

Appendix 1D

Ambient Monitoring Station Data Summary Sheets

The full report is available on the DWQ Environmental Sciences Section website:
<http://portal.ncdenr.org/web/wq/ess/reports>

Ambient Monitoring System Station
 NCDENR, Division of Water Quality
 Basinwide Assessment

Location: LITTLE TENNESSEE RIV AT SR 1651 NR PRENTISS

Station #: G0035000

Hydrologic Unit Code: 06010202

Latitude: 35.12215

Longitude: -83.37432

Stream class: C

Agency: NCAMBNT

NC stream index: 2-(1)

Time period: 01/17/2006 to 12/15/2010

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
Field													
D.O. (mg/L)	47	0	<4	0	0		7.6	7.8	8.4	9.8	10.8	11.7	12.9
	47	0	<5	0	0		7.6	7.8	8.4	9.8	10.8	11.7	12.9
pH (SU)	51	0	<6	4	7.8		5.4	6	6.3	6.6	6.7	6.9	7.2
	51	0	>9	0	0		5.4	6	6.3	6.6	6.7	6.9	7.2
Spec. conductance (umhos/cm at 25°C)	50	0	N/A				15	21	22	26	29	72	116
Water Temperature (°C)	52	0	>29	0	0		0.1	6.3	9	13.7	20	22.8	24
Other													
Hardness (mg/L)	4	0	N/A				6	6	6	7	10	11	11
TSS (mg/L)	20	4	N/A				2.5	3.3	6.2	8.9	15	22.3	41
Turbidity (NTU)	53	0	>50	1	1.9		1.3	2.5	3.8	6.8	12	30.4	120
Nutrients (mg/L)													
NH3 as N	7	7	N/A				0.02	0.02	0.02	0.02	0.02	0.02	0.02
NO2 + NO3 as N	7	0	N/A				0.1	0.1	0.1	0.12	0.13	0.19	0.19
TKN as N	7	7	N/A				0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total Phosphorus	7	1	N/A				0.02	0.02	0.02	0.02	0.03	0.04	0.04
Metals (ug/L)													
Aluminum, total (Al)	6	0	N/A				170	170	215	500	695	770	770
Arsenic, total (As)	6	6	>10	0	0		5	5	5	5	5	5	5
Cadmium, total (Cd)	6	6	>2	0	0		1	1	1	2	2	2	2
Chromium, total (Cr)	6	6	>50	0	0		10	10	10	25	25	25	25
Copper, total (Cu)	6	6	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	6	0	>1000	0	0		260	260	268	500	675	690	690
Lead, total (Pb)	6	6	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	4	4	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	6	6	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	6	5	>50	0	0		10	10	10	10	11	13	13
Fecal Coliform Screening(##/100mL)													
# results:	Geomean	# > 400:	% > 400:	%Conf:									
53	104.6	9	17										

Key:

result: number of observations

ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

Ambient Monitoring System Station
 NCDENR, Division of Water Quality
 Basinwide Assessment

Location: LITTLE TENNESSEE RIV AT NC 28 AT IOTLA

Station #: G2000000

Hydrologic Unit Code: 06010202

Latitude: 35.23490

Longitude: -83.39579

Stream class: B

Agency: NCAMBNT

NC stream index: 2-(26.5)

Time period: 01/17/2006 to 12/15/2010

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
Field													
D.O. (mg/L)	47	0	<4	0	0		7.2	7.6	8.5	9.9	11.2	12.1	12.9
	47	0	<5	0	0		7.2	7.6	8.5	9.9	11.2	12.1	12.9
pH (SU)	52	0	<6	3	5.8		5	6	6.3	6.6	7	7.2	7.5
	52	0	>9	0	0		5	6	6.3	6.6	7	7.2	7.5
Spec. conductance (umhos/cm at 25°C)	49	0	N/A				24	26	28	34	38	45	49
Water Temperature (°C)	52	0	>29	0	0		0.9	6.1	9.4	14.6	21.2	24.8	26.4
Other													
Hardness (mg/L)	4	0	N/A				8	8	8	11	14	14	14
TSS (mg/L)	19	6	N/A				4	4.8	6.2	7.3	12	27	37
Turbidity (NTU)	53	0	>50	3	5.7		1.9	3.1	4.1	7.1	13.5	29.6	100
Nutrients (mg/L)													
NH3 as N	53	38	N/A				0.02	0.02	0.02	0.02	0.02	0.02	0.05
NO2 + NO3 as N	53	0	N/A				0.03	0.09	0.12	0.15	0.18	0.21	0.26
TKN as N	51	36	N/A				0.2	0.2	0.2	0.2	0.2	0.26	0.49
Total Phosphorus	53	6	N/A				0.02	0.02	0.02	0.03	0.05	0.08	0.16
Metals (ug/L)													
Aluminum, total (Al)	6	0	N/A				210	210	240	360	430	460	460
Arsenic, total (As)	6	6	>10	0	0		5	5	5	5	5	5	5
Cadmium, total (Cd)	6	6	>2	0	0		1	1	1	2	2	2	2
Chromium, total (Cr)	6	6	>50	0	0		10	10	10	25	25	25	25
Copper, total (Cu)	6	6	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	6	0	>1000	0	0		320	320	388	495	622	690	690
Lead, total (Pb)	6	6	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	4	4	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	6	6	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	6	3	>50	0	0		10	10	10	11	14	15	15
Fecal Coliform Screening(#/100mL)													
# results:	Geomean	# > 400:	% > 400:	%Conf:									
53	63.2	7	13.2										

Key:

result: number of observations

ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

Ambient Monitoring System Station
 NCDENR, Division of Water Quality
 Basinwide Assessment

Location: NANTAHALA RIV AT US 64 NR RAINBOW SPRINGS

Station #: G3500000

Hydrologic Unit Code: 06010202

Latitude: 35.09422

Longitude: -83.55992

Stream class: B Tr ORW

Agency: NCAMBNT

NC stream index: 2-57-(0.5)

Time period: 01/17/2006 to 12/15/2010

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
Field													
D.O. (mg/L)	47	0	<6	0	0		7.7	8.2	8.7	10	10.9	11.5	12.9
pH (SU)	51	0	<6	5	9.8		5.4	5.8	6.2	6.5	6.6	7	7.2
	51	0	>9	0	0		5.4	5.8	6.2	6.5	6.6	7	7.2
Spec. conductance (umhos/cm at 25°C)	49	0	N/A				11	11	12	14	15	16	17
Water Temperature (°C)	52	0	>29	0	0		0	4.4	7	11.5	16.1	18.8	20.1
Other													
Hardness (mg/L)	4	0	N/A				4	4	4	5	6	6	6
TSS (mg/L)	21	17	N/A				2.5	2.5	2.8	6.2	6.2	16	19
Turbidity (NTU)	53	15	>10	1	1.9		1	1	1	1.4	2.6	5.9	11
Nutrients (mg/L)													
NH3 as N	53	50	N/A				0.02	0.02	0.02	0.02	0.02	0.02	0.13
NO2 + NO3 as N	53	13	N/A				0.02	0.02	0.02	0.03	0.04	0.07	0.5
TKN as N	51	46	N/A				0.2	0.2	0.2	0.2	0.2	0.25	0.42
Total Phosphorus	53	38	N/A				0.02	0.02	0.02	0.02	0.02	0.03	0.1
Metals (ug/L)													
Aluminum, total (Al)	6	2	N/A				50	50	50	58	97	120	120
Arsenic, total (As)	6	6	>10	0	0		5	5	5	5	5	5	5
Cadmium, total (Cd)	6	6	>0.4	0	0		1	1	1	2	2	2	2
Chromium, total (Cr)	6	6	>50	0	0		10	10	10	25	25	25	25
Copper, total (Cu)	6	6	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	6	1	>1000	0	0		50	50	59	76	152	160	160
Lead, total (Pb)	6	6	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	4	4	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	6	6	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	6	4	>50	0	0		10	10	10	10	17	33	33
Fecal Coliform Screening(#/100mL)													
# results:	53												
Geomean	9.4												
# > 400:				2									
% > 400: %Conf:				3.8									

Key:

result: number of observations

ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

Ambient Monitoring System Station
 NCDENR, Division of Water Quality
 Basinwide Assessment

Location: TUCKASEGEE RIV AT SR 1364 AT BRYSON CITY

Station #: G8600000

Hydrologic Unit Code: 06010203

Latitude: 35.42835

Longitude: -83.44595

Stream class: B

Agency: NCAMBNT

NC stream index: 2-79-(40.5)

Time period: 01/17/2006 to 11/17/2010

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
Field													
D.O. (mg/L)	42	0	<4	0	0		7.3	8.2	9	10.4	11.4	12.4	13.8
	42	0	<5	0	0		7.3	8.2	9	10.4	11.4	12.4	13.8
pH (SU)	48	0	<6	4	8.3		5.6	6.2	6.4	7	7.9	8.5	9.1
	48	0	>9	1	2.1		5.6	6.2	6.4	7	7.9	8.5	9.1
Spec. conductance (umhos/cm at 25°C)	48	0	N/A				10	21	22	25	30	32	74
Water Temperature (°C)	48	0	>29	0	0		3.2	6.8	9.8	14.6	21.3	23.6	27.1
Other													
Hardness (mg/L)	5	0	N/A				6	6	7	9	11	12	12
TSS (mg/L)	21	10	N/A				3.5	5	6.2	7.8	18	40.4	71
Turbidity (NTU)	50	0	>50	0	0		1.1	1.8	3	4.2	7.2	13.9	40
Nutrients (mg/L)													
NH3 as N	47	44	N/A				0.02	0.02	0.02	0.02	0.02	0.02	0.02
NO2 + NO3 as N	47	0	N/A				0.05	0.09	0.11	0.15	0.18	0.22	0.33
TKN as N	45	37	N/A				0.2	0.2	0.2	0.2	0.2	0.26	0.35
Total Phosphorus	47	3	N/A				0.02	0.02	0.02	0.03	0.05	0.08	0.15
Metals (ug/L)													
Aluminum, total (Al)	6	0	N/A				140	140	162	275	1322	2500	2500
Arsenic, total (As)	6	6	>10	0	0		5	5	5	5	5	5	5
Cadmium, total (Cd)	6	6	>2	0	0		1	1	1	2	2	2	2
Chromium, total (Cr)	6	6	>50	0	0		10	10	10	25	25	25	25
Copper, total (Cu)	6	5	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	6	0	>1000	2	33.3		180	180	240	410	1650	3300	3300
Lead, total (Pb)	6	6	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	4	4	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	6	6	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	6	2	>50	0	0		10	10	10	13	19	22	22
Fecal Coliform Screening(##/100mL)													
# results:	Geomean	# > 400:	% > 400:	%Conf:									
50	44.2	3	6										

Key:

result: number of observations

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Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf: States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

Ambient Monitoring System Station
 NCDENR, Division of Water Quality
 Basinwide Assessment

Location: CHEOAH RIV AT SR 1138 AT ROBBINSVILLE

Station #: G9550000

Hydrologic Unit Code: 06010204

Latitude: 35.32910

Longitude: -83.80976

Stream class: C Tr

Agency: NCAMBNT

NC stream index: 2-190-(3.5)

Time period: 01/17/2006 to 11/17/2010

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
Field													
D.O. (mg/L)	41	0	<6	0	0		7.1	7.9	8.4	9.5	10.6	12.1	12.7
pH (SU)	44	0	<6	2	4.5		5.7	6.1	6.4	6.7	6.9	7.1	7.4
	44	0	>9	0	0		5.7	6.1	6.4	6.7	6.9	7.1	7.4
Spec. conductance (umhos/cm at 25°C)	45	0	N/A				14	27	30	34	41	43	47
Water Temperature (°C)	45	0	>29	0	0		5	6.9	11.2	15	19.4	22.9	24.7
Other													
Hardness (mg/L)	4	0	N/A				9	9	9	12	14	14	14
TSS (mg/L)	19	10	N/A				2.5	2.5	6.2	6.2	13	32	97
Turbidity (NTU)	47	1	>10	5	10.6	67.1	1	1.2	1.9	3.2	4.6	12	60
Nutrients (mg/L)													
NH3 as N	45	42	N/A				0.02	0.02	0.02	0.02	0.02	0.02	0.03
NO2 + NO3 as N	45	0	N/A				0.02	0.08	0.12	0.14	0.18	0.24	0.32
TKN as N	44	39	N/A				0.2	0.2	0.2	0.2	0.2	0.22	0.3
Total Phosphorus	45	16	N/A				0.02	0.02	0.02	0.02	0.03	0.05	0.12
Metals (ug/L)													
Aluminum, total (Al)	6	0	N/A				73	73	74	135	1182	2900	2900
Arsenic, total (As)	6	6	>10	0	0		5	5	5	5	5	5	5
Cadmium, total (Cd)	6	6	>0.4	0	0		1	1	1	2	2	2	2
Chromium, total (Cr)	6	6	>50	0	0		10	10	10	25	25	25	25
Copper, total (Cu)	6	5	>7	0	0		2	2	2	2	3	5	5
Iron, total (Fe)	6	0	>1000	1	16.7		130	130	182	265	1408	3500	3500
Lead, total (Pb)	6	6	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	4	4	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	6	6	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	6	2	>50	0	0		10	10	10	11	16	28	28
Fecal Coliform Screening(#/100mL)													
# results:	Geomean	# > 400:	% > 400:	%Conf:									
47	103.5	7	14.9										

Key:

result: number of observations

ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence