CHINO BASIN WATERMASTER

NOTICE OF MEETING

Thursday, October 24, 2019

11:00 a.m. – Watermaster Board Meeting

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

CHINO BASIN WATERMASTER

Thursday, October 24, 2019

11:00 a.m. – Watermaster Board Meeting

AGENDA

CHINO BASIN WATERMASTER
WATERMASTER BOARD MEETING
11:00 a.m. – October 24, 2019
Mr. Jeff Pierson – Chair
Mr. Darron Poulsen – 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

Approve as presented:

1. Minutes of the Watermaster Board Meeting held September 26, 2019 *(Page 1)*

B. FINANCIAL REPORTS

Receive and file as presented:

1. Cash Disbursements for the month of August 2019 *(Page 5)*
2. Watermaster VISA Check Detail for the month of August 2019 *(Page 17)*
3. Combining Schedule for the Period August 1, 2019 through August 31, 2019 *(Page 21)*
4. Treasurer's Report of Financial Affairs for the Period August 1, 2019 through August 31, 2019 *(Page 25)*
5. Budget vs. Actual Report for the Period August 1, 2019 through August 31, 2019 *(Page 29)*

C. APPLICATION FOR RECHARGE – SAN ANTONIO WATER COMPANY *(Page 47)*

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

D. WATER TRANSACTIONS *(Page 63)*

Approve the proposed transaction:
The transfer of 954.5 acre-feet of Permanent Safe Yield Rights, 954.5 acre-feet of Fiscal Year 2019-20 Annual Carryover, and 2,790.2 acre-feet of Excess Carryover from GenOn California South, LP (formerly NRG California South, LP) to the City of Ontario (Non-Ag).

II. BUSINESS ITEMS

A. CHINO BASIN WATERMASTER ANNUAL FINANCIAL REPORT FOR THE FISCAL YEARS ENDED JUNE 30, 2019 AND 2018; AND THE CHINO BASIN WATERMASTER MANAGEMENT REPORT FOR JUNE 30, 2019 *(Page 75)*

Receive and file (1) the Chino Basin Watermaster Annual Financial Report for the Fiscal Years Ended June 30, 2019 and 2018 dated October 24, 2019; and (2) the Chino Basin Watermaster Management Report for June 30, 2019 dated October 24, 2019.

B. RESTATED JUDGMENT AMENDMENT – WATERMASTER MOTION TO AMEND ¶ 36 *(Page 83)*

Approve and direct Counsel to file the motion with the Court.

C. RULES AND REGULATIONS 2019 UPDATE *(Page 95)*

Approve the Rules and Regulations 2019 Update. In subsequent years incorporate a periodic review not less frequently than every two years, as part of routine procedure.

III. REPORTS/UPDATES

A. LEGAL COUNSEL REPORT

1. 2019-1 OBMP Semi-Annual Status Report Court Filing

B. ENGINEER REPORT

1. GLMC Activities
2. Safe Yield Recalculation
3. Miscellaneous Requests for Watermaster Data/Information

C. CFO REPORT

1. 2019/20 Assessment Package Workshop

D. GM REPORT

1. Status report: OBMP Update
2. Status report: Storage Management Plan
3. Restated Judgment Amendment – Overlying (Agricultural) Pool Pooling Plan
4. Overlying (Agricultural) Pool Rules and Regulations Amendment
5. Watermaster 2019 Business Plan Update *(Page 103)*
6. First Organization Performance Status Report FY 2019/20 (Oct. 2019) *(Page 105)*
7. Holiday Meeting Schedule
8. Other

IV. INFORMATION

1. Cash Disbursements for September 2019 *(Page 107)*
2. Plumes Status Reports (Semi-Annual and Annual) *(Page 117)*
3. GLMC Status Report (Semi-Annual) *(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 Board meeting for the purpose of discussion and possible action.

VIII. FUTURE MEETINGS AT WATERMASTER

10/24/19	Thu	9:00 a.m.	Recharge Investigations and Projects Committee (RIPCom)
10/24/19	Thu	11:00 a.m.	Watermaster Board
10/29/19	Tue	1:00 p.m.	2019/20 Assessment Package Workshop
11/06/19	Wed	1:00 p.m.	Storage Management Plan – Workshop #3
11/13/19	Wed	9:00 a.m.	Storage Management Plan – Workshop #4
11/14/19	Thu	9:00 a.m.	Appropriative Pool
11/14/19	Thu	11:00 a.m.	Non-Agricultural Pool
11/14/19	Thu	1:30 p.m.	Agricultural Pool
11/21/19	Thu	8:00 a.m.	Appropriative Pool Strategic Planning (Confidential Session Only)
11/21/19	Thu	9:00 a.m.	Advisory Committee
11/21/19	Thu	11:00 a.m.	Watermaster Board*

*Rescheduled from 11/28/19

ADJOURNMENT

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CHINO BASIN WATERMASTER

I. CONSENT CALENDAR

A. MINUTES

1. Watermaster Board Meeting held on September 26, 2019

DRAFT MINUTES
CHINO BASIN WATERMASTER
WATERMASTER BOARD MEETING
September 26, 2019

The Watermaster Board meeting was held at the offices of the Chino Basin Watermaster located at 9641 San Bernardino Road, Rancho Cucamonga, CA on September 26, 2019.

WATERMASTER BOARD MEMBERS PRESENT

Jeff Pierson, Chair	Agricultural Pool – Crops
Darron Poulsen, Vice-Chair	City of Pomona
Bob Kuhn, Secretary/Treasurer	Three Valleys Municipal Water District
Brian Geye for Bob Bowcock	California Speedway Corporation
Eunice Ulloa	City of Chino
Paul Hofer	Agricultural Pool – Crops
Steve Elie	Inland Empire Utilities Agency
Gino Filippi	Appropriative Pool – Minor Representative
Don Galleano	Western Municipal Water District

WATERMASTER BOARD MEMBERS ABSENT

Bob Bowcock	CalMat Co.

WATERMASTER STAFF PRESENT

Peter Kavounas	General Manager
Joseph Joswiak	Chief Financial Officer
Edgar Tellez Foster	Senior Environmental Engineer
Anna Nelson	Executive Services Director/Board Clerk
Frank Yoo	Water Resources Senior Associate
Justin Nakano	Water Resources Senior Associate

WATERMASTER CONSULTANTS PRESENT

Scott Slater	Brownstein Hyatt Farber Schreck, LLP
Andy Malone	Wildermuth Environmental, Inc.
Samantha Adams	Wildermuth Environmental, Inc.

OTHERS PRESENT

David De Jesus	Three Valleys Municipal Water District
John Bosler	Cucamonga Valley Water District
Betty Anderson	Jurupa Community Services District
Teri Layton	San Antonio Water Company
Christiana Daisy	Inland Empire Utilities Agency
Steve Corrington	MIH Water Treatment, Inc.
Manny Martinez	Monte Vista Water District
Praseetha Krishnan	Cucamonga Valley Water District
Bob Feenstra	Agricultural Pool – Dairy
Craig Miller	Western Municipal Water District
Chris Berch	Jurupa Community Services District

CALL TO ORDER
Chair Pierson called the Watermaster Board meeting to order at 11:00 a.m.

PLEDGE OF ALLEGIANCE

PUBLIC COMMENTS
None

AGENDA – ADDITIONS/REORDER
None

I. CONSENT CALENDAR

A. MINUTES

Approve as presented:

1. Minutes of the Watermaster Board Meeting held July 25, 2019

B. FINANCIAL REPORTS

Receive and file as presented:

1. Cash Disbursements for the month of June 2019
2. Watermaster VISA Check Detail for the month of June 2019
3. Combining Schedule for the Period July 1, 2018 through June 30, 2019
4. Treasurer's Report of Financial Affairs for the Period June 1, 2019 through June 30, 2019
5. Budget vs. Actual Report for the Period July 1, 2018 through June 30, 2019
6. Cash Disbursements for the month of July 2019
7. Watermaster VISA Check Detail for the month of July 2019
8. Combining Schedule for the Period July 1, 2019 through July 31, 2019
9. Treasurer's Report of Financial Affairs for the Period July 1, 2019 through July 31, 2019
10. Budget vs. Actual Report for the Period July 1, 2019 through July 31, 2019

C. OBMP SEMI-ANNUAL STATUS REPORTS 2019-1

Adopt the Semi-Annual OBMP Status Report 2019-1, along with filing a copy with the Court, subject to any necessary non-substantive changes.

D. FISCAL YEAR 2018/19 BUDGET TRANSFER (FORM T-19-06-01)

Approve Fiscal Year 2018/19 Budget Transfer (Form T-19-06-01) as presented.

(0:01:29)
Motion by Mr. Bob Kuhn seconded by Vice-Chair Darron Poulsen, and by unanimous vote.
Moved to approve the Consent Calendar as presented.

II. BUSINESS ITEMS

A. REVISED 2014/15 THROUGH 2018/19 ASSESSMENT PACKAGES

Approve the Revised 2014/15 through 2018/19 Assessment Packages along with the assessment of Desalter Replenishment Obligation.

(0:01:49) Mr. Kavounas introduced the item and invited Mr. Yoo to give a presentation.

(0:02:57) Mr. Yoo gave a presentation. A discussion ensued.

Messrs. Steve Elie and Paul Hofer joined the meeting at 11:03 a.m.

Ms. Eunice Ulloa joined the meeting at 11:04 a.m.

(0:10:44) Mr. Joswiak gave a report for Item III.C.1., September 2019 Assessment Invoicing and Payments.

(0:12:36)
Motion by Mr. Don Galleano seconded by Mr. Bob Kuhn, and by unanimous vote.
Moved to approve Business Item II.A. as presented.

(0:12:40) Ms. Ulloa thanked the Watermaster staff for completing the Revised Assessment Packages.

B. RESOLUTION TO LEVY REPLENISHMENT AND ADMINISTRATIVE ASSESSMENTS FOR REVISED 2014/15 THROUGH 2018/19 ASSESSMENT PACKAGES
Adopt Resolution 2019-05 as presented.

(0:13:23) Mr. Kavounas gave a report

(0:13:37)
Motion by Ms. Eunice Ulloa seconded by Mr. Steve Elie, and by unanimous vote.
Moved to approve Business Item II.B. as presented.

III. REPORTS/UPDATES

A. LEGAL COUNSEL REPORT
1. Rules and Regulations 2019 Update
2. December 13, 2019 Hearing

(0:14:24) Mr. Slater gave a report. A discussion ensued.

B. ENGINEER REPORT
1. GLMC Activities
2. Safe Yield Recalculation
3. PFAS Monitoring

(0:20:16) Mr. Malone gave a report. A discussion ensued.

C. CFO REPORT
1. September 2019 Assessment Invoicing and Payments

Item III.C.1. was taken during Business Item II.A. as shown in sequence above.

D. GM REPORT
1. Water Activity Reports
2. Status report: OBMP Update
3. Status report: Storage Management Plan
4. Ely 3 Basin
5. Other

(0:27:45) Mr. Kavounas gave a report on Item III.D.1.

(0:30:46) Mr. Tellez Foster and Ms. Adams gave a presentation on Item III.D.2. A discussion ensued.

(0:47:46) Mr. Kavounas gave reports on Items III.D.3. – III.D.4., and the annual Chino Basin Day with the Regional Water Quality Control Board. He shared information that Inland Empire Utilities Agency sent regarding the Prop. 1 Storm Water Grant Program. Mr. Kavounas introduced Inland Empire Utilities Agency's new Assistant General Manager, and Executive Manager of Engineering, Ms. Christiana Daisy.

(0:53:20) Ms. Daisy addressed the Board.

(0:53:55) Mr. Kavounas announced the passing of Mr. Manny Martinez's wife, Mrs. Trisha Martinez, and expressed his condolences. He also shared that in lieu of flowers, Watermaster will be donating to Mrs. Martinez's charity of choice.

(0:54:59) The Board echoed Mr. Kavounas' comments and expressed their condolences.

IV. INFORMATION

1. Cash Disbursements for August 2019

V. BOARD MEMBER COMMENTS

(0:56:54) Mr. Elie requested that the meeting adjourn in the memory of Mrs. Trisha Martinez.

VI. OTHER BUSINESS

None

VII. CONFIDENTIAL SESSION - POSSIBLE ACTION

None

ADJOURNMENT

Chair Pierson adjourned the Watermaster Board meeting in memory of Mrs. Trisha Martinez at 11:58 a.m.

Secretary: _____

Approved: _____

CHINO BASIN WATERMASTER

I. CONSENT CALENDAR

B. FINANCIAL REPORTS

1. Cash Disbursements for the month of August 2019
2. Watermaster VISA Check Detail for the month of August 2019
3. Combining Schedule for the Period August 1, 2019 through August 31, 2019
4. Treasurer's Report of Financial Affairs for the Period August 1, 2019 through August 31, 2019
5. Budget vs. Actual Report for the Period August 1, 2019 through August 31, 2019

CHINO BASIN WATERMASTER

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

PETER KAVOUNAS, P.E.
General Manager

STAFF REPORT

DATE: October 24, 2019

TO: Board Members

SUBJECT: Cash Disbursement Report - Financial Report B1 (August 31, 2019)
(Consent Calendar Item I.B.1.)

SUMMARY

Issue: Record of Cash Disbursements for the month of August 2019.

Recommendation: Receive and file Cash Disbursements for August 2019 as presented.

Financial Impact: Funds disbursed were included in the FY 2019/20 "Amended" Watermaster Budget.

Future Consideration
Watermaster Board – October 24, 2019: Receive and File (Normal Course of Business)

ACTIONS:
Appropriative Pool – October 10, 2019: Received and filed
Non-Agricultural Pool – October 10, 2019: Moved unanimously to receive and file, without approval
Agricultural Pool – October 10, 2019: Received and filed
Advisory Committee – October 17, 2019: Received and filed
Watermaster Board – October 24, 2019:

Watermaster's function is to administer and enforce provisions of the Judgment and subsequent orders of the Court, and to develop and implement an Optimum Basin Management Program

BACKGROUND

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

DISCUSSION

Total cash disbursements during the month of August 2019 were $598,601.27.

The most significant expenditures during the month were to Wildermuth Environmental, Inc. in the amount of $293,038.78 (check number 21663 dated August 27, 2019); and Brownstein Hyatt Farber Schreck in the amount of $72,742.27 (check number 21674 dated August 30, 2019).

ATTACHMENTS

1. Financial Report - B1

CHINO BASIN WATERMASTER
Cash Disbursements For The Month of
August 2019

	Type	Date	Num	Name	Memo	Account	Paid Amount
	Bill Pmt -Check	**08/07/2019**	**21623**	**ACCENT COMPUTER SOLUTIONS, INC.**	**IT Consulting Services**	**1012 · Bank of America Gen'l Ckg**	
	Bill	06/30/2019	129588		Office 365 Migration-Final Fee	6055 · Computer Hardware	3,510.00
	Bill	08/01/2019	129628		Cloud subscription renewal	6054 · Computer Software	796.80
TOTAL							4,306.80
	Bill Pmt -Check	**08/07/2019**	**21624**	**APPLIED COMPUTER TECHNOLOGIES**	**3105**	**1012 · Bank of America Gen'l Ckg**	
	Bill	07/31/2019	3105		Database Consulting Services - July 2019	6052.2 · Applied Computer Technol	3,900.00
TOTAL							3,900.00
	Bill Pmt -Check	**08/07/2019**	**21625**	**BOWCOCK, ROBERT**	**Board Member Compensation**	**1012 · Bank of America Gen'l Ckg**	
	Bill	07/18/2019	7/18 Board Officers		7/18/19 Board Officers and Pool Chairs meeting	6311 · Board Member Compensation	125.00
	Bill	07/25/2019	7/25 Board Mtg		7/25/19 Board meeting	6311 · Board Member Compensation	125.00
TOTAL							250.00
	Bill Pmt -Check	**08/07/2019**	**21626**	**CALIFORNIA STATE UNIVERSITY - SACRAMEN**	**1081914**	**1012 · Bank of America Gen'l Ckg**	
	Bill	06/30/2019	1081914		Facilitation training w/Dave Ceppos	6193 · Employee Training	9,688.75
TOTAL							9,688.75
	Bill Pmt -Check	**08/07/2019**	**21627**	**CHEF DAVE'S CATERING & EVENT SERVICES**	**VOID: 9812**	**1012 · Bank of America Gen'l Ckg**	0.00
TOTAL							0.00
	Bill Pmt -Check	**08/07/2019**	**21628**	**CITY OF POMONA**	**Board Member Compensation**	**1012 · Bank of America Gen'l Ckg**	
	Bill	07/11/2019	7/11 Appro Pool Mtg		Poulsen - 7/11/19 Board meeting	6311 · Board Member Compensation	125.00
	Bill	07/18/2019	7/18 Advisory Comm		Poulsen - 7/18/19 Advisory Committee meeting	6311 · Board Member Compensation	125.00
	Bill	07/25/2019	7/25 Board Mtg		Poulsen - 7/25/19 Board meeting	6311 · Board Member Compensation	125.00
	Bill	07/31/2019	7/31 OBMP LS5		Poulsen - 7/31/19 OBMP Update LS5 meeting	6311 · Board Member Compensation	125.00
TOTAL							500.00
	Bill Pmt -Check	**08/07/2019**	**21629**	**DE BOOM, NATHAN**	**Ag Pool Member Compensation**	**1012 · Bank of America Gen'l Ckg**	
	Bill	07/11/2019	7/11 Ag Pool Mtg		7/11/19 Ag Pool Meeting	8411 · Ag Pool Member Compensation	25.00
					7/11/19 Ag Pool Meeting	8470 · Ag Meeting Attend -Special	100.00
TOTAL							125.00
	Bill Pmt -Check	**08/07/2019**	**21630**	**ELIE, STEVEN**	**Board Member Compensation**	**1012 · Bank of America Gen'l Ckg**	
	Bill	07/25/2019	7/25 Board Meeting		7/25/19 Board Meeting	6311 · Board Member Compensation	125.00
TOTAL							125.00
	Bill Pmt -Check	**08/07/2019**	**21631**	**FEDAK & BROWN LLP**	**Audit Firm Progress Billing**	**1012 · Bank of America Gen'l Ckg**	
	Bill	07/31/2019			July 2019	6062 · Audit Services	500.00
TOTAL							500.00

CHINO BASIN WATERMASTER
Cash Disbursements For The Month of
August 2019

Type	Date	Num	Name	Memo	Account	Paid Amount
Bill Pmt -Check	**08/07/2019**	**21632**	**FILIPPI, GINO**	**Board Member Compensation**	**1012 · Bank of America Gen'l Ckg**	
Bill	07/11/2019	7/11 Appro Pool Mtg		7/11/19 Appropriative Pool meeting	6311 · Board Member Compensation	125.00
Bill	07/23/2019	7/23 Admin Mtg		7/23/19 Adminisrative meeting w/PK	6311 · Board Member Compensation	125.00
Bill	07/25/2019	7/25 Board Mtg		7/25/19 Board meeting	6311 · Board Member Compensation	125.00
Bill	07/30/2019	7/30 Admin Mtg		7/30/19 Administrative meeting w/ETF	6311 · Board Member Compensation	125.00
TOTAL						500.00
Bill Pmt -Check	**08/07/2019**	**21633**	**IN-SITU, INC.**	**10290**	**1012 · Bank of America Gen'l Ckg**	
Bill	07/26/2019	10290		10290	7103.6 · Grdwtr Qual-Supplies	287.40
TOTAL						287.40
Bill Pmt -Check	**08/07/2019**	**21634**	**PHILADELPHIA INSURANCE COMPANY**	**VOID: 2001052905**	**1012 · Bank of America Gen'l Ckg**	0.00
TOTAL						0.00
Bill Pmt -Check	**08/07/2019**	**21635**	**PREMIERE GLOBAL SERVICES**	**28165766**	**1012 · Bank of America Gen'l Ckg**	
Bill	07/31/2019	28165766		WM Coordination call on 7/08	6909.1 · OBMP Meetings	10.31
				Upper SAR HCP call on 7/09	6909.1 · OBMP Meetings	12.04
				Non-Ag Pool meeting call on 7/11	8512 · Meeting Expense	26.31
				Fee - General	6022 · Telephone	39.00
				Fee - Confidential	6022 · Telephone	39.00
				WM Coordination call on 7/01	6909.1 · OBMP Meetings	19.71
				WQ call on 7/03	6909.1 · OBMP Meetings	14.24
				Prado Basin call on 7/08	6909.1 · OBMP Meetings	29.76
				Pool meetings check call on 7/10	8312 · Meeting Expenses	3.28
				Pool meetings check call on 7/10	8412 · Meeting Expenses	3.28
				Pool meetings check call on 7/10	8512 · Meeting Expense	3.28
				TCP call on 7/10	6909.1 · OBMP Meetings	17.27
				WM Coordination call on 7/15	6909.1 · OBMP Meetings	49.40
				Prep for SMP Workshop #2 call on 7/17	6909.1 · OBMP Meetings	6.54
				WM Coordination call on 7/22	6909.1 · OBMP Meetings	6.54
				GRACast Debrief call on 7/22	6909.1 · OBMP Meetings	34.17
				Board agenda preview call on 7/23	6312 · Meeting Expenses	20.25
				Last minute Board meeting check call on 7/24	6312 · Meeting Expenses	6.54
				Call shortfalls	6022 · Telephone	78.00
				Service fee	6022 · Telephone	28.33
TOTAL						447.25
Bill Pmt -Check	**08/07/2019**	**21636**	**READY REFRESH BY NESTLE**	**0023230253**	**1012 · Bank of America Gen'l Ckg**	
Bill	07/30/2019	0023230253		Office Water Bottle - July 2019	6031.7 · Other Office Supplies	85.49
TOTAL						85.49

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	Type	Date	Num	Name	Memo	Account	Paid Amount
	Bill Pmt -Check	**08/07/2019**	**21637**	**RR FRANCHISING, INC.**	**74812**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/01/2019	74812		Monthy service July 2019	6024 · Building Repair & Maintenance	740.00
TOTAL							740.00
	Bill Pmt -Check	**08/07/2019**	**21638**	**SPECTRUM BUSINESS**	**2031978072419**	**1012 · Bank of America Gen'l Ckg**	
	Bill	07/31/2019	2031978072419		7/23/19-8/22/19	6053 · Internet Expense	830.13
TOTAL							830.13
	Bill Pmt -Check	**08/07/2019**	**21639**	**STATE COMPENSATION INSURANCE FUND**	**1970970-19**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/01/2019	1970970-19		Premium 7/26/19-8/26/19	60183 · Worker's Comp Insurance	532.75
TOTAL							532.75
	Bill Pmt -Check	**08/07/2019**	**21640**	**TELLEZ-FOSTER, EDGAR**	**Employee Reimbursement**	**1012 · Bank of America Gen'l Ckg**	
	Bill	07/31/2019			7/03/19 mtg w/K. Weger @ CBWCD	8312 · Meeting Expenses	40.04
					7/30/19 mtg w/G Filippi	6312 · Meeting Expenses	10.74
	Bill	08/01/2019			7/31/19 Ops Staff mtg	6141.3 · Admin Meetings	94.10
TOTAL							144.88
	Bill Pmt -Check	**08/07/2019**	**21641**	**ULLOA, EUNICE**	**Board Member Compensation**	**1012 · Bank of America Gen'l Ckg**	
	Bill	06/04/2019	6/04 Rules & Regs		6/04/19 Rules & Regs Workshop	6311 · Board Member Compensation	125.00
	Bill	06/05/2019	6/05 Joint IEUA/CBWM		6/05/19 Joint IEUA / CBWM Board meeting	6311 · Board Member Compensation	125.00
	Bill	06/06/2019	6/06 Assess Pkg Rev		6/06/19 Assessment Package Revision meeting	6311 · Board Member Compensation	125.00
	Bill	06/13/2019	6/13 Appro Pool Mtg		6/13/19 Appropriative Pool meeting	6311 · Board Member Compensation	125.00
	Bill	06/20/2019	6/20 Advisory Comm		6/20/19 Advisory Committee meeting	6311 · Board Member Compensation	125.00
	Bill	06/27/2019	6/27 Board Mtg		6/27/19 Board meeting	6311 · Board Member Compensation	125.00
	Bill	07/11/2019	7/11 Appro Pool Mtg		7/11/19 Appropriative Pool meeting	6311 · Board Member Compensation	125.00
	Bill	07/18/2019	7/18 Advisory Comm		7/18/19 Advisory Committee meeting	6311 · Board Member Compensation	125.00
	Bill	07/25/2019	7/25 Board Mtg		7/25/19 Board meeting	6311 · Board Member Compensation	125.00
	Bill	07/31/2019	7/31 OBMP LS5		7/31/19 OBMP LS5	6311 · Board Member Compensation	125.00
TOTAL							1,250.00
	Bill Pmt -Check	**08/07/2019**	**21642**	**UNION 76**	**7076-2245-3035-5049**	**1012 · Bank of America Gen'l Ckg**	
	Bill	07/30/2019	7076224530355049		July 2019	6175 · Vehicle Fuel	129.30
TOTAL							129.30
	Bill Pmt -Check	**08/07/2019**	**21643**	**VISION SERVICE PLAN**	**00-101789-0001**	**1012 · Bank of America Gen'l Ckg**	
	Bill	07/19/2019	00101789		Vision Insurance Premium - August 2019	60182.2 · Dental & Vision Ins	88.20
TOTAL							88.20
	Bill Pmt -Check	**08/07/2019**	**21644**	**YUKON DISPOSAL SERVICE**	**21136525395**	**1012 · Bank of America Gen'l Ckg**	

	Type	Date	Num	Name	Memo	Account	Paid Amount
	Bill	08/01/2019	21136525395		August 2019	6024 · Building Repair & Maintenance	117.14
TOTAL							117.14
	General Journal	**08/09/2019**	**08/09/2019**	**ADP, LLC**	**ADP Tax Service for 07/27/19-540050060**	**1012 · Bank of America Gen'l Ckg**	
					ADP Tax Service for 07/27/19-540050060	1012 · Bank of America Gen'l Ckg	155.50
TOTAL							155.50
	Bill Pmt -Check	**08/12/2019**	**ACH 081219**	**PHILADELPHIA INSURANCE COMPANY**	**2001052905**	**1012 · Bank of America Gen'l Ckg**	
	Bill	07/30/2019	2001052905		Commercial Unmbrella Liability - $8M	6085 · Business Insurance Package	5,359.00
					Automobile Coverage	6085 · Business Insurance Package	4,952.28
					Employee Benefit Coverage	6085 · Business Insurance Package	300.00
					General Liability Coverage	6085 · Business Insurance Package	4,094.00
					Property Coverage	6085 · Business Insurance Package	2,559.00
TOTAL							17,264.28
	Bill Pmt -Check	**08/14/2019**	**ACH 081419**	**PUBLIC EMPLOYEES' RETIREMENT SYSTEM**	**Payor #3493**	**1012 · Bank of America Gen'l Ckg**	
	General Journal	08/10/2019	08/10/2019	PUBLIC EMPLOYEES' RETIREMENT SYSTEM	CalPERS Retirement for 07/28/19-08/10/19	2000 · Accounts Payable	8,024.40
TOTAL							8,024.40
	General Journal	**08/15/2019**	**08/15/2019**	**Payroll and Taxes for 07/28/19-08/10/19**	**Payroll and Taxes for 07/28/19-08/10/19**	**1012 · Bank of America Gen'l Ckg**	
					Direct Deposits for 07/28/19-08/10/19	1012 · Bank of America Gen'l Ckg	29,543.07
					Payroll Taxes for 07/28/19-08/10/19	1012 · Bank of America Gen'l Ckg	9,536.94
				ICMA-RC	457(f) EE Deductions for 07/28/19-08/10/19	1012 · Bank of America Gen'l Ckg	5,639.60
				ICMA-RC	401(a) EE Deductions for 07/28/19-08/10/19	1012 · Bank of America Gen'l Ckg	1,527.80
TOTAL							46,247.41
	Bill Pmt -Check	**08/15/2019**	**21645**	**ACWA JOINT POWERS INSURANCE AUTHORI**	**0623374**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/08/2019	0623374		Prepayment - September 2019	1409 · Prepaid Life, BAD&D & LTD	234.11
					August 2019	60191 · Life & Disab.Ins Benefits	230.11
TOTAL							464.22
	Bill Pmt -Check	**08/15/2019**	**21646**	**BANK OF AMERICA**	**XXXX-XXXX-XXXX-9341**	**1012 · Bank of America Gen'l Ckg**	
	Bill	07/31/2019	XXXX-XXXX-XXXX-9341		Map for Joint IEUA/CBWM Board meeting	6031.7 · Other Office Supplies	4.82
					Portable external hard drive	6055 · Computer Hardware	166.12
					Miscellaneous office supplies	6031.7 · Other Office Supplies	96.53
					CFO cell phone supplies	6031.7 · Other Office Supplies	35.78
					Employee uniforms	6154 · Uniforms	428.66
					Employee uniforms	6154 · Uniforms	500.12
					Miscellaneous office supplies	6031.7 · Other Office Supplies	42.66
					Miscellaneous office supplies	6031.7 · Other Office Supplies	11.47
					Miscellaneous office supplies	6031.7 · Other Office Supplies	48.13

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Type	Date	Num	Name	Memo	Account	Paid Amount
				Toner cartridges	6031.7 · Other Office Supplies	260.29
				Miscellaneous office supplies	6031.7 · Other Office Supplies	36.61
				Miscellaneous office supplies	6031.7 · Other Office Supplies	25.94
				Miscellaneous office supplies	6031.7 · Other Office Supplies	283.93
				Website hosting	6054 · Computer Software	280.41
				Toner cartridges	6031.7 · Other Office Supplies	73.98
				Atomic wall clock for meeting room	6031.7 · Other Office Supplies	67.46
				PK mtg w/R. Craig	8312 · Meeting Expenses	33.24
				Reg.-ETF/JN-13th Annual SB County Water Conf.	6193.2 · Conference - Registration Fee	289.09
				Lunch-7/18/19 Pool Chairs/Board Officers	6909.1 · OBMP Meetings	91.55
				Lunch-7/18/19 Pool Chairs/Board Officers	6909.1 · OBMP Meetings	15.19
				PK mtg w/G. Filippi	6312 · Meeting Expenses	33.82
				PK mtg w/M. Kinsey, V. Jew, J. Scott-Coe	8312 · Meeting Expenses	111.99
				Lunch order for 7/31/19 OBMP Update LS5	6909.1 · OBMP Meetings	110.82
TOTAL						3,048.61
Bill Pmt -Check	**08/15/2019**	**21647**	**DE HAAN, HENRY**	**Ag Pool Member Compensation**	**1012 · Bank of America Gen'l Ckg**	
Bill	07/11/2019	7/11 Ag Pool Mtg		7/11/19 Ag Pool Meeting	8411 · Ag Pool Member Compensation	25.00
				7/11/19 Ag Pool Meeting	8470 · Ag Meeting Attend -Special	100.00
TOTAL						125.00
Bill Pmt -Check	**08/15/2019**	**21648**	**EGOSCUE LAW GROUP, INC.**	**12393**	**1012 · Bank of America Gen'l Ckg**	
Bill	07/31/2019	12393		Ag Pool Legal Services - July 2019	8467 · Ag Legal & Technical Services	28,175.00
TOTAL						28,175.00
Bill Pmt -Check	**08/15/2019**	**21649**	**FEENSTRA, BOB**	**Ag Pool Member Compensation**	**1012 · Bank of America Gen'l Ckg**	
Bill	07/11/2019	7/11 Ag Pool Mtg		7/11/19 Ag Pool Meeting	8470 · Ag Meeting Attend -Special	125.00
Bill	07/18/2019	7/18 Advisory Comm		7/18/19 Advisory Committee Meeting	8470 · Ag Meeting Attend -Special	125.00
Bill	07/18/2019	7/18 Storage Mgmt		7/18/19 Storage Management Plan Workshop #2	8470 · Ag Meeting Attend -Special	125.00
Bill	07/18/2019	7/18 Pool Chairs		7/18/19 Pool Chairs and Board Officers meeting	8470 · Ag Meeting Attend -Special	125.00
TOTAL						500.00
Bill Pmt -Check	**08/15/2019**	**21650**	**HUITSING, JOHN**	**Ag Pool Member Compensation**	**1012 · Bank of America Gen'l Ckg**	
Bill	07/11/2019	7/11 Ag Pool Mtg		7/11/19 Ag Pool Meeting	8411 · Ag Pool Member Compensation	25.00
				7/11/19 Ag Pool Meeting	8470 · Ag Meeting Attend -Special	100.00
TOTAL						125.00
Bill Pmt -Check	**08/15/2019**	**21651**	**KUHN, BOB**	**Board Member Compensation**	**1012 · Bank of America Gen'l Ckg**	
Bill	07/11/2019	7/11 Appro Pool Mtg		7/11/19 Appropriative Pool Meeting	6311 · Board Member Compensation	125.00
Bill	07/18/2019	7/18 Board Officers		7/18/19 Pool Chairs and Board Officers meeting	6311 · Board Member Compensation	125.00
Bill	07/23/2019	7/23 Board Agenda		7/23/19 Board agenda preview meeting	6311 · Board Member Compensation	125.00

Type	Date	Num	Name	Memo	Account	Paid Amount
TOTAL						375.00
Bill Pmt -Check	**08/15/2019**	**21652**	**RAUCH COMMUNICATION CONSULTANTS**	**Jul-1913**	**1012 · Bank of America Gen'l Ckg**	
Bill	07/31/2019	Jul-1913		AR42 - work completed through June 30, 2019	6061.3 · Rauch	367.50
TOTAL						367.50
Bill Pmt -Check	**08/15/2019**	**21653**	**TELLEZ-FOSTER, EDGAR**	**Employee Reimbursement**	**1012 · Bank of America Gen'l Ckg**	
Bill	08/07/2019	8/07 Mtg w/IEUA		ETF meeting w/IEUA	8312 · Meeting Expenses	53.34
TOTAL						53.34
Bill Pmt -Check	**08/15/2019**	**21654**	**UNITED PARCEL SERVICE**	**00002X81X0319**	**1012 · Bank of America Gen'l Ckg**	
Bill	07/12/2019	00002X81X0319		WQ supplies shipped back to In-Situ	7103.6 · Grdwtr Qual-Supplies	16.56
TOTAL						16.56
Bill Pmt -Check	**08/15/2019**	**21655**	**WESTERN MUNICIPAL WATER DISTRICT**	**Board Member Compensation**	**1012 · Bank of America Gen'l Ckg**	
Bill	07/25/2019	7/25 Board Mtg		7/25/19 Board Meeting attendance - Galleano	6311 · Board Member Compensation	125.00
TOTAL						125.00
Check	**08/15/2019**	**08/15/2019**	**Service Charge**	**Service Charge**	**1012 · Bank of America Gen'l Ckg**	
				Service Charge	6039.1 · Banking Service Charges	636.95
TOTAL						636.95
Bill Pmt -Check	**08/16/2019**	**21656**	**CORELOGIC INFORMATION SOLUTIONS**	**81976132**	**1012 · Bank of America Gen'l Ckg**	
Bill	07/31/2019	81976132		81976132	7103.7 · Grdwtr Qual-Computer Svc	62.50
				81976132	7101.4 · Prod Monitor-Computer	62.50
TOTAL						125.00
Bill Pmt -Check	**08/16/2019**	**21657**	**EMPOWER LAB**	**1159**	**1012 · Bank of America Gen'l Ckg**	
Bill	07/22/2019	1159		7/22/19 mtg w/PK	6193 · Employee Training	500.00
TOTAL						500.00
Bill Pmt -Check	**08/16/2019**	**21658**	**JOHN J. SCHATZ**	**Appropriative Pool Legal Services**	**1012 · Bank of America Gen'l Ckg**	
Bill	06/30/2019			June 2019	8367 · Legal Service	3,636.00
Bill	07/31/2019			July 2019	8367 · Legal Service	6,016.00
				Third Party Expenses	8367 · Legal Service	2,472.50
TOTAL						12,124.50
Bill Pmt -Check	**08/16/2019**	**21659**	**PIERSON, JEFFREY**	**Ag Pool and Board Member Compensation**	**1012 · Bank of America Gen'l Ckg**	
Bill	07/01/2019	7/01 Admin Mtg		7/01/19 Admin. meeting w/PK re Ag Pool	8470 · Ag Meeting Attend -Special	125.00
Bill	07/08/2019	7/08 Ag Pool Mtg		7/08/19 Ag Pool Meeting	8470 · Ag Meeting Attend -Special	125.00
Bill	07/15/2019	7/15 Advisory Comm		7/15/19 Advisory Committee Meeting	8470 · Ag Meeting Attend -Special	125.00

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CHINO BASIN WATERMASTER
Cash Disbursements For The Month of
August 2019

	Type	Date	Num	Name	Memo	Account	Paid Amount
	Bill	07/15/2019	7/15 RIPCom Mtg		7/15/19 RIPCom Meeting	8470 · Ag Meeting Attend -Special	125.00
	Bill	07/18/2019	7/18 Storage Mgmnt		7/18/19 Storage Management Workshop	8470 · Ag Meeting Attend -Special	125.00
	Bill	07/18/2019	7/18 Board Officers		7/18/19 Board Officers and Pool Chairs mtg.	6311 · Board Member Compensation	125.00
	Bill	07/22/2019	7/22 Board Mtg		7/22/19 Board meeting	6311 · Board Member Compensation	125.00
	Bill	07/23/2019	7/23 Admin Mtg		7/23/19 Admin. Mtg. w/PK-Board Officers call	6311 · Board Member Compensation	125.00
TOTAL							1,000.00
	Bill Pmt -Check	**08/16/2019**	**21660**	**UNITED HEALTHCARE**	**052513785059**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/15/2019	052513785059		Dental Insurance Premium - September 2019	60182.2 · Dental & Vision Ins	744.12
TOTAL							744.12
	Bill Pmt -Check	**08/16/2019**	**21661**	**VERIZON WIRELESS**	**9835470906**	**1012 · Bank of America Gen'l Ckg**	
	Bill	07/31/2019	9835410906		Acct #470810953-00001	6022 · Telephone	298.45
					Equipment purchase	6022 · Telephone	358.11
TOTAL							656.56
	Bill Pmt -Check	**08/22/2019**	**21662**	**MICHAEL'S #3844**	**Office Supplies**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/22/2019			Matting/frames-pictures-Wineville conf. room	6031.7 · Other Office Supplies	149.24
TOTAL							149.24
P13	**General Journal**	**08/23/2019**	**08/23/2019**	**ADP, LLC**	**ADP Tax Service for 08/16/19-540932102**	**1012 · Bank of America Gen'l Ckg**	
					ADP Tax Service for 08/16/19-540932102	1012 · Bank of America Gen'l Ckg	155.50
TOTAL							155.50
	General Journal	**08/24/2019**	**08/24/2019**	**ICMA-RC**	**Payroll and Taxes for 08/11/19-08/24/19**	**1012 · Bank of America Gen'l Ckg**	
					Direct Deposits for 08/11/19-08/24/19	1012 · Bank of America Gen'l Ckg	28,242.34
					Payroll Taxes for 08/11/19-08/24/19	1012 · Bank of America Gen'l Ckg	8,906.18
				ICMA-RC	457(f) EE Deductions for 08/11/19-08/24/19	1012 · Bank of America Gen'l Ckg	3,937.87
				ICMA-RC	401(a) EE Deductions for 08/11/19-08/24/19	1012 · Bank of America Gen'l Ckg	1,527.80
TOTAL							42,614.19
	Bill Pmt -Check	**08/27/2019**	**21663**	**WILDERMUTH ENVIRONMENTAL INC**		**1012 · Bank of America Gen'l Ckg**	
	Bill	07/31/2019	2019230		2019230	7510 · PE6&7-IEUA Salinity Mgmt. Plan	3,595.10
	Bill	07/31/2019	2019231		2019231	6906.31 · OBMP-Pool, Adv. Board Mtgs	6,574.96
	Bill	07/31/2019	2019232		2019232	6906.32 · OBMP-Other General Meetings	4,085.03
	Bill	07/31/2019	2019233		2019233	6906.74 · OBMP-Mat'l Phy. Injury Requests	6,374.95
	Bill	07/31/2019	2019234		2019234	6906.71 · OBMP-Data Req.-CBWM Staff	8,055.10
	Bill	07/31/2019	2019235		2019235	6906.72 · OBMP-Data Req.-Non CBWM Staff	372.30
	Bill	07/31/2019	2019236		2019236	6906.22 · Water Rights Compliance Rprting	1,651.00
	Bill	07/31/2019	2019237		2019237	6906 · OBMP Engineering Services	1,445.40
	Bill	07/31/2019	2019238		2019238	6906.26 · 2020 OBMP Update	97,717.10

	Type	Date	Num	Name	Memo	Account	Paid Amount
	Bill	07/31/2019	2019239		2019239	6906.73 · OBMP-2020 Safe Yield Recalc	53,972.90
	Bill	07/31/2019	2019240		2019240	6906.81 · Prepare Annual Reports	2,578.40
	Bill	07/31/2019	2019241		2019241	6906.15 · Integrated Model Mtgs-IEUA Cost	9,514.20
	Bill	07/31/2019	2019242		2019242	6906.16 · CBEWP-100% IEUA Cost	5,788.63
	Bill	07/31/2019	2019243		2019243	7103.3 · Grdwtr Qual-Engineering	19,921.50
	Bill	07/31/2019	2019244		2019244	7104.3 · Grdwtr Level-Engineering	12,753.20
	Bill	07/31/2019	2019245		2019245	7107.2 · Grd Level-Engineering	3,551.35
					Guida Surveying, Inc.	7107.6 · Grd Level-Contract Svcs	8,389.31
					WSP USA, Inc.	7107.6 · Grd Level-Contract Svcs	5,175.20
	Bill	07/31/2019	2019246		Neva Ridge Technologies, Inc.	7107.3 · Grd Level-SAR Imagery	12,000.00
	Bill	07/31/2019	2019247		2019247	7108.31 · Hydraulic Control - PBHSP	1,379.70
	Bill	07/31/2019	2019248		2019248	7202.2 · Engineering Svc	1,162.20
	Bill	07/31/2019	2019249		2019249	7402 · PE4-Engineering	20,870.50
	Bill	07/31/2019	2019250		2019250	7402.10 · PE4 - Northwest MZ1 Area Proj.	6,110.75
TOTAL							293,038.78
	Bill Pmt -Check	**08/27/2019**	**ACH 082719**	**PUBLIC EMPLOYEES' RETIREMENT SYSTEM**	**Payor #3493**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/01/2019	15754382		Annual Unfunded Accrued Liability-Plan 3299	60180 · Employers PERS Expense	6,655.12
TOTAL							6,655.12
	Bill Pmt -Check	**08/28/2019**	**21664**	**KESSLER ALAIR INSURANCE SERVICES, INC.**	**ChinoBW**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/28/2019	ChinoBW		Environmental Pollution Liability	6085 · Business Insurance Package	11,463.71
TOTAL							11,463.71
	Bill Pmt -Check	**08/28/2019**	**ACH 082819**	**PUBLIC EMPLOYEES' RETIREMENT SYSTEM**	**Payor #3493**	**1012 · Bank of America Gen'l Ckg**	
	General Journal	08/24/2019	08/24/2019	PUBLIC EMPLOYEES' RETIREMENT SYSTEM	CalPERS Retirement for 08/11/19-08/24/19	2000 · Accounts Payable	8,024.40
TOTAL							8,024.40
	Bill Pmt -Check	**08/29/2019**	**21665**	**CUCAMONGA VALLEY WATER DISTRICT**	**Office Lease**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/22/2019			Office lease due September 1, 2019	1422 · Prepaid Rent	6,866.54
TOTAL							6,866.54
	Bill Pmt -Check	**08/29/2019**	**21666**	**EUROFINS EATON ANALYTICAL**	**L0466855**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/16/2019	L0466855		L0466855	7103.5 · Grdwtr Qual-Lab Svcs	1,539.00
TOTAL							1,539.00
	Bill Pmt -Check	**08/29/2019**	**21667**	**FRONTIER COMMUNICATIONS**	**909-484-3890-050914-5**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/22/2019	90948438900509145		Office fax	6022 · Telephone	151.00
TOTAL							151.00
	Bill Pmt -Check	**08/29/2019**	**21668**	**GREAT AMERICA LEASING CORP.**	**25361709**	**1012 · Bank of America Gen'l Ckg**	

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	Type	Date	Num	Name	Memo	Account	Paid Amount
	Bill	08/14/2019	25361709		Invoice for August 2019	6043.1 · Ricoh Lease Fee	2,661.62
TOTAL							2,661.62
	Bill Pmt -Check	**08/29/2019**	**21669**	**LOEB & LOEB LLP**	**1842099**	**1012 · Bank of America Gen'l Ckg**	
	Bill	07/31/2019	1842099		Non-Ag Pool Legal Service - July 2019	8567 · Non-Ag Legal Service	4,793.85
TOTAL							4,793.85
	Bill Pmt -Check	**08/29/2019**	**21670**	**NATIONAL PEN CO., LLC**	**110937725**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/14/2019	110937725		Pens for office	6031.7 · Other Office Supplies	224.06
TOTAL							224.06
	Bill Pmt -Check	**08/29/2019**	**21671**	**STANDARD INSURANCE CO.**	**Policy # 00-649299-0009**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/22/2019	006492990009		Policy # 00-649299-0009	60191 · Life & Disab.Ins Benefits	883.93
TOTAL							883.93
	Bill Pmt -Check	**08/29/2019**	**21672**	**STAULA, MARY L**	**Retiree Medical**	**1012 · Bank of America Gen'l Ckg**	
	Bill	09/01/2019			Retiree Medical	60182.4 · Retiree Medical	25.87
TOTAL							25.87
	Bill Pmt -Check	**08/29/2019**	**21673**	**VERIZON WIRELESS**	**9835990313**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/22/2019	9835990313		Acct #642073270-00001	7103.7 · Grdwtr Qual-Computer Svc	100.04
TOTAL							100.04
	Bill Pmt -Check	**08/30/2019**	**21674**	**BROWNSTEIN HYATT FARBER SCHRECK**		**1012 · Bank of America Gen'l Ckg**	
	Bill	06/30/2019	767350		Angelica BK	6078 · BHFS Legal - Miscellaneous	1,155.60
					NRG BK	6078 · BHFS Legal - Miscellaneous	89.10
					767350	6078 · BHFS Legal - Miscellaneous	14,343.75
					Mileage/Parking Expense	8375 · BHFS Legal - Appropriative Pool	19.45
					Mileage/Parking Expense	8575 · BHFS Legal - Non-Ag Pool	19.45
					Mileage/Parking Expense	8475 · BHFS Legal - Agricultural Pool	38.90
	Bill	06/30/2019	767351		GM Contract Amendment	6073 · BHFS Legal - Personnel Matters	10,168.65
					403(b) Plan Regulations	6073 · BHFS Legal - Personnel Matters	994.50
					457(f) Plan Regulations	6073 · BHFS Legal - Personnel Matters	344.25
					Alternative Workweek	6073 · BHFS Legal - Personnel Matters	712.80
	Bill	06/30/2019	767352		767352	6907.34 · Santa Ana River Water Rights	1,543.05
	Bill	06/30/2019	767353		767353	6907.33 · Desalter/Hydraulic Control	178.20
	Bill	06/30/2019	767354		767354	6275 · BHFS Legal - Advisory Committee	579.15
					Mileage/Parking Expense	6275 · BHFS Legal - Advisory Committee	38.90
	Bill	06/30/2019	767355		767355	6375 · BHFS Legal - Board Meeting	6,500.25
					Delivery/Ground Transportation	6375 · BHFS Legal - Board Meeting	225.00
					Lodging - 05/27/19	6375 · BHFS Legal - Board Meeting	150.00

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CHINO BASIN WATERMASTER
Cash Disbursements For The Month of
August 2019

Type	Date	Num	Name	Memo	Account	Paid Amount
				Mileage/Parking Expense	6375 · BHFS Legal - Board Meeting	38.90
Bill	06/30/2019	767356		767356	8375 · BHFS Legal - Appropriative Pool	1,336.50
Bill	06/30/2019	767357		767357	8475 · BHFS Legal - Agricultural Pool	1,737.45
Bill	06/30/2019	767358		767358	8575 · BHFS Legal - Non-Ag Pool	1,336.50
Bill	06/30/2019	767359		767359	6071 · BHFS Legal - Court Coordination	935.55
				Filing Fee	6071 · BHFS Legal - Court Coordination	94.00
Bill	06/30/2019	767360		767360	6072 · BHFS Legal - Rules & Regs	6,504.30
				Mileage/Parking Expense	6072 · BHFS Legal - Rules & Regs	38.90
Bill	06/30/2019	767361		767361	6077 · BHFS Legal - Party Status Maint	133.65
Bill	06/30/2019	767362		767362	6907.40 · Storage Agreements	712.80
Bill	06/30/2019	767363		767363	6907.41 · Prado Basin Habitat Sustain	356.40
Bill	06/30/2019	767364		767364	6907.46 · Upper SAR Integrated Model	89.10
Bill	06/30/2019	767365		767365	6907.45 · OBMP Update	17,689.05
				Mileage/Parking Expense	6907.45 · OBMP Update	38.90
Bill	06/30/2019	767366		767366	6907.47 · 2020 Safe Yield Reset	89.10
Bill	06/30/2019	767367		767367	6078.13 · Assessment Packages-Updates	2,004.75
Bill	06/30/2019	767368		767368	6078.25 · Ely 3 Basin Investigation	2,425.95
				Mileage/Parking Expense	6078.25 · Ely 3 Basin Investigation	79.47
TOTAL						72,742.27
General Journal	**08/31/2019**	**08/31/2019**	**Wage Works FSA Direct Debits - Aug. 2019**	**Wage Works FSA Direct Debits - Aug. 2019**	**1012 · Bank of America Gen'l Ckg**	
				Wage Works FSA Direct Debits - Aug. 2019	1012 · Bank of America Gen'l Ckg	516.93
				Wage Works FSA Direct Debits - Aug. 2019	1012 · Bank of America Gen'l Ckg	516.93
				Wage Works FSA Direct Debits - Aug. 2019	1012 · Bank of America Gen'l Ckg	76.25
TOTAL						1,110.11
					Total Disbursements:	**598,601.27**

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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

PETER KAVOUNAS, P.E.
General Manager

STAFF REPORT

DATE: October 24, 2019

TO: Board Members

SUBJECT: VISA Check Detail Report - Financial Report B2 (August 31, 2019)
(Consent Calendar Item I.B.2.)

SUMMARY

Issue: Record of VISA credit card payment disbursed for the month of August 2019.

Recommendation: Receive and file VISA Check Detail Report for August 2019 as presented.

Financial Impact: Funds disbursed were included in the FY 2019/20 "Amended" Watermaster Budget.

Future Consideration
Watermaster Board – October 24, 2019: Receive and File (Normal Course of Business)

ACTIONS:
Appropriative Pool – October 10, 2019: Received and filed
Non-Agricultural Pool – October 10, 2019: Moved unanimously to receive and file, without approval
Agricultural Pool – October 10, 2019: Received and filed
Advisory Committee – October 17, 2019: Received and filed
Watermaster Board – October 24, 2019:

BACKGROUND

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

DISCUSSION

The total cash disbursements during the month of August 2019 was $3,048.61. The payment was processed in the amount of $3,048.61 (by check number 21646 dated August 15, 2019). The monthly charges for August 2019 of $3,048.61 were for routine and customary expenditures and properly documented with receipts.

ATTACHMENTS

1. Financial Report - B2

CHINO BASIN WATERMASTER
VISA Check Detail Report
August 2019

Type	Num	Date	Name	Memo	Account	Paid Amount
Bill Pmt -Check	**08/15/2019**	**21646**	**BANK OF AMERICA**	**XXXX-XXXX-XXXX-9341**	**1012 · Bank of America Gen'l Ckg**	
Bill	07/31/2019	XXXX-XXXX-XXXX-9341		Map for Joint IEUA/CBWM Board meeting	6031.7 · Other Office Supplies	4.82
				Portable external hard drive	6055 · Computer Hardware	166.12
				Miscellaneous office supplies	6031.7 · Other Office Supplies	96.53
				CFO cell phone supplies	6031.7 · Other Office Supplies	35.78
				Employee uniforms	6154 · Uniforms	428.66
				Employee uniforms	6154 · Uniforms	500.12
				Miscellaneous office supplies	6031.7 · Other Office Supplies	42.66
				Miscellaneous office supplies	6031.7 · Other Office Supplies	11.47
				Miscellaneous office supplies	6031.7 · Other Office Supplies	48.13
				Toner cartridges	6031.7 · Other Office Supplies	260.29
				Miscellaneous office supplies	6031.7 · Other Office Supplies	36.61
				Miscellaneous office supplies	6031.7 · Other Office Supplies	25.94
				Miscellaneous office supplies	6031.7 · Other Office Supplies	283.93
				Website hosting	6054 · Computer Software	280.41
				Toner cartridges	6031.7 · Other Office Supplies	73.98
				Atomic wall clock for meeting room	6031.7 · Other Office Supplies	67.46
				PK mtg w/R. Craig	8312 · Meeting Expenses	33.24
				Reg.-ETF/JN-13th Annual SB County Water Conf.	6193.2 · Conference - Registration Fee	289.09
				Lunch-7/18/19 Pool Chairs/Board Officers	6909.1 · OBMP Meetings	91.55
				Lunch-7/18/19 Pool Chairs/Board Officers	6909.1 · OBMP Meetings	15.19
				PK mtg w/G. Filippi	6312 · Meeting Expenses	33.82
				PK mtg w/M. Kinsey, V. Jew, J. Scott-Coe	8312 · Meeting Expenses	111.99
				Lunch order for 7/31/19 OBMP Update LS5	6909.1 · OBMP Meetings	110.82
TOTAL					**Total Disbursements:**	**3,048.61**

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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

PETER KAVOUNAS, P.E.
General Manager

STAFF REPORT

DATE: October 24, 2019

TO: Board Members

SUBJECT: Combining Schedule of Revenue, Expenses and Changes in Net Assets for the Period July 1, 2019 through August 31, 2019 - Financial Report B3 (August 31, 2019) (Consent Calendar Item I.B.3.)

SUMMARY

Issue: Record of Revenue, Expenses and Changes in Net Assets for the Period July 1, 2019 through August 31, 2019.

Recommendation: Receive and file Combining Schedule of Revenue, Expenses and Changes in Net Assets for the Period July 1, 2019 through August 31, 2019 as presented.

Financial Impact: Funds disbursed were included in the FY 2019/20 "Amended" Watermaster Budget.

Future Consideration
Watermaster Board – October 24, 2019: Receive and File (Normal Course of Business)

ACTIONS:
Appropriative Pool – October 10, 2019: Received and filed
Non-Agricultural Pool – October 10, 2019: Moved unanimously to receive and file, without approval
Agricultural Pool – October 10, 2019: Received and filed
Advisory Committee – October 17, 2019: Received and filed
Watermaster Board – October 24, 2019:

BACKGROUND

A Combining Schedule of Revenue, Expenses and Changes in Net Assets for the period July 1, 2019 through August 31, 2019 is provided to keep all members apprised of the FY 2019/20 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 18.0, 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, 2019 THROUGH AUGUST 31, 2019

	WATERMASTER ADMINISTRATION	OPTIMUM BASIN MANAGEMENT	POOL ADMINISTRATION & SPECIAL PROJECTS APPROPRIATIVE POOL	AG POOL	NON-AG POOL	GROUNDWATER REPLENISHMENT	LAIF VALUE ADJ.	GASB 75 BEG. NET POSITION	GRAND TOTALS	AMENDED BUDGET 2019-2020
Administrative Revenues:										
Administrative Assessments			-		-				-	8,365,297
Interest Revenue			-	-	-				-	75,124
Mutual Agency Project Revenue	171,905								171,905	171,906
Miscellaneous Income	20								20	0
Total Revenues	171,925	-	-	-	-	-	-	-	171,925	8,612,327
Administrative & Project Expenditures:										
Watermaster Administration	288,818								288,818	1,589,738
Watermaster Board-Advisory Committee	15,199								15,199	234,147
Ag Pool Misc. Expense - Ag Fund				-					-	400
Pool Administration			23,560	71,461	11,869				106,890	768,473
Optimum Basin Mgmt Administration		466,390							466,390	2,083,340
OBMP Project Costs		645,508							645,508	3,980,468
Debt Service		633,440							633,440	633,440
Basin Recharge Improvements		-							-	1,634,782
Total Administrative/OBMP Expenses	304,017	1,745,338	23,560	71,461	11,869	-	-	-	2,156,245	10,924,788
Net Administrative/OBMP Expenses	(132,092)	(1,745,338)								
Allocate Net Admin Expenses To Pools	132,092		98,470	28,560	5,062				-	
Allocate Net OBMP Expenses To Pools		1,111,898	828,884.79	240,407	42,606				-	
Allocate Debt Service to App Pool		633,440	633,440						-	
Allocate Basin Recharge to App Pool		-	-						-	
Agricultural Expense Transfer*			340,428	(340,428)					-	
Total Expenses			1,924,783	-	59,537	-	-	-	2,156,245	10,924,788
Net Administrative Income			(1,924,783)	-	(59,537)	-	-	-	(1,984,320)	(2,312,461)
Other Income/(Expense)										
Replenishment Water Assessments						-			-	0
Desalter Replenishment Obligation						-			-	0
Non-Ag Stored Water Purchases									-	0
Exhibit "G" Non-Ag Pool Water			-						-	0
RTS Charges from IEUA						(31,147)			(31,147)	0
Interest Revenue						-			-	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
Funding To/(From) Reserves									-	0
Net Other Income/(Expense)			-	-	-	(31,147)	-	-	(31,147)	0
Net Transfers To/(From) Reserves		(2,015,467)	(1,924,783)	-	(59,537)	(31,147)	-	-	(2,015,467)	(2,312,461)
		0								
Net Assets, July 1, 2019			7,826,783	505,144	28,775	314,372	16,184	(443,445)	8,247,814	
Net Assets, End of Period			5,902,000	505,144	(30,761)	283,225	16,184	(443,445)	6,232,347	6,232,347
18/19 Assessable Production			75,114.142	21,785.871	3,860.993				100,761.006	
18/19 Production Percentages			74.547%	21.621%	3.832%				100.000%	

*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

PETER KAVOUNAS, P.E.
General Manager

STAFF REPORT

DATE: October 24, 2019

TO: Board Members

SUBJECT: Treasurer's Report of Financial Affairs for the Period August 1, 2019 through August 31, 2019 - Financial Report B4 (August 31, 2019)
(Consent Calendar Item I.B.4.)

SUMMARY

Issue: Record of increases or decreases in the cash position, assets and liabilities of Watermaster for the Period of August 1, 2019 through August 31, 2019.

Recommendation: Receive and file Treasurer's Report of Financial Affairs for the Period August 1, 2019 through August 31, 2019 as presented.

Financial Impact: Funds disbursed were included in the FY 2019/20 "Amended" Watermaster Budget.

Future Consideration
Watermaster Board – October 24, 2019: Receive and File (Normal Course of Business)

ACTIONS:
Appropriative Pool – October 10, 2019: Received and filed
Non-Agricultural Pool – October 10, 2019: Moved unanimously to receive and file, without approval
Agricultural Pool – October 10, 2019: Received and filed
Advisory Committee – October 17, 2019: Received and filed
Watermaster Board – October 24, 2019:

BACKGROUND

A Treasurer's Report of Financial Affairs for the Period August 1, 2019 through August 31, 2019 is provided to keep all members apprised of the total cash in banks (Bank of America, LAIF, and CalTRUST); cash on deposit in trust with the County of San Bernardino as a result of the Cooperation and Reimbursement Agreement between Chino Basin Watermaster and County of San Bernardino dated May 25, 2017; and cash 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 18.0, 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
AUGUST 1, 2019 THROUGH AUGUST 31, 2019

DEPOSITORIES:			
Cash on Hand - Petty Cash			$ 500
Bank of America			
Governmental Checking-Demand Deposits		$ 34,379	
Zero Balance Account - Payroll		-	34,379
Trust Account - County of San Bernardino			845
Local Agency Investment Fund - Sacramento			7,933,705
TOTAL CASH IN BANKS AND ON HAND	8/31/2019		**$ 7,969,429**
TOTAL CASH IN BANKS AND ON HAND	7/31/2019		8,396,825
PERIOD INCREASE (DECREASE)			**$ (427,396)**

CHANGE IN CASH POSITION DUE TO:		
Decrease/(Increase) in Assets:	Accounts Receivable	$ 168,179
	Assessments Receivable	-
	Prepaid Expenses, Deposits & Other Current Assets	(8)
(Decrease)/Increase in Liabilities	Accounts Payable	(66,668)
	Accrued Payroll, Payroll Taxes & Other Current Liabilities	11,021
	Long Term Liabilities	2,350
	Transfer to/(from) Reserves	(542,271)
	PERIOD INCREASE (DECREASE)	**$ (427,396)**

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SUMMARY OF FINANCIAL TRANSACTIONS:	Petty Cash	Govt'l Checking Demand	Zero Balance Account Payroll	Trust Account County of San Bernardino	Local Agency Investment Funds	Totals
Balances as of 7/31/2019	$ 500	$ 461,775	$ -	$ 845	$ 7,933,705	$ 8,396,825
Deposits	-	244,647	-	-	-	244,647
Transfers	-	(193,499)	(116,133)	-	-	(309,632)
Withdrawals/Checks	-	(478,544)	116,133	-	-	(362,412)
Balances as of 8/31/2019	$ 500	$ 34,379	$ -	$ 845	$ 7,933,705	$ 7,969,429
PERIOD INCREASE OR (DECREASE)	**$ -**	**$ (427,396)**	**$ -**	**$ -**	**$ -**	**$ (427,396)**

CHINO BASIN WATERMASTER
TREASURER'S REPORT OF FINANCIAL AFFAIRS FOR THE PERIOD
AUGUST 1, 2019 THROUGH AUGUST 31, 2019

INVESTMENT TRANSACTIONS

Effective Date	Transaction	Depository	Activity	Redeemed	Days to Maturity	Interest Rate(*)	Maturity Yield
00/00/00	Withdrawal		-				
00/00/00	Withdrawal		-				
TOTAL INVESTMENT TRANSACTIONS			**$ -**	**$0**			

* The earnings rate for L.A.I.F. is a daily variable rate; 2.57% was the effective yield rate at the Quarter ended June 30, 2019.

INVESTMENT STATUS
August 31, 2019

Financial Institution	Principal Amount	Number of Days	Interest Rate	Maturity Date
Local Agency Investment Fund	$ 7,933,705			
TOTAL INVESTMENTS	**$ 7,933,705**			

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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Tel: 909.484.3888 Fax: 909.484.3890 www.cbwm.org

PETER KAVOUNAS, P.E.
General Manager

STAFF REPORT

DATE: October 24, 2019

TO: Board Members

SUBJECT: Budget vs. Actual Report for the Period July 1, 2019 through August 31, 2019 - Financial Report B5 (August 31, 2019)
(Consent Calendar Item I.B.5.)

SUMMARY

Issue: Record of revenues and expenses of Watermaster for the Period of July 1, 2019 through August 31, 2019.

Recommendation: Receive and file Budget vs. Actual Report for the Period July 1, 2019 through August 31, 2019 as presented.

Financial Impact: Funds disbursed were included in the FY 2019/20 "Amended" Watermaster Budget.

Future Consideration
Watermaster Board – October 24, 2019: Receive and File (Normal Course of Business)

ACTIONS:
Appropriative Pool – October 10, 2019: Received and filed
Non-Agricultural Pool – October 10, 2019: Moved unanimously to receive and file, without approval
Agricultural Pool – October 10, 2019: Received and filed
Advisory Committee – October 17, 2019: Received and filed
Watermaster Board – October 24, 2019:

Watermaster's function is to administer and enforce provisions of the Judgment and subsequent orders of the Court, and to develop and implement an Optimum Basin Management Program

BACKGROUND

A Budget vs. Actual Report for the period July 1, 2019 through August 31, 2019 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 18.0, 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 – AUGUST 2019

Year-To-Date (YTD) for the two months ending August 31, 2019, all but one category was at or below the projected budget. The category over budget was: (1) Groundwater Quality Monitoring expenses (7103's) over budget by $27,536 or 45.7% as a result of increased monitoring activities performed by the Watermaster field operations staff during the month. For the majority of the expense categories within the Watermaster budget for FY 2019/20, the individual line-item budgets are divided into 12-monthly amounts and allocated accordingly. As the fiscal year progresses, the category listed above could level out over time and be within the budget levels.

There were no Pool, Advisory or Board meetings scheduled for the month of August 2019.

Overall, the Watermaster (YTD) Actual Expenses were $2,463,575 or 53.3% below the (YTD) Budgeted Expenses of $4,619,821.

PREVIOUSLY REPORTED ACTIONS (Descending Order)

July 2019:
During the month of July 2019, the "Carry Over" funding was calculated. The Total "Carry Over" funding amount of $2,312,460.70 has been posted to the general ledger accounts. The total amount of $2,312,460.70 consisted of $1,634,781.70 from Capital Improvement Projects, $357,050.00 from OBMP Activities, $313,129.00 from Engineering Services, and $7,500.00 from Administration Services. More detailed information is provided regarding this issue under the "Carry Over" Funding section.

The Amended Budget for FY 2019/20 is $10,924,787.70 which includes $2,312,460.70 for the prior years "Carry Over" funding. The Original Approved budget for FY 2019/20 of $8,612,327 was adopted by the Watermaster Board on May 23, 2019 ($8,612,327 + $2,312,460.70 = $10,924,787.70).

SALARIES EXPENSE

CURRENT MONTH – AUGUST 2019

As of August 31, 2019, the total (YTD) Watermaster salary expenses were $30,391 or 8.4% below the (YTD) budgeted amount of $360,450. The overall staffing budget was developed with a staffing level of ten Full-Time Equivalents (FTE's), and staffing is currently at ten Full-Time Equivalents (FTE's).

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 2019/20 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 August 31, 2019. 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 '19 - Aug '19 Actual	Jul '19 - Aug '19 Budget	$ Over Budget	% of Budget	FY 2019/20 Annual Budget
WM Salary Expense					
6011 · WM Staff Salaries	188,586.18	187,761.00	825.18	100.44%	1,084,836.00
6011.1 · WM Staff Salaries - Overtime	849.87	0.00	849.87	100.0%	0.00
6011.4 · 457(f) NQDC Plan	5,840.17	6,421.00	-580.83	90.95%	38,528.00
6017· Temporary Services	0.00	3,500.00	-3,500.00	0.0%	21,000.00
6201 · Advisory Committee - WM Staff Salaries	2,630.65	4,742.00	-2,111.35	55.48%	27,400.00
6301 · Watermaster Board - WM Staff Salaries	3,812.54	7,574.00	-3,761.46	50.34%	43,759.00
8301 · Appropriative Pool - WM Staff Salaries	4,133.75	7,032.00	-2,898.25	58.79%	40,634.00
8401 · Agricultural Pool - WM Staff Salaries	1,930.63	5,968.00	-4,037.37	32.35%	34,488.00
8501 · Non-Agricultural Pool - WM Staff Salaries	2,109.34	4,090.00	-1,980.66	51.57%	23,626.00
6901 · OBMP - WM Staff Salaries	34,586.16	21,870.00	12,716.16	158.14%	126,360.00
7101.1 · Production Monitor - WM Staff Salaries	8,442.80	13,378.00	-4,935.20	63.11%	77,293.00
7102.1 · In-line Meter - WM Staff Salaries	0.00	25,938.00	-25,938.00	0.0%	16,978.00
7103.1 · Grdwater Quality - WM Staff Salaries	22,702.23	9,979.00	12,723.23	227.5%	57,654.00
7104.1 · Grdwater Level - WM Staff Salaries	8,908.48	10,198.00	-1,289.52	87.36%	58,918.00
7107.1 · GrdLevel Monitoring - WM Staff Salaries	711.20	1,051.00	-339.80	67.67%	6,072.00
7108.1 · Hydraulic Control - WM Staff Salaries	0.00	710.00	-710.00	0.0%	4,104.00
7108.11 · Prado Basin - WM Staff Salaries	0.00	1,038.00	-1,038.00	0.0%	6,003.00
7201 · Comp Recharge - WM Staff Salaries	9,841.56	10,705.00	-863.44	91.93%	61,853.00
7301 · PE3&5 - WM Staff Salaries	0.00	2,979.00	-2,979.00	0.0%	17,214.00
7401 · PE4 - WM Staff Salaries	1,646.01	1,825.00	-178.99	90.19%	10,541.00
7501 · PE6&7 - WM Staff Salaries	0.00	981.00	-981.00	0.0%	5,671.00
7501.1 · PE 6&7 - WM Staff Salaries (Plume)	0.00	937.00	-937.00	0.0%	5,415.00
7601 · PE8&9 - WM Staff Salaries	3,806.27	3,949.00	-142.73	96.39%	22,818.00
Subtotal WM Staff Costs	300,537.84	332,626.00	-32,088.16	90.35%	1,791,165.00
60185 · Vacation	17,118.73	13,701.00	3,417.73	124.95%	82,204.00
60186 · Sick Leave	3,054.19	9,416.00	-6,361.81	32.44%	56,493.00
60187 · Holidays	9,347.94	4,707.00	4,640.94	198.6%	70,615.00
Subtotal WM Paid Leaves	29,520.86	27,824.00	1,696.86	106.1%	209,312.00
Total WM Salary Costs	330,058.70	360,450.00	-30,391.30	91.57%	2,000,477.00

PREVIOUSLY REPORTED ACTIONS (Descending Order)
None

LEGAL SERVICES
BROWNSTEIN HYATT FARBER SCHRECK EXPENSES

CURRENT MONTH – AUGUST 2019

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 2019/20. The total legal services budget was developed by multiplying the number of hours that would be required to complete the specific tasks by the hourly rate. The "Approved" budget was adopted for the original amount of $958,953.

As of August 31, 2019, 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 $77,029 or 42.7% below the (YTD) budgeted amount of $180,289.

WATERMASTER ADMINISTRATIVE LEGAL SERVICES:
Overall, the Watermaster Administrative Legal Services expense (6070's) as of August 31, 2019, was $8,209 or 13.8% below the budgeted amount of $59,338. The specific items within the Administrative Legal Services expenses (6070's) which were over budget were the Rules and Regulations (6072) which were over budget by $227 or 12.6%; the Miscellaneous (6078) which were over budget by $29,454 or 185.0%; and the Ely Basin Investigation (6078.25) which were over budget by $778 or 100%. Please see Note 1 on the following page for a more detailed explanation of the miscellaneous types of expenses (6078).

The specific items within the Administrative Legal Services expenses (6070's) which were under budget were the expenses for Court Coordination expenses (6072) under budget by $5,759 or 90.2%; Personnel Matters (6073) under budget by $2,854 or 86.5%; Interagency Issues (6074) under budget by $5,940 or 100.0%; Party Status Maintenance expenses (6077) under budget by $3,125 or 100.0%; and Assessment Packages-Updates (6078.13) under budget by $20,989 or 91.8%.

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, 6375.1, 8375, 8475 and 8575). The legal service costs associated with the Board Workshop(s) are also included as part of this group. Overall, this category of legal expenses as of August 31, 2019 was $24,594 or 74.9% below the budgeted amount of $32,850. 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 legal services budget was developed with the assumption of having eleven months of meetings, intentionally excluding the month of December 2019.

For the month of August 2019, no Watermaster meetings were held.

OBMP LEGAL SERVICES:
The OBMP legal expenses (accounts 6907.31 through 6907.90) were below the budget for the month. As of August 31, 2019, the category of OBMP legal expenses were $44,227 or 50.2% below the budgeted amount of $88,101. The majority of expenses within this OBMP category were under budget (YTD), however, the OBMP Update expenses (6907.45) were over budget by $19,998 or 110.9%; and the Upper SAR Integrated Model expenses (6907.46) were over budget by $178or 100%.

The table listed below summarizes the Brownstein Hyatt Farber Schreck (BHFS) expenses as of August 31, 2019 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 '19 - Aug '19 Actual	Jul '19 - Aug '19 Budget	$ Over Budget	% of Budget	FY 2019/20 Annual Budget
6070 · Watermaster Legal Services					
6071 · BHFS Legal - Court Coordination	623.70	6,383.00	-5,759.30	9.77%	38,300.00
6072 · BHFS Legal - Rules & Regulations	2,032.32	1,805.00	227.32	112.59%	10,825.00
6073 · BHFS Legal - Personnel Matters	445.50	3,300.00	-2,854.50	13.5%	9,900.00
6074 · BHFS Legal - Interagency Issues	0.00	5,940.00	-5,940.00	0.0%	35,640.00
6076 · BHFS Legal - Storage Issues	0.00	0.00	0.00	0.0%	0.00
6077 · BHFS Legal - Party Status Maintenance	0.00	3,125.00	-3,125.00	0.0%	18,750.00
6078 · BHFS Legal - Miscellaneous (Note 1)	45,378.90	15,925.00	29,453.90	284.95%	95,550.00
6078.13 · BHFS - Assessment Packages-Updates	1,871.10	22,860.00	-20,988.90	8.19%	57,150.00
6078.25 · BHFS - Ely # Basin Investigation	777.60	0.00	777.60	100.0%	0.00
Total 6070 · Watermaster Legal Services	51,129.12	59,338.00	-8,208.88	86.17%	266,115.00
6275 · BHFS Legal - Advisory Committee	695.81	3,960.00	-3,264.19	17.57%	21,780.00
6375 · BHFS Legal - Board Meeting	3,912.75	14,040.00	-10,127.25	27.87%	77,220.00
6375.1 · BHFS Legal - Board Workshop(s)	0.00	0.00	0.00	0.0%	12,038.00
8375 · BHFS Legal - Appropriative Pool	1,215.90	4,950.00	-3,734.10	24.56%	27,225.00
8475 · BHFS Legal - Agricultural Pool	1,215.90	4,950.00	-3,734.10	24.56%	27,225.00
8575 · BHFS Legal - Non-Ag Pool	1,215.89	4,950.00	-3,734.11	24.56%	27,225.00
Total BHFS Legal Services	8,256.25	32,850.00	-24,593.75	25.13%	192,713.00
6907.3 · WM Legal Counsel					
6907.31 · Archibald South Plume	0.00	2,185.00	-2,185.00	0.0%	13,125.00
6907.32 · Chino Airport Plume	0.00	2,185.00	-2,185.00	0.0%	13,125.00
6907.33 · Desalter/Hydraulic Control	0.00	3,935.00	-3,935.00	0.0%	23,625.00
6907.34 · Santa Ana River Water Rights	2,251.80	2,715.00	-463.20	82.94%	16,275.00
6907.36 · Santa Ana River Habitat	0.00	7,890.00	-7,890.00	0.0%	47,350.00
6907.38 · Reg. Water Quality Cntrl Board	623.70	4,590.00	-3,966.30	13.59%	27,550.00
6907.39 · Recharge Master Plan	694.80	3,617.00	-2,922.20	19.21%	21,700.00
6907.40 · Storage Agreements	0.00	5,570.00	-5,570.00	0.0%	33,400.00
6907.41 · Prado Basin Habitat Sustainability	0.00	2,710.00	-2,710.00	0.0%	16,250.00
6907.42 · Safe Yield Recalculation	0.00	0.00	0.00	0.0%	0.00
6907.44 · SGMA Compliance	400.95	1,810.00	-1,409.05	22.15%	10,850.00
6907.45 · OBMP Update	38,027.84	18,030.00	19,997.84	210.91%	108,200.00
6907.46 · Upper SAR Integrated Model	178.20	0.00	178.20	100.0%	0.00
6907.47 · 2020 Safe Yield Reset	1,696.95	18,030.00	-16,333.05	9.41%	108,200.00
6907.48 · Ely Basin Investigation	0.00	9,509.00	-9,509.00	0.0%	28,525.00
6907.90 · WM Legal Counsel - Unanticipated	0.00	5,325.00	-5,325.00	0.0%	31,950.00
Total 6907 · WM Legal Counsel	43,874.24	88,101.00	-44,226.76	49.8%	500,125.00
Total Brownstein, Hyatt, Farber, Schreck Costs	**103,259.61**	**180,289.00**	**-77,029.39**	**57.27%**	**958,953.00**

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, replenishment obligations, 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 and contracts; (7) Review transfer documents; (8) Ground-Level Monitoring Committee reports/meetings; (9) Review process and criteria for SGMA reporting; (10) MVWD SCADA Agreement and installation; (11) Angelica Corporation Bankruptcy matter; (12) NRG/GENON Bankruptcy matter; (13) Pomona extensometer project, CEQA review and compliance; (14) Desalter Replenishment obligations, assessment methodologies, and ongoing issues; (15) Master Cost Sharing Agreement with IEUA; (16) Estimation and adoption of an evaporative loss policy for Recharge; (17) CalMat intervention; (18) Angelica's water rights transfer; (19) Exhibit "G" rate issues; (20) Right of Entry Agreements for various locations; (21) Assessment Packages-Updates and Review; and (22) Miscellaneous legal research on current and pending issues.

PREVIOUSLY REPORTED ACTIONS (Descending Order)

None

OBMP ENGINEERING SERVICES AND LEGAL COSTS

CURRENT MONTH – AUGUST 2019

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 two months ending August 31, 2019, the actual expenses of $442,447 were below the budgeted amount of $457,262 by $14,815 or 3.2%. For a detailed discussion, the following is provided.

For August 31, 2019, the accounts 6901-6903 (Optimum Basin Mgmt. Program) section was above the Year-To-Date (YTD) budget by $1,356 or 2.8%. 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 as budgeted. As a result, Watermaster staff allocated more actual time to the OBMP project as budgeted, which resulted in an over -budget variance of $12,716 or 58.1%. The remaining expense was the Santa Ana Watershed Project Authority (SAWPA) FY 2019/20 Basin Monitoring Program Task Force Contribution which was budgeted at $26,392 and actual expenses were $11,360 or 43.0% below budget as of August 31, 2019.

For August 31, 2019, the accounts 6906 (Optimum Basin Mgmt. Program Engineering Services) section was above the Year-To-Date (YTD) budget by $28,081 or 8.8%. The majority of expenses within this OBMP category were under budget (YTD), however, the accounts which were over budget were as follows: the Integrated Model Meetings-IEUA Cost expenses (6906.15) which were over budget by $1,277 or 36.7%; the Water Rights Compliance Reporting expenses (6906.22) which were over budget by $3,562 or 103.4%; the 2019 OBMP Update expenses (6906.26) which were over budget by $37,806 or 27.0%; the OBMP-Other General Meetings expenses (6906.32) which were over budget by $3,016 or 21.3%; and the OBMP-Safe Yield Recalculation expenses (6906.73) which were over budget by $35,195 or 48.7%.

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 $20,176 while some other line item activities were below the budget by $64,403. Above the budget line item were the OBMP Update expenses of $19,998; and the Upper SAR Integrated Model expenses of $178. The individual legal projects/activities that were below budget for the Year-To-Date (YTD) period were the Archibald South Plume of $2,185; the Chino Airport Plume of $2,185; the Desalter/Hydraulic Control of $3,935; the Santa Ana River Water Rights of $463; Santa Ana River Habitat of $7,890; the Regional Water Quality Control Board of $3,967; the Recharge Master Plan expenses of $2,922; Storage Agreements of $5,570; the Prado Basin Habitat Sustainability of $2,710; SGMA Compliance of $1,409; 2020 Safe Yield Reset of $16,333; the Ely Basin Investigation expenses of $9,509; and the WM Unanticipated legal expenses of $5,325. For the two months ended August 31, 2019, the overall cumulative (YTD) budget was $88,101 and the actual (BHFS) legal expenses totaled $43,874 which resulted in an under-budget variance of $44,227 or 50.2%.

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 August 31, 2019, this category of expenses was $25 or 4.3% below the budgeted amount of $580.

The WEI Support for IEUA expenses are categorized within the category (6910's). These expenses are billed directly to IEUA on the following month once the payment has been issued to Wildermuth Environmental, Inc. per the agreement. As of August 31, 2019, this category of expenses was fully invoiced in the amount of $0 to IEUA.

Overall, the Optimum Basin Management Program (OBMP) category was $442,447 compared to a (YTD) budget of $457,262 for an under budget of $14,815 or 3.2% as of August 31, 2019.

The table listed below summarizes the Optimum Basin Management Program (OBMP) expenses as of August 31, 2019 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 '19 - Aug '19 Actual	Jul '19 - Aug '19 Budget	$ Over Budget	% of Budget	FY 2019/20 Annual Budget
6900 · Optimum Basin Mgmt Plan					
6901 · WM Staff Salaries	34,586.16	21,870.00	12,716.16	158.14%	126,360.00
6903 · OBMP SAWPA Group	15,032.00	26,392.00	-11,360.00	56.96%	26,392.00
Total 6901-6903 · OBMP WM Staff/SAWPA	49,618.16	48,262.00	1,356.16	102.81%	152,752.00
6906 · OBMP Engineering Services					
6906.1 · OBMP - Watermaster Model Update	0.00	1,428.00	-1,428.00	0.0%	4,280.00
6906.15 · Integrated Model Mtgs. - IEUA Costs	4,757.10	3,480.00	1,277.10	136.7%	20,880.00
6906.17 · Planning Study Analysis	0.00	1,971.00	-1,971.00	0.0%	11,826.00
6906.18 · Prado Dam FS/EIS/EIR-50% IEUA	0.00	3,090.00	-3,090.00	0.0%	18,560.00
6906.21 · State of the Basin Report	0.00	0.00	0.00	0.0%	0.00
6906.22 · Water Rights Compliance Reporting	7,006.35	3,444.00	3,562.35	203.44%	20,664.00
6906.23 · SGMA Reporting Requirements	0.00	2,265.00	-2,265.00	0.0%	13,590.00
6906.24 · Compliance - SB88 and SWRCB	0.00	1,404.00	-1,404.00	0.0%	8,444.00
6906.26 · 2019 OBMP Update	177,621.56	139,816.00	37,805.56	127.04%	388,896.00
6906.27 · HCP Meetings/Tech. Review-IEUA Cost	0.00	2,520.00	-2,520.00	0.0%	15,130.00
6906.28 · Agriculture Prod. & Estimation	0.00	3,870.00	-3,870.00	0.0%	23,220.00
6906.31 · OBMP - Pool, Advisory, Board Mtgs.	6,574.96	17,229.00	-10,654.04	38.16%	103,374.00
6906.32 · OBMP - Other General Meetings	17,158.92	14,143.00	3,015.92	121.32%	84,853.00
6906.71 · OBMP - Data Requests - CBWM Staff	13,126.10	21,161.00	-8,034.90	62.03%	126,964.00
6906.72 · OBMP - Data Requests - Non CBWM	2,209.80	8,497.00	-6,287.20	26.01%	50,980.00
6906.73 · OBMP - Safe Yield Recalculation	107,393.10	72,198.00	35,195.10	148.75%	276,608.00
6906.74 · OBMP - Mat'l Phy. Injury Requests	6,729.75	12,497.00	-5,767.25	53.85%	74,977.00
6906.81 · Prepare Annual Reports	3,684.80	5,140.00	-1,455.20	71.69%	15,416.00
6906 · OBMP Engineering Services - Other	2,137.40	6,166.00	-4,028.60	34.66%	36,976.00
Total 6906 · OBMP Engineering Services	348,399.84	320,319.00	28,080.84	108.77%	1,295,638.00
6907 · OBMP Legal Fees					
6907.3 · WM Legal Counsel					
6907.31 · Archibald South Plume	0.00	2,185.00	-2,185.00	0.0%	13,125.00
6907.32 · Chino Airport Plume	0.00	2,185.00	-2,185.00	0.0%	13,125.00
6907.33 · Desalter/Hydraulic Control	0.00	3,935.00	-3,935.00	0.0%	23,625.00
6907.34 · Santa Ana River Water Rights	2,251.80	2,715.00	-463.20	82.94%	16,275.00
6907.36 · Santa Ana River Habitat	0.00	7,890.00	-7,890.00	0.0%	47,350.00
6907.38 · Reg. Water Quality Cntrl Board	623.70	4,590.00	-3,966.30	13.59%	27,550.00
6907.39 · Recharge Master Plan	694.80	3,617.00	-2,922.20	19.21%	21,700.00
6907.40 · Storage Agreements	0.00	5,570.00	-5,570.00	0.0%	33,400.00
6907.41 · Prado Basin Habitat Sustainability	0.00	2,710.00	-2,710.00	0.0%	16,250.00
6907.42 · Safe Yield Recalculation	0.00	0.00	0.00	0.0%	0.00
6907.44 · SGMA Compliance	400.95	1,810.00	-1,409.05	22.15%	10,850.00
6907.45 · OBMP Update	38,027.84	18,030.00	19,997.84	210.91%	108,200.00
6907.46 · Upper SAR Integrated Model	178.20	0.00	178.20	100.0%	0.00
6907.47 · 2020 Safe Yield Reset	1,696.95	18,030.00	-16,333.05	9.41%	108,200.00
6907.48 · Ely Basin Investigation	0.00	9,509.00	-9,509.00	0.0%	28,525.00
6907.90 · WM Legal Counsel - Unanticipated	0.00	5,325.00	-5,325.00	0.0%	31,950.00
Total 6907 · WM Legal Counsel	43,874.24	88,101.00	-44,226.76	49.8%	500,125.00
Total 6907 · OBMP Legal Fees	43,874.24	88,101.00	-44,226.76	49.8%	500,125.00
6909 · OBMP Other Expenses					
6909.1 · OBMP Meetings	555.12	250.00	305.12	222.05%	1,500.00
6909.3 · Other OBMP Expenses	0.00	330.00	-330.00	0.0%	2,000.00
6909.6 · OBMP Expenses - Miscellaneous	0.00	0.00	0.00	0.0%	5,000.00
6909 · OBMP Other Expenses - Other	0.00	0.00	0.00	0.0%	0.00
Total 6909 · OBMP Other Expenses	555.12	580.00	-24.88	95.71%	8,500.00
6910 · WEI Support for IEUA					
6910.50 · WEI Support for IEUA-Billings	0.00	0.00	0.00	0.0%	0.00
Total 6910 · WEI Support for IEUA	0.00	0.00	0.00	0.0%	0.00
Total 6900 · Optimum Basin Mgmt Plan	**442,447.36**	**457,262.00**	**-14,814.64**	**96.76%**	**1,957,015.00**

PREVIOUSLY REPORTED ACTIONS (Descending Order)
None

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

CURRENT MONTH – AUGUST 2019

As of August 31, 2019, the total (YTD) Engineering Services expenses were $297,613 or 33.6% below the (YTD) budget amount of $884,447. The OBMP Implementation Projects (consolidated accounts 7100's – 7700's) were all under budget of as of June 30, 2018, except for the Groundwater Quality-Engineering expenses (7103.3) which were over budget by $21,473 or 59.1%; the Hydraulic Control-Laboratory Services expenses (7108.4) which were over budget by $195 or 13.6%; and PE4-Engineering expenses (7402) which were over budget by $23,256 or 62.0%.

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 first quarter ECAC report (for the months July 2019 - September 2019) is scheduled to be produced by Wildermuth Environmental, Inc. and distributed to Watermaster during the month of October 2019.

Watermaster does not plan to present any Budget Transfers or Budget Amendments at this time for the Engineering Services.

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 August 31, 2019. Please be advised that the "$ Over Budge" 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 '19 - Aug '19 Actual	Jul '19 - Aug '19 Budget	$ Over Budget	% of Budget	FY 2019/20 Annual Budget
6906 · OBMP Engineering Services - Other	2,137.40	6,166.00	-4,028.60	34.66%	36,976.00
6906.1 · OBMP - Watermaster Model Update	0.00	1,428.00	-1,428.00	0.0%	4,280.00
6906.15 · Integrated Model Mtgs-IEUA Cost	4,757.10	3,480.00	1,277.10	136.7%	20,880.00
6906.17 · Planning Study Analysis	0.00	1,971.00	-1,971.00	0.0%	11,826.00
6906.18 · Prado Dam FS/EIS/EIR-50% IEUA	0.00	3,090.00	-3,090.00	0.0%	18,560.00
6906.21 · State of the Basin Report	0.00	0.00	0.00	0.0%	0.00
6906.22 · Water Rights Compliance Reporting	7,006.35	3,444.00	3,562.35	203.44%	20,664.00
6906.23 · SGMA Reporting Requirements	0.00	2,265.00	-2,265.00	0.0%	13,590.00
6906.24 · Compliance - SB88 and SWRCB	0.00	1,404.00	-1,404.00	0.0%	8,444.00
6906.26 · 2019 OBMP Update	177,621.56	139,816.00	37,805.56	127.04%	388,896.00
6906.27 · HCP Meetings/Technical Review-IEUA Cos	0.00	2,520.00	-2,520.00	0.0%	15,130.00
6906.28 · Agriculture Prod. & Estimation	0.00	3,870.00	-3,870.00	0.0%	23,220.00
6906.31 · OBMP - Pool, Advisory, Board Mtgs.	6,574.96	17,229.00	-10,654.04	38.16%	103,374.00
6906.32 · OBMP - Other General Meetings	17,158.92	14,143.00	3,015.92	121.32%	84,853.00
6906.71 · OBMP - Data Requests - CBWM Staff	13,126.10	21,161.00	-8,034.90	62.03%	126,964.00
6906.72 · OBMP - Data Requests - Non CBWM	2,209.80	8,497.00	-6,287.20	26.01%	50,980.00
6906.73 · OBMP - Safe Yield Recalculation	107,393.10	72,198.00	35,195.10	148.75%	276,608.00
6906.74 · OBMP - Mat'l Physical Injury Requests	6,729.75	12,497.00	-5,767.25	53.85%	74,977.00
6906.76 · County Extraction Well-Modeling	0.00	0.00	0.00	0.0%	0.00
6906.81 · Prepare Annual Reports	3,684.80	5,140.00	-1,455.20	71.69%	15,416.00
6906.90 · OBMP - 2018 RMPU Master Update	0.00	0.00	0.00	0.0%	0.00
7103.3 · Grdwtr Qual-Engineering	57,794.07	36,321.00	21,473.07	159.12%	217,941.00
7103.5 · Grdwtr Qual-Lab Svcs	6,003.00	11,505.00	-5,502.00	52.18%	69,045.00
7104.3 · Grdwtr Level-Engineering	17,158.66	32,645.00	-15,486.34	52.56%	195,869.00
7104.8 · Grdwtr Level-Contracted Services	0.00	1,670.00	-1,670.00	0.0%	10,000.00
7104.9 · Grdwtr Level-Capital Equipment	0.00	1,330.00	-1,330.00	0.0%	8,000.00
7107.2 · Grd Level-Engineering	7,752.56	41,281.00	-33,528.44	18.78%	101,021.00
7107.3 · Grd Level-SAR Imagery	12,000.00	21,250.00	-9,250.00	56.47%	85,000.00
7107.6 · Grd Level-Contract Svcs	13,564.51	29,410.00	-15,845.49	46.12%	126,950.00
7107.8 · Grd Level-Capital Equipment	0.00	2,174.00	-2,174.00	0.0%	13,044.00
7108.31 · Hydraulic Control-PBHSP	1,390.65	12,345.00	-10,954.35	11.27%	74,066.00
7108.4 · Hydraulic Control-Lab Svcs	1,634.00	1,439.00	195.00	113.55%	8,638.00
7108.41 · Hydraulic Control-PBHSP	0.00	2,505.00	-2,505.00	0.0%	15,026.00
7108.6 · Hydraulic Control-Outside Professionals	20,000.00	20,000.00	0.00	100.0%	28,000.00
7109.3 · Recharge & Well - Engineering	3,009.90	4,210.00	-1,200.10	0.0%	25,260.00
7202.2 · Comp Recharge-Engineering Services	1,548.60	7,935.00	-6,386.40	19.52%	47,608.00
7303 · PE3&5-Engineering - Other	0.00	1,690.00	-1,690.00	0.0%	10,160.00
7402 · PE4-Engineering	60,762.11	37,506.00	23,256.11	162.01%	111,036.00
7402.10 · PE4-MZ1 Pomona Project	21,354.06	199,261.00	-177,906.94	10.72%	204,261.00
7403 · PE4-Contract Svcs	0.00	0.00	0.00	0.0%	0.00
7502 · PE6&7-Engineering	12,281.10	15,453.00	-3,171.90	79.47%	92,720.00
7510 · PE6&7-IEUA Salinity Mgmt. Plan	1,384.78	77,136.00	-75,751.22	1.8%	77,136.00
7511 · PE6&7-SAWBMP Task Force-50% IEUA	795.90	2,965.00	-2,169.10	26.84%	17,792.00
7512 · PE6&7-Recomputation WQ-50% IEUA	0.00	4,097.00	-4,097.00	0.0%	24,584.00
7602 · PE8&9-Engineering	0.00	0.00	0.00	0.0%	0.00
Total Engineering Services Costs	586,833.74	884,447.00	-297,613.26	66.35%	2,858,795.00 *

* Wildermuth and Subcontractor Engineering Budget of $2,545,666 plus Carryover Funds from FY 2018/19 of $313,129
Carryover Funds from FY 2018/19 of $313,129 = $29,332 (7107.2); $9,900 (7107.6); $196,761 (7402.10); and $77,136 (7510)

PREVIOUSLY REPORTED ACTIONS (Descending Order)

July 2019:
The breakdown of the total Task Order amount of $2,545,666 for the FY 2019/20 Engineering Services includes direct labor costs for Wildermuth Environmental, Inc. (84.2%) at $2,144,059 along with other direct charges such as equipment rental, laboratory fees, travel costs, reproduction costs, and outside professional services (15.8%) at $401,607.

The approved "Original" Engineering Services budget of $2,545,666 was increased by "Carry Over" funding in the amount of $313,129 to the "Amended" amount of $2,858,795 for FY 2019/20 as provided in the

Engineering Services Task Order. 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 2019/20 timeframe or future years. The Carry-Over amount of $313,129 from FY 2018/19 to the FY 2019/20 budget are provided in detail as follows:

1. 7107.2 Ground-Level - Engineering Services of $29,332. Wildermuth Environmental, Inc. requested this carryover to support the logistics, data collection, and analysis of the City of Chino Hills long-term pumping and injection tests. This work was delayed based on the City of Chino Hills schedule to conduct the long-term pumping and injection tests in FY 2019/20.
2. 7107.6 Ground-Level - Contract Services of $9,900. Wildermuth Environmental, Inc. requested this carryover amount for surveying services associated with the long-term pumping test mentioned in item 1 above.
3. 7402.1 OBMP Engineering Services Northwest MZ-1 for $196,761. Wildermuth Environmental, Inc. requested this carryover budget to support the continued processing and analysis of the spring 2019 ground level surveys. The analysis of the survey data was delayed because the spring 2019 survey data collected by the new surveyor (Guida Surveying, Inc.) needed to be reviewed by the former surveyor (WSP USA) and WEI to ensure consistent data reporting results between the new and former surveyors.
4. 7510 IEUA - Update Recycled Water Permit-Salinity for $77,136. Wildermuth Environmental, Inc. requested this carryover budget to finalize the 2.5-year project to Updated Recycled Water Permit with IEUA. This work is being cost shared with IEUA and was originally scoped to be finished in FY 2019/20. However, Watermaster assessed their entire share of the budget in FY 2017/18 and FY 2018/19.

PRADO BASIN HABITAT SUSTAINABILITY PROGRAM

Ongoing Costs
Program costs that are ongoing (Ongoing Costs) will be cost-shared between Watermaster and IEUA, split on a 50/50 basis, subject to the following limitation: in each fiscal year, neither Watermaster nor IEUA shall be obligated to reimburse the other for Ongoing Costs that exceed the amount that the reimbursing party has budgeted for Ongoing Costs in that fiscal year, except as agreed upon by both parties in writing or as amended during the fiscal year. The first year expenses (FY 2016/17) to be cost shared were approximately $300,000, with projected future years (FY 2017/18 and forward) estimated at approximately $150,000. For the purposes of the agreement, Ongoing Costs are defined as the costs associated with the following Program activities:

1. A Riparian Habitat Monitoring Program, including, but not limited to, the following sub-tasks:
    a. Design and implement a site–specific vegetation monitoring program with the United States Bureau of Reclamation (USBR) and Orange County Water District, pursuant to which USBR will perform site-specific vegetation surveys.
    b. Manage and perform custom flight to collect a high resolution air photo of the Prado Basin Region.
    c. Collect, check, and upload historical air photos and vegetation survey data in the Prado Basin region.
    d. Collect, check, and upload historical Landsat data in the Prado Basin region.

2. A Climate Monitoring Program, including, but not limited to, the following sub-task:
    a. Collect, check, and upload climatic data on an annual basis

3. Preparation of the AMP Annual Report (Annual Report), including, but not limited to, the following sub-tasks:
    a. Water level monitoring, vegetation survey, photo monitoring, landsat data, climate data and analysis of the components.

b. Analyze data and prepare an administrative draft of the Annual Report for Watermaster/IEUA.
c. Incorporate the Watermaster and IEUA comments and prepare a draft Annual Report for review by the PBHSC.
d. Meet with PBHSC to review draft Annual Report.
e. Incorporate PBHSC comments and finalize the Annual Report.

4. Annual license fees for monitoring wells.

5. Project management and administration activities associated with the Program undertaken by a Party's consultant, including, but not limited to, the following sub-tasks:
   a. Ad-Hoc Meetings
   b. Preparation of scope and budget for the Program
   c. Project administration and financial reporting

6. Other costs required to fulfill the requirements of Peace II Subsequent EIR mitigation measure 4.4-3. Watermaster shall be responsible for the costs associated with the Groundwater Level Monitoring Program, Groundwater Quality Monitoring Program, and Surface Water Monitoring Program.

Watermaster and IEUA shall each have responsibility for its own administrative costs, excluding the tasks and expenses included under Set-Up Costs and Ongoing Costs.

Watermaster and IEUA will meet to review the cost-sharing structure under this agreement and negotiate necessary adjustments in good faith on at least an annual basis.

The Peace II SEIR does not explicitly state a duration for the monitoring and mitigation program. It is logical to assume that the program will last until the drawdown impacts, if any, on the riparian habitat from Peace II activities are fully manifested and not predicated to worsen, and that mitigation measures, if any are required, are fully implemented. This is not a perpetual agreement. Upon termination of the monitoring and any necessary mitigation obligations, the parties may elect to terminate the cost share agreement.

	Wildermuth Environmental, Inc.	50% Billing **"TO"** IEUA	50% Billing **"FROM"** IEUA	Costs For Watermaster
Jul. 2019 - Aug. 2019	$ 2,781.30	$ (1,390.65)	$ -	$ 1,390.65
Totals	**$ 2,781.30**	**$ (1,390.65)**	**$ -**	**$ 1,390.65**
	7108.31	7108.31	7108.31	
Maximum Costs	**$ 204,132.00**	**$ 102,066.00**	**$ 102,066.00**	**$ 102,066.00**

PREVIOUSLY REPORTED ACTIONS (Descending Order)
None:

OTHER INCOME AND EXPENSE

There were no other significant items to report within the category of Other Income and Expenses for the month ending August 31, 2019.

PREVIOUSLY REPORTED ACTIONS (Descending Order)

July 2019:
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 2019/20 annual administrative fee

invoice was issued on July 9, 2019 in the amount of $171,905.17 under invoice number 2019-07-CUP. Payment in the amount of $171,905.17 was received and deposited on August 22, 2019.

"CARRY OVER" FUNDING
BACKGROUND OF "CARRY OVER" FUNDING

CURRENT MONTH – AUGUST 2019

As of August 31, 2019, the total (YTD) amount remaining of the "Carried Over" funding is $2,261,520.34 ($2,312,460.70 - $50,940.36 = $2,261,520.34).

The following details are provided:

"Carried Over" Expenses At June 30, 2019

				GL Account		
Blomquist Report - Update	$	7,500.00	A	6061.6	FY 2017/18	ADMIN
Meter Installation - New Meter Installation	$	175,400.00	B	7102.65	FY 2018/19	OBMP
Meter Installation - Calibration and Testing	$	181,650.00	C	7102.8	FY 2018/19	OBMP
Ground Level - Engineering Services	$	29,332.00	D	7107.2 [2]	FY 2018/19	ENG
Ground Level - Contract Services	$	9,900.00	E	7107.6 [3]	FY 2018/19	ENG
PE4 - Northwest MZ-1 Area Project	$	196,761.00	F	7402.1 [4]	FY 2018/19	ENG
IEUA - Update Recycle Water Permit - Salinity	$	77,136.00	G	7510 [5]	FY 2018/19	ENG
RMPU Amendment (TO #1)	$	56,794.57	H	7690.15	FY 2016/17	PROJ
East Declez Basin (TO #1)	$	1,171.33	I	7690.16 [1]	FY 2016/17	PROJ
GWR SCADA Upgrades (TO #4)	$	7,025.00	J	7690.61	FY 2014/15	PROJ
GWR SCADA Upgrades (TO #4)	$	38,675.00	J	7690.61	FY 2015/16	PROJ
Upper Santa Ana River HCP (TO #7)	$	15,062.88	K	7690.7	FY 2014/15	PROJ
Upper Santa Ana River HCP (TO #7)	$	5,000.00	K	7690.7	FY 2015/16	PROJ
Lower Day Basin RMPU (TO #2)	$	238,646.90	L	7690.8	FY 2016/17	PROJ
Funds on Hold for Projects	$	1,272,406.02	M	7690.9	FY 2017/18	PROJ
Total Balance, June 30, 2019	**$**	**2,312,460.70**				

"Carried Over" Balance, July 1, 2019	$	2,312,460.70				
Less: (Invoices Received To Date FY 2019/20)						
Blomquist Report - Update	$	-	A	6061.6	FY 2017/18	ADMIN
Meter Installation - New Meter Installation	$	-	B	7102.65	FY 2018/19	OBMP
Meter Installation - Calibration and Testing	$	-	C	7102.8	FY 2018/19	OBMP
Ground Level - Engineering Services	$	(15,490.00)	D	7107.2 [2]	FY 2018/19	ENG
Ground Level - Contract Services	$	(9,900.00)	E	7107.6 [3]	FY 2018/19	ENG
PE4 - Northwest MZ-1 Area Project	$	(21,354.06)	F	7402.1 [4]	FY 2018/19	ENG
IEUA - Update Recycle Water Permit - Salinity	$	(4,196.30)	G	7510 [5]	FY 2018/19	ENG
RMPU Amendment (TO #1)	$	-	H	7690.15	FY 2016/17	PROJ
East Declez Basin (TO #1)	$	-	I	7690.16 [1]	FY 2016/17	PROJ
GWR SCADA Upgrades (TO #4)	$	-	J	7690.61	FY 2014/15	PROJ
GWR SCADA Upgrades (TO #4)	$	-	J	7690.61	FY 2015/16	PROJ
Upper Santa Ana River HCP (TO #7)	$	-	K	7690.7	FY 2014/15	PROJ
Upper Santa Ana River HCP (TO #7)	$	-	K	7690.7	FY 2015/16	PROJ
Lower Day Basin RMPU (TO #2)	$	-	L	7690.8	FY 2016/17	PROJ
Funds on Hold for Projects	$	-	M	7690.9	FY 2017/18	PROJ
Updated Balance as of August 31, 2019	**$**	**2,261,520.34**				

[1] Project completed with funds available for (1) reallocation to another project, (2) paydown debt service, (3) maintain as extra funding, or (4) distribution to the Appropriative Pool as a credit through the Assessment invoicing.
[2] Engineering work not completed in FY 2018/19 to perform ground level surveys for the long-term pumping test.
[3] Outside professionals work not completed in FY 2018/19 to perform ground level surveys for the long-term pumping test.
[4] Work not completed in FY 2018/19 for installation of the Pomona extensometer and monitoring program for the Northwest MZ-1 area.
[5] Watermaster's portion of the unused FY 2018/19 budget to finalize the 2.5 year project to Update Recycled Water Permit with IEUA.

Updated Balance as of August 31, 2019						
Blomquist Report - Update	$	7,500.00	A	6061.6	FY 2017/18	ADMIN
Meter Installation - New Meter Installation	$	175,400.00	B	7102.65	FY 2018/19	OBMP
Meter Installation - Calibration and Testing	$	181,650.00	C	7102.8	FY 2018/19	OBMP
Ground Level - Engineering Services	$	13,842.00	D	7107.2 [2]	FY 2018/19	ENG
Ground Level - Contract Services	$	-	E	7107.6 [3]	FY 2018/19	ENG
PE4 - Northwest MZ-1 Area Project	$	175,406.94	F	7402.1 [4]	FY 2018/19	ENG
IEUA - Update Recycle Water Permit - Salinity	$	72,939.70	G	7510 [5]	FY 2018/19	ENG
RMPU Amendment (TO #1)	$	56,794.57	H	7690.15	FY 2016/17	PROJ
East Declez Basin (TO #1)	$	1,171.33	I	7690.16 [1]	FY 2016/17	PROJ
GWR SCADA Upgrades (TO #4)	$	7,025.00	J	7690.61	FY 2014/15	PROJ
GWR SCADA Upgrades (TO #4)	$	38,675.00	J	7690.61	FY 2015/16	PROJ
Upper Santa Ana River HCP (TO #7)	$	15,062.88	K	7690.7	FY 2014/15	PROJ
Upper Santa Ana River HCP (TO #7)	$	5,000.00	K	7690.7	FY 2015/16	PROJ
Lower Day Basin RMPU (TO #2)	$	238,646.90	L	7690.8	FY 2016/17	PROJ
Funds on Hold for Projects	$	1,272,406.02	M	7690.9	FY 2017/18	PROJ
Updated Balance as of August 31, 2019	**$**	**2,261,520.34**				

ADMINISTRATION SERVICES:
Unspent funds related to ongoing projects and associated activities from the Administration Services budget from FY 2018/19 totaling $7,500.00 were "Carried Over" into the current FY 2019/20 budget. These funds were from the Blomquist Report-Update [A] in the amount of $7,500 in account (6061.6).

OBMP ACTIVITIES:
Unspent funds related to ongoing projects and associated activities from the Agricultural area metering installation efforts budget from FY 2018/19 in several accounts totaling $357,050 were "Carried Over" into the current FY 2019/20 budget. These funds were from the Meter Installation - New Meter Installation [B] in the amount of $175,400 in account (7102.65); and Meter Installation - Calibration and Testing [C] in the amount of $181,650 in account (7102.8). The total amount available is $357,050 ($175,400 + $181,650 = $357,050).

ENGINEERING SERVICES:
Unspent funds related to ongoing projects and associated activities from the Engineering Services budget from FY 2018/19 in several accounts totaling $313,129 were "Carried Over" into the current FY 2019/20 budget. These funds were from the Ground Level - Engineering Services [D] in the amount of $29,332 in account (7107.2); Ground Level - Contract Services [E] in the amount of $9,900 in account (7107.6); PE4 - Northwest MZ-1 Area Project [F] in the amount of $196,761 in account (7402.1); and PE6&7 - IEUA Salinity Management Plan [G] in the amount of $77,136 in account (7510). The total amount available is $313,129 ($29,332 + $9,900 + $196,761 + $77,136 = $313,129).

COMPLETED PROJECTS WITH FUNDING AVAILABLE:
Several projects were completed during FY 2018/19 or in prior years and have remaining funds available to be either (1) reallocated to other project(s) that need additional funding, (2) keep amounts on reserve for future Capital Improvement Projects, (3) pay down the debt service; or (4) refunded back to the Appropriative Pool when the Assessment package is invoiced. The funding amounts available are as follows: East Declez Basin [I] in the amount of $1,171.33 (account 7690.16); and GWR SCADA Upgrades (TO#4) [J] in the amount of $45,700.00 (account 7690.61). The total amount available is $46,871.33 ($1,171.33 + $45,700.00 = $46,871.33).

ONGOING RECHARGE IMPROVEMENT PROJECTS:
The RMPU Amendment-Task Order #1 [H] has a remaining budget from FY 2016/17 of $56,794.57 in account (7690.15); the Upper Santa Ana River HCP-Task Order #7 [K] has a remaining funded balance of $20,062.88 in account (7690.7); and the Lower Day Basin RMPU-Task Order #2 [L] has a remaining funded budget balance of $238,646.90 in account (7690.8). The total funded budget for these combined projects is $315,504.35 ($56,794.57 + $20,062.88 + $238,646.90 = $315,504.35).

FUNDS ON HOLD FOR PROJECTS:
The "Funds on Hold for Projects" [M] has a remaining budget from FY 2017/18 of $1,272,406.02 in account (7690.9). These funds can only be allocated from the account if a Budget Transfer document is presented to the Pools, Advisory, and Board for approval and adoption.

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, 2020, any remaining balances of the FY 2018/19 and prior years funding (if any), along with any new FY 2019/20 expenses, will then be "Carried Over" into the FY 2020/21 budget.

PREVIOUSLY REPORTED ACTIONS (Descending Order)

July 2019:
Once the FY 2018/19 period as of June 30, 2019 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 2019/20 budget. The Total "Carry Over" funding amount of $2,312,460.70 was posted to the accounts as of July 1, 2019. The total amount of $2,312,460.70 consisted of $1,634,781.70 from Capital Improvement Projects, $357,050.00 from OBMP Activities, $313,129.00 from Engineering Services, and $7,500.00 from Administration Services ($1,634,781.70 + $357,050.00 + $313,129.00 + $7,500.00 = $2,312,460.70).

AUDIT FIELD WORK

FY 2018/19:
The final field work for the period of April 1, 2019 through June 30, 2019 was completed on September 4, 2019. The Annual Financial and Audit Reports are scheduled for presentation to the Watermaster Board by Fedak & Brown LLP at the October 24, 2019 Board meeting. The Annual Financial and Audit Reports for FY 2018/19 are scheduled for posting to the Watermaster website no later than October 31, 2019.

PREVIOUSLY REPORTED ACTIONS (Descending Order)

July 2019:
FY 2018/19:
The auditors from the audit firm of Fedak & Brown LLP were at Watermaster on May 28, 2019 for an onsite visit at the Watermaster office. This was the start of the interim field work for the period of July 1, 2018 through March 31, 2019. The final field work for the period of April 1, 2019 through June 30, 2019 has been scheduled for September 3, 2019 and September 4, 2019. The Annual Financial and Audit Reports are scheduled for presentation to the Watermaster Board by Fedak & Brown LLP at the October 24, 2019 Board meeting. The Annual Financial and Audit Reports for FY 2018/19 are scheduled for posting to the Watermaster website no later than October 31, 2019.

ASSESSMENT INVOICING

CURRENT MONTH – AUGUST 2019

To date, all assessment invoice payments have been received. No Assessment activity for the month to report.

PREVIOUSLY REPORTED ACTIONS (Descending Order)
None

ATTACHMENTS
1. Financial Report - B5

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CHINO BASIN WATERMASTER
Budget vs. Actual
Current Month, Year-To-Date and Fiscal Year-End

	1/12th (8.33%) of the Total Budget				2/12th (16.67%) of the Total Budget				100% of the Total Budget			
	For The Month of August 2019				Year-To-Date as of August 31, 2019				Fiscal Year End as of June 30, 2020			
	Actual	Budget	$ Over(Under)	% of Budget	Actual	Budget	$ Over(Under)	% of Budget	Projected	Budget	$ Over(Under)	% of Budget
Income												
4010 · Local Agency Subsidies	0.00	0.00	0.00	0.0%	171,905.17	171,906.00	-0.83	100.0%	171,906.00	171,906.00	0.00	100.0%
4110 · Admin Asmnts-Approp Pool	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	8,013,100.00	8,013,100.00	0.00	100.0%
4120 · Admin Asmnts-Non-Agri Pool	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	352,197.00	352,197.00	0.00	100.0%
4700 · Non Operating Revenues	7.89	0.00	7.89	100.0%	20.09	0.00	20.09	100.0%	75,124.00	75,124.00	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%
Total Income	7.89	0.00	7.89	100.0%	171,925.26	171,906.00	19.26	100.01%	8,612,327.00	8,612,327.00	0.00	100.0%
Gross Profit	7.89	0.00	7.89	100.0%	171,925.26	171,906.00	19.26	100.01%	8,612,327.00	8,612,327.00	0.00	100.0%
Expense												
6010 · Admin. Salary/Benefit Costs	84,648.94	100,591.00	-15,942.06	84.15%	181,077.23	197,543.00	-16,465.77	91.67%	1,155,864.00	1,155,864.00	0.00	100.0%
6020 · Office Building Expense	8,559.79	9,367.00	-807.21	91.38%	18,355.90	19,359.00	-1,003.10	94.82%	117,379.00	117,379.00	0.00	100.0%
6030 · Office Supplies & Equip.	1,440.20	7,775.00	-6,334.80	18.52%	3,489.37	10,300.00	-6,810.63	33.88%	69,800.00	69,800.00	0.00	100.0%
6040 · Postage & Printing Costs	3,161.62	3,741.00	-579.38	84.51%	6,248.41	7,750.00	-1,501.59	80.63%	47,141.00	47,141.00	0.00	100.0%
6050 · Information Services	13,011.53	14,375.00	-1,363.47	90.52%	26,329.32	28,519.00	-2,189.68	92.32%	169,656.00	169,656.00	0.00	100.0%
6060 · Contract Services	2,268.04	5,900.00	-3,631.96	38.44%	3,135.54	16,300.00	-13,164.46	19.24%	51,800.00	51,800.00	0.00	100.0%
6070 · Watermaster Legal Services	24,407.55	29,670.00	-5,262.45	82.26%	51,129.12	59,338.00	-8,208.88	86.17%	266,115.00	266,115.00	0.00	100.0%
6080 · Insurance	11,463.71	10,975.00	488.71	104.45%	41,327.50	42,926.00	-1,598.50	96.28%	43,426.00	43,426.00	0.00	100.0%
6110 · Dues and Subscriptions	160.00	400.00	-240.00	40.0%	15,502.50	16,193.00	-690.50	95.74%	36,792.00	36,792.00	0.00	100.0%
6140 · WM Admin Expenses	191.26	363.00	-171.74	52.69%	309.81	550.00	-240.19	56.33%	2,950.00	2,950.00	0.00	100.0%
6150 · Field Supplies	44.12	200.00	-155.88	22.06%	1,007.94	1,350.00	-342.06	74.66%	2,550.00	2,550.00	0.00	100.0%
6170 · Travel & Transportation	1,141.73	2,300.00	-1,158.27	49.64%	2,881.03	4,245.00	-1,363.97	67.87%	65,170.00	65,170.00	0.00	100.0%
6190 · Training, Conferences, Seminars	1,605.11	3,155.00	-1,549.89	50.88%	2,422.29	6,310.00	-3,887.71	38.39%	37,857.00	37,857.00	0.00	100.0%
6200 · Advisory Comm - WM Board	0.00	4,449.00	-4,449.00	0.0%	3,326.46	8,797.00	-5,470.54	37.81%	49,680.00	49,680.00	0.00	100.0%
6300 · Watermaster Board Expenses	895.62	14,293.00	-13,397.38	6.27%	11,872.72	28,418.00	-16,545.28	41.78%	184,467.00	184,467.00	0.00	100.0%
8300 · Appr PI-WM & Pool Admin	11,819.68	14,466.00	-2,646.32	81.71%	23,560.35	28,777.00	-5,216.65	81.87%	168,609.00	168,609.00	0.00	100.0%
8400 · Agri Pool-WM & Pool Admin	452.24	5,776.00	-5,323.76	7.83%	3,299.81	11,418.00	-8,118.19	28.9%	64,713.00	64,713.00	0.00	100.0%
8467 · Ag Legal & Technical Services	16,450.00	25,000.00	-8,550.00	65.8%	44,625.00	50,000.00	-5,375.00	89.25%	300,000.00	300,000.00	0.00	100.0%
8470 · Ag Meeting Attend -Special	425.00	1,850.00	-1,425.00	22.97%	1,850.00	3,700.00	-1,850.00	50.0%	22,200.00	22,200.00	0.00	100.0%
8471 · Ag Pool Expense	0.00	0.00	0.00	0.0%	21,686.00	22,000.00	-314.00	98.57%	85,000.00	85,000.00	0.00	100.0%
8485 · Ag Pool - Misc. Exp. - Ag Fund	0.00	0.00	0.00	0.0%	0.00	100.00	-100.00	0.0%	400.00	400.00	0.00	100.0%
8500 · Non-Ag PI-WM & Pool Admin	4,549.59	10,990.00	-6,440.41	41.4%	11,869.27	21,890.00	-10,020.73	54.22%	127,951.00	127,951.00	0.00	100.0%
9400 · Depreciation 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%
9500 · Allocated G&A Expenditures	-34,550.65	-39,730.00	5,179.35	86.96%	-64,398.29	-79,462.00	15,063.71	81.04%	-476,762.00	-476,762.00	0.00	100.0%
6900 · Optimum Basin Mgmt Plan	199,648.07	187,634.00	12,014.07	106.4%	442,447.36	457,262.00	-14,814.64	96.76%	1,957,015.00	1,957,015.00	0.00	100.0%
9501 · G&A Expenses Allocated-OBMP	14,288.88	10,527.00	3,761.88	135.74%	23,942.26	21,055.00	2,887.26	113.71%	126,325.00	126,325.00	0.00	100.0%
7101 · Production Monitoring	2,112.56	6,902.00	-4,789.44	30.61%	8,567.80	13,508.00	-4,940.20	63.43%	78,073.00	78,073.00	0.00	100.0%
7102 · In-line Meter Installation	0.00	1,869.00	-1,869.00	0.0%	0.00	360,718.00	-360,718.00	0.0%	378,428.00	378,428.00	0.00	100.0%
7103 · Grdwtr Quality Monitoring	58,121.34	30,221.00	27,900.34	192.32%	87,751.21	60,215.00	27,536.21	145.73%	359,100.00	359,100.00	0.00	100.0%
7104 · Gdwtr Level Monitoring	9,354.78	24,014.00	-14,659.22	38.96%	26,082.90	47,798.00	-21,715.10	54.57%	284,537.00	284,537.00	0.00	100.0%
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%
7106 · Wtr Level Sensors Installation	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	4,201.21	17,485.00	-13,283.79	24.03%	34,028.27	95,432.00	-61,403.73	35.66%	333,683.00	333,683.00	0.00	100.0%

CHINO BASIN WATERMASTER
Budget vs. Actual
Current Month, Year-To-Date and Fiscal Year-End

	1/12th (8.33%) of the Total Budget				2/12th (16.67%) of the Total Budget				100% of the Total Budget			
	For The Month of August 2019				Year-To-Date as of August 31, 2019				Fiscal Year End as of June 30, 2020			
	Actual	Budget	$ Over(Under)	% of Budget	Actual	Budget	$ Over(Under)	% of Budget	Projected	Budget	$ Over(Under)	% of Budget
7108 · Hydraulic Control Monitoring	2,334.80	9,038.00	-6,703.20	25.83%	23,024.65	38,037.00	-15,012.35	60.53%	135,837.00	135,837.00	0.00	100.0%
7109 · Recharge & Well Monitoring Prog	3,009.90	2,105.00	904.90	142.99%	3,009.90	4,210.00	-1,200.10	71.49%	25,260.00	25,260.00	0.00	100.0%
7200 · PE2- Comp Recharge Pgm	5,126.13	18,933.00	-13,806.87	27.08%	320,557.41	338,128.00	-17,570.59	94.8%	1,425,415.00	1,425,415.00	0.00	100.0%
7300 · PE3&5-Water Supply/Desalte	0.00	2,953.00	-2,953.00	0.0%	0.00	5,839.00	-5,839.00	0.0%	34,374.00	34,374.00	0.00	100.0%
7400 · PE4- Mgmt Plan	56,491.63	18,644.00	37,847.63	303.0%	83,762.18	239,009.00	-155,246.82	35.05%	328,338.00	328,338.00	0.00	100.0%
7500 · PE6&7-CoopEfforts/SaltMgmt	13,275.40	12,240.00	1,035.40	108.46%	14,461.78	101,569.00	-87,107.22	14.24%	223,318.00	223,318.00	0.00	100.0%
7600 · PE8&9-StorageMgmt/Conj Use	1,906.98	2,048.00	-141.02	93.11%	3,806.27	4,008.00	-201.73	94.97%	23,168.00	23,168.00	0.00	100.0%
7690 · Recharge Improvement Debt Pymt	0.00	0.00	0.00	0.0%	633,440.00	2,268,221.70	-1,634,781.70	27.93%	2,268,221.70	2,268,221.70	0.00	100.0%
7700 · Inactive Well Protection Prgm	0.00	42.00	-42.00	0.0%	0.00	83.00	-83.00	0.0%	500.00	500.00	0.00	100.0%
9502 · G&A Expenses Allocated-Projects	20,261.77	29,203.00	-8,941.23	69.38%	40,456.03	58,407.00	-17,950.97	69.27%	350,437.00	350,437.00	0.00	100.0%
Total Expense	542,278.53	599,764.00	-57,485.47	90.42%	2,156,245.30	4,619,820.70	-2,463,575.40	46.67%	10,924,787.70	10,924,787.70	0.00	100.0%
Net Ordinary Income	-542,270.64	-599,764.00	57,493.36	90.41%	-1,984,320.04	-4,447,914.70	2,463,594.66	44.61%	-2,312,460.70	-2,312,460.70	0.00	100.0%
Other Income												
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%	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
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%
4715 · Gain on Sale of Assets	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
Total Other 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%
Other Expense												
5010 · Groundwater Replenishment	0.00	0.00	0.00	0.0%	31,147.31	0.00	31,147.31	100.0%	31,147.31	0.00	31,147.31	100.0%
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%
Total Other Expense	0.00	0.00	0.00	0.0%	31,147.31	0.00	31,147.31	100.0%	31,147.31	0.00	31,147.31	100.0%
Net Other Income	0.00	0.00	0.00	0.0%	-31,147.31	0.00	-31,147.31	100.0%	-31,147.31	0.00	-31,147.31	100.0%
Net Income	-542,270.64	-599,764.00	57,493.36	90.41%	-2,015,467.35	-4,447,914.70	2,432,447.35	45.31%	-2,343,608.01	-2,312,460.70	-31,147.31	101.35%

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

CHINO BASIN WATERMASTER

I. CONSENT CALENDAR

C. APPLICATION FOR RECHARGE – SAN ANTONIO WATER COMPANY

CHINO BASIN WATERMASTER

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

PETER KAVOUNAS, P.E.
General Manager

STAFF REPORT

DATE: October 24, 2019

TO: Board Members

SUBJECT: Application for Recharge - San Antonio Water Company (Consent Calendar Item I.C.)

SUMMARY:

Issue: On June 04, 2019, San Antonio Water Company submitted an Application for Recharge for up to 2,500 acre-feet to be recharged into basins along the San Antonio Channel.

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

Financial Impact: None

Future Consideration
Watermaster Board – October 24, 2019: Approval [Within WM Duties and Powers]

ACTIONS:
Agricultural Pool – September 12, 2019: Unanimously recommended Advisory Committee to recommend to the Watermaster Board to approve
Appropriative Pool – September 12, 2019: Unanimously recommended Advisory Committee to recommend to the Watermaster Board to approve
Non-Agricultural Pool – September 12, 2019: Unanimously recommended its representatives to support at Advisory Committee and Watermaster Board subject to changes they deem appropriate
Advisory Committee – October 17, 2019: Unanimously recommended to the Watermaster Board to approve
Watermaster Board – October 24, 2019:

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 (MPI), 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).

DISCUSSION

On June 4, 2019, San Antonio Water Company (SAWCo) submitted an Application for Recharge for up to 2,500 acre-feet from September 2019 to September 2020. The Application states that the method of recharge is surface spreading into Basins aligned with the San Antonio Creek system (see Attachment 1) and identifies the source of water to be Local Supplemental water. Attached to the Application are water quality results from the Clinical Laboratory of San Bernardino, Inc. to aid in the MPI analysis (see Attachment 2.)

If and when approved, SAWCo intends to recharge the water into the basins connected to the San Antonio Creek channel system. The amount recharged will be subject to evaporative losses. This water can be used to offset over-production during the 2019-2020 fiscal year, or, should the water not be used in the fiscal year for over-production, the water will be placed into storage. It should be noted that the volume of water in storage in Chino Basin is quickly approaching the maximum that has been evaluated under CEQA. As such, it is possible that at the time water is available for the contemplated recharge, Watermaster may not approve a storage agreement. The applicant is advised to confirm with Watermaster in advance of any recharge.

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 the appropriate water transfer forms, which include the recapture plan. Per the Peace II Agreement and achievement of Hydraulic Control, losses will be applied to all water placed into a Local Supplemental Storage Account in a manner consistent to all other water held in storage.

Wildermuth Environmental, Inc. (WEI) completed a MPI analysis on July 25, 2019 declaring no negative impacts to the Basin from this recharge event (see Attachment 3.) WEI expressed concern over 1,2,3-TCP concentrations in wells that exceeded the California maximum contaminant level (MCL) that are within the flow path of the proposed recharge basins. However, the proposed recharge of 2,500 af was not a large enough volume to significantly change direction or speed of the groundwater flow in the area and thus would not significantly impact any of the wells downstream. Staff has reviewed and recommends approval of the Application for Recharge as presented.

Once approved, SAWCo must complete Form 2b *Request to Recharge Supplemental Water by a Person to Watermaster*. Form 2b will be used by Watermaster staff to coordinate with SAWCo and the Inland Empire Utility Agency (IEUA) to develop a Recharge Operations Plan. During the Recharge event, Watermaster and IEUA will collect data to properly ensure the water is accounted for. Upon completion of the recharge event, SAWCo will be required to submit Form 2c *Report of Supplemental Water Recharge by a Person* to Watermaster for final review and accounting.

All three Pool Committees unanimously recommended Advisory Committee approval at their September 12, 2019 meetings. The Advisory Committee unanimously recommended Board approval of the application at its October 17, 2019 meeting.

ATTACHMENTS

1. SAWCo Recharge Application Dated June 4, 2019
2. Clinical Laboratory of San Bernardino, Inc. Water Quality Report
3. July 25, 2019 Letter from WEI to Watermaster: *Analysis of Material Physical Injury for the San Antonio Water Company (SAWC) Recharge Application, Submitted to the Chino Basin Watermaster on June 4, 2019*

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Form 2a - Application for Supplemental Water Recharge

Applicant Information and Recharge Request			
Person	San Antonio Water Company	Date Requested	06/03/2019
Contact (individual)	Teri Layton	Date Approved	
Street Address	139 N. Euclid Avenue	Proposed Period of Time Covered by Recharge Application (mm/yyyy to mm/yyyy)	9/1/2019 to 9/1/2020
City	Upland		
State	CA		
Zip Code	91786	Requested Total Amount of Recharge Over the Application Period (AF)	2,500
Telephone	(909)982-4107		
Fax	(909)920-3047	Approved Total Amount of Recharge Over the Application Period (AF)	
Email	tlayton@sawaterco.com		

Source(s) of Supply (check box and provide supporting information)		
( )	State Water Project	
( )	Colorado River Aqueduct	
(✓)	Local Supplemental (identify source and attach source water quality characterization including TDS and TN; use as many sheets as necessary)	
( )	Recycled Water (identify source and attach source water quality characterization including TDS and TN; use as many sheets as necessary)	
( )	Other (identify source and attach source water quality characterization including TDS and TN; use as many sheets as necessary)	

Method of Recharge (check box and provide supporting information)		
(✓)	Surface Spreading	
	Recharge Basin Name(s)	Upland, Montclair Basins
	Expected Period of Recharge (mm/dd to mm/dd)	09/01/19 to 09/01/20
	Depth to Water in Recharge Area (ft-bgs)	
	Water Quality in Recharge Area (attach characterization)	
( )	Injection	
	Well Names and Locations (attach well completion report if not on file with the Watermaster)	
	Expected Period of Recharge (mm/dd to mm/dd)	
	Depth to Water in Recharge Area (ft-bgs)	
	Water Quality in Recharge Area (attach characterization)	
( )	In-Lieu Exchange	
	Treatment Plant and Turnout	
	Share of Safe Yield (percent and AFY)	
	Carryover Right, if Applicable (AF)	
	Water in Storage (AF)	
	Pumping Capacity (mgd or AFM)	
	Expected Period of Recharge (mm/dd to mm/dd)	
	Depth to Water in Area Impacted by In-Lieu Recharge (ft-bgs)	
	Water Quality in Area Impacted by In-Lieu Recharge (attach characterization)	

Form 2a - Application for Supplemental Water Recharge

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

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 or the Basin (provide list of mitigation measures and rational either below or attach one to this application)

BY: _____ June 3, 2019
Applicant Date

To Be Completed by Watermaster

Is the Person a Party to the Judgment that has:

Previously contributed to the implementation of the OBMP? ☐ YES ☐ NO

Is in compliance with their continuing covenants under the Peace Agreement? ☐ YES ☐ NO

(If answer to previous question is NO)

Paid or delivered to Watermaster "financial equivalent" consideration to offset the past performance prior to the OBMP implementation? ☐ YES ☐ NO

Promised continued future compliance with Watermaster Rules and Regulations? ☐ YES ☐ NO

Date of Approval from Appropriative Pool (mm/dd/yyyy) _____

Date of Approval from Overlying Non-Ag Pool (mm/dd/yyyy) _____

Date of Approval from Overlying Ag Pool (mm/dd/yyyy) _____

Hearing Date (if any) (mm/dd/yyyy) _____

Date of Approval by Advisory Committee (mm/dd/yyyy) _____

Date of Approval from Board (mm/dd/yyyy) _____

Recharge Agreement Number _____

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017

San Antonio Water Co.	Project: Routine	Work Order: 18J0830
139 N Euclid Ave	Sub Project:	Received: 10/09/18 16:30
Upland CA, 91786	Project Manager: Charles Moorrees	Reported: 10/25/18

V-Screen (Surface Water) **18J0830-01 (Water)** **Sample Date:** 10/09/18 10:45 **Sampler:** Jeff

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
pH (Field)	Field	**8.1**			pH Units	10/09/18	10/09/18	1841113	
Temperature (Field)	Field	**58**			°F	10/09/18	10/09/18	1841113	
General Physical Analyses									
Turbidity	EPA 180.1	**0.6**	0.1	5	NTU	10/09/18	10/09/18	1841132	
General Chemical Analyses									
Alkalinity, Total (as CaCO3)	SM 2320 B	**160**	5.0		mg/L	10/16/18	10/16/18	1841115	
Ammonia as N (NH3-N)	EPA 350.1	ND	0.50		mg/L	10/12/18	10/12/18	1841172	
Bicarbonate (HCO3)	SM 2320 B	**190**	5.0		mg/L	10/16/18	10/16/18	1841115	
Carbonate (CO3)	SM 2320B	ND	5.0		mg/L	10/16/18	10/16/18	1841115	
Chloride (Cl)	EPA 300.0	ND	1.0	500	mg/L	10/10/18	10/10/18	1841116	
Specific Conductance (E.C.)	SM 2510B	**320**	2.0	1600	umhos/cm	10/16/18	10/16/18	1841115	
Fluoride (F)	EPA 300.0	**0.31**	0.10	2	mg/L	10/10/18	10/10/18	1841116	
Hydroxide (OH)	SM 2320B	ND	5.0		mg/L	10/16/18	10/16/18	1841115	
MBAS (LAS Mole. Wt 340.0)	SM 5540C	ND	0.10	0.5	mg/L	10/10/18	10/10/18	1841135	
Nitrate as N (NO3-N)	EPA 300.0	ND	0.40	10	mg/L	10/10/18	10/10/18	1841116	
Nitrite as N (NO2-N)	EPA 300.0	ND	0.40	1	mg/L	10/10/18	10/10/18	1841116	
Organic Nitrogen	Calculation	ND	1.0		mg/L	10/16/18	10/16/18	[CALC]	
pH (Lab)	SM 4500HB	**8.3**			pH Units	10/10/18	10/10/18	1841115	
Sulfate (SO4)	EPA 300.0	**18**	0.50	500	mg/L	10/10/18	10/10/18	1841116	
Total Filterable Residue/TDS	SM 2540C	**190**	5.0	1000	mg/L	10/10/18	10/11/18	1841044	
Total Kjeldahl Nitrogen	EPA 351.2	ND	1.0		mg/L	10/16/18	10/16/18	1842036	
Total Organic Carbon	SM 5310B	ND	0.30		mg/L	10/10/18	10/10/18	1841104	
Metals									
Boron (B)	EPA 200.7	ND	100		ug/L	10/19/18	10/19/18	1842157	
Calcium (Ca)	EPA 200.7	**53**	1.0		mg/L	10/15/18	10/16/18	1842026	
Copper (Cu)	EPA 200.7	ND	50	1000	ug/L	10/19/18	10/19/18	1842157	
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	10/19/18	10/19/18	1842157	
Magnesium (Mg)	EPA 200.7	**9.0**	1.0		mg/L	10/15/18	10/16/18	1842026	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	10/19/18	10/19/18	1842157	
Potassium (K)	EPA 200.7	**1.7**	1.0		mg/L	10/15/18	10/16/18	1842026	
Silica (SiO2)	EPA 200.7	**17**	0.50		mg/L	10/24/18	10/24/18	1843074	
Sodium (Na)	EPA 200.7	**5.1**	1.0		mg/L	10/15/18	10/16/18	1842026	
Zinc (Zn)	EPA 200.7	ND	50	5000	ug/L	10/19/18	10/19/18	1842157	

Bob Glaubig
Laboratory Director

Post Office Box 329 San Bernardino, CA 92402 (909) 825-7693 Fax (909) 825-7696 ELAP Number 1088

San Antonio Water Co.	Project: Routine	Work Order: 18J0830
139 N Euclid Ave	Sub Project:	Received: 10/09/18 16:30
Upland CA, 91786	Project Manager: Charles Moorrees	Reported: 10/25/18

V-Screen (Surface Water) **18J0830-01 (Water)** **Sample Date:** 10/09/18 10:45 **Sampler:** Jeff

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Anion / Cation Balance									
Hardness, Total (as CaCO3)	Calculated	**170**			mg/L	10/15/18	10/16/18	[CALC]	
Total Anions	Calculated	**3.51**			meq/L	10/15/18	10/16/18	[CALC]	
Total Cations	Calculated	**3.66**			meq/L	10/15/18	10/16/18	[CALC]	
% difference	Calculated	**4.2**				10/15/18	10/16/18	[CALC]	

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the reporting limit

Bob Glaubig
Laboratory Director

Post Office Box 329 San Bernardino, CA 92402 (909) 825-7693 Fax (909) 825-7696 ELAP Number 1088

18|0830

Client	San Antonio Water Co
Address:	139 North Euclid Avenue
	Upland, CA 91786
Client Contact:	
Phone / Fax	909 982-4107 / 909 982-3192
System No.:	3610085
Project:	
Sampled By:	Tommy ( ), Chad ( ), Jeff (X)
Comments:	

Destination Laboratory

[X] Clinical Grand Terrace / ELAP 1088
[ ] Clinical Lompoc / ELAP 1678
[ ] Other:

Analysis Requested

Date	Time	Sample Identification	Container ID	Matrix	Sample Type	Unpreserved	Na2S2O3	NH4Cl	C6H8O6	HNO3	HCl	NaOH	Na2SO3	ZnC4H6O4	ChlorAC	Total Containers	Field pH	Field Temperature (F)	~~Plate Count (HPC)~~ Temp	~~Coliform~~ pH	Notification Required	~~[illegible]~~ Turbidity	TOC	Silica	Nitrite Nitrogen	Organic Nitrogen	General mineral	Turn Around Time (TAT)
10/9/18	10:45 AM	V-Screen			1-W											8			58	8.1	[illegible]	X	X	X	X	X	X	
					1-W																X							
					1-W																X							
					1-W																X							
					1-W																X							
					1-W																X							
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					1-W																X							
					1-W																X							
					1-W																X							
					1-W																							

Matrix: DW - Drinking Water GW - Ground Water SW - Surface Water W - Water WW - Wastewater SWR - Stormwater Runoff S - Sludge O - Other ______

Use for Bacteria Samples / Sample Type: 1-Routine 2-Repeat 3-Replacement 4-Special D-Distribution W-Well

TAT:(10) Ten Day(5) Five Day Rush(2) Two Day Rush

Relinquished By (Sign)	Print Name / Company	Date / Time	Received By (Sign)	Print Name / Company
Jeff Bar[illegible]	Jeff Barker SAN ANTONIO water	10/9/18 11:20 AM	LeBron Shyff	LeBron Shyff C.L.S.B
LeBron Shyff	LeBron Shyff C.L.S.B	10-9-18 4:30	Jeanette Hernandez	JH CLSB

(Lab Use Only) Lompoc Lab Receipt Temp.: ______°C

Shipped Via: [ ] Fed Ex [ ] Golden State Overnight [ ] UPS [ ] OnTrac [ ] USPS [ ] Other ______

Condition: [ ] On Wet Ice [ ] On Blu Ice [ ] Intact [ ] Custody Seals Samples / COC Checked By: ______ Work Order Logged By: ______

Receipt Comments: Clinical Lab Receipt Temp.: ______°C

11°C

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WILDERMUTH ENVIRONMENTAL, INC.

July 25, 2019

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, Submitted to the Chino Basin Watermaster on June 4, 2019 (hereafter June 4, 2019 recharge application)

Dear Mr. Kavounas:

Pursuant to your direction, Wildermuth Environmental, Inc. (WEI) conducted a material physical injury (MPI) analysis of the SAWC's June 4, 2019 recharge application. This MPI analysis was completed pursuant to the Watermaster Rules and Regulations and the Peace Agreement. Specifically, Article 10 of the 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 (page 8), 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."

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 evaluations of Chino Basin storage programs, groundwater modeling of various groundwater management alternatives in the Chino Basin, and prior MPI analyses.

SAWC's Recharge Application of June 4, 2019

The SAWC proposes to recharge up to 2,500 acre-feet (af) of San Antonio Creek water into the Chino Basin during the period of September 2019 through August 2020. The SAWC proposes to divert San Antonio Creek 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 College Heights and Upland Basins. The SAWC proposes to recharge this water in the Upland Basin and Montclair Basins 1-4. Diversions into the Upland Basin would occur through the existing San Antonio Creek diversion into Upland Basin. Diversions into the Montclair Basins would occur through the existing San Antonio Creek diversion into Montclair Basin 1 and subsequently be routed to other basins in the Montclair Basins complex. The SAWC will need to coordinate their proposed diversions for recharge with the Inland Empire Utilities Agency (IEUA), the Chino Basin Water Conservation District, the City of Upland, and Watermaster to ensure that their water is diverted as proposed, measured and accounted for, and its recharge activities do not interfere with other recharge operations and stormwater management. The SAWC did not submit a recapture plan in its June 4, 2019 recharge application.

Watermaster classifies the water proposed by the SAWC as supplemental water; therefore, the proposed recharge will contribute to Watermaster's Peace II obligation to recharge 6,500 af per year (afy) of supplemental water in MZ1.

WEI evaluated impacts to the following to determine the potential for MPI from the proposed recharge:

- Groundwater level impacts (liquefaction, land subsidence, and increases in pump lift)
- Balance of recharge and discharge in every area and subarea
- Total dissolved solids (TDS) and nitrate concentration impacts
- Water quality impacts on other pumpers

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. As of March 2019, the depth to groundwater beneath the basins proposed for recharge ranges from about 560 feet below ground surface (bgs) at the Upland Basin to about 460 ft bgs at the Montclair Basins. There will be no adverse liquefaction or land subsidence impacts from the groundwater level changes caused by the recharge and storage proposed by the SAWC. Pumping lifts may be slightly reduced resulting in lower pumping costs and lower greenhouse gas emissions. No adverse impacts related to groundwater level changes will occur from the proposed recharge.

Balance of Recharge and Discharge in Every Area and Subarea

The SAWC did not provide a recovery plan; thus, the location of future recovery remains unknown, and the balance of recharge and discharge cannot be assessed. Watermaster should conduct an MPI review when the SAWC submits a recovery plan. We recommend that the SAWC provide a recovery plan for the water they propose to recharge under the current application and past applications as soon as practical and no later than their next application to recharge supplemental water.

TDS and Nitrate Concentrations Impacts

The 2004 Regional Water Quality Control Plan (Basin Plan) for the Santa Ana River Watershed has TDS and nitrate (expressed as nitrogen) concentration objectives in the Chino-North Groundwater Management Zone (GMZ) of 430 milligrams per liter (mgl) and 5 mgl, respectively. The proposed recharge will occur in the Chino-North GMZ. Pursuant to the Basin Plan, Watermaster and the IEUA are required to manage artificial recharge in Chino North GMZ such that the five-year, volume-weighted average TDS and nitrate concentrations of the recycled water, imported water, and new stormwater recharged across all recharge facilities does not exceed the maximum benefit-based Basin Plan objectives.

The source of the supplemental water in SAWC's June 4, 2019 recharge application is San Antonio Creek water diverted upstream of San Antonio Dam. The SAWC provided a water quality analysis of a San Antonio Creek water sample taken on October 9, 2018. WEI supplemented this water quality data with other water quality data provided by the SAWC and the City of Pomona. These data indicate that the TDS and nitrate concentrations in San Antonio Creek water average about 230 mgl and non-detect, respectively, for the period of 2013 through 2017. These averages are consistent with the SAWC's October 9, 2018 water quality sample analysis, which had TDS and nitrate concentrations of 190 mgl and non-detect, respectively. The current ambient TDS and nitrate concentrations in the Chino-North GMZ are 360 mgl and 10.3 mgl, respectively, and therefore the proposed recharge event will not encroach on the current assimilative capacity or interfere with Watermaster and the IEUA's regulatory obligations. In fact, the proposed recharge event will be helpful in complying with Watermaster and the IEUA's maximum benefit commitment in the Basin Plan. There will be no adverse TDS or nitrate concentration impacts from the proposed recharge.

Water Quality Impacts on Other Pumpers

We investigated the occurrence of observed groundwater contamination in the vicinity of the spreading basins proposed to be used in the June 4, 2019 recharge application. We compared observed concentrations of chemicals regulated under Title 22 drinking water regulations at Monte Vista Water District (MVWD) wells to Title 22 maximum contaminant levels (MCLs). Contaminants with observations exceeding MCLs included 1,2,3-Trichloropropane (TCP), 1,2-Dibromo-3-chloropropane (DBCP), nitrate, and perchlorate—with all but TCP being commonly observed contaminants in areas previously used in citrus cultivation in the Chino Valley area. The source of TCP could be industrial, agricultural, or both.

Figure 1 shows the northwest part of the Chino Basin; the locations of municipal wells, recharge facilities, and management zones; and directional flow vectors. Figure 1 also shows the maximum observed TCP concentration at municipal wells during the five-year period of July 2013 to June 2018. Review of Figure 1 indicates that several wells in this area have TCP concentrations that exceed the California maximum contaminant level (MCL) of 0.005 ugl. At this time, the source(s) and spatiotemporal distribution of TCP contamination in groundwater in this area have not been characterized. The regional groundwater-flow direction in this area is generally south as indicated by the vectors shown on Figure 1. Most of the managed artificial recharge (MAR) at the College Heights, Upland, and Montclair spreading basins appears to be captured by MVWD wells and to a lesser degree by City of Pomona (Pomona) wells.

We compared the time history of nitrate concentrations at MVWD wells in the vicinity of the College Heights, Upland, and Montclair spreading basins with the volumes of recharge at these facilities, and concluded that the historical recharge at these spreading basins has not had a significant effect on the nitrate concentrations of these wells. And, by extension, recharge at these facilities has not had a significant effect on TCP, DBCP, or perchlorate concentrations.

The proposed recharge of 2,500 af is not unusually large compared to historical recharge at the College Heights, Upland, and Montclair spreading basins, and it will not significantly change the direction and speed of groundwater flow in the area between the recharge basins and the wells owned by the MVWD. Based on this analysis, we conclude that the recharge proposed by the SAWC will not significantly impact the water quality at wells.

Conclusion and Recommendations

Our professional opinion is that there will be no MPI due to the SAWC's proposed recharge, as described in its June 4, 2019 recharge application. An 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 supplemental water recharged and stored by the SAWC.

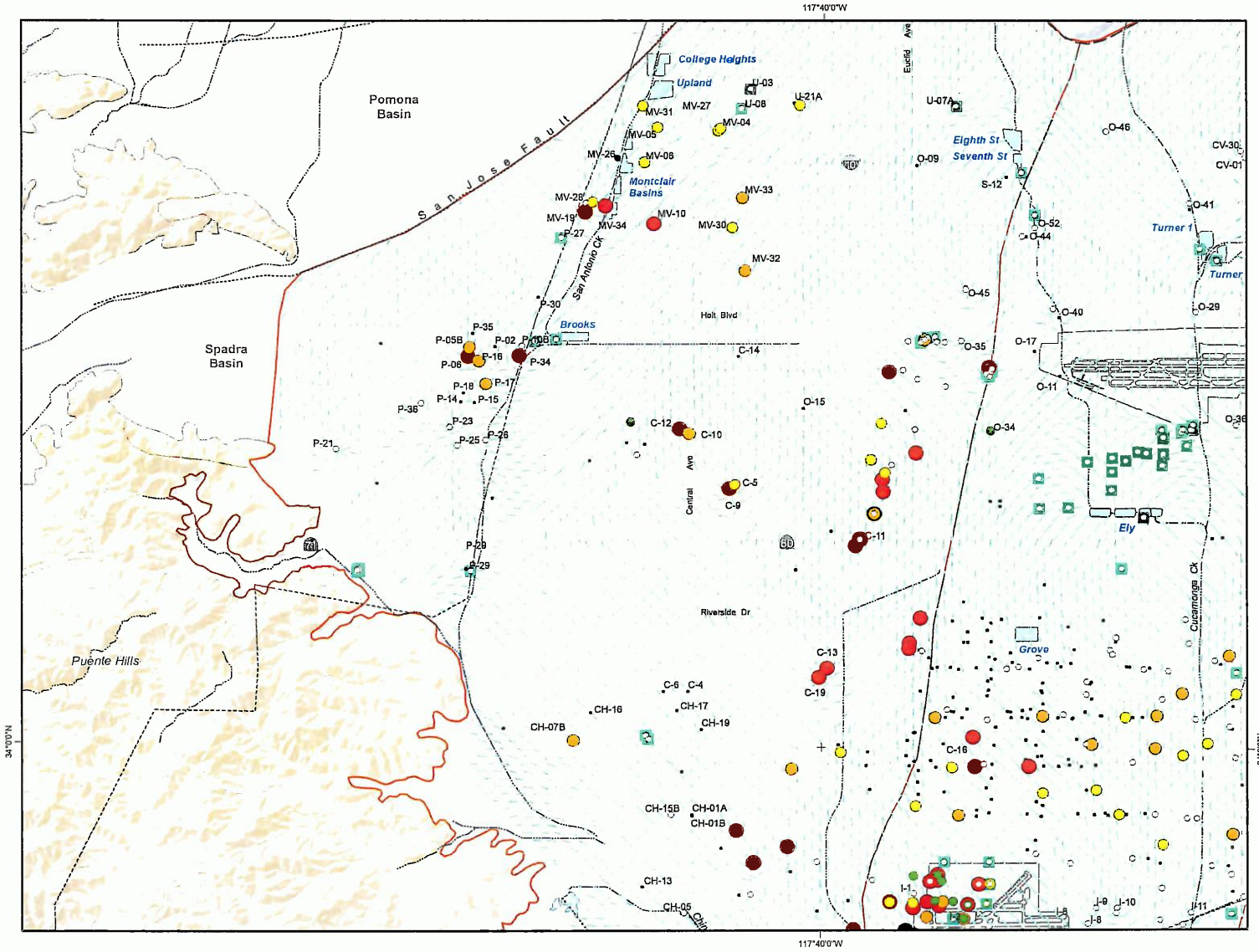
Please contact either of us if you have any questions or concerns regarding this MPI analysis.

Very truly yours,

Wildermuth Environmental, Inc.

Carolina Sanchez, PE
Senior Engineer

Mark Wildermuth, PE
President, Principal Engineer



TCP (µgl)

- ND
- < 0.0025
- 0.0025 - 0.005
- 0.005 - 0.01
- 0.01 - 0.02
- > 0.02

California Primary MCL = 0.005 µgl

Well Sampled for TCP but the Method Detection Limit was Greater than the MCL of 0.005 µgl

Active production well in FY 2017/2018 with no TCP concentration data

Groundwater-flow Direction Vector (September 2018)

OBMP Management Zones

Streams & Flood Control Channels

Flood Control & Conservation Basins

In December 2017, California adopted a Primary MCL for TCP of 0.005 µgl, which was equivalent to the California NL established in 1999. TCP was used historically as a solvent, an extractive agent, a paint remover, a cleaning and degreasing agent, and in the manufacturing of soil fumigants for agriculture.
This reporting period is not the most accurate representation of the occurrence of TCP relative to the MCL due to the use of laboratory analytical methods with detection limits significantly greater than the MCL, as shown by the teal squares.

Prepared by:
WEI
Wildermuth Environmental, Inc.

Author: CS
Date: 7/23/2019
File: TCP_vectors_v2_2014-2018.mxd

0 0.5 1 1.5 Miles
0 1 2 Km

Prepared for:
Material Physical Injury
SAWC's June 4 Recharge Application

Chino Basin Watermaster

1,2,3-Trichloropropane (TCP) in Groundwater
Maximum Concentration (2014 to 2018)

Figure 1

CHINO BASIN WATERMASTER

I. CONSENT CALENDAR

D. WATER TRANSACTION

CHINO BASIN WATERMASTER

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

PETER KAVOUNAS, P.E.
General Manager

STAFF REPORT

DATE: October 24, 2019

TO: Board Members

SUBJECT: Water Transactions (Consent Calendar Item I.D.)

SUMMARY

Issue: The transfer of 954.5 acre-feet of Permanent Safe Yield Rights, 954.5 acre-feet of Fiscal Year 2019-20 Annual Carryover, and 2,790.2 acre-feet of Excess Carryover from GenOn California South, LP (formerly NRG California South, LP) to the City of Ontario (Non-Ag).

Recommendation: Approve the proposed transaction.

Financial Impact: None

Future Consideration
Watermaster Board – October 24, 2019: Approval (within Watermaster powers and duties).

ACTIONS:
Appropriative Pool – September 12, 2019: Unanimously recommended Advisory Committee to recommend to the Watermaster Board to approve.
Non-Agricultural Pool – September 12, 2019: Unanimously recommended its representatives to support at Advisory Committee and Watermaster Board subject to changes they deem necessary.
Agricultural Pool – September 12, 2019: Unanimously recommended Advisory Committee to recommend to the Watermaster Board to approve.
Advisory Committee – October 17, 2019: Unanimously recommended to the Watermaster Board to approve.
Watermaster Board – October 24, 2019:

BACKGROUND

The Court approved the Peace Agreement, the 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 transaction. Where the request for Watermaster approval is submitted by a party to the Judgment, there is a rebuttable presumption that most of the transactions 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).

The following application for water transaction is attached with the notice of application:

- The transfer of 954.5 acre-feet of Permanent Safe Yield Rights, 954.5 acre-feet of Fiscal Year 2019-20 Annual Carryover, and 2,790.2 acre-feet of Excess Carryover from GenOn California South, LP to the City of Ontario (Non-Ag).

The date of this application is September 3, 2019. Notice of the transaction was transmitted electronically and mailed on September 6, 2019, along with the materials submitted by the requestors.

DISCUSSION

Section 6 (b) of Exhibit G to the Restated Judgment (the NAP Pooling Plan) is as follows: "the members of the pool shall have the right to Transfer or lease their quantified production rights within the pool or to Watermaster in conformance with the procedures described in the Peace Agreement between the parties therein, dated June 29, 2000 for the term of the Peace Agreement."

Mountain Vista Power Generation Company, LLC intervened into the Judgment as an Overlying Non-Agricultural Party in Fiscal Year 1997-98. Through various mergers and corporate reorganizations, it became RRI Energy West, Inc. RRI Energy West, Inc. became GenOn West, LP in Fiscal Year 2010-11. GenOn West, LP changed its name to NRG California South, LP in 2013. NRG California South, LP has since changed its name to GenOn California South, LP in March of 2019. GenOn California South, LP currently has 954.5 acre-feet of Safe Yield in the Overlying Non-Agricultural Pool. The City of Ontario (Non-Ag) intervened into the Judgment as an Overlying Non-Agricultural Pool Party in 2008. It currently has 2,966.0 acre-feet of Safe Yield in the Overlying Non-Agricultural Pool.

GenOn California South, LP and the City of Ontario (Non-Ag) have submitted Consolidated Forms 3, 4 & 5 (Application for Sale or Transfer of Right to Produce Water from Storage, Application or Amendment to Application to Recapture Water in Storage, and Application to Transfer Annual Production Right or Safe Yield). The Application indicates that the amount of Safe Yield to be permanently transferred from GenOn California South, LP by City of Ontario (Non-Ag) is 954.5 are-feet. The Parties have indicated that the transfer is to be effective for Fiscal Year 2019-20. After the transfer, GenOn California South, LP's remaining adjudicated Safe Yield right will be 0.0 acre-feet. The City of Ontario (Non-Ag's) adjudicated Safe Yield will be 3,920.5 acre-feet. This transfer does not involve any change of use or additional groundwater extractions not provided for under the Judgment. As a result, the transfer will not result in any "material physical injury" to any Party.

Any variances between the amounts that are actually transferred to the City of Ontario versus the amounts estimated or projected herein, regardless of whether such variance is due to GenOn's use of water in Fiscal Year 2019-20 or otherwise, will be resolved between the parties based on the terms of their agreement (see Attachment 3).

Beyond confirmation of the source of the water to be transferred (Supplemental Water or Excess Carryover), Watermaster will evaluate the eventual disposition of the transferred water (e.g. production, storage, etc.) at the end of the production year and account for the same consistent with the Watermaster Guidance Documents.

Water transactions occur each year and are included as production by the respective entity (if produced) in any relevant analyses conducted by Wildermuth Environmental pursuant to the Peace Agreement and the Rules & Regulations. There is no indication additional analysis regarding this transaction is necessary at this time. As part of the OBMP Implementation Plan, continued measurement of water levels and the installation of extensometers are planned. Based on no real change in the available data, we cannot conclude that the proposed water transaction will cause material physical injury to a party or to the Basin.

All three Pool Committees unanimously recommended Advisory Committee approval at their September 12, 2019 meetings. The Advisory Committee unanimously recommended Board approval of the transaction at its October 17, 2019 meeting.

ATTACHMENTS

1. Consolidated Forms 3, 4 & 5
2. Notice Forms
3. Letter dated September 3, 2019, from GenOn California South, LP and the City of Ontario (Non-Ag), re: Permanent Transfer of Safe Yield.

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Consolidated Forms 3, 4 & 5

CONSOLIDATED WATER TRANSFER FORMS:
FORM 3: APPLICATION FOR SALE OR TRANSFER OF RIGHT TO PRODUCE WATER FROM STORAGE
FORM 4: APPLICATION OR AMENDMENT TO APPLICATION TO RECAPTURE WATER IN STORAGE
FORM 5: APPLICATION TO TRANSFER ANNUAL PRODUCTION RIGHT OR SAFE YIELD

FISCAL YEAR 2019 - 2020

954.54 AFY Safe Yield Right
954.54 AF Carry Over

DATE REQUESTED: Sept. 3, 2019 **AMOUNT REQUESTED:** 2,790.191 Acre-Feet Excess Carry Over

TRANSFER FROM (SELLER / TRANSFEROR):	TRANSFER TO (BUYER / TRANSFEREE):
GenOn California South, LP	Ontario, City of (Non-Ag)
Name of Party	Name of Party
1360 Post Oak Blvd. Suite 2000	1425 S. Bon View Ave.
Street Address	Street Address
Houston TX 77056	Ontario CA 91761
City State Zip Code	City State Zip Code
(404) 915-9693	(909) 395-2094
Telephone	Telephone
Facsimile	Facsimile

Have any other transfers been approved by Watermaster between these parties covering the same fiscal year? Yes ☐ No ☒

PURPOSE OF TRANSFER:

- ☐ Pump when other sources of supply are curtailed
- ☒ Pump to meet current or future demand over and above production right
- ☐ Pump as necessary to stabilize future assessment amounts
- ☒ Other, explain Desalter Replenishment Obligation

WATER IS TO BE TRANSFERRED FROM:

- ☐ Annual Production Right (Appropriative Pool) or Operating Safe Yield (Non-Agricultural Pool)
- ☐ Storage
- ☐ Annual Production Right / Operating Safe Yield first, then any additional from Storage
- ☒ Other, explain Stored Water (Excess Carry Over), Carry Over, and permanent transfer of Safe Yield

WATER IS TO BE TRANSFERRED TO:

- ☐ Annual Production Right / Operating Safe Yield (common)
- ☐ Storage (rare)
- ☒ Other, explain Stored Water (Excess Carry Over), Carry Over, and permanent transfer of Safe Yield

IS THE 65/15 RULE EXPECTED TO APPLY? (If yes, all answers below must be "yes.")	Yes ☐	No ☒
Is the Buyer an 65/15 Party?	Yes ☐	No ☐
Is the purpose of the transfer to meet a current demand over and above production right?	Yes ☐	No ☐
Is the water being placed into the Buyer's Annual Account?	Yes ☐	No ☐

IF WATER IS TO BE TRANSFERRED FROM STORAGE:

Varies
Projected Rate of Recapture

Indefinite (Permanent transfer)
Projected Duration of Recapture

METHOD OF RECAPTURE (e.g. pumping, exchange, etc.):

Any use allowed under the judgment and agreements, including but not limited to use on City property and Desalter Replenishment Obligation.

PLACE OF USE OF WATER TO BE RECAPTURED:

Management Zones 2 & 3

LOCATION OF RECAPTURE FACILITIES (IF DIFFERENT FROM REGULAR PRODUCTION FACILITIES):

N/A

WATER QUALITY AND WATER LEVELS

Are the Parties aware of any water quality issues that exist in the area? Yes ☒ No ☐

If yes, please explain:

Water quality in the area is characterized by areas of high nitrate, perchlorate, and VOC concentrations. Water is treated or blended as necessary to meet water quality standards.

What are the existing water levels in the areas that are likely to be affected?

Groundwater elevation ranges from 525 to 650 feet above mean sea level.

MATERIAL PHYSICAL INJURY

Are any of the recapture wells located within Management Zone 1? Yes ☐ No ☒

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 ☒

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?

SAID TRANSFER SHALL BE CONDITIONED UPON:

(1) Transferee shall exercise said right on behalf of Transferor under the terms of the Judgment, the Peace Agreement, the Peace II Agreement, and the Management Zone 1 Subsidence Management Plan for the period described above. The first water produced in any year shall be that produced pursuant to carry-over rights defined in the Judgment. After production of its carry-over rights, if any, the next (or first if no carry-over rights) water produced by Transferee from the Chino Basin shall be that produced hereunder.

(2) Transferee shall put all waters utilized pursuant to said Transfer to reasonable beneficial use.

(3) Transferee shall pay all Watermaster assessments on account of the water production hereby Transferred.

(4) Any Transferee not already a party must Intervene and become a party to the Judgment.

ADDITIONAL INFORMATION ATTACHED Yes ☒ No ☐ Cover letter

Seller / Transferor Representative Signature

David Freysinger, President
Seller / Transferor Representative Name (Printed)

Buyer / Transferee Representative Signature

Katie Gienger, Water Resources Mgr.
Buyer / Transferee Representative Name (Printed)

TO BE COMPLETED BY WATERMASTER STAFF:

DATE OF WATERMASTER NOTICE: _____

DATE OF APPROVAL FROM APPROPRIATIVE POOL: _____

DATE OF APPROVAL FROM NON-AGRICULTURAL POOL: _____

DATE OF APPROVAL FROM AGRICULTURAL POOL: _____

HEARING DATE, IF ANY: _____

DATE OF ADVISORY COMMITTEE APPROVAL: _____

DATE OF BOARD APPROVAL: _____

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CHINO BASIN WATERMASTER

NOTICE

OF

APPLICATION(S)

RECEIVED FOR

WATER TRANSACTIONS – ACTIVITIES

Date of Notice:

September 6, 2019

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.

TRANSFER OF WATER

A party to the Judgment has submitted a proposed transfer of water 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 transfer. Watermaster staff is not aware of any evidence to suggest that this transfer would cause material physical injury and hereby provides this notice to advise interested persons that this transfer 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 transfer begins the Watermaster process (comes before Watermaster).

NOTICE OF APPLICATION(S) RECEIVED

Date of Application: **September 3, 2019** Date of this notice: **September 6, 2019**

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

- Notice of Sale or Transfer – The purchase of 954.5 acre-feet of Permanent Safe Yield Rights, 954.5 acre-feet of Fiscal Year 2019-20 Annual Carryover, and 2,790.2 acre-feet of Excess Carryover from Genon California South, LP by the City of Ontario (Non-Ag).

This ***Application*** will first be considered by each of the respective pool committees on the following dates:

Appropriative Pool:	September 12, 2019
Non-Agricultural Pool:	September 12, 2019
Agricultural Pool:	September 12, 2019

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

September 3, 2019

VIA EMAIL

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

SUBJECT: PERMANENT TRANSFER OF SAFE YIELD

Dear Mr. Kavounas:

The City of Ontario (City) and GenOn California South, LP (GenOn), a member of the Non-Agricultural (Overlying) Pool, jointly submit the enclosed executed water transfer forms. The forms indicate the City's purchase of the entirety of GenOn's interest in Chino Basin Water Rights, including all stored water, all carry over water, and a permanent transfer of GenOn's share of Safe Yield. The balances shown on the attached forms are correct to the best of both parties' knowledge based on estimates as of July 1, 2019 obtained from Watermaster and a projection for FY 2019-20 that assumes incidental use by GenOn prior to the closing of the transaction.

It is the intent of both parties to transfer the entirety of GenOn's water rights and stored water. Any variances between the amounts that actually are transferred to the City versus the amounts estimated or projected herein, regardless of whether such variance is due to GenOn's use of water in FY 2019-20 or otherwise, will be resolved as between the parties based on the terms of their agreement. Under the terms of the parties' agreement, GenOn's production of water from the Basin must cease upon closing of the purchase, which is anticipated to take place in January 2020.

If you have any questions or require any additional information, please contact Katie Gienger, Water Resources Manager for the City of Ontario, at (909) 395-2694 or Jonathan Sacks, Sr. Vice President, Strategy for GenOn, at (404) 915-9693 or via email at jon.sacks@genon.com.

[signatures on next page]

Sincerely,

David Freysinger
President
GenOn California South, LP
c/o GenOn Holdings, LLC

Katie Gienger, P.E.
Water Resources Manager
City of Ontario

Enclosures:
Consolidated Forms 3, 4 & 5

CHINO BASIN WATERMASTER

II. BUSINESS ITEMS

A. CHINO BASIN WATERMASTER ANNUAL FINANCIAL REPORT FOR THE FISCAL YEARS ENDED JUNE 30, 2019 AND 2018; AND THE CHINO BASIN WATERMASTER MANAGEMENT REPORT FOR JUNE 30, 2019

CHINO BASIN WATERMASTER

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

PETER KAVOUNAS, P.E.
General Manager

STAFF REPORT

DATE: October 24, 2019

TO: Board Members

SUBJECT: Chino Basin Watermaster Annual Financial Report for the Fiscal Years Ended June 30, 2019 and 2018; and the Chino Basin Watermaster Management Report for June 30, 2019 (Business Item II.A.)

SUMMARY

Issue: Two reports (Annual Financial Report for the Fiscal Years Ended June 30, 2019 and 2018 dated October 24, 2019; and Management Report for June 30, 2019 dated October 24, 2019) have been prepared.

Recommendation: Receive and file (1) the Chino Basin Watermaster Annual Financial Report for the Fiscal Years Ended June 30, 2019 and 2018 dated October 24, 2019; and (2) the Chino Basin Watermaster Management Report for June 30, 2019 dated October 24, 2019.

Financial Impact: There is no financial impact.

Future Consideration
Watermaster Board – October 24, 2019: Receive and File (Normal Course of Business)

ACTIONS:
Watermaster Board – October 24, 2019:

BACKGROUND

Chino Basin Watermaster is required to have an annual audit every year.

DISCUSSION

Attached is the Chino Basin Watermaster Annual Financial Report for the Fiscal Years Ended June 30, 2019 and 2018 dated October 24, 2019; and the Chino Basin Watermaster Management Report for June 30, 2019 dated October 24, 2019. Please note that these reports are in draft format and the final version will be distributed several weeks after the Board has received and filed the draft reports. Watermaster does not anticipate or expect any material changes between the draft and final versions. Both the Annual Financial Report and the Management Report was issued by the audit firm of Fedak & Brown LLP, Watermaster's auditor.

The Independent Auditor's Report is detailed on pages 4-6 of the Annual Financial Report. Fedak & Brown LLP audited the financial statements of Chino Basin Watermaster as of and for the years ended June 30, 2019 and 2018. In the opinion of Fedak & Brown LLP, the financial statements referred to above present fairly, in all material respects, the respective financial position of the Watermaster, as of June 30, 2019 and 2018, and the respective changes in financial position, and, where applicable, cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Furthermore, Fedak & Brown LLP made the following comments with respect to the audit:

1. Did not identify and deficiencies in internal control to be material weaknesses.
2. Performed the audit according to the planned scope and timing requirements as previously communicated to management as stated in the Audit Engagement letter dated March 26, 2019.
3. Significant accounting policies used by the Watermaster are described in Note 1 to the financial statements. No new accounting policies were adopted, and the application of existing policies was not changed during 2019.
4. Noted no transactions entered into by the Watermaster during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.
5. Noted no issues with Management's Judgments, Accounting Estimates and Financial Disclosures.
6. Encountered no significant difficulties in dealing with management in performing and completing the audit.
7. No disagreements with Watermaster management arose during the course of the audit of Watermaster.
8. Watermaster did not consult with other accountants about auditing and accounting matters.
9. There were no other audit findings or issues.
10. Noted five audit adjustments and or reclassifying journal entries recorded to adjust the original trial balance presented to the auditors at the start of the audit.
    a. One audit adjusting journal entry: GASB 75 - To agree deferred inflows and outflows, Net OPEB obligation, and OPEB Expense to GASB 75 Actuarial Valuation provided by actuary (JE #1).
    b. Three audit adjusting journal entries: (1) GASB 68 - To reclassify 2018 contributions to Net Pension Liability at June 30, 2019 (JE #2); (2) GASB 68 - To reclassify 2019 contributions to Deferred Outflows of Resources at June 30, 2019 (JE #3); and (3) GASB 68 - To record changes in pension liability during FY 17/18 at June 30, 2019 (JE #4).

c. One audit adjusting journal entry: (1) To record changes in the deferred outflows and deferred inflows (amortization) during FY 17/18 at June 30, 2019 (JE #5).

ATTACHMENTS

1. The Chino Basin Watermaster Annual Financial Report for the Fiscal Years Ended June 30, 2019 and 2018 dated October 24, 2019 – Please access this link https://cbwm.syncedtool.com/shares/file/d563f723e7a323/?modal=1

2. The Chino Basin Watermaster Management Report for June 30, 2019 dated October 24, 2019 – Please access this link https://cbwm.syncedtool.com/shares/file/d1d9be69b69ecd/?modal=1

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The Chino Basin Watermaster Annual Financial Report for the Fiscal Years Ended June 30, 2019 and 2018 dated October 24, 2019

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The Chino Basin Watermaster Management Report for
June 30, 2019 dated October 24, 2019
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CHINO BASIN WATERMASTER

II. BUSINESS ITEMS

B. RESTATED JUDGMENT AMENDMENT – WATERMASTER MOTION TO AMEND PARAGRAPH 36

CHINO BASIN WATERMASTER

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

PETER KAVOUNAS, P.E.
General Manager

STAFF REPORT

DATE: October 24, 2019

TO: Board Members

SUBJECT: Restated Judgment Amendment - Watermaster Motion to Amend Paragraph 36 (Business Item II.B.)

SUMMARY:

Issue: Restated Judgment Paragraph 36 needs to be amended to reflect compensation practices that have been in effect for over ten years.

Recommendation: Approve and direct Counsel to file the motion with the Court.

Financial Impact: There is no financial impact associated with the recommendation. The proposed amendment does not modify current practices.

Future Consideration
Watermaster Board – October 24, 2019: Approval (Within Watermaster Duties and Powers)

ACTIONS:
Appropriative Pool – October 10, 2019: For the sake of the public interest, the majority of the AP opposes the proposed Paragraph 36 amendment without a cap on the number of compensatory meetings; but to facilitate the Watermaster process, the majority of the AP do not oppose the proposed Paragraph 36 amendment moving forward as is, but the AP reserves the right to make comments on the proposed Agricultural Pool Pooling Plan Amendment.
Non-Agricultural Pool – October 10, 2019: The Pool offered advice and assistance previously and had nothing further to add.
Agricultural Pool – October 10, 2019: The Ag Pool directs counsel to prepare a Joinder to the Watermaster Motion to Amend Paragraph 36.
Advisory Committee – October 17, 2019: Recommended to Watermaster Board to file the motion by majority vote.
Watermaster Board – October 24, 2019:

BACKGROUND

Restated Judgment Paragraph 36 provides for compensation of Pool and Advisory Committee members. As a result of interpretation of prior agreements among Pools, practice over the past 10 years has varied from the exact provisions of Paragraph 36.

Compensation has been properly documented and transparently reported to the Judgment parties over the same time.

DISCUSSION

The Pools desire to conform provisions in Paragraph 36 with current practice and to that effect counsel has prepared the attached motion (Attachment 1) to bring the proposed revisions to the Court.

Concurrently the Overlying (Agricultural) Pool is proposing amendments to its Pooling Plan and its Rules and Regulations, consistent with the proposed revisions to Paragraph 36. These were presented to the Pools as separate items.

ATTACHMENTS
1. Motion
2. Proposed Order

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Attorneys for
CHINO BASIN WATERMASTER

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF SAN BERNARDINO

CHINO BASIN MUNICIPAL WATER DISTRICT,

Plaintiff,

v.

CITY OF CHINO, et al.,

Defendant.

Case No. RCV RS51010

[Assigned for All Purposes to the Honorable STANFORD E. REICHERT]

NOTICE OF MOTION AND MOTION FOR COURT APPROVAL OF AMENDMENTS TO RESTATED JUDGMENT REGARDING COMPENSATION OF WATERMASTER POOL AND ADVISORY COMMITTEE MEMBERS

Date: December 13, 2019
Time: 1:30 pm
Dept.: S35

[Filed concurrently herewith: Declarations of Bradley J. Herrema and Joseph S. Joswiak in support of Notice or Motion and Motion for Court Approval of Amendments to Restated Judgment Regarding Compensation of Watermaster Pool and Advisory Committee Members]

TO ALL PARTIES AND TO THEIR RESPECTIVE ATTORNEYS OF RECORD:

PLEASE TAKE NOTICE THAT the Chino Basin Watermaster ("Watermaster") hereby moves this Court, pursuant to Paragraph 15 of the Restated Judgment in this action, for an Order

approving amendments to the Restated Judgment regarding compensation of members of the Pool and Advisory Committees. This request is made pursuant to the Court's continuing jurisdiction and authority to make such further or supplemental orders or directions as may be necessary or appropriate for interpretation, enforcement or carrying out of the Restated Judgment, and to modify, amend or amplify any of the provisions of the Restated Judgment.

The Motion is based upon this Notice of Motion and Motion, the attached Memorandum of Points and Authorities, the pleadings, records, and files in this action, and upon such oral argument and other evidence as may be presented at the hearing on the Motion.

As described in the Declarations of Joseph S. Joswiak and Bradley J. Herrema in support of Motion for Court Approval of Amendments to Restated Judgment Regarding Compensation of Watermaster Pool and Advisory Committee Members, the filing of the motion was approved by the members of the Watermaster Board at the Board's October 24, 2019 regular meeting.

Dated: October ____, 2019

BROWNSTEIN HYATT FARBER SCHRECK, LLP

By: _____
BRADLEY J. HERREMA
Attorneys for
CHINO BASIN WATERMASTER

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MEMORANDUM OF POINTS AND AUTHORITIES

I. INTRODUCTION

Pursuant to Paragraph 15 of the Restated Judgment in this action, the Chino Basin Watermaster ("Watermaster") respectfully requests that the Court grant this Motion and the relief herein requested, pursuant to the Court's powers to amend or amplify any of the provisions of the Chino Basin Judgment ("Restated Judgment"). Watermaster petitions the Court to approve an amendment to Paragraph 36 of the Restated Judgment which would conform the Restated Judgment to longstanding practices as to Committee member compensation for attendance at events at the Committee's direction.

II. BACKGROUND

Pursuant to this Court's continuing jurisdiction, reserved to it by Paragraph 15 of the Restated Judgment, upon application of any party by a properly noticed motion and after hearing thereon, the Court may "…make such further or supplemental orders or directions as may be necessary or appropriate for interpretation, enforcement or carrying out of this Judgment, and to modify, amend or amplify any of the provisions of the Judgment." (Restated Judgment, ¶ 15.)

A. The Pool and Advisory Committees

Pursuant to the Restated Judgment[1], Watermaster was authorized and directed to cause committees of producer representatives to be organized, including Pool Committees, "for each of the several pools created under the Physical solution" and each Pool Committee "in turn, jointly form[ing] an Advisory Committee to assist Watermaster in performance of its functions under this judgment." Pool Committees are composed as specified in the respective pooling plans, and the Advisory Committee is composed of up to ten voting representatives from each pool, as designated by the respective Pool Committee in accordance with each pool's pooling plan. (*Id.*)

As Paragraph 36 of the Restated Judgment presently reads, compensation is to be paid to

[1] On September 27, 2012, this Court entered an Order Adopting Restated Judgment, Approving Intervention of Tad Nakase (TDN Land Company) into the Chino Basin Judgment. Pursuant to that Order, the Court ordered that the Restated Judgment shall serve as the official and legally operative copy of the Judgment in this case. All references to the "Judgment" herein are to that Restated Judgment.

Pool and Advisory Committee members as follows:

> Compensation. Pool or Advisory Committee members may receive compensation, to be established by the respective pooling plan, but not to exceed twenty-five dollars ($25.00) for each meeting of such Pool or Advisory Committee attended, and provided that no member of a Pool or Advisory Committee shall receive compensation of more than three hundred ($300.00) dollars for service on any such committee during any one year. All such compensation shall be a part of Watermaster administrative expense. No member of any Pool or Advisory Committee shall be employed by Watermaster or compensated by Watermaster for professional or other services rendered to such Pool or Advisory Committee or to Watermaster, other than the fee for attendance at meetings herein provided, plus reimbursement of reasonable expenses related to activities within the Basin.

(Restated Judgment, ¶ 36.)

B. Pool Committee Member Compensation

The members of the Overlying (Agricultural) Pool ("Ag Pool") Committee are the only Pool Committee members who have, prior to the present Fiscal Year, received compensation for attendance at Watermaster meetings.[2] Prior to July 2009, according to the Ag Pool expense reports, the Agricultural Pool members were compensated $125 for regular and special committee meetings of the Ag Pool, Appropriative Pool, Advisory Committee and Watermaster Board and for subcommittees and workshops.[3] (Joswiak Declaration, ¶ 3.) Of that, $25 was compensated from the Appropriative Pool Fund, which was the established compensation account, until the $300 maximum was met. (Joswiak Declaration, ¶ 4.) The remaining $100 per meeting came from a separate Agricultural Pool interest account. (Joswiak Declaration, ¶ 5.)

In April 2009, meeting compensation charges for the members of the Ag Pool were transferred entirely to the Appropriative Pool Fund. (Joswiak Declaration, ¶ 6.) According to Watermaster's financial records, starting in July 2009, the practice of charging the amounts in account 8470 against the Ag Pool Fund balance stopped. (Joswiak Declaration, ¶ 7.) There were

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[2] On February 14, 2019, the Overlying (Non-Agricultural) Pool ("Non-Ag Pool") Committee took action to initiate the process through which its members could receive compensation for meeting attendance, and Watermaster staff has been working with the Non-Ag Pool Committee to provide a budget and process for compensation of Non-Ag Pool Committee members beginning in Fiscal year 2019-20. (Joswiak Declaration, ¶ 8.)

[3] Pursuant to Restated Judgment Paragraph 18(b), members of the Watermaster Board are compensated $125 for each day's attendance at meetings at the direction of the Board. (Restated Judgment, ¶ 18(b).)

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no longer any adjustments against the Ag Pool Fund balance, and the Appropriative Pool Fund started to pay all of the Ag Pool expenses, including member compensation for attendance at all meetings, workshops, and hearings attended. (*Id.*) Since July 2009, the Ag Pool general administrative expenses and special project expenses have been included within the Watermaster fiscal year budget, which is approved by the Advisory Committee and adopted by the Watermaster Board each year. (*Id.*) At no time have there been objections from any Pool with regard to the Watermaster budget approvals including these expenses. (*Id.*)

III. THE COURT SHOULD APPROVE THE REQUESTED AMENDMENTS

In late September 2019, Watermaster staff was requested to develop a proposed amendment to Paragraph 36 of the Restated Judgment that would conform the language to the long-time practice of Pool Committee member compensation. It is proposed that Paragraph 36 be amended to read as follows:

> Compensation. Pool or Advisory Committee members may receive compensation, to be established by the respective pooling plan or Committee rules and regulations, but not to exceed one hundred twenty-five dollars ($125.00) for each meeting, workshop, or hearing attended or at the direction of such Pool or Advisory Committee. All such compensation shall be a part of Watermaster administrative expense. No member of any Pool or Advisory Committee shall be employed by Watermaster or compensated by Watermaster for professional or other services rendered to such Pool or Advisory Committee or to Watermaster, other than the fee for attendance at meetings herein provided, plus reimbursement of reasonable expenses related to activities within the Basin.

This language modifies compensation for Committee members' attendance at meetings as follows: (1) compensation for attendance at meetings, workshops, and hearings is increased to the $125 amount that members of the Ag Pool Committee have been paid for more than 10 years; and (2) compensation is no longer subject to an annual cap.[4]

[4] In addition to conforming to current practices, these changes are consistent with the purpose of the Court's August 30, 2013 Order Revising February 19, 1998 Ruling Appointing a Nine Member Watermaster Board ("2013 Order") that allowed individual members of the Ag Pool to serve concurrently on the Watermaster Board while serving as a member of the Advisory Committee or the Ag Pool Committee. That order was entered "in order to preserve the remaining members of the Pool's ability to be represented themselves in the Watermaster process". (2013 Order at 3.) Over six years ago, this Court recognized that Ag Pool Committee and Advisory Committee member service overlapped and that alternates on the Watermaster Board were also members of the Pool Committee was indicative of the dwindling number of active participants in the Ag Pool. Due to this declining trend of activity, the Court found "that it may be difficult to

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During the October 2019 regular meetings of the Pool Committees, Advisory Committee, and Watermaster Board, an item was placed on each agenda for review and consideration of a draft motion seeking the amendment of Paragraph 36 of the Restated Judgment to conform to the longstanding practices regarding compensation of Committee members. (Herrema Declaration, at ¶ 3.) At its regularly scheduled meeting on October 10, 2019, the Appropriative Pool Committee stated that for the sake of the public interest, the majority of the Appropriative Pool opposes the proposed Paragraph 36 amendment without a cap on the number of compensatory meetings; but to facilitate the Watermaster process, the majority of the Appropriative Pool do not oppose the proposed Paragraph 36 amendment moving forward as is, but the Appropriative Pool reserves the right to make comments on a proposed Agricultural Pool Pooling Plan Amendment. (Herrema Declaration, ¶ 4.) At its October 10, 2019 meeting, the Overlying (Non-Agricultural) Pool Committee indicated that it had offered advice and assistance previously and had nothing further to add on the topic of the proposed amendment to Paragraph 36. (Herrema Declaration, ¶ 5.) At its October 10, 2019 meeting, the Overlying (Agricultural) Pool Committee directed its legal counsel to prepare a joinder to Watermaster's motion to amend Paragraph 36 of the Restated Judgment. (Herrema Declaration, ¶ 6.)

At its October 17, 2019 regular meeting, the Advisory Committee considered this proposed amendment and recommended the Watermaster Board move the Court to amend Restated Judgment Paragraph 36 by a majority volume vote. (Herrema Declaration, ¶ 7.) On October 24, 2019, the members of the Watermaster Board voted to seek this Court's approval of an amendment to the Restated Judgment, consistent with the Committees' requests and directed Watermaster legal counsel to take the necessary actions to obtain approval of this amendment. (Herrema Declaration, ¶ 8.)

IV. CONCLUSION

For the reasons stated above, there is good cause to grant Watermaster's Motion, amending paragraph 36 of the Restated Judgment as described herein.

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find within the Agricultural Pool's membership a sufficient number of representatives to fill all of the positions on the Agricultural Pool Committee." (*Id.*)

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Dated: October ____, 2019

BROWNSTEIN HYATT FARBER SCHRECK, LLP

By: _____
BRADLEY J. HERREMA
Attorneys for
CHINO BASIN WATERMASTER

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SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF SAN BERNARDINO

CHINO BASIN MUNICIPAL WATER DISTRICT,

Plaintiff,

v.

CITY OF CHINO, et al.,

Defendant.

Case No. RCV RS 51010

[Assigned for All Purposes to the Honorable Stanford E. Reichert]

[PROPOSED] ORDER GRANTING MOTION FOR COURT APPROVAL OF AMENDMENTS TO RESTATED JUDGMENT REGARDING COMPENSATION OF WATERMASTER POOL AND ADVISORY COMMITTEE MEMBERS

[PROPOSED] ORDER

On December 13, 2019, in Department S35 of the above-entitled Court, the Chino Basin Watermaster's ("Watermaster") Motion for Court Approval of Amendments to Restated Judgment Regarding Compensation of Watermaster Pool and Advisory Committee Members came on regularly for hearing in the above-captioned matter. Having read and considered the papers and heard the arguments of counsel, if any, the Motion is **GRANTED**. Paragraph 36 of the Restated Judgment shall be amended to read as follows:

> Compensation. Pool or Advisory Committee members may ~~receive~~ compensation, to be established by the respective pooling plan ~~or~~ Committee rules and regulations, but not to exceed one hundred twenty-five dollars ($125.00) for each meeting, ~~work~~shop, or hearing attended or at the direction of such Pool or Advisory Committee. All such compensation shall be a part of Watermaster administrative expense. ~~No~~ member of ~~any~~ Pool or Advisory Committee shall be employed by Watermaster ~~or~~ compensated by Watermaster for professional or other services ~~rendered~~ to such Pool or Advisory Committee or to ~~Water~~master, ~~other~~ than the fee for attendance at meetings herein provided, plus reimbursement of reasonable ~~expenses~~ related to activities ~~within the~~ Basin.

Dated: _____

_____
Hon. Stanford E. Reichert
Judge of the Superior Court

CHINO BASIN WATERMASTER

II. BUSINESS ITEMS

C. RULES AND REGULATIONS 2019 UPDATE

CHINO BASIN WATERMASTER

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

PETER KAVOUNAS, P.E.
General Manager

STAFF REPORT

DATE: October 24, 2019

TO: Board Members

SUBJECT: Rules and Regulations 2019 Update (Business Item II.C.)

SUMMARY

Issue: The Rules and Regulations need to be updated to incorporate the necessary changes since the present version was adopted and approved by the Court in 2001.

Recommendation: Approve the Rules and Regulations 2019 Update. In subsequent years incorporate a periodic review not less frequently than every two years, as part of routine procedure.

Financial Impact: There is no financial impact associated with the proposed update to the Rules and Regulations. Funds for the effort have been included in the FY 2019/20 Budget.

Future Consideration
Watermaster Board – October 24, 2019: Adoption [Advisory Committee Approval Required]

ACTIONS:

Agricultural Pool – June 12, 2019: after discussion the Pool offered the following advice to the Advisory Committee:

1. The Pool would like the Advisory Committee to consider a more regular update of the Rules and Regulations, and the Pool would like for that commitment to be reflected in the Rules and Regulations.
2. The Pool would like the Advisory Committee to consider an amendment to the Rules and Regulations, a redline, to reflect that the Storage Management Plan is being drafted and that when it is final the requirements will be placed into the Rules and Regulations on a timely basis.

Appropriative Pool – June 13, 2019: After discussion the Pool requested that Watermaster provide more review time for this item and allow the Appropriative Pool until the end of July 2019 to review the Rules and Regulations 2019 Update.
Non-Agricultural Pool – June 13, 2019: After discussion and considering the Appropriative Pool request the Pool did not offer any advice.

Agricultural Pool – September 12, 2019: Discussion and advice
Appropriative Pool – September 12, 2019: Discussion and advice
Non-Agricultural Pool – September 12, 2019: Discussion and advice

Agricultural Pool – October 10, 2019, 2019: Discussion and advice
Appropriative Pool – October 10, 2019: Discussion and advice
Non-Agricultural Pool – October 10, 2019: The Pool unanimously directed Pool counsel to provide comments to staff and Watermaster counsel.
Advisory Committee – October 17, 2019: The item was approved by majority vote.
Watermaster Board – October 24, 2019:

BACKGROUND

The present Watermaster Rules and Regulations (R&R) were drafted in early 2001 through an intensive process among the parties to revise the prior version; the process lasted 5 months and involved meeting more than once a week. The R&R were presented to the Special Referee, the Pool and Advisory committees, and the Watermaster Board. The Court approved the revised R&R and directed the parties to further revise the R&R to respond to the Special Referee's comments. The completed revisions to the R&R were adopted and approved by the Court in June 2001. Updates have not been incorporated into the body of the R&R since that time. An update is necessary at this time because the 2001 version is not reflective of agreements of the parties, recent orders of the Court, and other changed circumstances since the adoption of the 2001 version.

In 2017, a process was initiated, facilitated by Watermaster staff and counsel, to update the 2001 Chino Basin Watermaster R&R. A series of workshops were held, through which subsequent drafts of an updated version of the Rules and Regulations were generated. At that same time, an appeal to the Court's April 28, 2017 Court Order regarding Safe Yield and the priority of Land Use Conversions in the Agricultural Pool Reallocation was pending. Accordingly, consensus was reached that the changes captured in the 2017 final draft reflected all necessary changes other than as to the issues contemplated in the appeal, and this version was not brought forth for Advisory Committee and Board approval, as additional changes were anticipated to be possible at the conclusion of the appeal from the April 28, 2017 Order.

The Appeal was resolved in early 2019 and the Court issued an Order on March 15, 2019, which approved amendments to the Restated Judgment and ordered Watermaster to implement the Peace and Peace II agreements, as amended by agreement of the parties. As expected, the April 28, 2017 and March 15, 2019 Court Orders necessitate further changes to the R&R.

DISCUSSION

A redline version of proposed changes to the July 10, 2017 draft was circulated to the Parties on May 21, 2019, with a request for comments by June 6, 2019. A workshop was held on June 4, 2019 to discuss the changes and clarify any questions the Parties may have had, and to assist the Parties in finalizing their comments. Parties discussed their suggestions during the workshop and also submitted comments via email.

The proposed R&R revisions were modified according to input received from the Parties and were presented to the Pool Committees for further input during the June 2019 Pool Committee meetings. The advice offered by the Pool Committees during the June meetings is summarized on the second page of this staff report. Following the Pool Committee meetings Watermaster Counsel and staff held separate meetings with Parties (e.g. Jurupa Community Services District, City of Ontario) to discuss specific comments. A letter from the City of Ontario dated August 2, 2019 (received by Watermaster electronically on August 30, 2019) included further comments on the R&R. The Non-Agricultural Pool attorney had several exchanges with Watermaster Counsel to express comments on behalf of the Pool.

Comments were made during the September 2019 Pool Committee meetings as well. The Agricultural Pool expressed that the R&R will need to be further revised after the adoption of a Storage Management Plan, which is planned to be completed by June 30, 2020. The Pool Committee also expressed the view that the R&R document should be consistent throughout, and further that although a thorough re-write of the entire document will be beneficial in the future, it is the Pool's preference to proceed with the targeted update at this time. The Non-Agricultural Pool Committee commented that Section 2.7 of the R&R regarding Notice requirements also needs to be re-written. During the Appropriative Pool Committee meeting several Parties expressed their comments, some favoring a delay of the update until a comprehensive discussion on the purpose of the R&R can be held and then a complete re-write can be

undertaken; while others expressed a preference for moving forward with the targeted revisions at the present time.

On October 1 and October 3, 2019 Watermaster staff also received letters from the City of Chino and the City of Ontario with further comments, and also received a letter from Monte Vista Water District on October 7, 2019.

As a result of the continued interaction with parties a new document has been created that contains changes responsive to feedback from the parties. Specific comments and proposed language changes have been accepted to the degree possible. In general the changes are the addition of some cross references and definitions; the inclusion of the Reset Technical Memorandum, etc. Tables illustrating the Reoperation schedule and Desalter Replenishment Obligation allocation from the March 2019 Court Order have also been added. This is presented as Attachment 1 (redline) and Attachment 2 (clean version), comparing the proposed update to the 2001 version of the R&R.

A comment was raised by MVWD during the October 17, 2019 Advisory Committee meeting; after review and discussion with MVWD staff, it was determined that the proposed R&R were not inconsistent with the source document to which MVWD referred.

The Watermaster Board has an obligation to maintain updated Rules and Regulations and Watermaster staff and counsel are presenting the attached, targeted revision, with the recommendation for Advisory Committee approval. Staff recommends that in subsequent years a periodic review should be incorporated as part of routine procedure, not less frequently than every two years.

During the process several Parties have opined that the R&R should be reviewed and updated on a regular basis, and further that the 2001 version could be substantially improved via a thorough and consistent re-write. Staff is prepared to support a broad re-write of the Rules and Regulations in FY 2020/21, and will present budget projections during the regular budget approval process in the Spring 2020.

ATTACHMENTS

1. October 24, 2019 version of Rules and Regulations (Redline)
   https://cbwm.syncedtool.com/shares/file/38a145d68266be/

2. October 24, 2019 version of Rules and Regulations (Clean)
   https://cbwm.syncedtool.com/shares/file/d357e8c2952991/

October 24, 2019 version of Rules and Regulations (Redline)

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October 24, 2019 version of Rules and Regulations (Clean)

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CHINO BASIN WATERMASTER

III. REPORTS/UPDATES

D. GM REPORT

5. Watermaster 2019 Business Plan Update

CHINO BASIN WATERMASTER BUSINESS PLAN

2019 Amendment

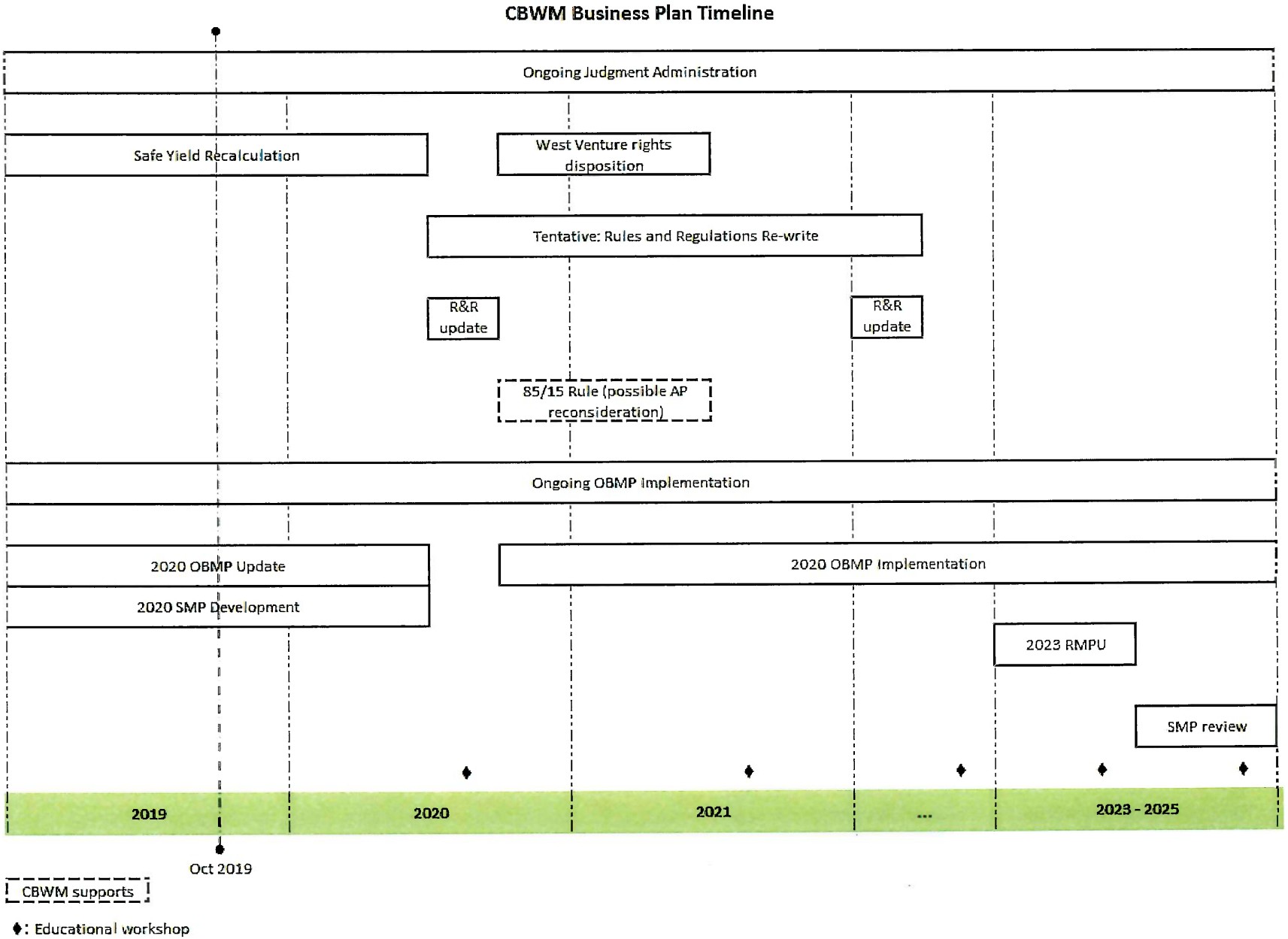
The Chino Basin Watermaster Business Plan describes the approach to getting Watermaster business done, meeting external obligations and internal functions of the organization.

The Business Plan was created in 2013 and updated in 2016, each time offering a look into a window of the following 3-4 years, and identified the projected efforts related to Judgment requirements and OBMP Implementation Plan actions.

The window described in the 2016 version is reaching its end, and it's time to recast the Business Plan. While several of the previously identified efforts have concluded, there are two significant efforts under way that will affect Watermaster business in the future: the update of the OBMP and its Implementation Plan, and the update of the associated storage management plan. When completed, around mid-2020, these efforts will result in a review and likely a revision of the Business Plan.

To make most effective use of time and resources a complete revision of the Business Plan will be done in 2020. An updated timeline is being offered along with the October 2019 Interim Organization Performance Report. This text and the attached timeline comprise the 2019 Amendment of the Business Plan.

Chino Basin Watermaster: First Organization Performance Status Report FY 2019-20 (Oct 2019)



Prepared by: PK October 2019

CHINO BASIN WATERMASTER

III. REPORTS/UPDATES

D. GM REPORT

6. First Organization Performance Status Report FY 2019/20 (Oct 2019)

Chino Basin Watermaster: First Organization Performance Status Report FY 2019-20 (Oct 2019)

Specific Goals from GM Performance Evaluation

[1] Complete OBMP Update on schedule, with buy-in from the parties
OBMP Update is on schedule. Seven workshops have been held to collect parties' input on future activities necessary for optimum basin management; these are being compiled in a scoping report that will provide the 2020 OBMP foundation. A newsletter is being distributed broadly to leaders in the region to increase awareness of the effort. A hearing has been set to brief the Court on progress.

[2] Develop and complete Storage Management Plan (SMP) on schedule
Development of the SMP is on schedule; a first draft with Watermaster requirements has been distributed to parties for review and comment.

[3] Conduct 2020 Safe Yield Recalculation and file with Court on time
The required model calibration is ongoing; held workshop to present calibration methodology, and scheduled second workshop in December to review calibration results and the planning scenario. Court approval is required by June 30, 2020 and a Court date has been set.

[4] Complete revision of five prior Assessment Packages
The Assessment Packages' revision effort is complete.

GM Activities

- Attended CalPERS Employer Leadership Dialog; Facilitation Training
- Presented at GRAcast and UCR Water Seminar Series
- Co-authored article for AWWA Source magazine
- Arranged informal presentations during lunch following Board meetings
- Held regular meetings with IEUA, CDA, WMWD, and TVMWD

Other Activities

Water Quality Colloquium: Held informational event in May 2019 on past, present, and emerging groundwater quality issues. The well-attended event included twelve sessions and a diverse group of presenters.

Joint IEUA-Watermaster Board meeting: In cooperation with IEUA management, hosted a joint meeting of the IEUA and Watermaster Boards. The purpose was for the two Boards to receive information about two regional-scale planning efforts: OBMP Update and Chino Basin Project.

Rules and Regulations 2019 Update: Concluded the effort to update the 2001 Rules and Regulations to reflect all Court Orders since that time.

Pomona Extensometer: Construction has been completed. The facility is in service after a delay due to an unusual issue with one of the wells.

Salinity Study: In cooperation with IEUA and in agreement with the RWQCB, continuing the technical work to support adoption of an averaging period for recycled water TDS concentration that is longer than the currently-approved 12-month period.

Watermaster Engineer contract renewal: Renewed the contract for Engineering Services with WEI for a five-year term.

Chino Basin Incoming Leadership Network: Organized meetings of people who are relatively new in leadership positions in various Chino Basin entities, to network and jointly learn about the function and role of IE water management agencies.

IE Admin Leadership: Sponsored the first meeting of administrative professionals from water agencies throughout the Inland Empire, to provide an opportunity for training and networking.

Reporting: Compiled and filed with the Court the 2019-1 semi-annual OBMP status report; produced the 2018 State of the Basin report; timely filed required annual diversion permits reports with the CA FWS.

Process Improvements: Continuing replacement of older transducers; started collecting PFAS samples.

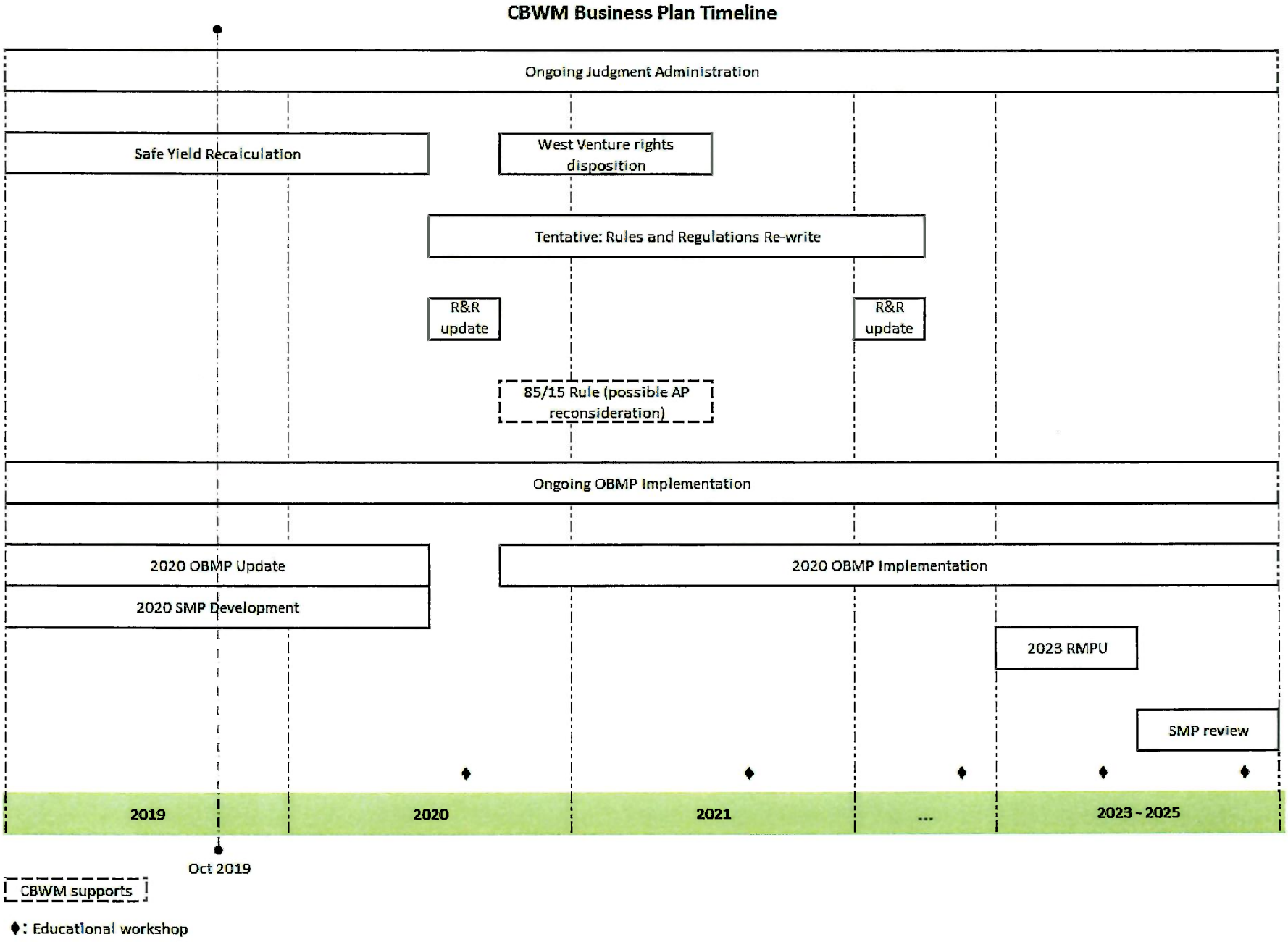
Pulse of the Organization

Personnel: Offered training to staff as needed; continued all-hands meetings, and occasional team-building activities. No turnover for one year.

Processes: Purchased truck to replace 16-year old vehicle; transitioned from in-house email server to Office 365 server; adopted MS Teams environment for more effective collaboration among staff and consultants; transitioned from T1 phone lines to Spectrum fiber optic network; obtained bids for A/V upgrades in Board Room.

Prepared by: PK October 2019

Chino Basin Watermaster: First Organization Performance Status Report FY 2019-20 (Oct 2019)



Prepared by: PK October 2019

CHINO BASIN WATERMASTER

IV. INFORMATION

1. Cash Disbursements for September 2019

Type	Date	Num	Name	Memo	Account	Paid Amount
Bill Pmt -Check	**09/03/2019**	**21675**	**BROWNSTEIN HYATT FARBER SCHRECK**		**1012 · Bank of America Gen'l Ckg**	
Bill	07/31/2019	770866		770866	6078 · BHFS Legal - Miscellaneous	22,833.90
				Angelica BK	6078 · BHFS Legal - Miscellaneous	142.20
				NRG BK	6078 · BHFS Legal - Miscellaneous	44.55
				Mileage/Parking Expense	8375 · BHFS Legal - Appropriative Pool	13.05
				Mileage/Parking Expense	8475 · BHFS Legal - Agricultural Pool	13.05
				Mileage/Parking Expense	8575 · BHFS Legal - Non-Ag Pool	13.04
				Mileage/Parking Expense	6275 · BHFS Legal - Advisory Committee	72.11
Bill	07/31/2019	770867		Alternative Workweek Schedule	6073 · BHFS Legal - Personnel Matters	445.50
Bill	07/31/2019	770868		770868	6907.34 · Santa Ana River Water Rights	1,984.50
Bill	07/31/2019	770869		770869	6275 · BHFS Legal - Advisory Committee	623.70
Bill	07/31/2019	770870		770870	6375 · BHFS Legal - Board Meeting	3,462.75
				Lodging - 07/25/19	6375 · BHFS Legal - Board Meeting	225.00
				Lodging - 07/18/19	6375 · BHFS Legal - Board Meeting	225.00
Bill	07/31/2019	770871		770871	8375 · BHFS Legal - Appropriative Pool	1,202.85
Bill	07/31/2019	770872		770872	8475 · BHFS Legal - Agricultural Pool	1,202.85
Bill	07/31/2019	770873		770873	8575 · BHFS Legal - Non-Ag Pool	1,202.85
Bill	07/31/2019	770874		770874	6071 · BHFS Legal - Court Coordination	89.10
Bill	07/31/2019	770875		770875	6072 · BHFS Legal - Rules & Regs	1,514.70
				Mileage/Parking Expense	6072 · BHFS Legal - Rules & Regs	72.12
Bill	07/31/2019	770876		770876	6907.39 · Recharge Master Plan	668.25
Bill	07/31/2019	770877		770877	6907.44 · SGMA Compliance	400.95
Bill	07/31/2019	770878		770878	6907.46 · Upper SAR Integrated Model	89.10
Bill	07/31/2019	770879		770879	6907.45 · OBMP Update	21,921.30
Bill	07/31/2019	770880		770880	6907.47 · 2020 Safe Yield Reset	445.50
Bill	07/31/2019	770881		770881	6078.13 · Assessment Packages-Updates	891.00
Bill	07/31/2019	770882		770882	6078.25 · Ely 3 Basin Investigation	688.50
TOTAL						60,487.42
Bill Pmt -Check	**09/05/2019**	**ACH 090519**	**CALPERS**	**1394905143**	**1012 · Bank of America Gen'l Ckg**	
Bill	08/14/2019	1394905143		Medical Insurance Premiums - September 2019	60182.1 · Medical Insurance	8,291.02
TOTAL						8,291.02
Bill Pmt -Check	**09/05/2019**	**21676**	**ACCENT COMPUTER SOLUTIONS, INC.**	**130026**	**1012 · Bank of America Gen'l Ckg**	
Bill	09/01/2019	130026		Monthly service - September 2019	6052.4 · IT Managed Services	4,116.00
				Overwatch - September 2019	6052.5 · IT Data Backup/Storage	699.00
				Omni Cloud - September 2019	6052.5 · IT Data Backup/Storage	117.00
				Office 365 subscriptions / Business Premium - Spe	6052.4 · IT Managed Services	158.25
				Image Office Storage (per GB, per month)	6052.5 · IT Data Backup/Storage	823.01
TOTAL						5,913.26

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	Type	Date	Num	Name	Memo	Account	Paid Amount
	Bill Pmt -Check	**09/05/2019**	**21677**	**CENTURYLINK**	**83625675**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/17/2019	83625675		8/17/19-9/16/19 - August 2019	6053 · Internet Expense	1,070.71
TOTAL							1,070.71
	Bill Pmt -Check	**09/05/2019**	**21678**	**CHAMPION NEWSPAPERS**	**8043**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/27/2019	8043		1 year subscription, Sept. 2019-Aug. 2020	6112 · Subscriptions/Publications	160.00
TOTAL							160.00
	Bill Pmt -Check	**09/05/2019**	**21679**	**CHEF DAVE'S CATERING & EVENT SERVICES**	**9812**	**1012 · Bank of America Gen'l Ckg**	
	Bill	07/25/2019	9812		Lunch for 7/25/19 Watermaster Board meeting	6312 · Meeting Expenses	600.69
TOTAL							600.69
	Bill Pmt -Check	**09/05/2019**	**21680**	**CHINO HILLS, CITY OF***	**VOID: 14**	**1012 · Bank of America Gen'l Ckg**	0.00
TOTAL							0.00
	Bill Pmt -Check	**09/05/2019**	**21681**	**EUROFINS EATON ANALYTICAL**		**1012 · Bank of America Gen'l Ckg**	
	Bill	08/16/2019	L0466856		L0466856	7108.4 · Hydraulic Control-Lab Svcs	440.00
	Bill	08/21/2019	L0467538		L0467538	7108.4 · Hydraulic Control-Lab Svcs	1,194.00
	Bill	08/26/2019	L0468433		L0468433	7103.5 · Grdwtr Qual-Lab Svcs	90.00
TOTAL							1,724.00
	Bill Pmt -Check	**09/05/2019**	**21682**	**GEYE, BRIAN**	**Board Member Compensation**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/22/2019	8/22 GLMC Mtg		8/22/19 GLMC Meeting	6311 · Board Member Compensation	125.00
	Bill	08/28/2019	8/28 Assessment Pkg		8/28/19 Revised assessment package workshop	6311 · Board Member Compensation	125.00
TOTAL							250.00
	Bill Pmt -Check	**09/05/2019**	**21683**	**GRAINGER**		**1012 · Bank of America Gen'l Ckg**	
	Bill	08/15/2019	964872467		Miscellanous supplies	7103.6 · Grdwtr Qual-Supplies	363.38
	Bill	08/16/2019	9265869090		Miscellanous supplies	7103.6 · Grdwtr Qual-Supplies	6.17
TOTAL							369.55
	Bill Pmt -Check	**09/05/2019**	**21684**	**PIETERSMA, RONALD**	**Ag Pool Member Compensation**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/22/2019	8/22 Special Ag Mtg		8/22/19 Special Ag Pool Meeting	8411 · Ag Pool Member Compensation	25.00
					8/22/19 Special Ag Pool Meeting	8470 · Ag Meeting Attend -Special	100.00
TOTAL							125.00
	Bill Pmt -Check	**09/05/2019**	**21685**	**READY REFRESH BY NESTLE**	**0023230253**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/28/2019	0023230253		Office Water Bottle - August 2019	6031.7 · Other Office Supplies	19.37
TOTAL							19.37

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	Type	Date	Num	Name	Memo	Account	Paid Amount
	Bill Pmt -Check	**09/05/2019**	**21686**	**VISION SERVICE PLAN**	**00-101789-0001**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/19/2019	01101789		Vision Insurance - September 2019	60182.2 · Dental & Vision Ins	88.20
TOTAL							88.20
	Bill Pmt -Check	**09/05/2019**	**21687**	**INLAND EMPIRE UTILITIES AGENCY**	**Leadership Breakfast**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/27/2019			Registration-PK, AN, JJ, ETF - 9/24/19	6192 · Seminars - General	80.00
TOTAL							80.00
	General Journal	**09/06/2019**	**09/06/2019**	**ADP, LLC**	**ADP Tax Service for 08/24/19-541684341**	**1012 · Bank of America Gen'l Ckg**	
					ADP Tax Service for 08/24/19-541684341	1012 · Bank of America Gen'l Ckg	155.50
TOTAL							155.50
	Bill Pmt -Check	**09/10/2019**	**21688**	**APPLIED COMPUTER TECHNOLOGIES**	**2107**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/31/2019	3107		Database Consulting Services - August 2019	6052.2 · Applied Computer Technol	3,449.60
TOTAL							3,449.60
	Bill Pmt -Check	**09/10/2019**	**21689**	**DE BOOM, NATHAN**	**Ag Pool Member Compensation**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/22/2019	8/22 Special Ag Mtg		8/22/19 Special Ag Pool Meeting	8411 · Ag Pool Member Compensation	25.00
					8/22/19 Special Ag Pool Meeting	8470 · Ag Meeting Attend -Special	100.00
TOTAL							125.00
	Bill Pmt -Check	**09/10/2019**	**21690**	**EUROFINS EATON ANALYTICAL**		**1012 · Bank of America Gen'l Ckg**	
	Bill	08/30/2019	L0469478		L0469478	7103.5 · Grdwtr Qual-Lab Svcs	1,539.00
	Bill	08/30/2019	L0469477		L0469477	7103.5 · Grdwtr Qual-Lab Svcs	1,476.00
	Bill	08/30/2019	L0469476		L0469476	7103.5 · Grdwtr Qual-Lab Svcs	1,359.00
TOTAL							4,374.00
	Bill Pmt -Check	**09/10/2019**	**21691**	**FEDAK & BROWN LLP**	**Audit Services - In Progress**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/31/2019			August 2019	6062 · Audit Services	1,530.00
TOTAL							1,530.00
	Bill Pmt -Check	**09/10/2019**	**21692**	**GRAINGER**	**9271828957**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/22/2019	9271828957		Miscellanous supplies	7103.6 · Grdwtr Qual-Supplies	39.42
TOTAL							39.42
	Bill Pmt -Check	**09/10/2019**	**21693**	**KUHN, BOB**	**Board Member Compensation**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/19/2019	8/19 Conf call		8/19/19 Conf. call w/Executive Committee & GM	6311 · Board Member Compensation	125.00
	Bill	08/27/2019	8/27 Mtg w/GM		8/27/19 meeting w/GM, check signature	6311 · Board Member Compensation	125.00
	Bill	08/29/2019	8/29 Admin Mtg		8/29/19 Check signature at CBWM office	6311 · Board Member Compensation	125.00
TOTAL							375.00

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	Type	Date	Num	Name	Memo	Account	Paid Amount
	Bill Pmt -Check	**09/10/2019**	**21694**	**NAKANO, JUSTIN**	**Employee Travel Reimbursement**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/31/2019			Travel expense reimbursements	6193 · Employee Training	176.13
TOTAL							176.13
	Bill Pmt -Check	**09/10/2019**	**21695**	**NELSON, ANNA**	**Employee Travel Reimbursements**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/31/2019			Lunch meetings	6141.3 · Admin Meetings	62.16
					Mileage reimbursement for lunch meetings	6173 · Airfare/Mileage	52.90
TOTAL							115.06
	Bill Pmt -Check	**09/10/2019**	**21696**	**PATTI COTTON**	**9/25/19 IE Administrative Leadership Forum**	**1012 · Bank of America Gen'l Ckg**	
	Bill	09/05/2019	9/25 Leadership Foru		Payment-keynote speaker-Sep. 20, 2019	6196 · Admin. Leadership Forum	3,500.00
TOTAL							3,500.00
	Bill Pmt -Check	**09/10/2019**	**21697**	**PURCHASE POWER**	**8000-9090-0016-8851**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/31/2019	8000909000168851		Postage refill 7/22/19	6042 · Postage - General	500.00
TOTAL							500.00
	Bill Pmt -Check	**09/10/2019**	**21698**	**RR FRANCHISING, INC.**	**76050**	**1012 · Bank of America Gen'l Ckg**	
	Bill	09/01/2019	76050		Monthy service August 2019	6024 · Building Repair & Maintenance	740.00
TOTAL							740.00
	Bill Pmt -Check	**09/10/2019**	**21699**	**SPECTRUM BUSINESS**	**2031978082319**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/31/2019	2031978082319		8/23/19-9/22/19	6053 · Internet Expense	1,078.85
TOTAL							1,078.85
	Bill Pmt -Check	**09/10/2019**	**21700**	**STATE COMPENSATION INSURANCE FUND**	**1970970-19**	**1012 · Bank of America Gen'l Ckg**	
	Bill	09/01/2019	1970970-19		Premium 8/26/19-9/26/19	60183 · Worker's Comp Insurance	532.75
TOTAL							532.75
	Bill Pmt -Check	**09/10/2019**	**21701**	**UNION 76**	**7076-2245-3035-5049**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/31/2019	7076224530355049		August 2019	6175 · Vehicle Fuel	248.83
TOTAL							248.83
	Bill Pmt -Check	**09/10/2019**	**21702**	**YUKON DISPOSAL SERVICE**	**21136525395**	**1012 · Bank of America Gen'l Ckg**	
	Bill	09/01/2019	21136525395		September 2019	6024 · Building Repair & Maintenance	117.14
TOTAL							117.14
	Bill Pmt -Check	**09/10/2019**	**21703**	**INLAND EMPIRE UTILITIES AGENCY**	**90024923**	**1012 · Bank of America Gen'l Ckg**	
	Bill	09/10/2019	90024923		Groundwater Recharge O&M Cost-2nd Quarter	7206 · Comp Recharge-O&M	244,603.25
TOTAL							244,603.25

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	Type	Date	Num	Name	Memo	Account	Paid Amount
	Bill Pmt -Check	**09/11/2019**	**ACH 091119**	**PUBLIC EMPLOYEES' RETIREMENT SYSTEM**	**Payor #3493**	**1012 · Bank of America Gen'l Ckg**	
	General Journal	09/07/2019	09/07/2019	PUBLIC EMPLOYEES' RETIREMENT SYSTEM	CalPERS Retirement for 08/25/19-09/07/19	2000 · Accounts Payable	8,024.40
TOTAL							8,024.40
	General Journal	**09/12/2019**	**09/12/2019**	**Payroll and Taxes for 08/25/19-09/17/19**	**Payroll and Taxes for 08/25/19-09/17/19**	**1012 · Bank of America Gen'l Ckg**	
					Direct Deposits for 08/25/19-09/17/19	1012 · Bank of America Gen'l Ckg	29,634.58
					Payroll Taxes for 08/25/19-09/17/19	1012 · Bank of America Gen'l Ckg	9,754.25
				ICMA-RC	457(f) EE Deductions for 08/25/19-09/17/19	1012 · Bank of America Gen'l Ckg	5,639.60
				ICMA-RC	401(a) EE Deductions for 08/25/19-09/17/19	1012 · Bank of America Gen'l Ckg	1,527.80
TOTAL							46,556.23
	General Journal	**09/21/2019**	**09/21/2019**	**Payroll and Taxes for 09/08/19-09/21/19**	**Payroll and Taxes for 09/08/19-09/21/19**	**1012 · Bank of America Gen'l Ckg**	
					Direct Deposits for 09/08/19-09/21/19	1012 · Bank of America Gen'l Ckg	29,553.17
					Payroll Taxes for 09/08/19-09/21/19	1012 · Bank of America Gen'l Ckg	9,688.76
				ICMA-RC	457(f) EE Deductions for 09/08/19-09/21/19	1012 · Bank of America Gen'l Ckg	5,639.60
				ICMA-RC	401(a) EE Deductions for 09/08/19-09/21/19	1012 · Bank of America Gen'l Ckg	1,527.80
TOTAL							46,409.33
	Bill Pmt -Check	**09/24/2019**	**ACH 092419**	**PUBLIC EMPLOYEES' RETIREMENT SYSTEM**	**Payor #3493**	**1012 · Bank of America Gen'l Ckg**	
	Bill	09/01/2019	15788400		Annual Unfunded Accrued Liability-Plan 3299	60180 · Employers PERS Expense	6,655.12
TOTAL							6,655.12
	Bill Pmt -Check	**09/21/2019**	**ACH 092619**	**PUBLIC EMPLOYEES' RETIREMENT SYSTEM**	**Payor #3493**	**1012 · Bank of America Gen'l Ckg**	
	General Journal	09/21/2019	19/09/09	PUBLIC EMPLOYEES' RETIREMENT SYSTEM	CalPERS Retirement for 09/08/19-09/21/19	2000 · Accounts Payable	8,024.40
TOTAL							8,024.40
	Bill Pmt -Check	**09/25/2019**	**21704**	**MOUNTAIN VIEW GLASS & MIRROR**	**64457**	**1012 · Bank of America Gen'l Ckg**	
	Bill	09/24/2019	64457		Replacement glass top for Turner conf. room	6031.7 · Other Office Supplies	142.31
TOTAL							142.31
	Bill Pmt -Check	**09/26/2019**	**21705**	**ACCENT COMPUTER SOLUTIONS, INC.**	**IT Services**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/31/2019	130399		Web site hosting move	6052.6 · IT Services/Projects	262.50
	Bill	10/01/2019	130695		Monthly service - October 2019	6052.4 · IT Managed Services	4,067.00
					Overwatch - October 2019	6052.5 · IT Data Backup/Storage	699.00
					Omni Cloud - October 2019	6052.5 · IT Data Backup/Storage	117.00
					Office 365 subscriptions / Business Premium - Oct	6052.4 · IT Managed Services	158.25
					Image Office Storage (per GB, per month)	6052.5 · IT Data Backup/Storage	833.46
TOTAL							6,137.21
	Bill Pmt -Check	**09/26/2019**	**21706**	**ACWA JOINT POWERS INSURANCE AUTHORI**	**0627632**	**1012 · Bank of America Gen'l Ckg**	
	Bill	09/10/2019	0627632		Prepayment - October 2019	1409 · Prepaid Life, BAD&D & LTD	228.16

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Type	Date	Num	Name	Memo	Account	Paid Amount
				September 2019	60191 · Life & Disab.Ins Benefits	230.78
TOTAL						458.94
Bill Pmt -Check	**09/26/2019**	**21707**	**BANK OF AMERICA**	**XXXX-XXXX-XXXX-9341**	**1012 · Bank of America Gen'l Ckg**	
Bill	08/31/2019	XXXX-XXXX-XXXX-9341		Miscellaneous office supplies	6031.7 · Other Office Supplies	40.44
				Computer parts	6055 · Computer Hardware	60.67
				Miscellaneous office supplies	6031.7 · Other Office Supplies	6.03
				Miscellaneous office supplies	6031.7 · Other Office Supplies	13.41
				SafeCart system repair software	6054 · Computer Software	28.95
				Miscellaneous office supplies	6031.7 · Other Office Supplies	14.50
				Accounting office monitors	6055 · Computer Hardware	253.95
				Miscellaneous office supplies	6031.7 · Other Office Supplies	112.62
				Miscellaneous office supplies	6031.7 · Other Office Supplies	22.07
				Miscellaneous office supplies	6031.7 · Other Office Supplies	28.31
				Miscellaneous office supplies	6031.7 · Other Office Supplies	300.95
				Staff uniforms	6154 · Uniforms	41.41
				Hotel-Nakano-2019 training at Calleguas MWD	6193 · Employee Training	440.16
				Miscellaneous office supplies	6031.7 · Other Office Supplies	8.81
				PK meeting w/V. Jew	8312 · Meeting Expenses	31.98
				PK parking for meeting w/RWQCB	6909.1 · OBMP Meetings	4.69
				Pk meeting w/C. Berch, J. Bosler, D. Poulsen	8312 · Meeting Expenses	85.57
				PK meeting w/B. Kuhn	6312 · Meeting Expenses	12.50
				Lunch-8/22/19 Appropriative Pool Special mtg.	8312 · Meeting Expenses	103.24
				PK meeting w/S. Elie	6312 · Meeting Expenses	46.61
				PK reg.-ACWA 2019 Fall Conf. & Exhibiition	6193.2 · Conference - Registration Fee	544.35
				PK meeting w/D. Crosley, A. Coker	8312 · Meeting Expenses	58.82
				PK meeting w/T. Harder, R. Craig	8312 · Meeting Expenses	58.12
				Supplies for 8/29/19 staff meeting	6141.3 · Admin Meetings	32.85
				Registration-Nakano-2019 Groundwater Week	6193.2 · Conference - Registration Fee	281.56
TOTAL						2,632.57
Bill Pmt -Check	**09/26/2019**	**21708**	**BLUERIDGE SOFTWARE, INC.**	**10194**	**1012 · Bank of America Gen'l Ckg**	
Bill	09/16/2019	10194		Annual support/maintenance 10/25/19-10/24/20	6054 · Computer Software	629.82
TOTAL						629.82
Bill Pmt -Check	**09/26/2019**	**21709**	**CENTURYLINK**	**84576466**	**1012 · Bank of America Gen'l Ckg**	
Bill	09/24/2019	84576466		9/17/19-10/16/19 - September 2019	6053 · Internet Expense	142.96
TOTAL						142.96
Bill Pmt -Check	**09/26/2019**	**21710**	**CORELOGIC INFORMATION SOLUTIONS**	**81982312**	**1012 · Bank of America Gen'l Ckg**	
Bill	08/31/2019	81982312		81982312	7103.7 · Grdwtr Qual-Computer Svc	62.50

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Type	Date	Num	Name	Memo	Account	Paid Amount
				81982312	7101.4 · Prod Monitor-Computer	62.50
TOTAL						125.00
Bill Pmt -Check	**09/26/2019**	**21711**	**CUCAMONGA VALLEY WATER DISTRICT**	**Office Lease**	**1012 · Bank of America Gen'l Ckg**	
Bill	09/16/2019			Office lease-October 1, 2019	1422 · Prepaid Rent	7,093.14
TOTAL						7,093.14
Bill Pmt -Check	**09/26/2019**	**21712**	**EGOSCUE LAW GROUP, INC.**	**12433**	**1012 · Bank of America Gen'l Ckg**	
Bill	08/31/2019	12433		Ag Pool Legal Services - August 2019	8467 · Ag Legal & Technical Services	16,450.00
TOTAL						16,450.00
Bill Pmt -Check	**09/26/2019**	**21713**	**FEENSTRA, BOB**	**Ag Pool Member Compensation**	**1012 · Bank of America Gen'l Ckg**	
Bill	08/22/2019	8/22 Ag Pool Meeting		8/22/19 Special Ag Pool Meeting	8470 · Ag Meeting Attend -Special	125.00
TOTAL						125.00
Bill Pmt -Check	**09/26/2019**	**21714**	**FIRST LEGAL NETWORK LLC**	**40031870**	**1012 · Bank of America Gen'l Ckg**	
Bill	08/31/2019	40031870		Court filing on 8/06/19	6061.5 · Court Filing Services	90.54
TOTAL						90.54
Bill Pmt -Check	**09/26/2019**	**21715**	**FRONTIER COMMUNICATIONS**	**909-484-3890-050914-5**	**1012 · Bank of America Gen'l Ckg**	
Bill	09/19/2019	90948438900509145		Office fax	6022 · Telephone	151.02
TOTAL						151.02
Bill Pmt -Check	**09/26/2019**	**21716**	**GREAT AMERICA LEASING CORP.**	**25545065**	**1012 · Bank of America Gen'l Ckg**	
Bill	09/17/2019	25545065		Invoice for September 2019	6043.1 · Ricoh Lease Fee	2,661.62
				2019 San Bernardino County property tax	6043.3 · Ricoh Property Tax Fees	408.47
TOTAL						3,070.09
Bill Pmt -Check	**09/26/2019**	**21717**	**HUITSING, JOHN**	**Ag Pool Member Compensation**	**1012 · Bank of America Gen'l Ckg**	
Bill	08/22/2019	8/22 Special Ag Mtg		8/22/19 Special Ag Pool Meeting	8411 · Ag Pool Member Compensation	25.00
				8/22/19 Special Ag Pool Meeting	8470 · Ag Meeting Attend -Special	100.00
TOTAL						125.00
Bill Pmt -Check	**09/26/2019**	**21718**	**JOHN J. SCHATZ**	**Appropriative Pool Legal Services**	**1012 · Bank of America Gen'l Ckg**	
Bill	08/31/2019			August 2019	8367 · Legal Service	6,820.00
				Third Party Expenses	8367 · Legal Service	2,295.00
TOTAL						9,115.00
Bill Pmt -Check	**09/26/2019**	**21719**	**LEGAL SHIELD**	**Employee Deductions**	**1012 · Bank of America Gen'l Ckg**	
Bill	08/15/2019	111802		Employee deductions - August 2019	60194 · Other Employee Insurance	51.80
Bill	09/16/2019	111802		Employee deductions - September 2019	60194 · Other Employee Insurance	51.80

Type	Date	Num	Name	Memo	Account	Paid Amount
TOTAL						103.60
Bill Pmt -Check	**09/26/2019**	**21720**	**LOEB & LOEB LLP**	**1846187**	**1012 · Bank of America Gen'l Ckg**	
Bill	08/31/2019	1846187		Non-Ag Pool Legal Services - August 2019	8567 · Non-Ag Legal Service	3,720.60
TOTAL						3,720.60
Bill Pmt -Check	**09/26/2019**	**21721**	**ONTARIO, CITY OF**	**Encroachment Permit**	**1012 · Bank of America Gen'l Ckg**	
Bill	09/24/2019	E201901247		Encroachment permit #E201901247	7103.3 · Grdwtr Qual-Engineering	396.00
TOTAL						396.00
Bill Pmt -Check	**09/26/2019**	**21722**	**ORANGE COUNTY WATER DISTRICT**	**319872**	**1012 · Bank of America Gen'l Ckg**	
Bill	09/16/2019	319872		Cost share: 2019 Prado Basin Aerial Imagery	6909.6 · OBMP Expenses - Miscellaneous	4,153.00
TOTAL						4,153.00
Bill Pmt -Check	**09/26/2019**	**21723**	**PIETERSMA, RONALD**	**Ag Pool Member Compensation**	**1012 · Bank of America Gen'l Ckg**	
Bill	09/12/2019	9/12 Ag Pool Mtg		9/12/19 Ag Pool Meeting	8411 · Ag Pool Member Compensation	25.00
				9/12/19 Ag Pool Meeting	8470 · Ag Meeting Attend -Special	100.00
TOTAL						125.00
Bill Pmt -Check	**09/26/2019**	**21724**	**PREMIERE GLOBAL SERVICES**	**28296118**	**1012 · Bank of America Gen'l Ckg**	
Bill	08/31/2019	28296118		42nd AR kickoff call on 8/01	6909.1 · OBMP Meetings	10.53
				Call on 8/08	6909.1 · OBMP Meetings	6.53
				Call on 8/08	6909.1 · OBMP Meetings	6.53
				Call on 8/08	6909.1 · OBMP Meetings	25.43
				42nd AR check-in call on 8/13	6909.1 · OBMP Meetings	9.66
				LS6 check-in call on 8/15	6909.1 · OBMP Meetings	16.26
				WSN call on 8/16	6909.1 · OBMP Meetings	8.07
				WM coordination call on 8/26	6909.1 · OBMP Meetings	6.53
				WM coordination call on 8/26	6909.1 · OBMP Meetings	6.52
				Fee - General	6022 · Telephone	39.00
				Fee - Confidential	6022 · Telephone	39.00
				Regional Board meeting check-in call on 8/05	6909.1 · OBMP Meetings	48.67
				LS6 check-in call on 8/06	6909.1 · OBMP Meetings	38.51
				Regional Board meeting prep call on 8/12	6909.1 · OBMP Meetings	22.81
				Board officers / Pool Chairs call on 8/19	6312 · Meeting Expenses	14.04
				Board officers / Pool Chairs call on 8/19	6312 · Meeting Expenses	22.09
				WM coordination call on 8/26	6909.1 · OBMP Meetings	33.33
				Call shortfalls	6022 · Telephone	78.00
				Service fee	6022 · Telephone	32.66
TOTAL						464.17

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	Type	Date	Num	Name	Memo	Account	Paid Amount
	Bill Pmt -Check	**09/26/2019**	**21725**	**R&D PEST SERVICES**	**0247733**	**1012 · Bank of America Gen'l Ckg**	
	Bill	09/11/2019	0247733		Treat office and annex for pest control	6024 · Building Repair & Maintenance	100.00
TOTAL							100.00
	Bill Pmt -Check	**09/26/2019**	**21726**	**RAUCH COMMUNICATION CONSULTANTS, LL**	**Aug-1902**	**1012 · Bank of America Gen'l Ckg**	
	Bill	08/31/2019	Aug-1902		AR42 - work completed through July 31, 2019	6061.3 · Rauch	647.50
TOTAL							647.50
	Bill Pmt -Check	**09/26/2019**	**21727**	**SKILLPATH SEMINARS**	**2267953**	**1012 · Bank of America Gen'l Ckg**	
	Bill	09/17/2019	2267953		AN book purchase at seminar	6112 · Subscriptions/Publications	31.90
TOTAL							31.90
	Bill Pmt -Check	**09/26/2019**	**21728**	**STANDARD INSURANCE CO.**	**Policy # 00-649299-0009**	**1012 · Bank of America Gen'l Ckg**	
	Bill	09/24/2019	0064292990009		Policy # 00-649299-0009	60191 · Life & Disab.Ins Benefits	883.93
TOTAL							883.93
	Bill Pmt -Check	**09/26/2019**	**21729**	**STAULA, MARY L**	**Retiree Medical**	**1012 · Bank of America Gen'l Ckg**	
	Bill	10/01/2019			Retiree Medical	60182.4 · Retiree Medical	25.87
TOTAL							25.87
	Bill Pmt -Check	**09/26/2019**	**21730**	**TELLEZ-FOSTER, EDGAR**	**Employee Travel Reimbursements**	**1012 · Bank of America Gen'l Ckg**	
	Bill	09/11/2019	9/06 Ops Staff Mtg		9/06/19 Ops Staff Meeting	6141.3 · Admin Meetings	83.19
TOTAL							83.19
	Bill Pmt -Check	**09/26/2019**	**21731**	**UNITED HEALTHCARE**	**052502011852**	**1012 · Bank of America Gen'l Ckg**	
	Bill	09/24/2019	052502011852		Dental Insurance Premium - October 2019	60182.2 · Dental & Vision Ins	744.12
TOTAL							744.12
	Bill Pmt -Check	**09/26/2019**	**21732**	**VERIZON WIRELESS**		**1012 · Bank of America Gen'l Ckg**	
	Bill	08/31/2019	9837409244		Acct #470810953-00001	6022 · Telephone	298.45
	Bill	09/24/2019	983799524		Acct #642073270-00001	7103.7 · Grdwtr Qual-Computer Svc	100.04
TOTAL							398.49
	Bill Pmt -Check	**09/26/2019**	**21733**	**EUROFINS EATON ANALYTICAL**		**1012 · Bank of America Gen'l Ckg**	
	Bill	09/09/2019	L0472072		L0472072	7103.5 · Grdwtr Qual-Lab Svcs	966.00
	Bill	09/09/2019	L0472071		L0472071	7103.5 · Grdwtr Qual-Lab Svcs	1,346.00
	Bill	09/10/2019	L0470806		L0470806	7103.5 · Grdwtr Qual-Lab Svcs	2,104.00
	Bill	09/10/2019	L0470808		L0470808	7103.5 · Grdwtr Qual-Lab Svcs	1,476.00
	Bill	09/11/2019	L0471016		L0471016	7103.5 · Grdwtr Qual-Lab Svcs	2,104.00
	Bill	09/16/2019	L0471687		L0471687	7103.5 · Grdwtr Qual-Lab Svcs	628.00
TOTAL							8,624.00

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CHINO BASIN WATERMASTER
Cash Disbursements For The Month of
September 2019

Type	Date	Num	Name	Memo	Account	Paid Amount
					Total Disbursements:	523,499.20

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CHINO BASIN WATERMASTER

IV. INFORMATION

2. Plumes Status Reports (Semi-Annual and Annual)

SEMIANNUAL PLUME STATUS REPORT
SOUTH ARCHIBALD PLUME
October 2019

Contaminants
The primary contaminant is trichloroethene (TCE). The maximum contaminant level (MCL) for TCE is 5 micrograms per liter (µgl). The maximum TCE concentration detected in a groundwater sample collected from wells within the plume during the last five years (July 2014 to June 2019) is 90 µgl. Other contaminants of concern include: acetone, cis-1,2-dichloroethene, chloroform, and bromodichloromethane.

Location
The South Archibald TCE plume is located in the southern Chino Basin within the City of Ontario. Exhibit 1 shows the spatial extent of the plume with detectable TCE concentrations equal to or greater than 0.5 µgl, as delineated by the Chino Basin Watermaster (Watermaster) in 2019 for the *2018 State of the Basin Report*.[1] This extent is based on the five-year maximum TCE concentration measured over the period of July 2013 to June 2018. The TCE plume is about 22,000 feet long, extending southward from State Route 60 to approximately Bellegrave Avenue, and is about 14,000 feet wide extending from Grove Avenue to Turner Avenue.

Regulatory Orders
- Six 2005 Draft Cleanup and Abatement Orders (CAOs) — Six CAOs were issued in 2005 to the following parties: the Aerojet-General Corporation, The Boeing Company, Northrop Grumman Corporation, Lockheed Martin Corporation, General Electric Corporation and United States Department of Defense.
- Draft CAO R8-2012-00XX for the City of Ontario, City of Upland, and Inland Empire Utilities Agency, Former Ontario-Upland Sewage Treatment Plant (Regional Recycling Plant No. 1), City of Ontario, San Bernardino County — This CAO was issued jointly to the City of Ontario, City of Upland, and Inland Empire Utilities Agency (IEUA).
- Stipulated Settlement and CAO No. R8-2016-0016 for the City of Ontario, the City of Upland, the Inland Empire Utilities Agency, Aerojet Rocketdyne Inc., The Boeing Company, General Electric Company, Lockheed Martin Corporation, and the United States of America, Former Ontario-Upland Sewage Treatment Plant (Regional Recycling Plant No. 1) — This is the final CAO issued to all parties previously issued draft CAOs in 2005 and 2012, excluding Northrop Grumman.

[1] Wildermuth Environmental, Inc. (2019). *Optimum Basin Management Program – 2018 State of the Basin Report.* Prepared for the Chino Basin Watermaster. June 2019.

Regulatory and Monitoring History

In the mid-1980s, the Metropolitan Water District of Southern California determined that TCE was present in private wells in the southern Chino Basin as part of its work associated with the Chino Basin Storage Program. The Regional Board confirmed this with subsequent rounds of sampling.

The Regional Board issued Draft CAOs in 2005 for six different parties who were tenants on the Ontario Airport property. On a voluntary basis, four of the parties—Aerojet-General Corporation, The Boeing Company, General Electric Company, and Lockheed Martin Corporation, collectively the ABGL parties, worked together, along with the U.S. Department of Defense, to investigate the source of contamination. Part of the investigations included collecting water-quality samples from private wells and taps at residences and the construction and sampling of four triple-nested monitoring wells (ABGL wells) in the northern portion of the plume. Alternative water systems were provided at private residences in the area where groundwater was contaminated with TCE. In 2008, Regional Board staff conducted research pertaining to the likely source of TCE contamination. Based on their work, Regional Board staff identified discharges of wastewater, that potentially contained TCE, to the RP-1 treatment plant and associated disposal areas as a potential source. The Regional Board identified several industries, including some previously identified tenants of the Ontario Airport property, that likely used TCE solvents before and during the early 1970s, and discharged wastes to the Cities of Ontario and Upland sewage systems tributary to the RP-1 treatment plant and disposal areas. In 2012, an additional Draft CAO was issued by the Regional Board jointly to the City of Ontario, City of Upland, and IEUA as the previous and current operators of the RP-1 treatment plant and disposal area (collectively the RP-1 parties).

Under the Regional Board's oversight from 2007 to 2014, the ABGL parties and the RP-1 parties individually and jointly conducted sampling at private residential wells and taps approximately every two years in the region where groundwater was potentially contaminated with TCE. By 2014, all private wells and taps in the area of the plume had been sampled at least once as part of the sampling program. The report documenting this data was published in November 2014.[2] Both the ABGL and RP-1 parties provided water tank systems to provide potable water from the City via truck deliveries to residences in the area where well water contained TCE at or above 80 percent of the MCL for TCE (e.g. equal to or greater than 4.0 µgl). Residents who declined tank systems were provided bottled water service.

In July 2015, the RP-1 parties completed a draft feasibility study report for the South Archibald plume (Feasibility Study).[3] The Feasibility Study established cleanup objectives for both domestic water supply and plume remediation and evaluated alternatives to accomplish these objectives.

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[2] Erler & Kalinowski, Inc. (2014). *Supplemental Data Report Trichloroethene Plume Central Chino Basin.* Prepared for Aeroject Rocketdyne, Boeing, General Electric, and Lockheed Martin. November 19, 2014.

[3] Dudek. (2015). *Draft Feasibility Study Report South Archibald Plume, Ontario, California.* Prepared for City of Ontario, City of Upland, and Inland Empire Utilities Agency. July 2015.

In August 2015, a draft remedial action plan (RAP) was concurrently prepared by the RP-1 parties[4] to present the preferred plume remediation and domestic water supply alternatives. A public review period followed, and two community meetings were held in September 2015 to educate the public about the plume, the Feasibility Study, and the RAP, and to solicit comments on these reports. In November 2015, the revised Draft Feasibility Study[5] and RAP[6] and responses to comments were completed to address input from the public, ABGL, and other parties.

In September 2016, the Regional Board issued the Final Stipulated Settlement and CAO R8-2016-0016 (Stipulated CAO) collectively to the RP-1 parties and the ABGL parties (excluding Northrop Grumman). The Stipulated CAO was adopted by all parties in November 2016, thus approving the preferred *Plume Remediation* and *Domestic Water Supply* alternatives identified in the RAP. The parties also reached a settlement agreement that aligned with the Stipulated CAO and authorized funding to initiate implementation of the plume remediation alternative.

Remedial Action

Plume Remediation. The plume remediation alternative identified in the Feasibility Study, RAP, and Stipulated CAO involves the use of existing and proposed Chino Basin Desalter Authority (CDA) wells and treatment facilities. The RP-1 parties and the CDA reached a Joint Facility Development Agreement[7] for implementation of a project designed to remediate the South Archibald plume. The proposed project includes the construction and operation of three new CDA wells (II-10, II-11, and II-12) and a dedicated pipeline to convey groundwater produced from these wells to the Chino-II Desalter treatment facility where TCE and other VOCs would be removed via air stripping. Existing CDA well I-11 would also be plumbed into the air-stripping treatment facility as part of the project. The construction of wells II-10 and II-11 was completed in September 2015. The equipping of these wells was completed in 2018, and pumping initiated at wells II-11 and II-10 in July and September 2018, respectively. The construction of the dedicated raw water pipeline to deliver the water from the three new wells to the Chino-II Desalter is underway. The construction of Well II-12 is expected to be completed by March 2021, and pumping is anticipated to begin by December 2021.

Domestic Water Supply. The domestic water supply alternative identified in the Feasibility Study and RAP is a hybrid between the installation of tank systems for some residences where potable water is delivered from the City of Ontario and the installation of a pipeline to connect some residences to the City of Ontario potable water system. Pursuant to the Stipulated CAO, the Cities of Ontario and Upland have assumed the responsibility for implementing the domestic water supply alternative for private residences currently receiving bottled water due to TCE

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[4] Dudek. (2015). *Draft Remedial Action Plan South Archibald Plume, Ontario, California.* Prepared for City of Ontario, City of Upland, and Inland Empire Utilities Agency. August 2015.

[5] Dudek. (2015). *Draft Feasibility Study Report South Archibald Plume, Ontario, California.* Prepared for City of Ontario, City of Upland, and Inland Empire Utilities Agency. November 2015.

[6] Dudek. (2015). *Draft Remedial Action Plan South Archibald Plume, Ontario, California.* Prepared for City of Ontario, City of Upland, and Inland Empire Utilities Agency. November 2015.

[7] Agreement dated June 22, 2015.

groundwater contamination. In February 2017, the Cities of Ontario and Upland submitted a *Domestic Water Supply Work Plan*[8] to the Regional Board, outlining the approach to provide alternative water supplies to affected residences currently receiving bottled water. The Regional Board approved[9] the work plan on March 3, 2017. At that time, 32 residences were using tank systems that were previously installed, and 21 residences were receiving bottled water. The alternative water supply options included: installation of a tank system, connection to an existing City of Ontario water main, connection to a future City of Ontario water main, or remain on bottled water. In accordance with the schedule in the Stipulated CAO and the work plan, tank systems would be installed within six months of resident consent, connections to Ontario's existing municipal water system would be constructed within three months of resident consent, and construction and connection to a new water main would occur within 18 months of resident consent. Additionally, bottled water would be supplied to any newly affected residents immediately upon determining that TCE is present at concentrations greater than 4 µgl.

Monitoring and Reporting

Pursuant to the Stipulated CAO, the Cities of Ontario and Upland are responsible for coordinating and conducting ongoing monitoring of the plume and submitting an annual monitoring report to the Regional Board by December 31 of each year. Pursuant to the November 2016 Stipulated CAO, a *Private Water Supply Well Sampling Work Plan*[10] was submitted to the Regional Board on February 6, 2017 and approved on February 14, 2017.[11] The purpose of sampling is to track the plume extent and potentially affected residences, and to ensure that an alternative water supply is provided to residences using water with TCE concentrations greater than 4 µgl.

Pursuant to the February 2017 work plan, the Cities of Ontario and Upland conducted three rounds of samplings in 2017 and 2018, and the results were reported in annual groundwater monitoring reports submitted to the Regional Board. The annual reports are available on the GeoTracker online portal.[12]

In addition to the monitoring performed by the RP-1 parties, Watermaster routinely collects groundwater samples at private wells in the plume area. Watermaster uses the data obtained from its own monitoring efforts, with monitoring data collected by the CDA at the desalter wells, to delineate the South Archibald TCE plume as part of the biennial Chino Basin State of the Basin Report.

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[8] Dudek. (2017). *Domestic Water Supply Work Plan South Archibald Plume, Ontario, California.* Prepared for the City of Ontario, City of Upland. February 2017.

[9] Regional Board. (2017). *Letter from Kurt Berchtold to the City of Ontario. Domestic Water Supply Workplan – South Archibald Trichloroethylene Plume, Ontario, California*. March 3, 2017.

[10] EEC Environmental. (2017). *Workplan – Private Water Supply Well Sampling. Ontario California.* Prepared for the City of Ontario. February 6, 2017.

[11] Regional Board. (2017). *Letter from Kurt Berchtold to the City of Ontario. Private Water Supply Sampling Work Plan – Selected Private Groundwater Wells and Taps, Ontario, California.* February 14, 2017.

[12] https://geotracker.waterboards.ca.gov/profile_report?global_id=T10000004658

Recent Activity

In accordance with the Stipulated CAO, the Cities of Ontario and Upland conducted annual sampling from October to December 2018 and documented the sampling activities and results in the *Annual Groundwater Monitoring Report*.[13] During the 2018 sampling event, TCE was detected in 37 samples from 42 residential and agricultural wells with TCE concentrations ranging from 0.29 to 40 µgl. Exhibit 1 shows the extent of TCE plume greater than or equal to 5.0 µgl, as presented in the *Annual Groundwater Monitoring Report*. The next annual monitoring event is scheduled for Fall 2019.

Domestic Water Supply. As of December 2018, 37 residences are supplied with water by 25 tank systems. Ten of these tank systems are located at the western edge of the plume where TCE concentrations have been stable or declining over time. In 2018, three residences were converted to tank systems and one was connected to a City of Ontario water main. The City of Ontario is also currently designing and moving forward with installing one tank system for a residence and a commercial office that were identified as requiring an alternative water supply in 2018. Five residences remain on bottled water supply.

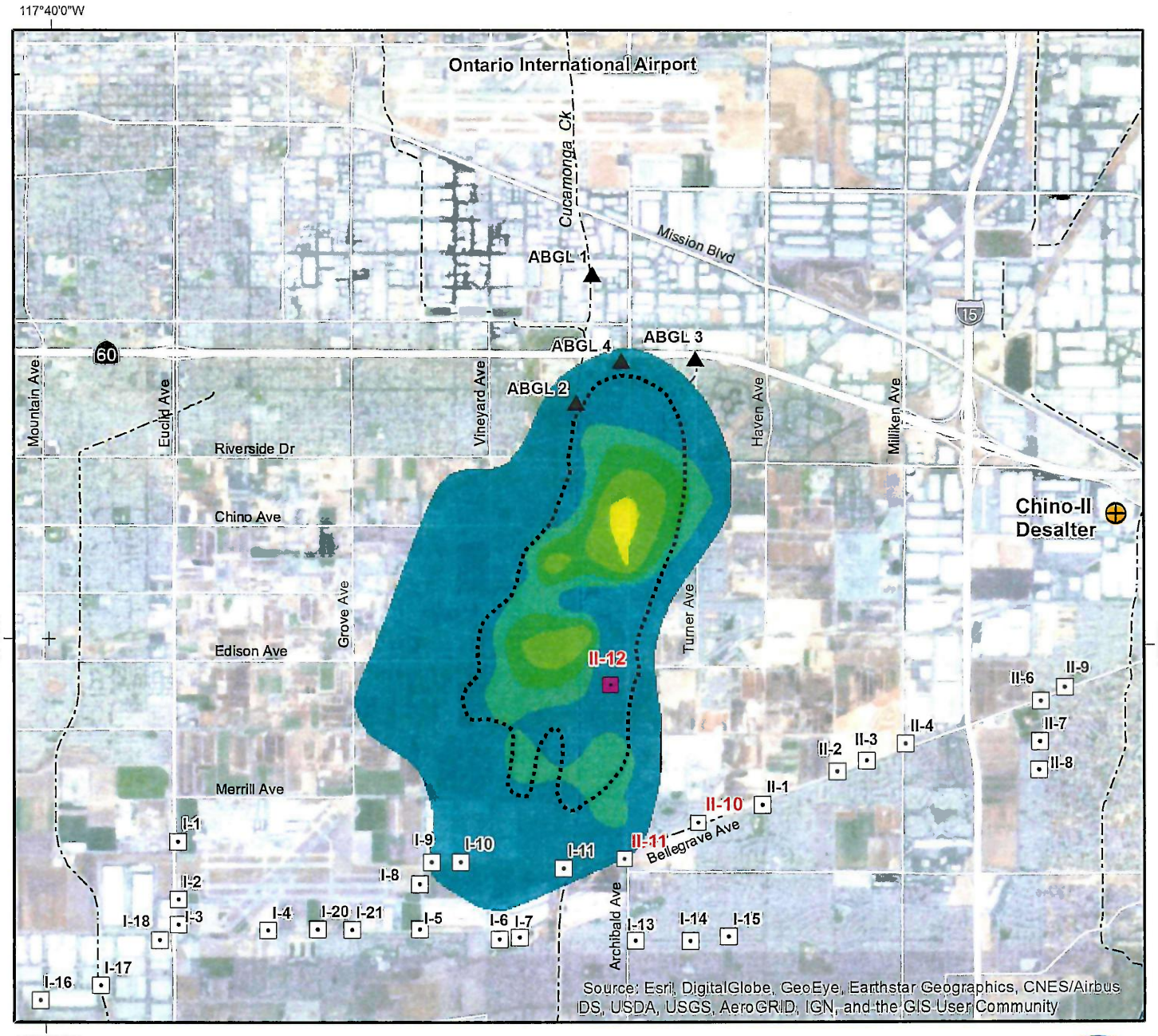
Plume Remediation. In January and March 2019, multiple technical memorandums in support of siting well II-12 were submitted to the Regional Board by the RP-1 parties and CDA, respectively. The memorandums detailed that remediation at the proposed location for well II-12 will provide adequate lateral capture of the highest TCE concentrations and address the concern of a shift in groundwater flow to the east. The Regional Board approved the proposed well II-12 site in March 2019.[14]

The IEUA and CDA completed negotiations for property acquisition for well II-12 in early 2019 but have encountered obstacles in acquiring easements for the raw water pipeline to connect well II-12 to the Chino-II Desalter treatment facility. In June 2019, the IEUA submitted a request to the Regional Board[15] to extend the project deadlines defined in the Stipulated CAO to address these easement acquisition issues. To maintain progress, the construction of the pipeline was divided into two contracts: Contract 1 for the City of Ontario right-of-way is complete and went out for bid in July 2019; Contract 2 requires easements through Caltrans I-15 crossing and the Cities of Eastvale and Jurupa rights-of-way, which conflict with a Southern California Edison project. An alternative easement for the pipeline alignment is being evaluated for Contract 2. Extensions were requested for deadlines to complete the design and construction of well II-12, the raw water pipeline, and the decarbonators for the air stripping process. New deadlines were proposed for dates between December 2019 and March 2021. The Regional Board approved the

[13] Dudek. (2019). *Annual Groundwater Monitoring Report South Archibald TCE Plume Ontario, California*. Prepared for The City of Ontario and City of Upland. February 2019.
[14] Regional Board. (2019). *Letter from Chad Nishida to IEUA – Comments on Response to Request for Additional Information to Support Siting of Well CDA II-12 for Inland Empire Utilities Agency and Chino Basin Desalter Authority Clean-Up Project (Grant Agreement No. D1712507)*. March 28, 2019.
[15] IEUA. (2019). *Letter from IEUA to the Regional Board - Project Deadline Extension Request – Stipulated Settlement and Cleanup and Abatement Order No. R8-2016-0016*. June 24, 2019.

extension request in July 2019.[16] As stated above, the overall project is anticipated to be operational by December 2021.

[16] Regional Board. (2019). *Letter from Hope Smythe to IEUA – Approval of Project Deadline Extension Request – Stipulated Settlement and Cleanup and Abatement Order (Stipulated CAO) No. R8-20016-0016*. July 8, 2019



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Maximum TCE Concentration (µgl)
July 2013 to June 2018

- 0.5 to ≤ 5
- > 5 to ≤ 10
- > 10 to ≤ 20
- > 20 to ≤ 50
- > 50 to ≤ 100

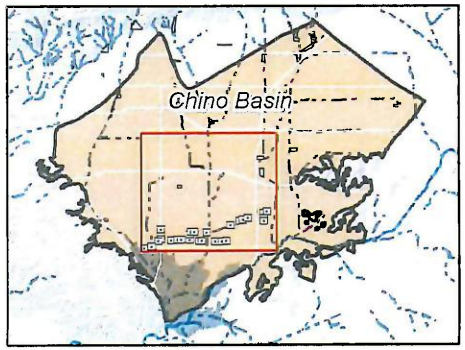
(Delineated by Watermaster in the 2018 State of the Basin Report)

Approximate Extent of TCE greater than or equal to 5 µgl as delineated in the 2018 Annual Groundwater Monitoring Report (Dudek, 2019)

Chino Basin Desalter Authority Production Wells:

- Existing (Constructed Between 1999 and 2015)
- Proposed Well Location
- Chino-II Desalter Treatment Facility
- ABGL Monitoring Well
- Streams & Flood Control Channels

*Red labels indicate wells that are specifically discussed in the report.



Prepared by:
WEI
Wildermuth Environmental, Inc.

Author: SO
Date: 10/3/2019
Name: SouthArchibald_20190827

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CBWM Semiannual Status Report
October 2019

South Archibald TCE Plume

Exhibit 1

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SEMIANNUAL PLUME STATUS REPORT
CHINO AIRPORT PLUME
October 2019

Contaminants

The County of San Bernardino Department of Airports (County) identifies four primary contaminants associated with the Chino Airport groundwater plume: trichloroethene (TCE), 1,2,3-trichloropropane (1,2,3-TCP), cis-1,2-dichloroethene (cis-1,2-DCE), and 1,2-dichloroethane (1,2-DCA). For each of these contaminants, the table below lists the California maximum contaminant level (MCL) and the maximum concentration detected in groundwater samples collected from wells within the plume area over the last five years.

Contaminant	MCL (µgl)	Maximum Concentration July 2014 to June 2019 (µgl)
TCE	5.0	830
1,2,3-TCP	0.005	44
cis-1,2-DCE	6.0	47
1,2- DCA	0.5	1.5

Other contaminants of concern include 1,1-dichloroethene, carbon tetrachloride, and 1,4 dioxane.

Location

The Chino Airport is located in the southwestern portion of the Chino Basin within the City of Chino. Exhibit 1 shows the spatial extent of the TCE and 1,2,3-TCP plumes, as delineated by the Chino Basin Watermaster (Watermaster) in 2019 for the *2018 State of the Basin Report*.[1] The extents are based on the five-year maximum TCE and 1,2,3-TCP concentrations measured over the period of July 2013 to June 2018.

Since 2015, the County has characterized West and East Plumes, originating from two different source areas at the Chino Airport. TCE and 1,2,3-TCP concentrations are higher within the West Plume than the East Plume. The extent of the West Plume is also much larger, extending about 12,700 feet in a predominantly south-southwest direction. The East Plume extends in the same general direction but is only about 3,200 feet long and terminates within the boundary of the Chino Airport property. The most recent characterizations of TCE and 1,2,3-TCP concentrations prepared by the County were done for the *Semiannual Groundwater Monitoring Report-Summer*

[1] Wildermuth Environmental Inc. (2019). *Optimum Basin Management Program - 2018 State of the Basin Report.* Prepared for the Chino Basin Watermaster. June 2019.

and Fall 2018.[2] Exhibit 1 shows the County's delineation of the plumes with TCE concentrations greater than or equal to 5.0 µgl and 1,2,3-TCP concentrations greater than or equal to 0.005 µgl. The West and East TCE plumes merge together and are delineated together as one plume; whereas, the West and East 1,2,3-TCP plumes are delineated as two distinct plumes.

TCE Plumes. The extent of the West Plume with detectable TCE concentrations greater than 0.5 µgl is about 13,000 feet long and 3,500 feet wide. The West TCE plume extends about 9,000 feet southwest from its source area. From the southwest end, the plume extends another 2,400 feet southeast towards the Prado Basin where it terminates near well cluster CAMW16. The change in direction of the plume in this area may be associated with the location of the Central Avenue Fault, the "no-flow" boundary conditions of the Chino Hills, or historical pumping from former production wells. The smaller East TCE Plume is about 2,800 feet long and 2,000 feet wide and merges with the West Plume.

1,2,3-TCP Plumes. The extent of the West Plume with detectable 1,2,3-TCP concentrations greater than 0.005 µgl, follows the same general path as the West TCE Plume, and extends about 10,500 feet southwest and then another 3,300 feet southeast towards the Prado Basin where the plume terminates near well cluster CAMW22. The width of the West 1,2,3-TCP Plume ranges from 1,400 to 5,400 feet and averages about 3,300 feet. The East 1,2,3-TCP Plume is disconnected from the West Plume and is significantly smaller, extending about 1,800 feet south of the source.

Regulatory Orders – Regional Water Quality Control Board, Santa Ana Region

- Cleanup and Abatement Order (CAO) No. 90-134 for the County of San Bernardino Department of Airports, Chino Airport—Issued to the County to address the groundwater contamination originating from the Chino Airport.
- CAO No. R8-2008-0064 for the San Bernardino County Department of Airports, Chino Airport—Required the County to define the lateral and vertical extent of the plume offsite from the Chino Airport and to prepare a remedial action plan (RAP).
- CAO No. R8-2017-0011 for the San Bernardino County Department of Airports, Chino Airport—Required the County to respond to Regional Board comments on the draft Feasibility Study and to submit a final Feasibility Study.

Regulatory and Monitoring History

In 1990, the Regional Board issued CAO No. 90-134 to address groundwater contamination originating from the Chino Airport. From 1991 to 1992, ten inactive underground storage tanks and 310 containers of hazardous waste were removed, and 81 soil borings were drilled and sampled on the Chino Airport property. From 2003 to 2005, nine onsite monitoring wells were installed and used to collect groundwater quality samples. In 2007, the County conducted its first offsite groundwater characterization effort, which included 22 cone penetrometer tests (CPT) and direct push borings from which water quality samples were collected. In 2008, the Regional Board issued CAO No. R8-2008-0064 requiring the County to define the lateral and vertical extent

[2] Tetra Tech. (2019). *Semiannual Groundwater Monitoring Report-Summer and Fall 2018.* Prepared for the County of San Bernardino. March 19, 2019.

of the plume offsite and to prepare a RAP. From 2009 to 2012, 33 offsite monitoring wells were installed at 15 locations to characterize the extent of the contamination downgradient from the Chino Airport property.

From 2013 to 2014, the County conducted an extensive investigation of several areas identified for additional characterization of the soil and groundwater contamination associated with the Chino Airport. The investigative work included: piezocone-penetrometer tests, vertical-aquifer-profiling (VAP) borings with depth-discrete groundwater sampling, soil-gas probe sampling, high-resolution soil sampling and analysis, real-time data analysis, and three-dimensional contaminant distribution modeling. Following the completion of the investigative work, from September 2014 through February 2015, an additional 33 groundwater monitoring wells were installed in 17 locations on and adjacent to the Chino Airport property.

The County completed a draft feasibility study in August 2016, identifying remedial action objectives (RAOs) for groundwater contaminants originating from the Chino Airport and evaluating remediation alternatives for mitigation.[3] On January 11, 2017, the Regional Board issued CAO R8-2017-0011 to the County, which superseded CAO R8-2008-0064. The order required that the County: (1) submit a final feasibility study within 60 days of receiving the Regional Board's comments on the draft feasibility study, (2) submit a final RAP within 60 days of the Regional Board approval of the final feasibility study, (3) implement the RAP in accordance with a Regional Board-approved schedule, and (4) prepare and submit technical reports and work plans as the Regional Board deemed necessary. The Regional Board submitted final comments on the draft feasibility study via email on February 8, 2017.[4] The County submitted responses to the Regional Board's comments along with a revised draft of the feasibility study on March 20, 2017.[5] The Regional Board reviewed and accepted the proposed changes and responses but submitted three additional comments on March 30, 2017.[6]

The County submitted the final feasibility study on May 15, 2017.[7] The preferred remedial action identified is a groundwater pump-and-treat system to provide hydraulic containment and treatment of both the West and the East Plumes. The Regional Board approved the final feasibility study on June 7, 2017 and requested that a RAP be prepared. The County submitted a draft interim remedial action plan (IRAP) for public review and comment on December 18, 2017.[8] In March 2018, the Regional Board extended the public comment period until April 18, 2018. The IRAP is still under review by the Regional Board. The IRAP is considered to be "interim" because the County is moving forward on an interim basis to initiate the remedial action as quickly as

[3] Tetra Tech. (2016). *Draft Feasibility Study Chino Airport San Bernardino County, California*. Prepared for the County of San Bernardino, Department of Airports. August 2016.
[4] https://geotracker.waterboards.ca.gov/view_documents?global_id=SL208634049&enforcement_id=631613
[5] https://geotracker.waterboards.ca.gov/view_documents?global_id=SL208634049&document_id=5916631
[6] https://geotracker.waterboards.ca.gov/view_documents?global_id=SL208634049&enforcement_id=631616
[7] Tetra Tech. (2017). *Final Feasibility Study Chino Airport San Bernardino County, California*. Prepared for the County of San Bernardino, Department of Architecture and Engineering. May 2017.
[8] Tetra Tech. (2017). *Draft Interim Remedial Action Plan*. Chino Airport, San Bernardino County, California. Prepared for the County San Bernardino Department of Airports. December 2017.

possible, but in the future, it could evaluate an expansion of the existing remedy or additional remedial actions.

In order to acquire additional lithologic and hydraulic data to design the groundwater pump-and-treat system, the County developed the *Groundwater Well Installation and Aquifer Pumping Test Work Plan* to install several extraction wells, piezometers, and monitoring wells at central locations within the West and East Plumes.[9] From February to June 2018, the County installed twelve piezometers, eleven monitoring wells, and five extraction wells (two locations) in accordance with the work plan. Exhibit 1 shows the new piezometer and well cluster locations. Aquifer pumping tests at the extraction wells began in August 2018 and were completed in September 2018. A report summarizing the field activities and findings of these tests was submitted to the Regional Board on June 19, 2019.[10]

In August 2018, the County submitted a *Human Health and Screening Ecological Risk Assessment* (HERRA) to the Regional Board.[11] HERRA provides technical support to the IRAP, which identifies preferred remedial actions that will protect human health and the environment and meet the remedy selection criteria of the USEPA National Contingency Plan. HERRA is also part of the County's overall effort to comply with CAO No. R8-2017-0011. It was conducted to evaluate the potential human health and ecological risks from potential exposures to chemicals detected in soil, soil gas, and groundwater associated with the Chino Airport. Overall, the findings show that the hazard level and cancer risk are low. The greatest threat would be to hypothetical future residents, but there are currently no plans for future residential development of the site.

Remedial Action

The preferred remedial action identified in the IRAP is a groundwater pump-and-treat system, consisting of ten extraction well sites and either one or two granular activated carbon (GAC) treatment systems. In total, the extraction wells are intended to produce between 900 and 1,500 gallons per minute (gpm) of groundwater. The proposed remedial action will also utilize existing CDA wells I-17 and I-18 to pump contaminated groundwater to an additional treatment system. Advancements on the approach and design of the pump-and-treat system are currently underway.

Once treated, the preferred option is to discharge the treated groundwater to the CDA's Chino-I Desalter influent pipeline via a newly constructed pipeline. Currently, the County is in discussions with the CDA on this discharge option. If this discharge option is not available, the alternative options are to discharge the treated groundwater to onsite sewers, wastewater treatment plants,

[9] Tetra Tech. (2017). *Groundwater Well Installation and Aquifer Pumping Test Work Plan*. Prepared for the County of San Bernardino. July 2017.
[10] Tetra Tech. (2019). *Well Installation, Well Destruction, and Aquifer Pumping Test Report Chino Airport San Bernardino County, California*. Prepared for the County of San Bernardino Department of Airports. June 2019.
[11] Tetra Tech. (2018). *Human Health and Screening Ecological Risk Assessment Chino Airport San Bernardino County, California*. Prepared for the County of San Bernardino Department of Airports. August 2018.

or the IEUA recycled water line, or to inject the treated groundwater back into the basin via nine injection wells that would be constructed at the northeast corner of the Chino Airport.

Once the IRAP is approved by the Regional Board, the county will design the pump-and-treat system and prepare the remedial action work plan.

In addition to planning the pump-and-treat system, the County has destroyed several abandoned and inactive wells to prevent them from acting as possible conduits for the vertical migration of contaminants. In June and July of 2018, the County destroyed four former agricultural wells in accordance with the *Former Agricultural Well Destruction Work Plan* submitted to the Regional Board in July 2018.[12] A fifth agricultural is being considered for destruction.

Monitoring and Reporting Program

Currently, the County conducts quarterly, annual, or biennial water-quality monitoring, and quarterly water-level monitoring, at 75 site-related monitoring wells. The sampling frequency is determined by well classification (i.e. background wells, horizontal or vertical extent wells, remedial monitoring wells, and guard wells). The purpose of the groundwater monitoring program is to collect data to track detections of VOCs in groundwater, monitor temporal trends of contaminants, and evaluate changes in each groundwater plume. All data collected by the County are posted on the Regional Board's GeoTracker website.[13] Conclusions from the monitoring program can also be found in the semi-annual reports posted on GeoTracker. The most recent monitoring report *Semiannual Groundwater Monitoring Report-Summer and Fall 2018* was submitted to the Regional Board in March 2019.[14]

Watermaster collects groundwater-quality samples from private wells in the plume area and at its HCMP-4 monitoring well, located in the southern end of the plume. The CDA also collects groundwater-quality samples from its production wells; these data are shared with Watermaster and the County. Watermaster uses data from the County, CDA, and its own sampling to perform an independent characterization of the areal extent and concentration of the TCE and 1,2,3-TCP plumes.

Recent Activity

In April 2018, the following CEQA documents for the proposed remedial strategy were published: *Notice of Availability/Notice of Intent to Adopt a Mitigated Negative Declaration Chino Airport Groundwater Contamination Remedial Action Plan* and the *Initial Study Environmental Checklist Form*.[15,16] The public review period for these documents ended on May 10, 2018. The County's

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[12] Tetra Tech. (2018). *Former Agricultural Well Destruction Work Plan.* Prepared for the County of San Bernardino. July 2018.

[13] http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SL208634049

[14] Tetra Tech. (2019). *Semiannual Groundwater Monitoring Report-Summer and Fall 2018.* Prepared for the County of San Bernardino. March 19, 2019.

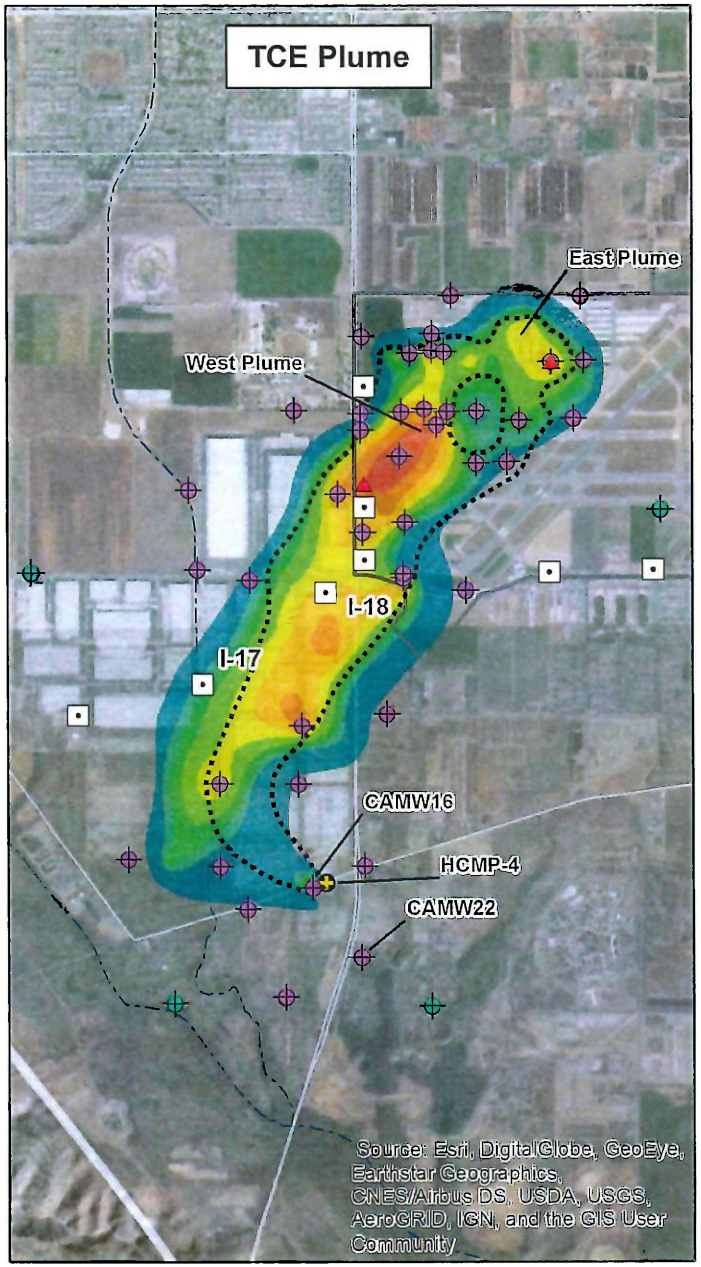
[15] https://geotracker.waterboards.ca.gov/esi/uploads/geo_report/7323769629/SL208634049.PDF

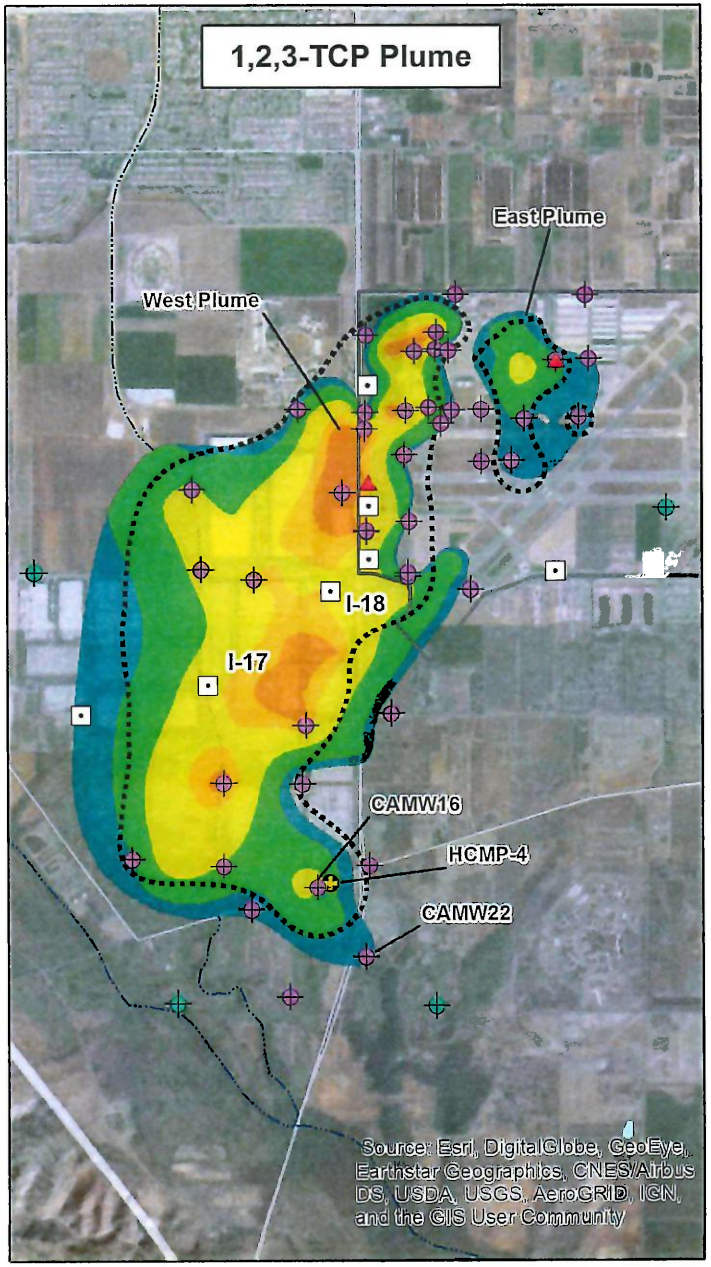
[16] https://geotracker.waterboards.ca.gov/esi/uploads/geo_report/5682043671/SL208634049.PDF

responses to comments were published on January 24, 2019, and the filing of the Notice of Determination for the Mitigated Negative Declaration was completed on January 29, 2019.

On December 10, 2018 The California Office of Environmental Health Hazard Assessment (OEHHA) provided comments to the Regional Board on the HERRA.[17] Based on the OEHHA's comments, the Regional Board sent the County an email on March 6, 2019, listing the revisions that the County would be required to make to the HERRA. The County submitted responses to the comments (RTCs) on June 13, 2019. The Regional Board submitted responses to the County's RTCs on August 2, 2019. The County is currently preparing a data gap work plan for the HHERA to address the outstanding comments.

[17] OEHHA. (2018). *Memorandum – Review of Human Health and Screening Ecological Risk Assessment, Chino Airport, San Bernardino County*, Dated April 2018. December 2018.





Maximum Concentration (µgL)
July 2013 - June 2018

TCE
- 0.5 to ≤ 5
- > 5 to ≤ 10
- > 10 to ≤ 20
- > 20 to ≤ 50
- > 50 to ≤ 100
- > 100 to ≤ 200
- > 200 to ≤ 500
- > 500

MCL = 5 µgl

1,2,3-TCP
- 0.005 to ≤ 0.05
- > .05 to ≤ .5
- > .5 to ≤ 5
- > 5 to ≤ 10
- >10 to ≤100

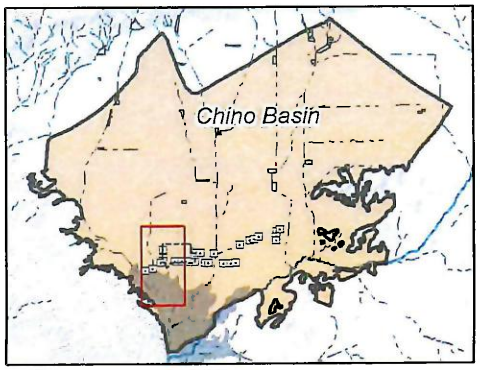
MCL = 0.005 µgl

(Delineated by Watermaster in the 2018 State of the Basin Report)

Approximate Extent of TCE (>5 µgl) or 1,2,3-TCP (>0.005 µgl) Plumes as Delineated by the County of San Bernardino Using Data Through 2018

County of San Bernardino Monitoring Well (some locations have multiple well casings at various depths)
- Constructed Between 2003 and 2015
- Constructed Between Feb. and Jun. 2018

Piezometer and Extraction Well Cluster
- Constructed Between Feb. and Jun. 2018
- Chino Basin Desalter Authority Production Well
- Streams & Flood Control Channels
- Chino Airport Property Boundary



P131

Prepared by:
WEI
Wildermuth Environmental, Inc.

Author: LH
Date: 10/3/2019
Name: 20190828_ChinoAirport_PlumeStatus

0 0.25 0.5 1 Miles

Semiannual Plume Status Report
October 2019

Chino Airport TCE and 1,2,3-TCP Plumes

Exhibit 1

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ANNUAL PLUME STATUS REPORT
CALIFORNIA INSTITUTION FOR MEN PLUME
October 2019

Contaminants
The primary contaminant is tetrachloroethene (PCE). The maximum contaminant level (MCL) for PCE is 5 micrograms per liter (µgl). The highest concentration of PCE measured at a well within the plume is 1,990 µgl (MW-7 in 1998). Other contaminants of concern include the following volatile organic compounds (VOCs): trichloroethene (TCE), 1,2-dichloroethene, bromodichloromethane, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, and toluene.

Location
The California Institution for Men (CIM) is a state correctional facility located in the City of Chino. The property occupies roughly 1,500 acres and is bounded by Eucalyptus Avenue to the north, Euclid Avenue to the east, Kimball Avenue to the south, and Central Avenue to the west. The plume is located predominantly beneath the CIM property. Exhibit 1 shows the spatial extent of the PCE plume, as delineated by the Chino Basin Watermaster (Watermaster) in the *2018 State of the Basin Report*.[1] The extent of the plume with detectable PCE concentrations greater than 0.5 µgl is about 4,000 feet long and 3,000 feet wide.

Site History
Since 1939, the State of California Department of Corrections and Rehabilitation (State) has operated CIM. The primary uses of the CIM property include agricultural operations, inmate housing, and correctional facilities. The Heman G. Stark Youth Correctional Facility occupies the eastern portion of the CIM property. In addition to producing water for its own facilities, CIM provides potable water produced from onsite groundwater wells to both the nearby Youth Correctional Facility and the California Institution for Women. CIM operates 10 water supply wells (five of which were active in 2019), a distribution system, and a water treatment plant. The land surrounding the CIM property was historically used for agriculture and dairy activities but has rapidly developed in recent years for residential and commercial uses.

Regulatory Orders
No regulatory orders for site remediation and monitoring were issued by the Santa Ana Regional Water Quality Control Board (Regional Board) for PCE contamination. The State conducted voluntary cleanup and monitoring under direction from the Regional Board, and on December 17, 2009, the Regional Board determined "No Further Action" was required for remediation and monitoring.

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[1] Wildermuth Environmental, Inc. (2019). *Chino Basin Optimum Basin Management Program-2018 State of the Basin Report*. Prepared for the Chino Basin Watermaster. June 2019.

In addition, there are three leaking underground storage tank (LUST) cleanup sites on the CIM property that are considered unrelated to the PCE contamination and are regulated under the State Water Resources Control Board (State Board) Underground Storage Tank (UST) program. The UST program directs Regional Boards to implement a monitoring plan and oversee site closures under the State Board's Low Threat Closure Policy (LTCP). No regulatory orders exist for groundwater remediation or monitoring at the CIM LUST sites. In 2006, two of the sites were closed by the State Board, having met the requirements under the LTCP. The other LUST site remains open with ongoing monitoring and remediation for petroleum hydrocarbons.

Regulatory and Monitoring History

In 1990, PCE was detected at a concentration of 26 µgl at CIM drinking water supply Well 1. This prompted the California Department of Health Services (CDHS), now the California State Board Division of Drinking Water (DDW), to direct CIM to stop using the well as a source of drinking water. The detection of PCE concentrations in two other CIM drinking water supply wells (1A and 11A) triggered the Regional Board to request an investigation of the source and extent of the onsite PCE contamination. Following an initial investigation, the Regional Board sent the State a written request to perform a subsurface investigation to define the vertical and lateral extent of PCE in soil at four locations where PCE was detected in soil vapor samples during the investigation.

The Phase I Initial Site Assessment was performed at the CIM site in 1992 and included a review of CIM's history, operations, and chemical use.[2] The investigation identified five potential sites where VOCs were used and could have impacted soil and groundwater. These areas included: the old laundry building, the furniture factory, the vocational shops, the state garage, and the powerhouse.

The Phase II Site Assessment was performed from 1992 to 1994 to assess the presence and concentrations of VOCs in soil vapor, soil, and groundwater beneath the site at the five potential sites identified in Phase I.[3] Seven groundwater monitoring wells were installed and sampled as part of this investigation. The results from the soil vapor investigation and the groundwater quality analysis showed low concentrations of contaminants throughout the site, with concentrations of PCE in groundwater samples from monitoring wells ranging from 0.6 to 19 µgl. The old laundry facility and nearby areas had the highest concentration of PCE in soil and soil vapor samples and was thus identified as the most likely principal source of VOCs. A Phase III assessment was performed in 1996 to further investigate the distributions of VOC contamination beneath the CIM and included depth discrete groundwater sampling at four exploratory boreholes. The investigation showed that there were three distinct aquifer zones below the CIM and that PCE and other VOCs were migrating laterally from the shallow zone to the intermediate and deep zones where the drinking water supply wells are screened. Between August 1994 and

[2] Geomatrix Consultants, Inc. (1992). *Report of Phase I Investigation, VOCs in Soil and Groundwater, Department of Corrections California Institution for Men, Chino*. April 20, 1992.

[3] Geomatrix Consultants, Inc. (1994). *Phase II Assessment of VOCs in Soil and Groundwater, California Institution for Men Chino, California*. Prepared for the Department of General Services. October 4, 1994.

May 2001, a network of 43 monitoring wells at varying depths in the shallow, intermediate, and deep aquifer zones were constructed.

In 1997, the Regional Board approved an interim remedial measure for the hydraulic containment of VOC-affected groundwater using Well 1. In 2001, construction began on two new CIM water supply wells (Wells 14 and 15) and associated pipelines to prevent VOC-impacted groundwater at the southern end of the plume from migrating away from the site. Additionally, two agricultural wells (Wells 8 and 11) were destroyed to protect the deeper aquifer from the downward movement of VOC contaminated groundwater.

The 43 monitoring wells were sampled intermittently through 2007 to analyze the extent and concentrations of VOCs in the groundwater beneath the CIM property. It was determined that the VOC impacts to groundwater were limited to the source area and immediately downgradient. Furthermore, the plume had not and was not expected to migrate off the property. A final monitoring event was conducted by the State during January 2007, which included groundwater quality sampling at 39 water supply and monitoring wells at the CIM property.[4] Based on this monitoring event and data from previous monitoring efforts, it was concluded that despite the concentrations of PCE exceeding the MCL at three monitoring wells, PCE concentrations in groundwater in the shallow zone were overall stable or decreasing. PCE concentrations in the deeper aquifer at the CIM drinking water supply wells, however, were all below the MCL and had been since April 2003 with a few exceptions in early/mid 2006. Moreover, there had been no detections of TCE or other VOCs above the MCL in groundwater samples since December 2002.

In February 2007, the State submitted a request to the Regional Board for a No Further Action (NFA) finding for groundwater remediation and monitoring at CIM. On December 17, 2009, the Regional Board issued a determination of NFA for the CIM site.[5]

Remedial Action

In July 1997, the State implemented remediation activities, termed *The PCE Remediation Project,* with an interim remedial measure to pump and treat groundwater from Well 1.[6] The groundwater was treated for VOCs using air stripping. Operation of the air stripper continued until 2004, when the permeability of the air stripper packing was compromised by the accumulation of mineral precipitates. During its operation, the pump-and-treat process at Well 1 removed 57.9 pounds of PCE and TCE collectively. After 2004, both PCE and TCE concentrations were below the MCL in groundwater extracted from Well 1, and pumping continued without treatment with approval from the CDHS and Regional Board. A supplemental remedial measure began in 2001, which included the construction of two new CIM water supply wells (Well 14 and

[4] Geomatrix Consultants, Inc. (2007). *January 2007 Groundwater Monitoring PCE Remediation Project California Institution for Men Chino, California*. Prepared for the Department of General Services Real Estate Services Division Project Management Branch. May 17, 2007.

[5] California Regional Water Quality Control Board, Santa Ana Region (2009). *Determination of No Further Action (NFA), Tetrachloroethylene Remediation Project, California Institution for Men, Chino*. December 17, 2009.

[6] Geomatrix Consultants, Inc. (2005). *PCE Remediation Project Report. California Institution for Men.* Prepared for the California Department of General Services. July 2005.

Well 15), located in an area to intercept the toe of the VOC plume, promoting hydraulic containment of the VOCs within the groundwater beneath CIM. Wells 14 and 15 operated without treatment from January 2003 to December 2008; during this time, these two wells removed an additional 13.8 pounds of PCE and TCE collectively.

The need for remedial action was considered to address the elevated levels of PCE in the soil below the old laundry site, but it was determined that it would not provide a cost-effective benefit to the protection of groundwater quality despite some potential contribution of PCE from the soil to groundwater beneath the site.

Remediation requirements at CIM ended in December 2009 with the Regional Board's determination of NFA. Since then, PCE has been periodically detected at concentrations above the MCL at CIM supply wells 1 and 15. Additionally, other contaminants have been detected above their respective MCLs, including 1,2,3-TCP and nitrate. CIM operates a water treatment plant to remove contaminants for drinking water supply.

Monitoring and Reporting Program

The State conducted voluntary monitoring at CIM from 1992 to 2007 at 43 monitoring wells and 14 water supply wells. Voluntary monitoring ended in December 2009 with the Regional Board's approval of the 2009 determination of NFA. As part of the NFA, the State was required to decommission the monitoring wells located onsite in accordance with California Well Standards (DWR Bulletin No. 74-81). It was agreed amongst the consultants, counsel, the State, and the Watermaster to preserve some of the CIM monitoring wells for the Watermaster's groundwater-level monitoring program pursuant to the Optimum Basin Management Program (OBMP). Watermaster and the State agreed to preserve 16 wells. The location of these wells is shown in Exhibit 1.

CIM continues to monitor groundwater-quality at its potable supply wells as part of its water supply operations under DDW regulations. The State samples the five active potable supply wells for PCE and TCE monthly and reports the data to the DDW. Watermaster routinely collects all groundwater-quality data from the DDW's Water Quality Analyses Database for the CIM potable supply wells as part of the OBMP groundwater-quality monitoring program and uses these data to characterize the areal extent and concentration of the PCE plume every two years. [7]

Recent Activity

There has been no further regulatory activity associated with PCE contamination monitoring and remediation at CIM since the NFA determination.

The most recent characterization of the plume was completed by Watermaster in the *2018 State of the Basin Report* (Exhibit 1). Since the NFA determination, the PCE plume has shown no significant change, based on available data. The following table summarizes the five-year

[7] https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/EDTlibrary.shtml

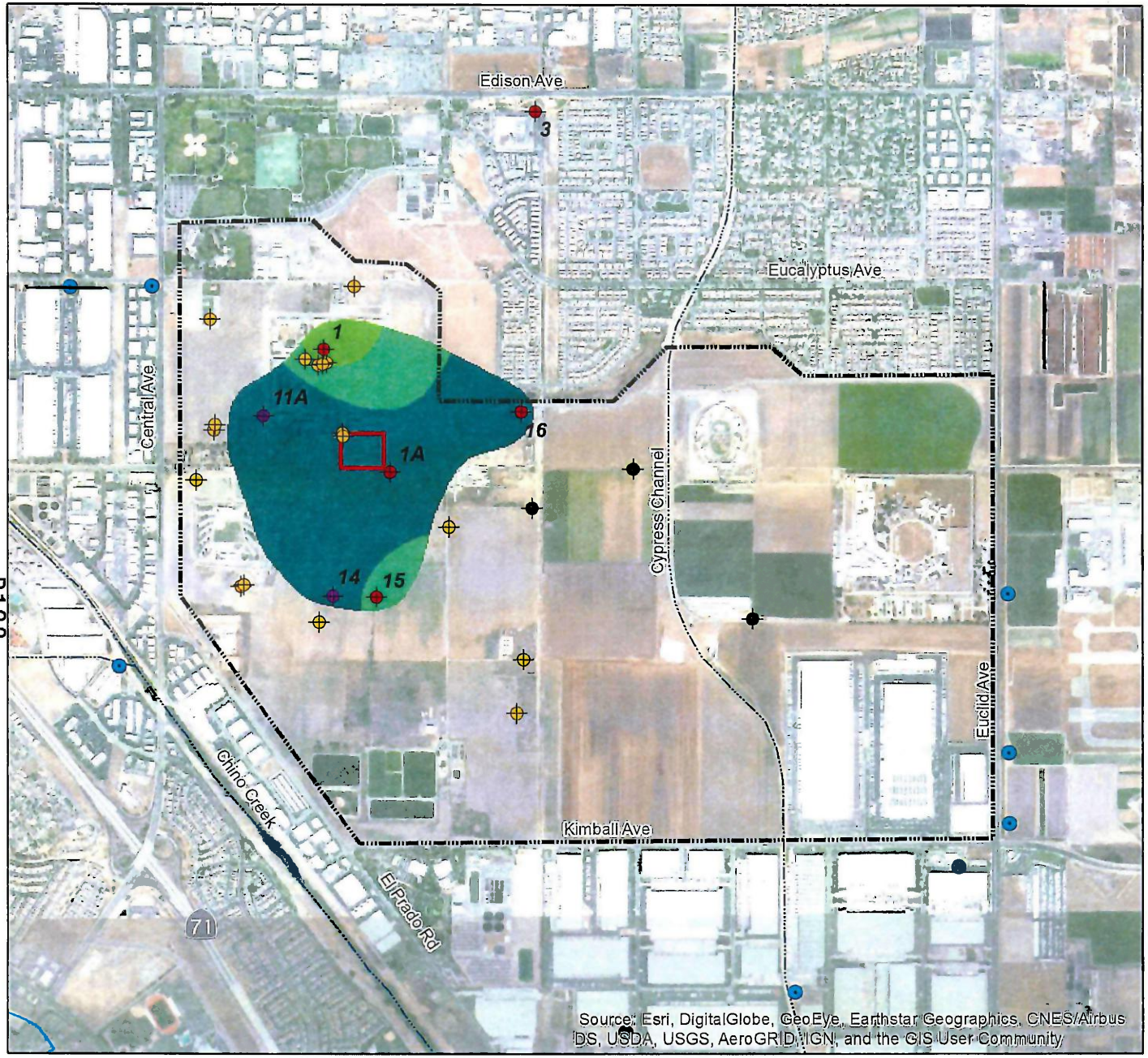
maximum PCE concentration (July 2014 to June 2019) for wells with detect values within the plume, based on monthly DDW sampling:

Maximum Five-Year PCE Concentration in CIM Wells
(July 2014 – June 2019)

Well	Maximum PCE (µgl)
1	15
1A	3.4
11A	1
14	1.1
15	8.5
16	2.19

There are recent regulatory activities associated with the CIM State garage LUST cleanup site that impact the area of the PCE plume. This site is located approximately 330 feet northwest of CIM drinking water supply well 1A, and although contamination is predominantly in the shallow aquifer, there is concern that it could infiltrate the deeper zones from which Well 1A produces water. On March 8, 2019, the Regional Board formally rejected the State's request for closure of the State garage LUST site, citing that several criteria had not been met.[8] More specifically, they deemed the groundwater assessment incomplete as the plume edge between the State garage and water supply well 1A was unclear. The Regional Board requested that further assessment be done to determine if there are total petroleum hydrocarbons (TPH) in the downgradient CIM drinking water supply Well 1A. On July 26, 2019, following the annual monitoring event in May, during which six monitoring wells associated with the State garage LUST site were sampled, the State submitted a work plan for additional investigation, outlining a scope of work to address the Regional Board's comments. They proposed sampling shallow soil at four borings, sampling groundwater at all 35 of the groundwater monitoring wells associated with the State garage LUST site and collecting additional groundwater quality data for petroleum hydrocarbons in drinking water supply Well 1A. These activities are anticipated to be completed in the fourth quarter of 2019, contingent on the Regional Board's approval of the work plan and funding availability by the State.

[8] California Regional Water Quality Control Board, Santa Ana Region. (2019). *Response to Soil Vapor Investigation and Path to Closure, California Institution for Men, Garage*. March 8, 2019.



P138

Maximum PCE Concentration (µgl)
July 2014 to June 2019

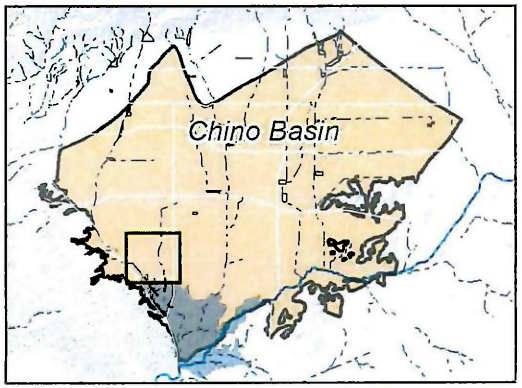
- ≤ 5
- > 5 to ≤ 10
- > 10 to ≤ 20

(Delineated by Watermaster in the 2018 State of the Basin Report)

CIM Potable Water Supply Wells*

- Active as of Fiscal Year 2019
- Inactive as of Fiscal Year 2019
- Other Agency Potable Municipal Water Supply Wells
- CIM Monitoring Wells Preserved for the Watermaster Groundwater-Level Monitoring Program (some locations have mutliple wells at various depths)
- Boundary of CIM State Garage LUST Site
- CIM Property Boundary
- Streams & Flood Control Channels

* Wells referenced in the report are labeled by well name



Prepared by:
WEI
Wildermuth Environmental, Inc.

Author: LH
Date: 10/3/2019
Name: 20190822_CIM_PlumeStatus

0 0.25 0.5 1 Miles

Plume Status Report
October 2019

California Institution for Men
PCE Plume

Exhibit 1

ANNUAL PLUME STATUS REPORT
FORMER KAISER STEEL MILL PLUME AND
CCG ONTARIO MONITORING AND REMEDIATION

October 2019

Contaminants

From 1983 to 1993, the primary contaminants of concern (COC) for the former Kaiser Steel Mill site were total dissolved solids (TDS) and total organic carbon (TOC). In 2008, additional investigations commenced to identify other COCs. Currently, COCs associated with the site include: hexavalent chromium, carbon tetrachloride, and chloroform. TDS and TOC are no longer considered COCs.

Location

The former Kaiser Steel Mill site is a 1,200-acre parcel in an unincorporated area of San Bernardino County between the Cities of Fontana and Ontario. The site is bounded by Whittram Avenue to the north, Interstate 10 to the south, and Etiwanda and Cherry Avenues to the west and east, respectively. The last delineation of the Kaiser TDS/TOC plume extent was completed in 2008[1] by the Chino Basin Watermaster (Watermaster), and at that time, the plume was approximately 7,000 feet wide and 18,500 feet long, extending southwest from the site. Exhibit 1 shows the location of the site and the extent of the TDS plume in 2008. No plume delineations for other COCs have been prepared.

Site History

The Kaiser Steel Corporation operated the Kaiser Steel Mill from 1942 to 1983, and during peak production, the facility was the largest steel producer in the western United States. For the first 30 years, solid and liquid wastes produced from manufacturing processes were disposed of in waste pits and unlined surface impoundments for percolation and evaporation throughout the site. In the early 1970s, the surface impoundments were lined to eliminate percolation to groundwater. In 1987, the Kaiser Steel Corporation filed for bankruptcy and reorganized into Kaiser Resources Inc., which became Kaiser Ventures Inc. in 1995.

After the Kaiser Steel Corporation ceased steel operations in 1983, portions of the property were divided and leased or sold to the following organizations:

- Chemwest Industrial Inc., a chemical manufacturing company, leased land in the southwest portion of the property (East Slag Pile Area in Exhibit 1) but no longer operates onsite.

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[1] Wildermuth Environmental, Inc. (2008). *Chino Basin Management Zone 3 Monitoring Program Final Report.* Prepared for Chino Basin Watermaster and Inland Empire Utilities Agency. December 2008.

- California Steel Industries purchased 458 acres to manufacture rolled steel.
- The Auto Club Speedway (formerly California Speedway) was constructed by the Penske Corporation on 500 acres in the northern corner of the site in 1995.
- CCG Ontario, LLC (CCG)[2] purchased 592 acres along the western and southern portions of the property in 2000 and inherited responsibility for site contamination remediation and monitoring from Kaiser Ventures Inc.

Regulatory Orders

- Regional Water Quality Control Board Santa Ana Region (Regional Board) Cleanup and Abatement Order (CAO) No. 87-121 (August 1987)—the Required Kaiser Steel Corporation to initiate a Phase IV groundwater investigation and implement a remediation action alternative for groundwater contamination.
- Regional Board CAO No. 91-40 (March 1991)—Required a feasibility study for a salt-offset remediation alternative for groundwater contamination.
- California Department of Health Services (now Department of Toxic Substances Control [DTSC]) Consent Order with the Kaiser Steel Corporation (August 1988)—Required the Kaiser Steel Corporation to investigate any release of contamination to air, soil, surface water, and groundwater, and to ensure appropriate remedial measures were taken.
- DTSC Imminent and Substantial Endangerment Determination Consent Order with CCG (August 2000)—Transferred responsibility of investigation and remedial activities associated with the 592 acres purchased by CCG and the Coal Tar Pits Parcel from Kaiser Ventures Inc. to CCG.

Regulatory and Monitoring History

In July 1983, a phased investigation of potential groundwater contamination, resulting from the disposal of high-salinity wastewater to unlined ponds during its early years of operation, was performed at the former Kaiser Steel Mill site. The Phase I and II investigations[3] were completed in December 1983 and identified 28 waste sites and four likely point-sources that contributed to TDS and TOC groundwater contamination beneath the facility. Groundwater samples were collected at existing onsite and offsite wells to determine the preliminary extent of groundwater contamination and to assess groundwater quality downgradient from the site. The Phase III investigation,[4] completed in March 1986, resulted in the construction of monitoring wells at six additional locations (five single-nested and one quadruple-nested). Based on these investigations, three separate TDS plumes were identified: one onsite, extending to a depth of 770 feet below ground surface (ft-bgs), and two that migrated offsite. Additionally, one TOC plume was identified onsite extending to a depth of approximately 100 (ft-bgs). The Phase III investigation determined that the TDS plumes were moving downgradient at a rate of 100 to 300 feet per year with the potential to impact downgradient municipal production wells.

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[2] CCG Ontario is a subsidiary of Prologis, a real-estate and supply chain logistics company.

[3] James M. Montgomery and Associates. (1983). *Final Report, Kaiser Steel Corporation Groundwater Evaluations*. December 1983.

[4] James M. Montgomery and Associates. (1986). *Kaiser Steel Corporation Phase III Groundwater Investigation*. Prepared for Kaiser Steel Corporation. March 1986.

In 1987, the Regional Board issued CAO No. 87-121[5] to the Kaiser Steel Corporation in response to the findings of the phased investigations, which required a Phase IV groundwater investigation to further characterize the plume's extent and evaluate remediation strategies, such as groundwater extraction and treatment.

On August 22, 1988, a Consent Order[6] was signed between the Kaiser Steel Corporation and the California Department of Health Services, Toxic Substances Control Division (later known as the DTSC, as stated above) to ensure that any release or threatened release of contamination to the air, soil, surface water, or groundwater at the site is thoroughly investigated, and that appropriate remedial actions are taken. Two preliminary assessments/site investigations (PA/SI) were completed on August 1988 and January 1989. The results of these investigations were published in the *Resource Conservation and Recovery Act (RCRA) Facility Assessment Report*,[7] which identified twenty areas for remedial investigation. The Phase I and II remedial investigations[8] were completed in April and October of 1990, respectively. The results of these investigations concluded:

- Three areas of the former Kaiser Steel Mill site required remediation and further investigation: the tar pits, the byproducts plant area, and the east slag pile.
- Two areas required the removal of contaminated materials: the cooling tower sludge pit and the furnace dust and mill scale piles. Remediation of the byproducts plant area and cooling tower sludge pit began in 1995 prior to the construction of the Auto Club Speedway.

In 1990, Kaiser Resources Inc. (formerly Kaiser Steel Corporation) initiated plans for a 'salt-offset' as an alternative to groundwater extraction and treatment of the TDS and TOC plumes. In March 1991, the Regional Board rescinded CAO No. 87-121 and issued CAO No. 91-40, which allowed Kaiser Resources Inc. to complete a feasibility study for a salt-offset program. The *Phase IV Groundwater Remediation Feasibility Study Draft Report*[9] was published in 1991; it analyzed a salt-offset alternative and nine other groundwater remediation alternatives. In 1993, CAO No. 91-40 was rescinded when Kaiser Resources Inc. and the Regional Board entered into a settlement agreement (known as the Salt Offset Agreement). Under the Salt Offset Agreement, Kaiser Resources Inc. would contribute financial resources and dedicate its Chino Basin water rights to support the construction and operation of the Chino Basin Desalters in exchange for release from any future liability for TDS and TOC contamination. Kaiser Resources Inc. made a one-time contribution of $1.5 million and 25,000 acre-feet of its water rights established under the Chino Basin Judgement.

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[5] Regional Board. (1987). *Cleanup and Abatement Order No. 87-121 for Kaiser Steel Corporation Fontana, San Bernardino County.* August 26, 1987.
[6] Department of Toxic Substances Control Docket No. HAS 87/88-032CO. Consent Order (Health and Safety code sections 205,25355.1(a)(1)) August 22, 1988.
[7] JMM. (1989). *RCRA Facility Assessment Report*. Prepared for Kaiser Steel Resources Inc. January 1989.
[8] https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60001356
[9] Mark J. Wildermuth. (1991). *Phase IV Groundwater Remediation Feasibility Draft Report*. Prepared for Kaiser Steel Resources Inc. November 1991.

Between 1986 and 1994, an interim groundwater-quality monitoring program was implemented to further characterize the extent of the TDS and TOC groundwater contamination. The monitoring program consisted of sampling a network of 30 onsite and offsite monitoring and production wells, including newly constructed monitoring wells KOSF-1 and Kaiser-MP2. The maximum TDS and TOC concentrations detected in groundwater samples during this time were 1,600 milligrams per liter (mgl) and 70 mgl, respectively.

In 2000, CCG purchased 592 acres of the former Kaiser Steel Mill site and entered into a Consent Order[10] with the DTSC, transferring responsibility for the remediation of site-related contamination from Kaiser Ventures Inc. (formerly Kaiser Steel Corporation and Kaiser Resources Inc.) to CCG. The 2000 Consent Order also required CCG to perform groundwater investigations and, if necessary, develop remediation alternatives for COCs other than TDS and TOC.

Remedial Action

As previously noted, remediation activities associated with the TDS and TOC plumes ended with the adoption of the 1993 Salt Offset Agreement. The 2000 Consent Order between the DTSC and CCG divided the site into four 'Operable Units' (OU's) (see Exhibit 1 for OU boundaries) and required the remediation of each OU. The following describes the Remedial Action Plans (RAP) for each OU-1 through OU-4:

- **OU-1 - Tar Pits. The** RAP included an in-situ solidification of the tar and surrounding soil and the construction of cover system (cap) over the tar pits parcel.[11] The DTSC approved the final amended RAP in 2001.[12]
- **OU-2 – Auto Club Speedway/By-Products Area.** The RAP included the removal and treatment and of contaminated sludge waste, a two-foot protective soil layer, the construction of a 13-acre cap over the protective soil layer, and groundwater monitoring.[13] The DTSC approved the final RAP on May 1, 1995.[14]
- **OU-3 – East Slag Pile Landfill Area.** The RAP included the construction of a four-foot thick monolithic soil cover, a landfill gas collection and control system, landfill gas monitoring probes, pavement on the upper surface of east slag pile, a surface water drainage system,

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[10] Department of Toxic Substances Control Docket No. I&SE -CO 00/01-001 Imminent and Substantial Endangerment Determination and Consent Order (Health and Safety Code Sections 25355.5(a)(1)(B) and (C), 25358.3 (a), 58009 and 58010.) August 10, 2000.

[11] Arcadis Geraghty & Miller, Inc. (2001). *Second Amendment to the Remedial Action Plan – Operable Unit No. 1 Tar Pits Parcel, Former Kaiser Steel Corporation, Fontana, California.* Prepared for Kaiser Ventures. December 10, 2001.

[12] DTSC. (2001). *Letter from Thomas M. Cota – Final Second Amendment to the Remedial Action Plan for the Kaiser Steel Site, Operable Unit Number 1, Tar Pits Area.* December 20, 2001.

[13] Iris Environmental. (2014). *Third Five-Year Review Report Auto Club Speedway Operable Unit No. 2, By-Products Area Former Kaiser Steel Mill Facility San Bernardino County, California. Prepared for CCG-Ontario LLC.* June 2014

[14] DTSC. (1995). *Letter – Remedial Action Plan for Kaiser Resources, Inc. Operable Unit No. 2 is Approved.* May 1, 1995.

groundwater monitoring, and long-term operations and maintenance of at least 30 years.[15] The DTSC approved the final RAP on October 31, 2007.[16]

- **OU-4 – Chemwest Upper Ponds/Consolidated Waste Cell/Aboveground Storage Tanks/Chrome Ponds and Adjacent Areas (CCAC)**. The RAP included the construction of a cap over the CCAC, groundwater monitoring, and long-term operations and maintenance. The DTSC approved the final RAP on February 13, 2009.[17]

The above remedial actions specified for OU-1 through OU-4 have been implemented. Site maintenance, inspection, and monitoring reports on the implemented remedial measures are published semiannually for OU-1, OU-3, and OU-4, and annually for OU-2 to ensure the completed remedies are operating properly.

In 2008, an additional operable unit (OU-5; not a geographical area) was established to prescribe site-wide groundwater monitoring in accordance with the 2000 Consent Order between the DTSC and CCG. The 2008 *Groundwater Remedial Investigation Work Plan*[18] (2008 Work Plan) was prepared to address site-wide data gaps in characterizing groundwater contamination other than TDS and TOC and to develop a long-term, site-wide monitoring program. The work plan was approved by the DTSC on November 3, 2008 and resulted in the creation of the Site-Wide Groundwater Monitoring Program. In 2009, groundwater monitoring wells were installed at 24 locations over a five-month period as part of the Site-Wide Groundwater Monitoring Program. Eight quarterly groundwater sampling events were performed from 2009 to 2011. Data collected from the sampling efforts were used to perform a health risk assessment by comparing contaminant concentrations detected in the offsite groundwater monitoring wells with EPA regional screening levels (RSLs). Hexavalent chromium, carbon tetrachloride, and chloroform were detected at concentrations above the risk-based screening concentrations and were therefore determined to be site-wide constituents of concern, warranting continued monitoring.

On September 1, 2016, CCG completed the *Final Groundwater Remedial Investigation Report/Feasibility Study and Remedial Action Plan*[19] (2016 Final RI/FS/RAP), which included the results of the Site-Wide Groundwater Monitoring Program from 2009 through 2011 and selected continued annual groundwater monitoring as the RAP for OU-5. In September 2016, DTSC approved the RAP and requested CCG to submit a Remedial Design Implementation Plan to

[15] Shaw Environmental, Inc. (*2007). Remedial Action Plan – East Slag Pile Landfill, Former Kaiser Steel Mill Site, Fontana, California*. Prepared for CCG Ontario, LLC. August 2007.
[16] DTSC. (2007). *Letter from Rebecca Chou – Approval of the Final Remedial Action Plan for the East Slag Pile Landfill (ESPL) Area, Former Kaiser Steel Mill, Fontana, California*. October 31, 2007.
[17] Shaw Environmental Inc. (2009). *Final Remedial Action Plan OU-4.* Prepared for CCG Ontario LLC. January 2009.
[18] Shaw Environmental Inc. (2008). *Groundwater Remedial Investigation Work Plan; Former Kaiser Steel Mill.* Prepared for CCG Ontario LLC. October 2008.
[19] Iris Environmental Inc. (2016). *Final Groundwater Remedial Investigation Report/Feasibility Study and Remedial Action Plan. Prepared for CCG Ontario, LLC*. September 2016.

implement the approved RAP monitoring for OU-5.[20] The Remedial Design Implementation Plan was submitted by CCG and is being reviewed by DTSC.[21]

Monitoring and Reporting Program

Current groundwater monitoring activities and procedures are performed pursuant to the long-term[22] operations and maintenance plans for OU-2,[23] OU-3,[24] and OU-4.[25] The Site-Wide Groundwater Monitoring Program for OU-5 includes annual sampling of 20 monitoring wells (11 well sites), and annual reporting to the DTSC. Continued annual groundwater monitoring and reporting for OU-5 was included in the *Sitewide Water Quality Sampling and Analysis Plan* as Appendix M of the approved 2016 Final RI/FS/RAP. Monitoring activities for the OU-5 Site-Wide Groundwater Monitoring Program have not initiated as of June 2019.

Exhibit 1 shows the locations of the 24 current and historic well sites monitored for OU-2 through OU-5. The table below summarizes the number of wells, sampling frequency, and duration of sampling for each monitored OU.

Operable Unit	# of Wells	Sampling Frequency (Duration)
OU-2	5	Quarterly (2009-2015); Semi-annual (2015-present)
OU-3	9	Quarterly (2009-present)
OU-4	14	Quarterly (2009-present)
OU-5 (work plan)	34	Quarterly (2009-2011)
OU-5 (final RAP)	20	Annually (pending)

Note: There are a total of 37 monitoring wells in OU-2 through OU-5. Some wells were specifically installed outside OU boundaries, and other wells were installed inside multiple OU boundaries; as a result, multiple wells are sampled as part of more than one OU monitoring program.

Groundwater monitoring reports for OU-2, OU-3, and OU-4 are published on a quarterly or semi-annual basis. Site-Wide Five-Year Review Reports are prepared and submitted to the DTSC to determine if the implemented remedial actions remain protective of human health and the environment. CCG is required to prepare these reports in accordance with the 2000 Consent

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[20] DTSC. (2016). *Letter from Eileen Mananian – Approval of the Final Groundwater Remedial Investigation/Feasibility Study and Remedial Action Plan, Former Kaiser Steel Mill, Fontana, California*. September 13, 2016

[21] Email correspondence with Mr. Gregory Shaffer at the DTSC on October 2, 2019.

[22] Long-term includes at least 30 years of operations and maintenance for each OU.

[23] SCS Engineers. (1995). *Operation & Maintenance Agreement – Operable Unit No. 2*. Prepared for Kaiser Resources Inc. September 1995.

[24] Shaw Environmental, Inc. (2010). *Operations and Maintenance Plan – East Slag Pile Landfill Area, Former Kaiser Steel Mill Facility, Fontana, California.* Prepared for CCG Ontario, LLC. June 2010.

[25] Shaw Environmental, Inc. (2010). *Operations and Maintenance Plan – Chemwest Upper Ponds/Consolidated Waste Cell, Above-Ground Storage Tanks, Chrome Ponds, and Adjacent Areas, Former Kaiser Steel Mill Facility, Fontana California.* Prepared for CCG Ontario, LLC. June 2010.

Order. The first *Site-Wide Five-Year Review Report*[26] was submitted to the DTSC on April 1, 2016. The report concluded that the remedial actions for all OUs were functioning as intended. The second Site-Wide Five-Year Report is scheduled to be published in 2021.

Watermaster samples eleven monitoring wells annually at four downgradient locations (Exhibit 1) for the Key Well Groundwater Quality Monitoring Program (KWGWQMP) and provides monitoring results to CCG upon request.

Recent Activity

Semiannual groundwater monitoring events for OU-2 and quarterly groundwater monitoring events for OU-3 and OU-4 continue pursuant to their operations and maintenance plans. The following summarizes the contaminants with concentrations that exceed the maximum contaminant levels (MCLs) at one or more monitoring wells for each OU for the most recent sampling event:

Operable Unit (OU)	Constituent of Concern	Highest Concentration	Maximum Contaminant Level (MCL)	# of Wells Exceeded MCL
OU-2	Nitrate[1]	19 mgl	10 mgl	4
	Sulfate	340 mgl	250 mgl	1
OU-3	Nitrate[1]	15 mgl	10 mgl	7
OU-4	Nitrate[1]	16 mgl	10 mgl	6
	Chromium	140 µgl	50 µgl	2
	Carbon tetrachloride	5.4 µgl	0.5 µgl	2

Note: This table includes the results of the groundwater sampling event for OU-2, OU-3, and OU-4 on February 2019.
mgl = milligrams per liter; µgl = micrograms per liter
1. Nitrate as nitrogen

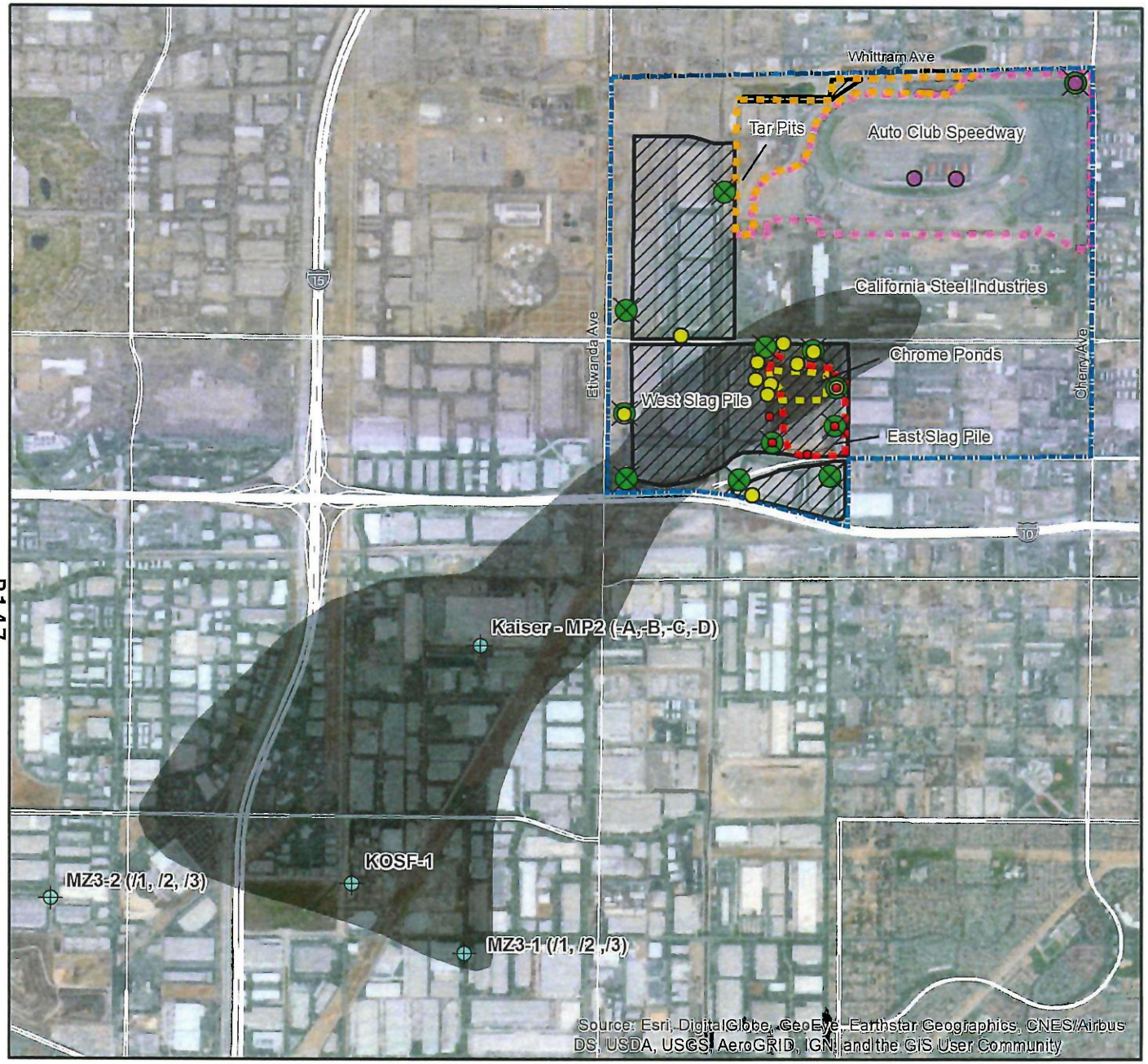
Implementation of the Site-Wide Groundwater Monitoring Program is pending contingent on DTSC review and approval of the Remedial Design Implementation Plan. Following a review of the Remedial Design for OU-5, DTSC is requesting CCG to install additional groundwater monitoring wells for the OU-5 Site-Wide Groundwater Monitoring Program.[27] During the 2019 third quarter groundwater monitoring period, DTSC requested that CCG sample all existing OU-5 wells. Results from this sampling event will be used to provide information on locations for additional wells for the Site-Wide Groundwater Monitoring Program. Results from the third quarter of 2019 sampling period is currently pending.

[26] RPS Iris Environmental. (2016). *Final Site-Wide Five-Year Review Report*. Prepared for CCG Ontario LLC. April 2016.
[27] Email correspondence with Mr. Gregory Shaffer at the DTSC on October 2, 2019.

Watermaster performed its most recent annual sampling event at five former Kaiser Steel Mill monitoring wells and six Chino Basin OBMP Management Zone 3 (MZ3) monitoring wells downgradient from the former Kaiser Steel Mill site for their annual KWGWQMP in August and September 2018 (see Exhibit 1). The following contaminants have concentrations that exceeded the MCL at one or more monitoring wells over the last five years from 2014-2018:

Constituent of Concern	Highest Concentration	Maximum Contaminant Level (MCL)	# of Wells Exceeded MCL
1,1-Dichloroethene	60 µgl	6 µgl	2
1,2,3-Trichloropropane	0.012 µgl	0.005 µgl	1
1,2-Dichloroethane	0.53 µgl	0.5 µgl	1
Arsenic	0.018 mgl	0.01 mgl	2
Chromium	52,000 µgl	50 µgl	5
Nitrate[1]	13 mgl	10 mgl	3
Perchlorate	8.9 µgl	6 µgl	4
Sulfate	280 mgl	250 mgl	1
TDS	810 mgl	500 mgl	2
Trichloroethylene	7.5 µgl	5 µgl	2
Trihalomethanes	93 µgl	80 µgl	1

mgl = milligrams per liter; µgl = micrograms per liter
1. Nitrate as nitrogen



P147

Original Property Extent of Kaiser Steel Mill

Property Extent Purchased by CCG Ontario From Kaiser Ventures Inc. in 2000 (592 acres)

Operable Unit (OU) Boundaries

- OU-1
- OU-2
- OU-3
- OU-4

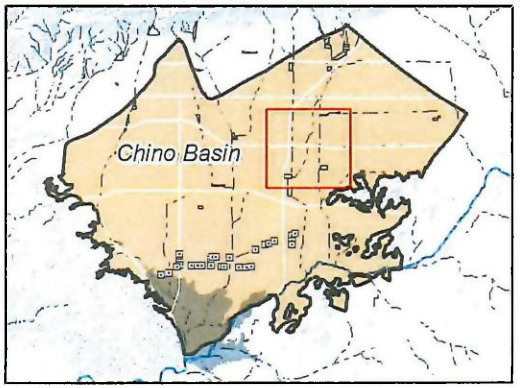
CCG Site Monitoring Wells (some locations have multiple wells at various depths)*

- OU-2
- OU-3
- OU-4
- OU-5

Monitoring Wells Sampled Annually by Watermaster for the KWGWMP (some locations have wells at various depths)

Extent of the Kaiser TDS plume in 2008 as Delineated by Watermaster

*Multiple wells are part of more than one OU monitoring program and are shown as overlapping wells.



Prepared by:

WEI
Wildermuth Environmental, Inc.

Author: SO
Date: 10/2/2019
Name: 20190930_KaiserPlumeStatus_EX1

0 0.25 0.5 1 Miles

Plume Status Report
October 2019

Former Kaiser Steel/ CCG Ontario Contaminant Site

Exhibit 1

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ANNUAL PLUME STATUS REPORT
GENERAL ELECTRIC FLATIRON PLUME
October 2019

Contaminants

The primary contaminant is trichloroethene (TCE). The maximum contaminant level (MCL) for TCE is 5 micrograms per liter (µgl). The maximum TCE concentration detected in groundwater samples collected from wells within the plume in the last five years (July 2014 to June 2019) was 20,000 µgl, measured at well MW-22A in April 2018. Other contaminants of concern include tetrachloroethylene (PCE), total dissolved chromium, and hexavalent chromium. The five-year maximum concentration for these contaminants are summarized in the table below.

Contaminant	MCL (µg/L)	Max Concentration (µg/L)	Sample Date	Well
PCE	5	1,500	August, 2017	MW-24A
			July, 2018	MW-21
Total Dissolved Chromium	50	1,540	August, 2017	MW-23A
Hexavalent Chromium	Not Established	1,700	August, 2017	MW-23A

Location

The General Electric (GE) Flatiron TCE plume is located in the northern Chino Basin within the City of Ontario. It extends south-southwest from the old GE Flatiron Facility, formerly located at 234 East Main Street. The Chino Basin Watermaster (Watermaster) last updated its delineation of the extent of the plume in the *2018 State of the Basin Report*.[1] This characterization is based on the five-year maximum TCE concentration measured between July 2013 to June 2018. The extent of the plume with TCE concentrations greater than 0.5 µgl measures approximately 3,150 feet wide and about 12,000 feet long. Exhibit 1 shows the location and extent of the TCE plume as delineated by Watermaster in 2018 and the most recent delineation of the plume prepared by GE in 2016.[2] Note that GE's 2016 delineation of the plume does not account for water quality data collected from monitoring well clusters MW-19 through MW-24, which were constructed in 2017. For this reason, the TCE plume delineated by Watermaster shows a larger extent than the GE delineation.

[1] Wildermuth Environmental, Inc. (2018). *Optimum Basin Management Program – 2018 State of the Basin Report.* Prepared for the Chino Basin Watermaster. June 2018.

[2] Amec Foster Wheeler. (2016). *2016 Conceptual Site Model Former General Electric Company Housewares Site 234 East Main Street, Ontario, California*. Prepared for General Electric Company. October 4, 2016.

Site History

GE manufactured clothes irons at the Flatiron Facility from the early 1900s to 1982. During World War II, the facility was also used to manufacture equipment to support the war effort for the U.S. War Department. In 1982, GE closed the facility and sold the property. Since then, ownership has changed several times; the property is currently owned by Ontario Business Park, LLC.

Regulatory Orders

- Investigative Order No. 87-146—Requires the characterization of onsite conditions and groundwater beneath and downgradient of the GE Flatiron site using gas surveys, soil boring installation and sampling, and groundwater monitoring well installation and sampling.
- Waste Discharge Requirements (WDRs) and Monitoring and Reporting Programs (M&RPs) Order No. 95-62 and R8-2011-0019 (current)—General WDRs and M&RPs for the discharge of treated water from the pump-and-treat system.

Regulatory and Monitoring History

In 1987, groundwater-quality samples collected from an inactive City of Ontario municipal production well downgradient of the Flatiron Facility had TCE and chromium concentrations above drinking water MCLs. This prompted the Regional Board to request that GE prepare a Phase I investigation to determine if the Flatiron Facility was the source of the contaminants detected. The results of the Phase I investigation prompted the Regional Board to issue Investigation Order No. 87-146, requiring GE and West End Investments (the property owner at the time) to characterize onsite conditions and the groundwater flow gradient beneath the Flatiron Facility. The Phase II through V investigations[3, 4, 5, 6] included soil gas surveys, soil boring installation and sampling, as well as groundwater monitoring well installation and sampling to define the extent of contaminants in groundwater both on and offsite. These investigations, conducted from 1987 to 1992, indicated that a contaminant plume was present beneath and downgradient of the Flatiron Facility and showed that the TCE and total dissolved chromium concentrations in groundwater were above the California primary MCLs of 5 and 50 µgl, respectively.

In 1993, the results from the multi-phase investigation prompted the proposal of an interim remedial measure (IRM) for groundwater contamination. Local and regional-scale numerical groundwater models were constructed to provide a basis for the design of the IRM and were used to investigate the use of extraction wells to obtain hydraulic containments near the downgradient extent of the plume. In December 1993, extraction well (EW-01) was completed.

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[3] Bechtel Environmental, Inc. (1989). *Phase II Soil and Groundwater Investigation, Former GE Flatiron Manufacturing, Ontario, California*. January 1989.

[4] Bechtel Environmental, Inc. (1990). *Phase III Investigation Report, Former GE Flatiron Manufacturing, Ontario, California*. August 1990.

[5] Geomatrix Consultants, Inc., and Beak Consultants Ltd. (1992). *Phase IV Investigation Report 234 East Main Street and Vicinity, Ontario, California.* January 1992.

[6] Geomatrix Consultants, Inc., and Beak Consultants Ltd. (1993). *Phase V Investigation Report 234 East Main Street and Vicinity, Ontario, California.* January 1993.

A monitoring well and three piezometers were also constructed nearby to provide observation points during aquifer testing at EW-01. The IRM began in 1996 and involved pumping groundwater from EW-01, treating it at GE Flatiron's groundwater treatment system to remove TCE and other contaminants of concern, and discharging the treated water to the Ely Basins. Discharge to these Chino Basin groundwater recharge basins was regulated under WDR Order No. 95-62, issued by the Regional Board.

In 1995, a feasibility study was completed to evaluate groundwater and soil remediation alternatives.[7] In October of 1997, the Regional Board approved a groundwater remediation alternative that included the ongoing use of extraction well EW-01 and the construction of an additional extraction well (EW-02) near the center of the contaminant plume to pump and treat contaminated groundwater. Extraction well EW-02 was constructed in 1999 and began operation in 2002.

Due to Watermaster and the IEUA's increased use of the Ely Basins for storm, recycled, and imported water recharge, eventually, capacity for GE's discharge there became insufficient. In 2005, GE began evaluating alternative discharge options for its treated groundwater and decided to install an injection well field at 2025 South Bon View Avenue to accept the treated groundwater. In 2011, the Regional Board approved WDR Order R8-2011-0019 to modify the point of discharge for the treated groundwater to injection wells located at this site.[8] The 2011 WDR defines the discharge prohibitions, effluent limitations, and required monitoring and reporting program.

In 2015, GE submitted a work plan to the Regional Board to outline a program for evaluating the effectiveness of existing remedial measures and to provide recommendations for additional investigation or remediation. [9] Implementation of the work plan began in 2016 with the drilling of four borings to collect discrete-depth soil and groundwater samples, which were tested for TCE, PCE, total dissolved chromium, and hexavalent chromium.

In 2016, the Regional Board required the development of a conceptual site model that incorporated all historical data and new information from recent investigations. This model was to be used to develop a framework to identify data gaps and guide future decisions on investigation, monitoring, and remedial actions.[10] One critical component of the conceptual site model, as highlighted by the Regional Board, was the installation of a sentinel monitoring well downgradient of the plume.

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[7] Geomatrix Consultants, Inc. (1995). *Feasibility Study Report, 234 East Main Street and Vicinity, Ontario, California*. November 1995.

[8] Santa Ana Regional Water Quality Control Board. (2011). *Issuance of Waste Discharge Requirements for General Electric Company, GE Francis Water Treatment Plant, San Bernardino County, Order No. R8-2011-0019*. April 22, 2011.

[9] Amec Foster Wheeler. (2015). *Work Plan for Supplemental Remedial Investigation. 234 East Main Street and Vicinity, Ontario California.* Prepared for General Electric Company. March 30, 2015.

[10] Amec Foster Wheeler. (2016). *2016 Conceptual Site Model. Former General Electric Company Housewares Site 234 East Main Street, Ontario, California.* Prepared for General Electric Company. October 4, 2016.

On June 22, 2016, a work plan was submitted to the Regional Board, defining the plan and schedule to construct a new-multi-depth well cluster (MW-19) to further assess the dissolved-phase chromium and VOC concentrations downgradient of the known plume extent.[11] The first sampling event at well cluster MW-19 in January 2017 indicated that TCE concentrations in the shallow casing were greater than the MCL. This finding prompted the Regional Board to request that an additional monitoring well cluster be constructed downgradient of MW-19 and upgradient of the City of Chino's municipal production well (Chino-11) to allow for further evaluation of the plume's extent. On November 14, 2016, GE submitted a work plan for the construction of well cluster MW-20, to be located about 420 feet upgradient from Chino-11, and by May 2017, construction was complete.[12] The first sampling event at well cluster MW-20 in July 2017 indicted that TCE in the intermediate-depth casing (MW-20B) was greater than the MCL.

From May 2016 to March 2017, four additional monitoring well clusters (MW-21 through MW-24) were constructed at the upgradient end of the plume as part of the supplemental remedial investigation activities. High concentrations of PCE, TCE, total dissolved chromium, and hexavalent chromium have since been detected at several of these wells.

Remedial Action

Groundwater. In 1996, GE began operation of a groundwater treatment system located at 501 West Francis Street in Ontario, CA. Its two extraction wells (EW-01 and EW-02) began operating in 1996 and 2002, respectively, and are intended to prevent migration of the plume. EW-01 pumps at an approximate rate of 850 gallons per minute (gpm), and EW-02 pumps at a rate of approximately 600 gpm. Groundwater pumped from the extraction wells is conveyed by separate pipelines to the treatment system where it is combined into a single stream and treated. First, pumped groundwater is treated with an ion exchange resin, which removes chromium, and then with liquid-phase granular activated carbon to remove VOCs. As detailed in WDR Order No. R8-2011-0019, the discharge from the treatment system facility is required to have average monthly concentrations of TCE, PCE, 1,1,1-TCA, and chromium below their respective MCLs of 5, 5, 200, and 50 µgl. Currently, three injection wells (IW-01, IW-02, and IW-03) are used to reinject treated water into the Chino Basin. Exhibit 1 shows the locations of the extraction wells, the treatment system facility, and the injection well field.

As of June 2019, EW-01 and EW-02 have extracted about 14,200 and 4,450 acre-feet of groundwater, respectively. Collectively, the treatment system has removed 11,440 pounds of TCE and 3,942 pounds of chromium.[13]

Soil. In 2004, GE began operating a soil vapor extraction system, consisting of seven soil vapor extraction wells: six located onsite and one located across Sultana Avenue, directly east of the

[11] Amec Forster Wheeler. (2016). *Work Plan for Installation of Cross-Gradient Monitoring Well Clusters. General Electric Company Former Flatiron Facility.* Prepared for General Electric Company. August 15, 2016.
[12] Amec Forster Wheeler. (2016). *Work Plan for Installation of Additional Sentinel Monitoring Well Cluster. General Electric Company Former Flatiron Facility.* Prepared for General Electric Company. November 14, 2016.
[13] Wood Environment & Infrastructure Solutions, Inc. (2019). *First Semiannual 2019 Groundwater Monitoring and Remediation Report.* Prepared for General Electric Company. July 29, 2019.

site. This system, which extracts VOC impacted vapors from the shallow soils, had removed a total of 46,509 pounds of VOCs as of June 2019.[14] On June 21, 2018 GE submitted its *Work Plan for Interim Measures – Phase I Expansion*[15] to the Regional Board for an expansion of the soil vapor extraction system.

Monitoring and Reporting

There are two interlinked monitoring and reporting programs for the GE Flatiron site: one for groundwater and one for the remediation system. The objectives of the respective programs are to monitor groundwater elevations and the concentrations/extents of the dissolved-phase plume over time and to track and evaluate the performance of the remediation system.

The groundwater monitoring program includes measuring groundwater levels and collecting groundwater-quality samples for chemical analyses from onsite wells at a quarterly frequency. Currently, depth to groundwater is measured at 31 wells and three piezometers every quarter. Groundwater-quality samples are collected from 31 monitoring wells and piezometers, although the number of wells sampled each quarter varies based on the specific quarter's monitoring plan. Water-quality samples are analyzed for dissolved metals, VOCs, and general minerals. Reports summarizing the results of the GE Flatiron monitoring and remediation efforts are published semiannually in January and July.

The remediation system monitoring program consists of the operations and maintenance activities performed in conjunction with the entire system. At a minimum, monthly sampling and analysis of the combined treatment plant influent from EW-01 and EW-02 and treated effluent is performed pursuant to WDR Order No. R8-2011-0019. In addition to the semiannual summaries included in the groundwater monitoring reports, treatment system monitoring results are reported monthly to the Regional Board.

The semiannual and monthly reports, and other relevant documents/data, can be found on the Regional Board's GeoTracker website.[16]

Recent Activity

The six new monitoring well clusters (13 wells at MW-19 through MW-24) installed during 2016 and 2017 continue to be monitored quarterly for groundwater quality. The results show that TCE is consistently present at concentrations above the MCL in at least one well casing in each of the six clusters. In 2019, the highest concentrations of PCE, TCE, total dissolved chromium, and hexavalent chromium associated with the plume were all detected at the new wells. As shown in Watermaster's State of the Basin Report, the extent of the TCE plume is larger than originally understood in 2016.

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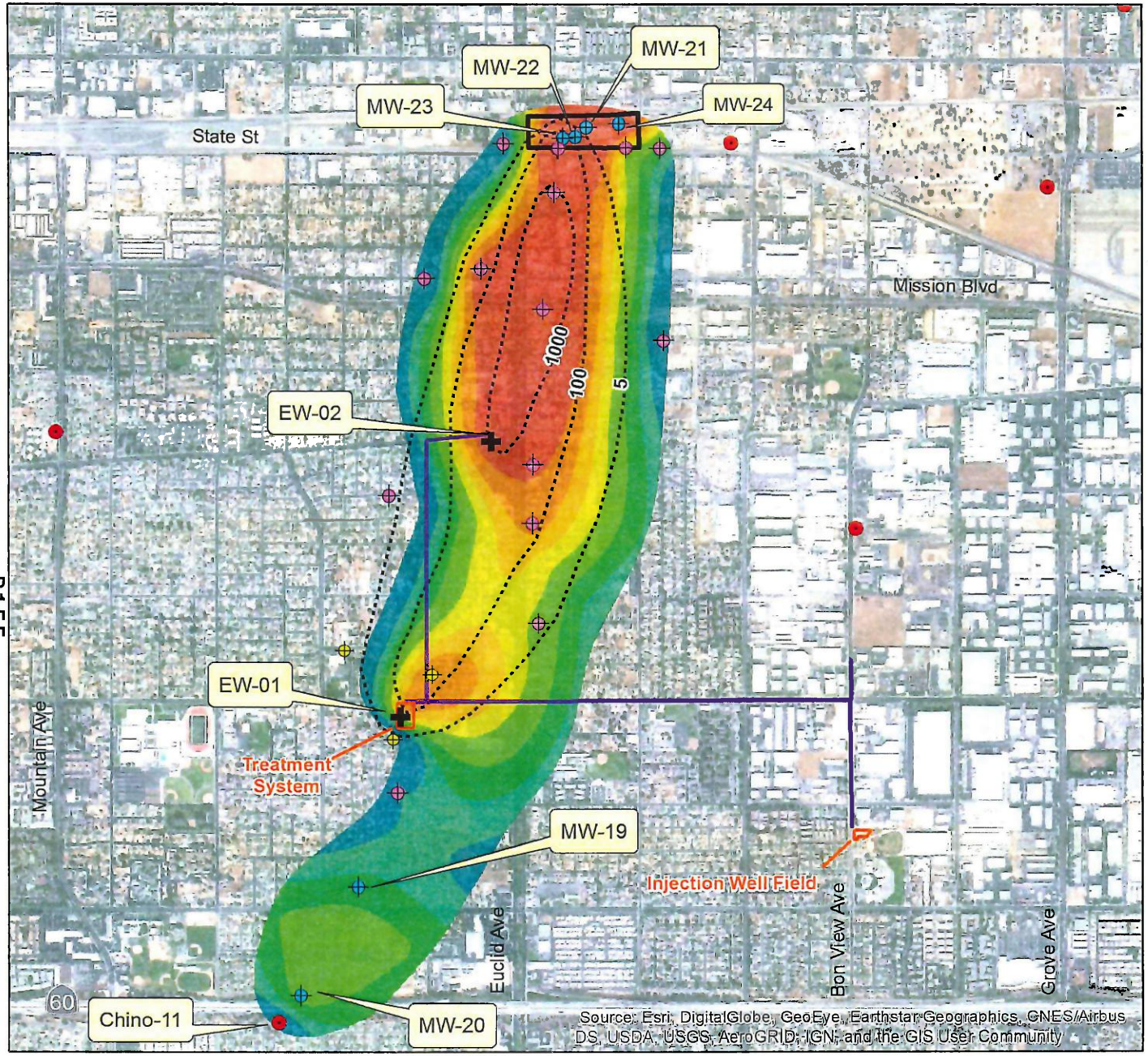
[14] Wood Environment & Infrastructure Solutions, Inc. (2019). *Second Quarter 2019 Soil Vapor Extraction System Operation, Maintenance, and Monitoring Status Report*. Prepared for General Electric Company. July 29, 2019.
[15] Wood Environment & Infrastructure Solutions, Inc. (2018). *Work Plan for Interim Measures – Phase I Expansion.* June 21, 2018.
[16] https://geotracker.waterboards.ca.gov/profile_report?global_id=SL0607132486

The most recent groundwater monitoring report prepared by GE was submitted to the Regional Board on July 29, 2019.[17] This report summarizes groundwater monitoring at the 31 wells and three piezometers and the remediation activities performed between January 1 and June 30, 2019. The following describes the key findings presented in the report:

- Groundwater elevations appear to be increasing in the vicinity of the site with about a one-foot increase during the reporting period.
- Overall, PCE and TCE concentrations in the plume remain stable and are consistent with historical values at wells constructed before 2016.
- Total dissolved chromium and hexavalent chromium concentrations were also generally consistent with historical data except for MW-09, which shows an increasing trend.
- Respectively, the highest PCE, TCE, total dissolved chromium, and hexavalent chromium concentrations detected during the monitoring period were: 1,200 µgl (MW-21), 13,000 µgl (MW-22A), 1,440 µgl (MW-23A), and 1,400 µgl (MW-23A). Concentrations generally decrease with distance downgradient of the Flatiron Facility.
- The extraction wells have been effective at meeting the remedial action objectives. From January 1 to June 30, 2019, treatment removed 501.4 pounds of TCE and 149.7 pounds of chromium. And, the injection well field has been effective in returning treated groundwater to the Chino Basin.
- The results of compliance monitoring indicate that PCE, TCE, and 1,1,1-TCA were all non-detect in the treatment system effluent and that total dissolved chromium and hexavalent chromium have remained below the discharge limit of 50 µgl listed in the WDRs.

GE will continue monitoring at the Flatiron Facility pursuant to the Regional Board Cleanup Status of *Open – Assessment & Interim Remedial Action.*

[17] Wood Environment & Infrastructure Solutions, Inc. (2019). *First Semiannual 2019 Groundwater Monitoring and Remediation Report. Prepared for General Electric Company*. July 29, 2019.



Maximum TCE Concentration (µgl)
July 2013 to June 2018

- > 0.5 to ≤ 5
- > 5 to ≤ 10
- > 10 to ≤ 20
- > 20 to ≤ 50
- > 50 to ≤ 100
- > 100 to ≤ 200
- > 200 to ≤ 500
- > 500

MCL = 5 µgl

(Delineated by Watermaster in the 2018 State of the Basin Report)

Contours of TCE Concentration (µgl)

(Delineated by GE in the 2016 Conceptual Site Model)

GE Extraction Wells

GE Monitoring Wells (some locations have mutliple wells at various depths) *

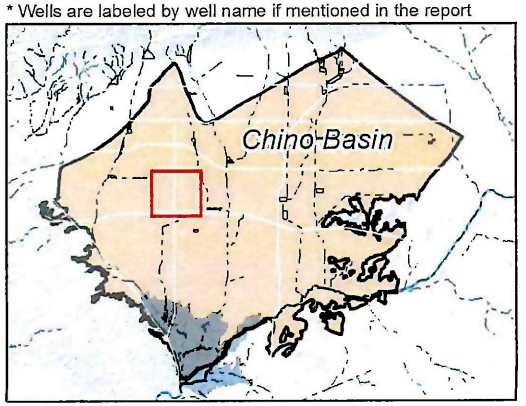
- Constructed Between 2016 - 2017
- Constructed Prior to 2016
- GE Piezometers

Active/Inactive Potable Municipal Water Supply Wells

GE Flatiron Property Boundary

Conveyance Pipeline

* Wells are labeled by well name if mentioned in the report



Prepared by:

WEI
WILDERMUTH ENVIRONMENTAL, INC.

Author: LH
Date: 10/3/2019
Name: 20190903_GEFlatIron_PlumeStatus

0 0.2 0.4 0.8 Miles

Plume Status Report
October 2019

GE Flatiron TCE Plume

Exhibit 1

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ANNUAL PLUME STATUS REPORT
GENERAL ELECTRIC TEST CELL PLUME
October 2019

Contaminants

The primary contaminant is trichloroethene (TCE). The maximum contaminant level (MCL) for TCE is 5 micrograms per liter (µgl). The maximum TCE concentration detected in a groundwater sample collected from a well within the plume during the last five years (July 2014 to June 2019) is 2,300 µgl, measured at well OW-15P-I in November 2018. This is also the highest concentration of TCE ever measured at a well within the plume. Other contaminants of concern include the volatile organic compounds (VOCs) of: tetrachloroethene (PCE), 1,1-dichloroethene, 1,2-dichloroethane, and cis-1,2-dichloroethene.

Location

The General Electric (GE) Test Cell plume is in the northern Chino Basin within the City of Ontario and is associated with the former GE Engine Services Test Cell Facility (Test Cell Facility) located at 2264 Avion Place. The plume is elongated in shape and extends downgradient in a southwest direction from the facility. The Test Cell Facility is located approximately one-mile northeast of the Ely Recharge Basins. The land uses overlying the plume are predominately industrial and commercial. The Chino Basin Watermaster (Watermaster) updated its characterization of the extent of the TCE plume, based on the five-year maximum TCE concentration measured between July 2013 to June 2018, in the *2018 State of the Basin Report*.[1] The extent of the plume with TCE concentrations greater than or equal to 0.5 µgl measures approximately 2,400 feet wide and 9,600 feet long and extends from Cucamonga Creek on the east to Grove Avenue on the west. Exhibit 1 shows the location and extent of the plume, as delineated by Watermaster in 2019, compared to the most recent characterization by GE in the groundwater monitoring report,[2] which was published in the second quarter of 2019.

Site History

From 1956 to 2011, the Test Cell Facility was predominately used to test and maintain commercial and military aircraft engines. Solvents used at the facility included TCE, PCE, 1,1,1-trichloroethane (1,1,1-TCA), methyl ethyl ketone, and isopropyl alcohol, which were stored in 55-gallon drums and an aboveground storage tank. In the early 1970s, TCE was replaced with 1,1,1-TCA, which was later replaced in 1981 with isopropyl alcohol—the only solvent used onsite through 1996. Until 1974, wastewater from manufacturing processes flowed into a natural wash

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[1] Wildermuth Environmental, Inc. (2019). *Chino Basin Optimum Basin Management Program, 2018 State of the Basin Report.* Prepared for Chino Basin Watermaster. June 2019.

[2] Wood Environmental & Infrastructure Solutions, Inc. (2019). *Second Quarter 2018 Groundwater Monitoring Report*. Prepared for GE Engine Services Test Cell Facility. July 29, 2019.

along the north side of the property, which drained into the Cucamonga Creek. From 1974 to 2011, the manufacturing wastewater was disposed of via discharge to two dry wells constructed on the northwest side of the Test Cell Facility to prevent wastewater from flowing into the nearby creek. The Test Cell Facility ceased operations in 2011, and the site is currently vacant.

Regulatory Orders

- State of California Department of Health Services (CDHS) Docket No. 88/89- 009CO. Consent Order Health and Safety Code Section 25355.5(a)(1)(B) and 25355.5 (a)(1)(C). In the Matter of: General Electric Engine Maintenance Center. September 1988.

Regulatory and Monitoring History

In 1984, an investigation performed by C.H.J, Inc. soil engineers detected TCE, PCE, 1,1,1-TCA, and dibromochloromethane in soil samples in the vicinity of the dry wells. Results from this investigation were deemed invalid due to inappropriate analytical methods.[3] In 1985, another consulting firm retained by GE detected 1,1,1-TCA, TCE, and PCE in onsite subsurface soils.[4] An investigation performed in 1987 revealed the presence of multiple VOCs in the soil near the disposal sites.[5] In 1988, a Consent Order was signed between GE and the CDHS (now Department of Toxic Substances and Control [DTSC]) to initiate an investigation of soil, surface water, and groundwater contamination, and the appropriate remedial actions.[6] In 1993, GE submitted a workplan for the Phase I remedial soil investigation to determine the impacts of VOCs and jet fuel in the soil in the vicinity of the dry wells and Cucamonga Creek.[7] The Regional Board approved the workplan for the Phase I remedial investigation in June 1993. During the Phase I remedial investigation, VOCs were detected in soil samples collected onsite and in excavated soil from the dry wells.[8]

Pursuant to the Consent Order, GE began its groundwater investigations in 1991 with the installation of onsite monitoring wells adjacent to the two dry wells. The monitoring performed at these new wells indicated the presence of VOCs in the groundwater beneath the Test Cell Facility and that the contamination had possibly migrated offsite. Starting in 1994, the Santa Ana Regional Water Quality Control Board (Regional Board) was retained to be the lead agency to oversee the groundwater investigation. The Regional Board requested an offsite investigation be performed to determine the extent of groundwater contamination. An extensive offsite investigation was completed in multiple phases from 1995 to 1998. The initial phase was

[3] The investigation is described in State of California Department of Health Services. (1998). Docket No. 88/89-009CO. Consent Order Health and Safety Code Section 25355.5(a)(1)(B) mad 25355.5 (a)(1)(C). In the Matter of General Electric Engine Maintenance Center. September 1988.
[4] Ibid.
[5] Dames & Moore. (1987). *Subsurface Investigation, Ontario California, for General Electric Aviation Services Operations.* Prepared for GE Engine Services Test Cell Facility. February 4, 1987.
[6] DTSC. (2019). *Letter from Yolanda Garza to GE – Lead Agency Regulatory Oversight Transfer for General Electric Engine Services Test Cell Facility, 2264 East Avion Place, Ontario (Site Code: 400070).* May 6, 2019.
[7] Dames & Moore. (1994). *Remedial Action Plan for Impacted Soil – General Electric Jet Engine Test Cell Facility.* Prepared for GE Engine Services Test Cell Facility. September 16, 1994.
[8] Ibid.

completed in March 1995 and included the installation of three offsite monitoring wells. Moreover, in late 1995, five borings where drilled to determine the horizontal and vertical limits of VOCs in groundwater, and three of the five borings were completed as monitoring wells. Monitoring at these offsite monitoring wells indicated that the VOC plume extended about 4,000 feet offsite. Between 1996 and 1998, seven additional monitoring wells and seven piezometers were constructed offsite.

Following the initial groundwater investigation, two offsite multi-depth well clusters were installed between 2001 and 2002 to provide information on the vertical distribution of VOCs. Monitoring of these multi-depth wells indicated that TCE concentrations were highest in the intermediate and deep interval zones. In 2003, GE submitted a groundwater feasibility study to the Regional Board (Feasibility Study),[9] followed by a draft remedial action plan (RAP) in 2006.[10] The Feasibility Study and RAP identified pump and treat and monitored natural attenuation as remediation alternatives.

In 2009, additional multi-depth well clusters were installed at two locations offsite and one location onsite.[11] And, pursuant to a 2014 work plan[12] approved by the Regional Board, GE destroyed six monitoring wells that were dry and replaced them with an additional onsite multi-depth well cluster.

Remedial Action

Groundwater. The 2003 Feasibility Study and 2006 draft RAP identified two groundwater remediation alternatives: (1) extraction and treatment of groundwater for areas that have VOC concentrations approximately ten times the MCL (>50 µgl) and (2) monitored natural attenuation of groundwater for areas that have VOC concentrations less than ten times the MCL. Plans to implement a groundwater pump-and-treat system were put on hold after the draft RAP was submitted because the only suitable location for discharging the treated effluent was the nearby Ely recharge basins and GE could not obtain capacity at the recharge basin from the San Bernardino Flood Control District. Monitored natural attenuation is the only remedial action that has been implemented for groundwater thus far.[13]

Since 2003, TCE concentrations in samples collected from monitoring wells across the extent of the plume generally decreased. In 2008, GE determined that the plume extending downgradient from the facility with TCE concentrations above 50 µgl had decreased in size from about 4,000 feet to about 2,600 feet. The decreasing TCE concentrations were attributed to natural

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[9] Geosyntec. (2003). *Groundwater Feasibility Study – GE Engines Test Cell Facility, Ontario, California*. Prepared for GE Engine Services. December 3, 2003.

[10] Geosyntec. (2006). *Draft Groundwater Remedial Action Plan, GE Engine Services Test Cell Facility, 2264 Avion Place, Ontario, California.* Prepared for GE Engine Services Test Cell Facility. November 17, 2006.

[11] Geosyntec Consultants (2009). *Monitoring Well Installation Work Plan. GE Engines Services Test Cell Facility.* Prepared for GE Engine Services Test Cell Facility. July 2, 2009.

[12] Geosyntec Consultants. (2014). *Monitoring Well Installation and Destruction Report. Prepared for Regional Water Quality Control Board, Santa Ana Region*. Prepared for GE Engine Services Test Cell Facility. June 10, 2014.

[13] Phone Correspondence with Mr. Kamron Saremi at the Regional Board on December 14, 2017.

attenuation. GE met with the Regional Board in 2008 to discuss the status of the plume and to reevaluate the RAP to consider monitored natural attenuation as the primary remedial action. Based on this discussion, GE agreed to install additional monitoring well clusters between the former GE facility and well cluster OW-16, located in the center of the plume. This well was selected because at the time it had the highest historical offsite TCE concentrations in the intermediate and deep intervals. Pursuant to this agreement, two offsite well clusters (OW-17 and OW-18) and one onsite well cluster (MW-8) were installed in August and September 2009 as part of ongoing activities to evaluate monitored natural attenuation. The 2006 Draft RAP was withdrawn in February 2010, and GE and the Regional Board have continued to meet to evaluate monitored natural attenuation as the remedial action for the Test Cell Facility. The most recent coordination between GE and the Regional Board (2019) resulted in GE preparing a Conceptual Site Model, per Regional Board's request, to aid in determining the appropriate remedial action.

Soil. In 1996, Pursuant to the 1988 Consent Order, GE began operating a soil vapor extraction and treatment system to remove VOCs in the soil onsite and to prevent the soil contaminants from entering groundwater. GE was required to conduct a review and reevaluation of the remedial actions for VOCs present in the soil beneath the Test Cell Facility every five years. The *Second Five-Year Review Report*[14] was submitted to the DTSC on October 2008, and it concluded that the soil remediation program has resulted in significant reductions in VOC concentrations to levels that are no longer harmful to human health or groundwater quality. The DTSC approved the *Second Five-Year Review Report*, and subsequently, the soil remediation was deemed complete in January 2009.

Monitoring and Reporting Program

The objectives of the monitoring program are to evaluate the extent and magnitude of the plume emanating from the Test Cell Facility and to support the ongoing evaluation of monitored natural attenuation as a remedial action. Groundwater monitoring is performed quarterly and consists of measuring groundwater levels and collecting groundwater samples at all accessible onsite and offsite monitoring wells and piezometers. This includes 13 single casing monitoring wells, 17 multi-nested monitoring wells in six locations, and seven piezometers. Exhibit 1 shows the locations of all monitoring sites. Quarterly groundwater-quality samples are analyzed for VOCs. Reports summarizing the results and conclusions of the monitoring are published each quarter. These reports and all data that have been collected by GE since 2005 are posted on the Regional Board's GeoTracker website.[15]

Recent Activity

During the second quarter of 2019, groundwater quality samples were collected at 31 monitoring wells, and groundwater-level measurements were obtained from 35 monitoring wells. The monitoring event was conducted in April 2019, and the report documenting the

[14] Geosyntec Consultants. (2008). *Second Five-Year Review Report, Ge Engine Services Test Cell Facility*. Prepared for GE Engine Services Test Cell Facility. October 27, 2008.
[15] http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SL208634049

sampling event and results was submitted to the Regional Board in July 2019[16]. The following summarizes some of the key results and conclusions contained in the report:

- Variations in the timing and volume of the IEUA's recharge at the Ely Basins influence the local horizontal hydraulic gradient and groundwater flow direction in the vicinity of the site, including the area that comprises the central portion of the plume that is directly north of the Ely Basins. However, in any given year, the general horizontal hydraulic gradients remain relatively constant despite long-term and seasonal changes in groundwater levels.
- Over the last three to five years, there has been a notable increase in TCE concentrations in several monitoring wells located throughout the plume. The most significant increases in TCE concentrations occurred in the shallow and intermediate intervals of the OW-15 well cluster, located at the center of the plume. The TCE concentration in the intermediate interval of the OW-15 well increased from about 70 µgl in May 2014 to 2,300 µgl in November 2018. The November 2018 value is the highest concentration ever measured at the site. As of April 2019, the TCE concentration at the intermediate interval of OW-15 was 22,000 µgl.
- TCE concentrations at monitoring wells OW-1 and OW-2, located at the northern end of the plume, have gradually declined over the past seven years. From February 2012 to April 2019, TCE concentrations decreased from 26 to 6.4 µgl at OW-1 and from 27 to 7.6 µgl at OW-2.
- 22 of the 31 wells that are being monitored for water quality have TCE concentrations above the MCL.

GE will continue monitoring pursuant to the Regional Board Clean-up Status of *Open – Verification Monitoring*. The third quarter 2019 monitoring event was performed in July 2019, and GE will submit its monitoring report to the Regional Board around October 2019.

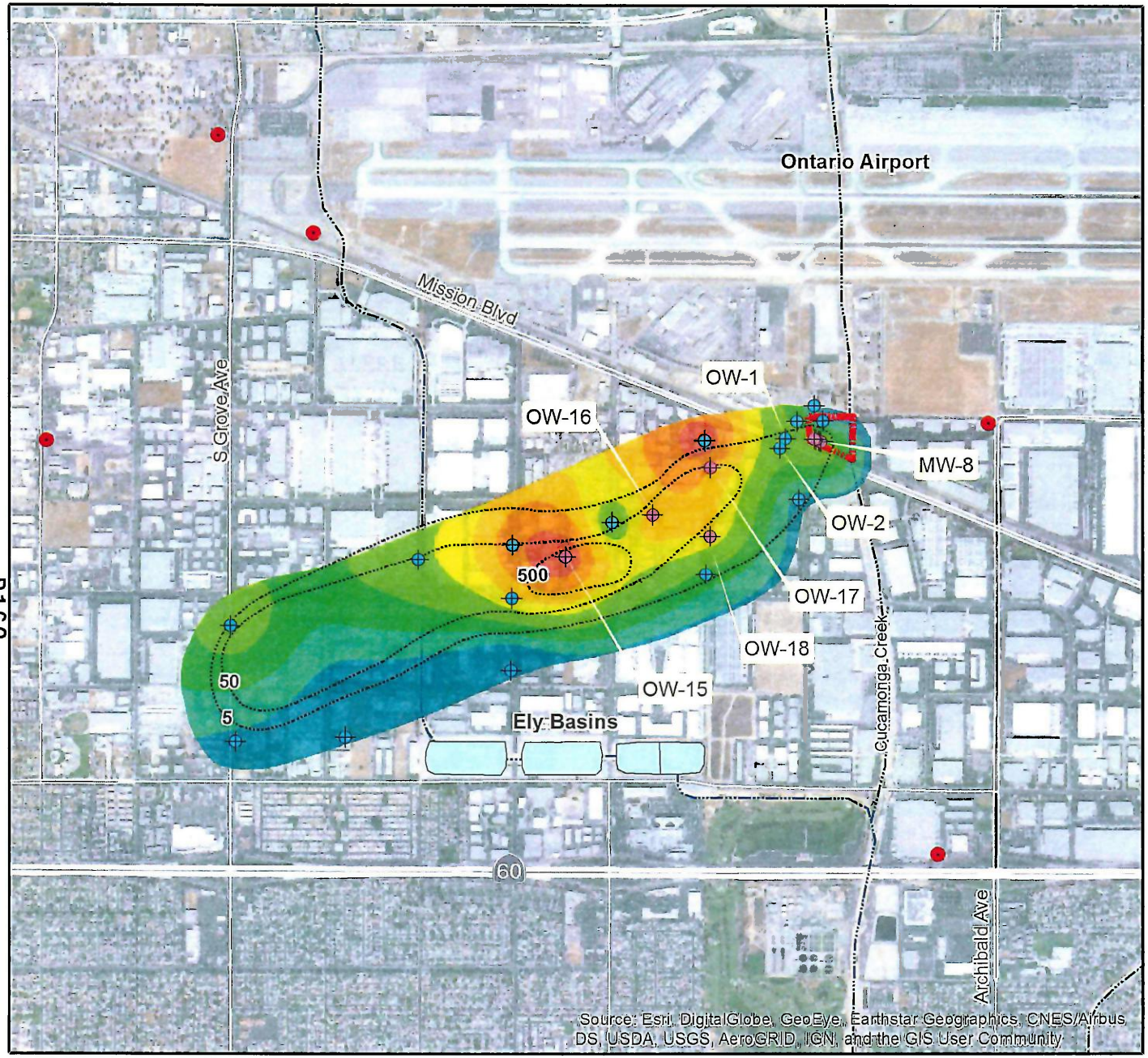
On May 2019, the DTSC transferred regulatory oversight of environmental activities at the Test Cell Facility to the Regional Board for the following reasons: (1) the Regional Board is currently the lead agency that is overseeing the groundwater investigations related to the site; (2) recent trends indicate increasing VOC concentrations in some groundwater monitoring wells, and this may require additional evaluation; and (3) the lead agency oversight transfer will minimize any overlap of the investigation or cleanup activities needed for the site.

Over the last year, the Regional Board has been coordinating with GE to evaluate potential remedial actions. The Regional Board has specified that the impacts to groundwater and soil have not been adequately addressed and indicated that monitored natural attenuation is not suitable as the only groundwater remedial action.[17] As noted above, the Regional Board requested that

[16] Wood Environmental & Infrastructure Solutions, Inc. (2019). *Second Quarter 2019 Groundwater Monitoring Report. Prepared for GE Global Operations, Environment, Health and Safety*. Prepared for GE Engine Services Test Cell Facility. July 29, 2019.

[17] Email correspondence with Mr. Alan Kouch at the Regional Board on September 19, 2019.

GE submit a comprehensive Conceptual Site Model (CSM) to address these concerns. GE was required to submit the CSM to the Regional Board by September 2019. Following review of the CSM, the Regional Board will meet with GE to discuss the next steps to determine the appropriate remedial actions to address the contaminated soil and groundwater associated with the facility.



P163

Maximum TCE Concentration (µgl)
July 2013 to June 2018

- .05 to ≤ 5
- > 5 to ≤ 10
- > 10 to ≤ 20
- > 20 to ≤ 50
- > 50 to ≤ 100
- > 100 to ≤ 200
- > 200 to ≤ 500

(Delineated by Watermaster in the 2018 State of the Basin Report)

Contours of TCE Concentration (µgl) delineated by Wood Consultants in 2019 Quarter 2 Groundwater Monitoring Report

GE Test Cell Property Boundary

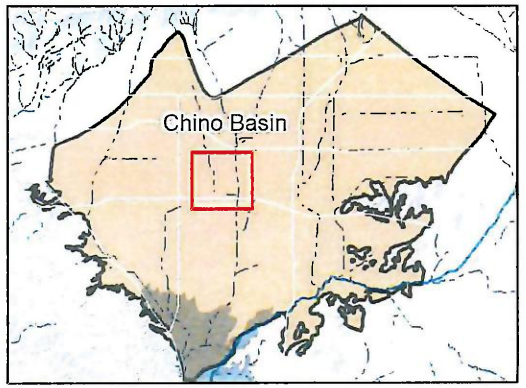
General Electric Monitoring Wells*

- Single Casing
- Multi-Depth Cluster

Active/Inactive Potable Municipal Water Supply Wells

Streams & Flood Control Channels

* Wells are labeled by well name if mentioned in the Report



Prepared by:

WEI
Wildermuth Environmental, Inc.

Author: SO
Date: 10/3/2019
Name: 20190827_GETestPlume_Status_Ex1

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Plume Status Report
October 2019

GE Test Cell TCE Plume

Exhibit 1

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ANNUAL PLUME STATUS REPORT
MILLIKEN LANDFILL PLUME
October 2019

Contaminants
The primary contaminant is trichloroethene (TCE). The maximum contaminant level (MCL) for TCE is 5 micrograms per liter (µgl). The maximum TCE concentration detected in groundwater samples collected from wells within the plume area during the last five years (July 2014 to June 2019) is 14 µgl (measured at well M-8B in May and July 2015). The highest concentration of TCE ever measured on site is 178 µgl (measured at well M-2B in April 1997). Other contaminants of concern include the following volatile organic compounds (VOCs): tetrachloroethene (PCE), dichlorodifluoromethane, trichlorofluoromethane, 1,1-dichloroethane, and cis-1,2-dichloroethene.

Location
The Milliken Sanitary Landfill (MSL) is located in the City of Ontario along the northwest intersection of Milliken Avenue and Mission Boulevard. The MSL occupies an area of approximately 196 acres about one mile west of Interstate 15 and 1.2 miles southeast of Ontario International Airport. The MSL is owned and managed by the County of San Bernardino Solid Waste Management Division (County). The MSL TCE plume extends downgradient from the site in a southwestern direction. The Chino Basin Watermaster (Watermaster) updated it's characterization of the extent of the TCE plume, based on the five-year maximum TCE concentration measured between July 2013 to June 2018, in the *2018 State of the Basin Report*.[1] The extent of the plume with TCE concentrations equal to or greater than 0.5 µgl is about 2,600 feet wide and 1,700 feet long. Exhibit 1 shows the location and extent of the TCE plume as delineated by Watermaster, compared to the County's most recent delineation of the extent[2] of the total VOCs.

Site History and Closure
The MSL was operated as a Class III Municipal Solid Waste Management Unit, accepting non-hazardous waste from 1958 to March 1999. On June 24, 1991, the Regional Board issued CAO No. 91-92 to the County and other landfill operators in the Santa Ana region. The order required the correction of drainage and erosion control deficiencies on the landfill property that could potentially cause the discharge of pollutants to groundwater. In 1994, the CAO was rescinded when the landfills achieved compliance, and concurrently, Order No. 94-17 was adopted to

[1] Wildermuth Environmental Inc. (2019). *Chino Basin Optimum Basin Management Program, 2018 State of the Basin Report.* Prepared for Chino Basin Watermaster. June 2019.
[2] Geo-Logic Associates. (2015). *County of San Bernardino Workplan: Investigation of Off-Site Impacts to Groundwater at the Milliken Sanitary Landfill*. Prepared for County of San Bernardino Solid Waste Management Division. July 2015.

amend the Waste Discharge Requirements (WDRs) for all landfills in the Santa Ana Region and combine them under one WDR and Monitoring and Reporting Program (M&RP). In 1996, the Regional Board issued Cease and Desist Order No. 96-41[3] for the MSL for failure to maintain the drainage and erosion control systems. In October 1999, the Regional Board approved the *Final Closure and Post Closure Maintenance Plan*[4] for the MSL. The MSL began its multiphase closure process while still accepting waste. Phase one, termed the "East Mound Closure," was completed in March 1997, and was a pilot project to aid in the design of a soil cover for the rest of the landfill to prevent soil contaminants from leaching into the groundwater during precipitation events. Phase two, termed the "North and East Slope Closure," was completed in 1997 and included the construction of a six-foot thick monolithic cover over 45 acres of the landfill. The final phase of the landfill closure was completed in March of 2005 when the remaining 72 acres of the landfill were covered with a four-foot monolithic cover.

Since its closure, the County maintains the MSL drainage and erosion control systems to ensure, to the greatest extent possible, that ponding, infiltration, inundation, erosion, slope failure, and washout are prevented during peak storm flows. The drainage control facilities consist of a network of earthen berms, benches, asphalt down drains and V-channels, concrete channels, reinforced concrete pipes, and sedimentation basins.

Since 2017, the County has leased a portion of the MSL property to PVN Milliken, LLC for a photovoltaic solar facility. The three-megawatt power generating solar facility consists of about 14.5 acres of solar panels located on the top and intermediate decks of the closed landfill. Exhibit 1 shows the footprint of this facility.

Regulatory Orders

- Waste Discharge Requirements (WDR) and Monitoring and Reporting Program (M&RP) Order No. 81-3 and subsequent WDRs and M&RPs Order Nos. 93-57, 94-17, 96-40, 98-89, and R8-2015-0040 (current). Requirements for the design, construction, and maintenance of run-on runoff drainage control systems at the landfill and the supportive monitoring and reporting requirements. Orders Nos. 93-57, 94-17, 96-4, and 98-99 are combined WDRs and M&RPs for all landfills in the Santa Ana Region.
- Cleanup and Abatement (CAO) Order No. 91-92. Requirement for the MSL to correct drainage and erosion control deficiencies that existed on the landfill property.
- Cease and Desist Order No. 96-41. Requirement for the MSL to submit a workplan with a schedule for the design and construction of a permanent and effective drainage and erosion control system and for the implementation of the workplan.

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[3] Regional Board. (1996). *Tentative Cease and Desist Order No. 96-41, for Violations of WDRs (Order No. 81-3, as Amended by Order No. 93-57, Order No. 94-17, and Order No. 96-40) at the Milliken Sanitary Landfill, San Bernardino County*. April 5, 1996.

[4] Project Navigator, Ltd. (1999). *Final Postclosure Maintenance Plan, Milliken Sanitary Landfill*. Prepared for the County of San Bernardino, Solid Waste System Division. September 1999.

- WDRs R8-2002-0033, amended by R8-2002-0085 and R8-2013-0020. General WDRs for the re-injection/percolation of extracted and treated groundwater within the Santa Ana Region.

Regulatory and Monitoring History

On February 26, 1981, the Regional Board adopted WDR No. 81-3 for the discharge of municipal solid wastes to land at the MSL. The WDR addressed the placement, monitoring, and reporting of waste at the landfill; however, it did not require groundwater monitoring. In 1987, groundwater monitoring began with the installation of five monitoring wells as part of the Solid Waste Assessment Test (SWAT) investigation.[5] The initial monitoring results indicated that there were multiple contaminants in the groundwater underlying and adjacent to the facility at concentrations significantly above background levels. The contaminants included multiple VOCs: dichlorodifluoromethane, 1,1-dichloroethene, PCE, and TCE.

On May 1989, the Regional Board requested that the County investigate the nature and extent of the VOC contamination. The County submitted a workplan[6] to the Regional Board in July 1989 to implement the Phase I Evaluation Monitoring Program (EMP) and began implementing the approved Phase I EMP in 1992. During the implementation of the Phase I EMP, the County installed ten new monitoring wells: eight wells were installed downgradient from the facility, and two wells were installed upgradient from the facility.[7] Contaminants including TCE and PCE were detected in the new downgradient monitoring wells. Subsequent to the implementation of the Phase I EMP, the County installed three additional monitoring wells along the southern boundary of the property, one well upgradient, and six wells downgradient to further characterize the lateral and vertical extent of the TCE plume.

On January 1996, the County submitted a workplan for the Phase II EMP to install two additional monitoring wells along the southern boundary of the facility and two additional monitoring wells downgradient. The workplan was approved by the Regional Board in February 1996.[8] Under the direction of the Regional Board, the County completed the Phase II EMP[9] and an Engineering Feasibility Study[10] in 1998. Groundwater flow modeling was also performed to support the

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[5] IT Corporation. (1989). *Final Report Solid Waste Assessment Test Milliken Sanitary Landfill, Project No. 240275.* Prepared for County of San Bernardino Environmental Public Works Agency Solid Waste Management Department. June 1898.

[6] IT Corporation. (1989). *Quarterly Report: Subchapter 15 Detection Monitoring Program for Cajon, Colton, Midvalley, Milliken, Plunge Creek, San Timoteo, and Yucaipa Landfills*. Prepared for County of San Bernardino Solid Waste Management Division. July 1989.

[7] Converse Consultants Inland Empire. (1994). *Groundwater Contamination Evaluation, Milliken Sanitary Landfill*. Prepared for the County of San Bernardino Solid Waste Management Division.

[8] Regional Board. (1996). *Letter from Dixie B. Lass – Milliken Landfill – Addendum to Phase II Workplan, Contaminant Plume Investigation.* February 6, 1996.

[9] Geo-Logic Associates. (1998). *Phase II Evaluation Monitoring Report, Milliken Sanitary Landfill*. Prepared for the County of San Bernardino, Solid Waste System Division. May 1998.

[10] Geo-Logic Associates. (1998). *Engineering Feasibility Study, Milliken Sanitary Landfill*. Prepared for the County of San Bernardino, Solid Waste System Division. May 1998.

selection of an appropriate remediation strategy.[11] The Regional Board approved a remediation alternative that included (1) a pump-and-treat system for onsite contaminated groundwater and (2) monitored natural attenuation for offsite contaminated groundwater. Construction of the pump-and-treat system was completed on March 4, 1999 and consisted of 13 groundwater extraction wells located at the downgradient edge of the MSL site. Offsite monitoring for natural attenuation began at four offsite wells in 1998. In 2000, groundwater levels began to decline monotonically in the vicinity of the MSL, and by 2007, the groundwater level dropped below the total depths of all 13 onsite extraction wells and five of the offsite monitoring wells. In response, the Regional Board requested that the County complete an updated feasibility study to evaluate the effectiveness of the remediation strategy and the extent of the contaminant plume. In March 2013, the County finalized the Updated Engineering Feasibility Study[12] for the MSL (2013 Feasibility Study). The 2013 Feasibility Study evaluated several potential alternative treatments to mitigate the plume. The County concluded that monitored natural attenuation was the appropriate remediation alternative. This revised remediation alternative was approved by the Regional Board on May 15, 2013.

In 2015, the County submitted a workplan[13] to investigate the offsite impacts to groundwater near the MSL, which addressed the following requests from the Regional Board: collect gas samples to evaluate human health risks for commercial developments south of the MSL, update the 1998 groundwater flow model in the absence of groundwater pump-and-treat system and incorporate current data, evaluate the need for additional corrective actions, and install additional downgradient monitoring wells. Pursuant to the 2015 workplan, the County submitted an Evaluation of Off-Site Impacts to Groundwater at the MSL[14] to the Regional Board on March 9, 2018. The report included an update of the 1998 groundwater-flow model to incorporate the non-operating groundwater pump-and-treat system and current monitoring data and a summary of the soil-pore gas sampling at the dry extraction wells for the pump-and-treat system. Based on the results of the modeling and monitoring, the County proposed the installation of a new downgradient monitoring well (see Exhibit 1) and a focused soil-gas investigation to determine whether soil gas mitigation is necessary. The Regional Board accepted the proposed actions on March 29, 2018.[15]

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[11] Geo-Logic Associates. (1999). Groundwater Flow Model, Milliken Sanitary Landfill. Prepared for the County of San Bernardino, Solid Waste System Division. February 1999.

[12] Geo-Logic Associates. (2013). *Updated Engineering Feasibility Study for Corrective Action. Milliken Sanitary Landfill County of San Bernardino, California*. Prepared for the County of San Bernardino, Solid Waste System Division. March 2013.

[13] Geo-Logic Associates. (2015). *County of San Bernardino Workplan: Investigation of Off-Site Impacts to Groundwater at the Milliken Sanitary Landfill*. Prepared for the County of San Bernardino, Solid Waste System Division. July 2015.

[14] Geo-Logic. (2018). *Evaluation of Off-Site Impacts to Groundwater at the Milliken Sanitary Landfill County of San Bernardino, California.* Prepared for County of San Bernardino Solid Waste Management Division. March 2018.

[15] Regional Board. (2018). *Evaluation of Off-Site Impacts to Groundwater at the Milliken Sanitary Landfill, San Bernardino County Global ID:L1000745844.* March 29, 2018. Letter from Keith Person on behalf of Cindy Li.

The County and PVN Milliken, LLC submitted a revised Final Post-Closure Maintenance Plan[16] in November 2016 and a land use plan[17] in December 2016 to modify the MSL's end use plan to include the solar plant on the landfill surface. The Regional Board approved the plans in January 2017.[18] The revised post-closure maintenance plan provides a basis for plan inspection, maintenance, and monitoring of the MSL during the post-closure maintenance period. The revised land use plan describes PVN Milliken's modification to the landfill, and its responsibility to maintain and monitor the land in a way that does not impact groundwater and surface water quality.

Remedial Action

As previously noted, the original remedial action plan that consisted of a pump-and-treat system and monitored natural attenuation had to be revised due to declining water levels. All 13 onsite extraction wells and five of the eight offsite monitoring wells dried up as groundwater elevations declined below well depths, causing the pump-and-treat system to cease operations in 2007. The 2013 Feasibility Study identified monitored natural attenuation, coupled with the existing mitigation measures, as the best remedial alternative of downgradient groundwater impacts and included certain 'trigger points' that would require mitigation measures to be initiated. The "trigger point" corrective action plan includes:

- when the total VOC concentration[19] in samples from downgradient monitoring well M-8A or M-8B exceeds the 1999 model-predicted VOC concentrations for two consecutive quarters, improvements to the existing landfill gas extraction system would be implemented. Once the improvements were implemented, the following trigger would require additional mitigation measures to be implemented.
- when a "statistically significant" increasing[20] VOC concentration trend is identified in monitoring well M-8A or M-8B over a one-year period after the landfill gas improvements have been implemented.

The trigger points were approved by the Regional Board in 2013.[21] If additional remedial action is deemed necessary based on these trigger points, the most appropriate and cost-effective remediation measure will be evaluated at that time.

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[16] Project Navigator, Ltd. (2016). *Final Postclosure Maintenance Plan Milliken Sanitary Landfill 36-AA-0054 Ontario, California*. Prepared for the County of San Bernardino Department of Public Works – Solid Waste Management Division. on behalf of PVN Milliken, LLC. September 10, 1999. Revised June 2004. Revised 2014. Revised November 2016.

[17] Project Navigator, Ltd. (2016*). Land Use Plan for the Milliken Sanitary Landfill 36-AA-0054 Ontario, California, County of San Bernardino.* Prepared on behalf of PVN Milliken, LLC for the County of San Bernardino Department of Public Works – Solid Waste Management Division. December 2016.

[18] Regional Board. (2017). *Approval of the Revised Final Post Closure Maintenance Plan and Land Use Plan for Milliken Landfill, Ontario, San Bernardino County*. January 19, 2017.

[19] Total VOC load equals the sum of all detected VOC concentrations in a given sample expressed in µgl.

[20] Statistically significant increasing or decreasing trends are determined using Sen's Slope/Mann Kendall trend test.

[21] Regional Board. (2013). *Identification of Triggers for Additional Corrective Action System for the Milliken Landfill, San Bernardino County*. Letter dated May 15, 2013.

The 2013 Feasibility Study also specified that if VOC concentrations increase to one-half of the 1998 model-predicted VOC concentrations in wells at the center of the plume, an additional off-site monitoring well would be necessary near well M-19 to monitor the natural attenuation of the plume in the lower aquifer as the plume moves away from the site.

Monitoring and Reporting Program

The County conducts groundwater, surface water, and soil-pore gas monitoring at the MSL pursuant to a Corrective Action Program to address impacts to groundwater. The monitoring program consists of 26 groundwater monitoring wells, two piezometers, five soil-pore gas monitoring probes, three surface water monitoring stations, and one landfill gas condensate station. All monitoring wells that are not dry are sampled quarterly for groundwater quality and measured for groundwater levels. Surface-water quality sampling at three stations is conducted semi-annually in the first and third quarters. Field soil-gas screening is performed semi-annually, and a measurement is collected for laboratory analysis when methane is detected at concentration that is greater than five percent in volume. Landfill gas condensate sampling is conducted annually in the fourth quarter. The groundwater data collected during the quarterly sampling events is statistically analyzed to identify increasing or decreasing trends of VOCs and other constituents of concern.

The quarterly groundwater monitoring data are also used to assess the natural attenuation of the off-site extent of the plume. TCE concentrations at monitoring well M-8B (and M-8A if not dry) are used to determine if there are triggers that would necessitate further corrective actions based on the defined "trigger point" concentrations established from predicted concentrations from the groundwater modeling preformed to evaluate the pump-and-treat system in 1999. Exhibit 1 shows the locations of wells M-8A and M-8B. The following table shows the model-predicted VOC concentrations over time:

Trigger Points for Additional Corrective Action Measures (µgl)					
Year	Total VOC Load at M-8A or M-8B*	Year	Total VOC Load at M-8A or M-8B*	Year	Total VOC Load at M-8A or M-8B*
2013	120	2027	123	2041	50
2014	123	2028	117	2042	45
2015	125	2029	112	2043	40
2016	128	2030	106	2044	35
2017	130	2031	101	2045	30
2018	130	2032	96	2046	25
2019	129	2033	90	2047	20
2020	128	2034	85	2048	18
2021	127	2035	80	2049	16
2022	126	2036	75	2050	14
2023	125	2037	70	2051	13
2024	124	2038	65	2052	12
2025	124	2039	60	2053	11
2026	123	2040	55	2054	10

*Total VOC load equals the sum of all detected VOC concentrations in a given sample (µgl).

Recent Activity

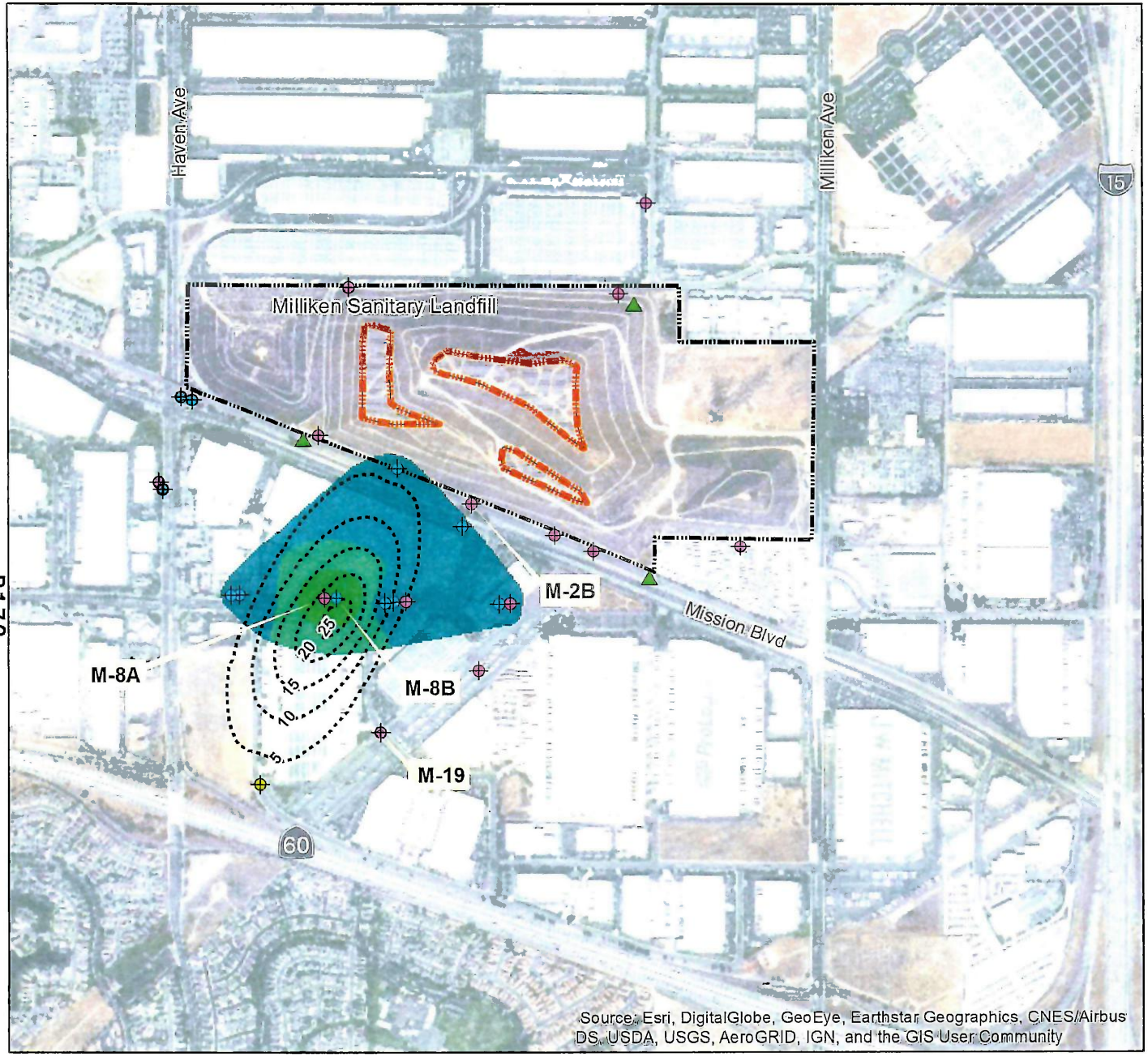
The County's most recent monitoring event occurred in April 2019. The results of the monitoring event were reported in the second quarter 2019 monitoring report submitted to the Regional Board in July 2019.[22] During the sampling event, groundwater-levels were measured at eleven wells and one piezometer, and groundwater-quality samples were collected at eight wells. Fifteen monitoring wells, one piezometer, and all three surface water monitoring stations were dry. No methane was detected in the soil-pore gas samples. The following summarizes the main results from the April 2019 monitoring event:

- The TCE concentrations in all active monitoring wells were below the MCL.
- Monitoring well M-8A was dry, and the total VOC load for monitoring well M-8B was 9.58 µgl, which is below the "trigger point" threshold of 129 µgl. Thus, no additional correction action has been triggered.
- There is a gradual decreasing trend in the TCE concentration measured in monitoring well M-8B, located at the central and southern portion of the plume. From 2013 to 2019, TCE concentration measured at the well decreased from 17 to 4 µgl.
- No additional corrective actions have been triggered and monitoring for natural attenuation will continue under the existing approved protocols.

[22] Geo-Logic. (2019). *County of San Bernardino Water Quality Monitoring Report, Second Quarter 2019 Monitoring Period, Milliken Sanitary Landfill*. Submitted by County of San Bernardino Solid Waste Management Division, July 2019.

In April 2019, the County submitted a request to the Regional Board for termination of the regulatory coverage under WDR Order No. R8-2013-0020 because they are no longer treating or disposing of treated groundwater from the pump-and-treat system at the MSL due to the groundwater level declines. The Regional Board approved the County's request on May 9, 2019.[23]

[23] Regional Board. (2019). Letter from Cindy Li to the County – *Termination of Regulatory Coverage Under Waste Discharge Requirements, Order No. R8-2002-0033, Groundwater Cleanup Project for Milliken Sanitary Landfill, San Bernardino County.* May 9, 2019.



P173

Maximum TCE Concentration (µgl)
July 2013 to June 2018

- 0.5 to ≤ 5
- > 5 to ≤ 10
- > 10 to ≤ 20
- > 20 to ≤ 50

(Delineated by Watermaster in the 2018 State of the Basin Report)

Contours of Total VOCs Concentrations (µgl) as delineated by the County in 2015

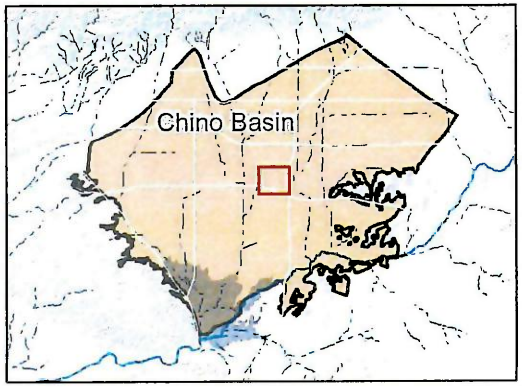
County of San Bernardino Monitoring Wells

- Sampled in 2019*
- Dry in 2019*
- Proposed New Well Location
- Surface Water Monitoring Station (Dry)

Extent of Solar Facility - Installed in 2017

Milliken Sanitary Landfill Property Boundary

* Wells are labeled by well name if mentioned in the report



Prepared by:

WEI
Wildermuth Environmental, Inc.

Author: SO
Date: 10/3/2019
Name: 20190828_MillikenPlume_Status_Ex1

0 0.125 0.25 0.5 Miles

Plume Status Report
October 2019

Milliken Sanitary Landfill TCE Plume

Exhibit 1

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ANNUAL PLUME STATUS REPORT
STRINGFELLOW PLUME
October 2019

Contaminants

The primary contaminants at the Stringfellow site are perchlorate, trichloroethene (TCE), and chloroform. The maximum contaminant levels (MCL) for perchlorate and TCE are 6.0 micrograms per liter (µgl) and 5.0 µgl, respectively. Chloroform does not have an MCL but is assessed to a cleanup level of 6.0 µgl for the Stringfellow site.[1] The five-year maximum contaminant concentrations detected in groundwater within the various zones of the Stringfellow site are shown in the table below.

Contaminant	MCL or Cleanup Level (µgl)	Maximum Concentration 2014-2019 (µgl)	
		Zones 1-3 (Within Pyrite Canyon)	Zone 4 (Downgradient of Pyrite Canyon)
Perchlorate	6.0	1,200	100
TCE	5.0	330,000	22
chloroform	6.0	11,000	21

Additional contaminants at the site include other volatile organic compounds (VOCs), semi-volatile organic compounds (SOCs), pesticides, para-chlorobenzene sulfonic acid, n-nitrosodimethylamine, and various heavy metals. And, the groundwater beneath the former waste evaporation ponds has a pH of <4.0.

Location

The former Stringfellow Landfill site is located in Pyrite Canyon in the Jurupa Mountains about one mile north of the community of Glen Avon in the Jurupa Valley in the eastern portion of the Chino Basin. Pyrite Canyon overlies Holocene and Pleistocene unconsolidated alluvium and alluvial fan deposits and is bound by the granodiorite and metasedimentary units of the Jurupa Mountains.[2] The site is geographically divided into four groundwater zones in consideration of various operational and remediation activities. These zones, shown in Exhibit 1, include:

- *Zone 1 - On-site/Upper Mid-Canyon Area*. Zone 1 is located in the northern most part of Pyrite Canyon and includes the original 17-acre disposal facility. It is divided into two areas that are separated by a mand-made clay barrier, constructed downgradient of the

[1] Cleanup levels were established for TCE (5 µgl and equal to the MCL) and chloroform (6 µgl) in the Interim Records of Decision 4 by the United State Environmental Protection Agency

[2] Dibblee, T.W., and J.A. Minch. (2004). *Geologic map of the Riverside West/south 1/2 of Fontana quadrangles, San Bernardino and Riverside County, California*: Dibblee Geological Foundation, Dibblee Foundation Map DF-128, scale 1:24,000

evaporation ponds in 1980 to mitigate subsurface flow. Zone 1A is located upgradient of the clay barrier and includes the former evaporation ponds. Zone 1B extends 600 feet south of the barrier below the evaporation ponds and includes the Pyrite Canyon Treatment Facility.

- *Zone 2 - Mid-Canyon Area.* This zone comprises the central portion of Pyrite Canyon. A line of extraction wells and the Pre-Treatment Plant are located in this zone.
- *Zone 3 - Lower Canyon Area.* Zone 3 extends from just south of the extraction wells in Zone 2 to just north of Highway 60 and includes the Lower Canyon Treatment Facility.
- *Zone 4.* This zone extends all the way from Highway 60 to immediately north of the Santa Ana River (approximately 22,000 to 24,500 feet southwest of the former disposal facility in Zone 1A). It is a residential and light industrial area in the City of Jurupa Valley and includes the Community Well Head Treatment System.

Exhibit 1 shows the general extent of the TCE plume originating from the Stringfellow site with detectable concentrations of TCE greater than or equal to 0.5 µgl, as delineated by the Chino Basin Watermaster (Watermaster) in 2019 for the *2018 State of the Basin Report*.[3] The plume is approximately 14,100 feet long and 900 feet wide and extends from Zone 1 to the midpoint of Zone 4 near the Community Wellhead Treatment System.

Exhibit 1 also shows the general extent of the perchlorate plume originating from the Stringfellow site with concentrations greater than or equal to 6.0 µgl, as delineated in 2018 for the *Final Zone 4 Monitored Natural Attenuation Technical Memorandum*.[4] The perchlorate plume extends from Zone 1 approximately 24,000 feet south/southwest to Zone 4. The width of the perchlorate plume varies between approximately 250 and 3,200 feet. Several smaller perchlorate plumes to the east and west of the main plume are also shown in Exhibit 1.

The extent of the chloroform plume, which is much smaller than the TCE and percolate plumes, is limited to Zones 1 and 2 and is not shown in Exhibit 1.

Site History

Stringfellow Quarry Company Inc. operated the site as a 'Class I' hazardous waste disposal facility from 1956 to 1972 pursuant to the issuance of a land use variance by the Riverside County Planning Commission in 1952. During this time, approximately 34 million gallons of industrial liquid waste containing spent acids, caustics, solvents, pesticide byproducts, metals, and other organic and inorganic constituents—derived primarily from electroplating, metal finishing, pesticide production, and aerospace propulsion industries—were deposited in as many as 20

[3] Wildermuth Environmental, Inc. (2019). *Optimum Basin Management Program - 2018 State of the Basin Report*. Prepared for the Chino Basin Watermaster. June 2019.
[4] Kleinfelder. (2018). *Final Zone 4 Monitored Natural Attenuation Technical Memorandum, Stringfellow Superfund Site; Jurupa Valley, California.* Prepared for California Department of Toxic Substances Control. September 28, 2018.

unlined evaporation ponds, occupying 17 acres of the site (located within Zone 1a on Exhibit 1).[5] Liquid wastes were also sprayed into the air to expedite evaporative processes.

In 1975, following the cessation of operations at the disposal facility, the California Regional Water Quality Control Board, Santa Ana Region initiated response actions and site investigation studies. Since that time, over 45 phases of investigation, feasibility testing, and remedial actions have been performed by various entities at the site. A record of these activities and associated reports can be found on the Department of Toxic Substances Control (DTSC) EnviroStor website (https://www.envirostor.dtsc.ca.gov/public/).

Regulatory Orders

In October 1981, the Stringfellow site was placed on the United States Environmental Protection Agency (USEPA) Interim Priorities List of Hazardous Waste Sites. Following this listing, the USEPA issued a series of orders requiring the responsible parties to initiate remedial actions to monitor and control downgradient migration of site constituents to protect public health and the environment. An initial Record of Decision (ROD 1) was published by the USEPA on July 22, 1983. On September 8, 1983, the Stringfellow site was placed on the USEPA's final National Priorities List (NPL) as a Superfund site. Three additional RODs were published in 1984, 1987, and 1990. The following summarizes the four RODs and major remedial actions or objectives set forth therein.

ROD 1 (USEPA 1983).[6] The remedial activities assigned to the DTSC for oversight included: fencing the site, erosion control, hauling and disposal of hazardous material, continued offsite groundwater mitigation, and the completion of a Remedial Investigation/Feasibility Study (RIFS). In conjunction with the DTSC-led activities, the EPA assumed oversight of the following Superfund management activities: preliminary groundwater sampling, the installation of new monitoring wells, and the creation of a Fast Track RIFS.

ROD 2 (USEPA 1984).[7] The remedial action implemented as part of ROD 2 included the construction of the Pre-Treatment Plant in the mid-canyon area (located within Zone 2 on Exhibit 1). Construction began in January 1985 and was completed in November 1985. The remedial action also required the evaluation of treatment technologies that are associated with the removal of heavy metals and organics in groundwater.

ROD 3 (USEPA 1987).[8] Two additional remedial actions were implemented as part of ROD 3. The first remedial action consisted of the construction of an upgradient surface-water diversion north of the original contamination site (within Zone 1A, Exhibit 1). The second consisted of

[5] U.S. Army Corps of Engineers. (2016). *Fifth Five-Year Review Report for Stringfellow Superfund Site Riverside County, California*. September 2016.
[6] United States Environmental Protection Agency. (1983). *EPA Superfund, Record of Decision: Stringfellow Acid Pits Site. USEPA ID: CAT080012826, OU01, Mira Loma, California*. July 1983.
[7] United States Environmental Protection Agency. (USEPA) (1984). *Record of Decision, Stringfellow Acid Pits, Summary of Remedial Alternative Selection*. July 1984.
[8] United States Environmental Protection Agency. (USEPA) (1987). *Record of Decision: Stringfellow Acid Pits, Summary of Remedial Alternative Selection (Early Implementation Action)*. June 1987.

constructing groundwater extraction wells to serve as a barrier to groundwater-flow and an accompanying treatment facility (the Lower Canyon Treatment Facility) to treat contaminated groundwater (located within Zone 3, Exhibit 1).

ROD 4 (USEPA 1990).[9] The fourth ROD delineated the site into four geographic zones (Zones 1-4, as described above). The remedial action consisted of the installation of a groundwater extraction and treatment system in Zone 4 (the Community Wellhead Treatment Facility), as well as dewatering Zone 1 using extraction wells.

An additional ROD (ROD 5), outlining the final remedial action objectives for Zones 1, 2, ,3 and 4, is expected to be published in 2021.

Remedial Actions

In 1980, prior to the first ROD, the Regional Board adopted an interim abatement program to contain the waste and minimize the risk of further contaminant migration. Several remedial solutions were implemented, including the removal of liquid waste from ponds, partial neutralization and capping of wastes, the construction of a subsurface clay barrier wall downgradient from the pond area, and drainage control features.

Following the completion of interim remedial measures required by ROD 1 and the issuance of ROD 2, a groundwater extraction and treatment system was developed and has become the primary remedial action implemented at the site. The groundwater extraction and treatment system, which has expanded over time, currently consists of a network of over 70 extraction wells throughout Zones 1-4 and four treatment plants operated by the DTSC on behalf of the State. The treatment plants include the Pre-Treatment Plant, the Pyrite Canyon Treatment Facility, the Lower Canyon Treatment Facility, and the Community Wellhead Treatment System. Exhibit 1 shows the locations of the four treatment plants.

Pre-Treatment Plant/Pyrite Canyon Treatment Facility. These facilities treat contaminated groundwater from extraction wells in Zones 1 and 2. The Pre-Treatment Plant is located in Zone 2 and began operating in 1985 pursuant to the second ROD. It will be fully decommissioned and demolished by 2020. The Pyrite Canyon Treatment Facility was constructed in 2017 to replace the aging infrastructure of Pre-Treatment Plant and began operating on April 4, 2017. The constituents treated include low pH, pesticides, metals, and VOCs. The Pyrite Canyon Treatment Facility is located in Zone 1B and has the potential to treat a wider range of contaminants than were treated at the Pre-Treatment Plan. Treated effluent is stored onsite and then released to the Inland Empire Brine Line and the Orange County Sanitation Districts wastewater collection, treatment, and disposal facilities under permit from the Santa Ana Watershed Project Authority. Some of the treated effluent is used for utility water at the treatment facility.

Lower Canyon Treatment Facility. This facility treats contaminated groundwater from extraction wells in Zones 3 and 4 for VOCs and can treat an average of about 90,700 gpd (102 afy). Treated

[9] United States Environmental Protection Agency. (USEPA) (1990). *Record of Decision: Stringfellow Hazardous Waste Site.* September 1990.

effluent from the Lower Canyon Treatment Facility is piped to and stored at the Pre-Treatment Plant and subsequently released to the Inland Empire Brine Line. Currently, the facility is non-operational but can be re-activated if needed. As of 2017, groundwater extracted from Zones 3 and 4 has been piped to the Pre-Treatment Plant where it is treated for VOCs and released to the Inland Empire Brine Line.

Community Wellhead Treatment System. This plant treats contaminated groundwater from two wells in Zone 4 for VOCs and perchlorate. Treated effluent is discharged to Pyrite Creek under an NPDES permit and can also be used for irrigation by local residents. The plant treats an average of about 15,000 gpd (17 afy).

In addition to remediating contaminated groundwater originating from the Stringfellow site, the USEPA has also initiated a groundwater and soil investigation to develop remedial actions for sources of perchlorate that do not originate from the Stringfellow site. The USEPA has investigated two areas, Areas 1 and 2 (see Exhibit 1), to identify additional sources of perchlorate contamination in Pyrite Canyon. A draft remedial investigation report for Area 1 (completed in 2017) and a remedial investigation report for Area 2 (completed in 2018) will inform a future feasibility study to support the selection of a remedial action.[10,11]

Monitoring and Reporting Programs

As of 2017, a network of 575 wells has been actively monitored for groundwater elevations and/or groundwater quality at and downgradient of the Stringfellow site. The number and type of wells monitored in each zone or area is summarized in the table below.[12,13] The groundwater monitoring program is implemented in accordance with the 2015 *Final Quality Assurance Project Plan: Routine Groundwater Monitoring and Zone 4 DGI Investigation* and the 2016 *Site-Wide Groundwater and Surface Water Monitoring Plan*.[14,15] Since 2017, an additional 15 monitoring wells have been constructed and sampled. In general, new wells are sampled quarterly for two years and then incorporated into the annual sampling schedule.

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[10] CH2M. (2017). *Draft Final Remedial Investigation Report, EPA Area 1, Stringfellow Superfund Site, Jurupa Valley, California.* Prepared for USEPA. April 2017.

[11] Ramboll US Corporation. (2018). *EPA Area 2 Remedial Investigation Report, Stringfellow Superfund Site.* Prepared for California Department of Toxic Substances Control. October 19, 2018.

[12] Kleinfelder. (2019). *2017 Annual Groundwater Monitoring and Remedy Effectiveness Evaluation Report, Stringfellow Superfund Site.* Prepared for California Department of Toxic Substances Control. March 15, 2019.

[13] This is the most recent available data regarding the number and types of wells and comes from the *2017 Annual Groundwater Monitoring and Remedy Effectiveness Evaluation*, which was published March 15, 2019.

[14] Laboratory Data Consultants. (2015). *Final Quality Assurance Project Plan: Routine Groundwater Monitoring and Zone 4 DGI Investigation*. November 2015.

[15] Kleinfelder. (2016). *Final Sitewide Groundwater and Surface Water Monitoring Plan and Sampling and Analysis Plan, Stringfellow Superfund Site.* Prepared for California Department of Toxic Substances Control. July 2016.

Zone or Area	Number of Wells	Well Type				
		Monitoring Well	Extraction Well	Piezometer	Extraction Sump	Water Supply Well
1A	135	87	39	0	9	-
1B	57	36	10	11	-	-
2	35	27	8	0	-	-
3	131	119	12	0	-	-
4	181	143	4	34	-	-
USEPA Area 1/2	36	36	0	0	-	-
Total	**575**	**448**	**73**	**45**	**9**	**0**

The DTSC reports on the monitoring and remediation efforts in its annual groundwater monitoring reports, quarterly/non-routine monitoring reports, monthly operation and maintenance reports, annual groundwater remedy effectiveness evaluation reports, and other technical memorandums and non-routine reports.

In addition to groundwater sampling, in 2005, the DTSC initiated surface water sampling to evaluate perchlorate concentrations in storm water runoff in Pyrite Creek and its tributary channels. Currently, surface water sampling and reporting are executed pursuant to the *Final Surface Water Sampling and Analysis Plan* and are performed during qualifying storm events, which are classified using the following criteria: at least 72 hours of dry weather have elapsed since a previous storm event and a storm event produces sufficient runoff during daylight hours to perform sampling.[16]

Watermaster collects all relevant groundwater and surface water data from the DTSC's Stringfellow Interface for Data and Documents (SIDD database) on an annual basis as part of its Chino Basin Data Collection effort. These data are periodically used by Watermaster to support its basin management initiatives.

Recent Activity

The following is a summary of key activities that have occurred since July 2018:

- The *2018 Annual Groundwater Sampling and Analysis Report* was submitted to the DTSC in February 2019. From April 16 through May 23, 2018, groundwater levels were measured at 583 wells, and groundwater-quality samples were collected from 283 wells and 31 piezometers.[17]
- The *Final 2017 Annual Groundwater Monitoring and Remedy Effectiveness Evaluation Report* was submitted to the DTSC on March 15, 2019 and concludes that the remedial

[16] Geo-Logic Associates. (2016). *Final Surface Water Sampling and Analysis Plan, Stringfellow Superfund Site*. Prepared for California Department of Toxic Substances Control. July 2016.
[17] Geo-Logic Associates. (2019). *2018 Annual Groundwater Sampling and Analysis Report, Stringfellow Superfund Site*. February 2019.

actions have been successful in meeting the remedial action objectives.[18] Contaminant concentrations are generally decreasing across the site and the spatial extent of all contaminants of concern is not increasing. From 2009- 2017, 1,305 pounds of TCE, 251 pounds of chloroform, and 237 pounds of perchlorate were removed from the site.

- The *November 2018 Surface Water Sampling Results Report* was submitted to the DTSC on March 22, 2019 to report the results of the surface water sampling event performed on November 29, 2018.[19] This was the only rainfall event to warrant surface water sampling, based on the previously described criteria. The maximum perchlorate concentration in surface water was 14 µgl at a sampling site in Zone 3.
- On September 28, 2018, Geo-Logic Associates submitted the *Final Zone 4 Monitored Natural Attenuation Technical Memorandum*, which was required under the terms of the *Agreement to Perform Response Actions* between the USEPA and the State.[20,21] The memorandum was meant to demonstrate the feasibility and effectiveness of natural attenuation of perchlorate in Zone 4 groundwater and verify that the plume is not expanding. The findings indicate that dilution and dispersion are the primary mechanisms of attenuation, and based on current rates of attenuation and model results, perchlorate concentrations are expected to fall below 6 µgl across the entire plume by 2068 without additional remedial action. The data also show that the plume extent has been decreasing.
- On April 4, 2019, the DTSC submitted a proposal to the USEPA to install an extraction well and eight monitoring wells in Zone 4 to test the viability of one of the identified remedial actions from the 2012 draft feasibility study report.[22,23] The selected action would involve deepening two existing groundwater extraction wells and continuing to pump for 10 years, followed by monitored natural attenuation until the remedial action objectives are met.
- On July 16, 2019, the DTSC submitted a proposal to the USEPA to install six new monitoring wells in Zone 1B to perform dye tracer testing, as proposed by Ramboll in 2018.[24] This study will help evaluate the apparent hydraulic connection in the bedrock fracture zones under the clay barrier dam to assess the magnitude of groundwater flow from Zone 1A to Zone 1B.

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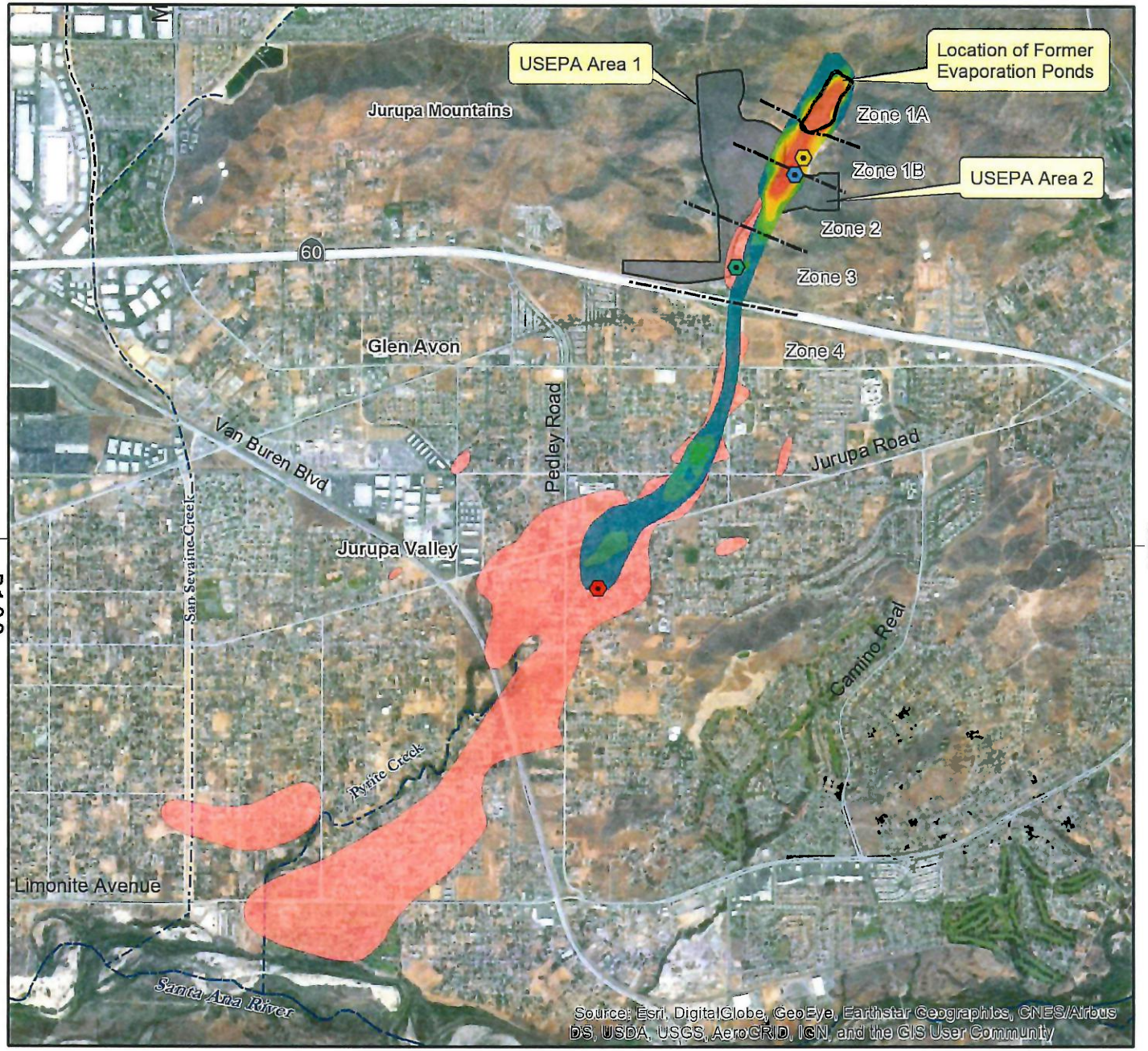
[18] Kleinfelder. (2019). *2017 Annual Groundwater Monitoring and Remedy Effectiveness Evaluation Report, Stringfellow Superfund Site.* Prepared for California Department of Toxic Substances Control. March 15, 2019.
[19] Geo-Logic Associates. (2019). *November 2018 Surface Water Sampling Results, Stringfellow Superfund Site.* March 22, 2019.
[20] Kleinfelder. (2018). *Final Zone 4 Monitored Natural Attenuation Technical Memorandum, Stringfellow Superfund Site; Jurupa Valley, California.* Prepared for California Department of Toxic Substances Control. September 28, 2018.
[21] USEPA. (2014). *Agreement to Perform Response Actions, U.S. EPA REGION IX, CERCLA Docket Number 09-2014-0003. IN THE MATTER OF: B. Stringfellow Acid Pits Superfund Site, Jurupa Valley, California*. April 10, 2014.
[22] California Department of Toxic Substances Control. (2019). *Proposal for Installing Monitoring and Extraction Wells in Zone 4 in Preparation for Performing Long-Term Weathered Bedrock Aquifer Testing, Stringfellow Superfund Site, Jurupa Valley, California.* April 4, 2019.
[23] Kleinfelder. (2012). *Draft Zone 4 Feasibility Study Report for Perchlorate in Groundwater Stringfellow Superfund Site.* Prepared for California Department of Toxic Substances Control. March 28, 2012.



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Maximum TCE Concentration (µgl)
July 2013 - June 2018

- 0.5 to ≤ 5
- > 5 to ≤ 10
- > 10 to ≤ 20
- > 20 to ≤ 50
- > 50 to ≤ 100
- > 100 to ≤ 200
- > 200 to ≤ 500
- > 500

(Delineated by Watermaster in the 2018 State of the Basin Report)

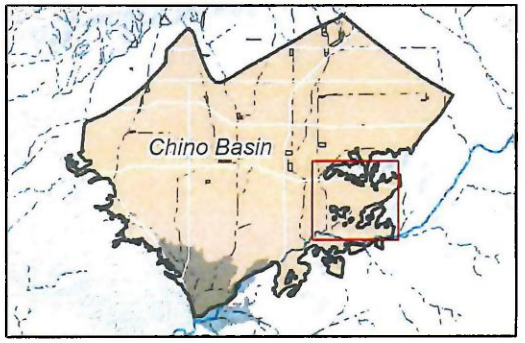
Extent of perchlorate plume (≥ 6 µgl)

Delineated by Kleinfelder in the Final Zone 4 Monitored Natural Attenuation Technical Memorandum (2018)

Groundwater Extraction and Treatment Facilities

- Pyrite Canyon Treatment Facility
- Pre-Treatment Plant
- Lower Canyon Treatment Facility
- Community Wellhead Treatment System

Streams & Flood Control Channels



Prepared by:

WEI
Wildermuth Environmental, Inc.

Author: LH
Date: 10/3/2019
Name: 20190918_SFPlume_Status

0 0.25 0.5 1 Miles

Plume Status Report
October 2019

Stringfellow TCE and Perchlorate Plumes

Exhibit 1

CHINO BASIN WATERMASTER

IV. INFORMATION

3. GLMC Status Report (Semi-Annual)

Semi-Annual Status Report of the Ground-Level Monitoring Committee

October 2019

This semi-annual status report describes the background of the Ground-Level Monitoring Program (GLMP), the main activities conducted for the GLMP and by the Ground-Level Monitoring Committee (GLMC) for the period April – September 2019, and the main activities planned for the period October 2019 – March 2020.

Background

Historically, the utilization of the Chino Basin has inadvertently resulted in land subsidence and ground fissuring. Pursuant the OBMP Implementation Plan, the Chino Basin Watermaster (Watermaster) developed and implements the Chino Basin Subsidence Management Plan (Subsidence Management Plan). The objective of the Subsidence Management Plan is to minimize or abate the occurrence of land subsidence and ground fissuring.

The Subsidence Management Plan identifies four "Areas of Subsidence Concern" and the MZ-1 Managed Area in the western portion of the Chino Basin. Figure 1 shows the locations of these areas. These are areas where land subsidence and ground fissuring have historically occurred, or where the underlying hydrogeologic conditions makes these areas susceptible to land subsidence and ground fissuring. In the MZ-1 Managed Area, Watermaster has conducted monitoring and testing programs, and has developed Management Criteria for the groundwater pumpers within the area to minimize or abate the future occurrence of land subsidence and ground fissuring. The Management Criteria consists of the following main elements:

- A list of pumping wells in the MZ-1 Managed Area that are subject to the Subsidence Management Plan.
- An index water level measured at Watermaster's PA-7 piezometer at Ayala Park. The index water level is called the Guidance Level.
- A Watermaster recommendation that the well owners collectively manage their pumping so that the water level at the PA-7 piezometer remains above the Guidance Level.

The Subsidence Management Plan also includes:

1. An ongoing monitoring and reporting program to verify the protective nature of the Subsidence Management Plan and to identify new threats or occurrences of land subsidence.
2. A process to adjust the Subsidence Management Plan to minimize or abate land subsidence and ground fissuring.

Since the initial Subsidence Management Plan was adopted by the Watermaster in 2007, Watermaster has conducted the annual GLMP to implement the monitoring and reporting program in (1.) above.

The main activities of the GLMP include:

- Setup and maintenance of monitoring facilities
- Monitoring and testing
- Data analysis and annual reporting
- Meetings of the GLMC

The main results and conclusions of the GLMP have been:

- Very little permanent land subsidence has occurred in the MZ-1 Managed Area, which indicates that subsidence is being successfully managed in this area.
- Land subsidence has been occurring in Northwest MZ-1. Of particular concern is that subsidence in Northwest MZ-1 has occurred differentially across the San Jose Fault and in other areas—the same pattern of differential subsidence that occurred in the MZ-1 Managed Area during the time of ground fissuring.

Based on these results, Watermaster determined that the Subsidence Management Plan needs to be updated to include a *Subsidence Management Plan for Northwest MZ-1* with the long-term objective to minimize or abate the occurrence of differential land subsidence. To assist in this update, the GLMP has been expanded to Northwest MZ-1. The Subsidence Management Plan was updated in 2015 to include the *Work Plan to Develop a Subsidence Management Plan for Northwest MZ-1* (Work Plan). The Work Plan includes eleven tasks that include investigations, construction of monitoring facilities, monitoring and testing programs, modeling, reporting, and preparation of a subsidence management plan for Northwest MZ-1. Portions of Tasks 2 and 5 of the Work Plan are planned for completion by the end of FY 2019/20:

- Task 2: Implement and Finalize the Initial Monitoring and Testing Program.
- Installation of the Pomona Extensometer Facility (PX) piezometers, equipping the piezometers with monitoring equipment (pressure transducers and cable extensometers), and begin monitoring the PX.

Activities Performed from April – September 2019

Setup and Maintenance of Monitoring Facilities

- Performed monthly routine maintenance, data collection, and verification at the Ayala Park and Chino Creek Extensometer Facilities.

Northwest MZ-1 Investigation

- Installed seven pressure transducers, two sonar devices, and two air-bubbler devices to measure water levels in MVWD wells selected by WEI.
- Cascade Environmental, Inc. (Cascade) drilled and constructed the PX's two dual-nested piezometers. Cascade successfully drilled, constructed, and developed three of the four

piezometers (PX1-2, PX3-2, and PX2-4). Piezometer PX1-1 was further developed in July and August 2019.

Monitoring and Testing

- Performed quarterly collection, checking, and storing of piezometric and aquifer-system deformation data from the Ayala Park and Chino Creek Extensometer Facilities.
- Received six Synthetic Aperture Radar interferograms from Neva Ridge Technologies, Inc. and processed the radar data to show vertical land surface altitude for the western Chino Basin between March 2011 and March 2019 and between March 2018 and March 2019.
- Guida Surveying, Inc. completed the Spring 2019 ground-level surveys from the Northeast, Northwest MZ-1, and San Jose Fault Zone areas and the data was processed for data analysis and reporting.

Data Analysis and Reporting

- Completed and submitted the Draft *2018/19 Annual Report of the Ground-Level Monitoring Committee* to the GLMC on September 19, 2019.

Meetings of the Ground-Level Monitoring Committee
There were two planned and one ad-hoc GLMC meetings conducted during the reporting period:

The June 5, 2019 meeting was an ad-hoc meeting to discuss status of the PX piezometer construction and development, and to discuss recommended next steps to complete development of piezometer PX1-1.

The August 22, 2019 meeting agenda included the following items:

- Preview of the draft *2018/19 Annual Report of the Ground-Level Monitoring Committee*
  Development of a Subsidence Management Plan for Northwest MZ-1

The September 26, 2019 meeting agenda included the following items:

- Review the draft *2018/19 Annual Report of the Ground-Level Monitoring Committee*
- Development of a Subsidence Management Plan for Northwest MZ-1

Activities Planned for October 2019 – March 2020

Setup and Maintenance of Monitoring Facilities

- Perform monthly routine maintenance, data collection, and verification at the Ayala Park Extensometer and Chino Creek Extensometer Facilities (and possibly at PX).

Monitoring and Testing

- Perform quarterly collection, checking, and storing of piezometric and aquifer-system deformation data from the piezometers and extensometers at the Ayala Park Extensometer and Chino Creek Extensometer Facilities (and possibly at PX).

Northwest MZ-1 Investigation

- Install the below ground well vaults at the PX site for the two dual-nested piezometers.
    - Install and equip the PX piezometers with pressure transducers and cable extensometers and test the pressure transducers and cable extensometer data loggers.
- Conduct the Initial Monitoring Program for Northwest MZ-1. This includes:
    - Conducting "passive" monitoring of piezometric levels in Northwest MZ-1 for one year.

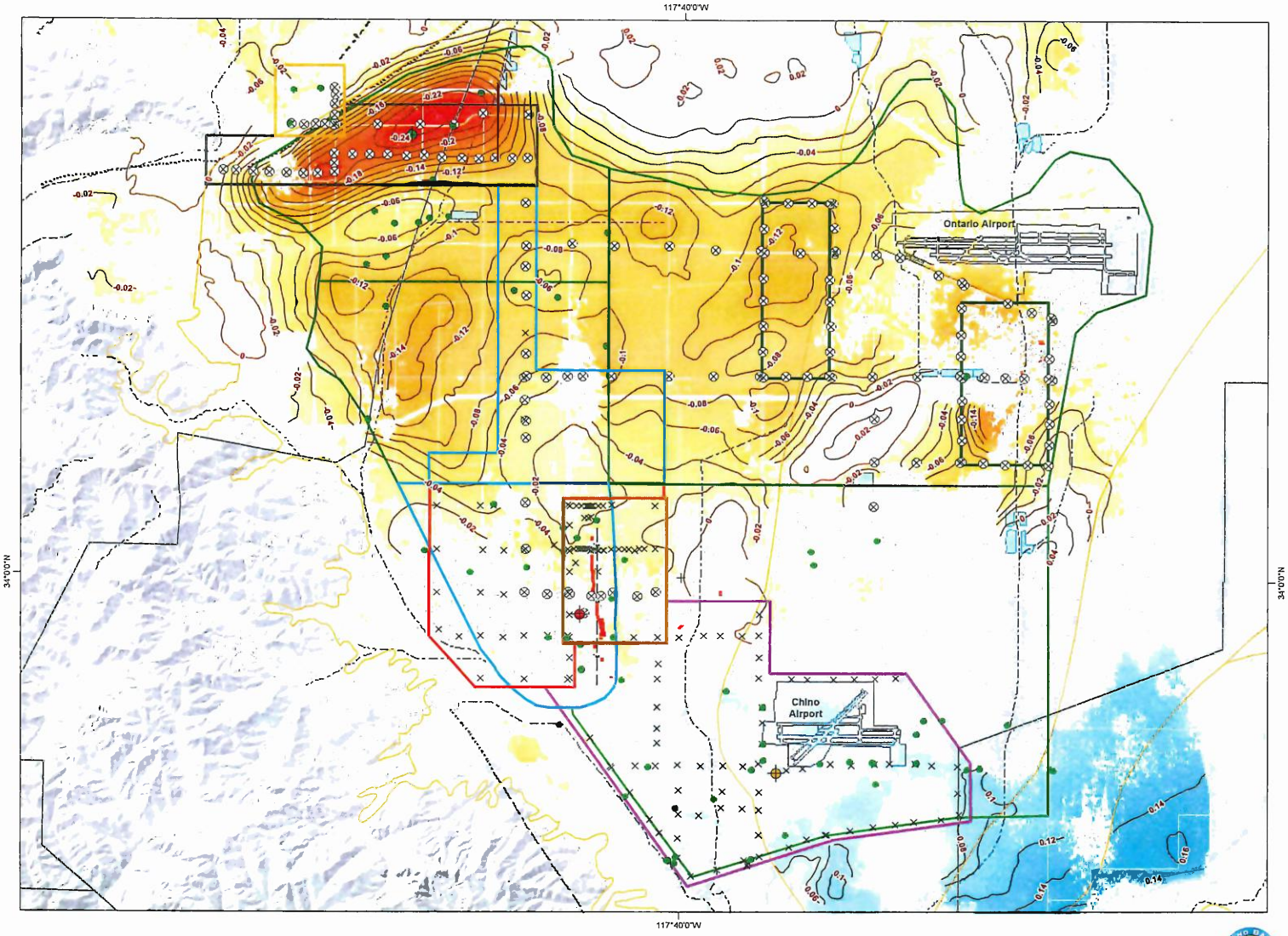
Data Analysis and Reporting

- Finalize the *2018/19 Annual Report of the Ground-Level Monitoring Committee.* The final report will be published in late October 2019.
- Submit the draft report to the GLMC: *Summary of the Drilling, Construction, and Development Activities for the Pomona Extensometer Facility Piezometers, City of Pomona, California.* The draft report is anticipated to be published in late Fall 2019.

Meetings of the Ground-Level Monitoring Committee

One GLMC meeting is anticipated between October 2019 and March 2020. The meeting agenda items will include:

- Review and discuss the recommended Scope and Budget of the Ground-Level Monitoring Committee for FY 2020/21.



Relative Change in Land Surface Altitude
as Measured by InSAR
March 2011 to March 2019

+ 0.25 ft
0
-0.20
- 0.25 ft

InSAR absent or incoherent

Ground-Level Survey Areas

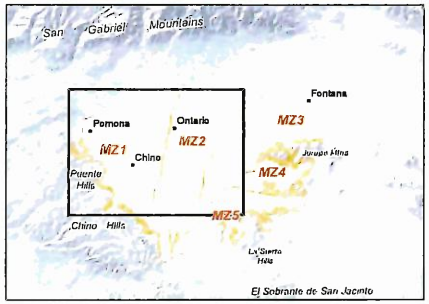
- Managed Area
- Fissure Zone
- Central
- San Jose Fault Zone
- Northwest MZ-1
- Southeast
- Northeast Area

- Ground-Level Survey Benchmark
- Ground-Level Survey Benchmark (Surveyed in April 2019)
- Well Equipped with Transducer (2018/19)

Groundwater-Level and
Aquifer-System Deformation Monitoring

- Ayala Park Extensometer
- Chino Creek Extensometer
- Pomona Extensometer

- MZ-1 Managed Area
- Areas of Subsidence Concern
- Ground Fissures
- Approximate Location of the Riley Barrier



WEI
Wildermuth Environmental, Inc.

Author: MAB
Date: 10/2/2019
Document Name: Figure1_FY2019_20_Apr_Oct

0 2 4 Miles
0 2 4 Kilometers

Ground-Level Monitoring Committee
Ground-Level Monitoring Program

Ground-Level Monitoring Program
Fiscal Year 2019/20

Figure 1

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