

0209749990 UNIVERSITY LAKE AT INTAKES NEAR CHAPEL HILL, NC

LOCATION.--Lat 35°53'49", long 79°05'32", Orange County, Hydrologic Unit 03030002, at Orange Water and Sewage Authority intakes, and 1.8 mi southwest of Chapel Hill.

DRAINAGE AREA.--30 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six-county regional surface-water quality assessment. Samples for nutrient and chlorophyll *a* and *b* analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Medium code	Color, water, fltrd, Pt-Co units (00080)	Sam-pling depth, meters (00098)	Trans-parency Secchi disc, meters (00078)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unfltrd uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
OCT													
22...	1130	9	20	1.0	.60	759	4.0	43	6.9	107	18.3	32	8.51
22...	1135	9	--	4.0	--	759	.2	2	7.0	114	17.8	--	--
22...	1140	9	--	7.0	--	759	.1	1	8.2	494	14.1	--	--
APR													
15...	1115	9	40	1.0	.80	755	8.8	88	7.4	85	14.8	28	7.15
15...	1120	9	--	4.0	--	755	4.7	46	6.7	85	13.6	--	--
15...	1125	9	--	8.0	--	755	.3	3	6.8	108	9.2	--	--
JUN													
17...	1130	9	30	1.0	.70	746	6.9	90	7.5	114	27.9	31	7.83
17...	1135	9	--	4.0	--	746	.1	1	6.7	137	17.0	--	--
17...	1140	9	--	8.0	--	746	.3	3	7.0	252	12.7	--	--
AUG													
12...	0915	9	20	1.0	.40	753	7.7	102	8.4	104	29.1	30	7.34
12...	0916	R	--	1.0	.40	753	7.7	102	8.4	104	29.1	--	--
12...	0917	R	--	1.0	.40	753	7.7	102	8.4	104	29.1	--	--
12...	0918	R	--	1.0	.40	753	7.7	102	8.4	104	29.1	--	--
12...	0919	R	--	1.0	.40	753	7.7	102	8.4	104	29.1	--	--
12...	0920	9	--	3.0	--	753	.1	2	6.7	118	25.9	--	--
12...	0925	9	--	7.0	--	753	.2	2	7.3	304	12.8	--	--

Date	Magnes-ium, water, fltrd, mg/L (00925)	Potas-ium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, titr., mg/L as CaCO3 (00419)	Bicar-bonate, wat unfltrd, titr., mg/L (00450)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
OCT													
22...	2.71	2.82	6.23	32	39	6.51	.1	15.5	5.4	86	.62	.046	<.016
22...	--	--	--	--	--	--	--	--	--	--	.77	.160	<.016
22...	--	--	--	--	--	--	--	--	--	--	12	10.3	.030
APR													
15...	2.54	1.72	6.24	25	31	6.29	<.1	13.4	7.1	69	.53	E.009	.020
15...	--	--	--	--	--	--	--	--	--	--	.51	E.006	.030
15...	--	--	--	--	--	--	--	--	--	--	.86	.413	.109
JUN													
17...	2.68	1.89	7.03	33	40	6.75	E.1	15.3	5.6	72	.56	<.010	<.016
17...	--	--	--	--	--	--	--	--	--	--	.50	.047	<.016
17...	--	--	--	--	--	--	--	--	--	--	2.9	1.91	<.016
AUG													
12...	2.77	2.13	7.03	24	29	6.47	E.1	15.3	4.7	77	.82	E.006	<.016
12...	--	--	--	24	29	--	--	--	--	--	--	--	--
12...	--	--	--	24	29	--	--	--	--	--	--	--	--
12...	--	--	--	24	29	--	--	--	--	--	--	--	--
12...	--	--	--	24	29	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	.94	.162	<.016
12...	--	--	--	--	--	--	--	--	--	--	6.1	4.21	<.016

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Chlorophyll b phytoplankton, fluoro, ug/L (70954)	Aluminum, water, unfltrd recover-able, ug/L (01105)	Arsenic water unfltrd ug/L (01002)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Cobalt water, unfltrd recover-able, ug/L (01037)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, unfltrd recover-able, ug/L (01045)
OCT 22...	E.001	<.006	.033	9.7	E11.3	E.6	18	<2	<.04	<.8	.190	.8	530
22...	E.001	<.006	.043	--	--	--	--	--	--	--	--	--	920
22...	.003	<.006	.133	--	--	--	--	--	--	--	--	--	71,100
APR 15...	.002	<.006	.039	7.8	3.2	<.1	62	<2	<.04	<.8	.181	1.7	450
15...	.002	<.006	.037	--	--	--	--	--	--	--	--	--	460
15...	.006	<.006	.067	--	--	--	--	--	--	--	--	--	1,320
JUN 17...	<.002	<.006	.038	6.8	3.4	<.1	--	--	--	--	--	--	290
17...	<.002	<.006	.042	--	--	--	--	--	--	--	--	--	280
17...	.009	.111	.14	--	--	--	--	--	--	--	--	--	15,300
AUG 12...	<.004	<.012	.019	10.7	E6.4	<.1	--	--	--	--	--	--	150
12...	--	--	--	--	E5.8	<.1	--	--	--	--	--	--	--
12...	--	--	--	--	E6.0	<.1	--	--	--	--	--	--	--
12...	--	--	--	--	E7.8	<.1	--	--	--	--	--	--	--
12...	--	--	--	--	E11.0	<.1	--	--	--	--	--	--	--
12...	<.002	<.012	.116	--	--	--	--	--	--	--	--	--	480
12...	<.004	.056	.169	--	--	--	--	--	--	--	--	--	34,500

Date	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, unfltrd recover-able, ug/L (01055)	Mercury water, unfltrd recover-able, ug/L (71900)	Molybdenum, water, unfltrd recover-able, ug/L (01062)	Nickel, water, unfltrd recover-able, ug/L (01067)	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover-able, ug/L (01077)	Zinc, water, unfltrd recover-able, ug/L (01092)
OCT 22...	.09	332	E.01	.3	.24	<.4	<.16	E2
22...	--	908	--	--	--	--	--	--
22...	--	10,300	--	--	--	--	--	--
APR 15...	.17	91	.01	E.2	.36	.5	<.16	E2
15...	--	96.9	--	--	--	--	--	--
15...	--	1,360	--	--	--	--	--	--
JUN 17...	--	118	--	--	--	--	--	--
17...	--	884	--	--	--	--	--	--
17...	--	5,000	--	--	--	--	--	--
AUG 12...	--	81.3	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--
12...	--	1,810	--	--	--	--	--	--
12...	--	7,360	--	--	--	--	--	--

Remark codes used in this table:  
 < -- Less than.  
 E -- Estimated.

Medium codes used in this table:  
 9 -- Surface water.  
 R -- Quality-control sample, surface water.

CAPE FEAR RIVER BASIN

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