

## 02278450 WEST PALM BEACH CANAL ABOVE S-5A, NEAR LOXAHATCHEE, FL

LOCATION.--Lat 26°41'05", long 80°22'15", in SW  $\frac{1}{4}$  sec.32, T.43 S., R.43 E., Palm Beach County, Hydrologic Unit 03090202, near south bank, 500 ft upstream from pump station S-5A, 0.3 mi upstream from Levee 8 Canal, 1.1 mi downstream from bridge on U.S. Highway 441 and Cross Canal, and 6 mi west of Loxahatchee.

DRAINAGE AREA.--Indeterminate.

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

REVISED RECORDS.--WDR FL-93-2A:1983.

GAGE.--Electronic data logger for the conservation area, satellite data collection platform with water-stage shaft encoder for West Palm Beach Canal, Moscad RF Data/Telemetry system operated by South Florida Water Management District for Levee 8 Canal. Satellite data collection platform for Levee 8 Canal discontinued on November 19, 2001. Datum of gage is National Geodetic Vertical Datum of 1929 (South Florida Water Management District bench mark). Prior to September 30, 1967, deflection vane recorder at same site and auxiliary water-stage recorder at control structure 5A-W, 0.3 mi downstream. Prior to October 1, 1981, datum of gage is 0.24 ft higher, from October 1, 1981 to June 22, 1994, datum of gage is -.19 ft lower and from June 22, 1994 to October 1, 2001 datum of gage is .11 ft higher than present datum. The change in datum is based upon an adjustment to FCE 790 benchmark elevation surveyed by South Florida Water Management District.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated primarily by pumpage at S-5A and to a lesser extent by operation of control structure 5A-W. Major regulation above the station occurs in Cross Canal, 1.5 mi upstream, and at Lake Okeechobee, 20 mi upstream. Discharge is the difference between pumpage at S-5A and gate discharge at S-5A-W. Negative figures indicate flow to the west. See records on Diversions to Conservation Area No. 1 at S-5A, near Loxahatchee (station 02278500; pump station S-5A, upper), for table of daily gage height and extremes for period of record. Starting in water year 2001, negative discharge from control structure S-5A-W is considered estimated due to updated information provided to the U.S. Geological Survey. Prior negative discharges are not marked estimated in the files or databases of U.S. Geological Survey. Estimated discharge does not necessarily indicate negative discharge through control structure S-5A-W.

COOPERATION.--Gate-opening, pump records and supplemental stage data provided by South Florida Water Management District.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 47 complete water years of discharge (1958-2004).

## 02278450 WEST PALM BEACH CANAL ABOVE S-5A, NEAR LOXAHATCHEE, 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	2,110	278	263	0.00	1,060	0.00	279	0.00	267	-5.6	586	1,060
2	1,040	279	0.00	130	1,390	0.00	0.00	0.00	274	334	1,350	797
3	421	434	0.00	0.00	500	0.00	0.00	0.00	266	0.00	2,980	320
4	0.00	635	0.00	0.00	0.00	0.00	0.00	0.00	512	553	2,790	884
5	861	508	214	168	276	0.00	0.00	0.00	288	243	2,150	1,900
6	0.00	2,020	0.00	173	202	0.00	250	0.00	794	234	1,480	3,940
7	0.00	1,130	0.00	128	0.00	0.00	271	273	1,520	48	1,130	4,780
8	0.00	0.00	5.2	58	0.00	0.00	209	0.00	643	348	694	4,840
9	0.00	918	0.00	138	262	0.00	189	0.00	598	561	643	4,470
10	0.00	651	0.00	278	227	0.00	0.00	0.00	882	526	1,140	3,960
11	0.00	642	0.00	277	145	0.00	0.00	0.00	585	504	291	3,120
12	0.00	166	0.00	259	250	0.00	672	208	774	477	2,380	2,110
13	0.00	0.00	0.00	261	277	0.00	614	68	547	305	1,770	1,460
14	0.00	57	218	425	0.00	0.00	0.00	619	464	303	507	982
15	0.00	0.00	2,010	774	0.00	0.00	203	856	0.00	252	848	516
16	0.00	0.00	136	767	0.00	0.00	75	858	670	1,220	1,320	277
17	0.00	0.00	658	736	437	0.00	0.00	500	729	451	1,900	0.00
18	0.00	0.00	755	766	0.00	456	0.00	274	387	514	1,670	706
19	0.00	0.00	462	754	205	543	11	279	0.00	1,260	1,720	801
20	0.00	0.00	0.00	513	226	0.00	274	269	746	506	1,550	1,130
21	0.00	0.00	0.00	413	0.00	0.00	33	0.00	554	471	649	2,930
22	0.00	0.00	0.00	534	0.00	276	0.00	0.00	813	450	1,640	4,240
23	0.00	0.00	0.00	469	0.00	213	216	0.00	728	400	1,190	3,470
24	154	268	0.00	533	483	0.00	0.00	384	386	0.00	519	2,430
25	0.00	266	0.00	365	1,060	0.00	0.00	862	0.00	559	1,650	1,780
26	0.00	265	0.00	184	2,040	83	170	533	0.00	432	2,490	2,920
27	253	0.00	0.00	335	1,930	0.00	236	10	0.00	521	1,880	4,860
28	278	0.00	0.00	283	41	0.00	103	0.00	0.00	1,200	1,080	5,000
29	264	0.00	0.00	479	0.00	0.00	0.00	288	82	548	471	4,700
30	282	0.00	0.00	419	---	0.00	0.00	280	167	971	652	4,520
31	280	---	0.00	1,830	---	0.00	---	286	---	0.00	540	---
TOTAL	5,943.00	8,517.00	4,721.20	12,449.00	11,011.00	1,571.00	3,805.00	6,847.00	13,676.00	14,185.40	41,660	74,903.00
MEAN	192	284	152	402	380	50.7	127	221	456	458	1,344	2,497
MAX	2,110	2,020	2,010	1,830	2,040	543	672	862	1,520	1,260	2,980	5,000
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-5.6	291	0.00
AC-FT	11,790	16,890	9,360	24,690	21,840	3,120	7,550	13,580	27,130	28,140	82,630	148,600

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

MEAN	495	265	231	334	273	290	231	287	512	534	686	799
MAX	1,713	1,381	1,200	2,149	1,321	1,588	840	1,174	1,865	1,309	1,894	2,497
(WY)	(2000)	(1988)	(2003)	(1958)	(1983)	(1970)	(1960)	(1976)	(1968)	(1988)	(1959)	(2004)
MIN	-408	-230	-242	-148	-180	-69.3	-165	-381	-101	-98.8	-162	-107
(WY)	(1989)	(1990)	(1985)	(1985)	(1985)	(1975)	(1986)	(1983)	(1987)	(1979)	(1984)	(1970)

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1958 - 2004

ANNUAL TOTAL	194,659.40	199,288.60	412
ANNUAL MEAN	533	545	719
HIGHEST ANNUAL MEAN			150
LOWEST ANNUAL MEAN			150
HIGHEST DAILY MEAN	3,260	5,000	5,230
LOWEST DAILY MEAN	-0.80	-5.6	-967
ANNUAL SEVEN-DAY MINIMUM	0.00	0.00	-624
ANNUAL RUNOFF (AC-FT)	386,100	395,300	298,600
10 PERCENT EXCEEDS	1,580	1,580	1,390
50 PERCENT EXCEEDS	280	262	120
90 PERCENT EXCEEDS	0.00	0.00	-48

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.