

YSI WATER QUALITY PROFILE REPORT SHEET

Mar 12, 97

Watershed
Drainage
Station

Cottonwood
Long Canyon Creek
LCC2

DATE

12-Mar-97

SAMPLER
UNIT

DWG
YSI #1

DATE MM/DD/YY TIME	DATE MMDDYY	TIME	TEMP C	SP COND mS/cm	DO % %	DO CONC mg/l	DEPTH m	PH	ORP mV	TDS g/l
03/12/97 09:10	31297	100453	8.06	0.378	83.2	9.82	0	8.43	193	0.166
03/12/97 09:10	31297	100541	8.04	0.38	82.7	9.77	0	8.43	193	0.167
03/12/97 09:11	31297	100628	8.02	0.329	82.4	9.74	0	8.43	192	0.144
03/12/97 09:12	31297	100720	8.02	0.382	82.2	9.71	0	8.42	192	0.168
03/12/97 09:13	31297	100802	8.02	0.38	82.1	9.7	0	8.43	192	0.167

0.16

Observations:

Flow	13.05	cfs
Sky	clear	
Wind	calm	
Direction	calm	
Air Temp	12.04	C

Comments:

Site sampled for Illegal Immigrant Impact Project. Some evidence of illegal immigrant foot traffic along creek.
Flow apparently higher than previous samplings. No apparent reason for increased flow.

Samples Taken	Number
Nutrients	1
TON/Turbidity	1
Metals	1
Bacti	6
Solids	0
Plankton	0
TOC	0
BMI	1
CPOM	1
Organics	0
Crypto-Giardia	0

file name lcc2-071

WATERSHED WATER QUALITY REPORT SHEET

May 13, 97

Watershed	Cottonwood
Drainage	Long Creek
Station	LCC2

Sampling Date: 13-May-97

SAMPLER	DWG
UNIT	YSI #1

YSI Datasonde Physicochemical Data

DATE MM/DD/YY TIME	DATE MMDDYY	TIME	TEMP C	SP COND mS/cm	DO %	DO CONC mg/l	DEPTH m	PH	ORP mV	TDS g/l
05/13/97 08:33	51397	92135	15.04	0.393	88	8.85	0	8.26	112	0.207
05/13/97 08:38	51397	92717	15.09	0.392	86.4	8.68	0	8.27	112	0.207
05/13/97 08:55	51397	94425	15.33	0.392	85.9	8.59	0	8.27	116	0.208
05/13/97 09:09	51397	95745	15.55	0.392	85.9	8.55	0	8.27	120	0.209
05/13/97 09:26	51397	101505	15.85	0.391	86.2	8.52	0	8.29	125	0.21
05/13/97 09:41	51397	103028	16.12	0.391	86.2	8.47	0	8.3	129	0.211
05/13/97 09:45	51397	103411	16.19	0.392	86.1	8.45	0	8.3	130	0.212
05/13/97 09:53	51397	104220	16.35	0.391	86.2	8.43	0	8.3	132	0.212
05/13/97 09:56	51397	104517	16.4	0.391	86.3	8.43	0	8.3	133	0.213
AVERAGE			15.69	0.392	86.36	8.57	0.00	8.28	122.00	0.21

Observations:	
Flow	2.86 cfs
Habitat Score	113
Sky	Clear
Wind	Calm
Direction	Calm
Air Temp	80 F

Samples Taken	Number
Nutrients	1
TON/Turbidity	1
Metals	1
Bacti	6
Solids	0
Plankton	0
TOC	0
BMI	2
CPOM	2
Organics	0
Crypto-Giardia	0

Comments:
Watershed sampling and surveillance.
Illegal Immigrant Impact Project Sampling. Six Bacti samples collected over 90 minutes at 15 min. intervals upstream of assessment site.
Hester Dendy samplers (4) in place and undisturbed. Very little human or livestock activity in vicinity of assessment site.
Site characterized by dense, mature riparian vegetation dominated by Live Oaks, Sycamores, Cottonwoods and willows. Understory fairly dense. Right bank (facing upstream) unstable with nearly vertical slope. Highly erosive and subject to collapse. Substrate composed primarily of boulders and cobbles with numerous small debris dams of twigs and willow, sycamore, and oak leaves.
Made contact with Campground host and his wife. They have been in residence on site for three years.

Water Chemistry Profile

Rapid Bioassessment Protocol

Water Chemistry Profile			Rapid Bioassessment Protocol								
Constituents	HACH Method	Results	Habitat Assessment				Benthic Macroinvertebrates				
			Ref. Sta.	Score	% Comp.	Rating	Metric	Ref. Sta.	Study Site	% Comp.	Rating
NH4-N (mg/l)	380		CWD3a	143	79.02%		MFBI				
NO2-N (mg/l)	371	0.002	LCC2	113	100.00%		TR				
NO3-N (mg/l)	351	0.05			#DIV/0!		PER CONT				
PO4 P (mg/l)	490				#DIV/0!		EPT				
Turbidity (NTU)	2100P		Ideal	155	72.90%		% EPT				
Mn (mg/l)	290						EPT/CHIR				
Fe (Ferrous, mg/l)	255						SCFL				
Cu (mg/l)	135						HBI				
Al (mg/l)	10						CLI				
Analysis Date:	01-Jan-97		Analysis Date:	01-Jan-97			Analysis Date:	01-Jan-97			
Analyst:			Analyst:				Analyst:				

Habitat Assessment Scale

Metric Assessment Scale

> 90%	Comparable to reference	Excellent	Metric	Excellent	Very Good	Good	Fair	Poor
75-88%	Supporting	Good	MFBI					
60-73%	Partially supporting	Fair	TR					
<58%	Not supporting	Poor	PER CONT					
			EPT					
			% EPT					
			EPT/CHIR					
			SCFL					
			HBI					
			CLI					

file name LCC2-133

WATERSHED WATER QUALITY REPORT SHEET

June 18, 97

Watershed	Cottonwood
Drainage	Long Creek
Station	LCC2

Sampling Date: 18-Jun-97

SAMPLER	DWG
UNIT	YSI #1

YSI Datasonde Physicochemical Data

DATE MM/DD/YY TIME	DATE MMDDYY	TIME	TEMP C	SP COND mS/cm	DO %	DO CONC mg/l	DEPTH m	PH	ORP mV	TDS g/l
06/18/97 10:25	61897	110955	18.68	0.412	88.3	8.23	0	8	74	0.235
06/18/97 10:25	61897	111012	18.68	0.412	88.3	8.23	0	8	74	0.235
06/18/97 10:27	61897	111231	18.7	0.412	88	8.2	0	8	75	0.235
06/18/97 10:34	61897	111910	18.86	0.411	87.8	8.15	0	8.02	75	0.236
06/18/97 10:34	61897	111946	18.87	0.411	87.7	8.14	0	8.02	75	0.236

AVERAGE	18.76	0.412	88.02	8.19	0.00	8.01	74.60	0.24
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Observations:	
Flow	
Habitat Score	
Sky	
Wind	
Direction	
Air Temp	

Comments:
Watershed sampling and surveillance.

Samples Taken	Number
Nutrients	
TON/Turbidity	
Metals	
Bacti	
Solids	
Plankton	
TOC	
BMI	
CPOM	
Organics	
Crypto-Giardia	

Water Chemistry Profile

Rapid Bioassessment Protocol

Constituents	HACH Method	Results	Habitat Assessment				Benthic Macroinvertebrates			
			Ref. Sta.	Score	% Comp.	Rating	Metric	Ref. Sta.	Study Site	% Comp.
NH4-N (mg/l)	380		CWD3a	143	0.00%		MFBI			
NO2-N (mg/l)	371		LCC2	113	0.00%		TR			
NO3-N (mg/l)	351				#DIV/0!		PER CONT			
PO4 P (mg/l)	490				#DIV/0!		EPT			
Turbidity (NTU)	2100P		Ideal	155	0.00%		% EPT			
Mn (mg/l)	290						EPT/CHIR			
Fe (Ferrous, mg/l)	255						SCFL			
Cu (mg/l)	135						HBI			
Al (mg/l)	10						CLI			
Analysis Date:	01-Jan-97		Analysis Date:	01-Jan-97			Analysis Date:	01-Jan-97		
Analyst:			Analyst:				Analyst:			

Habitat Assessment Scale

Metric Assessment Scale

> 90%	Comparable to reference	Excellent	Metric	Excellent	Very Good	Good	Fair	Poor
75-88%	Supporting	Good	MFBI					
60-73%	Partially supporting	Fair	TR					
<58%	Not supporting	Poor	PER CONT					
			EPT					
			% EPT					
			EPT/CHIR					
			SCFL					
			HBI					
			CLI					

frknew LCC2-169

WATERSHED WATER QUALITY REPORT SHEET

Jan 29, 1998

Watershed	Cottonwood
Drainage	Long Canyon Creek
Station	LCC2

Sampling Date: 29-Jan-98

SAMPLER	DWG
UNIT	207002

YSI Datasonde Physicochemical Data

DATE	DATE	TIME	TEMP	SP COND	TDS	DO	DO CONC	Depth	pH	ORP	Salinity
MM/DD/YY TIME	MMDDYY		C	mS/cm	g/l	% sat	mg/l	m	log units	mV	ppt
01/29/98 11:24	12998	111402	6.81	366	152.0	79.80	9.72	0	8.22	176	
01/29/98 11:27	12998	111726	6.76	365	152.0	75.50	9.21	0	8.21	172	
01/29/98 11:40	12998	113003	6.78	363	151.0	80.10	9.76	0	8.21	174	
01/29/98 11:42	12998	113151	6.79	363	151.0	77.30	9.42	0	8.2	175	
01/29/98 11:47	12998	113704	6.8	363	151.0	70.70	8.61	0	8.22	177	
01/29/98 11:47	12998	113719	6.8	363	151.0	70.60	8.6	0	8.21	177	

AVERAGE

6.79 363.833 151.33 75.67 9.22 0.00 8.21 175.17 #DIV/0!

Observations:

Flow	0.77	cfs
Habitat Score	140	
Sky	cldy/rain	
Wind	1-5	
Direction	SW	
Air Temp	47.0F	C

Comments:

Samples Taken	Number
Nutrients	1
TON/Turbidity	1
Metals	1
Bacti	0
Solids	0
Plankton	0
TOC	0
BMI	1
CPOM	0
Organics	0
Crypto-Giardia	0

Water Chemistry Profile

Rapid Bioassessment Protocol

Constituents	HACH Method	Results	Habitat Assessment				Benthic Macroinvertebrates				
			Ref. Sta.	Score	% Comp.	Rating	Metric	Ref. Sta.	Study Site	% Comp.	Rating
NH4-N (mg/l)	380		CWD3a	143	97.90%	Good	MFBI				
NO2-N (mg/l)	371		LCC2	113	123.89%	Excellent	TR				
NO3-N (mg/l)	355						PER CONT				
PO4 P (mg/l)	490						EPT				
Turbidity (NTU)	2100P		Ideal	155	90.32%	Good	% EPT				
Mn (mg/l)	290						EPT/CHIR				
Fe (Ferrous, mg/l)	255						SCFL				
Cu (mg/l)	135						HBI				
Al (mg/l)	10						CLI				
Analysis Date:	01-Jan-98		Analysis Date:	01-Jan-98			Analysis Date:	01-Jan-98			
Analyst:	DWG		Analyst:	DWG			Analyst:	DWG			

$$\frac{900}{10} \times 90 = 90$$

$$1 \text{ mS/m} = 10 \text{ umhos/cm}$$

$$1 \text{ mS/cm} = 1 \text{ umhos/cm}$$

file name LCC2-029