

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

## 270022080094600 KITCHINGS CREEK NEAR HOBE SOUND, FL

LOCATION.--Lat 27°00'57", long 80°09'10", in SE ¼ SE ¼ SE ¼ sec.5, T.40 S., R.42 E., Martin County, Hydrologic Unit 03090202, in Jonathan Dickinson State Park, near left bank on foot bridge, 1.75 mi upstream from mouth, 2.1 mi south of State Road 707, and 3.25 mi southwest of Hobe Sound.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--December 1979 to March 1982, October 1984 to current year.

GAGE.--Electronic data logger and collector tube rain gage recorder. Rainfall data is available in the files of the U.S. Geological Survey. Elevation of gage is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good, except estimated records, which are poor.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 19 complete water years of discharge (1981, 1985-88, 1990, 1992-2004).

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height 7.46 ft (estimated) Sept. 26; minimum 1.45 ft July 14, 15.

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	3.69	2.64	2.63	2.24	2.47	2.35	1.77	---	1.57	1.51	1.68	1.98
2	3.52	2.66	2.58	2.22	2.52	2.32	1.76	---	1.57	1.51	1.63	1.95
3	3.44	2.85	2.54	2.20	2.49	2.28	1.74	---	1.57	1.54	1.66	1.93
4	3.24	3.07	2.51	2.18	2.43	2.23	1.72	---	1.62	1.53	1.64	2.27
5	3.10	4.29	2.49	2.16	2.40	2.19	1.71	---	1.67	1.53	1.80	5.06
6	2.97	5.10	2.48	2.15	2.37	2.14	1.69	---	1.66	1.53	1.82	5.87
7	2.86	5.16	2.44	2.14	2.33	2.10	1.69	---	1.68	1.54	1.76	5.70
8	2.78	4.96	2.41	2.12	2.28	2.06	1.68	---	1.77	1.53	1.73	5.63
9	2.71	4.82	2.38	2.11	2.24	2.03	1.67	---	1.70	1.51	1.71	5.71
10	2.64	4.68	2.36	2.11	2.21	2.00	1.67	---	1.69	1.49	1.77	5.58
11	2.56	4.56	2.33	2.09	2.18	1.98	1.66	---	1.68	1.49	1.81	5.55
12	2.53	4.40	2.30	2.07	2.16	1.96	1.81	---	1.66	1.50	1.81	5.71
13	2.69	4.24	2.28	2.06	2.13	1.94	1.84	---	1.64	1.50	1.83	5.60
14	3.62	4.09	2.32	2.05	2.16	1.92	1.85	1.56	1.61	1.48	1.81	5.52
15	3.62	3.95	2.37	2.05	2.16	1.90	---	1.70	1.60	1.48	1.81	5.43
16	3.44	3.82	2.37	2.03	2.14	1.93	---	1.82	1.59	1.50	1.88	5.33
17	3.34	3.70	2.40	2.02	2.12	2.03	---	1.73	1.58	1.50	1.89	5.23
18	3.21	3.58	2.39	2.09	2.10	2.04	---	1.71	1.59	1.54	1.88	5.24
19	3.13	3.48	2.37	2.21	2.07	2.02	---	1.84	1.57	1.62	1.96	5.17
20	3.13	3.40	2.34	2.21	2.05	1.99	---	1.85	1.56	1.59	1.97	5.17
21	3.31	3.30	2.31	2.20	2.03	1.97	---	1.84	1.55	1.57	1.95	6.14
22	3.36	3.20	2.29	2.19	2.01	1.94	---	1.80	1.56	1.57	2.06	6.22
23	3.31	3.11	2.39	2.16	1.99	1.92	---	1.76	1.54	1.55	2.22	5.99
24	3.23	3.03	2.46	2.13	1.97	1.89	---	1.73	1.53	1.53	2.23	5.89
25	3.14	2.95	2.45	2.11	2.16	1.88	---	1.69	1.52	1.52	2.24	---
26	3.05	2.89	2.43	2.09	2.42	1.86	---	1.67	1.56	1.51	2.22	---
27	2.97	2.84	2.40	2.09	2.45	1.82	---	1.65	1.54	1.59	2.18	---
28	2.89	2.79	2.37	2.08	2.43	1.81	---	1.63	1.52	1.57	2.15	6.84
29	2.83	2.73	2.33	2.06	2.40	1.81	---	1.62	1.52	1.55	2.11	6.70
30	2.76	2.67	2.30	2.07	---	1.81	---	1.60	1.51	1.53	2.07	---
31	2.68	---	2.27	2.25	---	1.80	---	1.58	---	1.63	2.02	---
TOTAL	95.75	108.96	74.29	65.94	64.87	61.92	---	---	47.93	47.54	59.30	---
MEAN	3.09	3.63	2.40	2.13	2.24	2.00	---	---	1.60	1.53	1.91	---
MAX	3.69	5.16	2.63	2.25	2.52	2.35	---	---	1.77	1.63	2.24	---
MIN	2.53	2.64	2.27	2.02	1.97	1.80	---	---	1.51	1.48	1.63	---

270022080094600 KITCHINGS CREEK NEAR HOBE SOUND, 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	24	6.7	6.6	2.8	4.6	3.6	0.57	e0.12	0.18	0.08	0.43	1.8
2	20	6.9	6.2	2.7	5.0	3.3	0.54	e0.09	0.17	0.08	0.34	1.6
3	19	9.1	5.8	2.5	4.7	3.0	0.48	e0.19	0.17	0.12	0.41	1.5
4	15	12	5.5	2.4	4.2	2.7	0.44	e1.5	0.24	0.11	0.37	3.9
5	13	38	5.3	2.3	4.0	2.5	0.41	e1.2	0.35	0.10	0.86	61
6	11	64	5.2	2.2	3.7	2.2	0.38	e1.0	0.32	0.11	0.92	81
7	9.2	66	4.8	2.1	3.5	1.9	0.36	e0.87	0.35	0.11	0.71	69
8	8.2	58	4.5	2.0	3.2	1.7	0.33	e0.74	0.59	0.10	0.63	65
9	7.4	53	4.2	1.9	2.9	1.6	0.32	e0.59	0.39	0.08	0.59	71
10	6.7	49	4.0	1.9	2.7	1.4	0.31	e0.49	0.38	0.07	0.80	62
11	6.0	45	3.8	1.8	2.5	1.3	0.29	e0.39	0.36	0.07	0.92	61
12	5.6	40	3.5	1.7	2.4	1.2	0.27	e0.31	0.32	0.08	0.95	71
13	7.8	35	3.3	1.6	2.2	1.2	0.24	e0.16	0.27	0.08	1.0	63
14	21	31	3.7	1.6	2.3	1.1	0.23	e0.19	0.23	0.06	0.99	59
15	21	28	4.1	1.5	2.3	1.0	e0.75	0.57	0.21	0.06	0.99	55
16	18	25	4.0	1.5	2.3	1.1	e0.74	0.77	0.18	0.08	1.3	51
17	16	23	4.2	1.4	2.1	1.6	e0.62	0.51	0.17	0.08	1.3	47
18	14	20	4.1	1.9	2.0	1.6	e0.54	0.46	0.19	0.12	1.3	48
19	13	19	4.0	2.5	1.8	1.5	e0.46	0.86	0.15	0.24	1.7	46
20	13	17	3.7	2.5	1.7	1.4	e0.39	0.85	0.13	0.18	1.8	46
21	16	15	3.5	2.4	1.6	1.3	e0.33	0.79	0.13	0.16	1.6	115
22	16	14	3.3	2.3	1.5	1.2	e0.27	0.68	0.14	0.16	2.3	119
23	16	12	4.1	2.2	1.4	1.0	e0.24	0.57	0.12	0.14	3.3	95
24	14	11	4.6	2.0	1.3	0.94	e0.19	0.48	0.10	0.12	3.4	86
25	13	10	4.5	2.0	2.5	0.89	e0.15	0.40	0.10	0.12	3.5	e128
26	12	9.6	4.3	1.9	4.1	0.82	e0.10	0.35	0.14	0.10	3.3	e323
27	11	8.9	4.1	1.9	4.4	0.72	e0.13	0.31	0.12	0.23	3.0	e266
28	9.5	8.3	3.8	1.8	4.2	0.67	e0.29	0.28	0.10	0.20	2.8	206
29	8.8	7.7	3.5	1.7	3.9	0.68	e0.24	0.25	0.09	0.17	2.6	183
30	8.0	7.0	3.2	1.7	---	0.66	e0.18	0.22	0.09	0.16	2.3	e210
31	7.2	---	3.0	2.8	---	0.64	---	0.19	---	0.36	2.0	---
TOTAL	400.4	749.2	132.4	63.5	85.0	46.42	12.27	16.38	6.48	3.93	48.41	2,695.8
MEAN	12.9	25.0	4.27	2.05	2.93	1.50	0.41	0.53	0.22	0.13	1.56	89.9
MAX	24	66	6.6	2.8	5.0	3.6	0.78	1.5	0.59	0.36	3.5	323
MIN	5.6	6.7	3.0	1.4	1.3	0.64	0.10	0.09	0.09	0.06	0.34	1.5
AC-FT	794	1,490	263	126	169	92	24	32	13	7.8	96	5,350

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2004, BY WATER YEAR (WY)

	MEAN	233	(WY)	MIN	(WY)	MEAN	124	(1995)	MIN	(1982)	MEAN	43.7	(1993)	MIN	(2001)	MEAN	50.1	(1996)	MIN	(1985)	MEAN	29.0	(1997)	MIN	(1981)	MEAN	16.8	(1998)	MIN	(1981)	MEAN	41.9	(1997)	MIN	(1981)	MEAN	51.8	(2002)	MIN	(2004)	MEAN	104	(2001)	MIN	(1990)	MEAN	31.0	(2004)	MIN	(2000)
MEAN	42.9	24.9	12.7	8.92	8.22	9.89	5.74	3.85	7.10	13.9	24.0	31.0																																						
MAX	233	124	69.5	43.7	52.8	50.1	29.0	16.8	41.9	51.8	104	89.9																																						
(WY)	(1996)	(1995)	(1995)	(1993)	(1993)	(1996)	(1997)	(1998)	(1997)	(2002)	(2001)	(2004)																																						
MIN	0.78	0.88	0.29	0.55	0.54	0.31	0.13	0.08	0.15	0.13	0.25	1.08																																						
(WY)	(1989)	(1989)	(1982)	(1982)	(2001)	(1985)	(1981)	(1981)	(1981)	(2004)	(1990)	(2000)																																						

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1980 - 2004

ANNUAL TOTAL	2,894.64	4,260.19	
ANNUAL MEAN	7.93	11.6	17.4
HIGHEST ANNUAL MEAN			39.9
LOWEST ANNUAL MEAN			0.99
HIGHEST DAILY MEAN	66	Nov 7	323
LOWEST DAILY MEAN	0.36	Feb 15	0.06
ANNUAL SEVEN-DAY MINIMUM	0.43	Feb 9	0.07
MAXIMUM PEAK FLOW			338
MAXIMUM PEAK STAGE			7.46
INSTANTANEOUS LOW FLOW			0.04
ANNUAL RUNOFF (AC-FT)	5,740	8,450	12,640
10 PERCENT EXCEEDS	22	29	51
50 PERCENT EXCEEDS	3.4	1.8	4.5
90 PERCENT EXCEEDS	0.64	0.14	0.38

e Estimated

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.