



6 TABLES OF MONITORING PROGRAM SUMMARIES AND TRENDS

Table 6-1: Prior Five Years of Results of the Groundwater Quality Monitoring Program in the Management Area

Management Zone	Year	No. of Wells	TDS (mg/L)		NO ₃ -N (mg/L)	
			Max	Min	Max	Min
Lakeview	2015	13	3,200	360	11.0	< 0.1
	2016	27	3,300	310	18.0	< 0.1
	2017	24	3,000	270	14.0	< 0.1
	2018	28	2,730	268	20.3	< 0.4
	2019	26	4,200	288	23	< 0.2
Perris North	2015	14	1,800	310	17.0	< 0.1
	2016	15	2,100	230	53.0	< 0.1
	2017	12	1,900	330	20.0	< 0.1
	2018	17	2,160	352	42.6	< 0.4
	2019	14	1,970	328	40	0.23
Perris South	2015	45	15,000	410	16.0	< 0.1
	2016	37	13,000	390	35.0	< 0.1
	2017	45	12,000	420	27.0	< 0.1
	2018	45	11,700	446	12	< 0.4
	2019	47	28,000	560	13	< 0.2
San Jacinto Lower Pressure	2015	4	2,000	360	8.5	< 0.1
	2016	6	3,100	350	8.0	< 0.1
	2017	4	1,600	350	8.1	< 0.1
	2018	6	920	384	9.4	< 0.4
	2019	3	1,000	360	8.2	< 0.2
Menifee	2015	4	2,800	1,100	9.7	< 0.1
	2016	6	2,300	890	9.8	2.0
	2017	2	1,200	150	4.0	< 0.1
	2018	5	2,950	900	8.5	0.7
	2019	6	2,800	930	8.5	3.7
Hemet South (partial)	2015	2	640	510	15.0	8.7
	2016	4	720	510	16.0	11.0
	2017	2	550	590	12.0	12.0
	2018	4	918	700	26.7	19.0
	2019	2	1,100	950	31	31

Note: The same wells were not necessarily sampled each year, which may cause fluctuations in high and low values. It should also be noted that water quality and the character of groundwater are determined by a number of factors including: mineral content of sediments; recharge and drainage patterns; historic land use practices; and screening intervals and depths of wells sampled, to name a few.

Table 6-2: Historical Results of the Groundwater Level Monitoring Program in the Management Area

Number of Wells Measured														
Management Zone	Lakeview		Perris North		Perris South		San Jacinto Lower Pressure		Menifee		Hemet South (partial)		Totals	
Year	Spr.	Fall	Spr.	Fall	Spr.	Fall	Spr.	Fall	Spr.	Fall	Spr.	Fall	Spr.	Fall
2015	30	28	341	337	61	58	21	19	17	16	4	2	474	460
2016	24	27	26	24	55	56	21	19	15	15	4	4	145	145
2017	28	29	25	24	60	60	21	21	13	11	4	3	151	148
2018	27	25	25	27	59	59	21	21	13	12	4	3	149	147
2019	23	23	24	23	55	54	18	14	12	11	4	3	136	128
Maximum and Minimum Depth To Water (feet)														
Management Zone	Lakeview		Perris North		Perris South		San Jacinto Lower Pressure		Menifee		Hemet South (partial)		Totals	
Year	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
2015	87.2	242.5	13.1	207.8	2.9	87.8	21.8	263.6	81.5	139.3	57.1	66.2	2.9	263.6
2016	87.5	234.2	14.2	206.7	4.6	90.9	22.1	259.1	81.2	126.9	61.1	90.3	4.6	259.1
2017	89.7	232.4	11.1	186.4	1.7	193.0	13.1	257.6	79.1	127.2	55.6	63.4	1.7	257.6
2018	89.4	229.1	14.5	180.0	2.9	202.8	18.5	255.8	76.9	115.3	51.2	58.5	2.9	255.8
2019	93.0	224.6	14.4	85.4	1.8	91	65.6	252.4	72.9	109	47.6	56.9	1.8	252.4

Note: The above figures represent the number of wells actually sampled or measured rather than the number of wells participating in the program. Not all participating wells could be sampled or measured each year due to flooding, access, or other constraints.

Table 6-3: Historical Results of the Wells Monitored for Groundwater Extraction in the Management Area

Year	Method of Determining Groundwater Extraction			
	Number of Meters Read by EMWD	Number of Meters Read by Other Agencies & Reported to EMWD	Number of Wells with Extraction Estimated by EMWD	Total Wells
2015	37	4	14	55
2016	38	4	14	56
2017	38	4	14	56
2018	39	4	14	57
2019	40	4	14	58

Table 6-4: Historical Results of the Groundwater Extraction Monitoring Program in the Management Area

Management Zone Year	Groundwater Extraction (AF)						Total
	Lakeview	Perris North	Perris South	San Jacinto Lower Pressure	Menifee	Hemet South (partial)	
2015	4,940	6,070	9,474	1,304	4,164	335	26,287
2016	5,572	5,466	7,813	1,301	4,024	265	24,441
2017	5,562	3,941	6,890	1,090	4,244	112	21,839
2018	5,398	4,406	6,765	1,088	4,155	1	21,813
2019	5,143	2,347	7,687	651	3,894	4	19,726

Table 6-5: Historical Results of the San Jacinto Watershed Groundwater Recordation Program in the Management Area

Management Zone Year	Groundwater Extraction (AF)						
	Lakeview	Perris North	Perris South	San Jacinto Lower Pressure	Menifee	Hemet South (partial)	Total
2014	2,150	4,776	8,923	236	2,199	433	18,717
2015	2,951	5,668	9,445	271	1,825	350	20,510
2016	2,438	5,066	7,628	550	3,038	272	18,992
2017	1,966	2,908	6,735	540	3,179	120	15,448
2018	1,621	4,006	5,884	538	9,558	8	21,615

Table 6-6: Historical Results of the Recycled Water Monitoring in the Management Area

Management Zone Year	Recycled Water Use (AF)						
	Lakeview	Perris North	Perris South	San Jacinto Lower Pressure	Menifee	Hemet South (partial)	Total
2015	4,318	1,190	5,888	8,130	497	310	20,333
2016	3,880	1,164	5,354	7,584	662	405	19,049
2017	2,858	1,218	4,818	7,866	1,178	305	18,243
2018	3,402	1,311	4,109	8,133	950	289	18,194
2019	3,489	1,296	3,573	6,694	592	249	15,893

Table 6-7: Historical Results of the Precipitation Monitoring Program in the Management Area

Precipitation (inches)					
Station	Lakeview	Lake Perris	Moreno Valley East	Sun City	Winchester
Long-term Average	1910-2012	1965-2018	2002-2018	1971-2018	1940-2018
	11.65	7.97	12.46	10.68	10.80
2015	-	4.26	8.12	5.33	7.28
2016	-	8.01	11.26	8.46	8.89
2017	-	6.90	8.91	8.42	7.76
2018	-	5.61	8.63	6.34	6.78
2019* (1989-2019)	-	9.43	11.45	10.33	10.28

*30-year mean precipitation

Table 6-8: Historical Results of the Inactive Well Capping/Sealing Program in the Management Area

Management Zone Year	Inactive Well Capping/Sealing						Totals
	Lakeview	Perris North	Perris South	San Jacinto Lower Pressure	Menifee	Hemet South (partial)	
2015	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	0
2017	1	0	0	0	0	0	1
2018	1	0	0	0	0	0	1
2019	2	0	0	0	0	0	2
2000-2019	11	9	26	10	11	0	67

Table 6-9: Historical Results of the County Well Permits in the Management Area

Permit Type Year	Well Permits in the Management Area by Type and Year						Totals
	Domestic/ Individual Community Wells	Agricultural Wells	Monitoring Wells	Cathodic Protection Wells	Well Abandonment	Well Evaluation or Other	
2015	5	3	22	1	2	0	33
2016	4	2	18	1	139	0	164
2017	4	0	19	2	35	0	60
2018	6	1	62	4	1	0	74
2019	2	4	11	4	7	2	30

Table 6-10: 2019 Monthly Groundwater Production in the Management Area

Month	Box Springs	EMWD	NWC	City of Perris Water	Private	Total
January	12	1,043	22	37	218	1,332
February	10	640	21	29	176	876
March	18	667	41	35	311	1,072
April	31	711	37	54	533	1,366
May	42	911	49	55	672	1,729
June	53	1,171	59	65	891	2,239
July	60	905	95	72	1,040	2,172
August	51	1,025	72	74	1,020	2,241
September	42	829	46	62	794	1,774
October	41	950	64	58	773	1,885
November	23	1,016	32	52	429	1,553
December	16	1,175	21	32	244	1,487
Total	400	11,044	558	624	7,101	19,726

Note: Monthly groundwater production rounded to the nearest whole number.