

FRESHWATER SAMPLES FROM SAN DIEGO CREEK (DRY AND WET WEATHER EVENTS)

San Diego Creek Sampling

For wet weather, samples were collected from the Campus Drive bridge. To take the samples, a metal davit was attached to the bridge. From the davit a torpedo sampler was lowered to the creek. Inside the sampler was a 1 gallon glass bottle. At each sampling period, multiple drops were made and the water was transferred to a 5 gallon polycarbonate bottle until it was full. Samples for all analyses were then aliquoted from this composite. Samples for dissolved metals were taken from the composite by an ISCO sampler with a 0.45 micron filter attached using EPA suggested clean sampling techniques. Samples for total and dissolved metals analysis were transferred to cleaned plastic 500 ml or 1 liter bottles. Total suspended solids aliquots were put into 1 liter plastic bottles. Storm rainfall data and stream flow rates during sample collection are presented on Figures 1 and 2.

For dry weather, samples were collected directly from the creek bed at the base of the bridge using an ISCO sampler. For each collection event, a sample was taken in the morning and then another was taken 4 to 5 hours later. The samples for metals analysis went straight from the creek into their respective containers (either through the filter or not). The remaining samples were taken from a composite made in a 5 gallon polycarbonate bottle. All sample containers were the same as described above.

All samples were stored on ice until transported back to SCCWRP where they were stored at 5 °C. Samples for chemical analysis were delivered to the chemistry lab within 24 hrs of collection.

Figure 1. Hydrograph of San Diego Creek at Campus Drive for wet weather event in March 7, 2002. Rainfall measured 0.36 inches at John Wayne Airport. Dashed lines indicate when samples were taken; at stream flows of 238 cfs and 170 cfs, respectively.

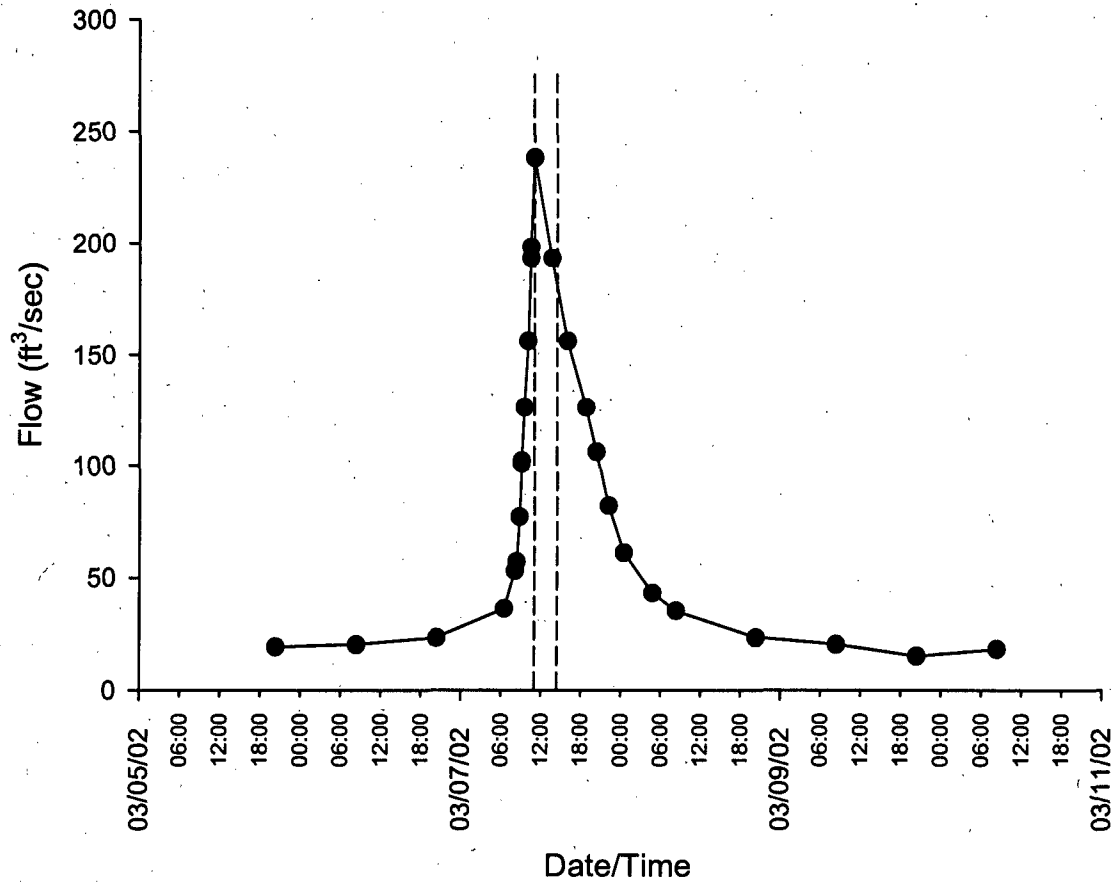


Figure 2. Hydrograph of San Diego Creek at Campus Drive for wet weather event in November 8, 2002. Rainfall measured 0.54" on 11/8, 0.54" on 11/9, and 0.07" on 11/10 at John Wayne Airport. Dashed lines indicate when samples were taken; 9 cfs and 27 cfs, respectively.

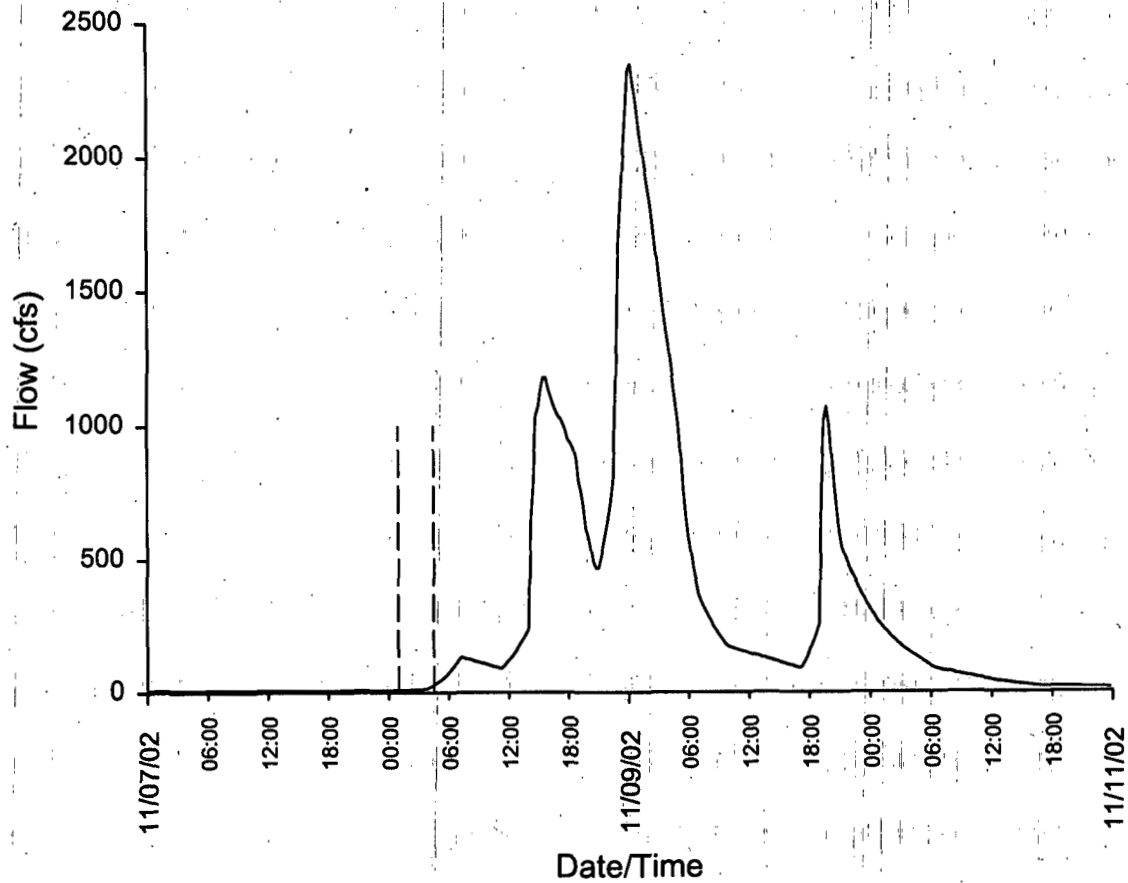


Table 1. Concentrations of total and dissolved metals from San Diego Creek wet weather runoff samples collected March 7, 2002. Results are reported in ug/L, except where noted.

Constituent/Metal	MDL	1100 hrs		1425 hrs	
		Total	Dissolved	Total	Dissolved
Aluminum	0.01	1255	160	872	260
Antimony	0.01	1.58	1.41	2.18	1.86
Arsenic	0.01	4.38	3.9	3.91	3.62
Barium	0.5	46.2	34.2	35.6	25.0
Beryllium	0.005	<0.5	<0.5	<0.5	<0.5
Cadmium	0.005	0.15	<0.1	0.18	<0.1
Chromium	0.005	5.20	3.66	2.44	1.36
Cobalt	0.005	1.17	<0.5	<0.5	<0.5
Copper	0.005	15.7	10.4	15.6	10.6
Iron	0.01	1036	198	804	236
Lead	0.005	2.02	0.30	2.44	0.54
Manganese	0.005	116	83.4	65.2	42.0
Mercury	0.005	<0.005	<0.005	<0.005	<0.005
Molybdenum	0.005	17.8	21.0	9.12	10.1
Nickel	0.005	5.04	4.09	4.78	3.87
Selenium	0.01	10.6	10.2	4.30	4.16
Silver	0.005	<0.1	<0.1	<0.1	<0.1
Strontium	0.01	862	855	392	414
Thallium	0.005	<0.5	<0.5	<0.5	<0.5
Tin	0.005	0.11	<0.5	0.15	<0.5
Titanium	0.005	46.1	11.1	44.7	16.6
Vanadium	0.005	12.6	9.88	10.6	8.84
Zinc	0.005	55.0	30.2	51.6	27.2
TSS mg/L		62		38	
Alkalinity (mg/L)		129		85	
Hardness (mg/L)		393		183	

Table 2. Concentrations of total PCBs from San Diego Creek wet weather runoff samples collected March 7, 2002. Concentrations are in ng/L.

	1100 hrs	1425 hrs
PCB018	<1.0	<1.0
PCB028	<1.0	<1.0
PCB031	<1.0	<1.0
PCB033	<1.0	<1.0
PCB037	<1.0	<1.0
PCB044	<1.0	<1.0
PCB049	<1.0	<1.0
PCB052	<1.0	<1.0
PCB066	<1.0	<1.0
PCB070	<1.0	<1.0
PCB074	<1.0	<1.0
PCB077	<1.0	<1.0
PCB081	<1.0	<1.0
PCB087	<1.0	<1.0
PCB095	<1.0	<1.0
PCB097	<1.0	<1.0
PCB099	<1.0	<1.0
PCB101	<1.0	<1.0
PCB105	<1.0	<1.0
PCB110	<1.0	<1.0
PCB114	<1.0	<1.0
PCB118	<1.0	<1.0
PCB119	<1.0	<1.0
PCB123	<1.0	<1.0
PCB126	<1.0	<1.0
PCB128	<1.0	<1.0
PCB138	<1.0	<1.0
PCB141	<1.0	<1.0
PCB149	<1.0	<1.0
PCB151	<1.0	<1.0
PCB153	<1.0	<1.0
PCB156	<1.0	<1.0
PCB157	<1.0	<1.0
PCB158	<1.0	<1.0
PCB167	<1.0	<1.0
PCB168/132	<1.0	<1.0
PCB169	<1.0	<1.0
PCB170	<1.0	<1.0
PCB177	<1.0	<1.0
PCB180	<1.0	<1.0
PCB183	<1.0	<1.0
PCB187	<1.0	<1.0
PCB189	<1.0	<1.0
PCB194	<1.0	<1.0
PCB200	<1.0	<1.0
PCB201	<1.0	<1.0
PCB206	<1.0	<1.0
Total Detectable PCB	<1.0	<1.0

Table 3. Concentrations of total chlorinated pesticides from San Diego Creek wet weather runoff samples collected March 7, 2002. Concentrations are in ng/L.

	1100 hrs	1425hrs
Toxaphene	<10	<10
2,4'-DDD	<1.0	<1.0
2,4'-DDE	<1.0	<1.0
2,4'-DDT	<1.0	<1.0
4,4'-DDD	<1.0	<1.0
4,4'-DDE	<1.0	<1.0
4,4'-DDT	<1.0	<1.0
Total Detectable DDT	<1.0	<1.0
Aldrin	<1.0	<1.0
BHC-alpha	<1.0	<1.0
BHC-beta	<1.0	<1.0
BHC-delta	<1.0	<1.0
BHC-gamma	<1.0	<1.0
Chlordane-alpha	<1.0	<1.0
Chlordane-gamma	<1.0	<1.0
Dieldrin	<1.0	<1.0
Endosulfan Sulfate	<1.0	<1.0
Endosulfan-I	<1.0	<1.0
Endosulfan-II	<1.0	<1.0
Endrin	<1.0	<1.0
Endrin Aldehyde	<1.0	<1.0
Heptachlor	<1.0	<1.0
Heptachlor Epoxide	<1.0	<1.0
Methoxychlor	<1.0	<1.0
Mirex	1	<1.0
trans-Nonachlor	<1.0	<1.0

Table 4. Concentrations of total organophosphorus pesticides in runoff from San Diego Creek wet weather samples collected March 7, 2002. Concentrations are in ng/L. Note: data table is based on verbal communication with chemistry laboratory.

Compound	Sample 1100	Sample 1425
Bolstar (Sulprofos)	<10	<10
Chlorpyrifos	<10	<10
Coumaphos	<10	<10
Demeton	<10	<10
Diazinon	<10	<10
Disulfoton	<10	<10
Ethoprop (Ethoprofos)	<10	<10
Fenchlorophos (Ronnol)	<10	<10
Fensulfothion	<10	<10
Fenthion	<10	<10
Guthion	<10	<10
Merphos	<10	<10
Methyl Parathion	<10	<10
Mevinphos (Phosdrin)	<10	<10
Phorate	<10	<10
Tetrachlovinphos (Stirofos)	<10	<10
Tokuthion	<10	<10
Trichloronate	<10	<10

Table 5. Concentrations of total and dissolved metals from San Diego Creek dry weather runoff samples collected May 2, 2002. Results are reported in ug/L, except where noted.

Constituent/Metal	MDL	0900 hrs		1405 hrs	
		Total	Dissolved	Total	Dissolved
Aluminum	0.01	1050	220	1100	200
Antimony	0.01	1.30	1.46	1.32	1.48
Arsenic	0.01	6.44	5.27	6.51	5.22
Barium	0.5	73.5	58.2	74.3	59.2
Beryllium	0.005	<0.5	<0.5	<0.5	<0.5
Cadmium	0.005	0.16	<0.1	0.17	<0.1
Chromium	0.005	2.15	0.74	2.14	0.74
Cobalt	0.005	0.88	<0.6	0.90	<0.6
Copper	0.005	4.68	2.81	5.60	2.77
Iron	0.01	1345	299	1390	284
Lead	0.005	1.49	0.21	1.66	0.20
Manganese	0.005	130	15.8	120	19.0
Mercury	0.005	<0.005	<0.005	<0.005	<0.005
Molybdenum	0.005	37.4	46.2	37.0	46.0
Nickel	0.005	4	3.08	3.96	3.01
Selenium	0.01	18.4	18.4	19.8	18.6
Silver	0.005	<0.1	<0.1	<0.1	<0.1
Strontium	0.01	1500	1515	1495	1505
Thallium	0.005	<0.5	<0.5	<0.5	<0.5
Tin	0.005	0.16	0.16	0.15	0.13
Titanium	0.005	55.4	14.0	61.2	13.0
Vanadium	0.005	16.7	11.4	16.6	11.8
Zinc	0.005	10.8	4.54	12.6	4.42
TSS mg/L		80		83	
Alkalinity (mg/L)		261		232	
Hardness (mg/L)		681		666	

Table 6. Concentrations of total PCBs from San Diego Creek dry weather runoff samples collected May 2, 2002. Concentrations are in ng/L.

	0900 hrs	1405 hrs
PCB018	<1.0	<1.0
PCB028	<1.0	<1.0
PCB031	<1.0	<1.0
PCB033	<1.0	<1.0
PCB037	<1.0	<1.0
PCB044	<1.0	<1.0
PCB049	<1.0	<1.0
PCB052	<1.0	<1.0
PCB066	<1.0	<1.0
PCB070	<1.0	<1.0
PCB074	<1.0	<1.0
PCB077	<1.0	<1.0
PCB081	<1.0	<1.0
PCB087	<1.0	<1.0
PCB095	<1.0	<1.0
PCB097	<1.0	<1.0
PCB099	<1.0	<1.0
PCB101	<1.0	<1.0
PCB105	<1.0	<1.0
PCB110	<1.0	<1.0
PCB114	<1.0	<1.0
PCB118	<1.0	<1.0
PCB119	<1.0	<1.0
PCB123	<1.0	<1.0
PCB126	<1.0	<1.0
PCB128	<1.0	<1.0
PCB138	<1.0	<1.0
PCB141	<1.0	<1.0
PCB149	<1.0	<1.0
PCB151	<1.0	<1.0
PCB153	<1.0	<1.0
PCB156	<1.0	<1.0
PCB157	<1.0	<1.0
PCB158	<1.0	<1.0
PCB167	<1.0	<1.0
PCB168/132	<1.0	<1.0
PCB169	<1.0	<1.0
PCB170	<1.0	<1.0
PCB177	<1.0	<1.0
PCB180	<1.0	<1.0
PCB183	<1.0	<1.0
PCB187	<1.0	<1.0
PCB189	<1.0	<1.0
PCB194	<1.0	<1.0
PCB200	<1.0	<1.0
PCB201	<1.0	<1.0
PCB206	<1.0	<1.0
Total Detectable PCB	<1.0	<1.0

Table 7. Concentrations of total chlorinated pesticides from San Diego Creek dry weather runoff samples collected May 2, 2002. Concentrations are in ng/L.

	0900 hrs	1405 hrs
Toxaphene	<10	<10
2,4'-DDD	<1.0	<1.0
2,4'-DDE	<1.0	<1.0
2,4'-DDT	<1.0	<1.0
4,4'-DDD	<1.0	<1.0
4,4'-DDE	<1.0	<1.0
4,4'-DDT	<1.0	<1.0
Total Detectable DDT	<1.0	<1.0
Aldrin	<1.0	<1.0
BHC-alpha	<1.0	<1.0
BHC-beta	<1.0	<1.0
BHC-delta	<1.0	<1.0
BHC-gamma	<1.0	<1.0
Chlordane-alpha	<1.0	<1.0
Chlordane-gamma	<1.0	<1.0
Dieldrin	<1.0	<1.0
Endosulfan Sulfate	<1.0	<1.0
Endosulfan-I	<1.0	<1.0
Endosulfan-II	<1.0	<1.0
Endrin	<1.0	<1.0
Endrin Aldehyde	<1.0	<1.0
Heptachlor	<1.0	<1.0
Heptachlor Epoxide	<1.0	<1.0
Methoxychlor	<1.0	<1.0
Mirex	<1.0	<1.0
trans-Nonachlor	<1.0	<1.0

Table 8. Concentrations of total organophosphorus pesticides in runoff from San Diego Creek wet weather samples collected May 2, 2002. Concentrations are in ng/L. Note: data table is based on verbal communication with chemistry laboratory.

Compound	Sample 0900	Sample 1405
Bolstar (Sulprofos)	<10	<10
Chlorpyrifos	<10	<10
Coumaphos	<10	<10
Demeton	<10	<10
Diazinon	<10	<10
Disulfoton	<10	<10
Ethoprop (Ethoprofos)	<10	<10
Fenchlorophos (Ronnell)	<10	<10
Fensulfothion	<10	<10
Fenthion	<10	<10
Guthion	<10	<10
Merphos	<10	<10
Methyl Parathion	<10	<10
Mevinphos (Phosdrin)	<10	<10
Phorate	<10	<10
Tetrachlovinphos (Stirofos)	<10	<10
Tokuthion	<10	<10
Trichloronate	<10	<10

Table 9. Concentrations of total and dissolved metals from San Diego Creek dry weather runoff samples collected August 12, 2002. Results are reported in ug/L, except where noted.

Constituent/Metal	MDL	0922 hrs		1400 hrs	
		Total	Dissolved	Total	Dissolved
Aluminum	0.01	538	<0.01	392	<0.01
Antimony	0.01	1.08	1.09	1.04	1.12
Arsenic	0.01	8.74	7.64	8.25	7.92
Barium	0.5	53.4	41.2	51.6	43.2
Beryllium	0.005	<0.005	<0.005	<0.005	<0.005
Cadmium	0.005	0.14	<0.005	0.10	<0.005
Chromium	0.005	0.92	<0.005	<0.005	<0.005
Cobalt	0.005	0.70	0.51	0.62	0.51
Copper	0.005	3.62	1.60	3.06	1.96
Iron	0.01	758	110	526	109
Lead	0.005	1.16	<0.005	0.86	<0.005
Manganese	0.005	89.1	22.0	69.2	19.6
Mercury	0.005	<0.005	<0.005	<0.005	<0.005
Molybdenum	0.005	53.1	55.9	51.4	55.8
Nickel	0.005	3.32	2.76	3.12	2.99
Selenium	0.01	17.3	16.4	16.4	16.4
Silver	0.005	<0.005	<0.005	<0.005	<0.005
Strontium	0.01	1625	1585	1550	1585
Thallium	0.005	<0.005	<0.005	<0.005	<0.005
Tin	0.005	0.40	0.42	0.36	0.36
Titanium	0.005	33.6	0.64	21.8	0.57
Vanadium	0.005	18.0	15.6	17.6	17.0
Zinc	0.005	7.91	2.02	7.16	2.16
TSS mg/L		61		41	
Alkalinity (mg/L)		282		293	
Hardness (mg/L)		524		692	

Table 10. Concentrations of total PCBs from San Diego Creek dry weather runoff samples collected August 12, 2002. Concentrations are in ng/L.

	0922 hrs	1400 hrs
PCB018	<1.0	<1.0
PCB028	<1.0	<1.0
PCB031	<1.0	<1.0
PCB033	<1.0	<1.0
PCB037	<1.0	<1.0
PCB044	<1.0	<1.0
PCB049	<1.0	<1.0
PCB052	<1.0	<1.0
PCB066	<1.0	<1.0
PCB070	<1.0	<1.0
PCB074	<1.0	<1.0
PCB077	<1.0	<1.0
PCB081	<1.0	<1.0
PCB087	<1.0	<1.0
PCB095	<1.0	<1.0
PCB097	<1.0	<1.0
PCB099	<1.0	<1.0
PCB101	<1.0	<1.0
PCB105	<1.0	<1.0
PCB110	<1.0	<1.0
PCB114	<1.0	<1.0
PCB118	<1.0	<1.0
PCB119	<1.0	<1.0
PCB123	<1.0	<1.0
PCB126	<1.0	<1.0
PCB128	<1.0	<1.0
PCB138	<1.0	<1.0
PCB141	<1.0	<1.0
PCB149	<1.0	<1.0
PCB151	<1.0	<1.0
PCB153	<1.0	<1.0
PCB156	<1.0	<1.0
PCB157	<1.0	<1.0
PCB158	<1.0	<1.0
PCB167	<1.0	<1.0
PCB168/132	<1.0	<1.0
PCB169	<1.0	<1.0
PCB170	<1.0	<1.0
PCB177	<1.0	<1.0
PCB180	<1.0	<1.0
PCB183	<1.0	<1.0
PCB187	<1.0	<1.0
PCB189	<1.0	<1.0
PCB194	<1.0	<1.0
PCB200	<1.0	<1.0
PCB201	<1.0	<1.0
PCB206	<1.0	<1.0
Total Detectable PCB	<1.0	<1.0

Table 11. Concentrations of chlorinated pesticides from San Diego Creek dry weather runoff samples collected August 12, 2002. Concentrations are in ng/L.

Compound	0922 hrs Sample	1400 hrs Sample
Toxaphene	<10	<10
2,4'-DDD	<1.0	<1.0
2,4'-DDE	<1.0	<1.0
2,4'-DDT	<1.0	<1.0
4,4'-DDD	<1.0	<1.0
4,4'-DDE	<1.0	<1.0
4,4'-DDT	<1.0	<1.0
Total Detectable DDT	<1.0	<1.0
Aldrin	<1.0	<1.0
BHC-alpha	<1.0	<1.0
BHC-beta	<1.0	<1.0
BHC-delta	<1.0	<1.0
BHC-gamma	<1.0	<1.0
Chlordane-alpha	<1.0	<1.0
Chlordane-gamma	<1.0	<1.0
Dieldrin	<1.0	<1.0
Endosulfan Sulfate	<1.0	<1.0
Endosulfan-I	<1.0	<1.0
Endosulfan-II	<1.0	<1.0
Endrin	<1.0	<1.0
Endrin Aldehyde	<1.0	<1.0
Heptachlor	<1.0	<1.0
Heptachlor Epoxide	<1.0	<1.0
Methoxychlor	<1.0	<1.0
Mirex	<1.0	<1.0
trans-Nonachlor	<1.0	<1.0

Table 12. Concentrations of total organophosphorus pesticides in runoff from San Diego Creek wet weather samples collected August 12, 2002. Concentrations are in ng/L. Note: data table is based on verbal communication with chemistry laboratory.

Compound	Sample 0922	Sample 1400
Bolstar (Sulprofos)	<10	<10
Chlorpyrifos	<10	<10
Coumaphos	<10	<10
Demeton	<10	<10
Diazinon	<10	<10
Disulfoton	<10	<10
Ethoprop (Ethoprofos)	<10	<10
Fenchlorophos (Ronnell)	<10	<10
Fensulfothion	<10	<10
Fenthion	<10	<10
Guthion	<10	<10
Merphos	<10	<10
Methyl Parathion	<10	<10
Mevinphos (Phosdrin)	<10	<10
Phorate	<10	<10
Tetrachlovinphos (Stirofos)	<10	<10
Tokuthion	<10	<10
Trichloronate	<10	<10

Table 13. Concentrations of total and dissolved metals from San Diego Creek wet weather runoff samples collected November 8, 2002. Results are reported in µg/L, except where noted.

Element	MDL	0100 hrs		0430 hrs	
		Total	Dissolved	Total	Dissolved
Metals					
Aluminum	0.01	380	19.5	460	19.6
Antimony	0.01	1.04	1.20	1.05	1.22
Arsenic	0.01	5.54	4.86	5.68	5.12
Barium	0.5	52.8	48.8	53.4	48.0
Beryllium	0.005	<0.005	<0.005	<0.005	<0.005
Cadmium	0.005	0.12	<0.005	0.14	<0.005
Chromium	0.005	1.70	0.90	1.82	1.04
Cobalt	0.005	0.58	<0.005	0.62	<0.005
Copper	0.005	3.46	1.84	3.66	1.885
Iron	0.01	666	202	766	202
Lead	0.005	1.11	<0.005	1.16	<0.005
Manganese	0.005	50.2	11.5	54.9	12.1
Mercury	0.005	<0.005	<0.005	<0.005	<0.005
Molybdenum	0.005	53.5	60.4	50.4	60.0
Nickel	0.005	3.78	3.27	3.96	3.26
Selenium	0.01	24.5	22.9	24.9	24.1
Silver	0.005	<0.005	<0.005	<0.005	<0.005
Strontium	0.01	1775	1690	1750	1680
Thallium	0.005	<0.005	<0.005	<0.005	<0.005
Tin	0.005	<0.005	<0.005	<0.005	<0.005
Titanium	0.005	17.2	2.11	17.3	2.37
Vanadium	0.005	16	12.8	16.2	13.0
Zinc	0.005	9.26	3.14	10.4	3.04
TSS mg/L		48.9		55.3	
Alkalinity (mg/L)		293		292	
Hardness (mg/L)		768		783	

Table 14. Concentrations of total and particulate PCBs from San Diego Creek wet weather runoff samples collected November 8, 2002. Concentrations are in ng/L.

Compound	0100 hrs		0430 hrs	
	Total	Particulate	Total	Particulate
PCB018	<1.0	<1.0	<1.0	<1.0
PCB028	<1.0	<1.0	<1.0	<1.0
PCB031	<1.0	<1.0	<1.0	<1.0
PCB033	<1.0	<1.0	<1.0	<1.0
PCB037	<1.0	<1.0	<1.0	<1.0
PCB044	<1.0	<1.0	<1.0	<1.0
PCB049	<1.0	<1.0	<1.0	<1.0
PCB052	<1.0	<1.0	<1.0	<1.0
PCB066	<1.0	<1.0	<1.0	<1.0
PCB070	<1.0	<1.0	<1.0	<1.0
PCB074	<1.0	<1.0	<1.0	<1.0
PCB077	<1.0	<1.0	<1.0	<1.0
PCB081	<1.0	<1.0	<1.0	<1.0
PCB087	<1.0	<1.0	<1.0	<1.0
PCB095	<1.0	<1.0	<1.0	<1.0
PCB097	<1.0	<1.0	<1.0	<1.0
PCB099	<1.0	<1.0	<1.0	<1.0
PCB101	<1.0	<1.0	<1.0	<1.0
PCB105	<1.0	<1.0	<1.0	<1.0
PCB110	<1.0	<1.0	<1.0	<1.0
PCB114	<1.0	<1.0	<1.0	<1.0
PCB118	<1.0	<1.0	<1.0	<1.0
PCB119	<1.0	<1.0	<1.0	<1.0
PCB123	<1.0	<1.0	<1.0	<1.0
PCB126	<1.0	<1.0	<1.0	<1.0
PCB128	<1.0	<1.0	<1.0	<1.0
PCB138	<1.0	<1.0	<1.0	<1.0
PCB141	<1.0	<1.0	<1.0	<1.0
PCB149	<1.0	<1.0	<1.0	<1.0
PCB151	<1.0	<1.0	<1.0	<1.0
PCB153	<1.0	<1.0	<1.0	<1.0
PCB156	<1.0	<1.0	<1.0	<1.0
PCB157	<1.0	<1.0	<1.0	<1.0
PCB158	<1.0	<1.0	<1.0	<1.0
PCB167	<1.0	<1.0	<1.0	<1.0
PCB168/132	<1.0	<1.0	<1.0	<1.0
PCB169	<1.0	<1.0	<1.0	<1.0
PCB170	<1.0	<1.0	<1.0	<1.0
PCB177	<1.0	<1.0	<1.0	<1.0
PCB180	<1.0	<1.0	<1.0	<1.0
PCB183	<1.0	<1.0	<1.0	<1.0
PCB187	<1.0	<1.0	<1.0	<1.0
PCB189	<1.0	<1.0	<1.0	<1.0
PCB194	<1.0	<1.0	<1.0	<1.0
PCB200	<1.0	<1.0	<1.0	<1.0
PCB201	<1.0	<1.0	<1.0	<1.0
PCB206	<1.0	<1.0	<1.0	<1.0
Total Detectable PCB	<1.0	<1.0	<1.0	<1.0

Table 15. Concentrations of total and particulate chlorinated pesticides from San Diego Creek wet weather runoff samples collected November 8, 2002. Concentrations are in ng/L.

Compound	0100 hrs		0430 hrs	
	Total	Particulate	Total	Particulate
Toxaphene	<10	<10	<10	<10
2,4'-DDD	<1.0	<1.0	<1.0	<1.0
2,4'-DDE	<1.0	<1.0	<1.0	<1.0
2,4'-DDT	<1.0	<1.0	<1.0	<1.0
4,4'-DDD	<1.0	<1.0	<1.0	<1.0
4,4'-DDE	3.2	<1.0	<1.0	<1.0
4,4'-DDT	<1.0	<1.0	<1.0	<1.0
Total Detectable DDT	3	<1.0	<1.0	<1.0
Aldrin	<1.0	<1.0	<1.0	<1.0
BHC-alpha	<1.0	<1.0	<1.0	<1.0
BHC-beta	<1.0	<1.0	<1.0	<1.0
BHC-delta	<1.0	<1.0	<1.0	<1.0
BHC-gamma	<1.0	<1.0	<1.0	<1.0
Chlordane-alpha	<1.0	<1.0	<1.0	<1.0
Chlordane-gamma	<1.0	<1.0	<1.0	<1.0
Dieldrin	<1.0	<1.0	<1.0	<1.0
Endosulfan Sulfate	<1.0	<1.0	<1.0	<1.0
Endosulfan-I	<1.0	<1.0	<1.0	<1.0
Endosulfan-II	<1.0	<1.0	<1.0	<1.0
Endrin	<1.0	<1.0	<1.0	<1.0
Endrin Aldehyde	<1.0	<1.0	<1.0	<1.0
Heptachlor	<1.0	<1.0	<1.0	<1.0
Heptachlor Epoxide	<1.0	<1.0	<1.0	<1.0
Methoxychlor	<1.0	<1.0	<1.0	<1.0
Mirex	<1.0	<1.0	<1.0	<1.0
trans-Nonachlor	<1.0	<1.0	<1.0	<1.0

Table 16. Concentrations of total and particulate organophosphorus pesticides in runoff from San Diego Creek wet weather samples collected November 8, 2002. Concentrations are in ng/L.

Compound	Sample 0100		Sample 0430	
	Total	Particulate	Total	Particulate
Bolstar (Sulprofos)	<10	<10	<10	<10
Chlorpyrifos	<10	<10	<10	<10
Coumaphos	<10	<10	<10	<10
Demeton	<10	<10	<10	<10
Diazinon	34.9	<10	33.2	<10
Disulfoton	<10	<10	<10	<10
Ethoprop (Ethoprofos)	<10	<10	<10	<10
Fenchlorophos (Ronnell)	<10	<10	<10	<10
Fensulfothion	<10	<10	<10	<10
Fenthion	<10	<10	<10	<10
Guthion	<10	<10	<10	<10
Merphos	<10	<10	<10	<10
Methyl Parathion	<10	<10	<10	<10
Mevinphos (Phosdrin)	<10	<10	<10	<10
Phorate	<10	<10	<10	<10
Tetrachlovinphos (Stirofos)	<10	<10	<10	<10
Tokuthion	<10	<10	<10	<10
Trichloronate	25.5	<10	<10	<10

Table 17. Sample and site location information.

Station Location	Station	Date	Time	Depth (m)	Lat Degree	Lat Min.	Long Degree	Long Min.
San Diego Creek	Campus Dr.	3/7/02	1100	N/A	33	39.314	-117	50.722
San Diego Creek	Campus Dr.	3/7/02	1425	N/A	33	39.314	-117	50.722
San Diego Creek	Campus Dr.	5/2/02	900	N/A	33	39.314	-117	50.722
San Diego Creek	Campus Dr.	5/2/02	1405	N/A	33	39.314	-117	50.722
San Diego Creek	Campus Dr.	8/12/02	900	N/A	33	39.314	-117	50.722
San Diego Creek	Campus Dr.	8/12/02	1350	N/A	33	39.314	-117	50.722
San Diego Creek	Campus Dr.	11/8/02	100	N/A	33	39.314	-117	50.722
San Diego Creek	Campus Dr.	11/8/02	430	N/A	33	39.314	-117	50.722