

02280500 HILLSBORO CANAL BELOW S-351, NEAR SOUTH BAY, FL

LOCATION.--Lat 26°42'00", long 80°42'45", in SW 1/4 sec.35, T.43 S., R.36 E., Palm Beach County, Hydrologic Unit 03090202, acoustic velocity meter located approximately 1,800 ft downstream from S-351 and pump station 2 at Lake Okeechobee, and 2.5 mi north of South Bay, along the south bank of Hillsboro Canal.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--March 1957 to current year.

REVISED RECORDS.--WDR FL-92-2A, 1991; WDR FL-03-2A, 2002.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic doppler velocity meter. Prior to January 1, 2002, acoustic velocity meter. Prior to April 1993 water year electromagnetic velocity meter and digital water-stage recorder. Satellite data collection platform with water-stage shaft encoder and acoustic velocity meter installed December 1990. Prior to October 1, 1986, water-stage recorder at pump station 2 used for gage heights at this station. Prior to August 1982, deflection meter. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Records poor. Flow regulated by vertical lift gates and pump station at Lake Okeechobee. Flow frequently reversed during and after periods of heavy rainfall by pumpage into the canal from agricultural lands in the Everglades, by the operation of pump station 2, or by gravity flow through gates during periods of negative head (negative figures indicate flow reversed). Discharge computed from continuous velocity record obtained from acoustic doppler velocity meter starting January 1, 2002.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 41 complete water years of discharge (1958-88, 1991-95, 1997-98, 2000-01, 2004).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 14.09 ft Sept. 28, 1962; minimum, 6.98 ft Oct. 28, 1981.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 13.00 ft Sept. 6, 22; minimum, 8.64 ft Sept. 4, 5.

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	11.12	11.04	11.32	10.73	11.20	10.35	11.36	11.33	11.85	10.68	11.14	10.01
2	9.98	10.83	11.21	10.66	10.83	10.69	11.33	---	11.68	10.76	11.41	9.24
3	9.97	11.08	11.37	10.60	10.31	10.82	11.31	10.60	11.35	10.94	12.12	9.08
4	11.11	10.67	11.17	10.60	10.56	10.73	11.33	10.56	10.79	10.87	11.91	9.10
5	10.79	10.27	11.19	10.58	10.72	10.53	11.31	10.61	10.12	10.89	---	10.62
6	10.53	11.32	11.02	10.68	10.74	10.61	11.36	10.77	10.38	10.90	---	12.34
7	10.89	10.29	11.12	10.84	10.61	10.91	11.26	10.90	11.03	---	---	10.75
8	10.97	10.84	10.83	10.70	10.36	10.49	11.35	11.25	10.55	---	---	10.34
9	10.92	11.05	11.13	10.63	10.25	10.18	11.44	11.30	10.64	10.96	---	---
10	10.79	10.74	11.16	10.65	10.40	10.24	11.42	11.32	10.15	11.09	10.34	10.13
11	10.76	10.53	10.86	10.81	11.13	10.18	11.20	11.22	10.28	---	9.72	---
12	10.77	10.29	10.83	10.67	11.03	10.41	10.85	11.12	10.68	11.30	10.58	9.70
13	10.74	10.27	10.99	10.56	11.00	11.00	10.73	11.10	10.57	11.40	10.44	9.83
14	10.60	10.91	11.19	11.06	10.85	10.92	11.03	11.33	10.40	11.37	9.79	10.00
15	10.89	10.93	11.36	11.10	11.00	10.89	11.02	11.73	10.24	---	10.51	9.56
16	10.66	10.92	10.51	11.09	10.89	10.68	10.64	11.60	---	11.56	10.70	9.57
17	10.89	11.05	11.32	11.23	10.79	10.57	10.52	11.59	10.54	11.43	10.58	9.86
18	10.92	11.53	10.98	11.19	10.66	10.64	10.47	11.65	10.10	11.39	10.41	10.26
19	10.71	11.22	10.19	11.26	10.86	10.66	10.56	11.61	---	11.63	10.54	10.33
20	10.69	---	9.75	11.02	11.05	10.85	10.63	11.59	11.16	---	9.97	10.07
21	10.60	10.72	9.86	10.58	10.98	10.84	10.66	11.61	11.09	---	9.89	10.77
22	10.94	10.54	10.14	10.55	10.95	10.85	10.67	11.65	10.97	---	10.63	---
23	10.84	10.62	---	10.74	10.88	11.42	11.08	11.67	10.70	10.40	10.22	---
24	10.94	10.69	10.32	11.29	10.56	11.37	11.41	11.59	10.46	---	10.0	---
25	11.00	10.63	10.35	11.34	10.33	11.18	11.32	11.57	---	10.75	10.99	---
26	10.99	11.28	10.46	11.29	11.36	11.22	11.25	11.50	---	---	11.97	---
27	10.97	11.44	10.53	11.08	10.79	11.11	11.16	11.52	10.65	10.79	11.35	---
28	---	11.41	10.47	10.59	9.76	11.11	---	11.73	10.66	11.36	10.34	11.27
29	10.93	11.23	10.33	10.43	10.22	11.10	10.65	11.78	10.65	11.04	9.82	10.39
30	---	11.42	10.36	10.87	---	11.15	10.80	11.80	10.67	11.22	10.77	10.57
31	11.01	---	10.69	11.26	---	11.29	---	11.82	---	10.57	10.46	---
TOTAL MEAN	---	---	---	336.68	311.07	334.99	---	---	---	---	---	---
MAX	---	---	---	10.86	10.73	10.81	---	---	---	---	---	---
MIN	---	---	---	11.34	11.36	11.42	---	---	---	---	---	---
MIN	---	---	---	10.43	9.76	10.18	---	---	---	---	---	---

02280500 HILLSBORO CANAL BELOW S-351, NEAR SOUTH BAY, 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	188	227	433	275	289	-17	542	423	892	165	96	-58
2	271	61	436	228	310	80	554	e262	744	275	66	-176
3	325	42	410	192	413	132	400	207	523	269	-263	-186
4	135	128	255	202	165	119	351	13	279	363	-206	47
5	157	77	238	291	11	185	362	284	71	298	e-165	-86
6	51	-75	-157	322	105	297	467	288	-82	241	e-79	-769
7	-5.5	88	-183	266	-71	356	471	409	-60	e250	e-60	-1,090
8	-52	-277	-87	167	-66	-34	571	511	47	e337	e-16	-1,080
9	-2.0	-38	342	236	85	55	562	441	18	476	e-177	e-832
10	44	151	324	275	327	19	454	492	-2.7	559	-179	-526
11	54	-6.4	91	230	394	24	271	477	172	e504	-8.0	e-258
12	55	59	0.64	160	257	186	104	461	124	414	-334	-233
13	46	148	148	187	216	400	94	504	134	346	-40	-130
14	218	265	-69	380	117	278	-45	630	111	354	258	-38
15	349	154	-109	410	15	288	-228	715	28	e379	10	31
16	106	171	254	489	-125	129	-55	632	e-16	73	9.3	74
17	362	290	-135	554	25	48	-0.85	662	157	165	-310	-74
18	322	399	12	371	136	339	102	678	170	150	-124	-32
19	167	27	253	-39	100	391	191	707	e-33	-104	-90	-5.2
20	77	e-97	189	75	228	418	378	766	-177	e-64	63	-217
21	237	-49	119	71	226	317	357	726	-124	e-62	-7.1	-729
22	384	115	104	137	159	404	346	660	-105	e104	-256	e-997
23	340	144	e131	233	205	573	520	611	138	208	117	e-1,080
24	410	247	104	432	173	469	538	702	223	e246	132	e-787
25	316	178	41	355	11	354	385	832	e142	102	-444	e-340
26	291	495	73	347	-142	302	428	838	e267	e163	-450	e-630
27	240	401	74	245	-1.4	220	385	825	226	254	-207	e-1,050
28	e324	304	54	84	98	249	e119	889	278	-131	77	-1,040
29	241	245	79	283	-46	285	247	882	261	-236	124	-925
30	e238	367	242	99	---	456	353	847	248	-342	65	-719
31	310	---	351	-144	---	522	---	861	---	-270	246	---
TOTAL	6,198.5	4,240.6	4,017.64	7,413	3,613.6	7,844	9,223.15	18,235	4,653.3	5,486	-2,151.8	-13,935.2
MEAN	200	141	130	239	125	253	307	588	155	177	-69.4	-465
MAX	410	495	436	554	413	573	571	889	892	559	258	74
MIN	-52	-277	-183	-144	-142	-34	-228	13	-177	-342	-450	-1,090
AC-FT	12,290	8,410	7,970	14,700	7,170	15,560	18,290	36,170	9,230	10,880	-4,270	-27,640

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2004, BY WATER YEAR (WY)

MEAN	-1.47	28.4	56.6	47.2	56.2	87.2	224	172	-2.31	-95.1	-93.5	-124
MAX	296	366	520	606	574	359	676	720	610	482	268	351
(WY)	(1995)	(1974)	(1996)	(2003)	(1993)	(1999)	(1993)	(1966)	(2000)	(1992)	(1974)	(1992)
MIN	-370	-276	-314	-265	-232	-534	-241	-328	-633	-553	-609	-537
(WY)	(1965)	(1960)	(1960)	(1964)	(1963)	(1970)	(1957)	(1968)	(1968)	(1975)	(1981)	(1960)

SUMMARY STATISTICS

	FOR 2004 WATER YEAR		WATER YEARS 1957 - 2004	
ANNUAL TOTAL	54,837.79			
ANNUAL MEAN	150		18.3	
HIGHEST ANNUAL MEAN			288	2000
LOWEST ANNUAL MEAN			-207	1960
HIGHEST DAILY MEAN	892	Jun 1	1,210	Apr 27, 1999
LOWEST DAILY MEAN	-1,090	Sep 7	-1,720	Aug 19, 1981
ANNUAL SEVEN-DAY MINIMUM	-846	Sep 22	-1,190	Aug 17, 1981
ANNUAL RUNOFF (AC-FT)	108,800		13,240	
10 PERCENT EXCEEDS	490		369	
50 PERCENT EXCEEDS	165		27	
90 PERCENT EXCEEDS	-176		-335	

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.