

02281200 HILLSBORO CANAL AT S-6, NEAR SHAWANO, FL

LOCATION.--Lat 26°28'18", long 80°26'46", in NE ¼ sec.4, T.46 S., R.39 E., Palm Beach County, Hydrologic Unit 03090202, at pump station 6, and 7 mi southeast of Shawano.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1957 to September 1968 (gage heights and discharge). October 1968 to September 1981 (discharge), October 1990 to current year.

REVISED RECORDS.--WDR FL-03-2A, 1995.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic doppler velocity meter. The acoustic velocity meter and acoustic doppler velocity meter were run in tandem for the period of August 10, 2001 to January 30, 2002. Dual water-stage recorder from 1968 to 1981 at S-6. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to October 1, 1959, at datum 0.44 ft lower.

REMARKS.--Records poor. Flow regulated by pumpage at S-6, by Structure 351 and pump station 2 at Lake Okeechobee and by drainage and irrigation pumps upstream. Records include flow from Levee 6 Canal from March 15, 1966 to October 1, 1999. Discharge is the summation of pumpage and siphoning at S-6. Negative flow indicates flow to the north due to siphoning at S-6. Acoustic velocity meter system began operation October 1990, on both S-6 and L-6 canals. After October 1, 1999, total discharge represents S-6 canal flow. Everglades Construction Project for Storm Treatment Area 2 (STA2) had a permanent effect on L-6 canal. Flow from L-6 canal into Hillsboro canal main channel was plugged in August 1999, approximately 0.25 mi upstream of L-6 cross-section for the diversion of flow into STA2. L-6 acoustic velocity meter was discontinued on September 30, 1999. From October 1990 to September 1999, total discharge is computed by the sum of S-6 and L-6 discharges from relations between stage vs area and line velocity vs mean velocity index ratings. Acoustic velocity meter removed on January 30, 2002.

COOPERATION.--Records furnished by South Florida Water Management District October 1968 to September 1981. Prior to October 1968, pump records furnished by South Florida Water Management District, and records computed by U.S. Geological Survey. After reestablishment in the 1991 water year, records computed by U.S. Geological Survey.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 26 complete water years of discharge (1958-81, 1998, 2001).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 14.74 ft Dec. 25, 1958; minimum, 7.35 ft May 14, 1959.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 12.70 ft Sept. 8; minimum, 8.67 ft Oct. 2.

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	9.17	11.18	11.12	10.79	9.24	---	10.93	11.02	10.05	10.80	9.95	9.43
2	---	11.11	10.99	10.78	9.06	10.87	11.11	11.01	10.51	10.78	9.73	9.35
3	9.53	11.22	11.04	10.74	9.62	10.99	---	10.66	10.71	10.97	10.64	9.41
4	11.29	10.60	11.19	---	10.73	10.85	11.41	10.80	10.53	10.71	10.68	9.29
5	10.35	10.16	11.29	10.59	10.89	10.59	11.34	10.50	10.23	10.87	9.41	9.90
6	10.71	9.99	11.60	10.72	10.90	10.62	11.13	10.76	10.49	10.98	9.34	11.23
7	11.12	9.60	11.65	11.01	11.01	10.88	10.97	---	10.23	10.96	9.64	10.46
8	11.27	11.38	11.10	10.88	10.75	10.87	10.67	10.80	9.90	10.80	10.03	10.69
9	11.21	11.40	10.90	10.74	10.48	10.46	---	11.03	10.48	10.58	10.52	9.57
10	11.06	10.53	10.99	10.81	10.37	---	---	10.99	10.16	10.55	10.21	9.22
11	10.99	10.79	11.16	11.02	11.06	---	---	---	10.36	10.77	9.82	9.37
12	11.01	10.51	11.14	10.90	11.17	10.52	---	10.76	10.87	11.13	10.10	9.74
13	10.97	10.47	11.18	10.73	11.22	---	11.20	10.63	10.71	11.36	9.35	10.00
14	10.72	10.99	11.48	11.05	11.03	10.94	10.95	10.48	10.53	11.37	9.33	9.75
15	10.86	11.09	10.29	11.03	11.30	10.86	---	10.66	10.45	---	9.63	9.57
16	10.85	11.06	9.70	10.74	11.28	10.87	---	10.81	10.77	11.61	9.75	9.58
17	10.86	11.08	11.25	10.81	11.10	10.88	---	10.76	10.20	11.41	10.05	10.15
18	10.96	11.42	10.83	11.12	11.02	10.55	---	10.93	10.04	11.49	9.16	10.55
19	10.94	11.51	9.89	11.59	11.12	10.50	---	10.65	10.81	10.55	9.28	10.60
20	10.93	---	9.93	10.98	11.13	10.60	10.45	10.28	11.50	9.78	9.63	9.80
21	10.72	11.02	10.09	10.86	11.14	10.88	10.49	10.65	11.15	10.43	10.02	9.53
22	10.87	10.74	10.37	10.76	11.17	10.74	10.56	10.86	10.86	10.61	10.64	10.91
23	10.84	10.78	10.52	10.89	11.01	10.96	10.70	11.02	10.46	10.49	9.26	10.24
24	10.81	10.82	10.56	11.16	10.70	11.15	11.03	10.48	10.50	---	9.47	9.28
25	11.00	10.82	10.64	11.29	9.76	11.11	11.21	9.80	10.35	10.88	10.23	9.46
26	11.06	10.82	10.74	11.23	9.95	11.20	11.08	9.67	10.46	10.80	11.27	9.77
27	11.09	11.36	10.78	11.21	9.48	11.17	11.07	9.75	10.71	10.45	10.71	10.86
28	11.05	11.49	10.70	10.86	9.62	11.22	---	9.78	10.66	10.20	9.51	10.65
29	---	11.47	10.52	10.44	10.49	11.20	10.62	9.95	10.68	10.37	9.53	9.82
30	---	11.43	10.42	10.55	---	10.98	10.50	10.20	10.65	10.88	9.82	9.33
31	11.07	---	10.66	9.95	---	10.90	---	10.15	---	11.08	9.38	---
TOTAL MEAN	---	---	334.72	---	307.80	---	---	---	316.01	---	306.09	297.51
MAX	---	---	11.65	---	11.30	---	---	---	11.50	---	11.27	11.23
MIN	---	---	9.70	---	9.06	---	---	---	9.90	---	9.16	9.22

02281200 HILLSBORO CANAL AT S-6, NEAR SHAWANO, 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	2,300	0.00	306	0.00	1,960	0.00	0.00	0.00	0.00	0.00	1,320	1,210
2	e1,390	0.00	268	0.00	1,870	0.00	0.00	0.00	0.00	0.00	1,900	867
3	510	0.00	320	0.00	757	0.00	---	0.00	186	0.00	2,050	674
4	0.00	303	0.00	0.00	15	0.00	0.00	0.00	281	0.00	2,110	1,520
5	611	408	0.00	0.00	0.00	0.00	0.00	232	0.00	0.00	1,870	1,430
6	0.00	1,550	0.00	30	28	0.00	0.00	0.00	0.00	0.00	1,660	2,740
7	0.00	1,020	0.00	0.00	0.00	0.00	0.00	0.00	1,010	0.00	1,050	2,920
8	0.00	0.00	236	0.00	0.00	0.00	232	0.00	691	0.00	685	2,610
9	0.00	0.00	286	0.00	0.00	0.00	0.00	0.00	335	0.00	492	2,590
10	0.00	455	281	0.00	0.00	0.00	---	0.00	249	32	729	1,980
11	0.00	0.00	0.00	0.00	0.00	0.00	---	0.00	0.00	13	250	1,440
12	0.00	0.00	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,200	553
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,520	319
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	703	626
15	0.00	0.00	1,780	0.00	0.00	0.00	---	0.00	0.00	0.00	1,290	262
16	0.00	0.00	830	118	0.00	0.00	---	0.00	31	0.00	1,510	252
17	0.00	0.00	409	0.00	0.00	0.00	---	0.00	478	0.00	1,300	0.00
18	0.00	0.00	516	19	0.00	9.0	---	0.00	163	0.00	1,580	0.00
19	0.00	0.00	422	0.00	0.00	0.00	0.00	182	548	1,430	1,750	0.00
20	0.00	0.00	0.00	350	0.00	0.00	0.00	288	0.00	962	812	962
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	458	485	319	2,090
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	622	0.00	673	3,100
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	585	0.00	1,570	2,910
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	151	0.00	0.00	1,220	2,320
25	0.00	0.00	0.00	0.00	928	0.00	0.00	0.00	0.00	0.00	1,990	1,790
26	0.00	304	0.00	66	1,940	0.00	0.00	0.00	0.00	0.00	2,190	2,140
27	0.00	0.00	0.00	77	1,810	0.00	0.00	186	0.00	374	2,090	2,920
28	0.00	0.00	0.00	85	443	0.00	0.00	151	0.00	1,140	1,790	2,860
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	914	1,200	2,670
30	0.00	0.00	0.00	501	---	0.00	143	0.00	120	916	1,380	2,400
31	0.00	---	0.00	1,650	---	0.00	---	0.00	---	0.00	1,360	---
TOTAL	4,811.00	4,040.00	5,673.00	2,896.00	9,751.00	9.00	---	1,190.00	5,757.00	6,266.00	41,563	48,155.00
MEAN	155	135	183	93.4	336	0.29	---	38.4	192	202	1,341	1,605
MAX	2,300	1,550	1,780	1,650	1,960	9.0	---	288	1,010	1,430	2,190	3,100
MIN	0.00	0.00	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	250	0.00
AC-FT	9,540	8,010	11,250	5,740	19,340	18	---	2,360	11,420	12,430	82,440	95,520

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2004, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)
MEAN	382	1,431	-57.4	(1995)	162	1,417	-29.3	(1995)	142	1,120	0.00	(1995)	200	1,326	-84.0	(1975)	162	591	-65.9	(1991)
MAX	1,431	1,417	-29.3	(1995)	183	93.4	0.00	(1958)	336	0.29	---	(1970)	710	991	0.00	(1974)	136	710	0.00	(1998)
MIN	-57.4	-29.3	0.00	(1995)	0.00	0.00	0.00	(1995)	-84.0	-65.9	0.00	(1975)	-11.5	-152	-11.5	(1993)	221	349	-11.5	(1998)
(WY)	(1981)	(1992)	(1971)	(1975)	(1991)	(1991)	(1974)	(1993)	(1980)	(1981)	(1958)	(1961)								

SUMMARY STATISTICS

WATER YEARS 1958 - 2004

ANNUAL MEAN	227
HIGHEST ANNUAL MEAN	597
LOWEST ANNUAL MEAN	68.1
HIGHEST DAILY MEAN	4,480
LOWEST DAILY MEAN	-673
ANNUAL SEVEN-DAY MINIMUM	-407
ANNUAL RUNOFF (AC-FT)	164,300
10 PERCENT EXCEEDS	848
50 PERCENT EXCEEDS	0.00
90 PERCENT EXCEEDS	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.