

0211583580 BOWEN BRANCH NEAR MOUTH AT WINSTON-SALEM, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 2002 to September 2003 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 2002 to September 2003.

INSTRUMENTATION.--Logging pressure transducer with water temperature probe.

REMARKS.--Station operated as part of NAWQA Urban Land Use Gradient study.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 29.2°C, Aug. 27, 2003; minimum recorded, 0.0°C, Jan. 24, 25, 2003.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L (00625)	Ammonia water, fltrd, mg/L (71846)
FEB 20...	0900	9	E.94	746	10.4	87	7.1	570	6.6	102	53.9	9.2	9.07
FEB 26...	1330	9	--	--	--	--	--	--	--	--	--	--	--
MAY 14...	0930	D	1.6	--	7.7	--	6.5	615	14.2	--	--	--	--
JUN 12...	1215	9	--	--	7.9	--	6.6	568	21.7	--	--	--	--
JUL 01...	0640	9	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	1030	9	1.4	740	8.0	95	6.6	645	22.2	91.2	78.4	10	13.3
Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, unfltrd mg/L (00605)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)
FEB 20...	7.04	16.1	3.64	3.65	0.046	0.014	2.1	<0.02	<0.02	0.016	13	0.2	<0.1
FEB 26...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	10.3	26.2	5.93	6.01	0.269	0.082	0.12	<0.02	0.04	0.011	16	0.2	<0.1
Date	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)	Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, water, col/100 mL (90902)	Chlorophyll a periphyton, chromofluoro, mg/m2 (70957)	1-Naphthol, water, fltrd, 0.7u GF (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6-' diethyl acetanilide wat flt ug/L (61618)
FEB 20...	0.2	1.9	--	--	--	--	--	<1	--	<0.09	<0.006	<0.1	<0.005
FEB 26...	--	--	--	--	--	--	--	K3	--	--	--	--	--
MAY 14...	--	--	0.9	9.6	10.50	400	1.1	--	2.2	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	K10	--	--	--	--	--
JUL 09...	0.2	1.3	--	--	--	--	--	--	--	<0.09	<0.006	<0.1	<0.005

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	CIAT, water, fltrd, ug/L (04040)	2-Ethyl -6- methyl- aniline water, fltrd, ug/L (61620)	3,4-Di- chloro- aniline water, fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor, water, fltrd, ug/L (46342)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl oxon, water, fltrd, ug/L (61635)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Chlor- pyrifos oxon, water, fltrd, ug/L (61636)	Chlor- pyrifos water, fltrd, ug/L (38933)
FEB 20... 26...	<0.006	<0.004	<0.004	<0.006	<0.006	<0.004	0.012	<0.02	<0.050	<0.010	E.005	<0.06	<0.005
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01... 09...	<0.006	<0.004	0.037	<0.006	<0.006	<0.004	0.011	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005
Date	cis- Per- methrin water fltrd 0.7u GF (82687)	Cyflu- thrin, water, fltrd, ug/L (61585)	Cyper- methrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF (82682)	Desulf- inyl fipronil, water, fltrd, ug/L (62170)	Diaz- inon oxon, water, fltrd, ug/L (61638)	Diazi- non, water, fltrd, ug/L (39572)	Dicro- tophos, water, fltrd, ug/L (38454)	Diel- drin, water, fltrd, ug/L (39381)	Dimeth- oate, water, fltrd 0.7u GF (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami- phos sulfone water, fltrd, ug/L (61645)
FEB 20... 26...	<0.006	<0.008	<0.009	<0.003	<0.004	<0.04	0.007	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01... 09...	<0.006	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	<0.08	0.008	<0.006	<0.03	<0.004	<0.008
Date	Fenami- phos sulf- oxide, water, fltrd, ug/L (61646)	Fenami- phos, water, fltrd, ug/L (61591)	Desulf- inyl- fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa- zinone, water, fltrd, ug/L (04025)	Ipro- dione, water, fltrd, ug/L (61593)	Isofen- phos, water, fltrd, ug/L (61594)	Malax- oxon, water, fltrd, ug/L (61652)	Malathion, water, fltrd, ug/L (39532)
FEB 20... 26...	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01... 09...	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.002	<0.003	0.018	<1	<0.003	<0.008	<0.027
Date	Meta- laxyl, water, fltrd, ug/L (61596)	Methi- althion water, fltrd, ug/L (61598)	Methyl para- oxon, water, fltrd, ug/L (61664)	Methyl para- thion, water, fltrd 0.7u GF (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- butzin, water, fltrd, ug/L (82630)	Myclo- butanil water, fltrd, ug/L (61599)	Pendi- meth- alin, water, fltrd 0.7u GF (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF (82664)	Phosmet water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome- ton, water, fltrd, ug/L (04037)
FEB 20... 26...	<0.005	<0.006	<0.03	<0.006	<0.013	<0.006	<0.008	<0.045	<0.10	<0.011	<0.06	<0.008	0.03
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01... 09...	<0.005	<0.006	<0.03	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	0.03

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TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	7.3	4.4	5.2	13.7	10.8	12.5
2	---	---	---	---	---	---	7.0	3.2	4.9	11.6	10.0	10.9
3	---	---	---	---	---	---	7.6	4.7	6.3	11.0	7.6	9.7
4	---	---	---	---	---	---	6.4	0.9	3.8	7.6	5.0	6.3
5	---	---	---	---	---	---	5.3	0.8	3.1	7.3	4.3	5.7
6	---	---	---	---	---	---	6.9	3.1	4.4	7.7	4.4	5.9
7	---	---	---	---	---	---	6.5	1.6	3.5	5.5	2.9	4.2
8	---	---	---	---	---	---	7.5	2.4	4.7	8.5	4.0	6.1
9	---	---	---	14.2	9.1	11.6	7.1	4.5	5.8	10.7	6.1	8.3
10	---	---	---	16.7	13.3	15.0	7.2	4.4	5.7	9.6	6.5	8.4
11	---	---	---	18.4	15.8	17.2	6.8	3.2	5.5	6.5	3.6	4.9
12	---	---	---	16.2	14.2	15.1	10.0	6.7	7.9	4.4	2.1	3.4
13	---	---	---	14.2	10.7	12.9	7.4	5.0	6.5	5.7	2.1	3.7
14	---	---	---	12.9	8.5	10.5	9.4	6.6	7.8	6.9	3.0	4.9
15	---	---	---	13.1	8.8	11.0	8.3	4.4	6.3	5.3	2.8	3.7
16	---	---	---	13.3	12.3	12.7	10.0	5.4	7.6	5.0	2.3	3.6
17	---	---	---	12.9	10.0	12.1	9.3	6.0	7.7	4.4	2.1	3.8
18	---	---	---	11.0	8.3	9.4	9.1	6.9	8.0	2.1	0.5	1.3
19	---	---	---	10.9	6.8	8.8	9.6	8.0	8.8	2.0	0.3	1.1
20	---	---	---	11.7	7.2	9.4	12.3	8.2	10.8	5.4	1.0	2.8
21	---	---	---	13.4	10.2	11.6	9.0	6.0	7.4	5.7	3.8	4.7
22	---	---	---	11.6	8.6	10.7	9.7	5.0	7.3	5.7	2.4	4.0
23	---	---	---	8.8	6.0	7.6	9.3	5.3	7.4	5.0	0.4	2.0
24	---	---	---	10.3	6.0	8.1	8.7	6.7	7.5	0.8	0.0	0.4
25	---	---	---	11.2	7.1	9.1	7.6	5.0	6.5	2.4	0.0	0.8
26	---	---	---	10.6	7.5	9.1	6.9	4.2	5.3	4.9	0.7	2.7
27	---	---	---	9.6	6.1	8.4	6.6	3.4	4.7	4.0	1.4	2.4
28	---	---	---	6.1	4.0	5.1	7.1	3.1	4.7	4.4	1.0	2.5
29	---	---	---	6.7	3.3	4.9	8.4	3.7	5.8	7.5	4.0	5.9
30	---	---	---	9.1	6.4	7.6	8.9	4.2	6.5	7.3	4.6	6.0
31	---	---	---	---	---	---	11.1	5.8	8.3	5.8	4.3	5.1
MONTH	---	---	---	---	---	---	12.3	0.8	6.3	13.7	0.0	4.8
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.6	5.4	6.7	8.6	6.1	7.2	17.6	6.6	11.6	22.9	16.2	19.1
2	9.0	3.5	6.1	12.3	7.1	9.0	21.0	10.0	14.9	25.6	16.3	19.6
3	10.8	4.8	7.9	12.3	5.2	8.3	22.1	11.1	16.1	21.2	16.2	18.1
4	12.7	7.5	10.8	12.4	4.8	8.4	19.8	12.3	16.0	17.1	15.1	16.2
5	8.6	4.8	6.8	15.5	9.4	12.1	19.6	13.6	15.8	15.1	13.9	14.3
6	7.8	4.6	6.0	13.9	10.4	12.1	19.3	11.0	14.9	18.6	14.1	16.4
7	7.1	3.5	5.3	10.4	6.0	8.3	15.1	8.9	10.4	22.3	15.4	18.3
8	6.9	3.1	4.7	14.6	4.4	9.1	10.1	8.3	9.5	26.0	16.5	20.7
9	7.6	3.1	5.2	17.2	8.6	12.3	9.9	7.3	8.6	26.5	17.9	21.7
10	7.8	5.0	6.2	13.9	7.7	10.3	8.9	6.6	7.8	26.0	18.9	22.1
11	8.9	3.1	5.8	11.3	5.7	7.9	12.7	8.6	10.2	22.6	18.9	20.5
12	8.8	4.1	6.3	16.3	5.4	10.4	19.2	9.2	13.3	23.3	15.9	19.1
13	8.1	2.5	5.2	17.9	8.6	13.0	20.3	10.0	14.4	22.4	14.2	17.9
14	7.3	4.1	5.8	16.2	11.2	13.2	21.3	10.5	15.2	22.7	13.4	17.8
15	9.0	6.4	7.9	11.2	9.3	10.1	22.4	12.4	16.7	19.1	15.5	17.4
16	6.4	0.6	3.5	12.3	9.0	10.7	23.4	13.2	17.6	22.5	16.6	19.0
17	3.4	0.6	1.8	14.8	11.7	12.9	21.8	14.5	17.8	19.5	15.0	16.7
18	7.6	3.4	5.0	14.6	12.3	13.3	16.1	10.9	12.3	15.2	14.2	14.6
19	8.9	3.8	6.1	13.2	9.8	12.3	12.9	10.5	11.6	15.5	13.4	14.3
20	9.9	6.4	8.0	9.8	7.0	8.2	17.7	12.1	14.2	22.7	13.3	17.4
21	9.1	6.8	8.1	16.0	9.2	12.0	16.8	13.9	15.1	17.9	15.6	16.7
22	9.3	6.5	8.0	18.0	10.6	13.6	20.1	13.8	16.3	17.3	14.9	16.0
23	11.3	6.7	9.5	16.2	9.0	12.4	20.7	11.0	15.1	16.8	15.0	15.8
24	13.2	5.6	8.8	19.1	9.5	13.6	18.8	10.6	14.7	20.4	15.3	17.1
25	10.4	6.6	8.5	19.7	9.3	14.0	15.0	13.9	14.5	21.6	16.3	18.3
26	7.6	4.1	5.9	20.3	11.9	15.3	20.3	14.5	16.7	23.4	17.2	19.7
27	4.1	2.4	3.2	18.3	11.6	14.6	23.3	14.3	17.8	20.3	16.5	18.0
28	6.7	3.4	5.2	19.0	11.7	15.2	24.3	13.3	18.1	21.8	14.2	17.8
29	---	---	---	21.2	15.3	17.4	23.6	14.8	18.6	19.3	16.0	17.4
30	---	---	---	15.8	7.6	9.9	21.9	15.2	18.5	23.4	14.4	18.5
31	---	---	---	13.1	5.7	9.0	---	---	---	22.6	16.0	18.7
MONTH	13.2	0.6	6.4	21.2	4.4	11.5	24.3	6.6	14.5	26.5	13.3	17.9

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TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
 WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	22.6	15.4	18.5	21.6	19.3	20.5	23.1	20.8	21.7	27.4	22.6	24.3
2	22.8	13.4	17.8	22.0	19.0	20.0	24.0	20.2	21.7	27.6	21.2	24.2
3	19.0	16.2	17.7	24.4	19.1	21.3	24.0	20.8	22.2	27.0	21.2	23.9
4	21.1	17.7	19.2	27.1	18.2	22.1	24.8	21.2	22.7	24.8	21.1	22.8
5	23.3	17.1	19.7	28.0	19.8	23.3	24.6	20.5	22.3	25.2	19.0	21.9
6	24.0	15.1	19.1	25.7	20.4	22.6	25.1	20.2	22.2	21.7	18.0	19.9
7	20.4	18.8	19.7	25.8	21.1	23.1	25.3	20.3	22.3	22.1	17.5	19.7
8	23.4	17.8	19.8	28.2	20.3	23.7	24.4	20.7	22.2	23.1	18.1	20.2
9	25.2	17.7	20.7	27.6	20.9	23.6	25.2	20.8	22.4	22.0	17.0	19.6
10	24.8	17.2	20.4	27.9	20.2	23.5	25.2	21.1	23.1	22.3	16.9	19.6
11	25.2	17.8	21.0	25.2	21.3	23.0	25.7	20.7	22.9	22.3	15.6	19.0
12	24.2	18.9	21.4	26.7	19.5	22.6	25.6	20.1	22.6	21.4	16.2	18.7
13	23.6	19.6	21.4	25.7	20.1	22.4	26.8	20.9	23.3	23.1	17.9	20.4
14	25.3	19.1	21.6	24.5	20.0	21.9	26.4	21.2	23.6	23.7	19.5	21.3
15	24.6	19.5	21.5	24.8	19.5	22.0	27.7	20.7	23.8	23.9	19.2	21.2
16	22.4	19.4	20.7	26.5	19.8	22.7	27.0	21.6	23.9	22.3	17.9	20.1
17	19.9	18.2	18.9	27.2	20.6	23.4	27.9	22.2	24.5	21.4	15.5	18.7
18	20.8	17.5	18.9	27.0	20.0	22.8	28.0	20.4	23.7	---	---	---
19	23.6	18.6	20.8	24.6	20.5	22.1	24.6	21.1	22.5	---	---	---
20	24.1	19.0	21.0	26.5	20.0	22.9	25.4	20.3	22.5	---	---	---
21	22.4	15.6	18.8	27.1	20.5	23.4	26.9	20.1	23.3	---	---	---
22	24.6	15.5	19.6	25.4	20.6	22.5	26.8	21.5	23.9	---	---	---
23	25.3	16.3	20.3	24.6	20.6	21.7	27.3	20.5	23.7	---	---	---
24	26.2	17.0	21.1	25.0	18.8	21.7	26.5	21.6	23.8	---	---	---
25	26.7	17.8	21.8	26.1	18.5	21.8	27.2	19.4	23.0	---	---	---
26	26.7	18.7	22.4	26.4	18.9	22.2	28.3	20.4	24.1	---	---	---
27	25.1	19.6	22.3	27.1	19.7	23.1	29.2	21.1	24.8	---	---	---
28	22.0	20.1	21.2	27.4	20.6	23.5	28.5	21.7	25.0	---	---	---
29	25.8	18.8	21.9	25.7	20.9	22.7	28.4	22.0	24.9	---	---	---
30	24.4	19.3	21.8	22.0	20.2	20.8	28.4	21.7	24.8	---	---	---
31	---	---	---	22.6	19.6	20.7	25.8	22.2	23.7	---	---	---
MONTH	26.7	13.4	20.4	28.2	18.2	22.4	29.2	19.4	23.3	---	---	---