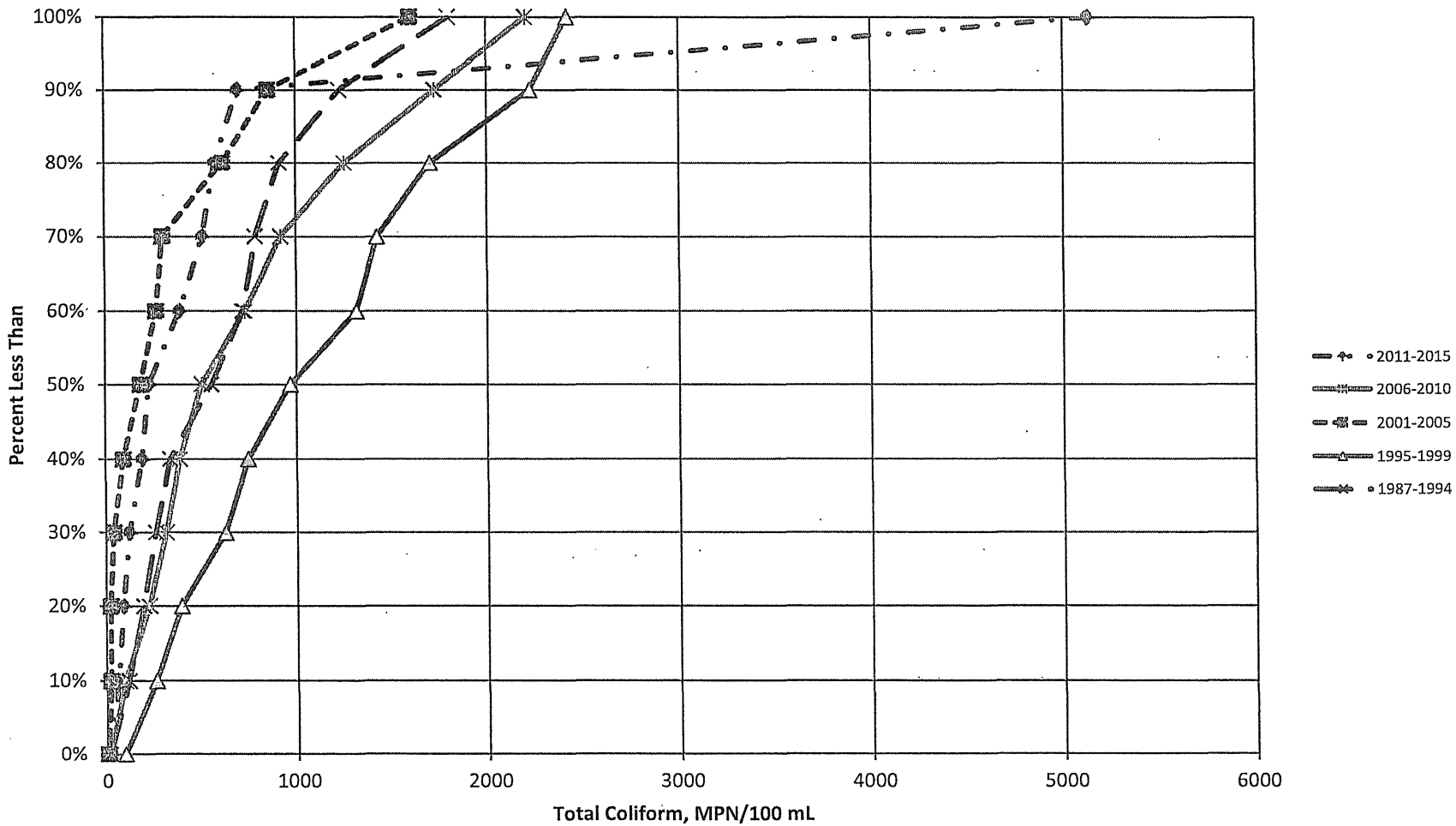
City of Pomona  
Evey Canyon Raw Water  
Monthly Fecal Coliform (2011 - 2015)  
Figure 4-10b



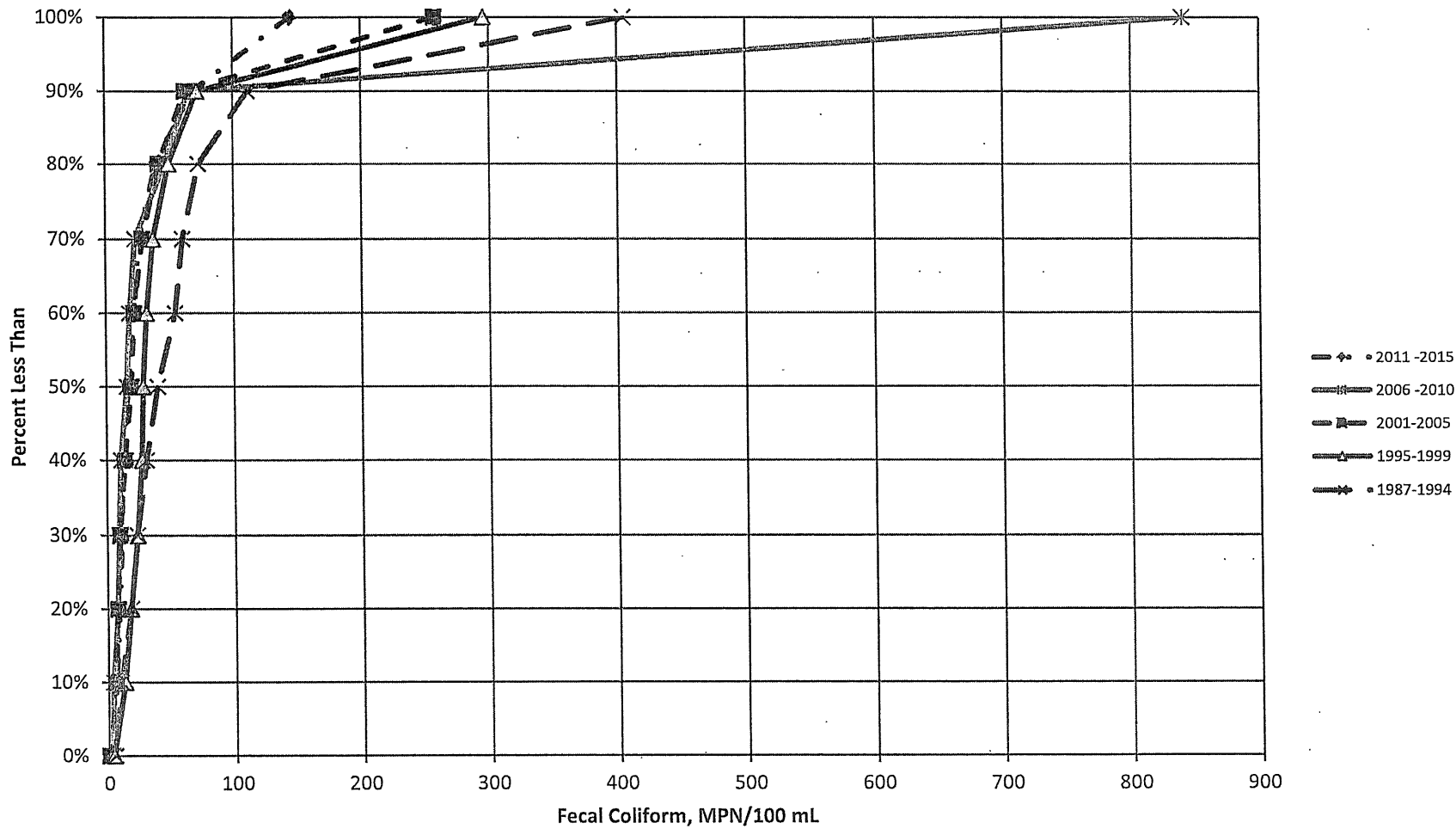
**City of Pomona  
 Evey Canyon Raw Water  
 Monthly HPC (2011-2015)  
 Figure 4 -10c**



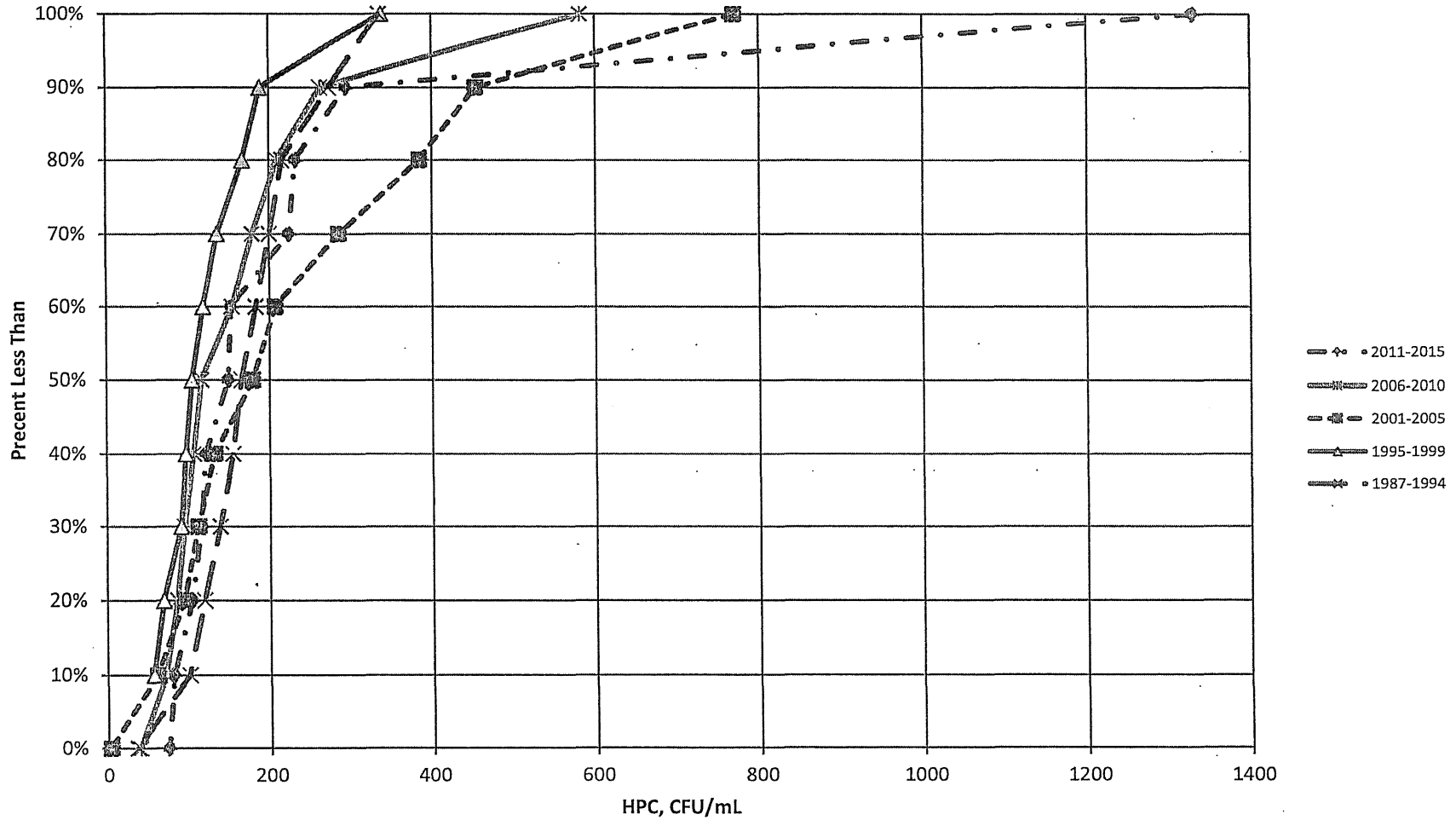
**City of Pomona  
Pedley Filtration Plant Raw Water  
Current and Historic Total Coliform Percentile  
Figure 4-6a**



**City of Pomona  
Pedley Filtration Plant Raw Water  
Current and Historic Fecal Coliform Percentile  
Figure 4-6b**

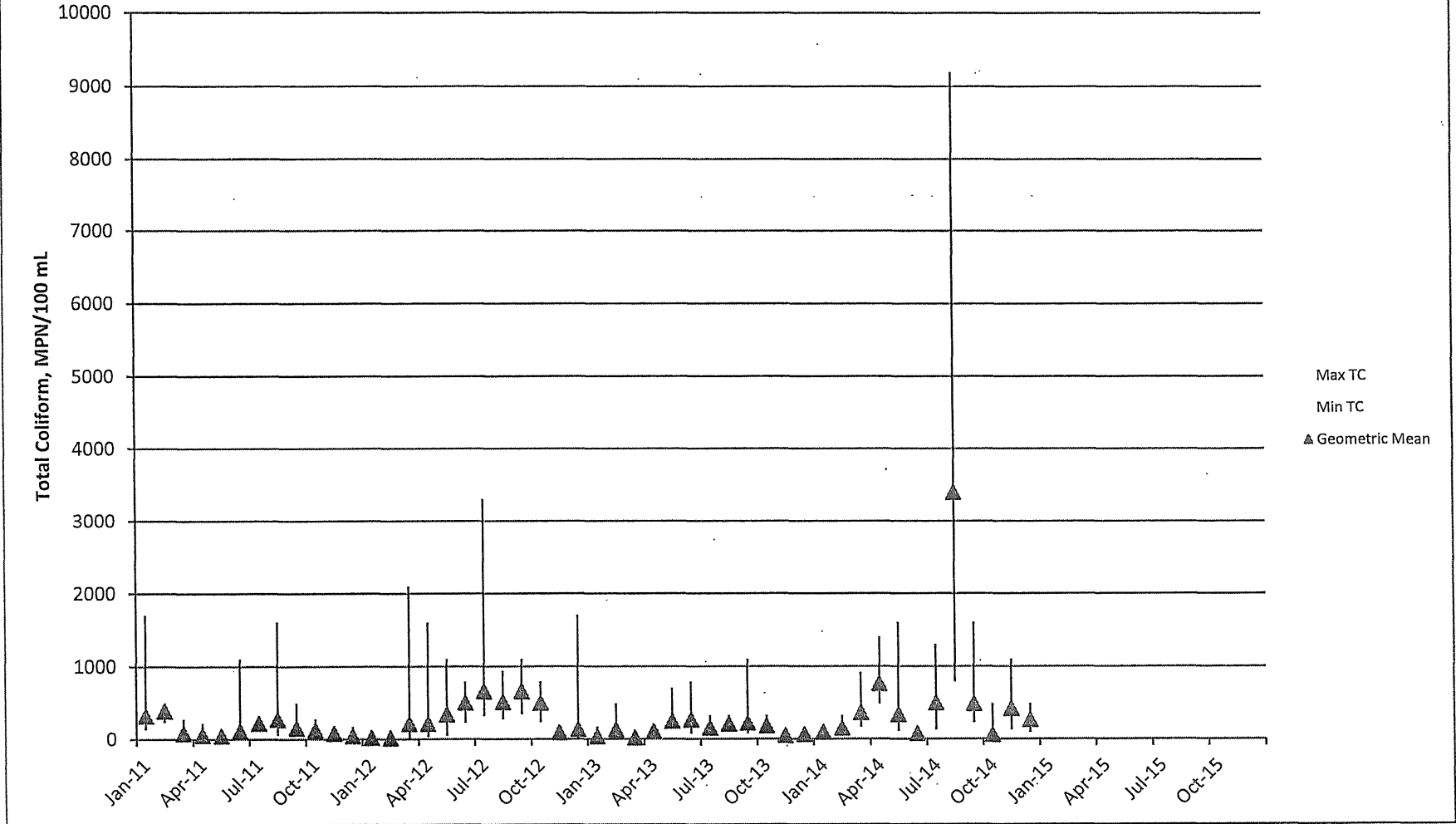


**City of Pomona  
Pedley Filtration Plant Raw Water  
Current and Historic HPC Percentile  
Figure 4-6c**

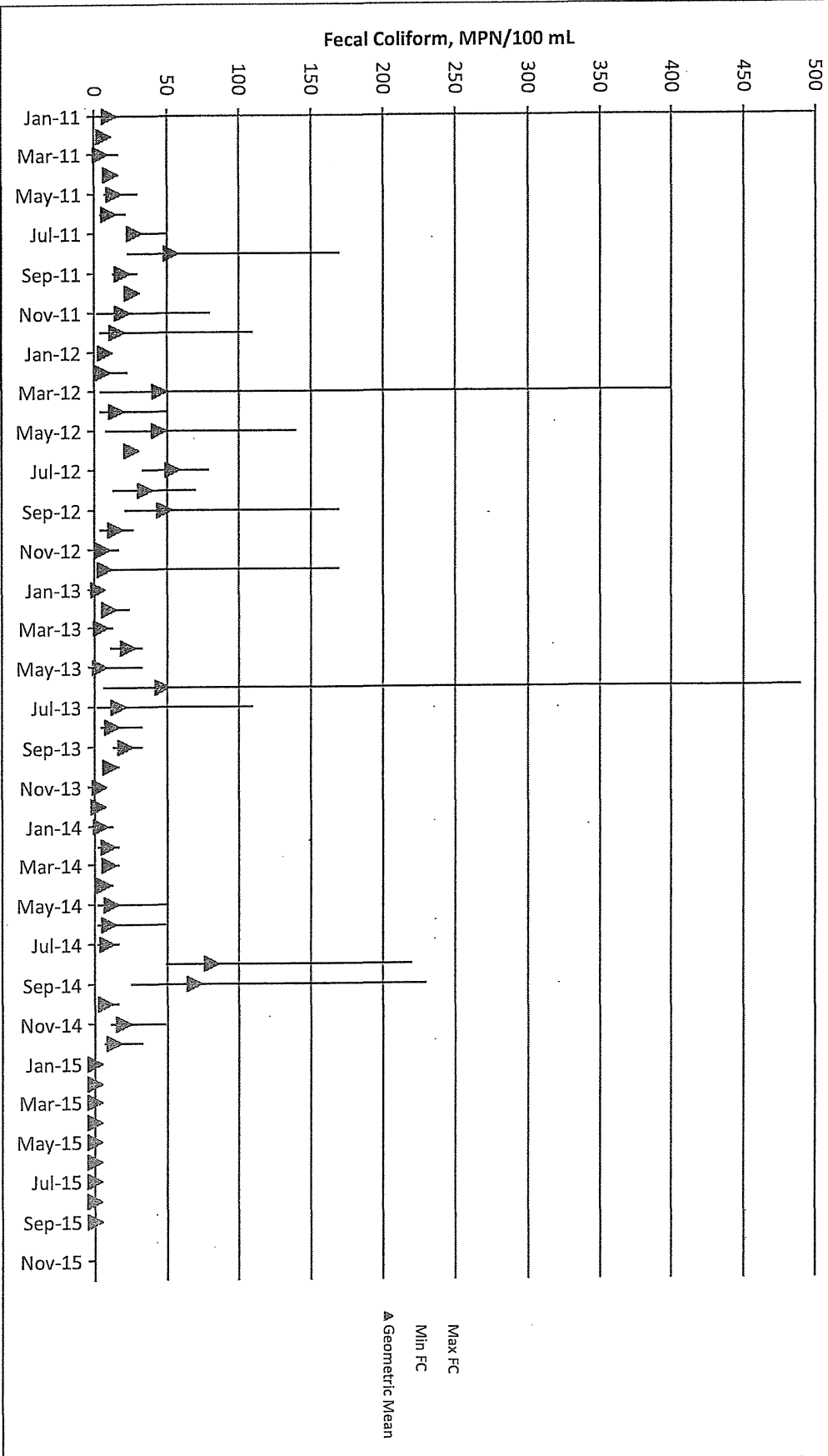




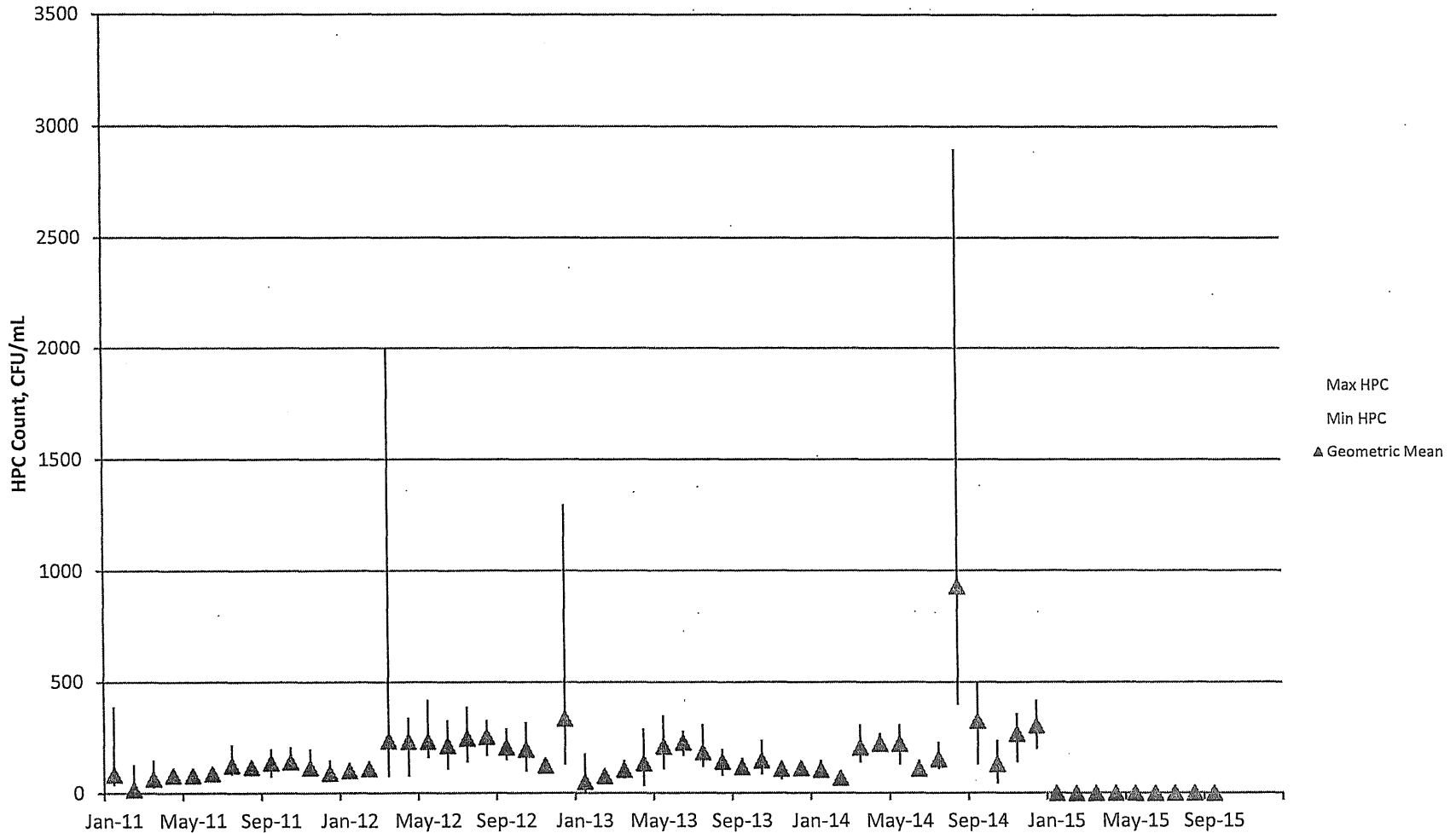
### City of Pomona Pedley Filtration Plant Raw Water Monthly Total Coliform (2011 - 2015) Figure 4 -5a



**City of Pomona  
Pedley Filtration Plant Raw Water  
Monthly Fecal Coliform (2011 - 2015)  
Figure 4-5b**



### City of Pomona Pedley Filtration Plant Raw Water Monthly HPC Counts (2011 - 2015) Figure 4 - 5c



PFP-R	Crypto (oocyst/L)	Giardia (cyst/L)
10/10/2006	<0.08	<0.08
11/14/2006	<0.1	<0.1
12/12/2006	<0.09	<0.09
1/9/2007	<0.09	<0.09
2/13/2007	<0.09	<0.09
3/13/2007	<0.09	<0.09
4/10/2007	0	0
5/8/2007	0	0
6/12/2007	0	0
7/10/2007	0	0
8/14/2007	0	0
9/11/2007	0	0
10/9/2007	0	0
11/13/2007	0	0.09
12/11/2007	0	0
1/8/2008	0	0
2/12/2008	0.186	0
3/11/2008	0	0
4/8/2008	0	0
5/13/2008	0	0
6/10/2008	0	0.09
7/8/2008	0	0
8/12/2008	0	0
9/9/2008	0	0
8/26/2009	0	0
4/26/2010	0.093	0.093
7/6/2010	<0.09	<0.09
4/20/2011	0.093	<0.09
7/6/2011	<0.09	<0.09
7/9/2012	<0.09	<0.09
7/8/2013	<0.09	<0.09
7/15/2014	<0.09	<0.09

Evey Canyon	Crypto (oocyst/L)	Giardia (cyst/L)
4/26/2010	<0.089	<0.089
7/6/2010	<0.10	<0.10

San Antonio Canyon WSS  
Giardia and Crypto Sampling

Location	Sample Date	Sample Time	Lab ID No	Volume Filtered, L	Crypto Cysts	Giardia Cysts	Crypto (oocyst/L)	Giardia (cyst/L)	Crypto Positive		Giardia Positive	
									No	Fraction	No	Fraction
Ice House Canyon	4/26/2005	11:30	2504280584	11	0	0	<0.09	<0.09				
Ice House Canyon	7/5/2005	10:32	2507070126	10.75	1	0	0.09	<0.09				
Ice House Canyon	5/17/2006	12:30	2605220156	10.75	0	0	<0.09	<0.09				
Ice House Canyon	4/23/2009	8:45	2905140107	11	0	0	<0.09	<0.09				
Ice House Canyon	4/26/2011	10:31	110770-001	11	0	0	<0.1	<0.1				
Ice House Canyon	7/7/2015	9:05		10.5	0	0	10.5	<0.09				
Lower Intake	4/23/2009	8:15	2905140109	11	2	0	0.182	<0.09				
Lower Intake Edison Box	4/16/2003	9:00	2304170069	10.93	0	0	<0.09	<0.09				
Middle Intake	7/3/2003	12:00	2307310016	11	0	0	<0.09	<0.09				
Middle Intake	6/1/2004	10:00	2406300351	11	0	0	<0.09	<0.09				
Middle Intake	7/6/2004	11:00	2408040138	11	0	0	<0.09	<0.09				
Middle Intake	4/26/2005	11:00	2504280582	11	0	0	<0.09	<0.09				
Middle Intake	7/5/2005	10:00	2507070127	11	0	1	<0.09	0.09				
Middle Intake	5/17/2006	11:11	2605240012	11	1	1	0.09	0.09				
Middle Intake	4/24/2007	9:23	2705020003	10.75	0	0	<0.093	<0.093				
Middle Intake	7/9/2007	9:20	2707170046	10	1	0	0.1	<0.1				
Middle Intake	8/11/2009	11:20	092228-002	9.75	0	0	<0.1					
Middle Intake	4/27/2010	8:00	101094-001	10.75	0	3	<0.1	0.28				
Middle Intake	7/6/2010	10:34	101528-001	10.75	0	0	<0.1	<0.1				
Middle Intake	7/12/2011	9:05	111217-002	9.25	0	1	<0.1	0.1				
Middle Intake	7/10/2012	9:11	120933-001	11.5	0	0	<0.1	<0.1				
Middle Intake	7/8/2013	10:13	130955-001	10.75	0	0	<0.1	<0.1				
Middle Intake	7/15/2014	9:08	141045-001	10.5	0	0	<0.1	<0.1				
Middle Intake	7/7/2015	9:35		10.5	0	0	<0.1	<0.1				
Upper Intake	7/3/2003	12:30	2307310015	11	0	1	<0.09	0.09				
Upper Intake	6/1/2004	10:30	2406300352	10.5	0	0	<0.1	<0.1				
Upper Intake	7/6/2004	11:30	2408040139	10.5	0	0	<0.1	<0.1				
Upper Intake	4/26/2005	11:00	2504280580	10.5	0	0	<0.1	<0.1				
Upper Intake	7/5/2005	10:00	2507070125	11	0	2	<0.3	0.5				
Upper Intake	5/17/2006	11:20	2605240013	11	0	0	<0.09	<0.09				
Upper Intake	4/24/2007	9:41	2705020004	10	0	0	<0.1	<0.1				
Upper Intake	7/9/2007	9:45	2707170047	10	0	1	<0.1	0.1				
Upper Intake	4/23/2009	8:32	2905140105	11	2	1	0.182	0.0909				
Upper Intake	8/11/2009	11:00	092228-001	9.75	0	0	<0.1					
Upper Intake	4/27/2010	8:30	101094-002	11	0	1	<0.1	0.1				
Upper Intake	7/6/2010	10:55	101528-002	10.75	0	0	<0.1	<0.1				
Upper Intake	4/26/2011	10:15	110770-002	11	0	1	<0.1	0.1				
Upper Intake	7/12/2011	9:25	111217-001	8.5	1	0	0.12	<0.12				
Upper Intake	7/10/2012	9:45	120933-002	11.25	0	0	<0.1	<0.1				
Upper Intake	7/8/2013	10:31	130955-002	11	0	0	<0.1	<0.1				
Upper Intake	7/15/2014	9:27	141045-002	11	0	0	<0.1	<0.1				

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**OPINION RE  
WATER RIGHTS OF  
SAN ANTONIO WATER COMPANY**

**PREPARED FOR:  
SAN ANTONIO WATER COMPANY  
UPLAND, CALIFORNIA**

**PREPARED BY:  
LAGERLOF, SENECA, DRESCHER & SWIFT  
PASADENA, CALIFORNIA**

**JUNE 1993**

**JUNE 93**

**PRIVILEGED AND CONFIDENTIAL**



c) Summary of San Antonio Canyon and Tunnel Rights

By way of summary, the 1913 judgment, as modified by the 1915 stipulation approved by the Supreme Court, provides that after provision is made for compliance with the salvage water suit decree granting to San Antonio Water Company 17% of the flow as salvage water (as successor to Ontario Power Company) and 18 miner's inches as the Gird right, the West Side Owners are entitled to  $\frac{1}{4}$  of the flows up to 312 inches when the flow measures 773 $\frac{1}{4}$  inches. After satisfying the right of the West Side Owners, San Antonio Water Company is entitled to up to 740 miner's inches of the surface water reaching the dam naturally or by means of the former Ontario Power Company pipeline, or any other pipeline, during the period from December 31 through April 1 of each year, and entitled to 965 miner's inches of such waters during the remainder of the year.

The Court also declared that San Antonio Water Company is entitled to all water in the Tunnel. It should be noted that the Tunnel rights are limited only by the supplies available and the actual physical capacity of the Tunnel. It should be borne in mind, however, that the Tunnel may not be enlarged or extended under the terms of the judgment.

The rights enumerated above are capable of being exercised for domestic and irrigation purposes or for spreading and the entitlement may be spread in Cucamonga Basin or elsewhere.

Provision is made for additional rights available to San Antonio Water Company when 10,000 miner's inches is flowing at a certain specified point in the Canyon. When this occurs, and during the period of the occurrence, San Antonio Water Company is entitled to divert up to an additional 500 miner's inches which water can also be used for spreading, provided however, that when feasible, the water is to be spread in the Canyon. Finally, San Antonio Water Company is entitled to any excess water which flows over the dike in the Canyon, which excess water may be spread in the Cucamonga Basin or in any other location.

San Antonio Water Company has the right to divert 13,864.61 acre feet per year from the Canyon; 2,855.32 during the period from January through March; 11,009.29 during the period from April through December. These rights include the 30 miner's inches of riparian rights and 25 miner's inches under the decree in the Storm Water suit. These rights exclude the conveyances to Messrs.

Vernon, Chapman, Southern California Edison Company, San Antonio Canyon Mutual Water Company and the U.S. Forest Service.

02/05/16  
SAN ANTONIO  
CREEK FLOW

# SAN ANTONIO WATER COMPANY SURFACE WATER SUPPLY SCHEMATIC FOR CHINO BASIN RECHARGE



**EDISON BOX  
60/40 SPLIT**

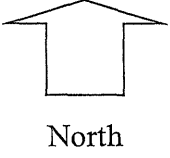
**MAIN BOX  
J Stick Weir  
Measurement**

40% TO  
POMONA

**LEGEND**

S/M Spread Meter

M Meter



TUNNEL  
SPREAD  
PONDS

San Antonio Dam

Cucamonga Dam

P 146

CITY  
TREATMENT  
PLANT

**FOREBAY**

RES 4

23<sup>rd</sup> street  
Clock

Cucamonga Spread  
Basin 3

25<sup>th</sup> St.

20<sup>th</sup> Street Res and  
PRV Spread Meter

IRRIGATORS

Spread San  
Antonio  
Spread Gnds

S/M

San Antonio  
Avenue / 23<sup>rd</sup>  
Spread Meter

S/M

Cucamonga  
Spread Basin 6

To San  
Antonio  
Channel

24<sup>th</sup> St.

RES 9

TO  
IRRIGATORS



# San Antonio Water Company

Incorporated October 25, 1882

Serving the original Ontario Colony lands

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February 2, 2016

Ms. Danni Maurizio  
Chino Basin Watermaster  
9641 San Bernardino Road  
Ranch Cucamonga, CA 91730

Subject: Application for Recharge – Statement of Water Rights in San Antonio Creek

Dear Danni:

The San Antonio Water Company has riparian and appropriative water rights from the San Antonio Creek. These rights are captured at the Water Company's Division Dam by diversion of stream flows below Shin Road.

Remaining stream flows not captured by the Water Company are captured at the San Antonio Dam and utilized for water recharge by Six Basins Watermaster for the benefit of its parities.

Sincerely,

Charles Moorrees  
General Manager/CEO  
/cm

Cc: File



February 4, 2016

Chino Basin Watermaster  
Attention: Mr. Peter Kavounas, General Manager  
9641 San Bernardino Road  
Rancho Cucamonga, CA 91730

**Subject: Analysis of Material Physical Injury for the San Antonio Water Company (SAWC) Recharge Application, as submitted to the Chino Basin Watermaster on January 22, 2016**

Dear Mr. Kavounas,

Pursuant to your direction, Wildermuth Environmental, Inc. (WEI) conducted a material physical injury (MPI) analysis of the SAWC's January 22, 2016 recharge application. This MPI analysis has been done pursuant to the Watermaster Rules and Regulations and the Peace Agreement. Specifically, Article 10 of Watermaster Rules and Regulations (paragraph 10.10) requires that:

"[...] Watermaster prepare a written summary and analysis (which will include an analysis of the potential for material physical injury) of the Application and provide the Parties with a copy of the written summary and advanced notice of the date of Watermaster's scheduled consideration and possible action on any pending Applications."

Per the Peace Agreement, material physical injury is defined as:

"[...] material injury that is attributable to Recharge, Transfer, storage and recovery, management, movement or Production of water or implementation of the OBMP, including, but not limited to, degradation of water quality, liquefaction, land subsidence, increases in pump lift and adverse impacts associated with rising groundwater" (Peace Agreement, page 8).

The MPI analysis presented herein is based on our professional experience and judgment in the Chino Basin, including the collection and analysis of monitoring data, past evaluation of Chino Basin storage programs, groundwater modeling of various

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groundwater management alternatives in the Chino Basin, and prior MPI analyses.

### **SAWC's Recharge Application of January 22, 2016**

WEI contacted Charles Moorrees of the SAWC to review the SAWC recharge application on February 1, 2016. SAWC proposes to recharge 200 afy of San Antonio Creek water into the Chino Basin at a rate not to exceed 500 gallons per minute. SAWC proposes to divert San Antonio Creek water through its existing San Antonio Creek diversion located upstream of San Antonio dam, convey that water through its existing non-potable system and subsequently discharge it to the concrete-lined reach of San Antonio Creek located downstream of the Pomona Valley Protective Association (PVPA) diversion facilities and upstream of the Upland Basin. SAWC proposes to recharge the subject water in Montclair Basins 2, 3 and 4 and Brooks Basin. Diversion into the Montclair Basins will occur through the existing San Antonio Creek diversion into Montclair Basin 1 and subsequently routed downstream through the outlet of Basin 1 to Basin 2 and thence if necessary to Basins 3 and 4. Diversion into the Brooks Basin would be through the existing San Antonio Creek diversion into the Brooks Basin. SAWC would need to coordinate their proposed diversions for recharge with the Inland Empire Utilities Agency (IEUA), Chino Basin Water Conservation District and Watermaster to ensure that their water is diverted as proposed, accounted for, and to ensure that SAWC recharge activities do not interfere with other recharge operations. The proposed recharge will contribute to the Watermaster obligation to recharge 6,500 afy of supplemental water in MZ1. SAWC did not submit a recapture plan in its January 22, 2016 recharge application.

SAWC applied for a local storage agreement (LSA) for 2,000 af in December 2011. The recharge application that accompanied the LSA application identified the source water as San Antonio Creek water that would be recharged into the Upland and Montclair Basin 1 at a rate of 1,500 afy for the period January through June and at an average monthly rate of 250 af per month. SAWC did not submit a recovery plan with its 2011 LSA application. The MPI analysis for the 2011 LSA application indicated that there would be no MPI for the recharge and storage of San Antonio Creek water as then proposed but did not opine on the recovery of the stored water because no recovery plan was provided. The Watermaster board approved the recharge application and directed Watermaster "to account for this supplemental water recharged in SAWCO's existing local supplemental storage account."<sup>1, 2</sup>

The scope of this MPI analysis is to determine if the recharge of San Antonio Creek water by the SAWC as proposed in its January 22, 2016 recharge application, has the potential to cause MPI. This analysis is limited to the recharge and storage of that water only

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<sup>1</sup> See the minutes from the February 23, 2102 Watermaster board meeting.

[http://www.cbwm.org/met\\_board\\_12.htm](http://www.cbwm.org/met_board_12.htm)

<sup>2</sup> The 2011 proposed LSA was for 2,000 af and the attached recharge agreement included 1,500 afy. The Watermaster board subsequently approved only the recharge application for 2,000 afy at the February 23, 2012 meeting.

because no recovery plan was provided.

#### **Groundwater Level Impacts (liquefaction, land subsidence, and increases in pump lift)**

The proposed project will produce a localized increase in groundwater levels in the vicinity of the recharge basins where the recharge occurs, followed by a return to the groundwater levels that would occur had the water not been recharged. The depth to groundwater beneath Montclair Basins 2, 3 and 4 is presently about 500 feet below ground surface (bgs) and the depth to groundwater beneath the Brooks Basin is about 310 ft bgs. There will be no adverse liquefaction or land subsidence impacts from the groundwater level changes caused by the recharge and storage proposed by SAWC. There may be some diminishing of the current land subsidence in the recharge area if the stored water resulting from the proposed recharge is recovered outside of the Northwest Management Zone 1 subsidence management area (Northwest MZ1 area).

#### **Balance of Recharge and Discharge in Every Area and Subarea**

There may be an imbalance if the recovery of the proposed recharge does not occur proximate to the recharge.

- If the proposed recharge is produced in Northwest MZ1 area where the recharge is proposed then there will likely be no imbalance in recharge and discharge attributable to the proposed recharge.
- If the recharged water is recovered outside of the Northwest MZ1 area then there will be an imbalance in recharge and discharge attributable to the proposed recharge and that imbalance will result in higher groundwater levels and greater groundwater storage in the Northwest MZ1 area both of which will benefit the area. There will be a decline in groundwater levels in the area where the groundwater is recovered.

#### **Total Dissolved Solids and Nitrate Concentration of the Recharge Water**

The 2004 Regional Water Quality Control Plan (Basin Plan) for the Santa Ana River Watershed has total dissolved solids (TDS) and nitrate (expressed as nitrogen) concentration objectives in the Chino-North Groundwater Management Zone (GMZ) of 430 milligrams per liter (mg/L) and 5 mg/L, respectively. The proposed recharge will occur in the Chino-North GMZ. Pursuant to the Basin Plan, Watermaster and IEUA are required to manage the recharge in spreading basins in the Chino Basin so that the five-year, volume-weighted average TDS and nitrate concentration of the recycled water, imported water, supplemental native water, and new stormwater recharged across all recharge basins will not exceed the Basin Plan objectives. SAWC did not provide a complete characterization of San Antonio Creek water quality in their January 22, 2016 recharge

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application. San Antonio Creek water quality data available to WEI from other sources<sup>3</sup> indicate that the TDS and nitrate concentrations of the water proposed to be recharged vary and are generally less than 250 mg/L and 1 mg/L, respectively. The current ambient TDS and nitrate concentrations in the Chino-North GMZ are 350 mg/L and 10 mg/L, respectively and therefore the proposed recharge project will not encroach into the current assimilative capacity or interfere with Watermaster and IEUA's regulatory obligations. In fact, the proposed recharge will be helpful in complying with the Basin Plan. There will be no adverse TDS or nitrate concentration impacts caused by the proposed recharge.

### **Water Quality Impacts on Other Pumpers**

The water quality of the proposed recharge is comparable to State Water Project water and the proposed recharge will improve the general water quality in the Basin. The sum of the proposed recharge of 200 afy in the January 22, 2016 recharge application and the 2,000 afy of recharge that was previously approved in February 2012 is not unusually large nor will it create a significant change in the direction and speed of groundwater flow in the area between the recharge basins and the wells owned by the City of Pomona and the Monte Vista Water District (MVWD). These entities will with certainty physically produce the water recharged in the proposed January 22, 2016 recharge application and the water recharged pursuant to the 2012 SAWC recharge application. We reviewed exhibits 29 through 46 in the 2014 State of the Basin Report<sup>4</sup> that characterize water quality in the Chino Basin to qualitatively assess the impact of San Antonio Creek recharge as proposed January 22, 2016 recharge application and the water recharged pursuant to the 2012 SAWC recharge application, and we conclude that the proposed recharge will not adversely affect the water quality in the groundwater produced by Pomona or the MVWD.

### **Conclusion and Recommendations**

There will be no MPI due to the proposed January 22, 2016 recharge application and the water recharged pursuant to the 2012 SAWC recharge application. A no-MPI determination cannot be made regarding the recovery of the recharged water until a recovery plan is provided to Watermaster for MPI review. The scope of the MPI analysis for the recovery plan should consider the recovery of all water recharged and stored by SAWC.

Watermaster should require the SAWC to monitor the amount of water discharged to San Antonio Creek, sample and analyze the water quality of San Antonio Creek water that they discharge to San Antonio Creek and provide this data to the Watermaster and IEUA in a timely manner. These data are required for Watermaster accounting, regulatory reporting required in the IEUA-Watermaster recharge permit and other groundwater

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<sup>3</sup> 2011 City of Pomona Consumer Confidence Report (CCR), 20 and 2013 City of Upland CCR and 2014 SAWC CCR

<sup>4</sup> [http://www.cbwm.org/rep\\_engineering.htm](http://www.cbwm.org/rep_engineering.htm)




management purposes.

Please call me if you have any questions or concerns regarding this MPI analysis.

Very truly yours,

**Wildermuth Environmental, Inc.**

A handwritten signature in black ink, appearing to read "Mark Wildermuth". The signature is fluid and cursive, with a long horizontal stroke at the end.

Mark Wildermuth, PE  
*President, Principal Engineer*

# **CHINO BASIN WATERMASTER**

## **I. CONSENT CALENDAR**

### **E. EXHIBIT "G" PHYSICAL SOLUTION TRANSFERS**



# CHINO BASIN WATERMASTER

9641 San Bernardino Road, Rancho Cucamonga, Ca 91730  
Tel: 909.484.3888 Fax: 909.484.3890 www.cbwm.org

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PETER KAVOUNAS, P.E.  
General Manager

## STAFF REPORT

DATE: March 24, 2016  
TO: Board Members  
SUBJECT: 2015-2016 Exhibit "G" Physical Solution Transfers

### SUMMARY

Issue: Pursuant to Exhibit "G" of the Restated Judgment, members of the Overlying (Non-Agricultural) Pool may annually transfer water to members of the Appropriative Pool through a Watermaster clearinghouse process. Watermaster purchases water from the Overlying (Non-Agricultural) Pool members, which Watermaster then transfers to the members of the Appropriative Pool based on the prescribed process. Members of the Appropriative Pool purchasing water through the process must complete their payments to Watermaster by June 30 of the fiscal year.

Recommendation: 1) Find that Auto Club Speedway (California Speedway Corporation), California Steel Industries, and NRG California South LP are in compliance with the Restated Judgment, Exhibit "G" ¶9(g), authorizing 2015-2016 Exhibit "G" Physical Solution Transfers, 2) Approve levy of assessments and subsequent payments for same.

Financial Impact: Watermaster functions as a pass-through for the payments for transferred water. There is no financial impact as a result of this action.

### Future Consideration

Watermaster Board: March 24, 2016 1) Find that Auto Club Speedway (California Speedway Corporation), California Steel Industries, and NRG California South LP are in compliance with the Restated Judgment, Exhibit "G" ¶9(g), authorizing 2015-2016 Exhibit "G" Physical Solution Transfers, 2) Approve levy of assessments and subsequent payments for same. [Within WM Duties and Powers]

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### ACTIONS:

Date – Watermaster Board –

## BACKGROUND

Pursuant to the Restated Judgment, Exhibit "G," members of the Overlying (Non-Agricultural) Pool may annually make available water for sale to Watermaster and thence to members of the Appropriative Pool. By December 31st of each year, the members of the Overlying (Non-Agricultural) Pool shall notify Watermaster of the amount of water each Party shall make available in its individual discretion for purchase by the Appropriators. Watermaster is required to provide a Notice of Availability of each Appropriator's pro-rata share of such water by January 31st of each year.

Each member of the Appropriative Pool is afforded the right to purchase its pro-rata share of the water made available from the Overlying (Non-Agricultural) Pool, based on its combined total share of Operating Safe Yield and the previous year's actual Production by each party. If any member of the Appropriative Pool fails to commit to their allocated share by March 1 of each year, its share of the Overlying (Non-Agricultural) Pool water is made available to all other members of the Appropriative Pool according to the same proportions. Each member of the Appropriative Pool shall complete its payment for its share of water made available by June 30 of each year. Both water and payment for the same are funneled through Watermaster.

Exhibit "G" provides that the right of any member of the Overlying (Non-Agricultural) Pool to transfer water in accordance with this mechanism is dependent upon Watermaster making a finding that the member of the Overlying (Non-Agricultural) Pool is using recycled water where it is both physically available and appropriate for the designated end use in lieu of pumping groundwater, and that each member of the Appropriative Pool shall only be eligible to purchase water pursuant to this mechanism if the party is: (i) current on all their assessments; and (ii) in compliance with the OBMP.

## DISCUSSION

Paragraph 9(d) of Restated Judgment, Exhibit "G," provides that Watermaster will purchase available water at a rate of 92% of the then-prevailing Metropolitan Water District of Southern California ("MWD") Replenishment Rate. As MWD does not currently publish a Replenishment Rate, the Overlying (Non-Agricultural) Pool, and the Appropriative Pool agreed that the temporary substitution of a rate of 85.52% of MWD's 2016 Tier 1 Untreated Rate for Physical Solution Transfers during Fiscal Year 2015-16 would be appropriate. On September 19, 2015, based on the approval of each of the Pool Committees, the Advisory Committee, and the Watermaster Board, Watermaster Legal Counsel moved the Court to approve the temporary rate substitution for 2016 Physical Solution Transfers. The temporary rate substitution was approved by the Court on November 20, 2015.

On November 23, 2015, Watermaster requested that members of the Overlying (Non-Agricultural) Pool interested in making water available for purchase pursuant to Paragraph 9 of Exhibit "G" notify Watermaster of available water by December 31, 2015. On December 14, 2015, California Steel Industries notified Watermaster of the availability of 2,500 acre-feet of water for purchase. On December 15, 2015, Auto Club Speedway (California Speedway Corporation) notified Watermaster of the availability of 1,000 acre-feet of water for purchase. On December 30, 2015, NRG California South LP notified Watermaster of the availability of 1,500 acre-feet of water for purchase. Therefore, a total of 5,000 acre-feet of water is available for purchase by the Appropriators.

In January 2016, Watermaster issued a Notice of Availability showing the allocation of the amount of water available to each Appropriator, per the prescribed formula, and the associated cost. Consistent with the provisions of Paragraph 9, the Notice provided the Appropriators until March 1, 2016 to notify Watermaster of their interest in purchasing their allocations of the available water, as well as the maximum amount of water they were interested in purchasing, should other members of Pool not wish to purchase their allocated shares.

As shown on the attached spreadsheet, eleven appropriators committed to purchase the available water, with such commitments resulting in the purchase of the entirety of the water made available by California Steel Industries, Auto Club Speedway (California Speedway Corporation), and NRG California South LP. Pursuant to the provisions of Paragraph 9, Watermaster must purchase the available water from California Steel Industries, Auto Club Speedway (California Speedway Corporation), and NRG California South LP, transfer such water to the purchasing appropriators, collect payment from those appropriators, and issue payment to California Steel Industries, Auto Club Speedway (California Speedway Corporation), and NRG California South LP in the amounts shown on the attached spreadsheet.

According to Watermaster's records, each member of the Appropriative Pool wishing to purchase water is eligible to do so pursuant to the criteria that it be (i) current on all assessments; and (ii) in compliance with the OBMP. Additionally, pursuant to the information available to Watermaster, California Steel Industries, Auto Club Speedway (California Speedway Corporation), and NRG California South LP are using recycled water in lieu of pumping groundwater where available.

#### ATTACHMENTS

1. Purchase Allocation Among Appropriators of Water Made Available for Transfer by Non-Agricultural Pool Parties According to Restated Judgment, Exhibit "G" in FY 2015-16

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## Actual Allocation for the Purchase of the Exhibit "G" Non-Ag Pool Water 2016

The Restated Judgment, Exhibit "G" states:

9(a) By December 31 of each year, the members of the Overlying (Non-Agricultural) Pool shall notify Watermaster of the amount of water each member shall make available in their individual discretion for purchase by the Appropriators. By January 31 of each year, Watermaster shall provide a Notice of Availability of each Appropriator's pro-rata share of such water;

9(b) Except as they may be limited by paragraph 9(e) below, each member of the Appropriative Pool will have, in their discretion, a right to purchase its pro-rata share of the supply made available from the Overlying (Non-Agricultural) Pool at the price established in 9(d) below. Each Appropriative Pool member's pro-rata share of the available supply will be based on each Producer's combined total share of Operating Safe Yield and the previous year's actual Production by each party;

9(c) If any member of the Appropriative Pool fails to irrevocably commit to their allocated share by March 1 of each year, its share of the Overlying (Non-Agricultural) Pool water will be made available to all other members of the Appropriative Pool according to the same proportions as described in 9(b) above and at the price established in Paragraph 9(d) below. Each member of the Appropriative Pool shall complete its payment for its share of water made available by June 30 of each year.

Non-Ag Water Made Available By:		
Party	Volume Made Available (AF)	Payment @ \$508.00 per AF
CA Steel Industries	2,500.000	\$ 1,270,000.00
Auto Club Speedway	1,000.000	\$ 508,000.00
NRG CA South LP	1,500.000	\$ 762,000.00
	5,000.000	\$ 2,540,000.00

1st Iteration Additional Amount Available To Be Reallocated:  
( = Total [B] - Total [D] )  
1,589.780 Acre-Feet

2nd Iteration Additional Amount Available To Be Reallocated:  
( = Total [B] - Total [J] )  
14.507 Acre-Feet

3rd Iteration Additional Amount Available To Be Reallocated:  
( = Total [B] - Total [O] )  
- Acre-Feet

Party	5,000,000 Potential Allocation (From Notice)	Maximum Amount Stated On Form	Amount of Original Potential Allocation Requested	Maximum Additional Amount Requested	Original Potential Allocation (If Purchasing Additional)	1st Iteration			Total Amount After Iteration	Original Potential Allocation (If Purchasing Additional)	2nd Iteration			Total Amount After Iteration	Original Potential Allocation (If Purchasing Additional)	3rd Iteration			Total Amount After Iteration	Cost for Each Party's Allocation @ \$508.00 per AF
						Percent Of Potential Allocation	Available Allocation Amount For This Iteration	Reallocation Actual Amount (Up To Maximum)			Percent Of Potential Allocation	Available Allocation Amount For This Iteration	Reallocation Actual Amount (Up To Maximum)			Percent Of Potential Allocation	Available Allocation Amount For This Iteration	Reallocation Actual Amount (Up To Maximum)		
Arrowhead Mtn Spring Water Co	12.666	5,000.000	12.666	4,987.334	12.666	0.483%	7.674	7.674	20.341	12.666	0.490%	0.071	0.071	20.412					\$ 10,369.30	
Chino Hills, City Of	205.093	-	-	-	-				-	-				-					\$ -	
Chino, City Of	183.912	-	-	-	-				-	-				-					\$ -	
Cucamonga Valley Water District	600.175	3,365.764	600.175	2,765.589	600.175	22.873%	363.635	363.635	963.810	600.175	23.229%	3.370	3.370	967.180					\$ 491,327.29	
Desalter Authority	-	-	-	-	-				-	-				-					\$ -	
Fontana Union Water Company	291.413	1,634.236	291.413	1,342.823	291.413	11.106%	176.562	176.562	467.975	291.413	11.279%	1.636	1.636	469.611					\$ 238,562.42	
Fontana Water Company	396.687	5,000.000	396.687	4,603.313	396.687	15.118%	240.346	240.346	637.033	396.687	15.353%	2.227	2.227	639.261					\$ 324,744.35	
Fontana, City Of	-	-	-	-	-				-	-				-					\$ -	
Golden State Water Company	40.169	50.000	40.169	9.831	40.169	1.531%	24.338	9.831	50.000	-				50.000					\$ 25,400.00	
Jurupa Community Services District	464.526	464.526	464.526	-	-				464.526	-				464.526					\$ 235,979.00	
Marygold Mutual Water Company	67.043	-	-	-	-				-	-				-					\$ -	
Monte Vista Irrigation Company	30.855	30.855	30.855	-	-				30.855	-				30.855					\$ 15,674.29	
Monte Vista Water District	424.480	2,924.450	424.480	2,499.970	424.480	16.177%	257.185	257.185	681.665	424.480	16.429%	2.383	2.383	684.049					\$ 347,496.71	
Niagara Bottling, LLC	55.279	-	-	-	-				-	-				-					\$ -	
Nicholson Trust	0.182	-	-	-	-				-	-				-					\$ -	
Norco, City Of	9.189	-	-	-	-				-	-				-					\$ -	
Ontario, City Of	858.319	5,000.000	858.319	4,141.681	858.319	32.711%	520.040	520.040	1,378.360	858.319	33.220%	4.819	4.819	1,383.179					\$ 702,654.91	
Pomona, City Of	883.509	-	-	-	-				-	-				-					\$ -	
San Antonio Water Company	112.666	-	-	-	-				-	-				-					\$ -	
San Bernardino County Shtg Prk	0.323	-	-	-	-				-	-				-					\$ -	
Santa Ana River Water Company	59.332	59.332	59.332	-	-				59.332	-				59.332					\$ 30,140.88	
Upland, City Of	231.596	231.596	231.596	-	-				231.596	-				231.596					\$ 117,650.85	
West End Consolidated Water Company	43.208	-	-	-	-				-	-				-					\$ -	
West Valley Water District	29.376	-	-	-	-				-	-				-					\$ -	
<b>Total</b>	<b>5,000.000</b>	<b>23,760.759</b>	<b>3,410.220</b>	<b>20,350.539</b>	<b>2,623.911</b>	<b>100.000%</b>	<b>1,589.780</b>	<b>1,575.274</b>	<b>4,985.493</b>	<b>2,583.742</b>	<b>100.000%</b>	<b>14.507</b>	<b>14.507</b>	<b>5,000.000</b>					<b>\$ 2,540,000.00</b>	

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]	[Q]	[R]	[S]	[T]	[U]
	As Provided On CBWM Notice To Parties	As Stated On Form By Party	Copied From [B] If Purchasing Water	= [C] - [D]	Copied From [B] If Purchasing Water	Party's [F] Divided By Total [F]	= Iteration Amount Available * [G]	[H] or [E], Whichever Is Lesser	= [D] + [I]	Copied From [B] If Purchasing Water	Party's [K] Divided By Total [K]	= Iteration Amount Available * [L]	[M] or ([C] - [J]), Whichever Is Lesser	= [J] + [N]	Copied From [B] If Purchasing Water	Party's [P] Divided By Total [P]	= Iteration Amount Available * [Q]	[R] or ([C] - [O]), Whichever Is Lesser	= [O] + [S]	= [T] * \$/AF Cost

NOTE: Parties selling are using recycled water in lieu of pumping groundwater where available. Parties purchasing are current on assessments and in compliance with the OBMP.

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# **CHINO BASIN WATERMASTER**

## **I. CONSENT CALENDAR**

- F. PERSONNEL POLICY – ADOPTION OF THE REVISED VACATION POLICY TO INCLUDE A VACATION BUY-BACK PROVISION, POLICY 3.5.2**



# CHINO BASIN WATERMASTER

9641 San Bernardino Road, Rancho Cucamonga, Ca 91730  
Tel: 909.484.3888 Fax: 909.484.3890 www.cbwm.org

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PETER KAVOUNAS, P.E.  
General Manager

## STAFF REPORT

DATE: March 24, 2016  
TO: Watermaster Board Members  
SUBJECT: Personnel Policy – Adoption of the Revised Vacation Policy to Include a Vacation Buy-Back Provision, Policy 3.5.2

### SUMMARY

Issue: Adoption of the Vacation Buy-Back Policy 3.5.2.

Recommendation: Approve the Adoption of the Vacation Buy-Back Policy 3.5.2 as Part of the Current Chino Basin Watermaster Employee Manual.

Financial Impact: None.

### Future Consideration

Watermaster Board: March 24, 2016; Approval (Normal Course of Business)

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### ACTIONS:

March 24, 2016 – Watermaster Board –

## BACKGROUND

The Chino Basin Watermaster has an existing Employee Manual which contains personnel policies and procedures, and is distributed to all staff. The Employee Manual has been in existence, in various forms and versions, since January 1988. The Watermaster Board approved the current Employee Manual on May 23, 2013.

As State and federal employment laws or other regulations pertaining to employment change or are updated, the Watermaster Chief Financial Officer updates the Employee Manual to recognize the current changes. The General Manager has the authority to adopt new policies or revise current policies with the recommendation of the Personnel Committee and the approval of the Chino Basin Watermaster Board.

A Personnel Committee meeting was held on March 17, 2016 to discuss various issues. One of the issues was the discussion and adoption of a Vacation Buy-Back Policy (see attached). The Vacation Buy-Back Policy 3.5.2 was developed with similar characteristics to other public water agencies vacation buy-back policies within the local area. After some discussion, the Personnel Committee unanimously recommended the Board approve the Vacation Buy-Back Policy 3.5.2 as provided.

## ATTACHMENTS:

1. Vacation Buy-Back Policy 3.5.2

3.5 VACATION

3.5.1 General

All regular and introductory full-time employees shall accrue vacation on a biweekly basis according to the following annual accrual schedule:

Introductory or Regular Employees	Hours Accrued Per Pay Period	Hours Accrued Per Year
During first 5 years	3.077	80
During years 6 – 9	4.615	120
During 10th year and thereafter	6.154	160

Regular and introductory part-time employees will accrue vacation biweekly based on a pro-rata basis. While vacation time is accrued during the introductory period, employees may not take vacation time off until the completion of their introductory period. Temporary employees do not accrue vacation benefits. An employee who is on an unpaid leave shall not accrue vacation leave.

Vacation time off is subject to the advance approval of the General Manager. Generally, the maximum length of continuous vacation shall not exceed fifteen (15) working days. No advance of vacation leave shall be permitted except with the written approval of the General Manager. In the event an employee is advanced vacation prior to accrual and the employee is separated from service, the employee's final paycheck will reflect any necessary reconciliation resulting from an employee taking paid vacation before it is accrued. Paid vacation time can be used in one-hour increments. For exempt employees only, absences of less than one (1) day for reasons covered under this subsection shall not be charged against the employee's accrued vacation time balance.

The maximum amount of unused vacation benefits that an employee may accrue is twice the amount of annual vacation benefit available to the employee for the current year (not to exceed 320 hours). After an employee has accrued the maximum amount, no further vacation benefits will accrue until the employee uses some portion of the maximum amount, becomes eligible for accrual of additional vacation benefits because of years of service, or reduces the vacation balance by utilizing the vacation buy-back policy (3.5.2). When an employee uses or sells vacation benefits so that his/her accrued but unused vacation benefits fall below the maximum, or when an employee is entitled to additional vacation benefits, the employee will resume earning vacation benefits from that date forward until the employee again has accrued the maximum amount.

Holidays that occur during an employee's vacation period shall not be considered as vacation days. Should an employee be absent due to illness or injury at the time of scheduled vacation, the employee will be permitted to change his/her vacation to a subsequent date, which will not conflict with another employee's scheduled vacation. If an employee becomes sick after his/her vacation time becomes effective, the employee may, upon notifying his/her supervisor, take the balance of vacation at a subsequent date so long as it does not conflict with another employee's vacation period. The employee may be required to provide verification of any illness or injury claimed under this provision.

Vacation time off is paid at the employee's base rate of pay at the time of the vacation. The basic rate of pay does not include overtime or any specific forms of compensation such as incentives, bonuses or shift differentials. On separation from employment, the employee shall be paid for all accrued but unused vacation at the employee's base rate at the time of separation.

### 3.5.2 Vacation Buy-Back

Any employee will be allowed to sell back an amount of up to 50% of their vacation accrual rate if:

1. The employee has used an amount equal to half of their annual vacation accrual rate.
2. Minimum remaining accrued vacation leave balance is at least 40 hours.

If an employee's vacation accrual rate is 80 hours per year, the conditions necessary to sell an amount up to half of their accrual rate (40 hours) include:

1. The employee would need to have used at least 40 hours of vacation time during the prior twelve (12) months.
2. The employee would need to have at least 40 hours of accrued vacation leave remaining after the vacation sell back.

If an employee's vacation accrual rate is 120 hours per year, the conditions necessary to sell an amount up to half of their accrual rate (60 hours) include:

1. The employee would need to have used at least 60 hours of vacation time during the prior twelve (12) months.
2. The employee would need to have at least 40 hours of accrued vacation leave remaining after the vacation sell back.

If an employee's vacation accrual rate is 160 hours per year, the conditions necessary to sell an amount up to half of their accrual rate (80 hours) include:

1. The employee would need to have used at least 80 hours of vacation time during the prior twelve (12) months.
2. The employee would need to have at least 40 hours of accrued vacation leave remaining after the sell back.

Vacation buy-back is paid at the employee's base rate of pay at the time of the vacation buy-back. Vacation time can be sold only once in conjunction with actual vacation time used.

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# **CHINO BASIN WATERMASTER**

## **II. BUSINESS ITEMS**

- A. SUPPORT FOR CHINO BASIN BOUNDARY MODIFICATION  
REQUEST SUBMITTED PURSUANT TO THE SUSTAINABLE  
GROUNDWATER MANAGEMENT ACT (SGMA)**





# CHINO BASIN WATERMASTER

9641 San Bernardino Road, Rancho Cucamonga, Ca 91730  
Tel: 909.484.3888 Fax: 909.484.3890 www.cbwm.org

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PETER KAVOUNAS, P.E.  
General Manager

## STAFF REPORT

DATE: March 24, 2016  
TO: Board Members  
SUBJECT: Support for Chino Basin Boundary Modification Request submitted pursuant to the Sustainable Groundwater Management Act (SGMA)

### SUMMARY

Issue: Adjustment of the Chino Basin boundaries as described in Bulletin 118.

Recommendation: Adopt Resolution 2016-03, expressing support for the request to modify the Chino Basin Boundaries in Bulletin 118, made by Western Municipal Water District, Inland Empire Utilities Agency, and Three Valleys Municipal Water District.

Financial Impact: There is no financial impact as a result of this submittal

Future Consideration  
Watermaster Board: March 24, 2016; Adopt Resolution 2016-03

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ACTIONS:  
March 24, 2016 – Watermaster Board –

## BACKGROUND

The Sustainable Groundwater Management Act of 2014 (SGMA) requires, in groundwater basins designated as medium- and high-priority, the designation of a Groundwater Sustainability Agency (GSA) by June 30, 2017, and the adoption of a Groundwater Sustainability Plan ("Plan") by January 31, 2022.<sup>1</sup> (Wat. Code, §§ 10735.2, subd. (a)(1), 10720.7, subd. (a)(2).) The initial basin boundaries for SGMA implementation are those set by DWR Bulletin 118. (Wat. Code, § 10722.2, subd. (a).) Pursuant to the initial basin priorities, Chino Basin has been designated as a high-priority basin.

As an adjudicated basin, Chino Basin is expressly exempted from SGMA's Plan requirement. (Wat. Code, § 10720.8, subd. (a)(4).) However, this exemption applies only within the extent of the adjudicated area. (*Id.*, at subd. (e).) SGMA contemplates possible boundary revisions and required the promulgation of regulations for processing requested basin boundary modifications. (Wat. Code, § 10722.2.) On October 21, 2015, the California Water Commission adopted regulations for boundary revision requests, which will be codified at Title 23 of the California Code of Regulations, at sections 340 through 346.6 ("Regulations").

A boundary revision request, though it is voluntary, is advisable in the case where the adjudicated boundaries of the Chino Basin – and those of the abutting adjudicated basins<sup>2</sup> – are offset from the Bulletin 118 boundaries that DWR will use in evaluating SGMA compliance.<sup>3</sup> In this circumstance, reconciliation of the boundaries would eliminate confusion as to the necessity of a Plan and might eliminate the existence of potential fringe areas.

To eliminate any confusion that might arise based on the discrepancy or offset between the adjudicated basin boundaries and the Bulletin 118 boundaries, as well as the potential for the existence of fringe areas within adjudication boundaries, in November 2015 staff and counsel recommended that Watermaster work collectively with affected entities in the neighboring exempt basins to seek conformation of the Bulletin 118 boundaries to the adjudicated boundaries. This would include revision to the boundaries of Chino Basin and neighboring basins, where Chino Basin abuts with the Six Basins Basin, the Cucamonga Basin, and the Rialto-Colton Basin. Such modifications should qualify as "jurisdictional" boundary revisions, rather than scientific boundary revisions. Staff and counsel further recommended that "scientific" boundary revisions be proposed in the case where a modification on the basis of scientific data would also address the parties' concerns regarding fringe areas. With the Advisory Committee's recommendation, the Board gave direction to staff to proceed.

The first 90-day window to request a modification opened on January 1, 2016. (23 Code Regs., § 343.8.) Watermaster and the requesting agencies need to compile the information required by the Regulations that will allow DWR to determine that the basins, as modified, can be sustainably managed, or that modification of a boundary is scientifically supported.

The SGMA requires that a Basin Boundary Modification request needs to be filed by a local agency; Watermaster does not meet the definition of a local agency, and asked Western Municipal Water District, Inland Empire Utilities Agency, and Three Valleys Municipal Water District (collectively "Requesting Districts") to act as the local agencies requesting the modification. The Requesting Districts agreed and

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<sup>1</sup> In medium- and high-priority basins that DWR designated as being in "critical overdraft", a Plan must be adopted by January 31, 2020.

<sup>2</sup> All of the adjudicated basins surrounding Chino Basin – Six Basins (Wat. Code, § 10720.8, subd. (a)(22), Cucamonga Basin (*id.*, subd. (a)(5)), Rialto-Colton Basin (*id.*, subd. (a)(13)), and Riverside Basin (*id.*, subd. (a)(14)) – are also exempt.

<sup>3</sup> There are also instances in which the adjudicated boundaries are inside the Bulletin 118 boundaries and the resulting "fringe areas" would technically require a Plan. DWR has indicated that there may be a mechanism, either through its regulations for evaluation of a Plan or a "Plan alternative," whereby a full Plan is not necessary for fringe areas, but that boundary revisions will not be allowed in order to eliminate fringe areas.

issued an Initial Notification in February 2016. Notice was sent to all agencies that would be affected by the boundary change. No agency has expressed concern and various agencies have submitted letters of support.

#### DISCUSSION

On March 16, 2016 the Requesting Districts each adopted a resolution supporting filing the Chino Basin Boundary Modification Request, to adjust the boundaries in the manner shown in Attachment 1. Watermaster and its technical consultant Wildermuth Environmental Engineering, Inc. have been working closely with the Requesting Districts to develop the supporting technical material. Submittal of the request will be made through an internet portal established by DWR for this purpose, on or about March 28, 2016.

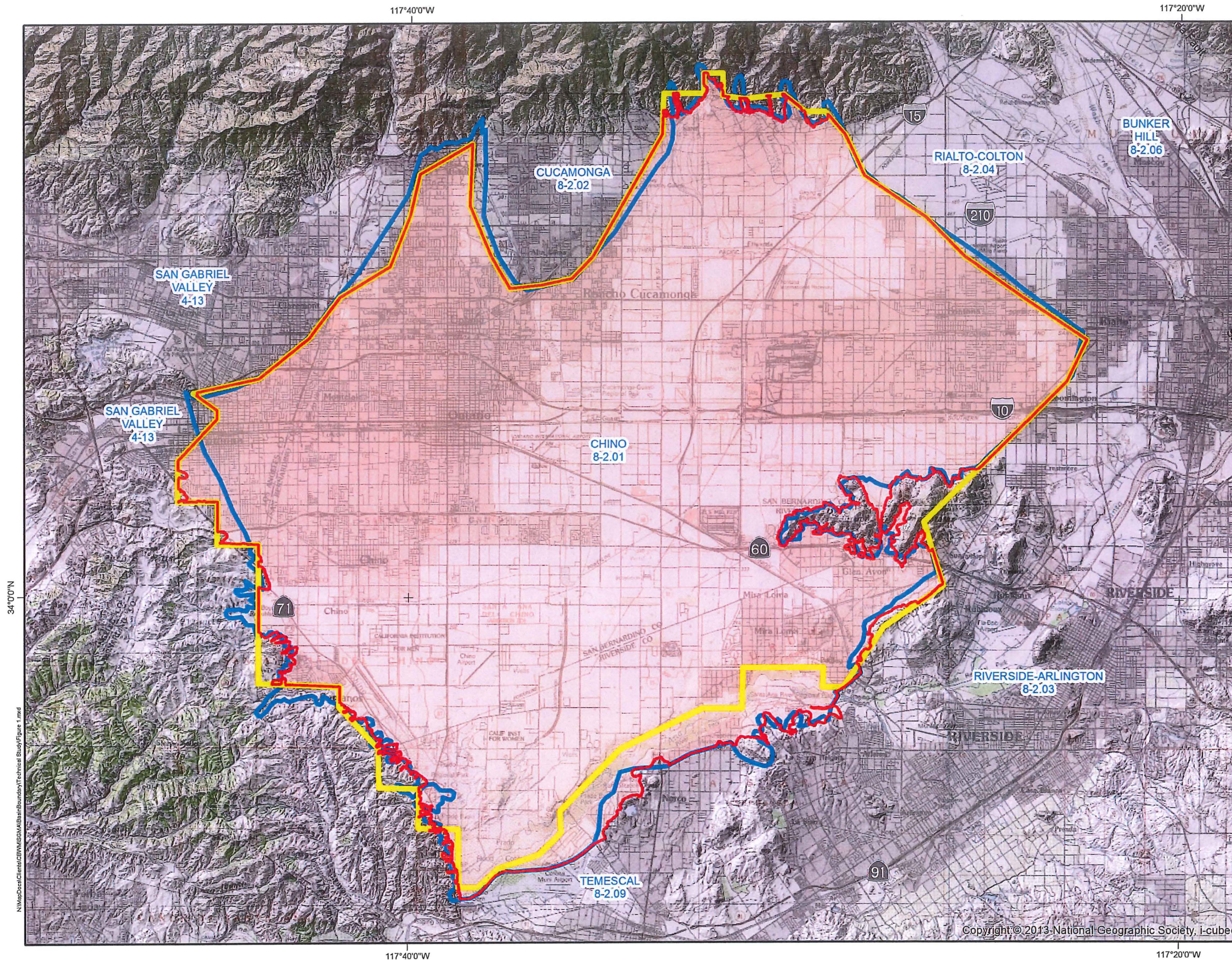
Resolution 2016-03 (Attachment 2) expresses Watermaster's support for the request. This resolution, along with other indications of support will also be filed with DWR as part of the basin boundary modification process.




#### ATTACHMENTS

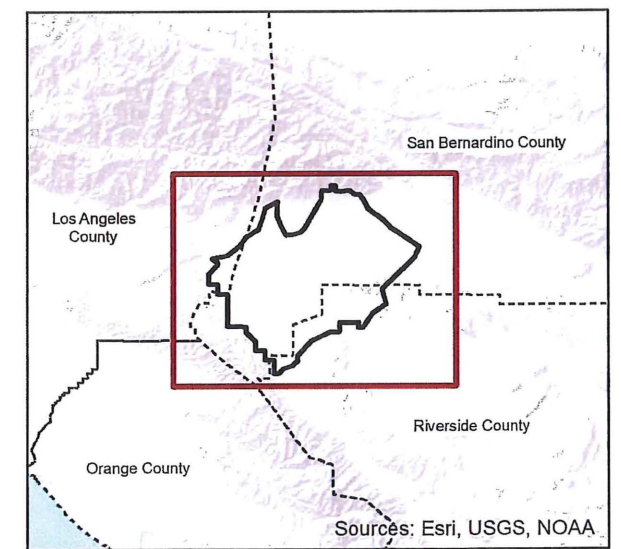
1. Map showing the Chino Basin Boundary Modification Request
2. Resolution 2016-03

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# ATTACHMENT 1

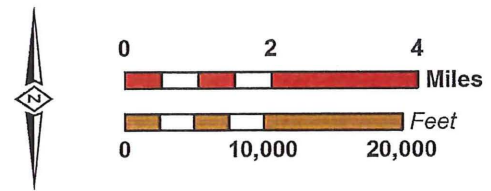


-  Chino Subbasin (8-02.01) of the Upper Santa Ana Valley (8-02) in DWR Bulletin 118 (2003)
-  Proposed Boundary Modification for the Chino Subbasin (8-02.01)
-  Chino Basin (1978 Judgment)



Prepared by:  
  
 WILDFERMUTH ENVIRONMENTAL, INC.

Author: LBB  
 Date: 20160311



Prepared for:  




California DWR Bulletin 118  
 Basin Boundary Modification Request  
 for the Chino Subbasin (8-02.01)

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### RESOLUTION 2016-03

#### RESOLUTION OF THE CHINO BASIN WATERMASTER SAN BERNARDINO COUNTY, CALIFORNIA SUPPORTING MODIFICATION REQUEST FOR THE CHINO GROUNDWATER BASIN UNDER THE SUSTAINABLE GROUNDWATER MANAGEMENT ACT

**WHEREAS**, the Chino Basin Watermaster (“Watermaster”) was appointed on January 27, 1978, pursuant to the stipulated judgment in San Bernardino Superior Court Case No. WCV51010 (formerly Case No. SCV164327) entitled *Chino Basin Municipal Water District V. City of Chino, et al.* (“Chino Basin Judgment”); and

**WHEREAS**, the Chino Basin Judgment established a Physical Solution for the management of the Chino Basin and defined the boundaries of the Chino Basin (the “Adjudicated Basin Boundary”) for the purpose of allocation and management of the groundwater supplies therein; and

**WHEREAS**, in 2014, the California Legislature passed the Sustainable Groundwater Management Act (“SGMA”), which was signed into law by the Governor and went into effect on January 1, 2015, with the goals of providing for the sustainable management of California’s groundwater basins and managing groundwater basins through the actions of local government agencies to the greatest extent feasible while minimizing state intervention; and

**WHEREAS**, the SGMA exempts adjudicated groundwater basins from certain requirements relating to establishment of groundwater sustainability agencies and promulgation of groundwater sustainability plans; and, as an adjudicated basin, the Chino Basin is expressly exempted from those certain requirements of the SGMA to the extent of the Adjudicated Basin Boundaries; and

**WHEREAS**, the California Department of Water Resources (“DWR”) has issued Bulletin 118, which delineates boundaries for California’s 515 alluvial groundwater basins and sub-basins, and was last updated in 2003; and for the purpose of implementation of the SGMA, the initial boundaries of the groundwater basins and sub-basins subject to the SGMA’s management provisions are those delineated by Bulletin 118; and

**WHEREAS**, the Chino Basin, as its boundaries are defined in Bulletin 118 (“Bulletin 118 Basin Boundary”) does not precisely align with the Adjudicated Basin Boundary, which has the potential to create confusion and conflicting groundwater management schemes in different areas of the Chino Basin, as well as areas not subject to sustainable groundwater management required by the SGMA; and

**WHEREAS**, the DWR has promulgated regulations that allow local agencies with a service area or portion of a service area within or adjacent to a groundwater basin or sub-basin to request a modification of the boundaries of the basin or sub-basin; and

**WHEREAS**, portions of Western Municipal Water District's, Inland Empire Utilities Agency's, and Three Valleys Municipal Water District's ("Requesting Districts") service areas overlie portions of the Chino Basin, these Districts are eligible to submit a request to the DWR for modification of the Bulletin 118 Boundary; and

**WHEREAS**, the entity charged with the implementation of the Chino Basin Judgment's Physical Solution, the Watermaster is not a local agency eligible to request a basin boundary modification; and

**WHEREAS**, Watermaster has requested that the Requesting Districts serve as requesting agencies in order to request a modification of the Bulletin 118 Basin Boundary;

**WHEREAS**, the Requesting Districts have issued an Initial Notification of their intent to request modification of Chino Basin Boundaries for Jurisdictional and Scientific reasons; and

**WHEREAS**, the requested Jurisdictional Modifications will define the area of the Chino Basin and its borders with adjacent adjudicated basins, aligning the Bulletin 118 Basin Boundary with the Adjudicated Basin Boundary; and

**WHEREAS**, the requested Scientific modifications address small portions of DWR Bulletin 118 basin that lie along the perimeter of the Chino Basin but are not within the Adjudicated Basin Boundary; and

**NOW, THEREFORE, BE IT RESOLVED BY** the Board of Directors that:

Chino Basin Watermaster supports the Basin Boundary Modification Request for Chino Basin Boundaries, as submitted by the Requesting Districts.

**ADOPTED** by the Watermaster Board on this 24<sup>th</sup> day of March 2016.

By: \_\_\_\_\_  
Chair, Watermaster Board

ATTEST:

By: \_\_\_\_\_  
Board Secretary/Treasurer  
Chino Basin Watermaster



STATE OF CALIFORNIA                    )  
  ) ss  
COUNTY OF SAN BERNARDINO        )

I, BOB KUHN, Secretary/Treasurer of the Chino Basin Watermaster, DO HEREBY CERTIFY that the foregoing Resolution being No. 2016-03, was adopted at a regular meeting of the Chino Basin Watermaster Board by the following vote:

AYES:            0  
NOES:            0  
ABSENT:         0  
ABSTAIN:        0

CHINO BASIN WATERMASTER

\_\_\_\_\_  
Watermaster Secretary/Treasurer

Date: \_\_\_\_\_

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# **CHINO BASIN WATERMASTER**

## **II. BUSINESS ITEMS**

- B. APPROVAL OF THE CHINO BASIN WATERMASTER SUBMITTAL OF ANNUAL REPORTING REQUIREMENTS FOR ADJUDICATED BASINS PURSUANT TO THE SUSTAINABLE GROUNDWATER MANAGEMENT ACT (SGMA)**



# CHINO BASIN WATERMASTER

9641 San Bernardino Road, Rancho Cucamonga, Ca 91730  
Tel: 909.484.3888 Fax: 909.484.3890 www.cbwm.org

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PETER KAVOUNAS, P.E.  
General Manager

## STAFF REPORT

DATE: March 24, 2016

TO: Board Members

SUBJECT: Approval of the Chino Basin Watermaster submittal of annual reporting requirements for Adjudicated Basins pursuant to the Sustainable Groundwater Management Act (SGMA)

### SUMMARY

Issue: Pursuant to the SGMA, Water Code Section 10720.8(f), the Chino Basin Watermaster is required to submit specific data, information and reports to the Department of Water Resources (DWR) by April 1, 2016.

Recommendation: Approve the submittal, with direction to staff to file the information/reports with the DWR.

Financial Impact: There is no financial impact as a result of this submittal

### Future Consideration

Watermaster Board: March 24, 2016; Approval with direction to file the information/reports with the DWR

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### ACTIONS:

March 24, 2016 – Watermaster Board –

## BACKGROUND

California Water Code Section 10720.8(a) identifies 26 adjudicated areas, including the Chino Basin, which are exempt from the requirements of the SGMA except for the reporting requirements listed in Water Code Section 10720.8(f). A Watermaster or local agency within an adjudicated area listed under Water Code 10720.8(a) is required to report the following:

- (1) *By April 1, 2016, submit to the department a copy of a governing final judgement, or other judicial order or decree, and amendments entered before April 1, 2016.*
- (2) *Within 90 days of entry by court, submit to the department a copy of any amendment made and entered by the court to the governing final judgment or other judicial order or decree on or after April 1, 2016.*
- (3) *By April 1, 2016, and annually thereafter, submit to the department a report containing the following information to the extent available for the portion of the basin subject to the adjudication:*
  - (A) *Groundwater elevation data unless otherwise submitted pursuant to Section 10932.*
  - (B) *Annual aggregated data identifying groundwater extraction for the preceding water year.*
  - (C) *Surface water supply used for or available for use for groundwater recharge or in-lieu use*
  - (D) *Total water use*
  - (E) *Change in groundwater storage*
  - (F) *The annual report submitted to the court.*

## DISCUSSION

The DWR has implemented an on-line submission system, which is accessible with secure login credentials, to facilitate the transmittal of all the required data and reports for adjudicated basins pursuant to the SGMA. The online system, called the *Adjudicated Basin Annual Reporting System*, consists of a specialized reporting template to populate all the required information and to upload supporting documents and reports. The attached Memorandum, prepared by Wildermuth Environmental Inc (WEI) explicitly describes the information and reports that will be submitted by the Chino Basin Watermaster to the DWR's *Adjudicated Basin Annual Reporting System* by April 1, 2016.

## ATTACHMENTS

1. Memorandum: Chino Basin Watermaster submittal of the water year 2015 reporting requirements for adjudicated basins pursuant to the Sustainable Groundwater Management Act



## Memorandum

<b>To:</b>	Chino Basin Watermaster
<b>From:</b>	Veva Weamer and Mark Wildermuth PE
<b>Date:</b>	March 18, 2016
<b>Subject:</b>	Chino Basin Watermaster submittal of the water year 2015 reporting requirements for adjudicated basins pursuant to the Sustainable Groundwater Management Act

Pursuant to the Sustainable Groundwater Management Act (SGMA) requirements for adjudicated basins, as described in California Water Code Section 10720.8(f), the Chino Basin Watermaster (Watermaster) is preparing to submit the annual reporting information for water year 2015. The initial annual reporting requirements for adjudicated basins are due to the California Department of Water Resources (DWR) by April 1, 2016 and include the following:

- General Watermaster information
- Digital copies of the final Judgment and other judicial orders or decrees entered to the court on or before April 1, 2016
- Water data for water year 2015 (October 1, 2014 to September 30, 2015)

The annual reporting requirements will be submitted using the DWR Adjudicated Basin Annual Reporting System—a password-secured, online submission system, accessible at <http://sgma.water.ca.gov/adjudbasins>. The DWR Adjudicated Basin Annual Reporting System facilitates the submission of all reporting requirements for adjudicated basins and consists of a standardized reporting template to enter all of the required information, including the ability to upload supporting documents and reports. The standardized reporting template includes sections to upload specific required information as well as optional information that is required for reporting under the SGMA legislation.

This memorandum describes all of the information that Wildermuth Environmental, (WEI) proposes to submit to the DWR using the Adjudicated Basin Annual Reporting System on behalf of the Watermaster to satisfy the water year 2015 reporting requirements for the Chino Basin. If the information and/or reports proposed for submittal to the DWR are not required, it is specified as such within this memorandum.

## General Watermaster Information and Digital Copies of the Final Judgment, Other Judicial Orders

The following information and digital documents will be submitted in the *Watermaster Information* section of the DWR Adjudicated Basin Annual Reporting System. The DWR Adjudicated Basin Annual Reporting System language is in ***bold italics*** and the proposed information for submittal is shown in regular text.

### ***Adjudicated Area Information***

- ***Adjudicated Area Name:*** Chino Basin
- ***Court Case Information:***
  - ***Name:*** Chino Basin Municipal Water District v. City of Chino et al., San Bernardino Superior Court
  - ***Number:*** 16437
  - ***Date:*** January 27, 1978
- ***Bulletin 118 Groundwater Basins:*** 8-02.01 Upper Santa Ana Valley – Chino
- ***Submit electronic copy of your governing final judgment and any amendments.***

The following digital documents will be submitted:

- Final Judgment – Chino Basin Municipal Water District v. City of Chino et al., San Bernardino Superior Court, No. 16437. Signed January 27, 1978.
- 2012 Restated Judgment – Chino Basin Municipal Water District v. City of Chino et al., San Bernardino Superior Court, Case No. RCV 51010. September 2012.
- First Amendment to 2012 Restated Judgment - Overlying (Non-Agricultural) Pool Committees Motion Regarding Amendment to the Judgment Relating to Quorum and Voting of the Non-Agricultural (Overlying) Pool Committee. Case No. RCVRS 51010. July 11, 2014.
- Second Amendment to 2012 Restated Judgment – Amendments to Judgment and Rules and Regulations Regarding Compensation of Watermaster Board Member. Case No. RCVRS 51010. August 22, 2014.
- ***Submit a zipped shapefile of your Watermaster adjudication boundary.***  
This item is optional. A shapefile of the Chino Basin adjudicated basin will be submitted.
- ***Additional Info Website:*** [www.cbwm.org](http://www.cbwm.org)

### ***Watermaster Office Information***

- ***Watermaster Office Name:*** Chino Basin Watermaster
- ***Address:*** 9641 San Bernardino Road
- ***City:*** Rancho Cucamonga
- ***Zip:*** 91730
- ***Phone:*** 909-484-3888
- ***Fax:*** 909-484-3890
- ***Office Email:*** [info@cbwm.org](mailto:info@cbwm.org)

**Point of Contact Information**

- **Point of Contact Name:** Peter Kavounas – General Manager
- **Address:** 9641 San Bernardino Road
- **City:** Rancho Cucamonga
- **Zip:** 91730
- **Phone:** 909-484-3888
- **Email:** [pkavounas@cbwm.org](mailto:pkavounas@cbwm.org)

**Water Data for Water Year 2015**

The following Chino Basin water year 2015 (October 1, 2014 – September 30, 2015) data and digital documents will be submitted. The DWR Adjudicated Basin Annual Reporting System language is in **bold italics** and the information for submittal is shown in regular text.

**(A) Groundwater elevation data unless otherwise submitted pursuant to Section 10932.**

*Is water level data submitted to the CASGEM Program?* Yes

*Does the watermaster collect or receive additional groundwater levels?* Yes

**(B) Annual aggregated data identifying groundwater extraction for the preceding water year**

**Total Groundwater Extraction (AF):** 144,100

**Groundwater Extraction by water use sector (if available):**

The submittal of this information is optional; the following information will be submitted:

<i>Sector</i>	<i>Volume (AF)</i>	<i>Explanation</i>
<i>Urban</i>	123,887	Appropriative Pool (Pool 3)
<i>Agricultural</i>	17,052	Agricultural Pool (Pool 1)
<i>Other Sector</i>	3,161	Non-Agricultural Pool (Pool 2)

**(C) Surface water supply used for or available for use for groundwater recharge or in-lieu use.**

**Surface Water Supply (AF):** 20,306



**Method used to determine:** Metered data is recorded daily for imported water and recycled water deliveries to recharge basins. Stage sensors in the recharge basins are used to calculate volumes of storm water and urban runoff.

**Water available for recharge or in-lieu use by source type (if available):**

The submittal of this information is optional; the following information will be submitted:

<i>Source Type</i>	<i>Volume (AF)</i>	<i>Explanation</i>
<i>Local Surface Deliveries</i>	9,430	Storm water and urban runoff
<i>State Water Project Deliveries</i>	0	SWP water from Silverwood Lake Reservoir
<i>Recycled Water</i>	10,876	Effluent from IEUA Facilities RP-1 & RP-4

**(D) Total Water Use (report water use in the basin as data is available and/or as reported in the annual report)**

**Total Water Use (AF):** 287,813

**Method used to determine:** Total water use data were collected from all parties in the Chino Basin. Many of the Chino Basin appropriate pool parties have service areas that extend outside the Chino Basin adjudicated boundary. The total water use represents the sum of total water use by parties to the Chino Basin judgment. The proportion of the total water use that is used inside the Chino Basin adjudicated boundary is not quantified by Watermaster.

**Water Use met by source type:**

The submittal of this information is optional; the following information will be submitted:

<i>Type</i>	<i>Volume (AF)</i>
<i>Groundwater</i>	194,509 <sup>1</sup>
<i>Surface water</i>	9,252
<i>Recycled or reused water</i>	22,634
<i>Other</i>	61,417

**(E) Annual change in groundwater storage**

**Change in storage (AF):** -11,000

**Method used to determine:** The storage change during the water year of October 1, 2014 through September 30, 2015 was estimated with the Chino Basin Watermaster Chino Basin

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<sup>1</sup> Includes groundwater production from the Chino Basin adjudicated basin and other adjacent groundwater basins.

groundwater model that was recently updated by extending the calibration period from July 1, 1960 through September 30, 2015. For context, the Chino Basin Judgment and Peace Agreement contain Court-approved storage depletion provisions that would cause a change in storage for water year October 1, 2014 through September 30, 2015 of about 20,000 AF. That is, the actual change in storage of -11,000 AF is less than the planned change in storage of -20,000 AF.

*Time period for change: Start date: 10/1/2014 End date: 9/30/2015*

### **(F) The annual report submitted to the court**

***Please submit an electronic (PDF preferred) copy of your annual report:***

The most recently published Chino Basin Watermaster Annual Report for fiscal year 2012/2013 will be submitted. Subsequent Annual Reports will be submitted for succeeding April 1 annual reporting requirements as they are completed.

***Please submit additional reports or documents:***

The submittal of this information is optional; this memorandum will be submitted herein. Additional Chino Basin Watermaster engineering and legal reports are available for public download on Watermaster's website at [www.cbwm.org](http://www.cbwm.org)

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# **CHINO BASIN WATERMASTER**

## **IV. INFORMATION**

### **1. CASH DISBURSEMENTS FOR FEBRUARY 2016**

CHINO BASIN WATERMASTER  
Cash Disbursements For The Month of  
February 2016

For Informational Purposes Only

Type	Date	Num	Name	Memo	Account	Paid Amount
Bill Pmt -Check	02/04/2016	19187	CHARTER COMMUNICATIONS	8245100651455350	1012 · Bank of America Gen'l Ckg	
Bill	02/01/2016	8245100651455350		2/06/16-3/05/16	6053 · Internet Expense	64.99
TOTAL						64.99
Bill Pmt -Check	02/04/2016	19188	CHEF DAVE'S CAFE & CATERING	5891	1012 · Bank of America Gen'l Ckg	
Bill	01/28/2016	5891		Lunch for 1/28/16 Watermaster Board meeting	6312 · Meeting Expenses	639.80
TOTAL						639.80
Bill Pmt -Check	02/04/2016	19189	EMPOWER LAB		1012 · Bank of America Gen'l Ckg	
Bill	12/11/2015	121115		Debrief w/Anna Danni, Joe	6013 · Human Resources Services	450.00
Bill	01/07/2016	10716		CVI group workshop	6013 · Human Resources Services	1,500.00
TOTAL						1,950.00
Bill Pmt -Check	02/04/2016	19190	OFFICE TEAM	44919306	1012 · Bank of America Gen'l Ckg	
Bill	01/28/2016	44919306		Week ending 1/22/16	6017.2 · Office Specialist Services	1,170.33
TOTAL						1,170.33
P183 Bill Pmt -Check	02/04/2016	19191	PARK PLACE COMPUTER SOLUTIONS, INC.	508	1012 · Bank of America Gen'l Ckg	
Bill	01/31/2016	508		IT Consulting Services - January 2016	6052.1 · Park Place Comp Solutn	1,650.00
TOTAL						1,650.00
Bill Pmt -Check	02/04/2016	19192	PETTY CASH	2561-2573	1012 · Bank of America Gen'l Ckg	
Bill	02/01/2016	2561-2573		Purchase supplies for Board meetings	6312 · Meeting Expenses	36.50
				Purchase miscellaneous office supplies	6031.7 · Other Office Supplies	65.17
				Purchase supplies for field work	6151 · Small Tools & Equipment	26.99
				Mileage reimbursement for seminar	6192 · Seminars - General	37.80
				PK travel reimbursement	6191 · Conferences - General	38.26
				PK and A.Truong mtgs w/Appropriations	8312 · Meeting Expenses	80.92
				Purchase supplies for staff meeting	6141.1 · Meeting Supplies	15.99
TOTAL						301.63
Bill Pmt -Check	02/04/2016	19193	PRINTING RESOURCES	62854	1012 · Bank of America Gen'l Ckg	
Bill	01/28/2016	62854		Name plates-Thomas, Curatalo, Board Clerk	6031.7 · Other Office Supplies	92.02
TOTAL						92.02
Bill Pmt -Check	02/04/2016	19194	PUBLIC EMPLOYEES' RETIREMENT SYSTEM	Payor #3493	1012 · Bank of America Gen'l Ckg	
Bill	02/01/2016	1394905143		Annual Unfunded Accrued Liability	60180 · Employers PERS Expense	3,077.00
TOTAL						3,077.00

**CHINO BASIN WATERMASTER**  
**Cash Disbursements For The Month of**  
**February 2016**

For Informational Purposes Only

Type	Date	Num	Name	Memo	Account	Paid Amount
Bill Pmt -Check	02/04/2016	19195	PURCHASE POWER	8000909000168851	1012 · Bank of America Gen'l Ckg	
Bill	01/28/2016	8000-9090-0016-8851		Charges	6042 · Postage - General	2.17
TOTAL						2.17
Bill Pmt -Check	02/04/2016	19196	RR FRANCHISING, INC.	17178	1012 · Bank of America Gen'l Ckg	
Bill	02/01/2016	17178		Monthly service charge for February 2016	6024 · Building Repair & Maintenance	740.00
TOTAL						740.00
Bill Pmt -Check	02/04/2016	19197	VISION SERVICE PLAN	00-101789-0001	1012 · Bank of America Gen'l Ckg	
Bill	01/28/2016	00-101789-0001		Vision Insurance - February 2016	60182.2 · Dental & Vision Ins	85.60
TOTAL						85.60
Bill Pmt -Check	02/04/2016	19198	YUKON DISPOSAL SERVICE	08-K2 213849	1012 · Bank of America Gen'l Ckg	
Bill	02/01/2016	08-k2 213849		Disposal Service - February 2016	6024 · Building Repair & Maintenance	111.57
TOTAL						111.57
Bill Pmt -Check	02/04/2016	19199	BROWNSTEIN HYATT FARBER SCHRECK		1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	625989		625989	6078 · BHFS Legal - Miscellaneous	27,762.30
Bill	12/31/2015	625990		625989	6907.42 · Safe Yield Recalculation	226.80
Bill	12/31/2015	625991		Alvarez-CalPERS	6073 · BHFS Legal - Personnel Matters	2,257.20
Bill	12/31/2015	625991		Personnel	6073 · BHFS Legal - Personnel Matters	1,723.95
Bill	12/31/2015	625991		625991	8375 · BHFS Legal - Appropriative Pool	76.50
Bill	12/31/2015	625992		625992	8475 · BHFS Legal - Agricultural Pool	76.50
Bill	12/31/2015	625993		625993	8575 · BHFS Legal - Non-Ag Pool	76.50
Bill	12/31/2015	625994		625994	6071 · BHFS Legal - Court Coordination	267.75
Bill	12/31/2015	625995		625995	6907.39 · Recharge Master Plan	339.75
Bill	12/31/2015	625996		625996	6907.41 · Prado Basin Habitat Sustain	3,828.15
Bill	12/31/2015	625997		625997	6907.42 · Safe Yield Recalculation	38,025.90
Bill	12/31/2015	625997		Expenses	6907.42 · Safe Yield Recalculation	44.13
TOTAL						74,705.43
Bill Pmt -Check	02/04/2016	19200	EUROFINS EATON ANALYTICAL		1012 · Bank of America Gen'l Ckg	
Bill	12/31/2015	L0243889		L0243889	7103.5 · Grdwtr Qual-Lab Svcs	1,476.00
Bill	12/31/2015	L0243891		L0243891	7103.5 · Grdwtr Qual-Lab Svcs	1,386.00
Bill	12/31/2015	L0243893		L0243893	7103.5 · Grdwtr Qual-Lab Svcs	2,014.00
Bill	12/31/2015	L0243894		L0243894	7103.5 · Grdwtr Qual-Lab Svcs	483.00
Bill	12/31/2015	L0243896		L0243896	7103.5 · Grdwtr Qual-Lab Svcs	1,386.00
Bill	12/31/2015	L0245660		L0245660	7108.41 · Hydraulic Control - PBHSP	2,732.00
Bill	12/31/2015	L0245766		L0245766	7108.41 · Hydraulic Control - PBHSP	2,732.00
Bill	12/31/2015	L0246665		L0246665	7108.41 · Hydraulic Control - PBHSP	2,732.00

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**CHINO BASIN WATERMASTER**  
**Cash Disbursements For The Month of**  
**February 2016**

For Informational Purposes Only

Type	Date	Num	Name	Memo	Account	Paid Amount
Bill	12/31/2015	L0246666		L0246666	7108.41 · Hydraulic Control - PBHSP	3,988.00
TOTAL						18,929.00
<b>Bill Pmt -Check</b>	<b>02/04/2016</b>	<b>19201</b>	<b>WILDERMUTH ENVIRONMENTAL INC</b>		<b>1012 · Bank of America Gen'l Ckg</b>	
Bill	12/31/2015	2015380		2015380	6906.32 · OBMP-Other General Meetings	4,790.48
Bill	12/31/2015	2015381		2015381	6906.74 · OBMP-Mat'l Phy. Injury Requests	1,460.00
Bill	12/31/2015	2015382		2015382	6906.71 · OBMP-Data Req.-CBWM Staff	14,215.10
Bill	12/31/2015	2015383		2015383	6906.72 · OBMP-Data Req.-Non CBWM Staff	538.25
Bill	12/31/2015	2015384		2015384	6906.23 · SGMA Reporting Requirements	1,415.50
Bill	12/31/2015	2015385		2015385	6906 · OBMP Engineering Services	2,033.75
Bill	12/31/2015	2015386		2015386	6906.1 · OBMP-Watermaster Model Update	48,323.50
Bill	12/31/2015	2015387		2015387	7103.3 · Grdwtr Qual-Engineering	2,130.93
Bill	12/31/2015	2015388		2015388	7104.3 · Grdwtr Level-Engineering	6,972.65
Bill	12/31/2015	2015389		2015389	7107.2 · Grd Level-Engineering	1,779.35
Bill	12/31/2015	2015390		2015390	7108.32 · HCMP - Adaptive Mgmt Plan	1,330.00
Bill	12/31/2015	2015391		2015391	7108.31 · Hydraulic Control - PBHSP	27,362.61
Bill	12/31/2015	2015392		2015392	7202.2 · Engineering Svc	2,868.75
Bill	12/31/2015	2015393		2015393	7402 · PE4-Engineering	536.25
Bill	12/31/2015	2015394		2015394	7402.10 · PE4 - MZ1 Pomona Project	17,983.05
Bill	12/31/2015	2015395		2015395	7502 · PE6&7-Engineering	3,868.50
Bill	12/31/2015	2015396		2015396	7602 · PE8&9-Engineering	14,536.00
TOTAL						152,144.67
<b>Bill Pmt -Check</b>	<b>02/05/2016</b>	<b>ACH 020516</b>	<b>PUBLIC EMPLOYEES' RETIREMENT SYSTEM</b>	<b>Payor #3493</b>	<b>1012 · Bank of America Gen'l Ckg</b>	
General Journal	01/30/2016	02/05/2016	PUBLIC EMPLOYEES' RETIREMENT SYSTEM	CalPERS Retirement for 01/17/16-01/30/16	2000 · Accounts Payable	6,437.65
TOTAL						6,437.65
<b>Bill Pmt -Check</b>	<b>02/12/2016</b>	<b>19202</b>	<b>ACWA JOINT POWERS INSURANCE AUTHORITY</b>	<b>0394835</b>	<b>1012 · Bank of America Gen'l Ckg</b>	
Bill	02/08/2016	0394835		Prepayment - March 2016	1409 · Prepaid Life, BAD&D & LTD	135.13
				February 2016	60191 · Life & Disab.Ins Benefits	130.91
TOTAL						266.04
<b>Bill Pmt -Check</b>	<b>02/12/2016</b>	<b>19203</b>	<b>BOWCOCK, ROBERT</b>	<b>Board Member Compensation</b>	<b>1012 · Bank of America Gen'l Ckg</b>	
Bill	01/28/2016	1/28 Board Mtg		1/28/16 Board Meeting	6311 · Board Member Compensation	125.00
TOTAL						125.00
<b>Bill Pmt -Check</b>	<b>02/12/2016</b>	<b>19204</b>	<b>BOWMAN, JIM</b>	<b>Board Member Compensation</b>	<b>1012 · Bank of America Gen'l Ckg</b>	
Bill	01/28/2016	1/28 Board Mtg		1/28/16 Board Meeting	6311 · Board Member Compensation	125.00
TOTAL						125.00

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Type	Date	Num	Name	Memo	Account	Paid Amount
Bill Pmt -Check	02/12/2016	19205	CORELOGIC INFORMATION SOLUTIONS	81662009	1012 · Bank of America Gen'l Ckg	
Bill	01/31/2016	81662009		81662009	7103.7 · Grdwtr Qual-Computer Svc	62.50
				81662009	7101.4 · Prod Monitor-Computer	62.50
TOTAL						125.00
Bill Pmt -Check	02/12/2016	19206	COSTCO WHOLESALE	7003-7309-1000-2744	1012 · Bank of America Gen'l Ckg	
Bill	01/29/2016	7003-7309-1000-2744		Miscellaneous office supplies	6031.7 · Other Office Supplies	78.15
TOTAL						78.15
Bill Pmt -Check	02/12/2016	19207	CURATALO, JAMES	Board Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/28/2016	1/28 Board Mtg		1/28/16 Board Meeting	6311 · Board Member Compensation	125.00
TOTAL						125.00
Bill Pmt -Check	02/12/2016	19208	DE BOOM, NATHAN	Ag Pool Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/14/2016	1/14 Ag Pool Mtg		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/14/16 Ag Pool Meeting	8470 · Ag Meeting Attend -Special	100.00
TOTAL						125.00
Bill Pmt -Check	02/12/2016	19209	DE HAAN, HENRY	Ag Pool Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/14/2016	1/14 Ag Pool Mtg		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/14/16 Ag Pool Meeting	8470 · Ag Meeting Attend -Special	100.00
TOTAL						125.00
Bill Pmt -Check	02/12/2016	19210	ELIE, STEVEN	Board Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/04/2016	1/04 Admin Mtg		1/04/16 Administrative meeting w/PK	6311 · Board Member Compensation	125.00
Bill	01/21/2016	1/21 Personnel Comm		1/21/16 Personnel Committee Meeting	6311 · Board Member Compensation	125.00
Bill	01/28/2016	1/28 Board Mtg		1/28/16 Board Mtg	6311 · Board Member Compensation	125.00
TOTAL						375.00
Bill Pmt -Check	02/12/2016	19211	FEENSTRA, BOB	Ag Pool Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/06/2016	1/06 Mtg w/PK		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/06/16 Ag Pool business meeting w/Kavounas	8470 · Ag Meeting Attend -Special	100.00
Bill	01/14/2016	1/14 Ag Pool Mtg		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/14/16 Ag Pool Meeting	8470 · Ag Meeting Attend -Special	100.00
Bill	01/21/2016	1/21 Personnel Comm		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/21/16 Personnel Committee meeting	8470 · Ag Meeting Attend -Special	100.00
Bill	01/28/2016	1/28 Board Mtg		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/28/16 Board Meeting	8470 · Ag Meeting Attend -Special	100.00
TOTAL						500.00

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Type	Date	Num	Name	Memo	Account	Paid Amount
Bill Pmt -Check	02/12/2016	19212	HALL, PETE*	Ag Pool Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/14/2016	1/14 Appro Pool Mtg		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/14/16 Appropriative Pool Meeting	8470 · Ag Meeting Attend -Special	100.00
Bill	01/14/2016	1/14 Non Ag Pool Mtg		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/14/16 Non Ag Pool Meeting	8470 · Ag Meeting Attend -Special	100.00
Bill	01/14/2016	1/14 Ag Pool Mtg		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/14/16 Ag Pool Meeting	8470 · Ag Meeting Attend -Special	100.00
Bill	01/21/2016	1/21 RIPCom Mtg		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/21/16 RIPCom Meeting	8470 · Ag Meeting Attend -Special	100.00
Bill	01/28/2016	1/28 Board Mtg		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/28/16 Board Meeting	8470 · Ag Meeting Attend -Special	100.00
TOTAL						625.00
Bill Pmt -Check	02/12/2016	19213	HUITSING, JOHN	Ag Pool Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/14/2016	1/14 Ag Pool Mtg		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/14/16 Ag Pool Meeting	8470 · Ag Meeting Attend -Special	100.00
TOTAL						125.00
Bill Pmt -Check	02/12/2016	19214	IPSWITCH, INC.	2015-166810	1012 · Bank of America Gen'l Ckg	
Bill	02/08/2016	2015-166810		1 year support for FTP Server	6055 · Computer Hardware	257.00
TOTAL						257.00
Bill Pmt -Check	02/12/2016	19215	OFFICE TEAM	44979135	1012 · Bank of America Gen'l Ckg	
Bill	01/29/2016	44979135		Week ending 1/29/16	6017.2 · Office Specialist Services	1,108.00
TOTAL						1,108.00
Bill Pmt -Check	02/12/2016	19216	PAYCHEX	2016012800	1012 · Bank of America Gen'l Ckg	
Bill	01/31/2016	2016012800		January 2016	6012 · Payroll Services	507.61
TOTAL						507.61
Bill Pmt -Check	02/12/2016	19217	PIERSON, JEFFREY	Ag Pool Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/14/2016	1/14 Ag Pool Mtg		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/14/16 Ag Pool Meeting	8470 · Ag Meeting Attend -Special	100.00
Bill	01/28/2016	1/28 Board Mtg		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/28/16 Board meeting	8470 · Ag Meeting Attend -Special	100.00
TOTAL						250.00
Bill Pmt -Check	02/12/2016	19218	PREMIERE GLOBAL SERVICES	20342573	1012 · Bank of America Gen'l Ckg	
Bill	01/31/2016	20342573		WM coordination call on 1/04	6909.1 · OBMP Meetings	30.48

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<u>Type</u>	<u>Date</u>	<u>Num</u>	<u>Name</u>	<u>Memo</u>	<u>Account</u>	<u>Paid Amount</u>
				Board call w/Elie, Kavounas, Slater on 1/04	6312 · Meeting Expenses	10.57
				WM coordination call on 1/11	6909.1 · OBMP Meetings	26.48
				Safe Yield Reset call on 1/12	6906.73 · OBMP-Safe Yield Recalculation	29.49
				Pool mtgs check call on 1/13	8512 · Meeting Expense	6.18
				Pool mtgs check call on 1/13	8412 · Meeting Expenses	6.18
				Pool mtgs check call on 1/13	8312 · Meeting Expenses	6.18
				Non-Ag Pool mtg call on 1/14	8512 · Meeting Expense	36.62
				WM coordination call on 1/18	6909.1 · OBMP Meetings	21.49
				WM coordination call on 1/18	6909.1 · OBMP Meetings	6.14
				WM coordination call on 1/18	6909.1 · OBMP Meetings	6.15
				Volume Vote call on 1/19	6909.1 · OBMP Meetings	21.71
				WM coordination call on 1/25	6909.1 · OBMP Meetings	27.14
				Fee - Confidential	6022 · Telephone	49.00
				Fee - General	6022 · Telephone	49.00
				Service fee	6022 · Telephone	8.22
TOTAL						<u>341.03</u>
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Bill Pmt -Check	02/12/2016	19219	SANTA ANA RIVER WATER COMPANY	Board Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/21/2016	1/21 Personnel Comm		1/21/16 Personnel Committee Meeting - Rodriguez	6311 · Board Member Compensation	125.00
TOTAL						<u>125.00</u>
Bill Pmt -Check	02/12/2016	19220	THOMAS, THOMAS R.	Board Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/28/2016	1/28 Board Mtg		1/28/16 Board Meeting	6311 · Board Member Compensation	125.00
TOTAL						<u>125.00</u>
Bill Pmt -Check	02/12/2016	19221	UNION 76	7076-2245-3035-5049	1012 · Bank of America Gen'l Ckg	
Bill	01/29/2016	7076-2245-3035-5049		Fuel - January 2016	6175 · Vehicle Fuel	186.01
TOTAL						<u>186.01</u>
Bill Pmt -Check	02/12/2016	19222	VANDEN HEUVEL, GEOFFREY	Board Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/28/2016	1/28 Board Mtg		1/28/16 Board Meeting	6311 · Board Member Compensation	125.00
TOTAL						<u>125.00</u>
Bill Pmt -Check	02/12/2016	19223	VANDEN HEUVEL, ROB	Ag Pool Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/14/2016	1/14 Ag Pool Mtg		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/14/16 Ag Pool meeting	8470 · Ag Meeting Attend -Special	100.00
TOTAL						<u>125.00</u>
Bill Pmt -Check	02/12/2016	19224	WESTERN MUNICIPAL WATER DISTRICT	Board Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/28/2016	1/28 Board Mtg		1/28/16 Board Meeting - Galleano	6311 · Board Member Compensation	125.00

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TOTAL						125.00
Bill Pmt -Check	02/12/2016	19225	HOGAN LOVELLS	2961520	1012 · Bank of America Gen'l Ckg	
Bill	01/31/2016	2961520		Non-Ag Pool Legal Services - December 2015	8567 · Non-Ag Legal Service	4,346.55
TOTAL						4,346.55
General Journal	02/13/2016	02/13/2016	Payroll and Taxes for 01/31/16-02/13/16	Payroll and Taxes for 01/31/16-02/13/16	1012 · Bank of America Gen'l Ckg	
				Direct Deposits for 01/31/16-02/13/16	1012 · Bank of America Gen'l Ckg	23,382.95
				Payroll Taxes for 01/31/16-02/13/16	1012 · Bank of America Gen'l Ckg	8,975.64
				Checks for 01/31/16-02/13/16	1014 · Bank of America P/R Ckg	983.27
			ICMA-RC	457(f) Employee Deductions for 01/31/16-02/13/16	1012 · Bank of America Gen'l Ckg	3,874.52
			ICMA-RC	401(a) Employee Deductions for 01/31/16-02/13/16	1012 · Bank of America Gen'l Ckg	1,200.05
TOTAL						38,416.43
Bill Pmt -Check	02/19/2016	ACH 021916	PUBLIC EMPLOYEES' RETIREMENT SYSTEM	Payor #3493	1012 · Bank of America Gen'l Ckg	
General Journal	02/13/2016	02/13/2016	PUBLIC EMPLOYEES' RETIREMENT SYSTEM	CalPERS Retirement for 01/31/16-02/13/16	2000 · Accounts Payable	6,470.32
TOTAL						6,470.32
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Bill Pmt -Check	02/23/2016	19226	BOWMAN, JIM	Board Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/13/2016	1/13 Admin Mtg		1/13/16 Administrative Meeting w/PK	6311 · Board Member Compensation	125.00
TOTAL						125.00
Bill Pmt -Check	02/23/2016	19227	CALPERS	1394905143	1012 · Bank of America Gen'l Ckg	
Bill	02/08/2016	1394905143		1394905143	60182.1 · Medical Insurance	10,370.88
TOTAL						10,370.88
Bill Pmt -Check	02/23/2016	19228	CLEAN TECH SERVICES	5278	1012 · Bank of America Gen'l Ckg	
Bill	02/17/2016	5278		Window cleaning, hard water spot removal	6024 · Building Repair & Maintenance	426.00
TOTAL						426.00
Bill Pmt -Check	02/23/2016	19229	CUCAMONGA VALLEY WATER DISTRICT	Lease due March 1, 2016	1012 · Bank of America Gen'l Ckg	
Bill	02/16/2016			Lease due March 1, 2016	1422 · Prepaid Rent	6,371.16
TOTAL						6,371.16
Bill Pmt -Check	02/23/2016	19230	DE BOOM, NATHAN	Ag Pool Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/21/2016	1/21 Advisory Comm		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/21/16 Advisory Committee Meeting	8470 · Ag Meeting Attend -Special	100.00
TOTAL						125.00
Bill Pmt -Check	02/23/2016	19231	EGOSCUE LAW GROUP	11143	1012 · Bank of America Gen'l Ckg	

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Type	Date	Num	Name	Memo	Account	Paid Amount
Bill	01/31/2016	11143		Ag Pool Legal Services - January 2016	8467 · Ag Legal & Technical Services	41,732.50
TOTAL						<u>41,732.50</u>
Bill Pmt -Check	02/23/2016	19232	ELIE, STEVEN	Board Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/21/2016	1/21 Advisory Comm		1/21/16 Advisory Committee Meeting	6311 · Board Member Compensation	125.00
Bill	01/26/2016	1/26 Admin Mtg		1/26/2016 Administrative Meeting w/PK	6311 · Board Member Compensation	125.00
TOTAL						<u>250.00</u>
Bill Pmt -Check	02/23/2016	19233	FEENSTRA, BOB	Ag Pool Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/21/2016	1/21 Advisory Comm		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/21/16 Advisory Committee Meeting	8470 · Ag Meeting Attend -Special	100.00
TOTAL						<u>125.00</u>
Bill Pmt -Check	02/23/2016	19234	GALAXY AUDIO VISUAL	1206	1012 · Bank of America Gen'l Ckg	
Bill	02/08/2016	1206		Board room handheld microphones	6055 · Computer Hardware	2,547.77
TOTAL						<u>2,547.77</u>
Bill Pmt -Check	02/23/2016	19235	HALL, PETE*	Ag Pool Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/21/2016	1/21 Advisory Comm		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/21/16 Advisory Committee Meeting	8470 · Ag Meeting Attend -Special	100.00
TOTAL						<u>125.00</u>
Bill Pmt -Check	02/23/2016	19236	KAVOUNAS, PETER	Travel Expense Reimbursement	1012 · Bank of America Gen'l Ckg	
Bill	02/16/2016			Travel-GRA SGMA Event-Davis, CA	6171.1 · GM - Reimbursement	467.64
				Meals-GRA SGMA Event-Davis, CA	6191 · Conferences - General	32.66
TOTAL						<u>500.30</u>
Bill Pmt -Check	02/23/2016	19237	KUHN, BOB	Board Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/14/2016	1/14 Appro Pool Mtg		1/14/16 Appropriative Pool Meeting	6311 · Board Member Compensation	125.00
Bill	01/18/2016	1/18 Admin Mtg		1/18/16 Administrative Meeting w/PK	6311 · Board Member Compensation	125.00
TOTAL						<u>250.00</u>
Bill Pmt -Check	02/23/2016	19238	LEGAL SHIELD	0111802	1012 · Bank of America Gen'l Ckg	
Bill	02/17/2016	0111802		Employee deductions - February 2016	60194 · Other Employee Insurance	51.80
TOTAL						<u>51.80</u>
Bill Pmt -Check	02/23/2016	19239	OFFICE DEPOT		1012 · Bank of America Gen'l Ckg	
Bill	02/06/2016	822785957001		Miscellaneous office supplies	6031.7 · Other Office Supplies	35.29
Bill	02/08/2016	822785294001		Miscellaneous office supplies	6031.7 · Other Office Supplies	21.14
Bill	02/08/2016	822785956001		Miscellaneous office supplies	6031.7 · Other Office Supplies	12.93

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Type	Date	Num	Name	Memo	Account	Paid Amount
TOTAL						69.36
Bill Pmt -Check	02/23/2016	19240	PIERSON, JEFFREY	Ag Pool Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/21/2016	1/21 Advisory Comm		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/21/16 Advisory Committee Meeting	8470 · Ag Meeting Attend -Special	100.00
Bill	01/21/2016	1/21 RIPCom Mtg		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/21/16 RIPCom meeting	8470 · Ag Meeting Attend -Special	100.00
TOTAL						250.00
Bill Pmt -Check	02/23/2016	19241	PITNEY BOWES CREDIT CORPORATION	6684246	1012 · Bank of America Gen'l Ckg	
Bill	02/17/2016	6684246		Postage meter lease	6044 · Postage Meter Lease	402.85
TOTAL						402.85
Bill Pmt -Check	02/23/2016	19242	PRINTING RESOURCES	62891	1012 · Bank of America Gen'l Ckg	
Bill	02/09/2016	62891		Business cards - A. Truong, R. Zapien	6031.7 · Other Office Supplies	151.71
TOTAL						151.71
Bill Pmt -Check	02/23/2016	19243	RON SHELLEY'S AUTOMOTIVE		1012 · Bank of America Gen'l Ckg	
Bill	02/11/2016	7951		Maintenance for F-150	6177 · Vehicle Repairs & Maintenance	193.91
Bill	02/16/2016	7986		Maintenance for 2001 Dakota	6177 · Vehicle Repairs & Maintenance	68.35
TOTAL						262.26
Bill Pmt -Check	02/23/2016	19244	STAPLES BUSINESS ADVANTAGE	8037946377	1012 · Bank of America Gen'l Ckg	
Bill	02/06/2016	8037946377		Miscellaneous office supplies	6031.7 · Other Office Supplies	127.00
TOTAL						127.00
Bill Pmt -Check	02/23/2016	19245	STAULA, MARY L	Retiree Medical	1012 · Bank of America Gen'l Ckg	
Bill	02/16/2016				60182.4 · Retiree Medical	23.62
TOTAL						23.62
Bill Pmt -Check	02/23/2016	19246	THOMAS, THOMAS R.	Board Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/26/2016	1/26 Admin Mtg		1/26/16 Administrative Meeting w/PK	6311 · Board Member Compensation	125.00
TOTAL						125.00
Bill Pmt -Check	02/23/2016	19247	VANDEN HEUVEL, ROB	Ag Pool Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/19/2016	1/19 Call Vol Vote		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/19/16 Conference Call re Volume Votes	8470 · Ag Meeting Attend -Special	100.00
Bill	01/21/2016	1/21 Advisory Comm		Ag Pool Member Compensation	8411 · Compensation	25.00
				1/21/16 Advisory Committee Meeting	8470 · Ag Meeting Attend -Special	100.00
TOTAL						250.00

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Type	Date	Num	Name	Memo	Account	Paid Amount
Bill Pmt -Check	02/23/2016	19248	VERIZON	012519128144592510	1012 · Bank of America Gen'l Ckg	
Bill	02/17/2016	012519128144592510		012519128144592510	6022 · Telephone	132.09
TOTAL						132.09
Bill Pmt -Check	02/23/2016	19249	VERIZON WIRELESS	9759944834	1012 · Bank of America Gen'l Ckg	
Bill	02/16/2016	9759944834		9759944834	6022 · Telephone	390.37
TOTAL						390.37
Bill Pmt -Check	02/24/2016	19250	BANK OF AMERICA	XXXX-XXXX-XXXX-9341	1012 · Bank of America Gen'l Ckg	
Bill	01/31/2016	XXXX-XXXX-XXXX-9341		Purchase book "Scaling Up" for GM	6031.7 · Other Office Supplies	19.04
				Purchase USB wall charger/plug for CFO phone	6031.7 · Other Office Supplies	12.41
				Purchase USB cable for CFO phone	6031.7 · Other Office Supplies	8.63
				Purchase data cable for CFO phone	6031.7 · Other Office Supplies	6.95
				Purchase miscellaneous office supplies	6031.7 · Other Office Supplies	95.91
				Purchase copy paper	6031.1 · Copy Paper	127.96
				Purchase shirts w/logo for new field staff	6154 · Uniforms	306.06
				Send legal docs to Stradling Yocca Carlson Rauth	6042 · Postage - General	54.98
				Purchase vehicle batteries for WM trucks	6177 · Vehicle Repairs & Maintenance	283.47
				Purchase miscellaneous office supplies	6031.7 · Other Office Supplies	60.96
				Purchase copy paper	6031.1 · Copy Paper	159.95
				Mail legal filings-from 2/1/16 to board, pool chairs	6042 · Postage - General	147.95
				Purchase Adobe Acrobat upgrade software	6054 · Computer Software	199.00
				Service call: check/adjust boardroom microphones	6024 · Building Repair & Maintenance	250.00
				License for FTP server support & implementation	6054 · Computer Software	1,330.00
				Service call: reset voltage controller in boardroom	6024 · Building Repair & Maintenance	250.00
				PK breakfast for meeting in Sacramento	6191 · Conferences - General	7.90
				Airport parking-PK-attend meeting in Sacramento	6191 · Conferences - General	18.00
				Deposit hold-2/17/16 Vistage Mtg. hosted by PK	6191 · Conferences - General	175.00
				PK meeting w/Ontario - J. Bowman, S. Burton	6312 · Meeting Expenses	59.25
				PK meeting w/B. Kuhn, D. DeJesus	6312 · Meeting Expenses	25.80
				PK meeting w/J. Grindstaff IEUA	8312 · Meeting Expenses	31.16
				Lunch for management between meetings	6141.3 · Admin Meetings	65.08
				PK meeting w/Upland - T. Thomas, R. Hoerning	6312 · Meeting Expenses	51.79
				Photographer-new Board members, Pool Chairs	6147 · Other Admin Expenses	350.00
				Lunch for management for court filing coordination	6141.3 · Admin Meetings	25.88
				PK meeting w/B. DiPrimio	6909.1 · OBMP Meetings	25.47
				Reg.-Nakano, Yoo-2/17/2016 AGWA-AGWT Conf.	6193.2 · Conference - Registration Fee	420.00
				Reg.-Zapien-2/17/2016 AGWA-AGWT Conference	6193.2 · Conference - Registration Fee	195.00
				Final payment-2/17/16 Vistage mtg. hosted by PK	6191 · Conferences - General	634.18

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**CHINO BASIN WATERMASTER**  
**Cash Disbursements For The Month of**  
**February 2016**

For Informational Purposes Only

Type	Date	Num	Name	Memo	Account	Paid Amount
TOTAL						5,397.78
Bill Pmt -Check	02/24/2016	19251	GREAT AMERICA LEASING CORP.	18306494	1012 · Bank of America Gen'l Ckg	
Bill	02/23/2016	18306494		Invoice	6043.1 · Ricoh Lease Fee	3,285.29
TOTAL						3,285.29
Bill Pmt -Check	02/24/2016	19252	PRINTING RESOURCES	62890	1012 · Bank of America Gen'l Ckg	
Bill	02/15/2016	62890		Name badge: A. Truong w/new title	6031.7 · Other Office Supplies	46.22
TOTAL						46.22
Bill Pmt -Check	02/24/2016	19253	STANDARD INSURANCE CO.	Policy # 00-649299-0009	1012 · Bank of America Gen'l Ckg	
Bill	02/23/2016	006492990009		Policy # 00-649299-0009	60191 · Life & Disab.Ins Benefits	741.75
TOTAL						741.75
Bill Pmt -Check	02/24/2016	19254	STAPLES BUSINESS ADVANTAGE	8038039289	1012 · Bank of America Gen'l Ckg	
Bill	02/23/2016	8038039289		Miscellaneous office supplies	6031.7 · Other Office Supplies	72.58
TOTAL						72.58
P193 TOTAL	02/24/2016	19255	STATE COMPENSATION INSURANCE FUND	1970970-15	1012 · Bank of America Gen'l Ckg	
Bill	03/01/2016	1970970-15		1970970-15	60183 · Worker's Comp Insurance	961.58
TOTAL						961.58
Bill Pmt -Check	02/24/2016	19256	UNITED HEALTHCARE	039900535	1012 · Bank of America Gen'l Ckg	
Bill	02/23/2016	0039900535		Dental Insurance - March 2016	60182.2 · Dental & Vision Ins	833.15
TOTAL						833.15
Bill Pmt -Check	02/24/2016	19257	VANDEN HEUVEL, GEOFFREY	Board Member Compensation	1012 · Bank of America Gen'l Ckg	
Bill	01/14/2016	1/14 Ag Pool Mtg		1/14/2016 Ag Pool Annual Meeting	6311 · Board Member Compensation	125.00
TOTAL						125.00
Bill Pmt -Check	02/24/2016	19258	VERIZON	642013270-00001	1012 · Bank of America Gen'l Ckg	
Bill	02/23/2016	642073270-00001		642013270-00001	7103.7 · Grdwtr Qual-Computer Svc	100.04
TOTAL						100.04
General Journal	02/27/2016	02/27/2016	Payroll and Taxes for 02/14/16-02/27/16	Payroll and Taxes for 02/14/16-02/27/16	1012 · Bank of America Gen'l Ckg	
				Direct Deposits for 02/14/16-02/27/16	1012 · Bank of America Gen'l Ckg	19,956.47
				Payroll Checks for 02/14/16 - 02/27/16	1012 · Bank of America Gen'l Ckg	15,830.28
				Payroll Taxes for 02/14/16-02/27/16	1012 · Bank of America Gen'l Ckg	14,602.44
			ICMA-RC	457(f) Employee Deductions for 02/14/16-02/27/16	1012 · Bank of America Gen'l Ckg	3,934.20
			ICMA-RC	401(a) Employee Deductions for 02/14/16-02/27/16	1012 · Bank of America Gen'l Ckg	1,228.88

CHINO BASIN WATERMASTER  
Cash Disbursements For The Month of  
February 2016

For Informational Purposes Only

Type	Date	Num	Name	Memo	Account	Paid Amount
TOTAL						55,552.27
General Journal	02/29/2016	02/29/2016	Wage Works FSA Direct Debits - Feb. 2016	Wage Works FSA Direct Debits - Feb. 2016	1012 · Bank of America Gen'l Ckg	
				Wage Works FSA Direct Debits - Feb. 2016	1012 · Bank of America Gen'l Ckg	81.50
				Wage Works FSA Direct Debits - Feb. 2016	1012 · Bank of America Gen'l Ckg	692.14
				Wage Works FSA Direct Debits - Feb. 2016	1012 · Bank of America Gen'l Ckg	692.14
TOTAL						1,465.78
					<b>Total Disbursements:</b>	<b>451,095.11</b>

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