

# Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 1a. Dissolved and Total Copper Summary Statistics 2002 – 2006** (All Sites Combined)

Statistical Parameter	Units	Dry Weather				Wet Weather			
		Urban Runoff		Receiving Water		Urban Runoff		Receiving Water	
		Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
n		32	16	32	16	27	11	27	11
Percent detected		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
n detected		32	16	32	16	27	11	27	11
Arithmetic Mean	µg/L	35.8	2.91	4.92	2.18	18.4	4.41	11.9	4.01
Standard Deviation	µg/L	150	1.70	2.68	0.842	18.2	2.43	14.8	1.48
Coefficient of Variation	µg/L	4.17	0.583	0.54	0.386	1.00	0.552	1.25	0.369
Lower 95% Confidence Limit about Mean	µg/L	-16.0	2.08	3.99	1.77	11.5	2.97	6.28	3.14
Upper 95% Confidence Limit about Mean	µg/L	87.9	3.74	5.85	2.60	25.2	5.85	17.4	4.88
10th percentile	µg/L	1.79	0.968	2.26	1.13	4.44	2.02	2.53	2.11
25th percentile (Lower Quartile)	µg/L	3.65	1.50	3.09	1.49	7.46	2.79	4.411	2.77
50th percentile (Median)	µg/L	8.09	2.44	4.38	2.03	13.3	3.98	8.16	3.76
75th percentile (Upper Quartile)	µg/L	17.9	3.97	6.19	2.76	23.6	5.68	15.1	5.09
90th percentile	µg/L	36.6	6.16	8.47	3.64	39.7	7.83	26.3	6.70
Inter Quartile Range	µg/L	14.2	2.47	3.10	1.27	16.2	2.90	10.7	2.32
Minimum Detected Value	µg/L	2.4	0.44	2.2	0.89	3	2.3	0.682	2
Maximum Detected Value	µg/L	670	6.8	14	3.7	73	10	68.5	6.3
Beta_1 (slope) <sup>(1)</sup>		1.18	0.722	0.515	0.457	0.855	0.528	0.913	0.452
Beta_0 (intercept) <sup>(1)</sup>		2.09	0.892	1.48	0.707	2.59	1.38	2.10	1.32
Correlation Coefficient (r) <sup>(1)</sup>		0.862	0.952	0.982	0.988	0.978	0.961	0.955	0.983

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

## Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 1b. Total Copper Summary Statistics 2002 – 2006 for Calaveras River (CR-46, Commercial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	6	7
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	6	7
Arithmetic Mean	µg/L	18.6	4.52	31.4	10.2
Standard Deviation	µg/L	16.0	1.78	29.1	6.56
Coefficient of Variation	µg/L	0.863	0.395	0.927	0.644
Lower 95% Confidence Limit about Mean	µg/L	7.48	3.28	8.09	5.33
Upper 95% Confidence Limit about Mean	µg/L	29.7	5.76	54.6	15.0
10th percentile	µg/L	3.06	2.18	6.48	3.98
25th percentile (Lower Quartile)	µg/L	6.04	2.98	11.7	5.86
50th percentile (Median)	µg/L	12.9	4.20	22.7	9.01
75th percentile (Upper Quartile)	µg/L	27.3	5.92	43.9	13.8
90th percentile	µg/L	54.0	8.08	79.5	20.4
Inter Quartile Range	µg/L	21.3	2.95	32.1	7.98
Minimum Detected Value	µg/L	3.8	2.24	11	3.6
Maximum Detected Value	µg/L	40.4	7.2	73	22
Beta_1 (slope) <sup>(1)</sup>		1.12	0.511	0.978	0.637
Beta_0 (intercept) <sup>(1)</sup>		2.55	1.43	3.12	2.20
Correlation Coefficient (r) <sup>(1)</sup>		0.958	0.964	0.889	0.937

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 1c. Total Copper Summary Statistics 2002 – 2006 for Duck Creek (DC-65, Industrial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	8
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	7	8
Arithmetic Mean	µg/L	115	4.75	13.4	10.6
Standard Deviation	µg/L	285	1.47	8.40	9.23
Coefficient of Variation	µg/L	2.48	0.310	0.626	0.875
Lower 95% Confidence Limit about Mean	µg/L	-82.6	3.73	7.19	4.16
Upper 95% Confidence Limit about Mean	µg/L	312	5.77	19.6	16.9
10th percentile	µg/L	0.937	2.83	3.74	2.89
25th percentile (Lower Quartile)	µg/L	3.55	3.55	6.27	4.83
50th percentile (Median)	µg/L	15.6	4.56	11.1	8.51
75th percentile (Upper Quartile)	µg/L	68.5	5.86	19.7	15.0
90th percentile	µg/L	260	7.34	33.1	25.0
Inter Quartile Range	µg/L	64.9	2.31	13.5	10.2
Minimum Detected Value	µg/L	3.5	2.9	3.9	2.8
Maximum Detected Value	µg/L	670	6.96	24.7	28.7
Beta_1 (slope) <sup>(1)</sup>		2.19	0.372	0.850	0.841
Beta_0 (intercept) <sup>(1)</sup>		2.75	1.52	2.41	2.14
Correlation Coefficient (r) <sup>(1)</sup>		0.871	0.980	0.967	0.978

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

# Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 1d. Total Copper Summary Statistics 2002 – 2006 for Mosher Slough (MS-14, Residential)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	7	6
Arithmetic Mean	µg/L	4.33	5.22	9.77	22.3
Standard Deviation	µg/L	1.66	4.48	5.61	28.2
Coefficient of Variation	µg/L	0.382	0.858	0.574	1.26
Lower 95% Confidence Limit about Mean	µg/L	3.18	2.12	5.62	-0.222
Upper 95% Confidence Limit about Mean	µg/L	5.48	8.33	13.9	44.9
10th percentile	µg/L	2.23	1.56	3.61	2.97
25th percentile (Lower Quartile)	µg/L	2.96	2.50	5.45	6.29
50th percentile (Median)	µg/L	4.06	4.23	8.60	14.5
75th percentile (Upper Quartile)	µg/L	5.57	7.16	13.6	33.3
90th percentile	µg/L	7.41	11.5	20.5	70.5
Inter Quartile Range	µg/L	2.61	4.66	8.12	27.0
Minimum Detected Value	µg/L	2.4	2.2	4.4	4.5
Maximum Detected Value	µg/L	6.9	14	19	68.5
Beta_1 (slope) <sup>(1)</sup>		0.469	0.780	0.677	1.24
Beta_0 (intercept) <sup>(1)</sup>		1.40	1.44	2.15	2.67
Correlation Coefficient (r) <sup>(1)</sup>		0.980	0.950	0.984	0.967

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 1e. Total Copper Summary Statistics 2002 – 2006 for Smith Canal (SC-1, Mixed Use)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	7	6
Arithmetic Mean	µg/L	6.23	5.20	20.8	5.08
Standard Deviation	µg/L	5.51	2.98	19.8	3.74
Coefficient of Variation	µg/L	0.884	0.574	0.952	0.736
Lower 95% Confidence Limit about Mean	µg/L	2.42	3.13	6.12	2.09
Upper 95% Confidence Limit about Mean	µg/L	10.0	7.26	35.4	8.07
10th percentile	µg/L	2.17	1.91	3.89	0.959
25th percentile (Lower Quartile)	µg/L	3.30	2.88	7.48	1.86
50th percentile (Median)	µg/L	5.25	4.53	15.4	3.88
75th percentile (Upper Quartile)	µg/L	8.35	7.13	31.8	8.10
90th percentile	µg/L	12.7	10.7	61.2	15.7
Inter Quartile Range	µg/L	5.05	4.26	24.4	6.24
Minimum Detected Value	µg/L	2.7	2.4	3	0.682
Maximum Detected Value	µg/L	17	9.9	56.5	11
Beta_1 (slope) <sup>(1)</sup>		0.688	0.673	1.07	1.09
Beta_0 (intercept) <sup>(1)</sup>		1.66	1.51	2.74	1.36
Correlation Coefficient (r) <sup>(1)</sup>		0.946	0.975	0.952	0.903

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

# Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 2a. Dissolved and Total Zinc Summary Statistics 2002 – 2006** (All Sites Combined)

Statistical Parameter	Dry Weather					Wet Weather			
	Units	Urban Runoff		Receiving Water		Urban Runoff		Receiving Water	
		Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
n		32	16	32	16	27	11	27	11
Percent detected		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
n detected		32	16	32	16	27	11	27	11
Arithmetic Mean	µg/L	434	26.4	17.9	6.26	185	41.5	56.1	26.8
Standard Deviation	µg/L	2380	19.3	10.7	6.36	218	20.9	63.6	13.1
Coefficient of Variation	µg/L	5.48	0.732	0.6	1.02	1.18	0.503	1.13	0.487
Lower 95% Confidence Limit about Mean	µg/L	-390	17	14.2	3.14	103	29.2	32.1	19.1
Upper 95% Confidence Limit about Mean	µg/L	1260	35.9	21.6	9.37	267	53.9	80.1	34.5
10th percentile	µg/L	10.6	9.18	6.87	1.82	33	17.7	15.2	11.1
25th percentile (Lower Quartile)	µg/L	24.8	13.8	10	2.91	61.2	25.1	24.6	16
50th percentile (Median)	µg/L	63.6	21.8	15.3	4.9	122	37	41.8	24
75th percentile (Upper Quartile)	µg/L	163	34.4	23.3	8.25	241	54.6	71.3	35.9
90th percentile	µg/L	381	51.9	34	13.2	448	77.4	115	51.6
Inter Quartile Range	µg/L	138	20.6	13.2	5.34	180	29.5	46.8	19.9
Minimum Detected Value	µg/L	12.5	9.9	3.15	1.1	16	18	9.95	11
Maximum Detected Value	µg/L	10000	73	50	25	1000	70	303	50
Beta_1 (slope) <sup>(1)</sup>		1.4	0.675	0.623	0.772	1.02	0.575	0.791	0.599
Beta_0 (intercept) <sup>(1)</sup>		4.15	3.08	2.73	1.59	4.8	3.61	3.73	3.18
Correlation Coefficient (r) <sup>(1)</sup>		0.904	0.968	0.984	0.964	0.993	0.961	0.975	0.984

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 2b. Total Zinc Summary Statistics 2002 – 2006 for Calaveras River (CR-46, Commercial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	6	7
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	6	7
Arithmetic Mean	µg/L	178	13.0	333	55.8
Standard Deviation	µg/L	138	6.58	407	31.8
Coefficient of Variation	µg/L	0.776	0.506	1.22	0.570
Lower 95% Confidence Limit about Mean	µg/L	82.1	8.45	6.96	32.2
Upper 95% Confidence Limit about Mean	µg/L	273	17.6	659	79.3
10th percentile	µg/L	34.9	4.63	60.9	20.3
25th percentile (Lower Quartile)	µg/L	65.5	7.09	114	30.9
50th percentile (Median)	µg/L	132	11.4	230	49.2
75th percentile (Upper Quartile)	µg/L	265	18.3	464	78.3
90th percentile	µg/L	498	28.0	872	119
Inter Quartile Range	µg/L	200	11.2	350	47.5
Minimum Detected Value	µg/L	42	3.15	110	20.3
Maximum Detected Value	µg/L	398	24	1000	110
Beta_1 (slope) <sup>(1)</sup>		1.04	0.702	1.04	0.691
Beta_0 (intercept) <sup>(1)</sup>		4.88	2.43	5.44	3.90
Correlation Coefficient (r) <sup>(1)</sup>		0.974	0.928	0.915	0.989

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 2c. Total Zinc Summary Statistics 2002 – 2006 for Duck Creek (DC-65, Industrial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	8
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	7	8
Arithmetic Mean	µg/L	1480	18.4	228	48.8
Standard Deviation	µg/L	4600	5.51	143	26.8
Coefficient of Variation	µg/L	3.10	0.299	0.626	0.550
Lower 95% Confidence Limit about Mean	µg/L	-1700	14.6	122	30.2
Upper 95% Confidence Limit about Mean	µg/L	4670	22.2	334	67.4
10th percentile	µg/L	5.02	11.2	49.1	16.9
25th percentile (Lower Quartile)	µg/L	22.9	13.9	90.9	26.1
50th percentile (Median)	µg/L	124	17.8	180	42.1
75th percentile (Upper Quartile)	µg/L	668	22.6	356	67.9
90th percentile	µg/L	3050	28.1	658	105
Inter Quartile Range	µg/L	645	8.68	265	41.8
Minimum Detected Value	µg/L	20.3	11	41	20
Maximum Detected Value	µg/L	10000	27.8	409	88.2
Beta_1 (slope) <sup>(1)</sup>		2.50	0.359	1.01	0.710
Beta_0 (intercept) <sup>(1)</sup>		4.82	2.88	5.19	3.74
Correlation Coefficient (r) <sup>(1)</sup>		0.891	0.990	0.958	0.958

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 2d. Total Zinc Summary Statistics 2002 – 2006 for Mosher Slough (MS-14, Residential)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	7	6
Arithmetic Mean	µg/L	43.9	23.3	63.9	97.3
Standard Deviation	µg/L	22.9	15.2	26.7	127
Coefficient of Variation	µg/L	0.520	0.655	0.417	1.31
Lower 95% Confidence Limit about Mean	µg/L	28.1	12.7	44.1	-4.68
Upper 95% Confidence Limit about Mean	µg/L	59.8	33.8	83.6	199
10th percentile	µg/L	14.3	6.40	28.8	18.6
25th percentile (Lower Quartile)	µg/L	22.6	10.7	40.3	34.4
50th percentile (Median)	µg/L	37.7	19.0	58.7	68.0
75th percentile (Upper Quartile)	µg/L	62.7	33.6	85.4	134
90th percentile	µg/L	99.3	56.3	120	248
Inter Quartile Range	µg/L	40.1	22.9	45.1	99.9
Minimum Detected Value	µg/L	12.5	7.41	30	35
Maximum Detected Value	µg/L	78.9	50	93	303
Beta_1 (slope) <sup>(1)</sup>		0.757	0.848	0.557	1.01
Beta_0 (intercept) <sup>(1)</sup>		3.63	2.94	4.07	4.22
Correlation Coefficient (r) <sup>(1)</sup>		0.940	0.953	0.958	0.913

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$ **Table 2e. Total Zinc Summary Statistics 2002 – 2006 for Smith Canal (SC-1, Mixed Use)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	7	6
Arithmetic Mean	µg/L	43.9	23.3	63.9	97.3
Standard Deviation	µg/L	22.9	15.2	26.7	127
Coefficient of Variation	µg/L	0.520	0.655	0.417	1.31
Lower 95% Confidence Limit about Mean	µg/L	28.1	12.7	44.1	-4.68
Upper 95% Confidence Limit about Mean	µg/L	59.8	33.8	83.6	199
10th percentile	µg/L	14.3	6.40	28.8	18.6
25th percentile (Lower Quartile)	µg/L	22.6	10.7	40.3	34.4
50th percentile (Median)	µg/L	37.7	19.0	58.7	68.0
75th percentile (Upper Quartile)	µg/L	62.7	33.6	85.4	134
90th percentile	µg/L	99.3	56.3	120	248
Inter Quartile Range	µg/L	40.1	22.9	45.1	99.9
Minimum Detected Value	µg/L	12.5	7.41	30	35
Maximum Detected Value	µg/L	78.9	50	93	303
Beta_1 (slope) <sup>(1)</sup>		0.757	0.848	0.557	1.01
Beta_0 (intercept) <sup>(1)</sup>		3.63	2.94	4.07	4.22
Correlation Coefficient (r) <sup>(1)</sup>		0.940	0.953	0.958	0.913

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

# Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 3a. Dissolved and Total Lead Summary Statistics 2002 – 2006** (All Sites Combined)

Statistical Parameter	Units	Dry Weather				Wet Weather			
		Urban Runoff		Receiving Water		Urban Runoff		Receiving Water	
		Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
n		32	16	32	16	27	11	27	11
Percent detected		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
n detected		32	16	32	16	27	11	27	11
Arithmetic Mean	µg/L	13.0	0.433	1.88	0.301	13.7	0.414	4.49	0.262
Standard Deviation	µg/L	62.0	0.533	1.45	0.368	20.5	0.434	3.95	0.138
Coefficient of Variation	µg/L	4.77	1.23	0.770	1.22	1.50	1.05	0.880	0.527
Lower 95% Confidence Limit about Mean	µg/L	-8.49	0.172	1.38	0.121	5.99	0.158	3.00	0.180
Upper 95% Confidence Limit about Mean	µg/L	34.5	0.694	2.38	0.481	21.5	0.670	5.98	0.344
10th percentile	µg/L	0.187	0.117	0.607	0.0578	0.944	0.0275	0.856	0.0717
25th percentile (Lower Quartile)	µg/L	0.536	0.188	0.938	0.103	2.31	0.0713	1.58	0.120
50th percentile (Median)	µg/L	1.73	0.318	1.52	0.196	6.26	0.205	3.14	0.214
75th percentile (Upper Quartile)	µg/L	5.56	0.540	2.47	0.372	16.9	0.592	6.22	0.380
90th percentile	µg/L	16.0	0.869	3.81	0.664	41.5	1.54	11.5	0.638
Inter Quartile Range	µg/L	5.03	0.352	1.53	0.269	14.6	0.521	4.64	0.260
Minimum Detected Value	µg/L	0.15	0.084	0.235	0.067	0.15	0.031	0.08	0.031
Maximum Detected Value	µg/L	270	2	7.5	1.3	82.9	1.1	17.4	0.47
Beta_1 (slope) <sup>(1)</sup>		1.74	0.783	0.717	0.952	1.48	1.57	1.01	0.853
Beta_0 (intercept) <sup>(1)</sup>		0.546	-1.14	0.419	-1.63	1.83	-1.58	1.14	-1.54
Correlation Coefficient (r) <sup>(1)</sup>		0.959	0.935	0.959	0.946	0.981	0.968	0.914	0.907

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

## Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 3b. Total Lead Summary Statistics 2002 – 2006 for Calaveras River (CR-46, Commercial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	6	7
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	6	7
Arithmetic Mean	µg/L	5.53	1.05	23.4	4.25
Standard Deviation	µg/L	3.70	0.585	25.4	3.22
Coefficient of Variation	µg/L	0.669	0.559	1.08	0.757
Lower 95% Confidence Limit about Mean	µg/L	2.96	0.642	3.12	1.87
Upper 95% Confidence Limit about Mean	µg/L	8.09	1.45	43.7	6.64
10th percentile	µg/L	1.50	0.315	3.81	1.06
25th percentile (Lower Quartile)	µg/L	2.52	0.514	7.62	1.85
50th percentile (Median)	µg/L	4.50	0.886	16.4	3.43
75th percentile (Upper Quartile)	µg/L	8.02	1.53	35.4	6.36
90th percentile	µg/L	13.5	2.50	70.9	11.1
Inter Quartile Range	µg/L	5.50	1.01	27.8	4.51
Minimum Detected Value	µg/L	1.7	0.235	4.9	1.1
Maximum Detected Value	µg/L	11.8	2	65	9.9
Beta_1 (slope) <sup>(1)</sup>		0.858	0.808	1.14	0.917
Beta_0 (intercept) <sup>(1)</sup>		1.50	-0.121	2.80	1.23
Correlation Coefficient (r) <sup>(1)</sup>		0.977	0.962	0.965	0.996

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 3c. Total Lead Summary Statistics 2002 – 2006 for Duck Creek (DC-65, Industrial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	8
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	7	8
Arithmetic Mean	µg/L	42.4	1.43	5.84	3.88
Standard Deviation	µg/L	119	0.268	5.51	2.49
Coefficient of Variation	µg/L	2.82	0.188	0.944	0.643
Lower 95% Confidence Limit about Mean	µg/L	-40.3	1.25	1.76	2.15
Upper 95% Confidence Limit about Mean	µg/L	125	1.62	9.92	5.61
10th percentile	µg/L	0.114	1.05	1.02	1.13
25th percentile (Lower Quartile)	µg/L	0.558	1.21	2.01	1.86
50th percentile (Median)	µg/L	3.25	1.41	4.25	3.24
75th percentile (Upper Quartile)	µg/L	19.0	1.64	9.00	5.62
90th percentile	µg/L	92.9	1.89	17.7	9.24
Inter Quartile Range	µg/L	18.4	0.434	6.99	3.76
Minimum Detected Value	µg/L	0.388	1	0.940	1.1
Maximum Detected Value	µg/L	270	1.7	15.7	8.11
Beta_1 (slope) <sup>(1)</sup>		2.61	0.228	1.11	0.819
Beta_0 (intercept) <sup>(1)</sup>		1.18	0.342	1.45	1.17
Correlation Coefficient (r) <sup>(1)</sup>		0.889	0.939	0.979	0.995

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$



**Table 3d. Total Lead Summary Statistics 2002 – 2006 for Mosher Slough (MS-14, Residential)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	7	6
Arithmetic Mean	µg/L	0.560	1.63	2.87	6.05
Standard Deviation	µg/L	0.587	0.769	2.01	6.93
Coefficient of Variation	µg/L	1.05	0.473	0.700	1.14
Lower 95% Confidence Limit about Mean	µg/L	0.153	1.09	1.38	0.509
Upper 95% Confidence Limit about Mean	µg/L	0.966	2.16	4.36	11.6
10th percentile	µg/L	0.114	0.561	0.306	0.921
25th percentile (Lower Quartile)	µg/L	0.208	0.868	0.727	1.89
50th percentile (Median)	µg/L	0.405	1.41	1.90	4.18
75th percentile (Upper Quartile)	µg/L	0.789	2.28	4.95	9.26
90th percentile	µg/L	1.44	3.53	11.7	19.0
Inter Quartile Range	µg/L	0.581	1.42	4.22	7.38
Minimum Detected Value	µg/L	0.150	0.305	0.150	1.4
Maximum Detected Value	µg/L	1.7	2.71	5.5	17.4
Beta_1 (slope) <sup>(1)</sup>		0.990	0.717	1.42	1.18
Beta_0 (intercept) <sup>(1)</sup>		-0.905	0.342	0.640	1.43
Correlation Coefficient (r) <sup>(1)</sup>		0.972	0.862	0.901	0.984

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$ **Table 3e. Total Lead Summary Statistics 2002 – 2006 for Smith Canal (SC-1, Mixed Use)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	7	6
Arithmetic Mean	µg/L	3.58	3.42	24.2	4.02
Standard Deviation	µg/L	8.23	2.10	32.5	4.93
Coefficient of Variation	µg/L	2.30	0.614	1.34	1.23
Lower 95% Confidence Limit about Mean	µg/L	-2.12	1.97	0.154	0.0750
Upper 95% Confidence Limit about Mean	µg/L	9.28	4.88	48.2	7.96
10th percentile	µg/L	0.243	1.39	1.72	0.181
25th percentile (Lower Quartile)	µg/L	0.576	2.02	4.53	0.571
50th percentile (Median)	µg/L	1.50	3.05	13.3	2.05
75th percentile (Upper Quartile)	µg/L	3.90	4.59	39.1	7.33
90th percentile	µg/L	9.25	6.65	103	23.2
Inter Quartile Range	µg/L	3.33	2.57	34.6	6.76
Minimum Detected Value	µg/L	0.526	1.52	1.6	0.0800
Maximum Detected Value	µg/L	19	7.5	82.9	12
Beta_1 (slope) <sup>(1)</sup>		1.42	0.610	1.60	1.89
Beta_0 (intercept) <sup>(1)</sup>		0.406	1.11	2.59	0.716
Correlation Coefficient (r) <sup>(1)</sup>		0.917	0.980	0.987	0.865

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

# Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 4a. Dissolved and Total Mercury Summary Statistics 2002 – 2006 (All Sites Combined)**

Statistical Parameter	Dry Weather					Wet Weather			
	Units	Urban Runoff		Receiving Water		Urban Runoff		Receiving Water	
		Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
n		32	16	32	18	27	11	27	15
Percent detected		59.4%	100.0%	96.9%	100.0%	51.9%	100.0%	96.3%	100.0%
n detected		19	16	31	18	14	11	26	15
Arithmetic Mean	µg/L	0.0321	0.00408	0.628	0.108	0.0120	0.00697	0.388	0.0614
Standard Deviation	µg/L	0.120	0.00336	0.716	0.164	0.0196	0.00424	0.507	0.0866
Coefficient of Variation	µg/L	3.74	0.825	1.14	1.52	1.64	0.608	1.31	1.41
Lower 95% Confidence Limit about Mean	µg/L	-0.00949	0.00243	0.380	0.0319	0.00459	0.00447	0.197	0.0176
Upper 95% Confidence Limit about Mean	µg/L	0.0738	0.00572	0.876	0.184	0.0194	0.00948	0.579	0.105
10th percentile	µg/L	0.000823	0.00128	0.00611	0.00107	0.00186	0.00382	0.00833	0.00269
25th percentile (Lower Quartile)	µg/L	0.00203	0.00200	0.0275	0.00433	0.00349	0.00489	0.0301	0.00730
50th percentile (Median)	µg/L	0.00551	0.00325	0.146	0.0204	0.00698	0.00644	0.125	0.0221
75th percentile (Upper Quartile)	µg/L	0.0150	0.00530	0.774	0.0965	0.0140	0.00849	0.521	0.0670
90th percentile	µg/L	0.0369	0.00824	3.48	0.391	0.0262	0.0109	1.88	0.182
Inter Quartile Range	µg/L	0.0130	0.00331	0.746	0.0922	0.0105	0.00359	0.491	0.0597
Minimum Detected Value	µg/L	0.0014	0.0012	0.001	0.001	0.0026	0.0036	0.001	0.005
Maximum Detected Value	µg/L	0.54	0.012	2.6	0.57	0.087	0.017	2.2	0.26
Beta_1 (slope) <sup>(1)</sup>		1.48	0.725	2.48	2.30	1.03	0.408	2.11	1.64
Beta_0 (intercept) <sup>(1)</sup>		-5.20	-5.73	-1.93	-3.89	-4.96	-5.04	-2.08	-3.81
Correlation Coefficient (r) <sup>(1)</sup>		0.894	0.967	0.932	0.939	0.963	0.895	0.952	0.929

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

## Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 4b. Total Mercury Summary Statistics 2002 – 2006 for Calaveras River (CR-46, Commercial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	6	7
Percent detected		62.5%	100.0%	66.7%	100.0%
n detected		5	8	4	7
Arithmetic Mean	µg/L	0.0457	1.03	0.0166	0.436
Standard Deviation	µg/L	0.146	1.08	0.0178	1.03
Coefficient of Variation	µg/L	3.20	1.05	1.07	2.36
Lower 95% Confidence Limit about Mean	µg/L	-0.0555	0.283	0.00243	-0.326
Upper 95% Confidence Limit about Mean	µg/L	0.147	1.78	0.0308	1.20
10th percentile	µg/L	0.00116	0.00199	0.00187	0.00354
25th percentile (Lower Quartile)	µg/L	0.00348	0.0168	0.00413	0.0174
50th percentile (Median)	µg/L	0.0117	0.179	0.00992	0.101
75th percentile (Upper Quartile)	µg/L	0.0395	1.91	0.0238	0.592
90th percentile	µg/L	0.118	16.1	0.0525	2.90
Inter Quartile Range	µg/L	0.0360	1.89	0.0197	0.575
Minimum Detected Value	µg/L	0.00250	0.00100	0.00400	0.00440
Maximum Detected Value	µg/L	0.3	2.6	0.0400	2.2
Beta_1 (slope) <sup>(1)</sup>		1.80	3.51	1.30	2.62
Beta_0 (intercept) <sup>(1)</sup>		-4.45	-1.72	-4.61	-2.29
Correlation Coefficient (r) <sup>(1)</sup>		0.953	0.929	0.973	0.984

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 4c. Total Mercury Summary Statistics 2002 – 2006 for Duck Creek (DC-65, Industrial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	8
Percent detected		75.0%	100.0%	42.9%	100.0%
n detected		6	8	3	8
Arithmetic Mean	µg/L	0.0738	0.525	0.00525	0.332
Standard Deviation	µg/L	0.264	0.488	0.00351	0.295
Coefficient of Variation	µg/L	3.58	0.930	0.668	0.888
Lower 95% Confidence Limit about Mean	µg/L	-0.109	0.187	0.00265	0.128
Upper 95% Confidence Limit about Mean	µg/L	0.257	0.863	0.00785	0.536
10th percentile	µg/L	0.000353	0.00715	0.00114	0.00240
25th percentile (Lower Quartile)	µg/L	0.00142	0.0329	0.00219	0.0136
50th percentile (Median)	µg/L	0.00664	0.179	0.00451	0.0938
75th percentile (Upper Quartile)	µg/L	0.0311	0.972	0.00927	0.646
90th percentile	µg/L	0.125	4.47	0.0178	3.67
Inter Quartile Range	µg/L	0.0296	0.939	0.00708	0.632
Minimum Detected Value	µg/L	0.00140	0.00450	0.00260	0.00100
Maximum Detected Value	µg/L	0.540	1.3	0.0110	0.770
Beta_1 (slope) <sup>(1)</sup>		2.29	2.51	1.07	2.86
Beta_0 (intercept) <sup>(1)</sup>		-5.02	-1.72	-5.40	-2.37
Correlation Coefficient (r) <sup>(1)</sup>		0.891	0.990	0.958	0.958

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 4d. Total Mercury Summary Statistics 2002 – 2006 for Mosher Slough (MS-14, Residential)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		50.0%	87.5%	42.9%	83.3%
n detected		4	7	3	5
Arithmetic Mean	µg/L	0.00340	0.431	0.00655	0.299
Standard Deviation	µg/L	0.00245	0.746	0.00361	0.411
Coefficient of Variation	µg/L	0.720	1.73	0.551	1.37
Lower 95% Confidence Limit about Mean	µg/L	0.00170	-0.0858	0.00387	-0.0295
Upper 95% Confidence Limit about Mean	µg/L	0.00510	0.949	0.00923	0.628
10th percentile	µg/L	0.000928	0.00204	0.00170	0.0106
25th percentile (Lower Quartile)	µg/L	0.00163	0.0115	0.00304	0.0339
50th percentile (Median)	µg/L	0.00303	0.0787	0.00579	0.124
75th percentile (Upper Quartile)	µg/L	0.00565	0.537	0.0110	0.451
90th percentile	µg/L	0.00989	3.04	0.0198	1.45
Inter Quartile Range	µg/L	0.00402	0.526	0.00800	0.417
Minimum Detected Value	µg/L	0.00160	0.00340	0.00330	0.0210
Maximum Detected Value	µg/L	0.00760	1.9	0.0120	0.970
Beta_1 (slope) <sup>(1)</sup>		0.923	2.85	0.957	1.92
Beta_0 (intercept) <sup>(1)</sup>		-5.80	-2.54	-5.15	-2.09
Correlation Coefficient (r) <sup>(1)</sup>		0.971	0.971	0.976	0.991

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 \cdot Z + \text{Beta}_0$

**Table 4e. Total Mercury Summary Statistics 2002 – 2006 for Smith Canal (SC-1, Mixed Use)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		50.0%	100.0%	57.1%	100.0%
n detected		4	8	4	6
Arithmetic Mean	µg/L	0.00321	0.525	0.0182	0.496
Standard Deviation	µg/L	0.000881	0.438	0.0416	0.443
Coefficient of Variation	µg/L	0.275	0.835	2.29	0.892
Lower 95% Confidence Limit about Mean	µg/L	0.00260	0.221	-0.0127	0.142
Upper 95% Confidence Limit about Mean	µg/L	0.00382	0.828	0.0490	0.850
10th percentile	µg/L	0.00187	0.00567	0.00135	0.0207
25th percentile (Lower Quartile)	µg/L	0.00239	0.0282	0.00325	0.0684
50th percentile (Median)	µg/L	0.00314	0.167	0.00859	0.258
75th percentile (Upper Quartile)	µg/L	0.00413	0.991	0.0227	0.976
90th percentile	µg/L	0.00528	4.93	0.0545	3.23
Inter Quartile Range	µg/L	0.00174	0.963	0.0194	0.907
Minimum Detected Value	µg/L	0.00230	0.00310	0.00400	0.00800
Maximum Detected Value	µg/L	0.00460	1.1	0.0870	1.2
Beta_1 (slope) <sup>(1)</sup>		0.405	2.64	1.44	1.97
Beta_0 (intercept) <sup>(1)</sup>		-5.76	-1.79	-4.76	-1.35
Correlation Coefficient (r) <sup>(1)</sup>		0.989	0.873	0.969	0.856

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 \cdot Z + \text{Beta}_0$

# Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 5a. Dissolved and Total Iron Summary Statistics 2002 – 2006** (All Sites Combined)

Statistical Parameter	Units	Dry Weather				Wet Weather			
		Urban Runoff		Receiving Water		Urban Runoff		Receiving Water	
		Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
n		32	24	32	24	27	19	27	19
Percent detected		100.0%	87.5%	100.0%	83.3%	100.0%	68.4%	100.0%	89.5%
n detected		32	21	32	20	27	13	27	17
Arithmetic Mean	µg/L	6970	154	1670	116	2670	137	2080	149
Standard Deviation	µg/L	48800	174	1560	131	2960	205	3390	202
Coefficient of Variation	µg/L	7.00	1.13	0.934	1.13	1.11	1.50	1.63	1.35
Lower 95% Confidence Limit about Mean	µg/L	-9930	84.0	1130	63.4	1560	44.9	802	58.4
Upper 95% Confidence Limit about Mean	µg/L	23900	223	2200	168	3790	229	3360	240
10th percentile	µg/L	54.4	11.7	360	9.64	442	15.9	213	32.0
25th percentile (Lower Quartile)	µg/L	171	28.4	626	22.9	832	33.1	457	55.5
50th percentile (Median)	µg/L	608	75.5	1160	59.6	1680	74.9	1070	102
75th percentile (Upper Quartile)	µg/L	2170	201	2140	155	3380	169	2490	188
90th percentile	µg/L	6810	485	3720	368	6370	353	5340	326
Inter Quartile Range	µg/L	2000	172	1510	132	2550	136	2030	133
Minimum Detected Value	µg/L	14	11	320	8.1	310	26	57	55.2
Maximum Detected Value	µg/L	190000	670	5500	540	10000	790	15000	800
Beta_1 (slope) <sup>(1)</sup>		1.88	1.45	0.912	1.42	1.04	1.21	1.26	0.905
Beta_0 (intercept) <sup>(1)</sup>		6.41	4.32	7.05	4.09	7.43	4.32	6.97	4.63
Correlation Coefficient (r) <sup>(1)</sup>		0.943	0.985	0.983	0.955	0.984	0.978	0.980	0.960

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 \cdot Z + \text{Beta}_0$

Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 5b. Total Iron Summary Statistics 2002 – 2006 for Calaveras River (CR-46, Commercial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	6	7
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	6	7
Arithmetic Mean	µg/L	1550	853	3580	844
Standard Deviation	µg/L	507	543	3980	579
Coefficient of Variation	µg/L	0.327	0.637	1.11	0.686
Lower 95% Confidence Limit about Mean	µg/L	1200	476	390	415
Upper 95% Confidence Limit about Mean	µg/L	1900	1230	6770	1270
10th percentile	µg/L	981	305	324	109
25th percentile (Lower Quartile)	µg/L	1200	464	798	242
50th percentile (Median)	µg/L	1490	739	2170	586
75th percentile (Upper Quartile)	µg/L	1870	1180	5910	1420
90th percentile	µg/L	2280	1790	14600	3140
Inter Quartile Range	µg/L	668	714	5110	1170
Minimum Detected Value	µg/L	1100	320	468	57
Maximum Detected Value	µg/L	2500	1900	10000	1600
Beta_1 (slope) <sup>(1)</sup>		0.329	0.691	1.48	1.31
Beta_0 (intercept) <sup>(1)</sup>		7.31	6.61	7.68	6.37
Correlation Coefficient (r) <sup>(1)</sup>		0.951	0.964	0.997	0.904

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 5c. Total Iron Summary Statistics 2002 – 2006 for Duck Creek (DC-65, Industrial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	8
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	7	8
Arithmetic Mean	µg/L	24700	3310	3280	4160
Standard Deviation	µg/L	96700	1690	3720	5550
Coefficient of Variation	µg/L	3.91	0.510	1.13	1.34
Lower 95% Confidence Limit about Mean	µg/L	-42300	2140	523	312
Upper 95% Confidence Limit about Mean	µg/L	91700	4480	6030	8010
10th percentile	µg/L	244	953	555	205
25th percentile (Lower Quartile)	µg/L	668	1580	1080	597
50th percentile (Median)	µg/L	2050	2770	2270	1960
75th percentile (Upper Quartile)	µg/L	6270	4850	4770	6420
90th percentile	µg/L	17200	8040	9300	18700
Inter Quartile Range	µg/L	5600	3270	3690	5820
Minimum Detected Value	µg/L	720	500	831	275
Maximum Detected Value	µg/L	190000	5500	10000	15000
Beta_1 (slope) <sup>(1)</sup>		1.66	0.832	1.10	1.76
Beta_0 (intercept) <sup>(1)</sup>		7.62	7.93	7.73	7.58
Correlation Coefficient (r) <sup>(1)</sup>		0.723	0.882	0.975	0.990

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 5d. Total Iron Summary Statistics 2002 – 2006 for Mosher Slough (MS-14, Residential)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	7	6
Arithmetic Mean	µg/L	464	945	925	1820
Standard Deviation	µg/L	1410	610	707	1860
Coefficient of Variation	µg/L	3.05	0.646	0.764	1.02
Lower 95% Confidence Limit about Mean	µg/L	-515	522	401	331
Upper 95% Confidence Limit about Mean	µg/L	1440	1370	1450	3310
10th percentile	µg/L	8.99	328	283	201
25th percentile (Lower Quartile)	µg/L	29.0	505	457	458
50th percentile (Median)	µg/L	107	816	776	1140
75th percentile (Upper Quartile)	µg/L	392	1320	1320	2840
90th percentile	µg/L	1270	2030	2130	6460
Inter Quartile Range	µg/L	363	813	864	2380
Minimum Detected Value	µg/L	14	340	310	359
Maximum Detected Value	µg/L	3000	2100	2200	4500
Beta_1 (slope) <sup>(1)</sup>		1.93	0.711	0.788	1.35
Beta_0 (intercept) <sup>(1)</sup>		4.67	6.70	6.65	7.04
Correlation Coefficient (r) <sup>(1)</sup>		0.944	0.995	0.983	0.966

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 5e. Total Iron Summary Statistics 2002 – 2006 for Smith Canal (SC-1, Mixed Use)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	7	6
Arithmetic Mean	µg/L	1140	1550	3040	1010
Standard Deviation	µg/L	1650	1960	3520	613
Coefficient of Variation	µg/L	1.46	1.26	1.16	0.605
Lower 95% Confidence Limit about Mean	µg/L	-11.6	194	437	523
Upper 95% Confidence Limit about Mean	µg/L	2280	2910	5650	1500
10th percentile	µg/L	37.2	290	528	360
25th percentile (Lower Quartile)	µg/L	117	540	1030	554
50th percentile (Median)	µg/L	419	1080	2150	892
75th percentile (Upper Quartile)	µg/L	1500	2140	4500	1440
90th percentile	µg/L	4730	3990	8750	2210
Inter Quartile Range	µg/L	1380	1600	3470	882
Minimum Detected Value	µg/L	83	390	740	340
Maximum Detected Value	µg/L	4300	5400	9400	2000
Beta_1 (slope) <sup>(1)</sup>		1.89	1.02	1.10	0.707
Beta_0 (intercept) <sup>(1)</sup>		6.04	6.98	7.67	6.79
Correlation Coefficient (r) <sup>(1)</sup>		0.958	0.958	0.980	0.948

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$



# Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 6a. Dissolved and Total Aluminum Summary Statistics 2002 – 2006** (All Sites Combined)

Statistical Parameter	Dry Weather					Wet Weather			
	Units	Urban Runoff		Receiving Water		Urban Runoff		Receiving Water	
		Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
n		32	24	32	24	27	19	27	19
Percent detected		90.6%	79.2%	100.0%	95.8%	100.0%	100.0%	100.0%	100.0%
n detected		29	19	32	23	27	19	27	19
Arithmetic Mean	µg/L	3960	14.7	746	62.7	1980	91.8	1600	116
Standard Deviation	µg/L	31200	18.7	778	89.4	2240	130	2910	192
Coefficient of Variation	µg/L	7.88	1.28	1.04	1.43	1.13	1.41	1.83	1.65
Lower 95% Confidence Limit about Mean	µg/L	-6860	7.19	476	26.9	1140	33.5	498	30.1
Upper 95% Confidence Limit about Mean	µg/L	14800	22.2	1020	98.5	2830	150	2700	202
10th percentile	µg/L	6.17	1.20	161	1.54	147	12.4	231	5.15
25th percentile (Lower Quartile)	µg/L	22.7	2.80	279	5.18	366	24.7	444	14.3
50th percentile (Median)	µg/L	96.2	7.09	515	19.8	1000	53.0	913	44.5
75th percentile (Upper Quartile)	µg/L	408	18.0	948	76.1	2750	114	1880	138
90th percentile	µg/L	1500	41.8	1650	255	6820	226	3600	384
Inter Quartile Range	µg/L	385	15.2	670	70.9	2380	89.0	1440	124
Minimum Detected Value	µg/L	4.8	0.62	130	0.47	4.2	14	160	3.3
Maximum Detected Value	µg/L	120000	64	3600	360	8200	500	13000	710
Beta_1 (slope) <sup>(1)</sup>		2.14	1.38	0.907	1.99	1.50	1.13	1.07	1.68
Beta_0 (intercept) <sup>(1)</sup>		4.57	1.96	6.24	2.99	6.91	3.97	6.82	3.79
Correlation Coefficient (r) <sup>(1)</sup>		0.939	0.993	0.985	0.980	0.911	0.976	0.981	0.992

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 6b. Total Aluminum Summary Statistics 2002 – 2006 for Calaveras River (CR-46, Commercial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	6	7
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	6	7
Arithmetic Mean	µg/L	329	439	2820	1270
Standard Deviation	µg/L	361	387	2260	1160
Coefficient of Variation	µg/L	1.10	0.882	0.803	0.913
Lower 95% Confidence Limit about Mean	µg/L	78.7	171	1010	410
Upper 95% Confidence Limit about Mean	µg/L	579	707	4630	2120
10th percentile	µg/L	28.8	138	473	172
25th percentile (Lower Quartile)	µg/L	70.5	217	954	371
50th percentile (Median)	µg/L	190	359	2080	873
75th percentile (Upper Quartile)	µg/L	515	596	4510	2050
90th percentile	µg/L	1260	939	9100	4440
Inter Quartile Range	µg/L	444	379	3560	1680
Minimum Detected Value	µg/L	34	150	630	160
Maximum Detected Value	µg/L	1000	1200	6200	3300
Beta_1 (slope) <sup>(1)</sup>		1.47	0.749	1.15	1.27
Beta_0 (intercept) <sup>(1)</sup>		5.25	5.88	7.64	6.77
Correlation Coefficient (r) <sup>(1)</sup>		0.994	0.948	0.972	0.986

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 6c. Total Aluminum Summary Statistics 2002 – 2006 for Duck Creek (DC-65, Industrial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	8
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	7	8
Arithmetic Mean	µg/L	15300	1290	2390	3020
Standard Deviation	µg/L	61200	1200	3220	5150
Coefficient of Variation	µg/L	4.00	0.926	1.35	1.71
Lower 95% Confidence Limit about Mean	µg/L	-27100	464	6.53	-549
Upper 95% Confidence Limit about Mean	µg/L	57700	2120	4770	6590
10th percentile	µg/L	36.8	226	320	262
25th percentile (Lower Quartile)	µg/L	137	442	652	620
50th percentile (Median)	µg/L	591	930	1440	1610
75th percentile (Upper Quartile)	µg/L	2550	1960	3170	4170
90th percentile	µg/L	9500	3830	6470	9850
Inter Quartile Range	µg/L	2410	1520	2520	3550
Minimum Detected Value	µg/L	120	260	590	310
Maximum Detected Value	µg/L	120000	3600	8200	13000
Beta_1 (slope) <sup>(1)</sup>		2.17	1.10	1.17	1.41
Beta_0 (intercept) <sup>(1)</sup>		6.38	6.84	7.27	7.38
Correlation Coefficient (r) <sup>(1)</sup>		0.786	0.981	0.916	0.984

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 6d. Total Aluminum Summary Statistics 2002 – 2006 for Mosher Slough (MS-14, Residential)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		75.0%	100.0%	100.0%	100.0%
n detected		6	8	7	6
Arithmetic Mean	µg/L	18.4	451	708	1110
Standard Deviation	µg/L	15.8	337	629	1060
Coefficient of Variation	µg/L	0.860	0.747	0.889	0.958
Lower 95% Confidence Limit about Mean	µg/L	7.42	218	242	259
Upper 95% Confidence Limit about Mean	µg/L	29.3	685	1170	1960
10th percentile	µg/L	3.92	122	19.3	192
25th percentile (Lower Quartile)	µg/L	7.04	205	73.2	378
50th percentile (Median)	µg/L	13.5	366	322	798
75th percentile (Upper Quartile)	µg/L	25.8	654	1410	1690
90th percentile	µg/L	46.4	1100	5370	3310
Inter Quartile Range	µg/L	18.8	449	1340	1310
Minimum Detected Value	µg/L	4.8	130	4.2	310
Maximum Detected Value	µg/L	46	1100	1700	2800
Beta_1 (slope) <sup>(1)</sup>		0.964	0.860	2.20	1.11
Beta_0 (intercept) <sup>(1)</sup>		2.60	5.90	5.77	6.68
Correlation Coefficient (r) <sup>(1)</sup>		0.990	0.967	0.857	0.971

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 6e. Total Aluminum Summary Statistics 2002 – 2006 for Smith Canal (SC-1, Mixed Use)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		87.5%	100.0%	100.0%	100.0%
n detected		7	8	7	6
Arithmetic Mean	µg/L	210	800	2140	572
Standard Deviation	µg/L	526	746	2570	246
Coefficient of Variation	µg/L	2.51	0.932	1.20	0.430
Lower 95% Confidence Limit about Mean	µg/L	-155	283	237	375
Upper 95% Confidence Limit about Mean	µg/L	574	1320	4040	768
10th percentile	µg/L	4.89	152	147	246
25th percentile (Lower Quartile)	µg/L	15.9	285	392	350
50th percentile (Median)	µg/L	59.1	573	1170	518
75th percentile (Upper Quartile)	µg/L	219	1150	3470	767
90th percentile	µg/L	714	2160	9250	1090
Inter Quartile Range	µg/L	203	867	3070	417
Minimum Detected Value	µg/L	25	190	170	170
Maximum Detected Value	µg/L	1200	2100	6700	760
Beta_1 (slope) <sup>(1)</sup>		1.94	1.03	1.62	0.582
Beta_0 (intercept) <sup>(1)</sup>		4.08	6.35	7.06	6.25
Correlation Coefficient (r) <sup>(1)</sup>		0.945	0.971	0.996	0.806

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

## Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 7a. Hardness Summary Statistics 2002 – 2006 (All Sites Combined)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		32	32	27	27
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		32	32	27	27
Arithmetic Mean	mg/L	172	90.4	40.6	81.2
Standard Deviation	mg/L	83.3	36.9	26.3	52.4
Coefficient of Variation	mg/L	0.485	0.409	0.646	0.645
Lower 95% Confidence Limit about Mean	mg/L	143	77.6	30.7	61.5
Upper 95% Confidence Limit about Mean	mg/L	201	103	50.5	101
10th percentile	mg/L	84.7	46.4	15.2	30.0
25th percentile (Lower Quartile)	mg/L	113	61.2	22.4	44.4
50th percentile (Median)	mg/L	156	83.2	34.3	68.6
75th percentile (Upper Quartile)	mg/L	215	113	52.6	106
90th percentile	mg/L	287	149	77.4	157
Inter Quartile Range	mg/L	102	51.8	30.3	61.5
Minimum Detected Value	mg/L	60	32	12	23
Maximum Detected Value	mg/L	480	180	120	244
Beta_1 (slope) <sup>(1)</sup>		0.476	0.455	0.635	0.645
Beta_0 (intercept) <sup>(1)</sup>		5.05	4.42	3.54	4.23
Correlation Coefficient (r) <sup>(1)</sup>		0.965	0.991	0.990	0.991

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 7b. Hardness Summary Statistics 2002 – 2006 for Calaveras River (CR-46, Commercial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	6	7
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	6	7
Arithmetic Mean	mg/L	158	95.7	26.7	60.5
Standard Deviation	mg/L	31.7	30.0	28.4	37.3
Coefficient of Variation	mg/L	0.200	0.314	1.07	0.617
Lower 95% Confidence Limit about Mean	mg/L	136	74.9	3.94	32.9
Upper 95% Confidence Limit about Mean	mg/L	180	116	49.4	88.1
10th percentile	mg/L	114	54.8	8.72	19.7
25th percentile (Lower Quartile)	mg/L	132	69.8	13.5	31.2
50th percentile (Median)	mg/L	155	91.4	21.9	51.9
75th percentile (Upper Quartile)	mg/L	183	120	35.7	86.4
90th percentile	mg/L	212	153	55.2	137
Inter Quartile Range	mg/L	51.2	49.9	22.2	55.3
Minimum Detected Value	mg/L	100	54	12	23
Maximum Detected Value	mg/L	190	140	71	120
Beta_1 (slope) <sup>(1)</sup>		0.243	0.400	0.720	0.757
Beta_0 (intercept) <sup>(1)</sup>		5.05	4.52	3.09	3.95
Correlation Coefficient (r) <sup>(1)</sup>		0.922	0.974	0.898	0.994

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

# Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 7c. Hardness Summary Statistics 2002 – 2006 for Duck Creek (DC-65, Industrial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	8
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	7	8
Arithmetic Mean	mg/L	131	54.7	45.1	93.5
Standard Deviation	mg/L	191	14.0	14.9	42.4
Coefficient of Variation	mg/L	1.45	0.257	0.330	0.453
Lower 95% Confidence Limit about Mean	mg/L	-0.944	44.9	34.0	64.1
Upper 95% Confidence Limit about Mean	mg/L	264	64.4	56.1	123
10th percentile	mg/L	42.4	35.8	25.0	49.1
25th percentile (Lower Quartile)	mg/L	63.7	43.2	32.3	64.4
50th percentile (Median)	mg/L	99.9	53.1	42.7	87.1
75th percentile (Upper Quartile)	mg/L	157	65.4	56.6	118
90th percentile	mg/L	235	78.8	72.9	155
Inter Quartile Range	mg/L	93.0	22.2	24.3	53.5
Minimum Detected Value	mg/L	60	32	19	61
Maximum Detected Value	mg/L	480	77.2	63	170
Beta_1 (slope) <sup>(1)</sup>		0.668	0.307	0.417	0.448
Beta_0 (intercept) <sup>(1)</sup>		4.60	3.97	3.75	4.47
Correlation Coefficient (r) <sup>(1)</sup>		0.810	0.953	0.860	0.940

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 7d. Hardness Summary Statistics 2002 – 2006 for Mosher Slough (MS-14, Residential)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	7	6
Arithmetic Mean	mg/L	192	91.9	30.2	58.1
Standard Deviation	mg/L	29.4	28.9	13.0	27.0
Coefficient of Variation	mg/L	0.153	0.314	0.429	0.466
Lower 95% Confidence Limit about Mean	mg/L	172	71.9	20.6	36.4
Upper 95% Confidence Limit about Mean	mg/L	213	112	39.8	79.7
10th percentile	mg/L	151	51.7	15.5	23.0
25th percentile (Lower Quartile)	mg/L	169	66.4	20.6	34.0
50th percentile (Median)	mg/L	191	87.5	28.3	52.2
75th percentile (Upper Quartile)	mg/L	215	115	38.8	80.4
90th percentile	mg/L	240	148	51.7	119
Inter Quartile Range	mg/L	46.7	49.0	18.2	46.4
Minimum Detected Value	mg/L	150	45	18	27
Maximum Detected Value	mg/L	240	130	51.5	87
Beta_1 (slope) <sup>(1)</sup>		0.181	0.410	0.471	0.639
Beta_0 (intercept) <sup>(1)</sup>		5.25	4.47	3.34	3.96
Correlation Coefficient (r) <sup>(1)</sup>		0.988	0.934	0.967	0.943

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 7e. Hardness Summary Statistics 2002 – 2006 for Smith Canal (SC-1, Mixed Use)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	7	6
Arithmetic Mean	mg/L	205	119	58.6	112
Standard Deviation	mg/L	53.0	42.0	38.5	84.5
Coefficient of Variation	mg/L	0.258	0.352	0.656	0.752
Lower 95% Confidence Limit about Mean	mg/L	168	90.2	30.1	44.7
Upper 95% Confidence Limit about Mean	mg/L	242	148	87.1	180
10th percentile	mg/L	138	63.9	18.1	27.5
25th percentile (Lower Quartile)	mg/L	164	83.6	29.0	48.4
50th percentile (Median)	mg/L	200	113	49.0	90.7
75th percentile (Upper Quartile)	mg/L	243	151	82.9	170
90th percentile	mg/L	289	198	133	300
Inter Quartile Range	mg/L	78.2	67.9	53.9	122
Minimum Detected Value	mg/L	150	68	25	34
Maximum Detected Value	mg/L	280	180	120	244
Beta_1 (slope) <sup>(1)</sup>		0.289	0.441	0.779	0.932
Beta_0 (intercept) <sup>(1)</sup>		5.30	4.72	3.89	4.51
Correlation Coefficient (r) <sup>(1)</sup>		0.958	0.952	0.955	0.993

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

## Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 8a. Total Kjeldahl Nitrogen Summary Statistics 2002 – 2006 (All Sites Combined)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		32	32	27	27
Percent detected		90.6%	93.8%	96.3%	96.3%
n detected		29	30	26	26
Arithmetic Mean	mg/L	3.40	0.912	2.77	1.32
Standard Deviation	mg/L	7.86	0.988	2.67	0.699
Coefficient of Variation	mg/L	2.31	1.08	0.963	0.530
Lower 95% Confidence Limit about Mean	mg/L	0.677	0.57	1.77	1.06
Upper 95% Confidence Limit about Mean	mg/L	6.12	1.25	3.78	1.58
10th percentile	mg/L	0.211	0.259	0.721	0.597
25th percentile (Lower Quartile)	mg/L	0.494	0.413	1.18	0.823
50th percentile (Median)	mg/L	1.27	0.695	2.03	1.18
75th percentile (Upper Quartile)	mg/L	3.25	1.17	3.49	1.68
90th percentile	mg/L	7.58	1.87	5.69	2.32
Inter Quartile Range	mg/L	2.75	0.756	2.31	0.857
Minimum Detected Value	mg/L	0.155	0.19	0.56	0.394
Maximum Detected Value	mg/L	34.5	5.1	10	3.41
Beta_1 (slope) <sup>(1)</sup>		1.40	0.771	0.806	0.529
Beta_0 (intercept) <sup>(1)</sup>		0.236	-0.363	0.706	0.162
Correlation Coefficient (r) <sup>(1)</sup>		0.968	0.968	0.951	0.983

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 \cdot Z + \text{Beta}_0$

**Table 8b. Total Kjeldahl Nitrogen Summary Statistics 2002 – 2006 for Calaveras River (CR-46, Commercial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	6	7
Percent detected		87.5%	100.0%	100.0%	100.0%
n detected		7	8	6	7
Arithmetic Mean	mg/L	2.24	0.672	2.75	1.44
Standard Deviation	mg/L	2.56	0.506	2.83	0.818
Coefficient of Variation	mg/L	1.14	0.754	1.03	0.569
Lower 95% Confidence Limit about Mean	mg/L	0.470	0.321	0.485	0.831
Upper 95% Confidence Limit about Mean	mg/L	4.01	1.02	5.01	2.04
10th percentile	mg/L	0.249	0.176	0.388	0.464
25th percentile (Lower Quartile)	mg/L	0.560	0.298	0.810	0.739
50th percentile (Median)	mg/L	1.38	0.538	1.83	1.24
75th percentile (Upper Quartile)	mg/L	3.38	0.970	4.14	2.08
90th percentile	mg/L	7.59	1.65	8.63	3.31
Inter Quartile Range	mg/L	2.82	0.671	3.33	1.34
Minimum Detected Value	mg/L	0.620	0.190	0.560	0.394
Maximum Detected Value	mg/L	7.2	1.6	7.1	2.8
Beta_1 (slope) <sup>(1)</sup>		1.33	0.874	1.21	0.767
Beta_0 (intercept) <sup>(1)</sup>		0.319	-0.620	0.605	0.215
Correlation Coefficient (r) <sup>(1)</sup>		0.988	0.982	0.953	0.961

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 \cdot Z + \text{Beta}_0$



# Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 8c. Total Kjeldahl Nitrogen Summary Statistics 2002 – 2006 for Duck Creek (DC-65, Industrial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	8
Percent detected		100.0%	87.5%	85.7%	87.5%
n detected		8	7	6	7
Arithmetic Mean	mg/L	6.15	0.677	2.85	1.13
Standard Deviation	mg/L	15.9	0.383	3.71	0.366
Coefficient of Variation	mg/L	2.58	0.566	1.30	0.325
Lower 95% Confidence Limit about Mean	mg/L	-4.85	0.412	0.101	0.872
Upper 95% Confidence Limit about Mean	mg/L	17.1	0.942	5.60	1.38
10th percentile	mg/L	0.504	0.225	0.646	0.681
25th percentile (Lower Quartile)	mg/L	1.11	0.352	1.13	0.849
50th percentile (Median)	mg/L	2.66	0.577	2.08	1.09
75th percentile (Upper Quartile)	mg/L	6.39	0.946	3.85	1.39
90th percentile	mg/L	14.1	1.48	6.71	1.73
Inter Quartile Range	mg/L	5.28	0.594	2.73	0.540
Minimum Detected Value	mg/L	0.660	0.303	1.6	0.780
Maximum Detected Value	mg/L	34.5	1.1	9.3	1.71
Beta_1 (slope) <sup>(1)</sup>		1.30	0.734	0.913	0.365
Beta_0 (intercept) <sup>(1)</sup>		0.980	-0.551	0.733	0.0828
Correlation Coefficient (r) <sup>(1)</sup>		0.897	0.901	0.877	0.980

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 8d. Total Kjeldahl Nitrogen Summary Statistics 2002 – 2006 for Mosher Slough (MS-14, Residential)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		75.0%	87.5%	100.0%	100.0%
n detected		6	7	7	6
Arithmetic Mean	mg/L	3.75	1.21	1.67	1.46
Standard Deviation	mg/L	12.7	2.13	0.488	1.20
Coefficient of Variation	mg/L	3.39	1.76	0.292	0.824
Lower 95% Confidence Limit about Mean	mg/L	-5.05	-0.264	1.31	0.497
Upper 95% Confidence Limit about Mean	mg/L	12.6	2.68	2.03	2.42
10th percentile	mg/L	0.0285	0.215	0.990	0.530
25th percentile (Lower Quartile)	mg/L	0.116	0.396	1.25	0.796
50th percentile (Median)	mg/L	0.550	0.777	1.61	1.25
75th percentile (Upper Quartile)	mg/L	2.61	1.53	2.08	1.97
90th percentile	mg/L	10.6	2.80	2.61	2.95
Inter Quartile Range	mg/L	2.50	1.13	0.831	1.17
Minimum Detected Value	mg/L	0.432	0.443	1	0.797
Maximum Detected Value	mg/L	26	5.1	2.25	3.41
Beta_1 (slope) <sup>(1)</sup>		2.31	1.00	0.379	0.670
Beta_0 (intercept) <sup>(1)</sup>		-0.597	-0.252	0.476	0.224
Correlation Coefficient (r) <sup>(1)</sup>		0.885	0.865	0.972	0.911

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 8e. Total Kjeldahl Nitrogen Summary Statistics 2002 – 2006 for Smith Canal (SC-1, Mixed Use)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	7	6
Arithmetic Mean	mg/L	1.45	1.09	3.84	1.33
Standard Deviation	mg/L	1.28	0.494	3.62	0.619
Coefficient of Variation	mg/L	0.886	0.452	0.940	0.466
Lower 95% Confidence Limit about Mean	mg/L	0.559	0.751	1.17	0.832
Upper 95% Confidence Limit about Mean	mg/L	2.34	1.44	6.52	1.82
10th percentile	mg/L	0.223	0.496	0.844	0.575
25th percentile (Lower Quartile)	mg/L	0.458	0.692	1.50	0.817
50th percentile (Median)	mg/L	1.02	1.00	2.84	1.21
75th percentile (Upper Quartile)	mg/L	2.28	1.45	5.39	1.79
90th percentile	mg/L	4.69	2.03	9.58	2.54
Inter Quartile Range	mg/L	1.82	0.761	3.89	0.968
Minimum Detected Value	mg/L	0.155	0.560	1.3	0.743
Maximum Detected Value	mg/L	3.9	1.9	10	2.1
Beta_1 (slope) <sup>(1)</sup>		1.19	0.550	0.948	0.579
Beta_0 (intercept) <sup>(1)</sup>		0.0212	0.00305	1.04	0.189
Correlation Coefficient (r) <sup>(1)</sup>		0.968	0.986	0.932	0.933

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

# Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 9a. Total Suspended Solids Summary Statistics 2002 – 2006 (All Sites Combined)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		32	32	26	27
Percent detected		84.4%	93.8%	100.0%	100.0%
n detected		27	30	26	27
Arithmetic Mean	mg/L	21.6	27.8	98.5	48.8
Standard Deviation	mg/L	27.1	21.0	126	101
Coefficient of Variation	mg/L	1.25	0.753	1.28	2.06
Lower 95% Confidence Limit about Mean	mg/L	12.2	20.6	49.9	10.8
Upper 95% Confidence Limit about Mean	mg/L	31	35.1	147	86.8
10th percentile	mg/L	2.00	6.52	15.9	5.51
25th percentile (Lower Quartile)	mg/L	4.48	11.2	29.9	11.2
50th percentile (Median)	mg/L	11.0	20.6	60.3	24.5
75th percentile (Upper Quartile)	mg/L	26.9	37.8	122	53.9
90th percentile	mg/L	60.3	65.2	229	109
Inter Quartile Range	mg/L	22.4	26.5	91.7	42.7
Minimum Detected Value	mg/L	4	5.3	15	2
Maximum Detected Value	mg/L	110	78	530	440
Beta_1 (slope) <sup>(1)</sup>		1.33	0.898	1.04	1.17
Beta_0 (intercept) <sup>(1)</sup>		2.40	3.03	4.10	3.20
Correlation Coefficient (r) <sup>(1)</sup>		0.993	0.988	0.980	0.939

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 \cdot Z + \text{Beta}_0$

**Table 9b. Total Suspended Solids Summary Statistics 2002 – 2006 for Calaveras River (CR-46, Commercial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	6	7
Percent detected		100.0%	87.5%	100.0%	100.0%
n detected		8	7	6	7
Arithmetic Mean	mg/L	19.5	20.9	85.8	55.5
Standard Deviation	mg/L	28.2	24.8	75.9	101
Coefficient of Variation	mg/L	1.45	1.19	0.884	1.82
Lower 95% Confidence Limit about Mean	mg/L	-0.0954	3.67	25.1	-19.4
Upper 95% Confidence Limit about Mean	mg/L	39.0	38.1	147	130
10th percentile	mg/L	3.30	3.81	20.7	6.94
25th percentile (Lower Quartile)	mg/L	6.31	7.23	36.5	14.3
50th percentile (Median)	mg/L	13.0	14.7	68.4	32.0
75th percentile (Upper Quartile)	mg/L	26.7	30.0	128	71.7
90th percentile	mg/L	51.0	56.8	226	148
Inter Quartile Range	mg/L	20.3	22.7	91.6	57.3
Minimum Detected Value	mg/L	4	6	26	9.5
Maximum Detected Value	mg/L	74	69	210	230
Beta_1 (slope) <sup>(1)</sup>		1.07	1.05	0.931	1.19
Beta_0 (intercept) <sup>(1)</sup>		2.56	2.69	4.22	3.47
Correlation Coefficient (r) <sup>(1)</sup>		0.965	0.959	0.988	0.930

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 \cdot Z + \text{Beta}_0$

## Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 9c. Total Suspended Solids Summary Statistics 2002 – 2006 for Duck Creek (DC-65, Industrial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	8
Percent detected		100.0%	100.0%	100.0%	100.0%
n detected		8	8	7	8
Arithmetic Mean	mg/L	28.4	38.7	135	77
Standard Deviation	mg/L	18.8	22.8	134	201
Coefficient of Variation	mg/L	0.662	0.589	0.996	2.61
Lower 95% Confidence Limit about Mean	mg/L	15.3	22.9	35.3	-62.3
Upper 95% Confidence Limit about Mean	mg/L	41.4	54.5	234	216
10th percentile	mg/L	8.66	8.74	15.2	2.52
25th percentile (Lower Quartile)	mg/L	14.0	15.8	34.5	7.60
50th percentile (Median)	mg/L	23.8	30.6	85.5	25.9
75th percentile (Upper Quartile)	mg/L	40.5	59.1	212	88.4
90th percentile	mg/L	65.4	107	480	267
Inter Quartile Range	mg/L	26.5	43.3	177	80.8
Minimum Detected Value	mg/L	8	5.3	15	2
Maximum Detected Value	mg/L	62	73	340	440
Beta_1 (slope) <sup>(1)</sup>		0.789	0.977	1.35	1.82
Beta_0 (intercept) <sup>(1)</sup>		3.17	3.42	4.45	3.26
Correlation Coefficient (r) <sup>(1)</sup>		0.985	0.925	0.976	0.936

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 9d. Total Suspended Solids Summary Statistics 2002 – 2006 for Mosher Slough (MS-14, Residential)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		75.0%	87.5%	100.0%	100.0%
n detected		6	7	7	6
Arithmetic Mean	mg/L	18.5	17.1	41.7	28.5
Standard Deviation	mg/L	30.9	13.1	26.1	16.6
Coefficient of Variation	mg/L	1.68	0.765	0.625	0.583
Lower 95% Confidence Limit about Mean	mg/L	-2.97	8.04	22.4	15.2
Upper 95% Confidence Limit about Mean	mg/L	39.9	26.2	61.0	41.8
10th percentile	mg/L	0.336	4.05	13.3	8.08
25th percentile (Lower Quartile)	mg/L	1.20	7.12	21.1	13.5
50th percentile (Median)	mg/L	4.94	13.3	35.4	23.8
75th percentile (Upper Quartile)	mg/L	20.4	24.9	59.5	42.1
90th percentile	mg/L	72.8	43.7	94.8	70.3
Inter Quartile Range	mg/L	19.2	17.8	38.3	28.6
Minimum Detected Value	mg/L	4	6.7	17	9.8
Maximum Detected Value	mg/L	76	37	82	51
Beta_1 (slope) <sup>(1)</sup>		2.10	0.928	0.767	0.844
Beta_0 (intercept) <sup>(1)</sup>		1.60	2.59	3.57	3.17
Correlation Coefficient (r) <sup>(1)</sup>		0.894	0.971	0.978	0.927

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 9e. Total Suspended Solids Summary Statistics 2002 – 2006 for Smith Canal (SC-1, Mixed Use)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	6	6
Percent detected		62.5%	100.0%	100.0%	100.0%
n detected		5	8	6	6
Arithmetic Mean	mg/L	19.6	34.6	135	23.7
Standard Deviation	mg/L	49.7	23.1	253	16.1
Coefficient of Variation	mg/L	2.53	0.669	1.87	0.680
Lower 95% Confidence Limit about Mean	mg/L	-14.8	18.5	-67.3	10.8
Upper 95% Confidence Limit about Mean	mg/L	54.0	50.6	338	36.5
10th percentile	mg/L	0.457	10.3	8.50	3.71
25th percentile (Lower Quartile)	mg/L	1.51	16.8	22.5	7.69
50th percentile (Median)	mg/L	5.72	28.9	66.0	17.2
75th percentile (Upper Quartile)	mg/L	21.6	49.9	194	38.6
90th percentile	mg/L	71.6	81.5	512	80.0
Inter Quartile Range	mg/L	20.1	33.1	171	30.9
Minimum Detected Value	mg/L	6.7	9.4	15	2
Maximum Detected Value	mg/L	110	78	530	48
Beta_1 (slope) <sup>(1)</sup>		1.97	0.808	1.60	1.20
Beta_0 (intercept) <sup>(1)</sup>		1.74	3.36	4.19	2.85
Correlation Coefficient (r) <sup>(1)</sup>		0.920	0.988	0.964	0.840

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 10a. Chemical Oxygen Demand Summary Statistics 2002 – 2006** (All Sites Combined)

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		32	32	27	27
Percent detected		90.6%	87.5%	100.0%	100.0%
n detected		29	28	27	27
Arithmetic Mean	mg/L	59.8	35.0	208	54.4
Standard Deviation	mg/L	41.6	36.8	562	35.1
Coefficient of Variation	mg/L	0.696	1.05	2.71	0.645
Lower 95% Confidence Limit about Mean	mg/L	45.4	22.2	-4.54	41.2
Upper 95% Confidence Limit about Mean	mg/L	74.2	47.7	419	67.6
10th percentile	mg/L	16.4	10.9	20.4	19.2
25th percentile (Lower Quartile)	mg/L	26.8	16.9	40.0	28.8
50th percentile (Median)	mg/L	46.5	27.3	84.4	45.2
75th percentile (Upper Quartile)	mg/L	80.5	44.2	178	70.9
90th percentile	mg/L	132	68.2	350	107
Inter Quartile Range	mg/L	53.7	27.3	138	42.2
Minimum Detected Value	mg/L	14	12	17	13
Maximum Detected Value	mg/L	180	190	2400	130
Beta_1 (slope) <sup>(1)</sup>		0.815	0.714	1.11	0.669
Beta_0 (intercept) <sup>(1)</sup>		3.84	3.31	4.44	3.81
Correlation Coefficient (r) <sup>(1)</sup>		0.974	0.966	0.915	0.983

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 \cdot Z + \text{Beta}_0$

## Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 11a. Biochemical Oxygen Demand Summary Statistics 2002 – 2006** (All Sites Combined)

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		32	32	27	27
Percent detected		81.3%	78.1%	100.0%	96.3%
n detected		26	25	27	26
Arithmetic Mean	mg/L	10.7	2.82	23.4	7.06
Standard Deviation	mg/L	28.2	2.13	50.8	7.14
Coefficient of Variation	mg/L	2.63	0.756	2.17	1.01
Lower 95% Confidence Limit about Mean	mg/L	0.957	2.08	4.27	4.37
Upper 95% Confidence Limit about Mean	mg/L	20.5	3.55	42.6	9.76
10th percentile	mg/L	0.795	0.761	4.30	1.95
25th percentile (Lower Quartile)	mg/L	1.81	1.25	7.50	3.14
50th percentile (Median)	mg/L	4.49	2.16	13.9	5.35
75th percentile (Upper Quartile)	mg/L	11.1	3.75	25.7	9.12
90th percentile	mg/L	25.3	6.15	44.8	14.7
Inter Quartile Range	mg/L	9.34	2.5	18.2	5.97
Minimum Detected Value	mg/L	1.3	1.1	3.4	1.9
Maximum Detected Value	mg/L	130	9.7	220	34
Beta_1 (slope) <sup>(1)</sup>		1.35	0.815	0.914	0.790
Beta_0 (intercept) <sup>(1)</sup>		1.50	0.771	2.63	1.68
Correlation Coefficient (r) <sup>(1)</sup>		0.976	0.983	0.950	0.985

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

## Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 11b. Biochemical Oxygen Demand Summary Statistics 2002 – 2006 for Calaveras River (CR-46, Commercial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	6	7
Percent detected		100.0%	75.0%	100.0%	85.7%
n detected		8	6	6	6
Arithmetic Mean	mg/L	11.2	2.39	14.7	6.57
Standard Deviation	mg/L	9.61	2.02	20.3	4.14
Coefficient of Variation	mg/L	0.855	0.847	1.38	0.630
Lower 95% Confidence Limit about Mean	mg/L	4.58	0.987	-1.48	3.50
Upper 95% Confidence Limit about Mean	mg/L	17.9	3.79	31.0	9.63
10th percentile	mg/L	2.52	0.538	2.68	1.95
25th percentile (Lower Quartile)	mg/L	4.54	0.960	5.06	3.18
50th percentile (Median)	mg/L	8.70	1.83	10.2	5.48
75th percentile (Upper Quartile)	mg/L	16.7	3.47	20.7	9.43
90th percentile	mg/L	30.1	6.19	39.1	15.4
Inter Quartile Range	mg/L	12.2	2.51	15.7	6.26
Minimum Detected Value	mg/L	2.1	1.2	4.2	2
Maximum Detected Value	mg/L	30	6.2	47	11
Beta_1 (slope) <sup>(1)</sup>		0.967	0.953	1.05	0.807
Beta_0 (intercept) <sup>(1)</sup>		2.16	0.602	2.33	1.70
Correlation Coefficient (r) <sup>(1)</sup>		0.973	0.973	0.941	0.853

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 11c. Biochemical Oxygen Demand Summary Statistics 2002 – 2006 for Duck Creek (DC-65, Industrial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	8
Percent detected		87.5%	75.0%	100.0%	100.0%
n detected		7	6	7	8
Arithmetic Mean	mg/L	24.2	2.26	19.7	3.3
Standard Deviation	mg/L	56.7	1.95	21.8	1.09
Coefficient of Variation	mg/L	2.34	0.860	1.11	0.331
Lower 95% Confidence Limit about Mean	mg/L	-15.1	0.913	3.54	2.54
Upper 95% Confidence Limit about Mean	mg/L	63.4	3.61	35.8	4.06
10th percentile	mg/L	1.03	0.430	3.03	1.91
25th percentile (Lower Quartile)	mg/L	2.87	0.813	6.18	2.43
50th percentile (Median)	mg/L	8.98	1.65	13.6	3.16
75th percentile (Upper Quartile)	mg/L	28.1	3.34	30.1	4.11
90th percentile	mg/L	78.3	6.31	61.3	5.21
Inter Quartile Range	mg/L	25.2	2.53	23.9	1.68
Minimum Detected Value	mg/L	4.1	1.1	3.4	1.9
Maximum Detected Value	mg/L	130	5.8	59	5.1
Beta_1 (slope) <sup>(1)</sup>		1.69	1.05	1.17	0.391
Beta_0 (intercept) <sup>(1)</sup>		2.20	0.500	2.61	1.15
Correlation Coefficient (r) <sup>(1)</sup>		0.947	0.991	0.976	0.986

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$



**Table 11d. Biochemical Oxygen Demand Summary Statistics 2002 – 2006 for Mosher Slough (MS-14, Residential)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		62.5%	62.5%	100.0%	100.0%
n detected		5	5	7	6
Arithmetic Mean	mg/L	2.24	1.58	16.7	13.9
Standard Deviation	mg/L	1.79	0.749	8.46	12.3
Coefficient of Variation	mg/L	0.797	0.475	0.507	0.891
Lower 95% Confidence Limit about Mean	mg/L	1.00	1.06	10.4	3.98
Upper 95% Confidence Limit about Mean	mg/L	3.48	2.10	23.0	23.7
10th percentile	mg/L	0.490	0.818	6.91	3.00
25th percentile (Lower Quartile)	mg/L	0.882	1.08	10.00	5.50
50th percentile (Median)	mg/L	1.69	1.47	15.1	10.8
75th percentile (Upper Quartile)	mg/L	3.25	1.99	22.7	21.1
90th percentile	mg/L	5.85	2.63	32.8	38.7
Inter Quartile Range	mg/L	2.37	0.914	12.7	15.6
Minimum Detected Value	mg/L	1.3	1.1	7.7	4.1
Maximum Detected Value	mg/L	5.1	2.3	31	34
Beta_1 (slope) <sup>(1)</sup>		0.967	0.455	0.608	0.998
Beta_0 (intercept) <sup>(1)</sup>		0.526	0.383	2.71	2.38
Correlation Coefficient (r) <sup>(1)</sup>		0.951	0.769	0.963	0.983

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$ **Table 11e. Biochemical Oxygen Demand Summary Statistics 2002 – 2006 for Smith Canal (SC-1, Mixed Use)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		75.0%	100.0%	100.0%	100.0%
n detected		6	8	7	6
Arithmetic Mean	mg/L	5.21	4.99	41.5	5.98
Standard Deviation	mg/L	7.80	2.40	110	3.13
Coefficient of Variation	mg/L	1.50	0.481	2.66	0.524
Lower 95% Confidence Limit about Mean	mg/L	-0.191	3.32	-40.4	3.48
Upper 95% Confidence Limit about Mean	mg/L	10.6	6.65	123	8.49
10th percentile	mg/L	0.731	2.72	3.36	3.35
25th percentile (Lower Quartile)	mg/L	1.49	3.52	7.23	4.29
50th percentile (Median)	mg/L	3.27	4.68	16.9	5.64
75th percentile (Upper Quartile)	mg/L	7.19	6.22	39.5	7.43
90th percentile	mg/L	14.6	8.04	84.9	9.52
Inter Quartile Range	mg/L	5.70	2.70	32.3	3.14
Minimum Detected Value	mg/L	2.5	3.1	5.8	4.1
Maximum Detected Value	mg/L	20	9.7	220	11
Beta_1 (slope) <sup>(1)</sup>		1.17	0.423	1.26	0.408
Beta_0 (intercept) <sup>(1)</sup>		1.18	1.54	2.83	1.73
Correlation Coefficient (r) <sup>(1)</sup>		0.927	0.936	0.839	0.895

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

## Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 12a. Fecal Coliform Summary Statistics 2002 – 2006** (All Sites Combined)

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		32	32	28	27
Percent detected		93.8%	84.4%	100.0%	96.3%
n detected		30	27	28	26
Arithmetic Mean	MPN/100mL	211000	1120	20400	28900
Standard Deviation	MPN/100mL	1180000	2920	29000	124000
Coefficient of Variation	MPN/100mL	5.6	2.62	1.42	4.3
Lower 95% Confidence Limit about Mean	MPN/100mL	-199000	104	9720	-18000
Upper 95% Confidence Limit about Mean	MPN/100mL	621000	2130	31200	75800
10th percentile	MPN/100mL	621	68.9	1420	43.9
25th percentile (Lower Quartile)	MPN/100mL	2420	156	3390	645
50th percentile (Median)	MPN/100mL	10900	386	8890	2950
75th percentile (Upper Quartile)	MPN/100mL	49300	954	23300	13500
90th percentile	MPN/100mL	192000	2160	55700	52900
Inter Quartile Range	MPN/100mL	46900	799	19900	12800
Minimum Detected Value	MPN/100mL	200	200	1100	200
Maximum Detected Value	MPN/100mL	5000000	13000	110000	500000
Beta_1 (slope) <sup>(1)</sup>		2.24	1.34	1.43	2.25
Beta_0 (intercept) <sup>(1)</sup>		9.3	5.95	9.09	7.99
Correlation Coefficient (r) <sup>(1)</sup>		0.973	0.929	0.981	0.984

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 \cdot Z + \text{Beta}_0$

Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 12b. Fecal Coliform Summary Statistics 2002 – 2006 for Calaveras River (CR-46, Commercial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	6	7
Percent detected		87.5%	87.5%	100.0%	100.0%
n detected		7	7	6	7
Arithmetic Mean	MPN/ 100mL	7670	433	5270	6910
Standard Deviation	MPN/ 100mL	7540	445	4770	13300
Coefficient of Variation	MPN/ 100mL	0.983	1.03	0.905	1.93
Lower 95% Confidence Limit about Mean	MPN/ 100mL	2440	125	1450	-2970
Upper 95% Confidence Limit about Mean	MPN/ 100mL	12900	742	9080	16800
10th percentile	MPN/ 100mL	908	85.1	1380	663
25th percentile (Lower Quartile)	MPN/ 100mL	1950	158	2320	1480
50th percentile (Median)	MPN/ 100mL	4580	313	4130	3630
75th percentile (Upper Quartile)	MPN/ 100mL	10700	620	7350	8900
90th percentile	MPN/ 100mL	23100	1150	12400	19900
Inter Quartile Range	MPN/ 100mL	8770	462	5030	7410
Minimum Detected Value	MPN/ 100mL	1100	200	2300	1000
Maximum Detected Value	MPN/ 100mL	20000	1300	13000	30000
Beta_1 (slope) <sup>(1)</sup>		1.26	1.01	0.856	1.33
Beta_0 (intercept) <sup>(1)</sup>		8.43	5.74	8.33	8.20
Correlation Coefficient (r) <sup>(1)</sup>		0.938	0.955	0.910	0.948

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 12c. Fecal Coliform Summary Statistics 2002 – 2006 for Duck Creek (DC-65, Industrial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	8	8
Percent detected		87.5%	87.5%	100.0%	100.0%
n detected		7	7	8	8
Arithmetic Mean	MPN/100mL	77700	559	23500	1700
Standard Deviation	MPN/100mL	124000	466	43900	3320
Coefficient of Variation	MPN/100mL	1.59	0.833	1.87	1.95
Lower 95% Confidence Limit about Mean	MPN/100mL	-7850	236	-6970	-603
Upper 95% Confidence Limit about Mean	MPN/100mL	163000	882	53900	4000
10th percentile	MPN/100mL	2050	98.5	650	125
25th percentile (Lower Quartile)	MPN/100mL	6560	191	2060	306
50th percentile (Median)	MPN/100mL	23800	400	7420	827
75th percentile (Upper Quartile)	MPN/100mL	86500	837	26700	2230
90th percentile	MPN/100mL	277000	1630	84800	5450
Inter Quartile Range	MPN/100mL	79900	645	24700	1920
Minimum Detected Value	MPN/100mL	3000	200	1100	200
Maximum Detected Value	MPN/100mL	300000	1300	110000	8000
Beta_1 (slope) <sup>(1)</sup>		1.91	1.09	1.90	1.47
Beta_0 (intercept) <sup>(1)</sup>		10.1	5.99	8.91	6.72
Correlation Coefficient (r) <sup>(1)</sup>		0.981	0.969	0.961	0.968

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 12d. Fecal Coliform Summary Statistics 2002 – 2006 for Mosher Slough (MS-14, Residential)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		100.0%	87.5%	100.0%	83.3%
n detected		8	7	7	5
Arithmetic Mean	MPN/ 100mL	22200	3070	10200	100000
Standard Deviation	MPN/ 100mL	58100	5340	7940	272000
Coefficient of Variation	MPN/ 100mL	2.62	1.74	0.778	2.71
Lower 95% Confidence Limit about Mean	MPN/ 100mL	-18000	-633	4320	-117000
Upper 95% Confidence Limit about Mean	MPN/ 100mL	62400	6760	16100	317000
10th percentile	MPN/ 100mL	184	40.8	1690	1770
25th percentile (Lower Quartile)	MPN/ 100mL	850	159	3420	6260
50th percentile (Median)	MPN/ 100mL	4640	719	7440	25400
75th percentile (Upper Quartile)	MPN/ 100mL	25300	3250	16200	103000
90th percentile	MPN/ 100mL	117000	12700	32700	364000
Inter Quartile Range	MPN/ 100mL	24500	3090	12800	96700
Minimum Detected Value	MPN/ 100mL	200	200	1700	13000
Maximum Detected Value	MPN/ 100mL	130000	13000	23000	500000
Beta_1 (slope) <sup>(1)</sup>		2.52	2.24	1.15	2.08
Beta_0 (intercept) <sup>(1)</sup>		8.44	6.58	8.91	10.1
Correlation Coefficient (r) <sup>(1)</sup>		0.990	0.938	0.970	0.898

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

## Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 12e. Fecal Coliform Summary Statistics 2002 – 2006 for Smith Canal (SC-1, Mixed Use)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		100.0%	75.0%	100.0%	100.0%
n detected		8	6	7	6
Arithmetic Mean	MPN/ 100mL	738000	406	40200	20000
Standard Deviation	MPN/ 100mL	2290000	384	31400	61700
Coefficient of Variation	MPN/ 100mL	3.11	0.948	0.780	3.09
Lower 95% Confidence Limit about Mean	MPN/ 100mL	-852000	139	17000	-29400
Upper 95% Confidence Limit about Mean	MPN/ 100mL	2330000	672	63500	69400
10th percentile	MPN/ 100mL	373	62.7	3570	121
25th percentile (Lower Quartile)	MPN/ 100mL	3000	126	9010	530
50th percentile (Median)	MPN/ 100mL	30400	275	25200	2740
75th percentile (Upper Quartile)	MPN/ 100mL	308000	599	70200	14200
90th percentile	MPN/ 100mL	2480000	1210	177000	62200
Inter Quartile Range	MPN/ 100mL	305000	473	61200	13600
Minimum Detected Value	MPN/ 100mL	1700	200	1700	400
Maximum Detected Value	MPN/ 100mL	5000000	1100	80000	110000
Beta_1 (slope) <sup>(1)</sup>		3.43	1.15	1.52	2.44
Beta_0 (intercept) <sup>(1)</sup>		10.3	5.62	10.1	7.92
Correlation Coefficient (r) <sup>(1)</sup>		0.956	0.972	0.906	0.924

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 13a. *E. Coli* Summary Statistics 2002 – 2006** (All Sites Combined)

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		24	24	24	24
Percent detected		91.7%	100.0%	79.2%	95.8%
n detected		22	24	19	23
Arithmetic Mean	MPN/100mL	240000	22400	964	29000
Standard Deviation	MPN/100mL	1440000	30700	3520	136000
Coefficient of Variation	MPN/100mL	5.99	1.37	3.65	4.70
Lower 95% Confidence Limit about Mean	MPN/100mL	-336000	10200	-445	-25500
Upper 95% Confidence Limit about Mean	MPN/100mL	817000	34700	2370	83400
10th percentile	MPN/100mL	485	1350	63.6	139
25th percentile (Lower Quartile)	MPN/100mL	1900	3400	142	550
50th percentile (Median)	MPN/100mL	8670	9490	344	2540
75th percentile (Upper Quartile)	MPN/100mL	39500	26500	837	11700
90th percentile	MPN/100mL	155000	66900	1860	46600
Inter Quartile Range	MPN/100mL	37600	23100	695	11200
Minimum Detected Value	MPN/100mL	200	1100	200	200
Maximum Detected Value	MPN/100mL	5000000	110000	13000	500000
Beta_1 (slope) <sup>(1)</sup>		2.25	1.52	1.32	2.27
Beta_0 (intercept) <sup>(1)</sup>		9.07	9.16	5.84	7.84
Correlation Coefficient (r) <sup>(1)</sup>		0.950	0.983	0.914	0.978

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 13b. *E. coli* Summary Statistics 2002 – 2006 for Calaveras River (CR-46, Commercial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		6	6	5	6
Percent detected		83.3%	83.3%	100.0%	100.0%
n detected		5	5	5	6
Arithmetic Mean	MPN/ 100mL	8710	476	5520	7670
Standard Deviation	MPN/ 100mL	8420	509	5280	14300
Coefficient of Variation	MPN/ 100mL	0.967	1.07	0.956	1.86
Lower 95% Confidence Limit about Mean	MPN/ 100mL	1970	68.4	896	-3740
Upper 95% Confidence Limit about Mean	MPN/ 100mL	15400	883	10100	19100
10th percentile	MPN/ 100mL	959	60.7	809	614
25th percentile (Lower Quartile)	MPN/ 100mL	2140	132	1710	1480
50th percentile (Median)	MPN/ 100mL	5200	313	3930	3950
75th percentile (Upper Quartile)	MPN/ 100mL	12700	741	9010	10500
90th percentile	MPN/ 100mL	28200	1610	19100	25400
Inter Quartile Range	MPN/ 100mL	10500	609	7300	9020
Minimum Detected Value	MPN/ 100mL	1100	200	1300	1000
Maximum Detected Value	MPN/ 100mL	20000	1300	13000	30000
Beta_1 (slope) <sup>(1)</sup>		1.32	1.28	1.23	1.45
Beta_0 (intercept) <sup>(1)</sup>		8.56	5.75	8.28	8.28
Correlation Coefficient (r) <sup>(1)</sup>		0.923	0.977	0.984	0.952

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 \cdot Z + \text{Beta}_0$



Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 13c. *E. coli* Summary Statistics 2002 – 2006 for Duck Creek (DC-65, Industrial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		6	6	7	7
Percent detected		83.3%	83.3%	100.0%	100.0%
n detected		5	5	7	7
Arithmetic Mean	MPN/ 100mL	47500	530	26000	1800
Standard Deviation	MPN/ 100mL	121000	490	46400	3560
Coefficient of Variation	MPN/ 100mL	2.54	0.925	1.78	1.98
Lower 95% Confidence Limit about Mean	MPN/ 100mL	-49100	138	-8330	-836
Upper 95% Confidence Limit about Mean	MPN/ 100mL	144000	922	60400	4440
10th percentile	MPN/ 100mL	1120	89.3	518	102
25th percentile (Lower Quartile)	MPN/ 100mL	3580	178	1850	273
50th percentile (Median)	MPN/ 100mL	13000	382	7600	809
75th percentile (Upper Quartile)	MPN/ 100mL	47300	822	31200	2400
90th percentile	MPN/ 100mL	151000	1640	111000	6390
Inter Quartile Range	MPN/ 100mL	43700	644	29400	2130
Minimum Detected Value	MPN/ 100mL	3000	200	1100	200
Maximum Detected Value	MPN/ 100mL	230000	1300	110000	8000
Beta_1 (slope) <sup>(1)</sup>		1.91	1.13	2.09	1.61
Beta_0 (intercept) <sup>(1)</sup>		9.47	5.95	8.94	6.70
Correlation Coefficient (r) <sup>(1)</sup>		0.981	0.978	0.955	0.968

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

## Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 13d. *E. coli* Summary Statistics 2002 – 2006 for Mosher Slough (MS-14, Residential)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		6	6	6	5
Percent detected		100.0%	83.3%	100.0%	80.0%
n detected		6	5	6	4
Arithmetic Mean	MPN/ 100mL	24400	2560	11600	112000
Standard Deviation	MPN/ 100mL	72000	7160	7640	296000
Coefficient of Variation	MPN/ 100mL	2.95	2.80	0.658	2.65
Lower 95% Confidence Limit about Mean	MPN/ 100mL	-33200	-3170	5500	-148000
Upper 95% Confidence Limit about Mean	MPN/ 100mL	82000	8280	17700	371000
10th percentile	MPN/ 100mL	130	46.0	2900	168
25th percentile (Lower Quartile)	MPN/ 100mL	647	158	5090	1310
50th percentile (Median)	MPN/ 100mL	3850	623	9520	12700
75th percentile (Upper Quartile)	MPN/ 100mL	22900	2460	17800	124000
90th percentile	MPN/ 100mL	114000	8450	31300	968000
Inter Quartile Range	MPN/ 100mL	22200	2300	12700	123000
Minimum Detected Value	MPN/ 100mL	200	400	2700	5000
Maximum Detected Value	MPN/ 100mL	130000	13000	23000	500000
Beta_1 (slope) <sup>(1)</sup>		2.64	2.03	0.929	3.38
Beta_0 (intercept) <sup>(1)</sup>		8.26	6.44	9.16	9.45
Correlation Coefficient (r) <sup>(1)</sup>		0.961	0.869	0.961	0.984

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

## Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 13e. *E. coli* Summary Statistics 2002 – 2006 for Smith Canal (SC-1, Mixed Use)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		6	6	6	6
Percent detected		100.0%	66.7%	100.0%	100.0%
n detected		6	4	6	6
Arithmetic Mean	MPN/ 100mL	882000	285	43100	13100
Standard Deviation	MPN/ 100mL	2800000	316	33300	38600
Coefficient of Variation	MPN/ 100mL	3.18	1.11	0.773	2.96
Lower 95% Confidence Limit about Mean	MPN/ 100mL	-1360000	32.1	16500	-17800
Upper 95% Confidence Limit about Mean	MPN/ 100mL	3130000	539	69800	43900
10th percentile	MPN/ 100mL	169	37.5	2880	128
25th percentile (Lower Quartile)	MPN/ 100mL	1770	80.1	8110	493
50th percentile (Median)	MPN/ 100mL	23900	186	25500	2210
75th percentile (Upper Quartile)	MPN/ 100mL	324000	431	80500	9900
90th percentile	MPN/ 100mL	3400000	920	226000	38300
Inter Quartile Range	MPN/ 100mL	323000	351	72400	9410
Minimum Detected Value	MPN/ 100mL	1700	200	1700	400
Maximum Detected Value	MPN/ 100mL	5000000	800	80000	70000
Beta_1 (slope) <sup>(1)</sup>		3.87	1.25	1.70	2.22
Beta_0 (intercept) <sup>(1)</sup>		10.1	5.22	10.1	7.70
Correlation Coefficient (r) <sup>(1)</sup>		0.926	0.963	0.904	0.909

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 14a. Oil and Grease Summary Statistics 2002 – 2006** (All Sites Combined)

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		32	32	28	27
Percent detected		50.0%	40.6%	57.1%	59.3%
n detected		16	13	16	16
Arithmetic Mean	mg/L	2.80	1.38	3.18	1.55
Standard Deviation	mg/L	5.75	1.02	2.36	1.34
Coefficient of Variation	mg/L	2.05	0.737	0.741	0.867
Lower 95% Confidence Limit about Mean	mg/L	0.805	1.03	2.30	1.04
Upper 95% Confidence Limit about Mean	mg/L	4.79	1.73	4.05	2.06
10th percentile	mg/L	0.492	0.437	1.46	0.453
25th percentile (Lower Quartile)	mg/L	0.880	0.681	1.98	0.72
50th percentile (Median)	mg/L	1.68	1.12	2.76	1.20
75th percentile (Upper Quartile)	mg/L	3.20	1.83	3.87	2.02
90th percentile	mg/L	5.73	2.86	5.23	3.20
Inter Quartile Range	mg/L	2.32	1.15	1.89	1.30
Minimum Detected Value	mg/L	0.49	0.76	1.7	0.42
Maximum Detected Value	mg/L	27	4.3	12	6
Beta_1 (slope) <sup>(1)</sup>		0.958	0.733	0.498	0.763
Beta_0 (intercept) <sup>(1)</sup>		0.518	0.111	1.02	0.186
Correlation Coefficient (r) <sup>(1)</sup>		0.960	0.974	0.931	0.994

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

## Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 14b. Oil & Grease Summary Statistics 2002 – 2006 for Calaveras River (CR-46, Commercial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
N		8	8	6	7
Percent detected		50.0%	37.5%	66.7%	57.1%
n detected		4	3	4	4
Arithmetic Mean	mg/L	2.54		3.41	1.23
Standard Deviation	mg/L	1.61		0.930	1.43
Coefficient of Variation	mg/L	0.633		0.273	1.17
Lower 95% Confidence Limit about Mean	mg/L	1.42		2.66	0.165
Upper 95% Confidence Limit about Mean	mg/L	3.65		4.15	2.29
10th percentile	mg/L	1.18	NOT	2.01	0.270
25th percentile (Lower Quartile)	mg/L	1.61	ENOUGH	2.55	0.488
50th percentile (Median)	mg/L	2.27	DETECTED	3.32	0.938
75th percentile (Upper Quartile)	mg/L	3.20	VALUES	4.33	1.81
90th percentile	mg/L	4.37		5.49	3.26
Inter Quartile Range	mg/L	1.59		1.77	1.32
Minimum Detected Value	mg/L	1.7	0.960	2.4	0.5
Maximum Detected Value	mg/L	5.6	1	4.5	3.6
Beta_1 (slope) <sup>(1)</sup>		0.509		0.391	0.971
Beta_0 (intercept) <sup>(1)</sup>		0.821		1.20	-0.0638
Correlation Coefficient (r) <sup>(1)</sup>		0.970		0.988	0.980

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 14c. Oil & Grease Summary Statistics 2002 – 2006 for Duck Creek (DC-65, Industrial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	8	8
Percent detected		50.0%	37.5%	50.0%	50.0%
n detected		4	3	4	4
Arithmetic Mean	mg/L	5.54	1.64	3.05	1.87
Standard Deviation	mg/L	12.0	1.53	2.49	2.24
Coefficient of Variation	mg/L	2.16	0.931	0.817	1.20
Lower 95% Confidence Limit about Mean	mg/L	-2.76	0.583	1.33	0.319
Upper 95% Confidence Limit about Mean	mg/L	13.8	2.70	4.78	3.43
10th percentile	mg/L	0.682	0.425	1.25	0.220
25th percentile (Lower Quartile)	mg/L	1.36	0.726	1.78	0.470
50th percentile (Median)	mg/L	2.95	1.32	2.63	1.09
75th percentile (Upper Quartile)	mg/L	6.36	2.39	3.89	2.53
90th percentile	mg/L	12.7	4.08	5.54	5.41
Inter Quartile Range	mg/L	5.00	1.66	2.11	2.06
Minimum Detected Value	mg/L	1.8	0.760	2	0.420
Maximum Detected Value	mg/L	27	4.3	7.7	6
Beta_1 (slope) <sup>(1)</sup>		1.14	0.882	0.581	1.25
Beta_0 (intercept) <sup>(1)</sup>		1.08	0.275	0.967	0.0877
Correlation Coefficient (r) <sup>(1)</sup>		0.916	0.998	0.941	0.973

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 14d. Oil & Grease Summary Statistics 2002 – 2006 for Mosher Slough (MS-14, Residential)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		50.0%	37.5%	57.1%	66.7%
n detected		4	3	4	4
Arithmetic Mean	mg/L	1.73	0.937	2.14	1.52
Standard Deviation	mg/L	2.78	1.00	0.530	0.558
Coefficient of Variation	mg/L	1.61	1.07	0.248	0.367
Lower 95% Confidence Limit about Mean	mg/L	-0.203	0.242	1.74	1.07
Upper 95% Confidence Limit about Mean	mg/L	3.66	1.63	2.53	1.96
10th percentile	mg/L	0.281	0.253	1.47	0.693
25th percentile (Lower Quartile)	mg/L	0.544	0.425	1.74	0.985
50th percentile (Median)	mg/L	1.14	0.756	2.09	1.45
75th percentile (Upper Quartile)	mg/L	2.37	1.35	2.51	2.15
90th percentile	mg/L	4.59	2.26	2.96	3.05
Inter Quartile Range	mg/L	1.82	0.921	0.770	1.16
Minimum Detected Value	mg/L	0.510	0.780	1.7	0.9
Maximum Detected Value	mg/L	6.8	2.6	3	2.3
Beta_1 (slope) <sup>(1)</sup>		1.09	0.855	0.272	0.578
Beta_0 (intercept) <sup>(1)</sup>		0.127	-0.279	0.735	0.374
Correlation Coefficient (r) <sup>(1)</sup>		0.982	0.976	0.995	0.993

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$ **Table 14e. Oil & Grease Summary Statistics 2002 – 2006 for Smith Canal (SC-1, Mixed Use)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		50.0%	50.0%	57.1%	66.7%
n detected		4	4	4	4
Arithmetic Mean	mg/L	1.43	2.22	3.81	1.22
Standard Deviation	mg/L	1.43	0.610	5.10	0.267
Coefficient of Variation	mg/L	0.996	0.275	1.34	0.219
Lower 95% Confidence Limit about Mean	mg/L	0.443	1.80	0.0285	1.01
Upper 95% Confidence Limit about Mean	mg/L	2.42	2.64	7.59	1.43
10th percentile	mg/L	0.316	1.41	0.919	0.783
25th percentile (Lower Quartile)	mg/L	0.573	1.72	1.56	0.958
50th percentile (Median)	mg/L	1.11	2.14	2.82	1.20
75th percentile (Upper Quartile)	mg/L	2.15	2.67	5.08	1.50
90th percentile	mg/L	3.89	3.26	8.63	1.84
Inter Quartile Range	mg/L	1.57	0.955	3.51	0.543
Minimum Detected Value	mg/L	0.490	1.8	2.7	0.920
Maximum Detected Value	mg/L	4.1	3.2	12	1.5
Beta_1 (slope) <sup>(1)</sup>		0.979	0.328	0.874	0.333
Beta_0 (intercept) <sup>(1)</sup>		0.103	0.762	1.04	0.182
Correlation Coefficient (r) <sup>(1)</sup>		0.996	0.954	0.935	0.917

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

# Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 15a. Diazinon Summary Statistics 2002 – 2006** (All Sites Combined)

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		31	31	27	27
Percent detected		25.8%	9.7%	37.0%	48.1%
n detected		8	3	10	13
Arithmetic Mean	µg/L	0.0458		0.0866	0.0902
Standard Deviation	µg/L	0.128		0.174	0.176
Coefficient of Variation	µg/L	2.79		2.01	1.96
Lower 95% Confidence Limit about Mean	µg/L	0.000859		0.0211	0.0236
Upper 95% Confidence Limit about Mean	µg/L	0.0907		0.152	0.157
10th percentile	µg/L	0.0000785	NOT	0.000469	0.00336
25th percentile (Lower Quartile)	µg/L	0.000449	ENOUGH	0.00213	0.00951
50th percentile (Median)	µg/L	0.00311	DETECTED	0.0114	0.0301
75th percentile (Upper Quartile)	µg/L	0.0215	VALUES	0.0610	0.0954
90th percentile	µg/L	0.123		0.277	0.270
Inter Quartile Range	µg/L	0.0211		0.0589	0.0859
Minimum Detected Value	µg/L	0.02	0.01	0.01	0.02
Maximum Detected Value	µg/L	0.57	0.3	0.58	0.77
Beta_1 (slope) <sup>(1)</sup>		2.87		2.49	1.71
Beta_0 (intercept) <sup>(1)</sup>		-5.77		-4.47	-3.50
Correlation Coefficient (r) <sup>(1)</sup>		0.955		0.920	0.958

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 15b. Diazinon Summary Statistics 2002 – 2006 for Calaveras River (CR-46, Commercial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	6	7
Percent detected		37.5%	0.0%	33.3%	71.4%
n detected		3	0	2	5
Arithmetic Mean	mg/L	0.0471			0.181
Standard Deviation	mg/L	0.128			0.346
Coefficient of Variation	mg/L	2.72			1.92
Lower 95% Confidence Limit about Mean	mg/L	-0.0416			-0.0756
Upper 95% Confidence Limit about Mean	mg/L	0.136			0.437
10th percentile	mg/L	0.0000245	NOT ENOUGH DETECTED VALUES	NOT ENOUGH DETECTED VALUES	0.0119
25th percentile (Lower Quartile)	mg/L	0.000219			0.0303
50th percentile (Median)	mg/L	0.00250			0.0857
75th percentile (Upper Quartile)	mg/L	0.0286			0.242
90th percentile	mg/L	0.256			0.617
Inter Quartile Range	mg/L	0.0284			0.212
Minimum Detected Value	mg/L	0.0200		0.160	0.0700
Maximum Detected Value	mg/L	0.290		0.580	0.770
Beta_1 (slope) <sup>(1)</sup>		3.61			1.54
Beta_0 (intercept) <sup>(1)</sup>		-5.99			-2.46
Correlation Coefficient (r) <sup>(1)</sup>		1.000			0.928

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$ **Table 15c. Diazinon Summary Statistics 2002 – 2006 for Duck Creek (DC-65, Industrial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	8
Percent detected		0.0%	12.5%	14.3%	50.0%
n detected		0	1	1	4
Arithmetic Mean	mg/L				0.0612
Standard Deviation	mg/L				0.117
Coefficient of Variation	mg/L				1.91
Lower 95% Confidence Limit about Mean	mg/L				-0.0197
Upper 95% Confidence Limit about Mean	mg/L				0.142
10th percentile	mg/L	NOT ENOUGH DETECTED VALUES	NOT ENOUGH DETECTED VALUES	NOT ENOUGH DETECTED VALUES	0.000434
25th percentile (Lower Quartile)	mg/L				0.00208
50th percentile (Median)	mg/L				0.0118
75th percentile (Upper Quartile)	mg/L				0.0674
90th percentile	mg/L				0.323
Inter Quartile Range	mg/L				0.0653
Minimum Detected Value	mg/L		0.0120	0.0100	0.0200
Maximum Detected Value	mg/L		0.0120	0.0100	0.290
Beta_1 (slope) <sup>(1)</sup>					2.58
Beta_0 (intercept) <sup>(1)</sup>					-4.44
Correlation Coefficient (r) <sup>(1)</sup>					0.993

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$



**Table 15d. Diazinon Summary Statistics 2002 – 2006 for Mosher Slough (MS-14, Residential)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		7	7	7	6
Percent detected		57.1%	14.3%	57.1%	50.0%
n detected		4	1	4	3
Arithmetic Mean	mg/L	0.148		0.114	
Standard Deviation	mg/L	0.254		0.223	
Coefficient of Variation	mg/L	1.72		1.95	
Lower 95% Confidence Limit about Mean	mg/L	-0.0405		-0.0508	
Upper 95% Confidence Limit about Mean	mg/L	0.336		0.279	
10th percentile	mg/L	0.0116		0.00510	
25th percentile (Lower Quartile)	mg/L	0.0283		0.0146	
50th percentile (Median)	mg/L	0.0760		0.0468	
75th percentile (Upper Quartile)	mg/L	0.204		0.150	
90th percentile	mg/L	0.496		0.431	
Inter Quartile Range	mg/L	0.176		0.136	
Minimum Detected Value	mg/L	0.110	0.3	0.0700	0.110
Maximum Detected Value	mg/L	0.570	0.3	0.490	0.290
Beta_1 (slope) <sup>(1)</sup>		1.46		1.73	
Beta_0 (intercept) <sup>(1)</sup>		-2.58		-3.06	
Correlation Coefficient (r) <sup>(1)</sup>		0.915		0.931	

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$ **Table 15e. Diazinon Summary Statistics 2002 – 2006 for Smith Canal (SC-1, Mixed Use)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		7	7	7	6
Percent detected		57.1%	14.3%	57.1%	50.0%
n detected		4	1	4	3
Arithmetic Mean	mg/L	0.148		0.114	
Standard Deviation	mg/L	0.254		0.223	
Coefficient of Variation	mg/L	1.72		1.95	
Lower 95% Confidence Limit about Mean	mg/L	-0.0405		-0.0508	
Upper 95% Confidence Limit about Mean	mg/L	0.336		0.279	
10th percentile	mg/L	0.0116		0.00510	
25th percentile (Lower Quartile)	mg/L	0.0283		0.0146	
50th percentile (Median)	mg/L	0.0760		0.0468	
75th percentile (Upper Quartile)	mg/L	0.204		0.150	
90th percentile	mg/L	0.496		0.431	
Inter Quartile Range	mg/L	0.176		0.136	
Minimum Detected Value	mg/L	0.110	0.3	0.0700	0.110
Maximum Detected Value	mg/L	0.570	0.3	0.490	0.290
Beta_1 (slope) <sup>(1)</sup>		1.46		1.73	
Beta_0 (intercept) <sup>(1)</sup>		-2.58		-3.06	
Correlation Coefficient (r) <sup>(1)</sup>		0.915		0.931	

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 16a. Chlorpyrifos Summary Statistics 2002 – 2006** (All sites combined; not enough detected values to calculate statistics)

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		31	31	27	27
Percent detected		3.2%	12.9%	0.0%	0.0%
n detected		1	4	0	0
Minimum Detected Value	µg/L	0.05	0.02		
Maximum Detected Value	µg/L	0.05	0.13		

## Appendix H-2. 2002 - 2006 Urban Runoff and Receiving Water Concentration Statistics

**Table 17a. Bis(2-ethylhexyl)-phthalate Summary Statistics 2002 – 2006** (All sites combined)

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		32	32	26	27
Percent detected		46.9%	56.3%	69.2%	59.3%
n detected		15	18	18	16
Arithmetic Mean	µg/L	1.98	2.03	1.82	7.22
Standard Deviation	µg/L	2.26	2.19	1.045	14.4
Coefficient of Variation	µg/L	1.14	1.08	0.574	1.99
Lower 95% Confidence Limit about Mean	µg/L	1.20	1.27	1.42	1.79
Upper 95% Confidence Limit about Mean	µg/L	2.76	2.78	2.22	12.7
10th percentile	µg/L	0.424	0.365	0.706	0.117
25th percentile (Lower Quartile)	µg/L	0.739	0.700	1.03	0.408
50th percentile (Median)	µg/L	1.37	1.31	1.56	1.63
75th percentile (Upper Quartile)	µg/L	2.54	2.58	2.36	6.48
90th percentile	µg/L	4.42	4.73	3.43	22.5
Inter Quartile Range	µg/L	1.80	1.91	1.33	6.07
Minimum Detected Value	µg/L	1.3	0.68	0.75	0.89
Maximum Detected Value	µg/L	11	8.5	4.4	58
Beta_1 (slope) <sup>(1)</sup>		0.915	0.999	0.617	2.05
Beta_0 (intercept) <sup>(1)</sup>		0.314	0.273	0.443	0.486
Correlation Coefficient (r) <sup>(1)</sup>		0.951	0.976	0.974	0.988

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 \cdot Z + \text{Beta}_0$

**Table 17b. Bis(2-ethylhexyl)phthalate Summary Statistics 2002 – 2006 for Calaveras River (CR-46, Commercial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
N		8	8	6	7
Percent detected		62.5%	50.0%	100.0%	85.7%
n detected		5	4	6	6
Arithmetic Mean	µg/L	2.66	1.90	2.55	16.1
Standard Deviation	µg/L	1.97	3.43	1.21	23.5
Coefficient of Variation	µg/L	0.741	1.81	0.474	1.46
Lower 95% Confidence Limit about Mean	µg/L	1.29	-0.480	1.58	-1.34
Upper 95% Confidence Limit about Mean	µg/L	4.02	4.28	3.52	33.5
10th percentile	µg/L	0.865	0.111	1.11	0.413
25th percentile (Lower Quartile)	µg/L	1.35	0.288	1.58	1.41
50th percentile (Median)	µg/L	2.22	0.835	2.34	5.52
75th percentile (Upper Quartile)	µg/L	3.65	2.42	3.46	21.6
90th percentile	µg/L	5.71	6.30	4.92	73.8
Inter Quartile Range	µg/L	2.30	2.13	1.88	20.2
Minimum Detected Value	µg/L	1.7	1	1.3	0.890
Maximum Detected Value	µg/L	6	8.4	4.4	58
Beta_1 (slope) <sup>(1)</sup>		0.736	1.58	0.580	2.02
Beta_0 (intercept) <sup>(1)</sup>		0.798	-0.180	0.851	1.71
Correlation Coefficient (r) <sup>(1)</sup>		0.982	0.953	0.984	0.975

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 \cdot Z + \text{Beta}_0$

**Table 17c. Bis(2-ethylhexyl)phthalate Summary Statistics 2002 – 2006 for Duck Creek (DC-65, Industrial)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	6	8
Percent detected		37.5%	50.0%	33.3%	37.5%
n detected		3	4	2	3
Arithmetic Mean	µg/L		1.84		5.40
Standard Deviation	µg/L		1.94		16.6
Coefficient of Variation	µg/L		1.06		3.08
Lower 95% Confidence Limit about Mean	µg/L		0.494		-6.13
Upper 95% Confidence Limit about Mean	µg/L		3.18		16.9
10th percentile	µg/L	NOT	0.323	NOT	0.00115
25th percentile (Lower Quartile)	µg/L	ENOUGH	0.616	ENOUGH	0.0127
50th percentile (Median)	µg/L	DETECTED	1.26	DETECTED	0.182
75th percentile (Upper Quartile)	µg/L	VALUES	2.58	VALUES	2.61
90th percentile	µg/L		4.93		28.8
Inter Quartile Range	µg/L		1.97		2.60
Minimum Detected Value	µg/L	2.8	1.4	2.1	2
Maximum Detected Value	µg/L	11	5.4	4	36
Beta_1 (slope) <sup>(1)</sup>			1.06		3.95
Beta_0 (intercept) <sup>(1)</sup>			0.232		-1.71
Correlation Coefficient (r) <sup>(1)</sup>			0.995		0.994

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$ **Table 17d. Bis(2-ethylhexyl)phthalate Summary Statistics 2002 – 2006 for Mosher Slough (MS-14, Residential)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		37.5%	75.0%	71.4%	66.7%
n detected		3	6	5	4
Arithmetic Mean	µg/L	1.57	2.61	1.24	3.88
Standard Deviation	µg/L	0.863	3.24	0.685	5.67
Coefficient of Variation	µg/L	0.551	1.24	0.550	1.46
Lower 95% Confidence Limit about Mean	µg/L	0.967	0.364	0.737	-0.655
Upper 95% Confidence Limit about Mean	µg/L	2.16	4.85	1.75	8.42
10th percentile	µg/L	0.732	0.946	0.504	0.279
25th percentile (Lower Quartile)	µg/L	1.00	1.37	0.728	0.717
50th percentile (Median)	µg/L	1.42	2.08	1.10	2.05
75th percentile (Upper Quartile)	µg/L	2.02	3.14	1.65	5.84
90th percentile	µg/L	2.76	4.56	2.39	15.0
Inter Quartile Range	µg/L	1.01	1.77	0.922	5.13
Minimum Detected Value	µg/L	2	1.4	0.750	2
Maximum Detected Value	µg/L	2.9	8.5	2.2	13
Beta_1 (slope) <sup>(1)</sup>		0.518	0.613	0.607	1.56
Beta_0 (intercept) <sup>(1)</sup>		0.352	0.730	0.0920	0.716
Correlation Coefficient (r) <sup>(1)</sup>		0.953	0.835	0.978	0.984

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 17e. Bis(2-ethylhexyl)phthalate Summary Statistics 2002 – 2006 for Smith Canal (SC-1, Mixed Use)**

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		8	8	7	6
Percent detected		50.0%	50.0%	71.4%	50.0%
n detected		4	4	5	3
Arithmetic Mean	µg/L	1.58	1.61	2.02	2.54
Standard Deviation	µg/L	1.07	2.15	0.635	3.51
Coefficient of Variation	µg/L	0.677	1.34	0.314	1.38
Lower 95% Confidence Limit about Mean	µg/L	0.837	0.118	1.55	-0.265
Upper 95% Confidence Limit about Mean	µg/L	2.32	3.10	2.49	5.35
10th percentile	µg/L	0.683	0.151	1.27	0.212
25th percentile (Lower Quartile)	µg/L	0.962	0.346	1.55	0.518
50th percentile (Median)	µg/L	1.41	0.865	1.95	1.40
75th percentile (Upper Quartile)	µg/L	2.06	2.16	2.44	3.76
90th percentile	µg/L	2.90	4.95	2.98	9.18
Inter Quartile Range	µg/L	1.10	1.82	0.883	3.24
Minimum Detected Value	µg/L	1.3	0.680	1.7	2.4
Maximum Detected Value	µg/L	2.7	5.6	3	8
Beta_1 (slope) <sup>(1)</sup>		0.564	1.36	0.334	1.47
Beta_0 (intercept) <sup>(1)</sup>		0.341	-0.145	0.666	0.333
Correlation Coefficient (r) <sup>(1)</sup>		0.921	0.998	0.953	0.983

(1) For log-normal regression equation  $\ln(y) = \text{Beta}_1 * Z + \text{Beta}_0$

**Table 18. Benzo(a)anthracene Summary Statistics 2002 – 2006** (All sites combined; not enough detected values to calculate statistics)

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		32	32	27	27
Percent detected		0.0%	0.0%	11.1%	0.0%
n detected		0	0	3	0
Minimum Detected Value	µg/L			0.015	
Maximum Detected Value	µg/L			0.021	

**Table 19. Benzo(a)pyrene Summary Statistics 2002 – 2006** (All sites combined; not enough detected values to calculate statistics).

Statistical Parameter	Units	Dry Weather		Wet Weather	
		Urban Runoff	Receiving Water	Urban Runoff	Receiving Water
n		32	32	27	27
Percent detected		0.0%	0.0%	11.1%	3.7%
n detected		0	0	3	1
Minimum Detected Value	µg/L			0.019	0.068
Maximum Detected Value	µg/L			0.026	0.068