

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: HIWASSEE RIV AT US 64 AT MURPHY
Station #: F2500000
Latitude: 35.07840 **Longitude:** -84.02600
Agency: NCAMBNT

Hydrologic Unit Code: 06020002
Stream class: WS-V
NC stream index: 1-(43.7)

Time period: 01/17/2006 to 01/25/2010

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
Field													
D.O. (mg/L)	13	0	<4	0	0		8.5	8.5	9	10.2	11.1	11.5	11.6
	13	0	<5	0	0		8.5	8.5	9	10.2	11.1	11.5	11.6
pH (SU)	15	0	<6	1	6.7		5.6	5.9	6.3	6.7	7	7.7	8.2
	15	0	>9	0	0		5.6	5.9	6.3	6.7	7	7.7	8.2
Spec. conductance (umhos/cm at 25°C)	13	0	N/A				16	19	25	30	34	36	36
Water Temperature (°C)	15	0	>29	0	0		7.5	8.3	11.4	15.2	21.7	24.2	25.2
Other													
Hardness (mg/L)	1	0	>100	0	0		8	8	8	8	8	8	8
TSS (mg/L)	9	2	N/A				2.5	2.5	3.5	6.2	8.1	58	58
Turbidity (NTU)	16	0	>50	0	0		2.9	3	4.7	5.8	8	28.5	32
Nutrients (mg/L)													
NH3 as N	16	15	N/A				0.02	0.02	0.02	0.02	0.02	0.02	0.03
NO2 + NO3 as N	16	0	>10	0	0		0.05	0.06	0.08	0.13	0.22	0.38	0.53
TKN as N	16	10	N/A				0.2	0.2	0.2	0.2	0.22	0.33	0.39
Total Phosphorus	16	2	N/A				0.02	0.02	0.02	0.03	0.07	0.08	0.11
Metals (ug/L)													
Aluminum, total (Al)	6	0	N/A				130	130	175	230	275	380	380
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	1	16.7		270	270	292	350	792	1100	1100
Lead, total (Pb)	6	6	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	5	0	>200	0	0		21	21	24	31	87	130	130
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	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	6	5	>50	0	0		10	10	10	10	11	15	15

Fecal Coliform Screening(#/100mL)

# results:	Geomean	# > 400:	% > 400: %Conf:
16	105.9	2	12.5

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: HIWASSEE RIV AT US 19 BUS AT MURPHY

Station #: F2700000

Hydrologic Unit Code: 06020002

Latitude: 35.08530

Longitude: -84.03690

Stream class: C

Agency: NCAMBNT

NC stream index: 1-(50)

Time period: 11/27/2007 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)	29	0	<4	0	0		7.8	8.5	9.2	10.1	11.4	12.7	13.1
	29	0	<5	0	0		7.8	8.5	9.2	10.1	11.4	12.7	13.1
pH (SU)	31	0	<6	2	6.5		5.6	6	6.4	6.7	7.6	8.2	8.7
	31	0	>9	0	0		5.6	6	6.4	6.7	7.6	8.2	8.7
Spec. conductance (umhos/cm at 25°C)	32	0	N/A				23	24	26	28	31	32	35
Water Temperature (°C)	33	0	>29	0	0		4.3	6.6	10	14.6	20.8	25.1	28.5
Other													
Hardness (mg/L)	4	0	N/A				8	8	8	9	10	11	11
TSS (mg/L)	12	9	N/A				6.2	6.2	6.2	6.2	6.4	9.1	9.8
Turbidity (NTU)	33	1	>50	0	0		1	2	2.5	4.1	7.6	17.2	50
Nutrients (mg/L)													
NH3 as N	33	30	N/A				0.02	0.02	0.02	0.02	0.02	0.02	0.04
NO2 + NO3 as N	33	0	N/A				0.02	0.04	0.07	0.1	0.13	0.17	0.48
TKN as N	32	25	N/A				0.2	0.2	0.2	0.2	0.2	0.28	0.44
Total Phosphorus	33	13	N/A				0.02	0.02	0.02	0.02	0.03	0.04	0.1

Fecal Coliform Screening(#/100mL)

# results:	Geomean	# > 400:	% > 400:	%Conf:
33	28.9	3	9.1	

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: VALLEY RIV AT US 74 AND 19 AND 129 AT TOMOTLA
Station #: F4000000 **Hydrologic Unit Code:** 06020002
Latitude: 35.13728 **Longitude:** -83.97960 **Stream class:** C Tr
Agency: NCAMBNT **NC stream index:** 1-52

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	<6	0	0		7.6	8.1	8.6	9.8	11.3	12.5	13.7
pH (SU)	44	0	<6	0	0		6	6.3	6.6	7	7.2	7.4	8
	44	0	>9	0	0		6	6.3	6.6	7	7.2	7.4	8
Spec. conductance (umhos/cm at 25°C)	45	0	N/A				25	33	40	48	66	73	81
Water Temperature (°C)	48	0	>29	0	0		4.2	6.2	9.6	13.6	20.3	24.3	25.6
Other													
Hardness (mg/L)	4	0	N/A				11	11	12	18	29	31	31
TSS (mg/L)	20	12	N/A				2.5	4.8	6.2	6.2	12	38.1	68
Turbidity (NTU)	49	0	>10	10	20.4	> 99.9	1.1	1.4	2.2	3.9	9.8	16	34
Nutrients (mg/L)													
NH3 as N	48	40	N/A				0.02	0.02	0.02	0.02	0.02	0.02	0.04
NO2 + NO3 as N	48	0	N/A				0.11	0.22	0.25	0.3	0.33	0.36	0.4
TKN as N	47	26	N/A				0.2	0.2	0.2	0.2	0.25	0.32	0.36
Total Phosphorus	48	4	N/A				0.02	0.02	0.03	0.04	0.07	0.08	0.1
Metals (ug/L)													
Aluminum, total (Al)	6	0	N/A				58	58	127	220	448	590	590
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	0	>1000	0	0		190	190	212	400	588	640	640
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	10	11	11
Fecal Coliform Screening(#/100mL)													
# results:	Geomean	# > 400:	% > 400:	%Conf:									
49	206.3	16	32.7	98.8									

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