

September 28, 2015

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

Subject: Annual Streamflow Monitoring Report for Water Rights Permit 21225, Fiscal 2014/15

Dear Mr. Kavounas:

Wildermuth Environmental, Inc. (WEI) hereby submits the Annual Streamflow Monitoring Report for Fiscal 2014/15. This is the seventh annual report prepared pursuant to Term 20 of the Chino Basin Watermaster's (Watermaster) Water Rights Permit 21225. Per the terms of the March 20, 2007 Stipulation, Watermaster and the California Department of Fish and Wildlife (DFW) agreed that Watermaster would prepare estimates of monthly changes in discharge in each tributary of the Santa Ana River from which stormwater is diverted, prepare annual reports describing the data and methods used to prepare those estimates, and submit the annual reports to the DFW by October 1st of each year. Each annual report covers the 12-month period of July 1st through June 30th.

This letter report describes the data and methodology used to assess stormwater diversion impacts and summarizes the diversion impact analysis for each tributary system for the July 1, 2014 through June 30, 2015 reporting period.

As in past years, the stormwater and dry-weather discharges diverted for recharge within the Chino Basin between July 1, 2014 and June 30, 2015 were small relative to total discharge: about 16 percent of the total estimated discharge was diverted for recharge. About 77 percent of the diversions occurred between November and February during short-duration stormwater events. Watermaster's diversions for recharge mitigate some of the increase in stormwater and dry-weather discharge resulting from the urbanization of the watershed. This reduction in stormwater and dry-weather discharge improves water quality in the Santa Ana River and its Chino Basin tributaries and reduces channel erosion in these drainages.

DATA COLLECTION AND METHODOLOGY

There are four main tributary systems to the Santa Ana River from which stormwater and dry-weather discharges are diverted for groundwater recharge by Watermaster and the Inland Empire Utilities Agency (IEUA): San Antonio/Chino Creek (hereafter referred to as Chino Creek), Cucamonga Creek, Day Creek, and Etiwanda/San Sevaine Creek (hereafter referred to as San Sevaine Creek). These creeks, their

¹ In September 2010, Watermaster requested and the DFW approved an extension of the report due date from September 1st to October 1st of each year.

drainage areas, and other significant hydrologic features are shown in Figure 1. Chino Creek and Cucamonga Creek discharge directly to the Prado Dam Reservoir. Day Creek and San Sevaine Creek discharge to the Santa Ana River upstream of the Prado Dam Reservoir. The impact of Watermaster's stormwater and dry-weather diversions is estimated relative to the reduction in discharge on each tributary system and the reduction in discharge from each tributary system to the Prado Dam Reservoir. For Chino Creek and Cucamonga Creek, these are one and the same.

Two of the four tributary systems, the Chino and Cucamonga Creeks, are equipped with U.S. Geological Survey (USGS) stream gages, and average daily discharge data are available for these stations. The daily USGS data, daily stormwater and dry-weather discharge diversion data from the IEUA, and daily discharge data collected from other known point discharges (e.g. recycled and imported water discharges) are used to estimate the discharge of the Chino and Cucamonga Creeks as they enter the Prado Dam Reservoir. These data are also used to reconstruct hydrographs for the tributaries as they would have been without stormwater and dry-weather discharge diversions.

Day Creek and San Sevaine Creek are not equipped with USGS gaging stations. The hydrographs for these two systems were estimated using WEI's Waste Load Allocation Model (WLAM). The WLAM uses recharge basin and stream channel characteristics, daily precipitation, boundary inflows, and land use characteristics to estimate stormwater runoff, and subsequently routes stormwater as well as nontributary inflows through the Santa Ana River Watershed. The WLAM was developed for and is used by the Santa Ana Regional Water Quality Control Board (Regional Board) to evaluate the discharge and water quality impacts of existing and planned recycled water and stormwater discharges to the surface and groundwater resources of the watershed.² The Basin Monitoring Program Task Force periodically calibrates the WLAM.3 Watermaster and the City of Riverside used the WLAM to complete the only watershed-wide (system-wide) review of all appropriative water rights applications on the Santa Ana River in the 2006 State Water Resources Control Board hearing process. Watermaster most recently updated the WLAM in 2012 as part of the Chino Basin Groundwater Model recalibration and development of the 2013 Amendment to the 2010 Recharge Master Plan Update.4 The WLAM was updated to reflect, among other changes, an improved understanding of recharge basin operations and the rerouting of water in Etiwanda Channel from Day Creek to San Sevaine Creek. The updated version of the WLAM was used for this analysis.

Daily discharge tables for key hydrologic components and for the aggregate of hydrologic components are included in the enclosed appendices.

DIVERSION IMPACT ANALYSIS

During fiscal 2014/15, Watermaster diverted a total of 7,991 acre-feet (acre-ft) of stormwater and dryweather discharge to recharge basins on the Chino, Cucamonga, Day, and San Sevaine tributary systems. Table 1 summarizes, by tributary, the monthly diversions for recharge at each spreading basin. The impact analyses of these diversions are provided below.

² Wildermuth Environmental, Inc. (2009). *2008 Santa Ana River Wasteload Allocation Model Report*. Prepared for the Basin Monitoring Program Task Force. May 2009.

³ The Basin Monitoring Program Task Force consists of all recycling and regional water agencies in the watershed. The Basin Monitoring Program Task Force is administered by the Santa Ana Watershed Project Authority.

⁴ Wildermuth Environmental, Inc. (2013). *2013 Amendment to the 2010 Recharge Master Plan Update*. Prepared for the Chino Basin Watermaster and Inland Empire Utilities Agency. September 2013.

Chino Creek

The objective of this analysis is to illustrate the impact of Watermaster's diversions on the perennial flows in Chino Creek. Figure 1 shows the locations of significant points of activity on the Chino Creek tributary system, including Watermaster's points of diversion to recharge basins, USGS gaging stations, the Orange County Water District's (OCWD) OC-59 imported water turnout,⁵ and the IEUA's recycled water discharge points. The impact of Watermaster's diversions on discharge to the Prado Dam Reservoir is assessed at the point on Chino Creek where recycled water from the IEUA RP-1 (Prado) recycling plant discharges to Chino Creek (see *Points of Discharge Estimation* feature in Figure 1).⁶ Because discharge to the Chino Creek tributary system from OCWD OC-59 is an irregularly occurring discharge, it is not considered a part of the natural system and is not included in the reconstructed hydrograph of Chino Creek. This methodology is consistent with the Santa Ana River Watermaster's methodology of computing the annual volume-weighted TDS concentration of the Santa Ana River at the Prado Dam Reservoir.⁷ No imported water was discharged to Chino Creek during the reporting period.

The estimated average daily discharge entering the Prado Dam Reservoir from Chino Creek is calculated from the average daily discharge measured at USGS gage 11073360 (Appendix A1), less any imported water discharges from OC-59 (Appendix A2), plus the average daily discharge from each of the IEUA's recycled water discharge points (Carbon Canyon, RP1-Prado, and RP5) (Appendix A3). These discharges are summarized as monthly totals in rows 1 through 3 of Table 2a and are shown in detail as daily totals in Appendices A1 through A3. The resulting daily discharge time history, summarized in row 4 of Table 2a and shown in detail in Appendix A4, approximates actual daily discharge in Chino Creek after Watermaster's diversions and without OCWD OC-59 discharges. Note that this estimation does not account for additional stormwater inputs generated by the Chino Creek drainage area that enter the creek downstream of USGS gage 11073360. These unaccounted for downstream flows are generated by an area that covers approximately 24 square miles and represents about 26 percent of the total Chino Creek drainage area. Thus, the relative impact of Watermaster's diversions is overstated.

The time history of stormwater and dry-weather discharge diversions is summarized in row 5 of Table 2a and shown in detail in Appendix A5. When added together, the daily discharge time histories from Appendices A4 and A5 yield what would have been the approximate daily discharge time history in Chino Creek had Watermaster not diverted stormwater and dry-weather flows for recharge. This reconstructed discharge time history is summarized in row 6 of Table 2a and shown in detail in Appendix A6. The percent reduction in discharge entering the Prado Dam Reservoir due to Watermaster diversions relative to the estimated discharge without diversions is summarized in row 7 of Table 2a.

The total discharge that entered the Prado Dam Reservoir from Chino Creek during fiscal 2014/15 was estimated to be about 13,862 acre-ft, ranging from a low of about 305 acre-ft/month (July) to a high of about 3,592 acre-ft/month (December). Total diversions from Chino Creek were about 937 acre-ft. About 89 percent of the diversions on Chino Creek occurred between November and February and were

⁵ The Metropolitan Water District of Southern California can supply the OCWD with State Water Project water through the OC-59 connection, which discharges water to San Antonio Creek, and subsequently to Chino Creek, through the Prado Basin, and into Orange County via the Santa Ana River.

⁶ Note that the IEUA RP-1 recycling plant has two discharge locations: one to Chino Creek (RP-1 Prado) and one to Cucamonga Creek (RP-1 Cucamonga).

⁷ See for example, FORTY-FOURTH ANNUAL REPORT OF THE SANTA ANA RIVER WATERMASTER FOR WATER YEAR OCTOBER 1, 2013 - SEPTEMBER 30, 2014. Prepared in April 2015 by the Santa Ana River Watermaster for the ORANGE COUNTY WATER DISTRICT v. CITY OF CHINO, et al. CASE NO. 117628 - COUNTY OF ORANGE.

coincident with the larger storm events of the year. About 6.3 percent of the total discharge in Chino Creek was diverted for recharge in fiscal 2014/15.

Figure 2a shows the estimated monthly discharge to the Prado Dam Reservoir, with and without diversions, as a stacked bar chart (acre-ft), and average daily discharge, with and without diversions, as an xy plot (cubic feet per second [cfs]). This figure illustrates that the relative magnitude of the stormwater and dry-weather diversions for recharge, shown as the light blue bar (monthly diversions) or the difference between the red and yellow lines (average daily discharge with and without diversions), is small compared to the total estimated discharge entering the Prado Dam Reservoir. Figure 2a also shows that the majority of recharge results from a few short-duration stormwater events (i.e. when the yellow line [average daily discharge with diversions] is significantly below the red line [average daily discharge without diversions] during the large upward peaks in the graph where stream flow is magnified by stormwater runoff).

Cucamonga Creek

Figure 1 shows the locations of significant points of activity on the Cucamonga Creek tributary system, including Watermaster's points of diversion to recharge basins, USGS gaging stations, and the IEUA's recycled water discharge points. The impact of Watermaster's diversions on discharge to the Santa Ana River at the Prado Dam Reservoir is assessed at the point where the concrete-lined channel of Cucamonga Creek ends (see *Points of Discharge Estimation* feature in Figure 1). The estimated average daily discharge entering the Prado Dam Reservoir from Cucamonga Creek is approximated as the average daily discharge measured at USGS gage 11073495. The estimated discharge time history is summarized as a monthly total in row 1 of Table 2b and is shown in detail as daily values in Appendix B1. Note that this estimation does not account for additional stormwater inputs generated by the Cucamonga Creek drainage area that enter the creek downstream of USGS gage 11073495. The unaccounted for downstream flows are generated by an area that covers approximately 13 square miles and represent about 15 percent of the total Cucamonga Creek drainage area. Thus, the relative impact of Watermaster's diversions is overstated.

The time history of stormwater and dry-weather discharge diversions is summarized in row 2 of Table 2b and shown in detail in Appendix B2. When added together, the daily discharge time histories from Appendices B1 and B2 yield what would have been the approximate daily discharge time history in Cucamonga Creek had Watermaster not diverted stormwater and dry-weather flows for recharge. This reconstructed discharge time history is summarized in row 3 of Table 2b and shown in detail in Appendix B3. The percent reduction in discharge entering the Prado Dam Reservoir relative to the estimated discharge without Watermaster diversions is summarized in row 4 of Table 2b.

The total discharge that entered the Prado Dam Reservoir from Cucamonga Creek during fiscal 2014/15 was estimated to be about 20,488 acre-ft, ranging from a low of about 307 acre-ft/month (July) to a high of about 6,454 acre-ft/month (December). Total diversions from Cucamonga Creek were about 3,688 acre-ft. About 71 percent of the diversions on Cucamonga Creek occurred between November and February and were coincident with the larger storm events of the year. About 15.3 percent of the total discharge in Cucamonga Creek was diverted for recharge in fiscal 2014/15.

Figure 2b shows total monthly discharge to the Prado Dam Reservoir, with and without diversions, as a stacked bar chart (acre-ft), and average daily discharge, with and without diversions, as an xy plot (cfs). This figure illustrates that the relative magnitude of the stormwater diversions for recharge is small

compared to the total estimated discharge entering the Prado Dam Reservoir. Figure 2b also shows that the majority of recharge results from a few short-duration stormwater events.

Day Creek

Figure 1 shows the locations of significant points of activity on the Day Creek tributary system, including Watermaster's points of diversion to recharge basins and the confluence of Day Creek and the Santa Ana River (see the *Points of Discharge Estimation* feature on Figure 1). Day Creek's average daily discharge to the Santa Ana River was estimated using the WLAM. The estimated daily discharge represents discharge to the Santa Ana River without stormwater diversions for recharge. The discharge time history estimated by the WLAM is summarized as monthly totals in row 1 of Table 2c and is shown in detail as daily values in Appendix C1. Because the WLAM does not simulate dry-weather flows, the estimated daily discharge underestimates actual flows on Day Creek and, thus, overestimates the impact of diversions on discharge to the Santa Ana River. To correct for this underestimation, dry-weather diversions are added together with the WLAM-estimated discharge to create a reconstructed hydrograph of Day Creek.

The time history of stormwater and dry-weather discharge diversions, as provided by the IEUA, is summarized in row 2 of Table 2c and shown in detail in Appendix C2. The "diversion" values reported by the IEUA represent the recharge of stormwater and dry weather flow in basins. There are instances when the reported diversions are in excess of total WLAM estimated stormwater flow; in this case, the excess diversions are assumed to be dry-weather flows. In other instances, when the volume of stormwater diverted for recharge is large, the recharge may continue to occur after storm flows in the creek have stopped (i.e. when the WLAM estimated flow is zero). Periods of recharge that are primarily attributed to stormwater are highlighted grey in Appendices C1, C2, and C3. During storm periods, dry-weather flows are not estimated and are assumed to be 0. All diversions that occur during non-storm periods are considered dry-weather flows, except during the period from December 4 to January 18, where stormwater released from the Day Creek Dam was diverted into Lower Day Basin. The time history of dry-weather flow diversions is summarized in row 3 of Table 2c and shown in detail in Appendix C3. Note that dry-weather flows that occur downstream of the recharge basins are not estimated. Thus, the relative impact of Watermaster's diversions is overstated.

When added together, the stormwater discharge estimated by the WLAM (row 1 of Table 2c) and the estimated dry-weather diversions (row 3 of Table 2c) yield the total estimated discharge from Day Creek to the Santa Ana River. This total discharge is summarized in row 4 of Table 2c. Subtracting the diversions (row 2 of Table 2c) from the total estimated discharges (row 4 of Table 2c) yields an estimated monthly discharge from Day Creek to the Santa Ana River after Watermaster diversions. This calculation is done on a monthly basis except when a single stormwater recharge period spans multiple months (e.g. October 31st through November 1st). Within each storm period (highlighted in grey in Appendices C1, C2, and C3), total diversions are subtracted from the total stormwater flows generated during the storm, including diversions that were recharged on dates after the actual stormwater flows were generated. In some cases, a diversion taken at the beginning of one month was subtracted from stormwater flows generated in a previous month. The estimated monthly discharge is summarized in row 5 of Table 2c.

The percent reduction in discharge entering the Santa Ana River from Day Creek relative to the estimated discharge without Watermaster diversions is summarized in row 6 of Table 2c. Table 2c also summarizes the discharge measured at USGS gage 11066460 (row 7), the closest gage on the Santa Ana

River upstream of its confluence with Day Creek (see Figure 1). The percent reduction in discharge to the Prado Dam Reservoir from Day Creek, relative to discharge in the Santa Ana River at USGS gage 11066460, is summarized in row 8 of Table 2c.

Total discharge to the Santa Ana River from Day Creek during fiscal 2014/15 was estimated to be about 3,930 acre-ft, ranging from a low of 0 acre-ft/month (summer months) to a high of about 2,418 acre-ft/month (December). Total diversions from Day Creek were about 341 acre-ft, of which about 13 acre-ft were dry-weather flows. 95 percent of the diversions on Day Creek occurred between November and February and were coincident with the larger storm events of the year. About 8 percent of the total discharge in Day Creek was diverted for recharge in fiscal 2014/15. Figure 2c shows total monthly discharge, with and without diversions, as a stacked bar chart (acre-ft) and average daily discharge, with and without diversions, as an xy plot (cfs). Stormwater runoff accounted for about 96 percent of Watermaster's diversions, which occurred during short-duration events, while the remainder of the diversions were dry-weather flows. The percent reduction in discharge entering the Prado Dam Reservoir was about one percent.

San Sevaine Creek

Figure 1 shows the locations of significant points of activity on the San Sevaine Creek tributary system, including Watermaster's points of diversion to recharge basins and the confluence of San Sevaine Creek and the Santa Ana River (see *Points of Discharge Estimation* feature on Figure 1). San Sevaine Creek's average daily discharge to the Santa Ana River was also estimated using the WLAM. The estimated daily discharge represents discharge to the Santa Ana River without stormwater diversions for recharge. The discharge time history estimated by the WLAM is summarized as monthly totals in row 1 of Table 2d and is shown in detail as daily values in Appendix D1. Because the WLAM does not simulate dry-weather flows, the estimated daily discharge underestimates actual flows on San Sevaine Creek and, thus, overestimates the impact of diversions on discharge to the Santa Ana River. To correct for this underestimation, dry-weather diversions are added together with the WLAM estimated discharge to create a reconstructed hydrograph of San Sevaine Creek.

The time history of stormwater and dry-weather discharge diversions, as provided by the IEUA, is summarized in row 2 of Table 2d and shown in detail in Appendix D2. The "diversion" values reported by the IEUA represent the recharge of stormwater and dry weather flow in basins. There are instances when the reported diversions are in excess of total WLAM estimated stormwater flow; in this case, the excess diversions are assumed to be dry-weather flows. In other instances, when the volume of stormwater diverted for recharge is large, the recharge may continue to occur after storm flows in the creek have stopped (i.e. when the WLAM estimated flow is zero). Periods of recharge that are primarily attributed to stormwater are highlighted grey in Appendices D1, D2, and D3. During storm periods, dry-weather flows are not estimated and are assumed to be 0. All diversions that occur during non-storm periods are considered dry-weather flows. The time history of dry-weather flow diversions is summarized in row 3 of Table 2d and shown in detail in Appendix D3. Note that dry-weather flows that occur downstream of the recharge basins are not estimated. Thus, the relative impact of Watermaster's diversions is overstated.

When added together, the stormwater discharge estimated by the WLAM (row 1 of Table 2d) and the estimated dry-weather diversions (row 3 of Table 2d) yield the total estimated discharge from Day Creek to the Santa Ana River. This total discharge is summarized in row 4 of Table 2d. Subtracting the diversions (row 2 of Table 2d) from the total estimated discharges (row 4 of Table 2d) yields an

estimated monthly discharge from Day Creek to the Santa Ana River after Watermaster diversions. This calculation is done on a monthly basis. Within each storm period (highlighted in grey in Appendices D1, D2, and D3), total diversions are subtracted from the total stormwater flows generated during the storm, including diversions that were recharged on dates after actual stormwater flows were generated. In some cases, a diversion taken at the beginning of one month was subtracted from stormwater flows generated in a previous month. The estimated monthly discharge is summarized in row 5 of Table 2d.

The percent reduction in discharge entering the Santa Ana River from San Sevaine Creek relative to the estimated discharge without Watermaster diversions is summarized in row 6 of Table 2d. Table 2d also summarizes the discharge measured at USGS gage 11066460 (row 7), the closest gage on the Santa Ana River upstream of its confluence with Day Creek (see Figure 1). The percent reduction in discharge to the Prado Dam Reservoir from Day Creek, relative to discharge in the Santa Ana River at USGS gage 11066460, is summarized in row 8 of Table 2d.

Total discharge to the Santa Ana River from San Sevaine Creek during fiscal 2014/15 was estimated to be about 3,326 acre-ft, ranging from a low of 0 acre-ft/month (summer months) to a high of about 2,435 acre-ft/month (December). Total diversions from San Sevaine Creek were about 3,024 acre-ft, of which about 398 acre-ft were dry-weather flows. About 78 percent of the diversions on San Sevaine Creek occurred between November and February and were coincident with the larger storm events of the year. About 48 percent of the total discharge in San Sevaine Creek was diverted for recharge in fiscal 2014/15. Figure 2d shows total monthly discharge, with and without diversions, as a stacked bar chart (acre-ft), and average daily discharge, with and without diversions, as an xy plot (cfs). Stormwater runoff accounted for about 87 percent of Watermaster's diversions, which occurred during short-duration events, while the remainder of the diversions were dry-weather flows. The percent reduction in discharge entering the Prado Dam Reservoir was about 8 percent.

Should you have any questions regarding the information contained herein, please call me or Samantha Adams at (949) 420-3030.

Respectfully,

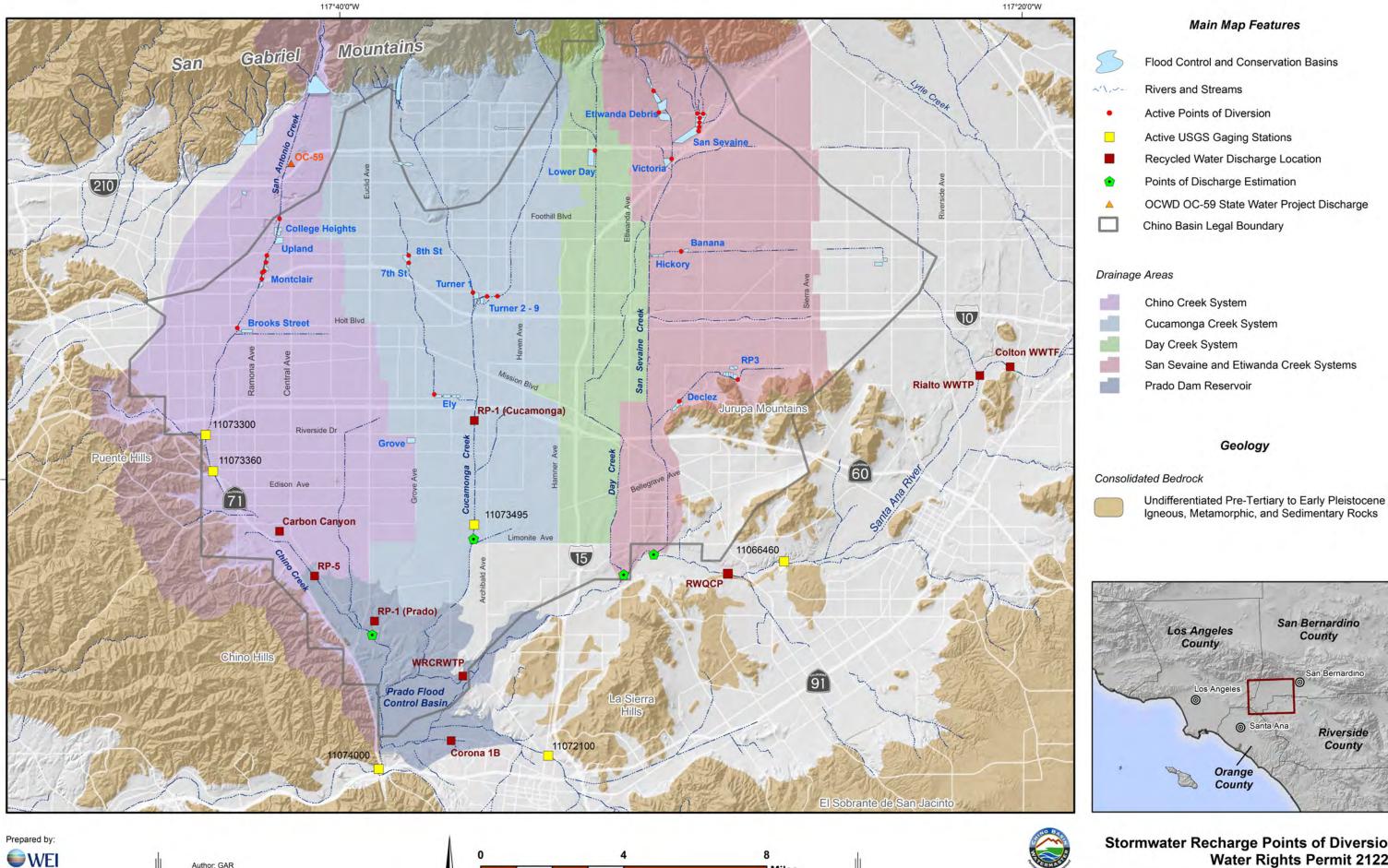
Wildermuth Environmental, Inc.

Mark J. Wildermuth, MS, RCE 32331 (exp. 12/31/2016)

President

Samantha S. Adams Principal Scientist Garrett Rapp Staff Engineer

Encl. Tables 1, 2a through 2d; Figures 1 and 2a through 2d; and Appendices A through D



Stormwater Recharge Points of Diversion Water Rights Permit 21225

Table 1
Total Monthly Stormwater Recharge Fiscal Year 2014/15
(acre-ft)

Tributary System	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Total
Chino Creek													
College Heights	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland	0	0	0	0	48	186	28	29	14	0	20	0	325
Montclair	0	2	0	0	28	264	68	19	8	1	21	0	410
Brooks Street	0	0	1	0	28	95	19	19	13	6	21	0	201
Tributary Total	0	2	1	0	105	544	115	68	35	6	61	0	937
Cucamonga Creek													
7 th and 8 th Street	25	15	14	0	146	353	110	42	43	25	57	12	841
Ely	16	16	15	16	170	392	44	72	15	100	231	0	1,086
Turner 1 and 2	0	46	54	31	108	253	107	93	52	0	0	0	745
Turner 3 and 4	11	0	0	0	0	348	4	65	67	39	0	2	535
Grove	2	4	5	9	53	202	33	29	29	68	47	0	481
Tributary Total	54	81	88	56	477	1,548	299	299	206	233	334	14	3,688
Day Creek													
Lower Day	0	4	1	0	25	241	40	17	0	3	10	0	341
Tributary Total	0	4	1	0	25	241	40	17	0	3	10	0	341
San Sevaine Creek													
San Sevaine	0	6	1	0	18	246	14	41	11	0	17	0	354
Hickory	0	0	0	0	0	185	8	47	0	0	3	0	242
Banana	0	0	0	0	7	145	24	16	2	3	0	0	197
RP-3	9	23	40	25	112	419	113	92	60	41	121	12	1,067
Declez	2	72	30	3	100	315	47	106	15	41	99	3	832
Etiwanda Debris Basin	0	2	0	0	2	23	0	0	0	0	0	0	27
Victoria	2	5	2	3	57	153	18	40	12	0	13	1	306
Tributary Total	13	108	73	31	295	1,486	223	342	99	85	253	16	3,024
Tributary System Total	67	195	164	87	902	3,819	677	727	340	327	658	29	7,991

¹ Source: B. Leever (IEUA), personal communication, July 21, 2015.



² Recharge volumes represent diversions of both stormwater and dry-weather discharge; recharge volumes are rounded to the nearest whole number.

Table 2a
Impact of Stormwater Diversions on Total Monthly Discharge Entering the Prado Dam Reservoir from Chino Creek for FY 2014/15
(acre-ft)

Row	Discharge Components	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Total
(1)	Discharge in Chino Creek at USGS Gage 11073360 ¹	22	18	12	29	407	1,915	221	244	220	97	121	11	3,315
(2)	Discharge to San Antonio Creek from OCWD OC-59	0	0	0	0	0	0	0	0	0	0	0	0	0
	Recycled Water Discharge from IEUA's CCWRF, RP-5, and RP-1 (Prado)	283	378	424	840	1,115	1,676	1,796	1,288	793	577	868	509	10,547
` ,	Estimated Discharge Entering the Prado Dam Reservoir	305	396	436	869	1,522	3,592	2,017	1,532	1,013	673	988	519	13,862
(5)	Stormwater and Dry-Weather Discharge Diversions	0	2	1	0	105	544	115	68	35	6	61	0	937
(6)	Estimated Discharge That Would Have Entered the Prado Dam Reservoir <u>without</u> Stormwater and Dry-Weather Diversions	305	398	437	869	1,626	4,136	2,132	1,600	1,047	680	1,050	519	14,798
(7)	Percent Reduction in Discharge Entering the Prado Dam Reservoir Relative to the Estimated Discharge <u>without</u> Diversions	0.0%	0.4%	0.3%	0.0%	6.4%	13.2%	5.4%	4.3%	3.3%	0.9%	5.8%	0.0%	6.3%

¹ Data are provisional for October 7, 2014 to June 30, 2015; for July 1, 2014 to October 6, 2014, data are approved.



Table 2b
Impact of Stormwater Diversions on Total Monthly Discharge Entering the Prado Dam Reservoir from Cucamonga Creek for FY 2014/15 (acre-ft)

Row	Discharge Components	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Total
(1)	Discharge Entering the Prado Dam Reservoir after Stormwater and Dry- Weather Diversions (USGS Gage 11073495) ¹	307	400	531	668	1,764	6,454	3,036	2,192	1,734	1,379	1,652	371	20,488
(2)	Stormwater and Dry-Weather Discharge Diversions	54	81	88	56	477	1,548	299	299	206	233	334	14	3,688
(3) =(1)+(2)	Estimated Discharge That Would Have Entered the Prado Dam Reservoir <u>without</u> Stormwater and Dry-Weather Diversions	361	480	619	724	2,241	8,002	3,335	2,491	1,940	1,612	1,986	385	24,176
(4) =(2)/(3)	Percent Reduction in Discharge Entering the Prado Dam Reservoir Relative to the Estimated Discharge <u>without</u> Diversions	14.8%	16.8%	14.2%	7.7%	21.3%	19.3%	9.0%	12.0%	10.6%	14.4%	16.8%	3.5%	15.3%

¹ Data are provisional for October 7, 2014 to June 30, 2015; for July 1, 2014 to October 6, 2014, data are approved.



Table 2c
Impact of Stormwater Diversions on Total Monthly Discharge Entering the Santa Ana River from Day Creek for FY 2014/15
(acre-ft)

Row	Discharge Components	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Total
(1)	Discharge Entering the Santa Ana River <u>without</u> Stormwater and Dry- Weather Diversions <u>or</u> Dry- Weather Flows ¹	0	8	1	238	88	2,676	280	553	17	67	331	0	4,259
(2)	Stormwater and Dry-Weather Discharge Diversions ²	0	4	1	10	15	258	23	17	0	3	10	0	341
(3)	Diversions Attributable to Dry- Weather Flows ³	0	0	1	0	3	0	1	2	0	3	3	0	13
(4) =(1)+(3)	Total Discharge Entering the Santa Ana River <u>without</u> Stormwater and Dry-Weather Diversions ⁴	0	8	2	238	90	2,676	281	555	17	70	334	0	4,272
(5) =(4)-(2)	Estimated Discharge Entering the Santa Ana River after Stormwater and Dry-Weather Diversions	0	4	1	228	75	2,418	258	539	17	67	324	0	3,930
(6) =(2)/(4)	Percent Reduction in Discharge Entering the Santa Ana River Relative to Discharge <u>without</u> Diversions	0%	48%	65%	4%	17%	10%	8%	3%	1%	4%	3%	0%	8.0%
(7)	Discharge in the Santa Ana River at USGS Gage 11066460 ⁵	1,843	3,934	3,057	1,988	2,091	9,714	3,317	3,545	2,046	2,347	2,250	1,690	37,823
(8) =(2)/(7)	Percent Reduction in Discharge Entering the Santa Ana River Relative to Discharge at 11066460 ⁵	0.0%	0.1%	0.0%	0.5%	0.7%	2.7%	0.7%	0.5%	0.0%	0.1%	0.4%	0.0%	0.9%

¹ Estimated using the WLAM.



² Calculated on a monthly basis, except when a single storm spans multiple months. Within each storm period (highlighted in grey in Appendices C1-C3), all diversions that occurred were subtracted from stormwater flows generated during this storm, including diversions that were recharged on dates after stormwater flows were generated. In some cases, a diversion taken at the beginning of one month was subtracted from stormwater flows generated in a previous month (ie. storm period from October 31 to November 1, 2015). Thus, several of the monthly values in row (2) are not consistent with the values in Table 1 and Appendix C2; however, the annual total is equivalent.

³ Calculated on a monthly basis. Note that the WLAM does not simulate dry-weather flows on the Day Creek tributary system. Thus, there are dates on which the measured diversions from Day Creek are greater than the WLAM's estimated discharge to the Santa Ana river without diversions. For these dates, the difference between the measured diversions and estimated discharge can be attributed to dry-weather discharge. Dry-weather diversions that occur while stormwater is being recharged (highlighted in grey in Appendices C1-C3) or downstream of the recharge basins are not included in these calculations.

⁴ Calculated on a monthly basis.

⁵ Data are provisional for October 6, 2014 to June 30, 2015; for July 1, 2014 to October 5, 2014, data are approved.

Table 2d
Impact of Stormwater Diversions on Total Monthly Discharge Entering the Santa Ana River from San Sevaine Creek for FY 2014/15
(acre-ft)

Row	Discharge Components	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Total
(1)	Discharge Entering the Santa Ana River <u>without</u> Stormwater and Dry- Weather Diversions <u>or</u> Dry- Weather Flows ¹	0	52	5	326	119	3,893	318	723	17	77	421	0	5,952
(2)	Stormwater and Dry-Weather Discharge Diversions ²	13	108	73	217	113	1,483	223	382	58	85	253	16	3,024
(3)	Diversions Attributable to Dry- Weather Flows ³	13	81	68	30	64	24	8	5	42	28	19	16	398
(4) =(1)+(3)	Total Discharge Entering the Santa Ana River <u>without</u> Stormwater and Dry-Weather Diversions ⁴	13	133	73	356	183	3,918	326	728	59	105	440	16	6,349
(5) =(4)-(2)	Estimated Discharge Entering the Santa Ana River after Stormwater and Dry-Weather Diversions	0	25	0	139	70	2,435	103	346	1	20	187	0	3,326
(6) =(2)/(4)	Percent Reduction in Discharge Entering the Santa Ana River Relative to Discharge <u>without</u> Diversions	100%	82%	100%	61%	62%	38%	69%	52%	99%	81%	58%	100%	48%
(7)	Discharge in the Santa Ana River at USGS Gage 11066460 ⁵	1,843	3,934	3,057	1,988	2,091	9,714	3,317	3,545	2,046	2,347	2,250	1,690	37,823
(8) =(2)/(7)	Percent Reduction in Discharge Entering the Santa Ana River Relative to Discharge at 11066460 ⁵	0.7%	2.8%	2.4%	10.9%	5.4%	15.3%	6.7%	10.8%	2.8%	3.6%	11.2%	0.9%	8.0%

¹ Estimated using the WLAM.



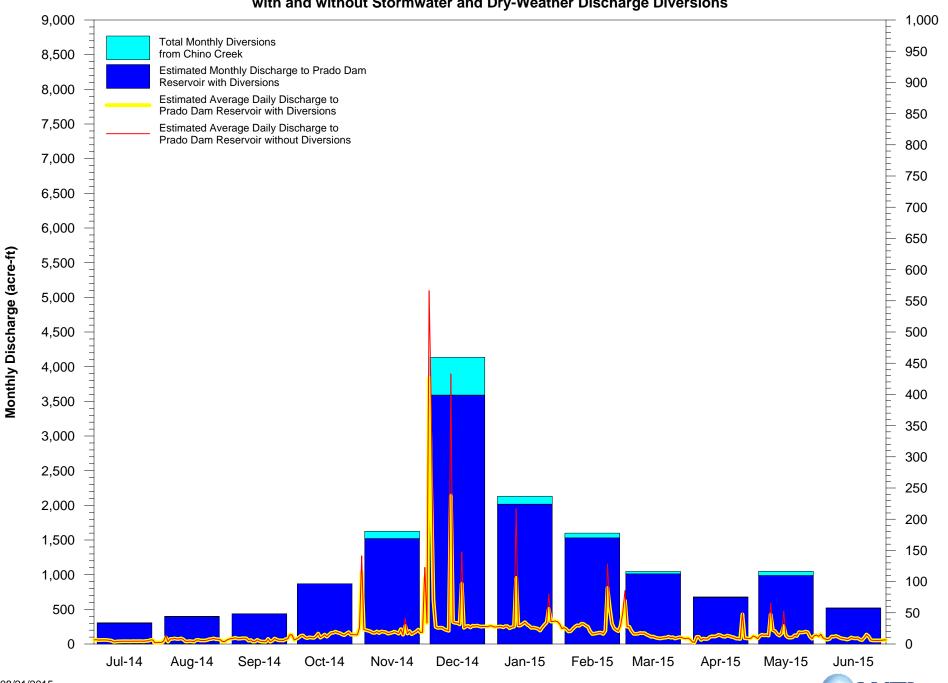
² Calculated on a monthly basis, except when a single storm spans multiple months. Within each storm period (highlighted in grey in Appendices D1-D3), all diversions that occurred were subtracted from stormwater flows generated during this storm, including diversions that were recharged on dates after stormwater flows were generated. In some cases, a diversion taken at the beginning of one month was subtracted from stormwater flows generated in a previous month (ie. storm period from October 31 to November 1, 2015). Thus, several of the monthly values in row (2) are not consistent with the values in Table 1 and Appendix D2; however, the annual total is equivalent.

³ Calculated on a monthly basis. Note that the WLAM does not simulate dry-weather flows on the Day Creek tributary system. Thus, there are dates on which the measured diversions from Day Creek are greater than the WLAM's estimated discharge to the Santa Ana river without diversions. For these dates, the difference between the measured diversions and estimated discharge can be attributed to dry-weather discharge. Dry-weather diversions that occur while stormwater is being recharged (highlighted in grey in Appendices D1-D3) or downstream of the recharge basins are not included in these calculations.

⁴ Calculated on a monthly basis.

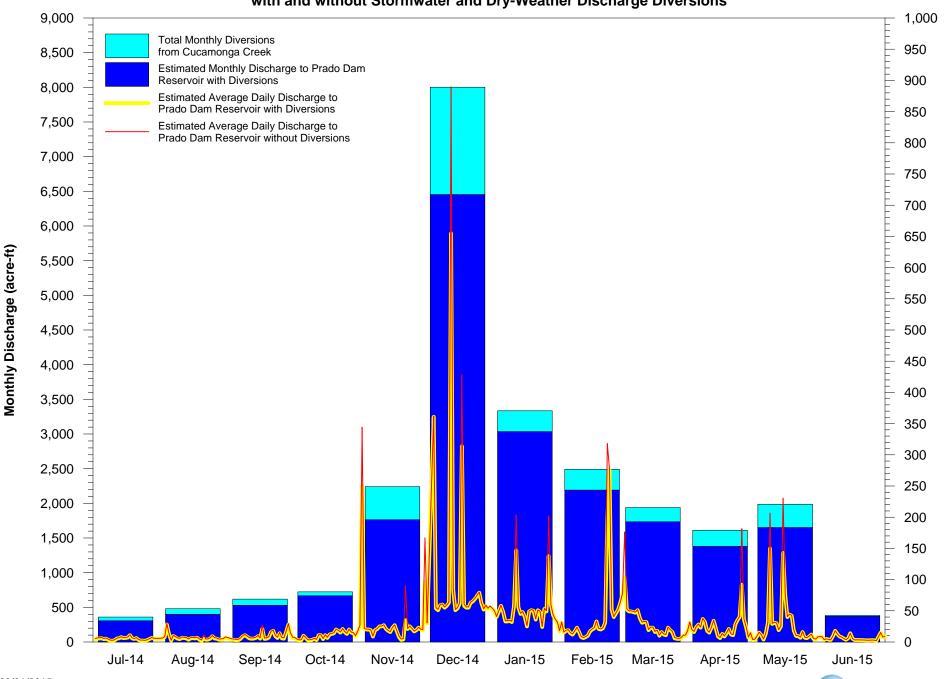
⁵ Data are provisional for October 6, 2014 to June 30, 2015; for July 1, 2014 to October 5, 2014, data are approved.

Figure 2a
Estimated Discharge from Chino Creek to Prado Dam Reservoir with and without Stormwater and Dry-Weather Discharge Diversions



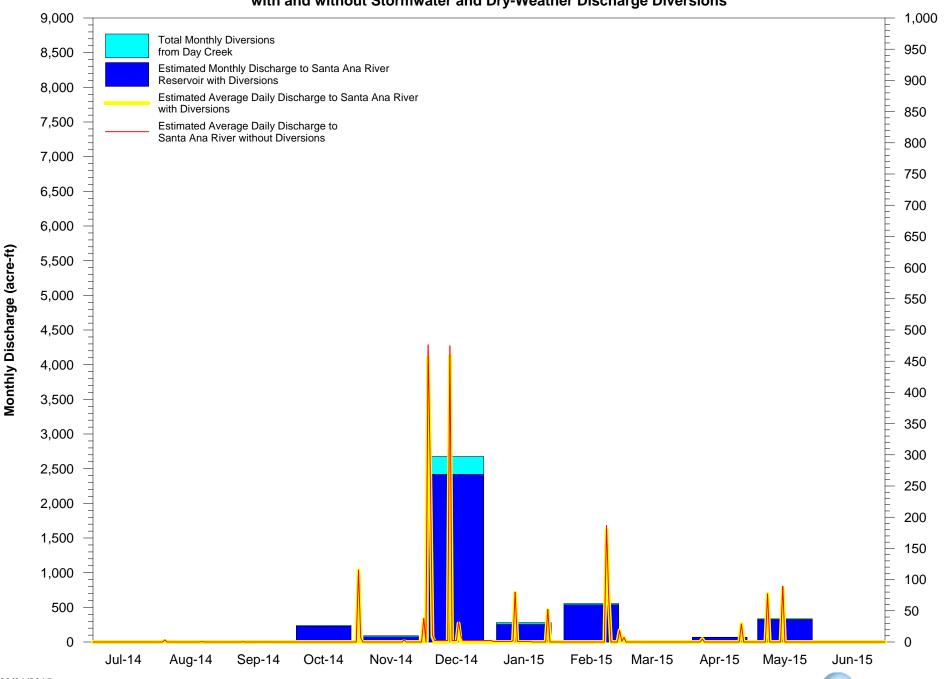
08/21/2015 Chino_Creek_Figure2a.grf

Figure 2b
Estimated Discharge from Cucamonga Creek to Prado Dam Reservoir with and without Stormwater and Dry-Weather Discharge Diversions



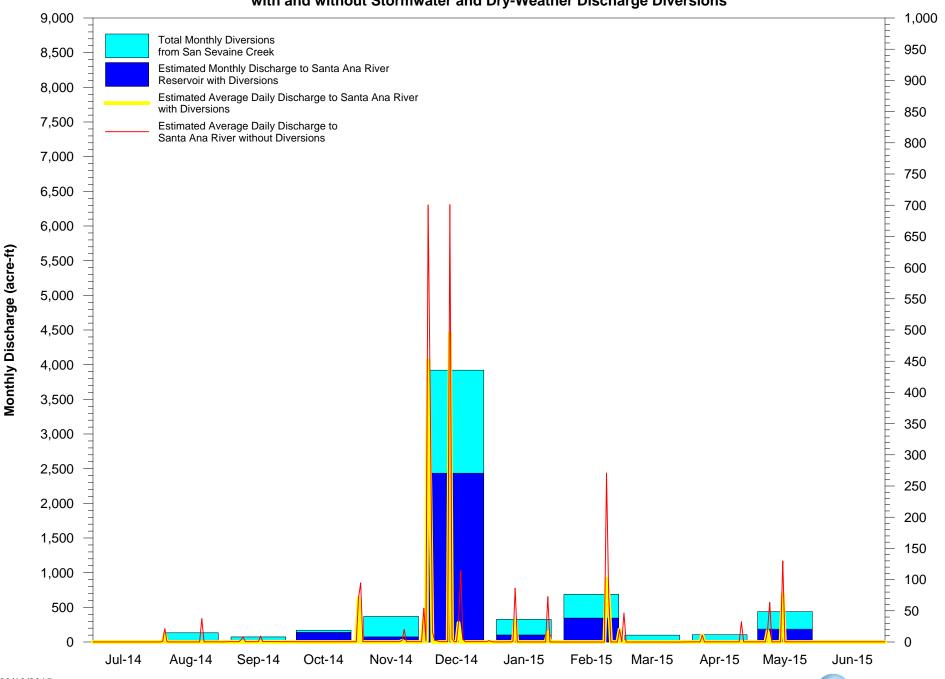
08/21/2015 Cucamonga_Creek_Figure2b.grf

Figure 2c
Estimated Discharge from Day Creek to the Santa Ana River
with and without Stormwater and Dry-Weather Discharge Diversions



08/21/2015 Day_Creek_Figure2c.grf

Figure 2d
Estimated Discharge from San Sevaine Creek to the Santa Ana River with and without Stormwater and Dry-Weather Discharge Diversions



08/19/2015 San Sevaine_Creek_Figure2d.grf

Appendix A1 Average Daily Discharge at USGS Gage 11073360 on Chino Creek

Day	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
1	0.3	0.4	0.2	0.2	92.0	12.0	0.1	0.3	28.0	0.3	0.2	0.2
2	0.3	0.4	0.2	0.2	0.4	401.0	0.1	0.4	47.0	0.3	0.2	0.2
3	0.3	1.6	0.2	0.2	0.2	213.0	0.2	0.3	3.8	0.3	0.2	0.2
4	0.3	0.6	0.2	0.1	0.2	49.0	0.2	0.4	3.2	0.3	0.2	0.3
5	0.3	0.4	0.2	0.1	0.2	1.0	0.2	0.4	2.6	0.3	0.2	0.3
6	0.3	0.4	0.2	0.2	0.1	1.0	0.2	0.4	2.9	0.3	0.2	0.3
7	0.3	0.3	0.2	0.2	0.2	0.4	0.2	0.4	2.8	4.1	4.2	0.2
8	0.3	0.3	0.3	0.2	0.2	0.4	0.3	0.4	2.7	0.5	31.0	0.2
9	0.5	0.3	0.2	0.2	0.3	0.3	0.4	0.4	2.6	0.2	0.2	0.2
10	0.2	0.2	0.2	0.2	0.2	0.3	1.0	1.3	2.4	0.2	0.1	0.2
11	0.2	0.3	0.2	0.1	0.3	0.3	77.0	0.4	1.5	0.3	0.2	0.2
12	0.2	0.3	0.2	0.2	0.3	212.0	0.9	0.3	1.3	0.3	0.2	0.2
13	0.2	0.3	0.2	0.2	0.3	2.1	0.7	0.3	1.3	0.3	0.2	0.2
14	0.3	0.5	0.2	0.2	0.3	0.3	0.3	0.4	1.1	0.2	18.0	0.2
15	0.4	0.4	0.3	0.2	0.2	0.3	0.3	0.3	0.9	0.2	2.8	0.2
16	0.4	0.3	0.2	0.2	0.2	0.9	0.2	0.4	0.7	0.3	0.2	0.2
17	0.4	0.2	0.2	0.1	0.3	67.0	0.3	0.4	0.5	0.3	0.2	0.2
18	0.4	0.2	0.4	0.1	0.3	0.4	0.3	0.4	0.5	0.2	0.2	0.2
19	0.3	0.1	0.2	0.1	0.3	0.3	0.3	0.4	0.4	0.2	0.2	0.2
20	0.3	0.1	0.1	0.1	0.3	0.2	0.3	0.4	0.4	0.2	0.2	0.1
21	0.4	0.1	0.1	0.2	20.0	0.2	0.4	0.4	0.4	0.2	0.2	0.1
22	0.4	0.1	0.2	0.2	0.3	0.2	0.4	63.0	0.4	0.2	0.2	0.1
23	0.4	0.1	0.2	0.1	0.4	0.3	0.4	31.0	0.4	0.2	0.2	0.2
24	0.4	0.1	0.2	0.1	0.6	0.3	0.4	5.1	0.4	0.2	0.2	0.1
25	0.4	0.2	0.2	0.1	0.4	0.3	0.4	2.4	0.4	37.0	0.2	0.1
26	0.4	0.2	0.2	0.1	0.5	0.2	23.0	1.8	0.4	0.9	0.2	0.1
27	0.4	0.2	0.2	0.1	0.5	0.2	1.4	1.5	0.4	0.3	0.2	0.1
28	0.6	0.2	0.1	0.2	0.3	0.3	0.4	9.6	0.3	0.2	0.2	0.1
29	0.4	0.2	0.1	0.2	0.4	0.2	0.3		0.3	0.2	0.2	0.1
30	0.4	0.2	0.2	0.2	85.0	1.0	0.3		0.4	0.2	0.2	0.2
31	0.4	0.1		10.0		0.3	0.4		0.3		0.2	
Total (cfs)	10.9	9.0	5.9	14.5	205.0	965.5	111.3	123.0	110.7	48.7	60.9	5.3
Minimum	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.3	0.3	0.2	0.1	0.1
Maximum	0.6	1.6	0.4	10.0	92.0	401.0	77.0	63.0	47.0	37.0	31.0	0.3
Average	0.4	0.3	0.2	0.5	6.8	31.1	3.6	4.4	3.6	1.6	2.0	0.2
Total (acre-ft)	21.5	17.9	11.7	28.8	406.7	1,915.5	220.8	244.1	219.5	96.7	120.8	10.6

¹ Data are provisional for October 7, 2014 to June 30, 2015; for July 1, 2014 to October 6, 2014, data are approved.



Appendix A2
Average Daily Discharge at OC-59 on San Antonio Creek

Day	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
31	0.0	0.0		0.0		0.0	0.0		0.0		0.0	
Total (cfs)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total (acre-ft)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Appendix A3

Average Daily Discharge of All IEUA Recycled Water Effluent Discharges to Chino Creek (cfs)

Day	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
1	6.3	2.2	7.6	6.2	23.2	21.7	26.9	24.4	22.7	7.0	11.3	9.7
2	6.7	4.6	8.5	7.9	23.1	25.7	27.5	25.8	22.6	2.9	8.5	7.9
3	6.0	9.1	8.8	10.1	22.1	26.8	27.7	23.7	24.0	2.3	12.7	6.8
4	6.2	3.4	9.9	12.8	21.2	22.4	28.0	19.8	24.6	11.1	14.7	7.7
5	6.3	7.7	8.5	13.6	20.1	26.5	26.6	20.3	18.4	11.1	13.8	11.9
6	6.3	7.9	8.5	10.4	17.9	24.9	28.5	23.8	13.5	6.2	14.1	11.6
7	6.2	8.5	9.0	9.3	17.6	25.7	28.5	27.2	13.5	4.6	9.3	12.7
8	5.6	7.9	9.0	10.7	20.0	25.7	25.1	29.5	13.9	7.6	16.4	11.3
9	5.1	7.9	8.8	10.1	17.2	23.5	26.8	28.9	15.2	8.0	22.0	9.4
10	3.2	8.8	5.1	9.6	19.8	22.1	26.8	31.2	15.0	10.8	20.6	8.4
11	3.6	7.1	6.2	12.1	19.3	20.9	29.1	31.7	15.9	12.2	15.6	8.2
12	4.0	4.0	3.7	16.6	18.9	25.8	28.6	29.1	13.8	11.8	13.3	7.1
13	4.2	3.9	3.9	10.1	16.4	33.1	29.1	27.4	12.4	12.4	16.9	7.9
14	4.2	4.3	6.5	12.2	17.0	33.6	32.0	19.8	10.5	14.5	10.7	10.4
15	4.0	3.9	4.5	14.9	18.1	33.4	34.7	15.8	11.1	13.6	10.7	9.1
16	4.2	3.6	3.9	11.6	19.6	30.8	30.9	16.2	9.7	11.9	10.4	8.8
17	4.2	6.3	3.6	14.9	18.3	29.7	28.8	17.0	9.0	11.3	10.1	9.3
18	4.0	6.5	3.2	17.8	16.4	25.5	25.5	17.8	8.5	13.3	10.5	7.0
19	4.3	5.6	8.0	18.1	23.5	28.2	26.0	17.9	9.0	12.5	13.9	6.0
20	4.2	5.6	3.6	19.6	14.5	28.9	25.2	15.8	9.6	11.3	12.7	9.9
21	4.2	5.6	5.4	17.9	9.1	26.5	24.1	20.7	9.9	10.5	18.9	15.0
22	4.3	6.2	8.7	17.2	16.4	29.2	21.2	27.1	11.4	8.7	18.4	12.2
23	4.2	7.6	7.0	15.3	20.4	28.6	26.1	28.2	9.7	8.5	18.6	6.2
24	4.0	7.9	5.7	14.1	15.2	29.2	30.3	27.7	10.5	7.9	19.8	5.7
25	4.6	8.8	5.7	16.6	17.6	28.3	34.0	22.7	8.5	10.5	18.9	5.7
26	4.6	7.6	5.4	18.9	19.5	27.5	33.4	20.7	9.4	8.5	11.8	5.6
27	6.2	7.6	7.4	14.9	22.6	28.0	34.5	19.0	10.5	8.8	8.4	5.7
28	5.9	6.8	8.2	15.0	18.3	27.7	35.9	19.5	10.2	8.5	13.1	6.0
29	1.5	3.9	14.9	14.5	18.4	28.2	36.5		9.0	9.3	14.2	6.5
30	2.0	3.7	14.5	14.5	20.3	28.5	35.4		8.4	12.8	11.9	6.5
31	2.2	6.2		16.4		28.5	31.7		9.3		15.5	
Total (cfs)	142.6	190.6	213.6	423.6	562.0	845.0	905.5	649.0	399.7	290.7	437.3	256.3
Minimum	1.5	2.2	3.2	6.2	9.1	20.9	21.2	15.8	8.4	2.3	8.4	5.6
Maximum	6.7	9.1	14.9	19.6	23.5	33.6	36.5	31.7	24.6	14.5	22.0	15.0
Average	4.6	6.1	7.1	13.7	18.7	27.3	29.2	23.2	12.9	9.7	14.1	8.5
Total (acre-ft)	283.0	378.1	423.9	840.4	1,115.1	1,676.4	1,796.4	1,287.5	793.1	576.7	867.7	508.6



Appendix A4
Estimated Average Daily Discharge from Chino Creek to Prado Dam Reservoir after Watermaster Diversions and Removal of OCWD OC-59 Discharge

Day	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
1	6.7	2.5	7.8	6.4	115.2	33.7	27.1	24.8	50.7	7.3	11.5	10.0
2	7.0	5.0	8.7	8.1	23.4	426.7	27.7	26.3	69.6	3.2	8.7	8.1
3	6.4	10.7	9.0	10.2	22.3	239.8	27.8	24.0	27.8	2.6	12.8	7.0
4	6.5	4.0	10.1	13.0	21.4	71.4	28.2	20.2	27.8	11.5	14.9	8.0
5	6.7	8.1	8.7	13.7	20.3	27.4	26.8	20.6	21.0	11.4	13.9	12.2
6	6.6	8.3	8.7	10.5	18.1	25.9	28.7	24.2	16.4	6.4	14.2	11.9
7	6.5	8.8	9.1	9.4	17.8	26.1	28.7	27.6	16.3	8.7	13.5	12.9
8	5.9	8.2	9.3	10.9	20.2	26.0	25.4	29.9	16.6	8.0	47.4	11.5
9	5.6	8.1	9.0	10.2	17.5	23.8	27.1	29.3	17.8	8.3	22.1	9.6
10	3.5	9.0	5.3	9.8	20.0	22.4	27.8	32.5	17.4	11.1	20.7	8.6
11	3.8	7.4	6.4	12.2	19.6	21.2	106.1	32.1	17.4	12.5	15.8	8.4
12	4.3	4.3	4.0	16.7	19.1	237.8	29.5	29.4	15.1	12.0	13.5	7.3
13	4.4	4.2	4.1	10.2	16.7	35.2	29.8	27.7	13.7	12.6	17.0	8.1
14	4.5	4.8	6.7	12.4	17.3	33.9	32.3	20.2	11.6	14.8	28.7	10.5
15	4.4	4.3	4.7	15.0	18.3	33.7	35.0	16.1	12.0	13.9	13.5	9.3
16	4.5	3.8	4.1	11.8	19.8	31.6	31.2	16.6	10.4	12.2	10.5	9.0
17	4.5	6.5	3.8	15.0	18.5	96.7	29.0	17.4	9.5	11.6	10.2	9.4
18	4.4	6.7	3.6	17.9	16.6	25.9	25.8	18.2	9.0	13.5	10.7	7.1
19	4.7	5.7	8.3	18.2	23.8	28.4	26.3	18.3	9.4	12.7	14.1	6.2
20	4.5	5.7	3.7	19.8	14.9	29.2	25.5	16.1	10.0	11.5	12.9	10.0
21	4.6	5.7	5.5	18.1	29.1	26.7	24.5	21.1	10.3	10.7	19.1	15.1
22	4.7	6.3	8.8	17.4	16.7	29.5	21.6	90.1	11.8	8.9	18.6	12.4
23	4.6	7.7	7.1	15.5	20.8	28.9	26.5	59.2	10.2	8.7	18.8	6.3
24	4.5	8.0	5.9	14.2	15.8	29.5	30.7	32.8	10.9	8.1	20.0	5.9
25	5.0	9.0	5.9	16.7	18.0	28.6	34.4	25.1	8.9	47.5	19.1	5.8
26	5.0	7.7	5.6	19.0	20.0	27.8	56.4	22.5	9.9	9.4	11.9	5.7
27	6.6	7.7	7.6	15.0	23.1	28.2	35.9	20.5	10.9	9.2	8.5	5.8
28	6.4	7.0	8.3	15.2	18.6	28.0	36.3	29.1	10.5	8.7	13.3	6.1
29	2.0	4.0	15.0	14.7	18.8	28.3	36.8		9.3	9.5	14.5	6.6
30	2.4	3.9	14.7	14.7	105.3	29.4	35.8		8.7	13.0	12.2	6.7
31	2.6	6.3		26.4		28.8	32.1		9.6		15.7	
Total (cfs)	153.5	199.6	219.5	438.1	767.0	1,810.4	1,016.8	772.0	510.4	339.4	498.2	261.7
Minimum	2.0	2.5	3.6	6.4	14.9	21.2	21.6	16.1	8.7	2.6	8.5	5.7
Maximum	7.0	10.7	15.0	26.4	115.2	426.7	106.1	90.1	69.6	47.5	47.4	15.1
Average	5.0	6.4	7.3	14.1	25.6	58.4	32.8	27.6	16.5	11.3	16.1	8.7
Total (acre-ft)	304.5	396.1	435.6	869.2	1,521.8	3,591.9	2,017.2	1,531.6	1,012.6	673.4	988.5	519.1



Appendix A5

Daily Diversions to Recharge Basins from the Chino Creek Tributary System (cfs)

Day	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
1	0.0	0.0	0.0	0.0	21.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	88.6	0.0	0.0	17.5	0.0	0.0	0.0
3	0.0	0.8	0.0	0.0	0.0	64.3	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.1	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	42.2	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	91.6	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.7	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	29.7	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.3	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0
26	0.0	0.0	0.1	0.0	0.0	0.0	15.7	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.1	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
30	0.0	0.0	0.1	0.0	12.9	0.0	0.0		0.0	0.0	0.0	0.0
31	0.0	0.0		0.0		0.0	0.0		0.0		0.0	
Total (cfs)	0.0	0.8	0.7	0.0	52.7	274.2	57.9	34.3	17.5	3.2	30.8	0.0
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	0.0	0.8	0.1	0.0	21.8	91.6	42.2	34.3	17.5	3.2	15.7	0.0
Average	0.0	0.0	0.0	0.0	1.8	8.8	1.9	1.2	0.6	0.1	1.0	0.0
Total (acre-ft)	0.0	1.5	1.4	0.0	104.6	544.0	114.9	68.1	34.8	6.4	61.1	0.0

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Appendix A6
Estimated Average Daily Discharge from Chino Creek to Prado Dam Reservoir without Watermaster Diversion

Day	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
1	6.7	2.5	7.8	6.4	137.0	33.7	27.1	24.8	50.7	7.3	11.5	10.0
2	7.0	5.0	8.7	8.1	23.4	515.2	27.7	26.3	87.1	3.2	8.7	8.1
3	6.4	11.5	9.0	10.2	22.3	304.1	27.8	24.0	27.8	2.6	12.8	7.0
4	6.5	4.0	10.1	13.0	21.4	71.4	28.2	20.2	27.8	11.5	14.9	8.0
5	6.7	8.1	8.7	13.7	20.3	27.4	26.8	20.6	21.0	11.4	13.9	12.2
6	6.6	8.3	8.7	10.5	18.1	25.9	28.7	24.2	16.4	6.4	14.2	11.9
7	6.5	8.8	9.1	9.4	17.8	26.1	28.7	27.6	16.3	8.7	13.5	12.9
8	5.9	8.2	9.3	10.9	20.2	26.0	25.4	29.9	16.6	8.0	62.5	11.5
9	5.6	8.1	9.0	10.2	17.5	23.8	27.1	29.3	17.8	8.3	22.1	9.6
10	3.5	9.0	5.3	9.8	20.0	22.4	27.8	32.5	17.4	11.1	20.7	8.6
11	3.8	7.4	6.4	12.2	19.6	21.2	148.3	32.1	17.4	12.5	15.8	8.4
12	4.3	4.3	4.0	16.7	19.1	329.5	29.5	29.4	15.1	12.0	13.5	7.3
13	4.4	4.2	4.1	10.2	16.7	35.2	29.8	27.7	13.7	12.6	17.0	8.1
14	4.5	4.8	6.7	12.4	17.3	33.9	32.3	20.2	11.6	14.8	44.4	10.5
15	4.4	4.3	4.7	15.0	18.3	33.7	35.0	16.1	12.0	13.9	13.5	9.3
16	4.5	3.8	4.1	11.8	19.8	31.6	31.2	16.6	10.4	12.2	10.5	9.0
17	4.5	6.5	3.8	15.0	18.5	126.4	29.0	17.4	9.5	11.6	10.2	9.4
18	4.4	6.7	3.6	17.9	16.6	25.9	25.8	18.2	9.0	13.5	10.7	7.1
19	4.7	5.7	8.3	18.2	23.8	28.4	26.3	18.3	9.4	12.7	14.1	6.2
20	4.5	5.7	3.7	19.8	14.9	29.2	25.5	16.1	10.0	11.5	12.9	10.0
21	4.6	5.7	5.5	18.1	47.1	26.7	24.5	21.1	10.3	10.7	19.1	15.1
22	4.7	6.3	8.8	17.4	16.7	29.5	21.6	124.4	11.8	8.9	18.6	12.4
23	4.6	7.7	7.1	15.5	20.8	28.9	26.5	59.2	10.2	8.7	18.8	6.3
24	4.5	8.0	6.0	14.2	15.8	29.5	30.7	32.8	10.9	8.1	20.0	5.9
25	5.0	9.0	6.0	16.7	18.0	28.6	34.4	25.1	8.9	50.7	19.1	5.8
26	5.0	7.7	5.7	19.0	20.0	27.8	72.1	22.5	9.9	9.4	11.9	5.7
27	6.6	7.7	7.7	15.0	23.1	28.2	35.9	20.5	10.9	9.2	8.5	5.8
28	6.4	7.0	8.4	15.2	18.6	28.0	36.3	29.1	10.5	8.7	13.3	6.1
29	2.0	4.0	15.1	14.7	18.8	28.3	36.8		9.3	9.5	14.5	6.6
30	2.4	3.9	14.8	14.7	118.2	29.4	35.8		8.7	13.0	12.2	6.7
31	2.6	6.3		26.4		28.8	32.1		9.6		15.7	
Total (cfs)	153.5	200.4	220.2	438.1	819.8	2,084.6	1,074.7	806.3	527.9	342.6	529.0	261.7
Minimum	2.0	2.5	3.6	6.4	14.9	21.2	21.6	16.1	8.7	2.6	8.5	5.7
Maximum	7.0	11.5	15.1	26.4	137.0	515.2	148.3	124.4	87.1	50.7	62.5	15.1
Average	5.0	6.5	7.3	14.1	27.3	67.2	34.7	28.8	17.0	11.4	17.1	8.7
Total (acre-ft)	304.5	397.6	437.0	869.2	1,626.4	4,135.9	2,132.1	1,599.7	1,047.4	679.8	1,049.6	519.1



Appendix B1
Estimated Average Daily Discharge from Cucamonga Creek to Prado Dam Reservoir after Watermaster Diversions
(Average Daily Discharge at USGS Gage 11073495)

Day	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
1	4.4	5.8	4.9	6.5	250.0	30.0	49.0	31.0	77.0	31.0	3.7	8.1
2	5.5	7.8	3.9	3.6	21.0	250.0	40.0	15.0	103.0	19.0	8.9	3.5
3	5.7	28.0	3.4	2.6	20.0	142.0	49.0	18.0	52.0	16.0	15.0	5.0
4	6.1	13.0	3.0	2.8	20.0	361.0	58.0	19.0	49.0	24.0	11.0	3.8
5	4.5	2.4	3.1	10.0	19.0	54.0	48.0	14.0	49.0	28.0	3.9	3.4
6	5.4	9.5	5.3	6.4	8.8	51.0	33.0	12.0	48.0	23.0	13.0	9.5
7	3.5	7.5	9.2	2.7	19.0	59.0	33.0	17.0	47.0	37.0	31.0	18.0
8	1.9	5.4	11.0	2.8	21.0	60.0	34.0	23.0	51.0	32.0	150.0	13.0
9	2.1	4.7	8.6	3.4	25.0	55.0	32.0	16.0	38.0	18.0	29.0	9.0
10	2.8	6.9	5.9	5.2	25.0	58.0	57.0	7.8	31.0	15.0	31.0	7.8
11	5.7	6.3	5.3	3.2	27.0	63.0	147.0	6.3	32.0	23.0	30.0	5.4
12	6.0	6.0	5.4	11.0	21.0	655.0	56.0	7.7	32.0	34.0	19.0	3.7
13	7.9	3.7	6.6	11.0	18.0	83.0	45.0	10.0	19.0	22.0	25.0	6.0
14	6.2	6.0	9.3	4.7	16.0	51.0	48.0	17.0	23.0	9.0	143.0	14.0
15	6.6	6.3	5.4	11.0	23.0	54.0	40.0	20.0	23.0	6.3	75.0	5.4
16	7.1	5.7	21.0	6.6	27.0	62.0	25.0	22.0	16.0	13.0	40.0	3.1
17	11.0	6.8	5.0	12.0	17.0	314.0	49.0	33.0	18.0	8.9	44.0	3.3
18	5.8	3.8	5.5	13.0	8.0	58.0	51.0	21.0	10.0	14.0	42.0	3.2
19	4.9	2.0	7.1	14.0	3.4	55.0	50.0	20.0	16.0	21.0	18.0	3.1
20	6.3	5.7	16.0	20.0	4.0	55.0	36.0	22.0	12.0	12.0	9.7	3.0
21	3.3	3.7	18.0	18.0	35.0	63.0	51.0	31.0	11.0	11.0	9.4	2.8
22	2.4	3.9	9.4	15.0	21.0	65.0	48.0	193.0	23.0	28.0	6.9	2.6
23	2.3	5.4	6.5	21.0	25.0	69.0	24.0	276.0	19.0	35.0	16.0	2.7
24	1.9	9.3	14.0	16.0	21.0	74.0	53.0	52.0	16.0	40.0	6.9	3.0
25	3.1	5.7	6.0	13.0	17.0	79.0	49.0	40.0	6.1	92.0	6.2	2.7
26	4.8	5.5	5.4	20.0	19.0	62.0	138.0	46.0	5.2	36.0	8.6	2.1
27	6.5	3.6	16.0	15.0	23.0	52.0	60.0	52.0	4.9	23.0	12.0	8.4
28	5.4	3.9	28.0	14.0	20.0	58.0	43.0	63.0	5.9	7.0	5.1	15.0
29	5.3	4.1	13.0	9.1	19.0	53.0	36.0		10.0	14.0	3.9	7.6
30	5.1	7.0	6.3	17.0	96.0	55.0	31.0		10.0	3.1	7.5	9.0
31	5.4	6.0		26.0		53.0	17.0		17.0		8.0	
Total (cfs)	154.9	201.4	267.5	336.6	889.2	3,253.0	1,530.0	1,104.8	874.1	695.3	832.7	187.2
Minimum	1.9	2.0	3.0	2.6	3.4	30.0	17.0	6.3	4.9	3.1	3.7	2.1
Maximum	11.0	28.0	28.0	26.0	250.0	655.0	147.0	276.0	103.0	92.0	150.0	18.0
Average	5.0	6.5	8.9	10.9	29.6	104.9	49.4	39.5	28.2	23.2	26.9	6.2
Total (acre-ft)	307.3	399.6	530.7	667.8	1,764.2	6,454.0	3,035.5	2,191.9	1,734.2	1,379.5	1,652.1	371.4

¹ Data are provisional for October 7, 2014 to June 30, 2015; for July 1, 2014 to October 6, 2014, data are approved.



Appendix B2

Daily Diversions to Recharge Basins on the Cucamonga Creek Tributary System (cfs)

Day	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
1	1.2	0.5	1.3	0.9	94.2	0.6	1.1	1.0	1.0	1.0	0.9	0.3
2	1.2	0.5	1.3	0.9	0.7	295.8	1.1	1.0	73.5	1.0	0.9	0.2
3	1.2	1.9	1.3	0.9	0.7	99.0	1.1	1.0	1.0	1.0	0.9	0.2
4	1.2	0.5	1.3	0.9	0.7	1.2	1.1	1.0	0.9	1.0	0.9	0.2
5	1.2	0.5	1.3	0.9	0.7	1.2	1.1	1.0	1.0	1.0	0.9	0.2
6	1.2	1.2	1.3	0.9	0.7	1.2	1.1	1.0	1.0	1.0	0.9	0.2
7	1.2	1.3	1.3	0.9	0.7	1.2	1.1	1.0	1.0	1.0	0.9	0.2
8	1.2	1.3	1.3	0.9	0.7	1.2	1.1	1.0	1.0	1.0	56.7	0.2
9	0.8	1.3	1.3	0.9	0.7	1.2	1.1	1.0	1.0	1.0	0.9	0.2
10	0.8	1.3	1.3	0.9	0.7	1.2	1.1	1.0	1.0	1.0	0.9	0.2
11	0.8	1.3	1.3	0.9	0.7	1.2	56.3	1.0	1.0	1.0	0.9	0.2
12	0.8	1.3	1.3	0.9	0.7	234.8	1.1	1.0	1.0	1.0	0.9	0.2
13	0.8	1.3	1.3	0.9	0.7	2.7	1.1	1.0	1.0	1.0	0.9	0.2
14	0.8	1.3	1.3	0.9	0.7	1.2	1.1	1.0	1.0	1.0	87.7	0.2
15	0.8	1.3	1.3	0.9	0.7	1.2	1.1	1.0	1.0	1.0	0.9	0.2
16	0.8	1.3	6.1	0.9	0.7	1.2	1.1	1.0	1.0	1.0	0.8	0.2
17	0.8	1.3	1.3	0.9	1.4	114.5	1.1	1.0	1.0	1.0	0.8	0.2
18	0.8	1.2	1.3	0.9	1.4	2.7	1.1	1.0	1.0	1.0	0.8	0.2
19	0.8	1.3	1.3	0.9	1.4	1.2	1.1	1.0	1.0	1.0	0.8	0.2
20	0.8	5.6	1.3	0.9	1.4	1.2	1.1	1.0	1.0	1.0	0.8	0.2
21	0.8	1.0	1.3	0.9	54.6	1.2	0.6	1.0	1.0	1.0	0.8	0.2
22	0.8	1.3	1.3	0.9	0.7	1.2	1.1	125.1	1.0	1.0	0.8	0.2
23	0.8	1.3	1.4	0.9	0.7	1.2	1.1	1.0	1.0	1.0	0.8	0.2
24	0.7	1.3	1.4	0.9	0.7	1.2	1.1	1.0	1.0	1.0	0.8	0.2
25	0.7	1.3	1.4	0.9	0.7	1.2	1.1	0.9	1.0	89.6	0.8	0.2
26	0.7	1.3	1.4	0.9	0.7	1.2	64.4	1.0	1.0	1.0	0.8	0.2
27	0.7	1.3	1.4	0.9	0.7	1.2	0.6	1.0	1.0	1.0	0.8	0.2
28	0.7	1.3	1.4	0.9	0.7	1.2	0.6	1.0	1.0	1.0	0.8	0.2
29	0.7	1.3	1.4	0.9	0.7	1.2	0.6		1.0	1.0	0.8	0.2
30	0.7	1.3	1.4	0.9	71.0	2.7	1.1		1.0	1.0	0.8	0.2
31	0.7	1.3		0.9		1.2	1.1		1.0		0.8	
Total (cfs)	27.0	40.7	44.3	28.1	240.5	780.4	150.7	150.9	103.7	117.4	168.5	6.8
Minimum	0.7	0.5	1.3	0.9	0.7	0.6	0.6	0.9	0.9	1.0	0.8	0.2
Maximum	1.2	5.6	6.1	0.9	94.2	295.8	64.4	125.1	73.5	89.6	87.7	0.3
Average	0.9	1.3	1.5	0.9	8.0	25.2	4.9	5.4	3.3	3.9	5.4	0.2
Total (acre-ft)	53.6	80.7	87.8	55.8	477.2	1,548.4	299.1	299.4	205.7	232.9	334.3	13.5



Appendix B3
Estimated Average Daily Discharge from Cucamonga Creek to Prado Dam Reservoir without Watermaster Diversions

Day	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
1	5.6	6.3	6.2	7.4	344.2	30.6	50.1	32.0	78.0	32.0	4.6	8.4
2	6.7	8.3	5.2	4.5	21.7	545.8	41.1	16.0	176.5	20.0	9.8	3.7
3	6.9	29.9	4.7	3.5	20.7	241.0	50.1	19.0	53.0	17.0	15.9	5.2
4	7.3	13.5	4.3	3.7	20.7	362.2	59.1	20.0	49.9	25.0	11.9	4.0
5	5.7	2.9	4.4	10.9	19.7	55.2	49.1	15.0	50.0	29.0	4.8	3.6
6	6.6	10.7	6.6	7.3	9.5	52.2	34.1	13.0	49.0	24.0	13.9	9.7
7	4.7	8.8	10.5	3.6	19.7	60.2	34.1	18.0	48.0	38.0	31.9	18.2
8	3.1	6.7	12.3	3.7	21.7	61.2	35.1	24.0	52.0	33.0	206.7	13.2
9	2.9	6.0	9.9	4.3	25.7	56.2	33.1	17.0	39.0	19.0	29.9	9.2
10	3.6	8.2	7.2	6.1	25.7	59.2	58.1	8.8	32.0	16.0	31.9	8.0
11	6.5	7.6	6.6	4.1	27.7	64.2	203.3	7.3	33.0	24.0	30.9	5.6
12	6.8	7.3	6.7	11.9	21.7	889.8	57.1	8.7	33.0	35.0	19.9	3.9
13	8.7	5.0	7.9	11.9	18.7	85.7	46.1	11.0	20.0	23.0	25.9	6.2
14	7.0	7.3	10.6	5.6	16.7	52.2	49.1	18.0	24.0	10.0	230.7	14.2
15	7.4	7.6	6.7	11.9	23.7	55.2	41.1	21.0	24.0	7.3	75.9	5.6
16	7.9	7.0	27.1	7.5	27.7	63.2	26.1	23.0	17.0	14.0	40.8	3.3
17	11.8	8.1	6.3	12.9	18.4	428.5	50.1	34.0	19.0	9.9	44.8	3.5
18	6.6	5.0	6.8	13.9	9.4	60.7	52.1	22.0	11.0	15.0	42.8	3.4
19	5.7	3.3	8.4	14.9	4.8	56.2	51.1	21.0	17.0	22.0	18.8	3.3
20	7.1	11.3	17.3	20.9	5.4	56.2	37.1	23.0	13.0	13.0	10.5	3.2
21	4.1	4.7	19.3	18.9	89.6	64.2	51.6	32.0	12.0	12.0	10.2	3.0
22	3.2	5.2	10.7	15.9	21.7	66.2	49.1	318.1	24.0	29.0	7.7	2.8
23	3.1	6.7	7.9	21.9	25.7	70.2	25.1	277.0	20.0	36.0	16.8	2.9
24	2.6	10.6	15.4	16.9	21.7	75.2	54.1	53.0	17.0	41.0	7.7	3.2
25	3.8	7.0	7.4	13.9	17.7	80.2	50.1	40.9	7.1	181.6	7.0	2.9
26	5.5	6.8	6.8	20.9	19.7	63.2	202.4	47.0	6.2	37.0	9.4	2.3
27	7.2	4.9	17.4	15.9	23.7	53.2	60.6	53.0	5.9	24.0	12.8	8.6
28	6.1	5.2	29.4	14.9	20.7	59.2	43.6	64.0	6.9	8.0	5.9	15.2
29	6.0	5.4	14.4	10.0	19.7	54.2	36.6		11.0	15.0	4.7	7.8
30	5.8	8.3	7.7	17.9	167.0	57.7	32.1		11.0	4.1	8.3	9.2
31	6.1	7.3		26.9		54.2	18.1		18.0		8.8	
Total (cfs)	181.9	242.1	311.8	364.7	1,129.7	4,033.4	1,680.7	1,255.7	977.8	812.7	1,001.2	194.0
Minimum	2.6	2.9	4.3	3.5	4.8	30.6	18.1	7.3	5.9	4.1	4.6	2.3
Maximum	11.8	29.9	29.4	26.9	344.2	889.8	203.3	318.1	176.5	181.6	230.7	18.2
Average	5.9	7.8	10.4	11.8	37.7	130.1	54.2	44.8	31.5	27.1	32.3	6.5
Total (acre-ft)	360.9	480.2	618.5	723.6	2,241.3	8,002.4	3,334.6	2,491.3	1,939.9	1,612.4	1,986.4	385.0



Appendix C1
WLAM Estimated Daily Discharge from Day Creek to the Santa Ana River without Watermaster Diversions (Stormwater Flow only)

Day	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
1	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	1.2	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	493.4	0.0	0.0	7.3	0.0	0.0	0.0
3	0.0	3.5	0.0	0.0	0.0	277.3	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	77.2	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	86.7	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	482.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	89.5	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.3	0.0	0.0	32.4	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	52.7	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.7	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	186.9	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	73.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	52.4	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.8	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	38.1	0.0	0.0		0.0	0.0	0.0	0.0
31	0.0	0.0		119.9		0.0	0.0		0.0		0.0	
Total (cfs)	0.0	4.2	0.3	119.9	44.2	1,348.9	141.1	278.7	8.5	34.0	166.7	0.0
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	0.0	3.5	0.3	119.9	38.1	493.4	86.7	186.9	7.3	29.0	89.5	0.0
Average	0.0	0.1	0.0	3.9	1.5	43.5	4.6	10.0	0.3	1.1	5.4	0.0
Total (acre-ft)	0.0	8.3	0.6	237.9	87.7	2,676.2	279.9	552.9	16.9	67.5	330.7	0.0

¹ On dates highlighted in grey, stormwater was recharged in diversion basins. After storms, stormwater can continue to be recharged for several days after the storm has passed.

² During the period from December 4 to January 18, stormwater flow was released from Day Creek Dam and diverted into Lower Day Basin. On non-storm days during this period, all flow diverted into the basin is considered stormwater.



Appendix C2
Daily Diversions to Recharge Basins on the Day Creek Tributary System (cfs)

Day	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
1	0.00	0.00	0.00	0.00	7.46	0.25	0.96	0.05	0.00	0.05	0.05	0.00
2	0.00	0.00	0.00	0.00	0.05	20.82	0.96	0.05	0.10	0.05	0.05	0.00
3	0.00	1.51	0.00	0.00	0.05	12.10	0.96	0.05	0.00	0.05	0.05	0.00
4	0.00	0.00	0.00	0.00	0.05	2.42	0.96	0.05	0.00	0.05	0.05	0.00
5	0.00	0.00	0.00	0.00	0.05	2.42	0.96	0.05	0.00	0.05	0.05	0.00
6	0.00	0.00	0.00	0.00	0.05	2.42	0.96	0.05	0.00	0.05	0.05	0.00
7	0.00	0.00	0.00	0.00	0.05	2.42	0.96	0.05	0.00	0.05	0.05	0.00
8	0.00	0.00	0.55	0.00	0.05	2.42	0.96	0.05	0.00	0.05	0.00	0.00
9	0.00	0.00	0.00	0.00	0.05	2.42	0.96	0.05	0.00	0.05	0.05	0.00
10	0.00	0.00	0.00	0.00	0.05	2.42	0.96	0.05	0.00	0.05	0.05	0.00
11	0.00	0.00	0.00	0.00	0.05	2.42	1.51	0.05	0.00	0.05	0.05	0.00
12	0.00	0.00	0.00	0.00	0.05	16.48	0.96	0.05	0.00	0.05	0.05	0.00
13	0.00	0.00	0.00	0.00	0.05	2.42	0.96	0.05	0.00	0.05	0.05	0.00
14	0.00	0.00	0.00	0.00	0.05	2.42	0.96	0.05	0.00	0.05	3.58	0.00
15	0.00	0.00	0.00	0.00	0.05	2.42	0.96	0.05	0.00	0.05	0.05	0.00
16	0.00	0.00	0.00	0.00	0.05	2.42	0.96	0.05	0.00	0.05	0.05	0.00
17	0.00	0.00	0.00	0.00	0.05	9.12	0.96	0.05	0.00	0.05	0.05	0.00
18	0.00	0.00	0.00	0.00	0.05	2.42	0.96	0.05	0.00	0.05	0.05	0.00
19	0.00	0.00	0.00	0.00	0.05	2.42	0.05	0.05	0.00	0.05	0.05	0.00
20	0.00	0.50	0.00	0.00	0.05	2.42	0.05	0.05	0.00	0.05	0.05	0.00
21	0.00	0.00	0.00	0.00	2.12	2.42	0.05	0.05	0.00	0.05	0.05	0.00
22	0.00	0.00	0.00	0.00	0.05	2.42	0.05	7.16	0.00	0.05	0.05	0.00
23	0.00	0.00	0.00	0.00	0.05	2.42	0.05	0.05	0.00	0.05	0.05	0.00
24	0.00	0.00	0.00	0.00	0.05	2.42	0.05	0.05	0.00	0.05	0.05	0.00
25	0.00	0.00	0.00	0.00	0.05	2.42	0.05	0.05	0.00	0.05	0.05	0.00
26	0.00	0.00	0.00	0.00	0.05	2.42	1.66	0.05	0.00	0.05	0.05	0.00
27	0.00	0.00	0.00	0.00	0.05	2.42	0.05	0.05	0.00	0.05	0.05	0.00
28	0.00	0.00	0.00	0.00	0.05	2.42	0.05	0.05	0.00	0.05	0.05	0.00
29	0.00	0.00	0.00	0.00	0.05	2.42	0.05		0.00	0.05	0.05	0.00
30	0.00	0.00	0.00	0.00	1.61	2.42	0.05		0.00	0.05	0.05	0.00
31	0.00	0.00		0.00		2.42	0.05		0.00		0.05	
Total (cfs)	0.00	2.02	0.55	0.00	12.55	121.67	20.06	8.52	0.10	1.51	5.04	0.00
Minimum	0.00	0.00	0.00	0.00	0.05	0.25	0.05	0.05	0.00	0.05	0.00	0.00
Maximum	0.00	1.51	0.55	0.00	7.46	20.82	1.66	7.16	0.10	0.05	3.58	0.00
Average	0.00	0.07	0.02	0.00	0.42	3.92	0.65	0.30	0.00	0.05	0.16	0.00
Total (acre-ft)	0.00	4.00	1.10	0.00	24.90	241.38	39.80	16.90	0.20	3.00	10.00	0.00

¹ On dates highlighted in grey, stormwater was recharged in diversion basins. After storms, stormwater can continue to be recharged for several days after the storm has passed.

² During the period from December 4 to January 18, stormwater flow was released from Day Creek Dam and diverted into Lower Day Basin. On non-storm days during this period, all flow diverted into the basin is considered stormwater.



Appendix C3
Estimated Daily Dry-Weather Flows Captured by Diversion Basins (cfs)

Day	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.05	0.00
2	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.05	0.05	0.00
3	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.05	0.05	0.00
4	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.05	0.05	0.00
5	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.05	0.05	0.00
6	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.05	0.05	0.00
7	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.00	0.00	0.00
8	0.00	0.00	0.55	0.00	0.05	0.00	0.00	0.05	0.00	0.05	0.00	0.00
9	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.05	0.05	0.00
10	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.05	0.05	0.00
11	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.05	0.05	0.00
12	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.05	0.05	0.00
13	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.05	0.05	0.00
14	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.05	0.00	0.00
15	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.05	0.05	0.00
16	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.05	0.05	0.00
17	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.05	0.05	0.00
18	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.05	0.05	0.00
19	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.00	0.05	0.05	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.00	0.05	0.05	0.00
22	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.00	0.00	0.05	0.05	0.00
23	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.00	0.00	0.05	0.05	0.00
24	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00
25	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.05	0.00	0.00	0.05	0.00
26	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.05	0.05	0.00
27	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00
28	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.00	0.00	0.05	0.05	0.00
29	0.00	0.00	0.00	0.00	0.05	0.00	0.05		0.00	0.05	0.05	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.05		0.00	0.05	0.05	0.00
31	0.00	0.00		0.00		0.00	0.05		0.00		0.05	
Total (cfs)	0.00	0.00	0.55	0.00	1.31	0.00	0.60	1.26	0.00	1.41	1.41	0.00
Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum	0.00	0.00	0.55	0.00	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00
Average	0.00	0.00	0.02	0.00	0.04	0.00	0.02	0.05	0.00	0.05	0.05	0.00
Total (acre-ft)	0.00	0.00	1.10	0.00	2.60	0.00	1.20	2.50	0.00	2.80	2.80	0.00

¹ On dates highlighted in grey, stormwater was recharged in diversion basins. After storms, stormwater can continue to be recharged for several days after the storm has passed. On dates when stormwater diversions are measured after storm flow has stopped, dry-weather flows could not be estimated and are assumed to be 0. Within each storm period, however, any diversions in excess of total WLAM estimated stormflow are assumed to be dry-weather flows.

² During the period from December 4 to January 18, stormwater flow was released from Day Creek Dam and diverted into Lower Day Basin. On non-storm days during this period, all flow diverted into the basin is considered stormwater.



Appendix D1
WLAM Estimated Daily Discharge from San Sevaine Creek to the Santa Ana River without Watermaster Diversions (Stormwater Flow only)

Day	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
1	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.5	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	700.5	0.0	0.0	8.0	0.0	0.0	0.0
3	0.0	23.0	0.0	0.0	0.0	392.8	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	12.3	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	11.0	81.4	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	86.2	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	701.1	0.2	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	130.1	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
16	0.0	0.0	0.4	0.0	0.0	80.8	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	69.6	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	3.1	0.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	271.0	0.0	0.0	0.2	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	73.3	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.8	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	72.7	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.1	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	55.8	0.1	0.0		0.0	0.0	0.0	0.0
31	0.0	0.0		164.2		0.0	0.0		0.0		0.0	
Total (cfs)	0.0	26.1	2.6	164.2	59.9	1,962.4	160.5	364.6	8.5	38.8	212.2	0.0
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	0.0	23.0	2.2	164.2	55.8	701.1	86.2	271.0	8.0	27.8	130.1	0.0
Average	0.0	0.8	0.1	5.3	2.0	63.3	5.2	13.0	0.3	1.3	6.8	0.0
Total (acre-ft)	0.0	51.8	5.2	325.8	118.8	3,893.4	318.4	723.4	16.9	77.0	421.0	0.0

¹ On dates highlighted in grey, stormwater was recharged in diversion basins. After storms, stormwater can continue to be recharged for several days after the storm has passed.



Appendix D2

Daily Diversions to Recharge Basins on the San Sevaine Creek Tributary System (cfs)

Day	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
1	0.21	0.20	0.60	0.50	94.82	1.56	0.15	0.10	0.10	0.35	0.35	0.27
2	0.21	1.06	0.60	0.50	0.60	248.98	0.15	0.10	46.62	0.35	0.35	0.27
3	0.21	9.10	0.60	0.50	0.60	133.86	0.15	0.10	0.10	0.35	0.35	0.27
4	0.21	0.48	0.60	0.50	0.60	16.43	0.15	0.10	0.10	0.35	0.35	0.27
5	0.21	0.24	0.60	0.50	0.60	2.57	0.15	0.10	0.10	0.35	0.35	0.27
6	0.21	0.24	0.60	0.50	0.60	2.07	0.15	0.10	0.10	0.35	0.35	0.27
7	0.21	0.24	3.40	0.50	0.60	1.06	0.15	0.10	0.10	0.35	0.35	0.27
8	0.21	0.24	8.44	0.50	0.60	0.55	0.15	0.10	0.10	0.35	63.35	0.27
9	0.21	0.24	0.60	0.50	0.60	0.55	0.15	0.10	0.10	0.35	0.35	0.27
10	0.21	0.24	0.60	0.50	0.60	0.55	0.15	0.10	0.10	0.35	0.35	0.27
11	0.21	0.22	0.60	0.50	0.60	0.55	50.95	0.10	0.10	0.35	0.35	0.27
12	0.21	0.19	0.60	0.50	0.60	206.59	0.15	0.10	0.10	0.35	0.35	0.27
13	0.21	0.19	0.60	0.50	0.60	3.63	0.15	0.10	0.10	0.35	0.35	0.27
14	0.21	0.19	0.60	0.50	0.60	0.55	0.15	0.10	0.10	0.35	53.83	0.27
15	0.21	0.19	0.60	0.50	0.60	0.55	0.15	0.10	0.10	0.35	0.35	0.27
16	0.21	0.19	9.55	0.50	0.60	0.55	0.15	0.10	0.10	0.35	0.35	0.27
17	0.21	0.19	0.60	0.50	0.60	114.51	0.15	0.10	0.10	0.35	0.35	0.27
18	0.21	0.19	0.66	0.50	0.60	4.64	0.15	0.10	0.10	0.35	0.35	0.27
19	0.21	0.19	0.40	0.50	0.60	0.55	0.15	0.10	0.10	0.35	0.35	0.27
20	0.21	37.50	0.40	0.50	0.60	0.55	0.15	0.10	0.10	0.35	0.35	0.27
21	0.21	0.30	0.40	0.50	20.11	0.55	0.15	0.10	0.10	0.35	0.35	0.27
22	0.21	0.30	0.40	0.50	0.60	0.55	0.15	169.55	0.10	0.35	0.35	0.27
23	0.21	0.30	0.60	0.50	0.60	0.55	0.15	0.35	0.10	0.35	0.35	0.27
24	0.21	0.30	0.60	0.50	0.60	0.55	0.15	0.15	0.10	0.35	0.35	0.27
25	0.21	0.30	0.60	0.50	0.60	0.55	0.15	0.15	0.10	32.61	0.35	0.27
26	0.21	0.30	0.60	0.50	0.60	0.55	57.46	0.10	0.10	0.35	0.35	0.27
27	0.21	0.30	0.60	0.50	0.60	0.55	0.15	0.10	0.10	0.35	0.35	0.27
28	0.21	0.30	0.60	0.50	0.60	0.55	0.10	0.10	0.10	0.35	0.35	0.27
29	0.21	0.25	0.60	0.50	0.60	0.55	0.10		0.10	0.35	0.35	0.27
30	0.21	0.25	0.60	0.50	17.54	2.37	0.10		0.10	0.35	0.35	0.27
31	0.21	0.25		0.50		0.55	0.10		0.10		0.35	
Total (cfs)	6.4	54.6	37.0	15.6	148.8	748.8	112.6	172.6	49.6	42.8	127.4	8.0
Minimum	0.2	0.2	0.4	0.5	0.6	0.6	0.1	0.1	0.1	0.4	0.4	0.3
Maximum	0.2	37.5	9.6	0.5	94.8	249.0	57.5	169.5	46.6	32.6	63.4	0.3
Average	0.2	1.8	1.2	0.5	5.0	24.2	3.6	6.2	1.6	1.4	4.1	0.3
Total (acre-ft)	12.7	108.4	73.4	31.0	295.2	1,485.6	223.4	342.5	98.5	85.0	252.8	15.9

¹ On dates highlighted in grey, stormwater was recharged in diversion basins. After storms, stormwater can continue to be recharged for several days after the storm has passed.



Appendix D3
Estimated Daily Dry-Weather Flows Captured by Diversion Basins (cfs)

Day	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
1	0.21	0.20	0.60	0.50	0.00	0.00	0.15	0.10	0.00	0.35	0.35	0.27
2	0.21	0.00	0.60	0.50	0.60	0.00	0.15	0.10	18.22	0.00	0.35	0.27
3	0.21	0.00	0.60	0.50	0.60	0.00	0.15	0.10	0.10	0.35	0.35	0.27
4	0.21	0.00	0.60	0.50	0.60	0.00	0.15	0.10	0.10	0.35	0.35	0.27
5	0.21	0.24	0.60	0.50	0.60	0.00	0.15	0.10	0.10	0.35	0.35	0.27
6	0.21	0.24	0.60	0.50	0.60	0.00	0.15	0.10	0.10	0.35	0.35	0.27
7	0.21	0.24	1.20	0.50	0.60	0.00	0.15	0.10	0.10	0.00	0.00	0.27
8	0.21	0.24	8.44	0.50	0.60	0.55	0.15	0.10	0.10	0.35	0.00	0.27
9	0.21	0.24	0.60	0.50	0.60	0.55	0.15	0.10	0.10	0.35	0.35	0.27
10	0.21	0.24	0.60	0.50	0.60	0.55	0.00	0.10	0.10	0.35	0.35	0.27
11	0.21	0.22	0.60	0.50	0.60	0.55	0.00	0.10	0.10	0.35	0.35	0.27
12	0.21	0.19	0.60	0.50	0.60	0.00	0.00	0.10	0.10	0.35	0.35	0.27
13	0.21	0.19	0.60	0.50	0.60	0.00	0.15	0.10	0.10	0.35	0.35	0.27
14	0.21	0.19	0.60	0.50	0.60	0.55	0.15	0.10	0.10	0.35	0.00	0.27
15	0.21	0.19	0.60	0.50	0.60	0.55	0.15	0.10	0.10	0.35	0.00	0.27
16	0.21	0.19	9.15	0.50	0.60	0.00	0.15	0.10	0.10	0.35	0.35	0.27
17	0.21	0.19	0.60	0.50	0.60	0.00	0.15	0.10	0.10	0.35	0.35	0.27
18	0.21	0.19	0.66	0.50	0.60	0.00	0.15	0.10	0.10	0.35	0.35	0.27
19	0.21	0.19	0.40	0.50	0.60	0.55	0.15	0.10	0.10	0.35	0.35	0.27
20	0.21	34.40	0.40	0.50	0.00	0.55	0.15	0.10	0.10	0.35	0.35	0.27
21	0.21	0.30	0.40	0.50	17.81	0.55	0.15	0.10	0.10	0.35	0.35	0.27
22	0.21	0.30	0.40	0.50	0.00	0.55	0.15	0.00	0.10	0.35	0.15	0.27
23	0.21	0.30	0.60	0.50	0.00	0.55	0.15	0.00	0.10	0.35	0.35	0.27
24	0.21	0.30	0.60	0.50	0.60	0.55	0.15	0.00	0.10	0.35	0.35	0.27
25	0.21	0.30	0.60	0.50	0.60	0.55	0.15	0.15	0.10	4.81	0.35	0.27
26	0.21	0.30	0.60	0.50	0.60	0.55	0.00	0.10	0.10	0.35	0.35	0.27
27	0.21	0.30	0.60	0.50	0.60	0.55	0.05	0.10	0.10	0.35	0.35	0.27
28	0.21	0.30	0.60	0.50	0.60	0.55	0.10	0.00	0.10	0.35	0.35	0.27
29	0.21	0.25	0.60	0.50	0.60	0.55	0.10		0.10	0.35	0.35	0.27
30	0.21	0.25	0.60	0.50	0.00	2.27	0.10		0.10	0.35	0.35	0.27
31	0.21	0.25		0.00		0.55	0.10		0.10		0.35	
Total (cfs)	6.4	40.9	34.4	15.1	32.3	12.2	3.8	2.5	21.1	14.3	9.3	8.0
Minimum	0.2	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Maximum	0.2	34.4	9.2	0.5	17.8	2.3	0.2	0.2	18.2	4.8	0.4	0.3
Average	0.2	1.3	1.1	0.5	1.1	0.4	0.1	0.1	0.7	0.5	0.3	0.3
Total (acre-ft)	12.7	81.2	68.2	30.0	64.1	24.3	7.5	4.9	41.9	28.4	18.5	15.9

¹ On dates highlighted in grey, stormwater was recharged in diversion basins. After storms, stormwater can continue to be recharged for several days after the storm has passed. On dates when stormwater diversions are measured after storm flow has stopped, dry-weather flows could not be estimated and are assumed to be 0. Within each storm period, however, any diversions in excess of total WLAM estimated stormflow are assumed to be dry-weather flows.

