



December 5, 2017

Elsinore Valley Municipal Water District
Attention: Mr. Parag Kalaria
31315 Chaney Street
PO Box 3000
Lake Elsinore, CA 92531-3000

City of Corona
Attention: Mr. Tom Moody
755 Corporation Yard Way
Corona, CA 92880

Subject: Sixth and Seventh Annual Report of the Coldwater Basin Operating Committee

Dear Parag and Tom:

Wildermuth Environmental, Inc. is pleased to submit the final *Sixth and Seventh Annual Report of the Coldwater Basin Operating Committee*. This report is an annual requirement of the *Agreement Concerning Water Production from the Coldwater Basin* between the City of Corona and the Elsinore Valley Municipal Water District.

If you have any questions, please send them to Andy Malone (amalone@weewater.com) and Carolina Sanchez (csanchez@weewater.com).

Very truly yours,

Wildermuth Environmental, Inc.

Andrew E. Malone, PG
Vice President

Carolina Sanchez, PE
Staff Engineer

**Sixth and Seventh Annual Report of the
Coldwater Basin Operating Committee**

December 2017

FINAL

Prepared for:

City of Corona
&
Elsinore Valley Municipal Water District

Prepared by:



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Table of Contents

Section 1 – Introduction	1-1
1.1 Background and Objectives.....	1-1
1.2 Definitions.....	1-2
Section 2 – Water Rights Accounting.....	2-1
2.1 Imported Water and Allowable Production	2-1
2.2 Groundwater Production and Storage Accounts	2-1
2.3 Determination of Annual Production Rights	2-2
2.4 Summary.....	2-2
Section 3 – Stress and Response of the Basin	3-1
Section 4 – Recommendations.....	4-1

Appendix A – Agreement Concerning Water Production from the Coldwater Basin

Appendix B – Accounting Spreadsheets (Excel Workbook)



List of Tables

- 2-1a Return Flows and Artificial Recharge of Imported Water – *Fiscal Year 2015/16*
- 2-1b Return Flows and Artificial Recharge of Imported Water – *Fiscal Year 2016/17*
- 2-2a Groundwater Production by Well – *Fiscal Year 2015/16*
- 2-2a Groundwater Production by Well – *Fiscal Year 2016/17*
- 2-3a Annual Accounting of Allowable Production, Storage Accounts, and Production Rights – *Fiscal Year 2016/17*
- 2-3b Annual Accounting of Allowable Production, Storage Accounts, and Production Rights – *Fiscal Year 2017/18*
- 2-4 Summary of Return Flows and Artificial Recharge of Imported Water – *2008/09 to 2016/17*
- 2-5 Summary of Groundwater Production and Storage Accounts – *2008/09 to 2016/17*

List of Figures

- 1-1 Coldwater Basin - Boundaries, Well Locations, and Water Facilities
- 3-1 Pumping, Precipitation, and Groundwater Levels in the Coldwater Basin
- 4-1 Coldwater Basin – Proposed Groundwater and Surface-Water Monitoring Program



Section 1 – Introduction

This is the *Sixth and Seventh Annual Report of the Coldwater Basin Operating Committee*. The report is organized into the following four sections:

Section 1 – Introduction. This section provides background information on the Coldwater Basin, the *Agreement Concerning Water Production from the Coldwater Basin* (Agreement) between the City of Corona (City) and the Elsinore Valley Municipal Water District (District), the responsibilities of the Operating Committee that was formed to implement the Agreement, and key definitions of the terms used in this report.

Section 2 – Water Rights Accounting. This section describes the accounting of each Party's storage account for 2015/16 and 2016/17 and their production rights for 2016/17 and 2017/18.

Section 3 – Stress and Response of the Basin. This section interprets fundamental data on basin stresses (pumping, precipitation, and recharge) and responses (groundwater levels and storage).

Section 4 – Recommendations. This section contains recommendations to enhance the long-term sustainable yield of the Coldwater Basin, improve groundwater quality, and mitigate any potential adverse impacts from high or low groundwater levels.

1.1 Background and Objectives

The Coldwater Basin is a relatively small groundwater basin located in the Temescal Valley within western Riverside County. Storm-water runoff from the adjacent Santa Ana Mountains is a major source of recharge to the Coldwater Basin. Groundwater quality is typically good with total dissolved solids (TDS) concentrations generally less than 500 mg/L.

The City and the District are the two main groundwater producers within the Coldwater Basin. Figure 1-1 shows the extent of the Coldwater Basin, production well locations, and the water transmission facilities used by the City and the District to import and export water to and from the Coldwater Basin.

In 2007/2008, the City and the District performed technical studies to describe the groundwater resources of the Coldwater Basin and to estimate its annual “native safe yield.” Effective December 1, 2008, the City and the District entered into the Agreement. The Agreement supersedes all prior agreements and is attached to this report as Appendix A. The primary functions of the Agreement are:

- To establish an Operating Committee to implement the terms and provisions of the Agreement.
- To provide rules for the Operating Committee to determine the amount of groundwater that each party can pump from the Coldwater Basin annually.
- To define the joint use and cost sharing associated with the Trilogy Well.



- To establish a process to develop joint projects to enhance the groundwater supply of the Coldwater Basin.

The Operating Committee is comprised of one appointee each by the City Manager and the District's General Manager. The Operating Committee's purposes are: (i) to make operational decisions to implement the terms and provisions of the Agreement, (ii) to ensure that the City and the District are allowed to pump sufficient water from the Coldwater Basin to meet their respective needs, and (iii) to maximize the sustainable use of the Coldwater Basin as a water supply.

A primary function of the Operating Committee is to specify the amount of each Party's Allowable Production, Storage Account, and Production Right on an annual basis. The Agreement also requires the Operating Committee to re-determine the Native Safe Yield of the Coldwater Basin once every five years and to adjust each Party's share of the Native Safe Yield based on the groundwater pumped by each producer in the Coldwater Basin.

The Initial Native Safe Yield of the Coldwater Basin was 3,300 acre-feet/year (acre-ft/yr) for the fiscal-year period of 2008/09 to 2012/13. At the conclusion of 2012/13, the Native Safe Yield was re-determined to be 3,800 acre-ft/yr for the fiscal-year period of 2013/14 to 2017/18. The method used to re-determine the Native Safe Yield was the same method used to determine the Initial Native Safe Yield for the Agreement, but the period of analysis (1984-2012) included eight additional years.¹ The Native Safe Yield of 3,800 acre-ft/yr was used in this report to compute the Allowable Production for each Party for fiscal years 2016/17 and 2017/18.

1.2 Definitions

The following are definitions of key terms used in this report:

Party: The City of Corona or the Elsinore Valley Municipal Water District (collectively, the Parties)

Accounting Year: July 1 to June 30 (The accounting commencement date is July 1, 2008.)

Initial Native Safe Yield: 3,300 acre-ft/yr was the initial estimate of the Native Safe Yield used for the first five years of the Agreement (2008/09 to 2012/13). Thereafter, the Operating Committee will re-determine the Native Safe Yield every five years.

¹ Wildermuth Environmental, Inc. (2014). *Third Annual Report of the Coldwater Basin Operating Committee*. Prepared for the City of Corona & Elsinore Valley Municipal Water District. January 2014.



Initial Share of the Native Safe Yield: The initial shares of the Native Safe Yield were allocated to the Parties as follows:

City:	64%	(2,112 acre-ft)
District:	32%	(1,056 acre-ft)
Private pumpers:	4%	(132 acre-ft)

Native Safe Yield: 3,800 acre-ft/yr is the re-determined Native Safe Yield for the period 2013/14 to 2017/18.

Share of the Native Safe Yield: The re-determined shares of the Native Safe Yield are allocated to the Parties as follows:

City:	64%	(2,432 acre-ft)
District:	32%	(1,216 acre-ft)
Private pumpers:	4%	(152 acre-ft)

Return Flows: The portion of water imported, by either or both Parties, used within the Coldwater Basin and returns to the aquifer system as recharge.

Allowable Production: Native Safe Yield plus Return Flows from the preceding Accounting Year.

Party's Allowable Production:² [Share of Native Safe Yield (%)] * [Allowable Production]

Storage Account: Each Party can store its un-pumped Allowable Production in a separate Storage Account.³ The upper limit of each Party's Storage Account is ten times its Initial Share of Native Safe Yield:

City:	21,120 acre-ft
District:	10,560 acre-ft

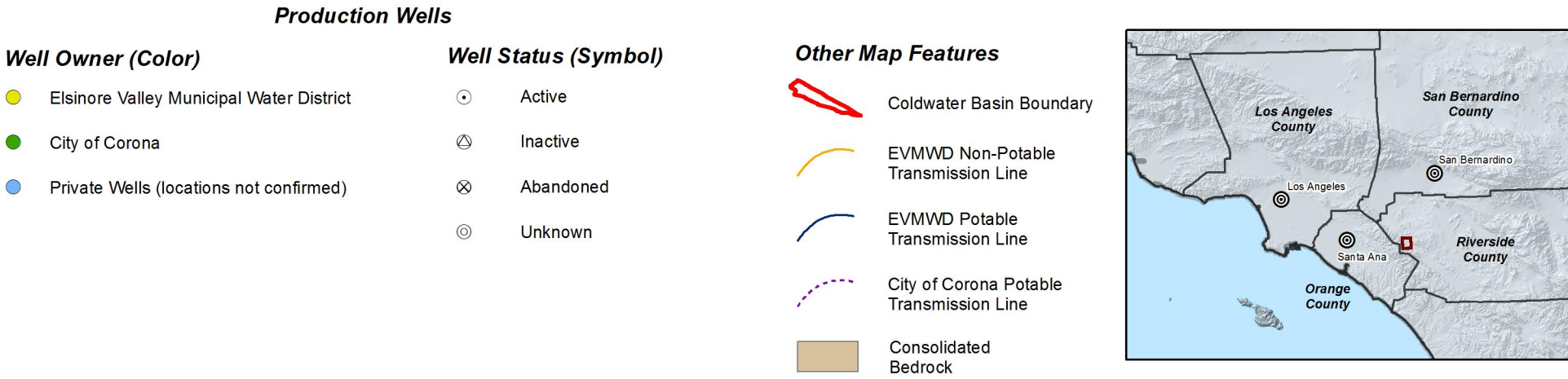
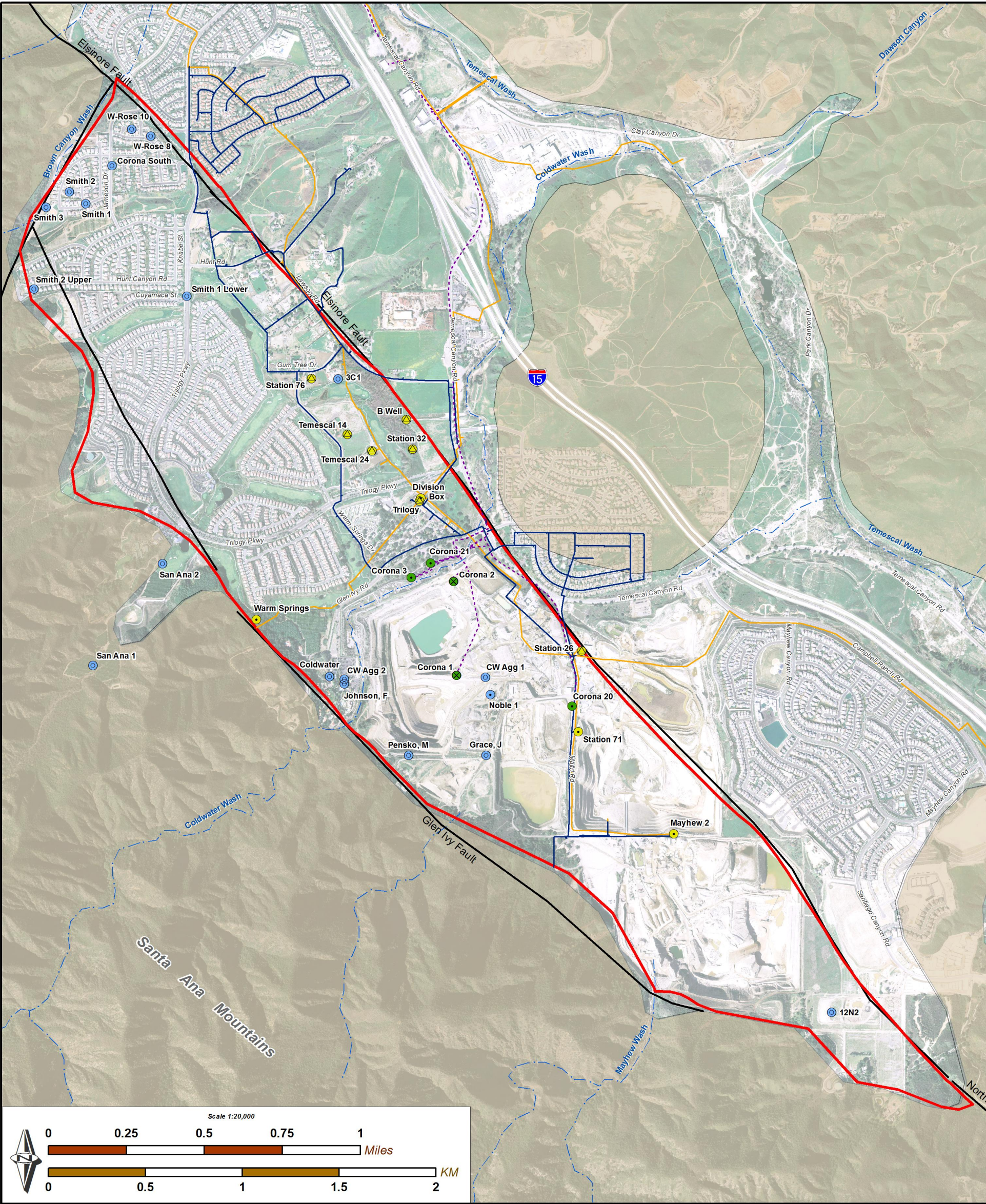
Annual Production Right: [Party's Allowable Production] + [Storage Account]

Groundwater Production: The annual volume of groundwater pumped by each Party from wells located within the Coldwater Basin.

² Private pumpers do not receive a share of the Return Flows.

³ Private pumpers do not have Storage Accounts.





Section 2 – Water Rights Accounting

This section describes the accounting of each Party's storage account for 2015/16 and 2016/17 and their production rights for 2016/17 and 2017/18.

2.1 Imported Water and Allowable Production

The Allowable Production for each Accounting Year is equal to the Native Safe Yield plus Return Flows from water imported to the basin by either or both parties during the preceding Accounting Year. Table 2-1a and 2-1b list the water imported to the basin by each Party and the portion of imported water that returned to the aquifer system as recharge during 2015/16 and 2016/17, respectively. For 2015/16 and 2016/17, the Parties' shares of the Return Flows were:

	2015/16	2016/17
City:	5 acre-ft	1.8 acre-ft
District:	2.5 acre-ft	0.9 acre-ft

Tables 2-1 and 2-b also include water imported to the basin by Temescal Valley Water District (TVWD). The TVWD began to provide water to the District's former non-potable water customers in February 2015. TVWD imported water deliveries to the basin should match historical deliveries by the District.

Each Party's share of the Return Flows is added to their share of the Native Safe Yield to compute their Allowable Production for 2016/17 and 2017/18 (see Tables 2-3a and 2-3b):

	2016/17	2017/18
City:	2,440 acre-ft	2,434 acre-ft
District:	1,220 acre-ft	1,217 acre-ft

Return flows from water delivered by TVWD are not accounted for in the Parties' Allowable Production.

2.2 Groundwater Production and Storage Accounts

Tables 2-2a and 2-2b show Groundwater Production from the Coldwater Basin by well and by Party for 2015/16 and 2016/17, respectively:

	2015/16	2016/17
City:	2,277 acre-ft	766 acre-ft
District:	312 acre-ft	548 acre-ft



During 2015/16 and 2016/17, no known private well production occurred in the Coldwater Basin.⁴

Tables 2-3a and 2-3b show the under/(over) pumping of Allowable Production by Party during Accounting Years 2015/16 and 2016/17 and compute each Party's year-end Storage Account.

Under/(Over) Pumping of Allowable Production:

	2015/16	2016/17
City:	259 acre-ft	1,671 acre-ft
District:	956 acre-ft	671 acre-ft

Groundwater Storage Accounts:

	as of June 30 th , 2016	as of June 30 th , 2017
City:	1,258 acre-ft	2,929 acre-ft
District:	4,719 acre-ft	5,390 acre-ft

2.3 Determination of Annual Production Rights

Tables 2-3a and 2-3b show the Annual Production Right for each Party for 2016/17 and 2017/18, which is equal to their Allowable Production plus the water in their Storage Account:

	2016/17	2017/18
City:	3,695 acre-ft	5,362 acre-ft
District:	5,937 acre-ft	6,606 acre-ft

2.4 Summary

Table 2-4 summarizes the historical Return Flows and artificial recharge of imported water. Table 2-5 summarizes the Parties' Groundwater Production and Storage Accounts for 2008/09 through 2016/17. In Accounting Years 2015/16 and 2016/17, the City accounted for about 88 percent and 58 percent of total Groundwater Production, respectively; and as of July 1, 2017, had accumulated 2,924 acre-ft of water in its Storage Account. In Accounting Years 2015/16 and 2016/17, the District accounted for about 12 percent and 42 percent of total Groundwater Production, respectively; and as of July 1, 2017, had accumulated 5,387 acre-ft of water in its Storage Account. The accounting spreadsheets are included as Appendix B.

⁴ Production from private producers is unknown and assumed to be zero.



Table 2-1a
Return Flows and Artificial Recharge of Imported Water
Fiscal Year 2015/16

Customer	Water Source	Monthly Deliveries of Imported Water (hundreds of cubic feet)												Total Deliveries (acre-ft)	Water Use	% Return	Return Flow (acre-ft)
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun				
Corona, City of	TVWD													0.0			0.0
Artificial Recharge														1.7	Training	97%	1.0
Fire Training Station		70	57	93	93	43	24	39	30	45	103	41	113			60%	
City of Corona Total		70	57	93	93	43	24	39	30	45	103	41	113	1.7			1.0
Elsinore Valley MWD														0.0			0.0
Artificial Recharge														27.4	Irrigation	97%	6.8
Imported Water Deliveries		1,066	1,442	1,116	1,217	763	705	651	593	857	961	1,330	1,217			25%	
Elsinore Valley MWD Total		1,066	1,442	1,116	1,217	763	705	651	593	857	961	1,330	1,217	27.4			6.8
Subtotal (used in Tables 2-3a and 2-3b)		1,136	1,499	1,209	1,310	806	729	690	623	902	1,064	1,371	1,330	29.1			7.9
TVWD																	
Mayhew Aggregates	Non-Potable	NR	NR	NR	NR	3,822	4,085	3,849	3,019	3,523	2,095	3,420	5,123	66.5	Process	60%	39.9
Cemex USA	Non-Potable	NR	NR	NR	NR	130	118	134	121	124	70	193	149	2.4	Process	60%	1.4
Werner Corp	Non-Potable	NR	NR	NR	NR	2,675	5,016	3,039	2,718	5,329	2,514	4,463	9,539	81.1	Process	60%	48.6
Krista Freitag Kingdom Capital	Non-Potable	NR	NR	NR	NR	25,428	25,436	21,096	5,499	13,501	9,574	6,768	0	246.4	Irrigation	25%	61.6
Livingstone Devel Terrance Long	Non-Potable	NR	NR	NR	NR	0	0	0	0	0	0	11,830	41,706	122.9	Irrigation	25%	30.7
TVWD Total		0	0	0	0	32,055	34,656	28,118	11,358	22,476	14,253	26,675	56,516	519.3			182.3
Total		1,136	1,499	1,209	1,310	32,860	35,385	28,807	11,981	23,378	15,318	28,046	57,847	548.4			190.2

NR = Not reported

Table 2-1b
Return Flows and Artificial Recharge of Imported Water
Fiscal Year 2016/17

Customer	Water Source	Monthly Deliveries of Imported Water (hundreds of cubic feet)												Total Deliveries (acre-ft)	Water Use	% Return	Return Flow (acre-ft)
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun				
Corona, City of	TVWD													0.0			0.0
Artificial Recharge														1.7	Training	97%	1.0
Fire Training Station		165	84	93	52	54	36	8	14	11	36	69	104		60%		
City of Corona Total		165	84	93	52	54	36	8	14	11	36	69	104	1.7			1.0
Elsinore Valley MWD														0.0			0.0
Artificial Recharge														7.0	Irrigation	97%	1.7
Imported Water Deliveries		1,651	1,387	0	0	0	0	0	0	0	0	0	0		25%		
Elsinore Valley MWD Total		1,651	1,387	0	0	0	0	0	0	0	0	0	0	7.0			1.7
Subtotal (used in Tables 2-3a and 2-3b)		1,816	1,471	93	52	54	36	8	14	11	36	69	104	8.6			2.7
TVWD																	
Mayhew Aggregates	Non-Potable	4,458	5,961	7,867	5,498	4,674	3,505	4,216	217	0	2,386	5,702	5,631	115.1	Process	60%	69.1
Cemex USA	Non-Potable	134	332	324	151	123	163	122	76	77	103	226	208	4.7	Process	60%	2.8
Werner Corp	Non-Potable	4,257	4,972	12,183	11,846	12,638	7,405	6,013	5,057	2,829	1	3,398	6,101	176.1	Process	60%	105.7
Krista Freitag Kingdom Capital	Non-Potable	0	0	0	0	0	0	0	0	0	0	0	0	0.0	Irrigation	25%	0.0
Livingstone Devel Terrance Long	Non-Potable	33,970	36,728	40,999	25,265	22,225	14,943	8,173	165	523	5,317	21,476	24,973	539.1	Irrigation	25%	134.8
TVWD Total		42,819	47,992	61,372	42,760	39,660	26,017	18,523	5,515	3,430	7,807	30,803	36,913	835.0			312.3
Subtotal		44,635	49,464	61,465	42,812	39,714	26,053	18,531	5,529	3,441	7,843	30,872	37,017	843.7			315.1

Table 2-2a
Groundwater Production by Well
Fiscal Year 2015/16
acre-ft

Well Name	Monthly Groundwater Production												Totals	Percent of Total Production from Basin
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun		
Corona, City of														
Well 3	83.33	81.41	72.00	64.89	56.95	55.56	38.33	56.80	46.88	55.66	62.40	56.03	730.23	
Well 20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Well 21	0.00	47.92	178.87	193.73	114.95	117.40	118.26	150.15	144.23	154.40	165.96	160.89	1,546.75	
Trilogy													0.00	
Subtotal	83.33	129.32	250.87	258.62	171.90	172.95	156.59	206.96	191.10	210.07	228.36	216.92	2,276.99	87.9%
Elsinore Valley MWD														
Mayhew	32.47	35.32	29.06	27.59	26.18	19.52	17.37	19.86	20.04	20.99	20.99	3.68	273.07	
Station 71 (potable)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.86	28.26	39.12	
Station 71 (non-potable)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Division Box	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Warm Springs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Trilogy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Subtotal	32.47	35.32	29.06	27.59	26.18	19.52	17.37	19.86	20.04	20.99	31.85	31.94	312.19	12.1%
Private Wells														
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total	116	165	280	286	198	192	174	227	211	231	260	249	2,589	100%

Table 2-2b
Groundwater Production by Well
Fiscal Year 2016/17
acre-ft

Well Name	Monthly Groundwater Production												Totals	Percent of Total Production from Basin
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun		
Corona, City of														
Well 3	51.80	45.40	40.48	5.54	0.48	0.55	0.54	0.52	0.54	1.54	0.00	0.00	147.38	
Well 20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Well 21	160.00	155.92	145.95	152.12	0.00	0.01	0.00	0.00	0.00	0.00	1.67	3.04	618.72	
Trilogy													0.00	
Subtotal	211.80	201.32	186.43	157.66	0.48	0.56	0.55	0.52	0.54	1.54	1.67	3.04	766.11	58.3%
Elsinore Valley MWD														
Mayhew	8.44	48.03	37.29	33.27	33.97	22.31	28.17	37.47	60.30	45.54	55.42	43.33	453.54	
Station 71 (potable)	22.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.94	29.65	23.20	94.35	
Station 71 (non-potable)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Division Box	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Warm Springs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Trilogy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Subtotal	31.00	48.03	37.29	33.27	33.97	22.31	28.17	37.47	60.30	64.48	85.07	66.53	547.89	41.7%
Private Wells														
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
Total	243	249	224	191	34	23	29	38	61	66	87	70	1,314	100%

Table 2-3a
Annual Accounting of Allowable Production, Storage Accounts, and Production Rights
Fiscal Year 2016/17
acre-ft

Column	1	2	3	4	5	6	7	8	9
Formula			(1) - (2)		(3) + (4)			(6) + (7)	(5) + (8)
Party	Allowable Production ^a	Groundwater Production	Under/(Over) Pumping of Allowable Production	Groundwater Storage Account	Groundwater Storage Account	Share of Native Safe Yield ^b	Share of Return Flows and Recharge of Imported Water	Allowable Production	Production Right ^c
	2015-16	2015-16	2015-16	June 30, 2015	June 30, 2016	2016-17	2015-16	2016-17	2016-17
City	2,536	2,277	259	998	1,258	2,432	5.0	2,437	3,695
District	1,268	312	956	3,763	4,719	1,216	2.5	1,219	5,937
Private	152	0	152	--	--	152	0	152	152
Total	3,956	2,589	1,367	4,761	5,977	3,800	7.6	3,808	9,784

Notes:

- a A Party's respective share of the Native Safe Yield plus Return Flows from water imported to the basin by either or both Parties during the preceding accounting year.
- b The Native Safe Yield for 2015/16 is 3,800 acre-ft/yr. The City of Corona's share is 64%, Elsinore Valley MWD's share is 32%, and private parties' share is 4%.
- c A Party's Allowable Production plus some or all of the water held in that Party's Storage Account.

Table 2-3b
Annual Accounting of Allowable Production, Storage Accounts, and Production Rights
Fiscal Year 2017/18
acre-ft

Column	1	2	3	4	5	6	7	8	9
Formula			(1) - (2)		(3) + (4)			(6) + (7)	(5) + (8)
Party	Allowable Production ^a	Groundwater Production	Under/(Over) Pumping of Allowable Production	Groundwater Storage Account	Groundwater Storage Account	Share of Native Safe Yield ^b	Share of Return Flows and Recharge of Imported Water	Allowable Production	Production Right ^c
	2016-17	2016-17	2016-17	June 30, 2016	June 30, 2017	2017-18	2016-17	2017-18	2017-18
City	2,437	766	1,671	1,258	2,929	2,432	1.8	2,434	5,362
District	1,219	548	671	4,719	5,390	1,216	0.9	1,217	6,606
Private	152	0	152	--	--	152	0	152	152
Total	3,808	1,314	2,494	5,977	8,318	3,800	2.6	3,803	12,121

Notes:

- a A Party's respective share of the Native Safe Yield plus Return Flows from water imported to the basin by either or both Parties during the preceding accounting year.
- b The Native Safe Yield for 2014/15 is 3,800 acre-ft/yr. The City of Corona's share is 64%, Elsinore Valley MWD's share is 32%, and private parties' share is 4%.
- c A Party's Allowable Production plus some or all of the water held in that Party's Storage Account.

Table 2-4
Summary of Return Flows and Artificial Recharge of Imported Water
2008/09 to 2016/17
acre-ft

Fiscal Year	Imported Water											
	City			District			Temescal Valley Water District			Total		
	Direct Use		Artificial Recharge	Direct Use		Artificial Recharge	Direct Use		Artificial Recharge	Direct Use		Artificial Recharge
	Delivered	Return Flow		Delivered ¹	Return Flow		Delivered ²	Return Flow		Delivered	Return Flow	
2008-09	9	5	0	996	297	0			0	1,004	302	0
2009-10	8	5	0	867	274	0			0	875	279	0
2010-11	5	3	0	838	264	0			0	843	267	0
2011-12	2	1	0	692	208	0			0	695	210	0
2012-13	2	1	0	718	218	0			0	720	220	0
2013-14	2	1	0	835	255	0			0	837	256	0
2014-15	2	1	0	525	162	0			0	527	163	0
2015-16	2	1	0	27	7	0	519	182	0	548	190	0
2016-17	2	1	0	7	2	0	835	312	0	844	315	0
Total	33	20	0	5,505	1,687	0	1,354	495	0	6,892	2,201	0
Average	4	2	0	612	187	0	677	247	0	766	245	0

Notes:

1--The Temescal Valley Water District (TVWD) began to provide water to EVMWD's former non-potable water customers in February 2015.

2--The Temescal Valley Water District's water delivery data for FY 2015-16 is incomplete.

Table 2-5
Summary of Groundwater Production and Storage Accounts
2008/09 to 2016/17

Fiscal Year	City of Corona				
	Allowable Production	Groundwater Production	Percent of Total Production	Under/(Over) Pumping of Allowable Production	Groundwater Storage Account
	acre-ft	acre-ft	%	acre-ft	acre-ft
2008-09	2,269	2,923	84%	(653)	(653)
2009-10	2,305	3,342	88%	(1,036)	(1,690)
2010-11	2,290	2,432	83%	(142)	(1,831)
2011-12	2,283	578	49%	1,705	(126)
2012-13	2,246	2,033	79%	213	87
2013-14	2,572	2,111	66%	462	549
2014-15	2,596	2,146	73%	450	998
2015-16	2,536	2,277	88%	259	1,258
2016-17	2,433	766	58%	1,671	2,929
<i>Sub-total</i>	<i>21,530</i>	<i>18,607</i>	<i>78%</i>		

Fiscal Year	Elsinore Valley Municipal Water District				
	Allowable Production	Groundwater Production	Percent of Total Production	Under/(Over) Pumping of Allowable Production	Groundwater Storage Account
	acre-ft	acre-ft	%	acre-ft	acre-ft
2008-09	1,135	550	16%	585	585
2009-10	1,153	457	12%	696	1,281
2010-11	1,145	515	17%	630	1,910
2011-12	1,141	611	51%	530	2,440
2012-13	1,123	529	21%	594	3,034
2013-14	1,286	1,064	34%	223	3,257
2014-15	1,298	791	27%	506	3,763
2015-16	1,268	312	12%	956	4,719
2016-17	1,216	548	42%	671	5,390
<i>Sub-total</i>	<i>10,765</i>	<i>5,377</i>	<i>22%</i>		

Fiscal Year	Private Well Producers				
	Allowable Production	Groundwater Production	Percent of Total Production	Under/(Over) Pumping of Allowable Production	Groundwater Storage Account
	acre-ft	acre-ft	%	acre-ft	acre-ft
2008-09	132	0	0%	--	--
2009-10	132	0	0%	--	--
2010-11	132	0	0%	--	--
2011-12	132	0	0%	--	--
2012-13	132	0	0%	--	--
2013-14	152	0	0%	--	--
2014-15	152	0	0%	--	--
2015-16	152	0	0%	--	--
2016-17	152	0	0%	--	--
<i>Sub-total</i>	<i>1,268</i>	<i>0</i>	<i>0%</i>		
Total	33,562	23,984			

Section 3 – Stress and Response of the Basin

The Agreement calls for the Operating Committee to re-determine the Native Safe Yield once every five years, following the commencement of accounting (July 1, 2008). The types of data used to facilitate the re-determination include precipitation, groundwater production, recharge of precipitation and applied waters, and groundwater level changes (i.e. storage change). What follows is a discussion of Coldwater Basin data collected from January 1984 to July 2017. This discussion is for information purposes only and is not to be construed as an analysis to re-determine Native Safe Yield.

Pumping and the recharge of precipitation and applied water are the main stresses on the basin. Changes in groundwater levels reflect aquifer system responses to these stresses. Figure 3-1 depicts the time history of the main stresses to the basin and groundwater-level responses to those stresses. Specifically, Figure 3-1 shows:

- Annual calendar-year Coldwater Basin groundwater production for the 1984-2016 period.
- The cumulative departure from mean precipitation (CDFM) for the precipitation station at Lake Elsinore (Station D067). At this station, mean annual precipitation was 12 inches for the 1900-2017 fiscal-year period. Upward slopes of the CDFM curve represent wet years or periods and downward slopes represent dry years or periods.
- Groundwater levels at the City's Well 3, which is centrally located in the Coldwater Basin.

The following are observations and general interpretations from Figure 3-1:

- Groundwater levels respond rapidly to precipitation and pumping. This is because the groundwater basin is relatively small (i.e. small changes in groundwater storage result in large changes to groundwater levels).
- The 2001-2016 period was relatively dry with only three relatively wet years. Groundwater levels decreased by about 75 feet at City Well 3 over this period. Average annual pumping from the Coldwater Basin during recent years has been less than 3,000 acre-ft/yr (lower than the current Native Safe Yield of 3,800 acre-ft/yr); hence, the storage accounts have been increasing even though groundwater levels are near all-time lows.
- Precipitation in FY 2016/17 was above average, and groundwater levels at City Well 3 increased by about 50 feet from the near all-time low.



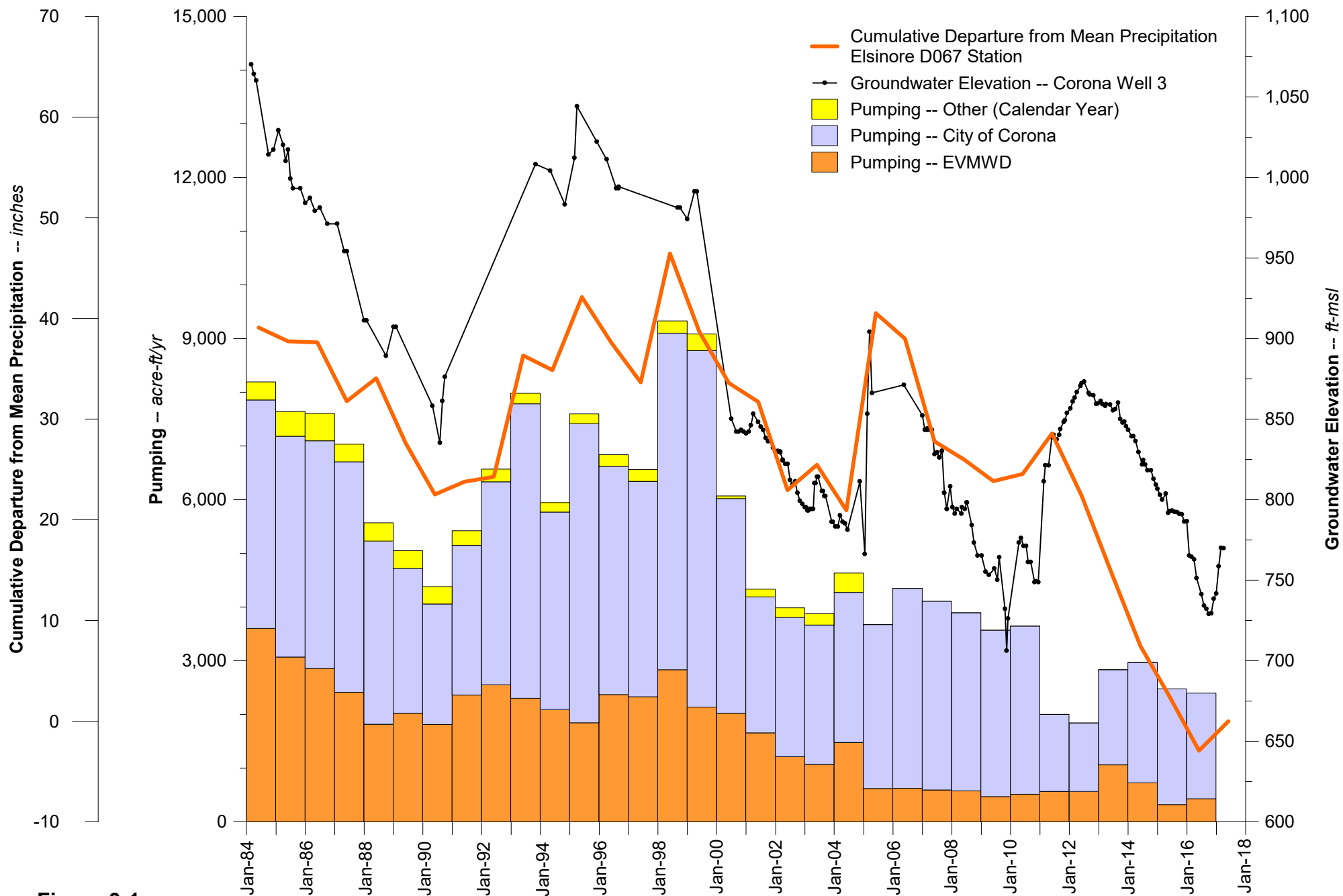


Figure 3-1

Pumping, Precipitation, and Groundwater Levels
in the Coldwater Basin

Author: CS
Date: 20170828
File: Figure 3-1.grf



Section 4 – Recommendations

The Agreement states that a goal of the Operating Committee is to “maximize the sustainable use of the Coldwater Basin as a water supply” for the District and the City. This goal implies that the Operating Committee can and should manage the Coldwater Basin to enhance the yield, reliability, and quality of the groundwater supply.

In 2014, the State of California passed the Sustainable Groundwater Management Act of 2014 (SGMA). The goal of the SGMA is to sustainably manage groundwater basins such that they are a long-term reliable water supply for all current and future beneficial uses. The Department of Water Resources (DWR) currently designates the Coldwater Basin as a high-priority basin. The SGMA requires that high-priority basins have a Groundwater Sustainability Plan that includes a statement of objectives and various monitoring and reporting requirements to demonstrate sustainable management.

The goals of the Operating Committee and the SGMA, as they pertain to the Coldwater Basin, are similar: maximize the sustainable use of the groundwater basin. To help achieve these goals, we propose that the Operating Committee pursue the following efforts:⁵

- (i) Develop plans to enhance storm-water recharge in the Coldwater Basin.
- (ii) Develop plans to optimize groundwater-production patterns to maximize the sustainable yield of the Coldwater Basin.

The implementation of these plans will enhance the long-term sustainable yield of the Coldwater Basin, improve groundwater quality, and mitigate any potential adverse impacts from high or low groundwater levels.

The efforts to develop the plans are summarized below as separate tasks that should be pursued simultaneously.⁶

TASK 1 – DEVELOP PLANS TO ENHANCE STORM-WATER RECHARGE TO THE COLDWATER BASIN

The Coldwater Basin is a relatively deep, elongated groundwater basin. Figure 4-1 shows that the basin is aligned and adjacent to several mountain-front watersheds that drain out of the Santa Ana Mountains. The configuration of the groundwater basin is optimal for capturing and recharging storm-water runoff from these mountain-front watersheds.

Figure 3-1 is a time-series chart that shows a direct relationship between precipitation and groundwater levels. This relationship indicates that storm-water recharge is already a major component of the water budget of the Coldwater Basin. That said, there are likely additional opportunities to capture and recharge storm-water runoff. To characterize and assess these

⁵ These recommendations were first proposed in the 4th Annual Report of the Coldwater Basin Operating Committee. WEI still regards these recommendations as relevant for consideration by the Operating Committee.

⁶ The task descriptions are a summary of recommended work. They are not meant to be a detailed scope-of-work. WEI will develop a detailed scope-of-work and cost estimate at the direction of the Operating Committee.



opportunities and to develop a plan to realize these opportunities, the Operating Committee should perform the following sub-tasks:

Task 1.1 – Characterize “baseline” conditions for storm-water recharge. WEI maintains a sophisticated surface-water model of the Temescal Valley that simulates rainfall, runoff, routing of runoff, streambed recharge, and artificial recharge at recharge basins. The model runs the simulations on a daily time step. In this task, the model will be updated to reflect current conditions in the Coldwater Basin, including land use, routing of stream flow, and diversions of stream flow to existing basins, if and where such diversions exist. The model will use long-term precipitation records to estimate: (i) the amount of storm-water runoff that exits the mountain-front watersheds and (ii) the amount of storm-water runoff that recharges the Coldwater Basin. The difference between these amounts presents the opportunity for additional capture and recharge of storm-water runoff.

Task 1.2 – Design and implement a surface-water monitoring program. The surface-water monitoring program will begin by installing a single surface-water monitoring station at a location where a stream channel exits the mountain-front watershed. Figure 4-1 shows two potential locations for a surface-water monitoring station. The station will be equipped to continuously monitor stream discharge. The stream-discharge data will be used to validate or improve the surface-water model and its ability to estimate storm-water runoff from all mountain-front watersheds. The design and implementation of this task could be a cooperative effort with the Riverside County Flood Control and Water Conservation District.

Task 1.3 – Develop and evaluate various storm-water recharge projects. The results of the modeling will reveal and quantify opportunities for additional storm-water recharge. Based on this information, projects to capture and recharge storm-water will be developed and evaluated with the model. First-order cost estimates for capital improvements and operations/maintenance will be developed and evaluated to rank and prioritize projects.

TASK 2 – DEVELOP PLANS TO OPTIMIZE GROUNDWATER PRODUCTION PATTERNS TO MAXIMIZE THE SUSTAINABLE YIELD OF THE COLDWATER BASIN

Currently, groundwater production in the Coldwater Basin proceeds in an uncoordinated pattern, pursuant only to the rules of the Agreement. Most production wells are located in the central and southern portions of the basin. Hence, little is known about the hydrogeology and groundwater levels in the northern portion of the basin, including groundwater losses by subsurface flow to the Bedford Basin and the potential for liquefaction. Figure 4-1 shows the locations of the active production wells in the Coldwater Basin. This configuration of the well field may not be capable of maximizing yield and/or mitigating liquefaction potential—particularly if storm-water recharge is enhanced as described in Task 1.

A groundwater production plan should be developed to minimize groundwater losses, maximize the yield of the Coldwater Basin, and mitigate the potential for liquefaction. To develop such a plan, the Operating Committee should perform the following tasks:



Task 2.1 – Improve the current groundwater monitoring program. Three new monitoring wells should be constructed—one well in the northern portion of the Coldwater Basin and two wells in the adjacent Bedford Basin. Figure 4-1 shows the approximate locations for the new monitoring wells.⁷

The drilling, construction, and testing of the monitoring wells will: (i) improve understanding of the hydrogeology and groundwater levels in the northern portion of the Coldwater Basin, (ii) improve understanding of the hydraulic properties of the Elsinore Fault as a barrier to groundwater flow, (iii) improve understanding of groundwater flow between the Coldwater Basin and the Bedford Basin, and (iv) provide estimates of the hydraulic and storative properties of the aquifer sediments in the Coldwater and Bedford Basins.

Where possible, all wells in the Coldwater Basin as well as the new monitoring wells in the Bedford Basin will be equipped with data-logging pressure transducers to measure and record water levels once every 15 minutes. These high-resolution data will help characterize the hydrology of the basin, such as the response of groundwater levels to recharge and pumping stresses. These data will also improve the accuracy of future re-determinations of Native Safe Yield and any analytical and/or numerical modeling of the basin that the Operating Committee may perform in the future.

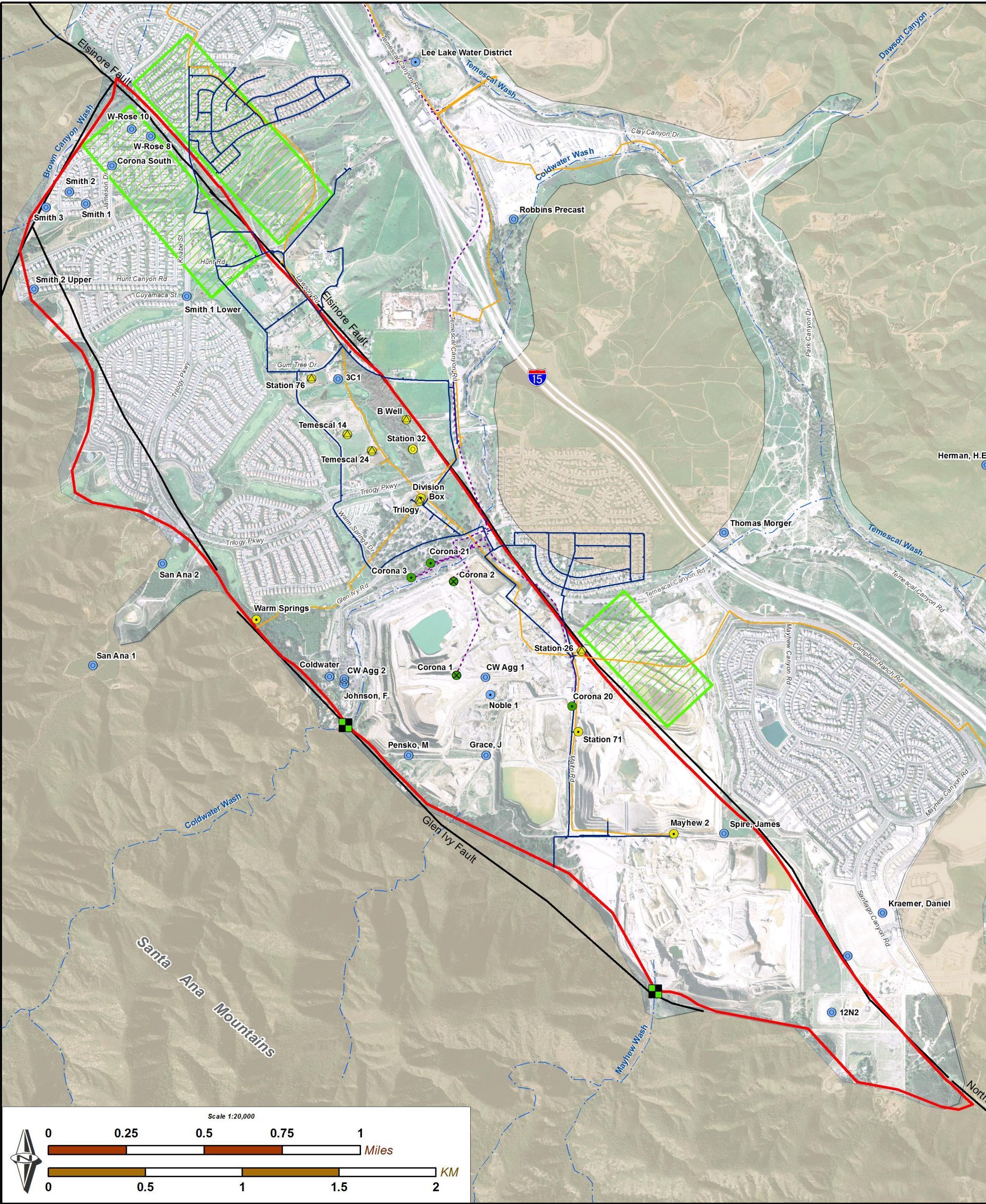
Task 2.2 – Develop and calibrate a numerical groundwater-flow model. The data collected from the monitoring programs will be used to construct and calibrate a numerical groundwater-flow model of the Coldwater Basin. The model will assist in the development and evaluation of groundwater-production plans as described below in Task 2.3.

Task 2.3 – Develop and evaluate various groundwater-production plans. The results from the groundwater monitoring program and the calibration of the groundwater-flow model will be used to design a number of logical plans for optimized groundwater production. The groundwater-flow model will also be used to characterize the sustainability of the groundwater-production plans over a long-term period of variable precipitation and to choose a production plan that achieves a maximum sustainable yield.

Completing Tasks 1 and 2 will provide the Operating Committee with decision-grade information for project implementation. The information could also be used to help obtain grants or low-interest loans to finance project implementation and to assist the Operating Committee in the development of a Groundwater Sustainability Plan as required by the SGMA.

⁷ The new monitoring wells can be designed and constructed for conversion to production wells, if appropriate.





Imagery Source: AirPhotoUSA, LLC and Elsinore Valley Municipal Water District (951-894-8713)
Air photo acquired in Spring 2008

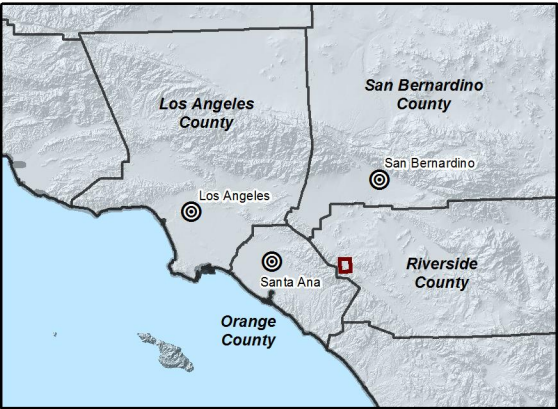
- Area for New Monitoring/Production Well
- Conceptual Location of Surface-Water Monitoring Station

Existing and Historical Production Wells

Well Owner (Color)	Well Status (Symbol)
Elsinore Valley Municipal Water District	Active
City of Corona	Inactive
Private Wells (locations not confirmed)	Abandoned
	Unknown

Other Map Features

- Coldwater Basin Boundary
- EVMWD Non-Potable Transmission Line
- EVMWD Potable Transmission Line
- City of Corona Potable Transmission Line
- Consolidated Bedrock



Appendix A

Agreement Concerning Water Production from the Coldwater Basin (PDF file)

AGREEMENT CONCERNING WATER PRODUCTION FROM THE COLDWATER BASIN

THIS AGREEMENT, effective this 1st day of December, 2008, is made and entered into by and between the CITY OF CORONA, a municipal corporation ("City") and the ELSINORE VALLEY MUNICIPAL WATER DISTRICT, a municipal water district ("District"). The City and the District are sometimes collectively referred to herein as the "Parties."

RECITALS

A. The City and the District both own and operate water production facilities in the Coldwater Basin in Temescal Canyon of Riverside County. The agreed-upon boundaries of the Coldwater Basin are depicted on the map attached hereto as Exhibit "A" and made a part hereof.

B. Pursuant to that certain "Agreement of Sale of Certain Assets of the Corona City Water Company and the Temescal Water Company to the City of Corona" dated December 27, 1963 (hereafter referred to as the "1963 Agreement"), the Parties (or their predecessors) agreed to restrict a portion of the Coldwater Basin from which the District may produce water.

C. The District constructed a well ("the Trilogy Well") in order to replace production lost when its Well 72 went out of production due to the expansion of Cemex, Inc. Sand and Gravel Mining Activities. The location of the Trilogy Well is not in accord with the terms of the 1963 Agreement.

D. By this Agreement, the Parties (i) intend to supersede all prior agreements dealing with the subject matter hereof, including the 1963 Agreement and that certain January 6, 1999 "Agreement for the Sale or Exchange of Water Between the City of Corona and Elsinore Valley Municipal Water District" (the "1999 Agreement"), (ii) intend to provide for the joint use of the Trilogy Well, and (iii) intend to establish a process and develop projects which will enhance the available supply of groundwater in the Coldwater Basin, and to maximize the sustainable use thereof.

AGREEMENT

NOW, THEREFORE, the Parties agree as follows:

1. **Operating Committee.** Within 30 days of the effective date hereof, the City Manager of the City and the General Manager of the District shall each appoint a representative to a Committee ("the Operating Committee") which will make operational decisions in order to implement the terms and provisions of this Agreement. Any such appointee may be replaced through the same appointment process, and any vacancy in an Operating Committee position shall be filled promptly by such appointment. The primary purpose of the Operating Committee is to ensure that the City and the District be allowed to pump sufficient water from the Coldwater Basin to meet their respective requirements and to maximize the sustainable use of the Basin as a water supply. A primary function of the Operating Committee will be to annually determine the amount of groundwater that can be safely extracted from the Coldwater Basin (the "Allowable Production").

2. Determining Allowable Production. The Allowable Production by the Parties shall be determined by the Operating Committee as follows:

a. The accounting year shall be July 1 to June 30. The accounting commencement date shall be July 1, 2008. Thereafter, the Allowable Production shall be determined by May 1 of each year.

b. The Allowable Production will be determined in light of the best information available to the Operating Committee. It shall be the goal of the Operating Committee to estimate an amount of Production that (i) ensures the sustainability of the Basin as a water supply and (ii) allows the Parties to flexibly adjust the Allowable Production in response to extreme hydrologic conditions and/or the short term operational needs of each of the Parties.

c. The amount of the annual Allowable Production shall be allocated to each Party annually by the Operating Committee, and will be equal to their respective share in the total of: Native Safe Yield **plus** return flows and water imported to the Basin by either or both Parties during the preceding fiscal year:

i. The initial Native Safe Yield shall be 3,300 acre feet per year for each of the first five fiscal years following the effective date of this Agreement. Thereafter, the Operating Committee shall re-determine the Native Safe Yield every five years;

ii. The initial shares in the total of Native Safe Yield, return flows and water imported to the Basin shall be as follows:

To the City:	64%
To the District:	32%

The remaining 4% shall be allocated in the aggregate to the private well producers in the Coldwater Basin. The two-thirds/one-third proportion shall also be used to allocate the costs and expenses incurred in connection with the study and implementation of capital projects jointly undertaken by the Parties in each of the first five years following the effective date of this Agreement.

d. The Operating Committee shall review, every five years following the effective date of this Agreement, the annual production records of all producers in the Coldwater Basin to determine the actual amount of groundwater production by each producer. At the conclusion of such review, the respective shares of the Parties in Native Safe Yield for the following five years shall be adjusted on a pro-rata basis. For example, if the actual production of the overlying producers is 2% and not 4%, then the City shall be entitled to 63.2917% of the difference and the District shall be entitled to 34.7083%.

3. Storage Rights. The City and the District shall have the right to store un-produced Allowable Production up to ten times their initial share in the Native Safe Yield

multiplied by the initial Native Safe Yield of 3,300 acre feet per year, in a Storage Account; provided, however, that the maximum amount of groundwater storage shall be:

- a. For the City: 21,120 acre feet;
- b. For the District: 10,560 acre feet.

4. **Annual Production Right.** The “Annual Production Right” of a Party shall be equal to a Party’s Annual Allowable Production **plus** some or all of the water held in that Party’s Storage Account as determined by that Party.

5. **Joint Use of the Trilogy Well.** Although the City and the District individually own and operate groundwater production wells in the Coldwater Basin, they mutually acknowledge and agree that joint operation of the District’s Trilogy Well is desirable because it is capable of producing large amounts of water cost-effectively. Under the supervision of the Operating Committee, which shall review the specifications and bids thereon, the District shall complete construction of the Well and the pipelines connecting the Well to the City’s and the District’s water distribution systems. Thereafter, the District shall operate and maintain the Well and deliver therefrom, to the District and to the City, such amounts of water as may be ordered by them through the Operating Committee.

6. **Water Rate.** The cost of water produced from the Trilogy Well shall consist of Fixed Costs and Variable Costs:

a. **Fixed Costs** consist of 20 annual replacement cost payments of approximately \$60,000.00, which is the annual payment amortized at 5% over 20 years on a principal of \$750,000.00. This will provide adequate funds to replace or refurbish the pumping equipment after a 20-year useful life. The District shall be obligated to pay one-third of the Fixed Costs, and the City shall be obligated to pay two-thirds of such Costs. Fixed Costs shall be paid by the District and the City whether or not the Parties purchase water produced by the Well. These funds, and all accumulated interest, shall be held in a separate interest-bearing fund specifically for future replacement or refurbishment of the Well.

b. **Variable Costs** consist of the actual costs and expenses incurred in operating and maintaining the Trilogy Well, and shall be paid in proportion to the amount of water purchased by a Party. The Operating Committee shall annually reconcile the Variable Costs with the amount of revenue received from the sale of water to ensure that the revenue is sufficient to defray such Costs. Any revenue shortfalls shall be pro-ratably shared by the Parties; excess revenue shall be carried over to the next year or refunded upon request.

7. **Supplemental Water Projects.** The District owns surface water rights licensed by the State Water Resources Control Board in Mayhew, Indian and Horsethief Creeks, which licenses authorize the diversion and storage of up to 1,887 acre feet per year. Under the supervision of the Operating Committee, the City and the District shall jointly formulate and fund plans and projects to deliver such water for storage in the Coldwater Basin, to be shared by the Parties as a component of their respective Annual Production Right.

8. **Trilogy Well Operations.** The District shall retain title in and to the Trilogy Well and the parcel of land upon which it is located, shall operate the Trilogy Well and, as may be necessary from time-to-time rehabilitate the Trilogy Well. All operations shall be conducted under the supervision of the Operating Committee, and the Committee shall provide a quarterly report of such operations to the Parties.

9. **Access and Indemnification.** The District shall provide reasonable access to the City's agents and employees to inspect operations at the Trilogy Well. The District shall indemnify the City and its elected officials, officers, agents and employees and hold each of them harmless from any damages, claims, actions, causes of action or suits, including attendant costs and attorneys' fees, which may arise out of or be in any way connected with the District's operation of the Trilogy Well except for any such damages, claims, actions, causes of action or suits alleged or found to be caused by the negligent, reckless or intentional actions of any of the City's elected officials, officers, agents or employees.

10. **Insurance.** The Operating Committee shall cause the operation of the Trilogy Well to be ensured in a manner and extent similar to the operation of other publicly-owned wells in the Coldwater Basin.

11. **Functions of the Operating Committee.** The Operating Committee shall perform the following functions concerning management of the Basin in order to sustain it as a water resource for the benefit of the Parties:

a. Annually specify the amount of the Parties' Allowable Production, Annual Production Right and water in storage in accordance with the best information available to the Committee;

b. In its discretion, retain technical consultants to assist the Committee in establishing Allowable Production and the Annual Production Right for each Party and to evaluate and resolve other groundwater management issues;

c. Review and approve new water production facilities proposed to be developed in the Coldwater Basin by either Party and any proposal to increase the capacity of any such existing facility;

d. Represent the City and the District in transactions involving other public agencies and/or private parties intended to implement projects which will increase groundwater recharge and surface retention for the Basin;

e. Provide for joint funding, in proportion to yield, for completion of the Trilogy Well and implementing groundwater recharge and surface retention of projects;

f. Develop and implement a process whereby the City will assume the responsibility for water service to the District's present Temescal non-potable water customers located within the City but outside the Coldwater Basin including the sale by District to City of certain stranded Temescal facilities; and

g. Develop and implement a process by which the Parties will employ their best efforts to negotiate the District's sale of non-potable water to the City for use in the City's Recycled Water System.

12. Integration. This Agreement shall supersede any other agreement between the Parties or any provision or provisions therein contained including, but not limited to, the 1963 Agreement, the 1999 Agreement and Amendment No. 1 thereto dated July 18, 2001, and they are hereby deemed to be null and void and rescinded in their entirety.

13. Dispute Resolution Procedures. The Parties will attempt in good faith to resolve any dispute, claim or controversy arising out of or relating to this Agreement, as follows:

Step 1: All disputes, claims or controversies shall first be considered, and resolution shall be attempted, by the Operating Committee. If the Operating Committee is deadlocked, then the matter shall be referred to an informal negotiation between the parties, Step 2.

Step 2: The Operating Committee shall initiate such negotiations by providing written notice to the Parties setting forth the subject of the dispute. The Parties, through the City Manager of the City and the General Manager of the District, shall promptly schedule a negotiation meeting to be attended by such representatives of either Party as may be reasonably necessary to address the issues presented by the Operating Committee. If the dispute is not resolved by these informal negotiations, the issue will be submitted for mediation, Step 3.

Step 3: The Parties shall submit to a mandatory mediation, which shall be conducted by a mutually agreed-upon neutral mediator. The mediator selected shall be experienced, neutral, without conflicts of interest, and qualified to mediate disputes of the nature of those that may arise under this Agreement. If the Parties are unable to agree upon a mediator, each Party shall select one mediator, with the two selected mediators selecting a third, qualified neutral mediator. The Parties covenant that they will participate in the mediation in good faith and that they will share equally in all costs of the mediation. In the event mediation fails, the Parties shall submit the issue to binding arbitration, Step 4.

Step 4: Binding arbitration shall be initiated promptly upon the failure of the mandatory mediation phase. Arbitration shall be conducted by the Judicial Arbitration and Mediation Services, Inc. ("JAMS") or its successor, or any other neutral, impartial arbitration service that the Parties mutually agree upon, in accordance with its rules in effect at the time of the commencement of the arbitration proceeding as set forth in this Paragraph. The arbitrator chosen must decide each and every dispute in accordance with the laws of the State of California, and all other applicable laws. The arbitrator's decision is subject to judicial review by the Riverside County Superior Court for material errors of fact or law. Upon a showing of good cause the arbitrator may permit limited discovery in the arbitration proceeding.

14. Amendment. This Agreement may be amended only by agreement in writing of the Parties. No waiver of any provision of, nor any consent to any exception to the terms of this Agreement, shall be effective unless in writing and signed by the Party to be bound and then only for the specific purpose, extent and instance so provided.

15. **Notices.** Any notice or other communication hereunder must be given in writing and either: (a) delivered in person; (b) transmitted by telecopy, e-mail or other telecommunications mechanism; or (c) mailed, postage prepaid, as follows:

If to City: Jonathan Daly, General Manager
City of Corona
Department of Water and Power
730 Corporation Way
Corona, California 92880
Telecopier: 951-735-5786
E-mail: jonathan.daly@ci.corona.ca.us

If to District: Ronald Young, General Manager
Elsinore Valley Municipal Water District
31315 Chaney Street
Lake Elsinore, California 92531
Telecopier: 951-674-9872
E-mail: ryoung@evmwd.net

Or to any such other address or such other person as either Party shall have last designated to the other Party.

16. **Severability.** In case any one or more of the provisions of this Agreement shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision hereof, and the remainder of the provisions of this Agreement shall continue in full force and effect without impairment, provided that the essential provisions of this Agreement for both Parties remain valid, binding and enforceable.

17. **Assignment.** Neither Party shall transfer or assign this Agreement without the prior written consent of the other Party, which consent shall not be unreasonably withheld. This Agreement shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns.

18. **Further Documents.** The Parties shall execute such other and further documents and do such further acts as may be reasonably required to effectuate the intent of the Parties and carry out the terms of this Agreement.

19. **No Third Party Beneficiaries.** Nothing in this Agreement whether expressed or implied, is intended to confer any rights or remedies under or by reason of this Agreement on any persons other than the Parties to this Agreement and their respective successors and assigns.

20. **Purchase and Sale of Assets.** The District agrees to sell and the City agrees to buy the following assets (and real property interests necessary to utilize those assets), as they are depicted on Exhibit "B" attached hereto, for the sum of \$2,000,000.00 or, at the City's election, the sum of \$2,500,000.00 paid to the District over a period of 10 years from the Effective Date of this Agreement, in equal annual installments:

- a. No. 2 Line
- b. The Riverside Booster Line
- c. MWD WR 19b Connection
- d. Miscellaneous pipelines and service laterals.

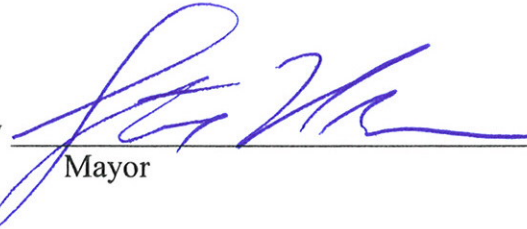
The City acknowledges and agrees that the purchase of such assets by the City will impair the District's ability to convey water to the Santa Ana River. Therefore, as additional consideration for the purchase and sale the City hereby grants the District the irrevocable right to use the City's storm drains to convey the District's water to the Santa Ana River, provided that there is available capacity in the drains to convey stormwater.

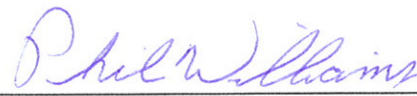
21. First Right to Purchase Temescal Valley Line. The District hereby grants to the City a right of first refusal to purchase the District's interest in the Temescal Valley Line, in the event the District determines to sell the same and has received a bona fide offer from a third party. Prior to accepting such offer, the District shall submit the same to the City, and the City shall have up to 60 calendar days to precisely match or exceed such offer in a signed and binding writing as to all terms and conditions. In the event the City does not respond in writing to the District within the time allowed, the lack of such response shall be deemed a refusal to exercise the right granted herein. In addition, in the event the District is capable of delivering clear title to the Temescal Valley Line to a purchaser, the District shall give the City 60 days' notice thereof, in order to give the City an opportunity to purchase the Temescal Valley Line.

WHEREFORE, the Parties have executed this Agreement to be effective as of the date first set forth above.

CITY OF CORONA

ELSINORE VALLEY MUNICIPAL
WATER DISTRICT

By 
Mayor

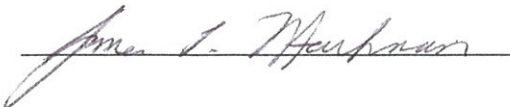
By 
Phil Williams, President

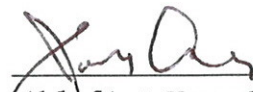
Dated: April 21, 2009

Dated: March 25, 2009

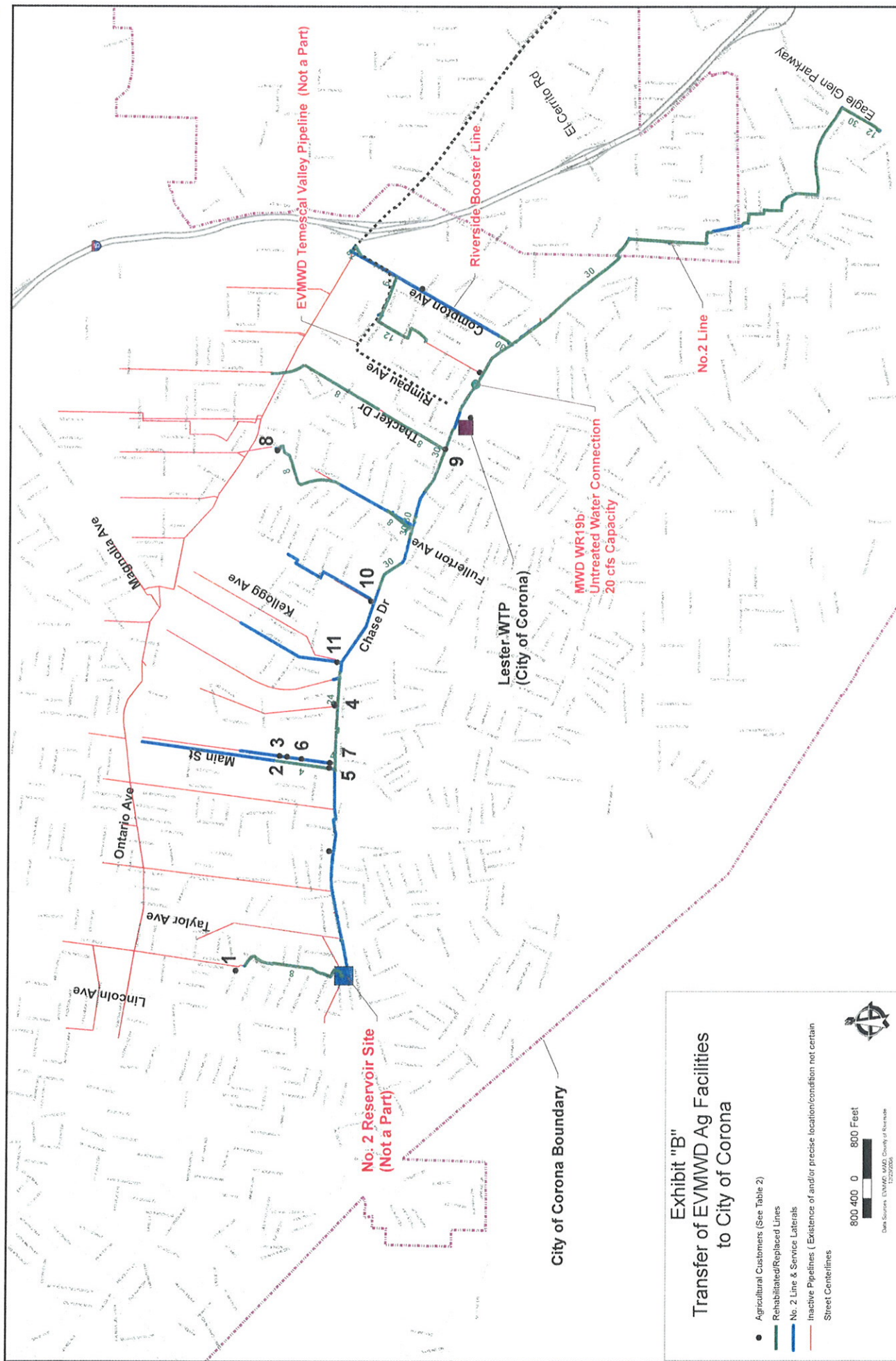
Approved as to Form:

Approved as to Form:




Akilufi & Wysocki
District Counsel





Appendix B

Accounting Spreadsheets (Excel Workbook)