

**SECTION C-11  
ATTACHMENTS**

**WATER QUALITY MONITORING**

**PROGRAM EFFECTIVENESS ASSESSMENT  
2009-10**



**ATTACHMENT C-11.1**

**Dry Weather Monitoring Data**

County of Orange  
San Diego Region Dry Weather Monitoring Data  
through 2010

Site Name	Date	Time	Watershed	GIS Coordinates		Physicals											Chemical						Bacteria			Pesticides					Dissolved Metals					
						Discharge Rate	Dissolved Oxygen	Electrical Conductivity	pH	Water Temperature	Turbidity	Air Temperature	Hardness as CaCO <sub>3</sub>	Ammonia as N	Nitrate as N	Surfactants (MBAS)	Reactive Orthophosphate as PO <sub>4</sub>	Total Chlorine	Total Suspended Solids (TSS)	Oil & Grease	Total Coliform	Fecal Coliform	Enterococcus	Diazinon	Chlorpyrifos	Malathion	Dimethoate	Disulfoton	Chromium	Nickel	Copper	Zinc	Silver	Cadmium	Lead	
						cfs	mg/L	µS/cm		°C	NTU	°C		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Criterion 1	Outside Tolerance Interval					5.38	6269	7.36-8.29	23.03	16.1	14.32	1650	1.47	5.6	0.35	2.93	0.12	48.14	5	300,000	75,000	51,000	110	57.4	20	131.81	12.42	81	13	69	3.04	8.3	3.05			
Criterion 2	Basin Plan Objective					5		6.5-9		20					0.5	0.1		75																		
Criterion 3	Out of Bounds for Site																																			
Criterion 4	Warning Level based on Experience																																			
Criterion 5	CTR Acute Criterion																																			
Criterion 6	CTR Chronic Criterion																																			
Criterion 7	LC <sub>50</sub> for Toxicity Test Organism																																			
	Targeted Site	Random Site																																		
Random	COL02P50	7/15/2003	12:47	San Juan Cret	N 33.59 W 117.1	0.086	8.86		7.91	19.42	2.66	32	520	0.06	0.9	<0.05	2.24	<0.02	<5	<5	4,350	3,100	2,400	<5.0	<5.0	<5.0	<5.0	<8.00	<4.00	2.8	55	<2.00	<1.00	<2.00		
Random	COL02P50	8/20/2003	11:00	San Juan Cret	N 33.59 W 117.1	0.137	6.92		7.5	20.2	2.24	30	568	0.08	1.1	<0.05	2.22	0.03	<5	<5	620	130	280	<5.0	<5.0	<5.0	<5.0	<8.00	<4.00	<2.00	18	<2.00	<1.00	<2.00		
Random	COL02P50	9/9/2003	09:30	San Juan Cret	N 33.59 W 117.1	0.84	6.93		7.07	18.17	7.38	27	988	<0.02	1.2	<0.05	2.54	<0.02	<5	<5	1,490	130	870	<5.0	<5.0	<5.0	<5.0	<8.00	<4.00	4.8	27	<2.00	<1.00	<2.00		
Random	COL02P50	6/21/2004	09:30	San Juan Cret	N 33.59 W 117.1	0.189	8.84	2075	7.55	17.3	1.02	21	762	1.1	0.13	1.48	<0.02	<5	<5	530	380	590	<8.00				<8.00	5	<2.00	71	<2.00	<1.00	<2.00			
Random	COL02P50	7/29/2004	12:30	San Juan Cret	N 33.59 W 117.1	0.018	8.5	3423	7.82	21.8	10.6		1364	0.09	4	0.1	1.24	<0.02	20		16,400	6,300	11,100	<8.00				<8.00	280	8.9	120	<2.00	88	<2.00		
Random	COL02P50	9/9/2004	09:45	San Juan Cret	N 33.59 W 117.1	DRY																														
Random	COL02P50	9/13/2004	12:54	San Juan Cret	N 33.59 W 117.1	0.288	8.91	1734	7.31	19.67	0.89		796		1.1		2.76	0.05	<5		6,300	4,200	3,100	<8.00				<8.00	8.4	<2.00	38	<2.00	<1.00	<2.00		
Random	COL02P50	6/10/2005	11:25	San Juan Cret	N 33.59 W 117.1	0.4	9.1	2224	7.16	16.29	0.45	25	748	<0.02	1.5	<0.05	0.89	0.03	<5	<5	6,000	40	50	<0.50				<0.50	12	0.97	6.6	<0.50	<0.50	<0.50		
Random	COL02P50	8/3/2005	10:15	San Juan Cret	N 33.59 W 117.1	0.684	8.39	2070	7.31	19.5	0.63	29	610	<0.02	1.9	<0.05	1.76	0.04	<5	<5	4,500	20	90	<0.50				<0.50	7.9	0.54	4.8	<0.50	<0.50	<0.50		
Random	COL02P50	9/7/2005	09:00	San Juan Cret	N 33.59 W 117.1	0.49	8.87	2138	7.27	15.6	0.4	23	690	<0.02	1.2	<0.05	1.27	0.06	<5	<5	30	20	<10	<0.50				<0.50	7.5	0.59	4.7	<0.50	<0.50	<0.50		
Random	COL02P50	5/25/2006	13:10	San Juan Cret	N 33.59 W 117.1	0.352	8.8	1917	7.48	16.24	0.67	25	670	0.03	2.3	0.08	1.6	<0.02	<5	<5	3,000	210	80	<2.0	<1.0	<3.0	<3.0	<1.0	<0.50	12	0.8	7.4	<0.50	<0.50	<0.50	
Random	COL02P50	6/29/2006	09:25	San Juan Cret	N 33.59 W 117.1	0.198	10.14	2150	7.19	18.44	1.51	28	745	0.03	1.4	0.1	2.55	<0.02	<5	<5	190	60	140	19	<1.0	<3.0	<3.0	<1.0	<0.50	11	<0.50	5.6	<0.50	<0.50	<0.50	
Random	COL02P50	8/29/2006	09:35	San Juan Cret	N 33.59 W 117.1	0.35	8.52	2115	7.7	17.42	0.78	23	720	0.03	1	0.13	1.48	<0.02	<5	<5	8,000	600	400	<2.0	<1.0	<3.0	<3.0	<1.0	<0.50	7.1	1.1	5.8	<0.50	<0.50	<0.50	
Random	COL02P50	5/23/2007	12:55	San Juan Cret	N 33.59 W 117.1	0.384	9.18	2328	7.54	18.55	1.41	26	750	0.02	1.1	0.05	1.32	0.03	<5	<5	280	10	<10	<2.0	<1.0	<3.0	<3.0	<1.0	<0.50	5.8	0.76	12	<0.50	<0.50	<0.50	
Random	COL02P50	6/22/2007	12:05	San Juan Cret	N 33.59 W 117.1	0.45	8.3	2185	7.67	18.87	1.01	29	850	0.02	1.4	0.05	1.39	0.05	<5	<5	570	<10	200	<2.0	<1.0	<3.0	<3.0	<1.0	<0.50	5.7	1.2	8.6	<0.50	<0.50	<0.50	
Random	COL02P50	8/30/2007	11:00	San Juan Cret	N 33.59 W 117.1	0.475	8.23	2342	7.65	20.96	0.78	33	760	0.02	1.3	0.05	1.61	0.03	<5	<5	2,300	200	500	<2.0	<1.0	<3.0	<3.0	<1.0	<0.50	6	1	6.8	<0.50	<0.50	<0.50	
Random	COL02P50	6/20/2008	10:58	San Juan Cret	N 33.59 W 117.1	0.48	8.22	2299	7.41	20.11	3.21	35	850	0.38	3.8	0.1	1.56	0.07	8	<5	33,000	50	2,300	<10.0	<10.0	17	<10.0	<10.0	<0.50	9.6	3.9	15	<0.50	0.83	<0.50	
Random	COL02P50	7/25/2008	12:01	San Juan Cret	N 33.59 W 117.1	0.308	9.22	2414	8.04	21.08	0.92	27	780	0.05	2.5	0.12	1.3	0.03	<5	<5	>6,300	>380	840	<10.0	<10.0	<10.0	<10.0	<10.0	<0.50	7.1	2.2	8	<0.50	0.6	<0.50	
Random	COL02P50	8/28/2008	10:40	San Juan Cret	N 33.59 W 117.1	0.27	7.11	2341	7.75	20.64	1.36	24	795	0.1	3.6	0.1	1.29	0.05	<5	<5	>6,600	640	690	<10.0	<10.0	<10.0	<10.0	<10.0	<0.50	7.8	1.6	7	<0.50	<0.50	<0.50	
Random	COL02P50	5/26/2009	10:30	San Juan Cret	N 33.59 W 117.1	0.45	9.1	2612	7.47	15.9	1.25	21	1020	0.1	2.5	0.1	1.01	0.03	<5	<5	6,900	60	140	32	<20.0	<20.0	<20.0	<20.0	<0.50	5.7	1.9	9.2	<0.50	<0.50	<0.50	
Random	COL02P50	6/26/2009	10:55	San Juan Cret	N 33.59 W 117.1	0.063	9.73	2741	7.47	17.56	0.86	25	1055	0.1	2.4	0.1	1.33	0.07	<5	<5	>530	30	110	<20.0	<20.0	<20.0	<20.0	<20.0	<0.50	8.7	3.5	6.3	<0.50	<0.50	<0.50	
Random	COL02P50	8/18/2009	10:50	San Juan Cret	N 33.59 W 117.1	0.405	7.91	2824	7.75	19.84	3.07	26	990	0.18	4.1	0.13	1.3	0.07	5	<5	>74,000	1,800	520	<20.0	<20.0	<20.0	<20.0	<20.0	<0.50	11	5.8	7.8	<0.50	0.68	<0.50	
Random	COL02P50	5/25/2010	11:20	San Juan Cret	N 33.59 W 117.1	0.235	8.48	2691	7.63	17.38	0.78	23	960	0.1	4.1	0.1	1.09	0.08	6	<5	4,700	200	590	<10.0	<10.0	<10.0	<10.0	<10.0	<0.50	3.9	9.1	41	<0.50	<0.50	<0.50	
Random	COL02P50	6/30/2010	08:50	San Juan Cret	N 33.59 W 117.1	0.096	11.16	1816	8.2	19.36	9.32	21	590	1.4	4.2	0.1	1.85	0.05	<5	<5	26,000	1,320	2,900	<10.0	<10.0	<10.0	<10.0	<10.0	<0.50	10	4.2	7.2	<0.50	0.76	<0.50	
Random	COL02P50	8/30/2010	10:15	San Juan Cret	N 33.59 W 117.1	0.405	14.74	2355	7.39	18.17	0.87	22	860	0.1	3.5	0.1	1.57	0.07	<5	<5	35,000	330	700	<10.0	<10.0	<10.0	<10.0	<10.0	<0.50	6.7	4.3	8.5	<0.50	0.68	<0.50	



County of Orange  
San Diego Region Dry Weather Monitoring Data  
through 2010

Site Name	Date	Time	Watershed	GIS Coordinates		Physicals										Chemical						Bacteria			Pesticides					Dissolved Metals					
						Discharge Rate	Dissolved Oxygen	Electrical Conductivity	pH	Water Temperature	Turbidity	Air Temperature	Hardness as CaCO <sub>3</sub>	Ammonia as N	Nitrate as N	Surfactants (MBAS)	Reactive Orthophosphate as PO <sub>4</sub>	Total Chlorine	Total Suspended Solids (TSS)	Oil & Grease	Total Coliform	Fecal Coliform	Enterococcus	Diazinon	Chlorpyrifos	Malathion	Dimethoate	Disulfoton	Chromium	Nickel	Copper	Zinc	Silver	Cadmium	Lead
						cfs	mg/L	µS/cm		°C	NTU	°C				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	CFU/100mL	CFU/100mL	CFU/100mL	ng/L	ng/L	ng/L	ng/L	ng/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Criterion 1	Outside Tolerance Interval					5.38	6269	7.36-8.29	23.03	16.1	14.32	1650	1.47	5.6	0.35	2.93	0.12	48.14	5	300,000	75,000	51,000	110	57.4	20	131.81	12.42	81	13	69	3.04	8.3	3.05		
Criterion 2	Basin Plan Objective					5		6.5-9		20								0.5	0.1	75															
Criterion 3	Out of Bounds for Site																																		
Criterion 4	Warning Level based on Experience																																		
Criterion 5	CTR Acute Criterion																																		
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Criterion 7	LC <sub>50</sub> for Toxicity Test Organism																																		
	Targeted Site	Random Site																																	
New Site 10	COL05USB01	5/20/2010	09:30	San Juan Cret	N 33.53° W 117.6	0.504	7.18	2674	7.99	16.88	7.18	20	905	2.03	4.1	0.1	2.27	0.09	13	<5	>57,000	14,700	8,200	<10.0	<10.0	<10.0	<10.0	<10.0	1.2	12	12	15	<0.50	1.2	<0.50
New Site 10	COL05USB01	6/18/2010	08:30	San Juan Cret	N 33.53° W 117.6	2.072	7.24	2370	8.02	18.08	3.15	18	1050	3.9	5.4	0.1	1.42	0.33	13	<5	8,900	360	5,600	<10.0	<10.0	<10.0	<10.0	<10.0	0.5	10	12	15	<0.50	1.1	<0.50
New Site 10	COL05USB01	7/21/2010	08:28	San Juan Cret	N 33.53° W 117.6	1.82	9.69	2243	8.06	19.47	15.8	19	730	5.9	4.7	0.1	1.5	0.1	47	<5	65,000	5,400	24,000	<10.0	<10.0	<10.0	<10.0	<10.0	0.67	9.1	8.8	15	<0.50	1.1	<0.50
New Site 10	COL05USB01	8/20/2010	08:30	San Juan Cret	N 33.53° W 117.6	2.1	9.63	2353	7.98	19.84	3.78	25	860	0.1	4.1	0.1	2.47	0.08	36	<5	150,000	47,000	39,000	<10.0	<10.0	<10.0	<10.0	<10.0	<0.50	9.8	8.9	14	<0.50	1.3	<0.50
New Site 10	COL05USB01	9/21/2010	09:50	San Juan Cret	N 33.53° W 117.6	1.17	13.08	2529	8.24	18.82	6.93	18	980	0.13	3.3	0.1	1.35	0.05	31	<5	>22,000	>11,300	27,000	<10.0	<10.0	<10.0	<10.0	<10.0	<0.50	8.8	8.8	12	<0.50	1.1	<0.50
New Site 10	COL05DSB01	5/20/2010	11:15	San Juan Cret	N 33.52° W 117.6	1.82	15.26	2779	8.64	22.99	8.63	23	895	0.1	2	0.1	0.3	0.07	26	<5	>650	490	620	<10.0	<10.0	<10.0	<10.0	<10.0	<0.50	18	4.2	5.5	<0.50	<0.50	<0.50
New Site 10	COL05DSB01	6/18/2010	07:20	San Juan Cret	N 33.52° W 117.6	1.784	7.95	2845	8	22.8	4.31	18	1040	0.36	2	0.1	0.51	0.06	10	<5	>410	70	70	<10.0	<10.0	<10.0	<10.0	<10.0	<0.50	18	3.9	4.1	<0.50	<0.50	<0.50
New Site 10	COL05DSB01	7/21/2010	07:20	San Juan Cret	N 33.52° W 117.6	2.719	7.06	2836	8.24	24.96	3.44	19	980	0.43	2.5	0.1	1.13	0.05	9	<5	>350	30	160	<10.0	<10.0	<10.0	<10.0	<10.0	<0.50	17	3.4	5.6	<0.50	<0.50	<0.50
New Site 10	COL05DSB01	8/20/2010	07:30	San Juan Cret	N 33.52° W 117.6	2.97	9.63	2887	7.98	23.96	7.1	19	910	0.1	2	0.1	0.34	0.07	17	<5	940	90	70	<10.0	<10.0	<10.0	<10.0	<10.0	<0.50	15	1.8	4.4	<0.50	0.63	<0.50
New Site 10	COL05DSB01	9/21/2010	08:55	San Juan Cret	N 33.52° W 117.6	1.47	17.81	2521	8.17	21.06	9.31	18	830	0.16	2	0.1	3	0.08	26	<5	>400	40	>60	<10.0	<10.0	<10.0	<10.0	<10.0	<0.50	12	3.4	6	<0.50	0.72	<0.50