

BIG CYPRESS SWAMP AND SOUTHWESTERN COASTAL AREA

02291580 NORTH BRANCH ESTERO RIVER AT ESTERO, FL

LOCATION.--Lat 26°26'30", long 81°47'45", in SW ¼ SW ¼ NE ¼ sec.27, T.46 S., R.25 E., Lee County, Hydrologic Unit 03090204, on right bank behind house at east end of Broadway Road, 0.95 mi east of U.S. Highway 41, 0.9 mi upstream from confluence with South Branch Estero River and 5.6 mi upstream from mouth of Estero River.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--February 1987 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Many days of no flow during the water year.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 17 complete water years of discharge (1988-2004).

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.58	8.10	7.66	7.52	7.82	8.16	7.24	7.30	6.79	7.15	---	11.23
2	13.38	8.06	7.63	7.52	7.81	8.11	7.27	7.31	6.79	---	---	11.40
3	13.07	8.06	7.62	7.51	7.79	8.14	7.26	7.31	6.79	---	10.17	11.43
4	12.73	8.06	7.60	7.51	7.78	8.14	7.24	7.32	6.80	7.49	10.38	11.47
5	12.34	8.26	7.58	7.51	7.74	8.03	7.22	7.29	6.80	7.47	10.21	11.87
6	11.87	8.57	7.57	7.49	7.71	7.97	7.20	7.24	6.78	7.42	10.43	12.68
7	11.43	8.50	7.54	7.46	7.69	7.97	7.19	7.18	6.77	7.25	10.26	12.85
8	11.06	8.42	7.51	7.49	7.66	7.92	7.17	7.12	6.82	7.15	9.97	12.69
9	10.72	8.34	7.49	7.54	7.63	7.86	7.15	7.07	6.82	7.15	9.64	12.40
10	10.39	8.27	7.50	7.55	7.63	7.82	7.13	7.04	6.82	7.20	9.35	12.33
11	10.09	8.21	7.50	7.52	7.66	7.77	7.11	7.02	6.81	7.32	9.25	11.94
12	9.76	8.16	7.49	7.51	7.66	7.74	7.24	6.97	6.81	7.60	9.33	11.58
13	9.47	8.11	7.46	7.49	7.61	7.71	7.51	6.92	6.79	7.59	10.07	11.26
14	9.31	8.04	7.55	7.46	7.54	7.67	7.54	6.87	6.86	7.50	12.26	11.00
15	9.23	8.00	7.65	7.46	7.79	7.66	7.49	6.88	6.88	7.44	11.96	10.74
16	9.00	7.96	7.66	7.49	7.80	7.65	7.43	6.88	6.89	7.39	11.58	10.49
17	8.81	7.93	7.92	7.47	7.75	7.63	7.38	6.87	6.87	7.45	---	10.24
18	8.69	7.90	8.10	7.64	7.74	7.57	7.33	6.87	6.88	7.44	---	9.99
19	8.59	7.90	7.94	7.78	7.72	7.53	7.28	6.87	6.87	7.57	---	9.76
20	8.50	7.91	7.85	7.77	7.69	7.49	7.25	6.86	6.87	8.34	---	9.55
21	8.43	7.89	7.81	7.86	7.65	7.46	7.22	6.85	6.87	9.05	10.22	9.49
22	8.37	7.86	7.77	7.73	7.62	7.44	7.23	6.85	6.85	8.66	9.97	9.41
23	8.32	7.83	7.74	7.69	7.60	7.40	7.22	6.85	6.84	8.42	10.52	9.24
24	8.26	7.81	7.71	7.66	7.58	7.37	7.17	6.84	6.85	8.22	10.98	9.03
25	8.24	7.79	7.69	7.63	7.87	7.35	7.13	6.82	7.09	8.27	11.94	8.85
26	8.18	7.77	---	7.59	8.41	7.33	7.10	6.83	7.04	8.84	11.86	9.06
27	8.13	7.74	---	7.59	8.33	7.30	7.07	6.82	6.99	8.76	11.76	9.44
28	8.09	7.73	7.62	7.59	8.26	7.28	7.04	6.81	7.16	9.73	11.71	9.36
29	8.21	7.70	7.62	7.55	8.21	7.27	7.04	6.81	7.12	11.37	11.64	9.20
30	8.26	7.68	7.57	7.57	---	7.25	7.23	6.80	7.05	---	11.54	9.00
31	8.16	---	7.52	7.76	---	7.23	---	6.79	---	---	11.40	---
TOTAL	302.67	240.56	---	234.91	225.70	237.22	217.08	216.26	206.37	---	---	318.98
MEAN	9.76	8.02	---	7.58	7.78	7.65	7.24	6.98	6.88	---	---	10.63
MAX	13.58	8.57	---	7.86	8.41	8.16	7.54	7.32	7.16	---	---	12.85
MIN	8.09	7.68	---	7.46	7.54	7.23	7.04	6.79	6.77	---	---	8.85

02291580 NORTH BRANCH ESTERO RIVER AT ESTERO, FL-Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	302	6.0	1.8	1.0	3.0	6.7	0.28	0.28	0.00	0.13	e68	114
2	284	5.5	1.6	1.0	2.9	6.1	0.35	0.29	0.00	e0.94	e58	125
3	258	5.4	1.6	0.97	2.8	6.5	0.32	0.30	0.00	e1.3	56	126
4	230	5.5	1.5	0.98	2.7	6.5	0.28	0.33	0.00	0.92	65	129
5	200	8.6	1.4	0.98	2.4	5.1	0.24	0.26	0.00	0.84	57	157
6	167	14	1.3	0.89	2.2	4.5	0.20	0.17	0.00	0.63	69	218
7	139	12	1.2	0.78	2.0	4.5	0.17	0.08	0.00	0.18	60	232
8	116	11	0.97	0.91	1.8	4.0	0.15	0.03	0.00	0.05	47	219
9	98	9.4	0.92	1.1	1.6	3.5	0.11	0.01	0.00	0.05	35	196
10	82	8.3	0.94	1.2	1.6	3.2	0.08	0.00	0.00	0.11	26	191
11	66	7.4	0.96	1.1	1.8	2.9	0.06	0.00	0.00	0.37	23	161
12	51	6.7	0.89	0.98	1.5	2.6	0.29	0.00	0.00	1.5	25	137
13	39	6.1	0.80	0.92	1.5	2.4	1.2	0.00	0.00	1.4	62	117
14	34	5.3	1.2	0.80	1.2	2.2	1.3	0.00	0.00	0.97	183	102
15	31	4.7	1.8	0.76	2.8	2.1	1.1	0.00	0.00	0.69	161	89
16	24	4.3	1.8	0.89	2.8	2.0	0.83	0.00	0.00	0.51	135	77
17	19	4.0	3.9	0.84	2.4	1.9	0.59	0.00	0.00	0.76	e104	64
18	16	3.8	6.0	1.8	2.4	1.6	0.45	0.00	0.00	0.70	e90	52
19	14	3.7	4.1	2.7	2.2	1.4	0.31	0.00	0.00	1.4	e82	43
20	12	3.9	3.3	2.6	2.0	1.2	0.22	0.00	0.00	12	e71	35
21	11	3.6	2.9	3.4	1.8	1.0	0.16	0.00	0.00	25	60	33
22	10	3.3	2.6	2.3	1.6	0.94	0.18	0.00	0.00	16	49	31
23	9.1	3.1	2.4	2.0	1.5	0.78	0.16	0.00	0.00	11	75	26
24	8.2	2.9	2.2	1.8	1.3	0.66	0.09	0.00	0.00	7.6	100	20
25	7.9	2.7	2.0	1.6	4.0	0.58	0.05	0.00	0.17	8.6	160	16
26	7.0	2.6	1.8	1.4	11	0.52	0.02	0.00	0.01	20	155	21
27	6.3	2.4	1.7	1.4	9.2	0.44	0.01	0.00	0.01	18	148	32
28	5.9	2.3	1.6	1.4	8.2	0.39	0.00	0.00	0.07	54	144	29
29	7.4	2.1	1.6	1.2	7.4	0.35	0.03	0.00	0.03	130	140	25
30	8.2	2.0	1.3	1.3	---	0.29	0.15	0.00	0.00	101	133	20
31	6.8	---	1.0	2.5	---	0.25	---	0.00	---	e81	124	---
TOTAL	2,269.8	162.6	59.08	43.50	89.6	77.10	9.38	1.75	0.29	497.65	2,765	2,837
MEAN	73.2	5.42	1.91	1.40	3.09	2.49	0.31	0.06	0.01	16.1	89.2	94.6
MAX	302	14	6.0	3.4	11	6.7	1.3	0.33	0.17	130	183	232
MIN	5.9	2.0	0.80	0.76	1.2	0.25	0.00	0.00	0.00	0.05	23	16
AC-FT	4,500	323	117	86	178	153	19	3.5	0.6	987	5,480	5,630

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2004, BY WATER YEAR (WY)

	MEAN	27.2	8.12	2.65	1.54	3.21	1.44	0.17	0.03	4.04	8.58	15.9	32.2
MAX (WY)	153	59.7	23.6	11.2	49.2	21.0	1.42	0.26	27.7	30.8	89.2	104	
MIN (WY)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(1996)	(1999)	(1998)	(1998)	(1998)	(1998)	(1987)	(1998)	(2003)	(1999)	(2004)	(2001)	
	(1990)	(1990)	(1990)	(1990)	(1990)	(1988)	(1989)	(1988)	(1989)	(1989)	(1989)	(1989)	

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1987 - 2004

ANNUAL TOTAL	6,449.01	8,812.75	
ANNUAL MEAN	17.7	24.1	9.01
HIGHEST ANNUAL MEAN			24.1
LOWEST ANNUAL MEAN			0.00**
HIGHEST DAILY MEAN	314	Sep 30	366
LOWEST DAILY MEAN	0.00*		0.00**
ANNUAL SEVEN-DAY MINIMUM	0.00*		0.00**
MAXIMUM PEAK FLOW		311	381
MAXIMUM PEAK STAGE		13.68	14.41
ANNUAL RUNOFF (AC-FT)	12,790	17,480	6,530
10 PERCENT EXCEEDS	34	99	18
50 PERCENT EXCEEDS	2.6	2.0	0.05
90 PERCENT EXCEEDS	0.00	0.00	0.00

e Estimated

* Many days.

** Many days during water years 1988-2004.

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.