

02290769 CANAL 111 AT S-18-C, NEAR FLORIDA CITY, FL

LOCATION.--Lat 25°19'49", long 80°31'31", in NW ¼ sec.3, T.59 S., R.38 E., Miami-Dade County, Hydrologic Unit 03090202, at control structure 18-C, and 8.5 mi south of Florida City.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1968 to current year.

REVISED RECORDS.--WDR FL-78-2A, 1974-77.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic doppler velocity meter. Prior to September 30, 2001, satellite data collection platform with water-stage shaft encoder and acoustic velocity meter. The acoustic velocity meter and acoustic doppler velocity meter were run in tandem for the period of May 24, 2001 to October 17, 2001. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Records good except for estimated and negative daily discharges, which are poor. Flow regulated by S-18-C. Prior to November 30, 1992, discharge computed from relation between head, and gate openings at S-18-C. After December 1, 1992, discharge computed based on continuous record of stage and velocity at newly established acoustic velocity meter site downstream of S-18-C. Discharge computed from relations between stage vs. area and index velocity vs. mean channel velocity. Prior to the 1993 water year the downstream gage height is available in files of the U.S. Geological Survey under station number 02290770. Starting with the 1993 water year, the downstream gage height is available in files of the U.S. Geological Survey under station number 02290769. Prior to 1994 water year discharge published under the name Canal 111 Above S-18-C under the same station number (02290769). Prior to December 1, 1992, digital water-stage recorders, electromagnetic velocity meter recorder, and dual graphic water-stage and gate opening recorder.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 30 complete water years of discharge (1969-90, 1993-94, 1996, 1998-99, 2002-04).

COOPERATION.--Gate-opening recorder record and record of slot operations provided by South Florida Water Management District, upon request.

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD (1969-92).--Maximum gage height, 3.62 ft July 24, 1985; minimum, -1.53 ft estimated May 14, 1971.

EXTREME DOWNSTREAM STAGES FOR PERIOD OF RECORD (1993-current year).--Maximum gage height, 3.82 ft Oct. 15, 1999; minimum, 0.13 ft May 19, 2002.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 2.74 ft Nov. 6; minimum, 0.29 ft June 4.

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	2.59	2.24	2.30	2.16	2.11	1.83	1.27	0.91	---	0.83	2.18	2.19
2	2.58	2.24	2.29	2.10	2.21	1.78	1.24	0.91	---	0.77	2.19	2.26
3	2.63	2.25	2.28	2.01	2.20	1.75	1.21	1.01	---	0.81	2.27	2.31
4	2.61	2.42	2.28	---	2.18	1.73	1.18	1.35	0.34	0.96	2.40	2.28
5	2.60	2.60	2.27	1.94	2.16	1.71	1.16	1.36	0.39	1.06	2.41	2.41
6	2.58	2.65	2.26	1.91	2.10	1.68	1.15	1.34	0.60	1.01	2.40	2.68
7	2.56	2.67	2.25	1.88	2.06	1.66	1.13	1.32	0.94	0.95	2.38	2.59
8	2.54	2.63	2.24	1.87	2.01	1.64	1.11	1.29	1.06	0.91	2.36	2.44
9	2.51	2.60	2.24	1.85	1.97	1.62	1.09	1.27	1.06	0.86	2.36	2.41
10	2.50	2.59	2.26	1.83	1.92	1.60	1.07	1.24	1.02	0.81	2.34	2.42
11	2.49	2.58	2.26	1.81	1.91	1.59	1.06	1.22	0.98	0.75	2.32	2.47
12	2.48	2.55	2.26	1.80	1.88	1.57	1.14	1.20	0.93	0.72	2.30	2.44
13	2.46	2.53	2.26	1.79	1.86	1.56	1.26	1.17	0.90	0.77	2.25	2.41
14	2.43	2.51	2.27	1.77	1.85	1.55	1.28	1.13	0.86	0.80	2.22	2.36
15	2.42	2.49	2.30	1.76	1.83	1.55	1.26	1.09	0.81	0.87	2.19	2.27
16	2.41	2.48	2.30	1.74	1.83	1.53	1.24	1.06	0.78	---	2.16	2.23
17	2.39	2.46	2.29	1.74	1.81	1.50	1.22	1.07	0.74	0.94	2.15	2.21
18	2.38	2.45	2.29	1.74	1.79	1.49	1.20	1.03	0.72	0.94	2.15	2.18
19	2.35	2.43	2.28	1.78	1.78	1.47	1.18	0.98	0.67	1.05	2.17	2.22
20	2.33	2.42	2.27	1.77	1.78	1.46	1.14	0.92	0.78	1.30	2.19	2.30
21	2.32	2.41	2.26	1.77	1.77	1.44	1.10	0.88	1.04	1.39	2.18	2.27
22	2.31	2.40	2.26	1.75	1.75	1.42	1.07	0.84	1.06	1.42	2.17	2.26
23	2.29	2.38	2.26	1.74	1.74	1.43	1.03	0.80	1.05	1.40	2.17	2.30
24	2.28	2.36	2.26	1.74	1.73	1.43	1.01	0.74	1.01	1.43	2.17	2.35
25	2.28	2.35	2.26	1.73	1.74	1.44	0.97	0.69	0.96	1.52	2.17	2.32
26	2.28	2.34	2.23	1.73	1.86	1.47	0.93	0.65	0.91	---	2.17	2.35
27	2.26	2.34	2.22	1.73	1.85	1.45	0.91	0.60	0.85	---	2.15	2.37
28	2.24	2.32	2.21	1.72	1.85	1.41	0.93	0.57	0.90	2.15	2.14	2.25
29	---	2.32	2.20	1.72	1.86	1.38	0.98	0.55	0.91	2.19	2.17	2.17
30	2.23	2.30	2.18	1.72	---	1.37	0.96	0.51	0.87	2.17	2.19	2.14
31	2.25	---	2.17	1.81	---	1.33	---	0.48	---	2.19	2.18	---
TOTAL	---	73.31	69.96	---	55.39	47.84	33.48	30.18	---	---	69.25	69.86
MEAN	---	2.44	2.26	---	1.91	1.54	1.12	0.97	---	---	2.23	2.33
MAX	---	2.67	2.30	---	2.21	1.83	1.28	1.36	---	---	2.41	2.68
MIN	---	2.24	2.17	---	1.73	1.33	0.91	0.48	---	---	2.14	2.14

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02290769 CANAL 111 AT S-18-C, NEAR FLORIDA CITY, 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	499	155	222	143	365	29	1.6	-24	e-19	18	414	246
2	374	152	221	39	372	1.1	-6.4	-23	e-10	9.3	401	414
3	334	218	202	5.0	314	8.1	-3.9	24	e-30	16	515	440
4	275	522	236	e20	255	4.3	-34	-36	-22	5.9	714	413
5	238	711	222	7.3	209	7.2	-7.2	-59	-18	21	655	504
6	231	591	245	9.9	149	5.5	2.1	-50	-4.0	19	605	704
7	224	567	224	-1.6	158	-14	13	-32	4.8	10	536	528
8	230	518	201	-26	37	-8.6	-24	17	-0.16	-6.1	506	307
9	202	471	204	-3.9	15	-8.4	31	0.83	5.0	-12	477	286
10	221	463	226	5.9	-1.6	1.4	-18	3.2	5.0	15	439	391
11	259	403	223	-12	17	-25	3.3	4.6	11	21	420	517
12	247	378	219	-38	6.4	-16	23	-4.5	0.43	1.1	355	421
13	179	383	219	-24	-2.1	-20	-30	-15	-50	12	178	377
14	201	338	236	-26	17	-11	13	-35	0.86	-5.2	236	240
15	225	315	240	-9.6	1.3	-0.96	-1.9	-24	2.1	-13	247	156
16	234	313	243	-35	-18	16	-11	-23	-42	e2.9	230	213
17	204	312	250	-18	-8.8	-20	-19	-25	-27	0.28	230	183
18	221	316	246	-20	-8.0	-33	-17	-28	-2.5	-48	211	183
19	184	331	235	22	-25	-46	-24	-34	7.6	9.7	256	276
20	193	318	222	6.4	0.69	-35	-35	-25	6.7	41	281	326
21	193	296	215	-23	-4.0	-26	23	-53	-13	60	276	263
22	197	266	208	-34	28	-6.1	-13	-23	-20	14	238	232
23	204	238	222	0.08	3.8	-9.0	-4.9	1.1	23	18	261	342
24	170	254	226	-16	-31	-11	1.2	-34	28	98	250	432
25	162	245	219	-7.5	-26	1.3	11	-20	52	78	247	382
26	202	243	158	43	129	1.9	-22	11	5.4	e90	248	353
27	224	257	153	-27	44	-6.7	-8.9	-14	5.6	e294	236	124
28	175	270	155	7.5	34	-36	6.0	12	5.2	535	227	-21
29	e172	262	173	15	33	-7.1	-6.0	-11	2.1	474	252	33
30	149	212	175	-2.0	---	2.1	-10	-17	12	420	254	21
31	157	---	140	13	---	-4.9	---	-20	---	449	255	---
TOTAL	6,980	10,318	6,580	13.48	2,063.69	-266.86	-168.0	-555.77	-80.87	2,647.88	10,650	9,286
MEAN	225	344	212	0.43	71.2	-8.61	-5.60	-17.9	-2.70	85.4	344	310
MAX	499	711	250	143	372	29	31	24	52	535	714	704
MIN	149	152	140	-38	-31	-46	-35	-59	-50	-48	178	-21
AC-FT	13,840	20,470	13,050	27	4,090	-529	-333	-1,100	-160	5,250	21,120	18,420

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2004, BY WATER YEAR (WY)

	MEAN	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	337	171	83.6	72.0	75.7	64.3	43.7	59.1	275	203	319	404
MAX	958	771	517	486	884	965	529	262	1,097	764	1,477	1,001
(WY)	(1988)	(1988)	(1995)	(1995)	(1983)	(1983)	(1983)	(1995)	(1972)	(1986)	(1988)	(1983)
MIN	0.00	0.00	0.00	-2.01	-2.49	-8.61	-11.4	-17.9	-2.70	0.00	0.00	0.00
(WY)	(1975)	(1975)	(1971)	(2001)	(2001)	(2004)	(1999)	(2004)	(2004)	(1974)	(1974)	(1974)

SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1969 - 2004	
ANNUAL TOTAL	79,295.12		47,467.55			
ANNUAL MEAN	217		130		169	
HIGHEST ANNUAL MEAN					485	
LOWEST ANNUAL MEAN					4.42	
HIGHEST DAILY MEAN	899	May 30	714	Aug 4	2,940	Aug 16, 1988
LOWEST DAILY MEAN	-85	Apr 15	-59	May 5	-194	Jan 2, 1988
ANNUAL SEVEN-DAY MINIMUM	-31	Mar 15	-30	May 15	-92	Dec 29, 1987
ANNUAL RUNOFF (AC-FT)	157,300		94,150		122,400	
10 PERCENT EXCEEDS	502		379		601	
50 PERCENT EXCEEDS	215		23		4.0	
90 PERCENT EXCEEDS	-11		-24		0.00	

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.