

## 02278000 WEST PALM BEACH CANAL AT S-352, AT CANAL POINT, FL

LOCATION.--Lat 26°51'05", long 80°37'55", in NE ¼ sec.33, T.41 S., R.37 E., Palm Beach County, Hydrologic Unit 03090202, in the instrumentation house of gate structure 352 at Lake Okeechobee, 200 ft upstream from bridge on U.S. Highway 441 at Canal Point.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1940 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoders. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to January 14, 1954, nonrecording lake gage at site 550 ft downstream at same datum. January 14, 1954 to February 24, 1956, lake water-stage recorder, and February 25, 1956, to September 30, 1967, canal water-stage and deflection vane recorders all at present site and datum. May 1940, auxiliary water-stage recorder at old lock, 700 ft downstream from gate structures replaced on May 1, 1995, by data collection platform at structure. August 1986 to December 1989, electromagnetic velocity meter. Digital water-stage recorder removed and satellite data collection platform installed January 14, 1992.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated at station by operation of gates. Flow was occasionally reversed after periods of considerable rainfall because of downstream natural drainage and pumpage from agricultural lands in the Everglades (negative figures indicate flow reversed), since vertical lift gates replaced HGS-5, reverse flow is not expected. Discharge computed from relations between discharge, head, and gate openings at gate structure S-352. Discharge and lake gage height formerly published as West Palm Beach Canal at HGS-5, at Canal Point. Canal gage height prior to 1997 water year, formerly published as West Palm Beach Canal below S-352, at Canal Point under 02278002.

COOPERATION.--Gate record provided by South Florida Water Management District.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 60 complete water years of discharge (1941-89, 1992-97, 1999-2000, 2002-2004).

EXTREME LAKE STAGES FOR PERIOD OF RECORD.--Maximum gage height, 20.84 ft Sept. 25, 2004; minimum observed, 8.33 ft May 22, 2001.

EXTREME LAKE STAGES FOR CURRENT YEAR.--Maximum gage height, 20.84 ft Sept. 25; minimum, 11.82 ft July 16.

EXTREME CANAL STAGES FOR PERIOD OF RECORD.--Maximum gage height, 18.70 ft Oct. 12, 1947; minimum, 5.80 ft Sept. 5, 2004.

EXTREME CANAL STAGES FOR CURRENT YEAR.--Maximum gage height, 13.30 ft Sept. 27; minimum, 5.80 ft Sept. 5.

LAKE  
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	17.16	16.32	15.96	15.71	15.52	15.41	14.76	13.72	12.47	12.63	12.48	13.70
2	17.17	16.35	15.92	15.70	15.56	15.42	14.72	13.76	12.48	12.60	12.48	13.69
3	17.15	16.31	15.82	15.68	15.56	15.42	14.67	13.85	12.55	12.60	12.58	13.83
4	17.13	16.31	15.84	15.68	15.55	15.38	14.58	13.90	12.59	12.52	12.59	15.04
5	17.10	16.32	15.89	15.68	15.50	15.36	14.49	13.86	12.61	12.53	12.67	15.42
6	17.07	16.34	16.06	15.69	15.54	15.41	14.32	13.77	12.65	12.52	12.71	14.28
7	17.04	16.37	15.99	15.74	15.69	15.45	14.28	13.69	12.67	12.59	12.70	14.50
8	17.04	16.35	15.85	15.65	15.62	15.50	14.29	13.65	12.65	12.47	12.70	14.65
9	17.04	16.39	15.80	15.65	15.47	15.45	14.26	13.60	12.68	12.35	12.71	14.78
10	17.01	16.28	15.80	15.81	15.35	15.38	14.26	13.57	12.69	12.30	12.71	14.86
11	16.98	16.25	15.94	15.74	15.30	15.28	14.22	13.54	12.74	12.36	12.70	14.95
12	16.97	16.25	15.81	15.57	15.39	15.21	14.34	13.47	12.76	12.31	12.73	14.99
13	16.97	16.30	15.78	15.53	15.42	15.18	14.33	13.36	12.77	12.33	12.63	15.06
14	17.00	16.26	15.86	15.53	15.41	15.16	14.68	13.29	12.81	12.32	12.85	15.08
15	16.95	16.19	15.94	15.54	15.52	15.15	14.37	13.22	12.79	12.30	12.99	15.13
16	16.82	16.15	15.88	15.47	15.49	15.20	14.25	13.23	12.77	12.29	13.06	15.26
17	16.79	16.15	16.16	15.41	15.54	15.23	14.20	13.18	12.73	12.32	13.09	15.38
18	16.82	16.13	16.03	15.45	15.61	15.10	14.15	13.18	12.75	12.35	13.12	15.44
19	16.78	16.24	16.02	15.54	15.40	15.05	14.13	13.17	12.79	12.43	13.15	15.43
20	16.70	16.28	15.98	15.60	15.36	14.97	14.10	13.10	12.85	12.44	13.19	15.59
21	16.73	16.17	15.91	15.55	15.35	15.04	14.07	13.06	12.85	12.45	13.23	15.52
22	16.81	16.13	15.85	15.55	15.34	15.04	14.03	13.05	12.84	12.42	13.25	15.72
23	16.75	16.07	15.82	15.54	15.30	14.85	13.97	13.01	12.82	12.41	13.31	15.86
24	16.60	16.05	15.84	15.46	15.25	14.74	13.95	12.96	12.78	12.38	13.39	15.99
25	16.48	16.05	15.88	15.41	15.32	14.72	13.91	12.83	12.75	12.38	13.43	16.84
26	16.47	16.04	15.83	15.42	15.50	14.70	13.88	12.78	12.72	12.40	13.46	16.42
27	16.46	16.01	15.81	15.49	15.62	14.69	13.94	12.80	12.71	12.39	13.51	16.78
28	16.42	16.08	15.77	15.56	15.55	14.72	13.85	12.73	12.72	12.39	13.56	---
29	16.48	16.20	15.74	15.32	15.41	14.72	13.77	12.62	12.69	12.33	13.60	---
30	16.35	16.00	15.73	15.38	---	14.68	13.76	12.57	12.65	12.36	13.64	---
31	16.32	---	15.72	15.46	---	14.70	---	12.54	---	12.43	13.64	---
TOTAL	521.56	486.34	492.23	482.51	448.44	468.31	426.53	411.06	381.33	384.90	403.86	---
MEAN	16.82	16.21	15.88	15.56	15.46	15.11	14.22	13.26	12.71	12.42	13.03	---
MAX	17.17	16.39	16.16	15.81	15.69	15.50	14.76	13.90	12.85	12.63	13.64	---
MIN	16.32	16.00	15.72	15.32	15.25	14.68	13.76	12.54	12.47	12.29	12.48	---

## 02278000 WEST PALM BEACH CANAL AT S-352, AT CANAL POINT, FL-Continued

CANAL  
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	9.76	11.08	10.82	10.46	9.79	10.30	11.18	11.06	11.59	10.48	10.25	9.88
2	9.15	10.99	11.07	10.37	10.38	10.57	11.07	10.83	11.09	10.52	10.95	9.27
3	9.23	10.77	11.09	10.44	8.95	10.68	11.12	10.45	9.99	10.68	11.57	9.08
4	10.86	9.91	10.90	10.46	10.18	10.58	11.07	10.51	9.77	10.80	11.29	8.53
5	10.31	9.58	11.02	10.29	10.55	10.32	11.03	10.40	9.72	10.80	10.45	9.52
6	10.40	10.43	11.02	10.54	10.39	10.30	11.14	10.63	10.24	10.94	10.01	11.94
7	10.83	9.76	11.19	10.67	10.59	10.53	11.18	10.68	10.63	10.67	9.45	12.70
8	10.97	11.12	10.93	10.59	10.35	10.56	11.16	10.85	9.97	10.87	9.21	12.55
9	10.84	10.44	10.62	10.43	10.23	10.39	11.10	10.86	10.31	11.13	9.95	12.27
10	10.73	10.40	10.76	10.60	10.36	10.58	11.12	10.81	10.15	11.34	10.28	11.69
11	10.71	9.99	10.68	10.67	11.02	10.45	11.03	10.76	10.35	11.35	9.71	11.03
12	10.75	10.08	10.75	10.66	10.95	10.45	10.38	10.74	10.04	11.35	11.22	10.10
13	10.69	10.12	10.81	10.67	10.83	10.66	9.86	10.84	9.98	11.37	10.05	9.71
14	10.43	10.62	11.15	11.00	10.79	10.58	10.82	11.05	9.86	11.35	9.18	10.01
15	10.34	10.76	9.45	10.74	10.95	10.57	11.07	11.09	10.15	11.36	9.78	9.71
16	10.38	10.70	9.35	10.51	10.91	10.60	10.52	11.15	10.31	10.76	10.50	9.59
17	10.40	10.71	10.82	10.56	10.46	10.54	10.40	11.14	10.19	9.49	10.57	10.0
18	10.56	11.06	10.56	10.85	10.48	10.36	10.26	11.09	9.59	10.40	10.22	10.49
19	10.56	11.26	9.37	11.01	11.01	10.69	10.48	11.07	10.72	10.36	10.29	10.32
20	10.54	10.99	9.28	10.67	10.71	10.57	10.66	11.01	10.91	9.80	9.55	10.62
21	10.36	10.67	9.60	10.45	10.74	10.62	10.53	11.16	11.01	10.50	9.68	11.79
22	10.37	10.38	9.96	10.47	10.82	10.74	10.57	11.18	10.63	10.00	10.10	11.73
23	10.35	10.53	10.07	10.60	10.72	11.00	11.10	11.18	9.91	9.96	9.39	10.74
24	10.65	10.90	10.18	10.79	10.20	11.01	11.08	11.15	9.67	10.41	9.42	9.89
25	10.77	11.06	10.24	10.86	9.76	10.90	11.16	11.33	9.95	9.92	10.26	8.89
26	10.80	11.04	10.31	10.82	10.13	11.00	11.21	11.33	10.16	10.17	9.90	10.97
27	11.01	11.19	10.36	10.59	9.53	11.03	10.92	11.46	10.43	9.96	9.50	13.03
28	10.94	11.15	10.32	10.27	9.29	11.02	10.49	11.48	10.33	10.29	9.35	12.94
29	10.94	10.93	10.24	10.24	10.24	10.94	10.38	11.63	10.36	9.84	9.60	12.62
30	10.97	10.95	10.05	10.56	---	10.84	10.76	11.66	10.38	10.32	9.64	12.30
31	11.11	---	10.20	10.77	---	10.93	---	11.66	---	10.49	9.80	---
TOTAL	326.71	319.57	323.17	328.61	301.31	330.31	324.85	342.24	308.39	327.68	311.12	323.91
MEAN	10.54	10.65	10.42	10.60	10.39	10.66	10.83	11.04	10.28	10.57	10.04	10.80
MAX	11.11	11.26	11.19	11.01	11.02	11.03	11.21	11.66	11.59	11.37	11.57	13.03
MIN	9.15	9.58	9.28	10.24	8.95	10.30	9.86	10.40	9.59	9.49	9.18	8.53

## 02278000 WEST PALM BEACH CANAL AT S-352, AT CANAL POINT, 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	0.00	411	272	185	0.00	0.00	735	445	1,120	66	0.00	0.00
2	0.00	302	408	88	0.00	0.00	608	159	769	319	0.00	0.00
3	0.00	0.00	279	187	0.00	0.00	511	0.00	98	99	0.00	0.00
4	0.00	0.00	178	134	0.00	4.1	333	0.00	8.7	589	0.00	0.00
5	0.00	0.00	363	207	0.00	0.00	392	148	0.00	427	0.00	0.00
6	0.00	0.00	0.00	459	0.00	144	619	381	0.00	414	0.00	0.00
7	0.00	0.00	0.00	386	0.00	228	712	490	0.00	79	0.00	0.00
8	0.00	0.00	0.00	220	0.00	215	688	499	0.00	474	0.00	0.00
9	0.00	0.00	0.00	230	168	337	630	367	0.00	850	0.00	0.00
10	0.00	0.00	0.00	431	467	380	469	343	0.00	955	0.00	0.00
11	0.00	0.00	0.00	374	519	361	180	360	0.00	869	7.1	0.00
12	0.00	0.00	0.00	400	386	375	0.00	536	0.00	750	0.00	0.00
13	0.00	65	0.00	518	278	319	0.00	616	0.00	559	0.00	0.00
14	0.00	174	0.00	643	0.00	102	0.00	874	0.00	593	0.00	0.00
15	0.00	0.00	0.00	683	0.00	49	0.00	918	0.00	600	0.00	0.00
16	0.00	0.00	0.00	689	0.00	0.00	0.00	843	0.00	372	0.00	0.00
17	0.00	0.00	0.00	703	0.00	0.00	0.00	838	0.00	0.00	0.00	0.00
18	0.00	122	0.00	565	96	418	65	732	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	270	400	664	253	759	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	11	113	456	635	855	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	223	0.00	329	514	830	0.00	0.00	0.00	0.00
22	0.00	47	0.00	352	0.00	598	540	732	0.00	0.00	0.00	0.00
23	0.00	236	0.00	490	0.00	755	773	643	0.00	0.00	0.00	0.00
24	401	744	0.00	487	155	508	542	777	0.00	0.00	0.00	0.00
25	323	728	0.00	251	0.00	417	503	1,170	0.00	0.00	0.00	0.00
26	305	481	0.00	65	0.00	402	591	1,180	182	0.00	0.00	0.00
27	494	301	0.00	10	0.00	390	438	1,070	142	0.00	0.00	0.00
28	518	128	0.00	0.00	0.00	380	38	1,090	193	0.00	0.00	0.00
29	502	111	0.00	382	0.00	371	212	1,180	213	0.00	0.00	0.00
30	483	107	0.00	117	---	491	432	1,140	149	0.00	0.00	0.00
31	560	---	130	0.00	---	605	---	1,140	---	0.00	0.00	---
TOTAL	3,586.00	3,957.00	1,630.00	9,760.00	2,582.00	9,298.10	11,413.00	21,115.00	2,874.70	8,015.00	7.10	0.00
MEAN	116	132	52.6	315	89.0	300	380	681	95.8	259	0.23	0.00
MAX	560	744	408	703	519	755	773	1,180	1,120	955	7.1	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	7,110	7,850	3,230	19,360	5,120	18,440	22,640	41,880	5,700	15,900	14	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)

MEAN	92.3	170	220	217	218	232	321	306	99.6	36.2	86.3	21.0
MAX	803	507	739	1,007	637	610	840	743	703	706	1,156	1,183
(WY)	(2003)	(2003)	(2003)	(2003)	(1949)	(1949)	(1999)	(1965)	(1998)	(1992)	(1959)	(1959)
MIN	-350	-247	-77.0	-13.6	-80.6	-21.2	-99.6	-170	-1,130	-939	-528	-813
(WY)	(1951)	(1964)	(1964)	(1941)	(1941)	(1982)	(1962)	(1976)	(1942)	(1947)	(1953)	(1945)

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1940 - 2004

ANNUAL TOTAL	83,471.30	74,237.90	
ANNUAL MEAN	229	203	171
HIGHEST ANNUAL MEAN			376
LOWEST ANNUAL MEAN			-20.8
HIGHEST DAILY MEAN	1,100	Jan 7	1,610
LOWEST DAILY MEAN	0.00	Jan 1	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Feb 18	0.00
ANNUAL RUNOFF (AC-FT)	165,600		147,300
10 PERCENT EXCEEDS	866		637
50 PERCENT EXCEEDS	0.00		0.00
90 PERCENT EXCEEDS	0.00		0.00

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.