APPENDIX J

HISTORICAL WATER QUALITY SUMMARY DATA

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Water quality data from the mid-1970s (1974–1979) were obtained from both the USEPA Storage and Retrieval (STORET) database system and the USGS NWISWeb. The STORET database includes sampling data collected by federal and state agencies that sample water quality in the Lake Lanier watershed, and the USGS database includes sampling done by the USGS. Historical water quality was evaluated at six monitoring stations (Table 3-10), four from the STORET database and two from the NWISWeb. Tables J-1 and J-2 summarize the available data.

Table J-1

Summary of Historic Data from Six Monitoring Stations

Parameters	Units	12030001				12038001				12040001			
		Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max
Water Temperature	ºC	15	15.00	4.00	23.50	20	61.61	84.20	41.00	1	27.00	27.00	27.00
Dissolved Oxygen	mg/L	15	9.73	7.7	12.6	20	7.54	2.00	12.60	1	7.50	7.50	7.50
BOD5	5-day, 20 ºC	15	0.73	0.20	1.40	20	0.64	0.10	1.70	1	0.60	0.60	0.60
pH	SU	12	6.43	5.6	7.2	-	-	-	-	-	-	-	-
Turbidity	Hach FTU	15	20.07	6	74	20	7.60	4.00	21.00	1	6.20	6.20	6.20
Nitrogen, Total	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Total Kjeldahl Nitrogen	mg/L	-	-	-	-	10	0.16	0.00	0.30	-	-	-	-
Ammonia, Total	mg/L	15	0.02	0.02	0.03	20	0.04	0.02	0.14	-	-	-	-
Nitrite plus Nitrate, Total	mg/L	15	0.18	0.11	0.26	21	0.15	0.02	0.50	1	0.10	0.10	0.10
Nitrogen, Total Organic	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus, Total	mg/L	15	0.04	0.02	0.15	20	0.02	0.02	0.03	1	0.02	0.02	0.02
Arsenic, Dissolved	µg/L	-	-	-	-	1	5.00	5.00	5.00	-	-	-	-
Cadmium Dissolved	µg/L	-	-	-	-	1	50.00	50.00	50.00	-	-	-	-
Chromium Dissolved	µg/L	-	-	-	-	1	50.00	50.00	50.00	-	-	-	-
Copper, Dissolved	µg/L	-	-	-	-	1	50.00	50.00	50.00	-	-	-	-
Lead, Dissolved	µg/L	-	-	-	-	1	400.00	400.00	400.00	-	-	-	-
Mercury, Dissolved	µg/L	-	-	-	-	1	400.00	400.00	400.00	-	-	-	-
Zinc, Dissolved	µg/L	-	-	-	-	1	110.00	110.00	110.00	-	-	-	-
Fecal Coliform	#	15	1,832.67	150.00	4,300.00	2	30.00	30.00	30.00	1	10.00	10.00	10.00
Chlorophyll a	mg/sq m	-	-	-	-	-	-	-	-	-	-	-	-

Table J-1 (continued)

Summary of Historic Data from Six Monitoring Stations

Parameters	Units	12041001				2333500				2333000			
		Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max
Water Temperature	ºC	2	10.25	9.50	11.00	37	14.23	4.5	24.5	11	20.32	11	29
Dissolved Oxygen	mg/L	2	9.90	9.20	10.60	-	-	-	-	-	-	-	-
BOD5	5-day, 20 ºC	2	0.80	0.30	1.30	12	1.79	0.6	3.5	-	-	-	-
pH	SU	-	-	-	-	22	6.93	6.4	7.4	11	7.36	6.9	9
Turbidity	Hach FTU	2	3.75	3.70	3.80	-	-	-	-	-	-	-	-
Nitrogen, Total	mg/L	-	-	-	-	13	0.92	0.14	2.8	-	-	-	-
Total Kjeldahl Nitrogen	mg/L	-	-	-	-	13	0.72	0.1	2.5	9	0.26	0.1	0.46
Ammonia, Total	mg/L	-	-	-	-	13	0.07	0.01	0.15	-	-	-	-
Nitrite plus Nitrate, Total	mg/L	2	0.24	0.19	0.29	13	0.21	0.1	0.3	9	0.10	0.01	0.2
Nitrogen, Total Organic	mg/L	-	-	-	-	13	0.66	0	2.4	-	-	-	-
Phosphorus, Total	mg/L	2	0.04	0.02	0.05	13	0.19	0.01	0.61	-	-	-	-
Arsenic, Dissolved	µg/L	-	-	-	-	11	1	1	1	-	-	-	-
Cadmium Dissolved	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Chromium Dissolved	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Copper, Dissolved	µg/L	-	-	-	-	10	3.6	2	7	-	-	-	-
Lead, Dissolved	µg/L	-	-	-	-	6	4.67	3	10	-	-	-	-
Mercury, Dissolved	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Zinc, Dissolved	µg/L	-	-	-	-	5	20.00	20	20	-	-	-	-
Fecal Coliform	#	2	10.00	10.00	10.00	-	-	-	-	-	-	-	-
Chlorophyll a	mg/sq m	-	-	-	-	-	-	-	-	2	14.265	8.53	20