Water-Data Report 2012

02286400 MIAMI CANAL AT S-354, AND S-3, AT LAKE HARBOR, FL

Southern Florida Basin
Everglades Subbasin

LOCATION.--Lat 26°41′42″, long 80°48′25″ referenced to North American Datum of 1927, in SE ¼ sec.35, T.44 S., R.35 E., Palm Beach County, FL, Hydrologic Unit 03090202, 0.25 mi downstream of S-354 and pump station 3 at Lake Okeechobee, 0.05 mi south of U.S. Highway 27 on the Miami Canal in Lake Harbor.

DRAINAGE AREA.--Indeterminate.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Prior to October 1940, monthly discharge only, published in WSP 1304. October 1988 to current year. December 1939 to June 1943 (published as Miami Canal at Lake Harbor, October 1957 to September 1988, published as Miami Canal at HGS-3, and S-3, at Lake Harbor.

REVISED RECORDS.--WDR FL-93-2A, 1992, (revised annual and monthly statistic record).

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic Doppler velocity meter. Datum of gage is National Geodetic Vertical Datum of 1929. December 1, 1939 to June 30, 1943, nonrecording gage at this site at same datum. October 1, 1957 to September 30, 1959, dual water-stage recorder at present site, at datum 0.05 ft lower and October 1, 1959 to February 7, 1962, at datum 0.22 ft lower. October 1, 1957 to September 30, 1968, two deflection vane recorders. From 1981water year to April 1, 1987, electromagnetic velocity meter and digital recorder. Electromagnetic velocity meter reinstalled May 11, 1988 and discontinued in the 1992 water year, September 11, 1991 to October 4, 2003, acoustic velocity meter. Satellite data collection platform installed September 11, 1991. Acoustic doppler velocity meter installed May 23, 2002 and ran simultaneously with the acoustic velocity meter until October 4, 2003 when the acoustic velocity meter was removed. Prior to October 1, 1998, lake stage published under station number 02286399. Lake station discontinued September 30, 1998.

COOPERATION.--S-3 pump, syphon record and S-354 gate-operation record provided by South Florida Water Management District.

REMARKS.--Records quality is fair except for any days of estimated discharge which are considered poor. Flow is completely regulated by gates and the pump station at Lake Okeechobee. Discharge is the flow through acoustic velocity meter site located approximately 0.25 mi below the S-354 gate structure. Stage is also collected at the acoustic velocity meter site. Flow frequently reversed during and after periods of heavy rainfall by pumpage into the canal from agricultural lands in the Everglades, or by the operation of pump station 3 (negative figures indicate reverse flow). Discharge computed from relations between stage vs. area and index velocity vs. mean channel velocity.

EXTREMES FOR PERIOD OF RECORD.--
CANAL STAGES: Maximum gage height 14.92 ft, present datum, Mar. 21, 1960 and Oct. 2, 1965:minimum, 7.45 ft May 2, 2001.

EXTREMES FOR CURRENT YEAR.--
CANAL STAGES: Maximum gage height, 12.77 ft Aug. 27; minimum, 8.25 ft Oct. 16.

Suggested citation: U.S. Geological Survey, 2013, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 02286400, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/02286400.2012.pdf

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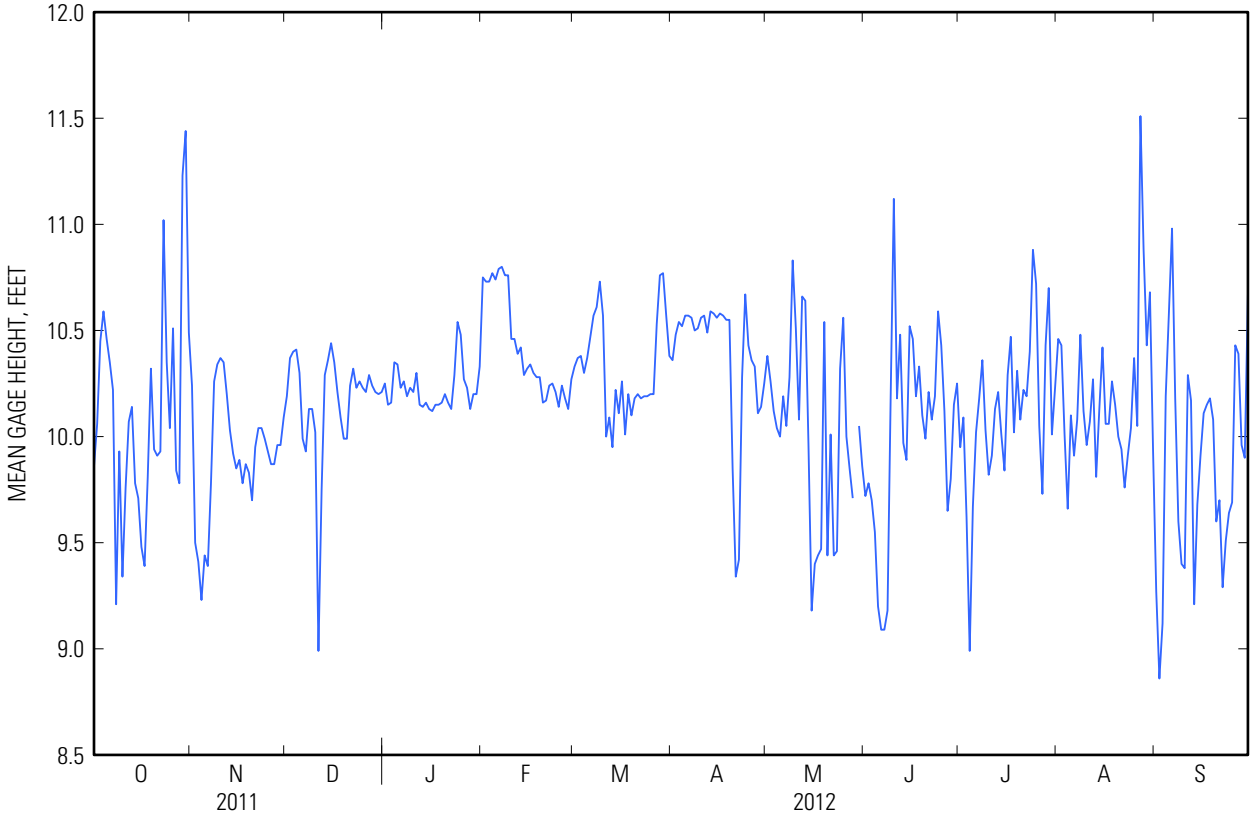
GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	9.86	10.24	10.19	10.25	10.75	10.33	10.36	10.38	9.72	9.95	10.46	9.27
2	10.06	9.50	10.37	10.15	10.73	10.37	10.48	10.26	9.78	10.09	10.43	8.86
3	10.45	9.41	10.40	10.16	10.73	10.38	10.54	10.12	9.70	9.62	10.01	9.12
4	10.59	9.23	10.41	10.35	10.77	10.30	10.52	10.04	9.55	8.99	9.66	10.19
5	10.46	9.44	10.30	10.34	10.74	10.37	10.57	10.00	9.20	9.67	10.10	10.58
6	10.35	9.39	9.99	10.23	10.79	10.47	10.57	10.19	9.09	10.02	9.91	10.98
7	10.22	9.78	9.93	10.26	10.80	10.57	10.56	10.05	9.09	10.18	10.08	10.18
8	9.21	10.26	10.13	10.19	10.76	10.61	10.50	10.28	9.18	10.36	10.48	9.60
9	9.93	10.34	10.13	10.23	10.76	10.73	10.51	10.83	10.19	10.03	10.12	9.40
10	9.34	10.37	10.02	10.21	10.46	10.57	10.56	10.51	11.12	9.82	9.96	9.38
11	9.76	10.35	8.99	10.30	10.46	10.0	10.57	10.08	10.18	9.91	10.07	10.29
12	10.07	10.20	9.75	10.15	10.39	10.09	10.49	10.66	10.48	10.13	10.27	10.17
13	10.14	10.03	10.29	10.14	10.42	9.95	10.59	10.64	9.97	10.21	9.81	9.21
14	9.78	9.92	10.36	10.16	10.29	10.22	10.58	9.96	9.89	10.01	10.13	9.68
15	9.71	9.85	10.44	10.13	10.32	10.11	10.56	9.18	10.52	9.84	10.42	9.91
16	9.48	9.89	10.35	10.12	10.34	10.26	10.58	9.40	10.46	10.29	10.06	10.11
17	9.39	9.78	10.21	10.15	10.30	10.01	10.57	9.44	10.19	10.47	10.06	10.15
18	9.81	9.87	10.09	10.15	10.28	10.20	10.55	9.47	10.33	10.02	10.26	10.18
19	10.32	9.83	9.99	10.16	10.28	10.10	10.55	10.54	10.10	10.31	10.15	10.08
20	9.94	9.70	9.99	10.20	10.16	10.18	9.85	9.44	9.99	10.08	10.0	9.60
21	9.91	9.95	10.24	10.16	10.17	10.20	9.34	10.01	10.21	10.22	9.94	9.70
22	9.93	10.04	10.32	10.13	10.24	10.18	9.42	9.44	10.08	10.19	9.76	9.29
23	11.02	10.04	10.23	10.29	10.25	10.19	10.28	9.46	10.19	10.40	9.91	9.51
24	10.35	9.99	10.26	10.54	10.21	10.19	10.67	10.32	10.59	10.88	10.04	9.64
25	10.04	9.93	10.23	10.48	10.14	10.20	10.43	10.56	10.43	10.72	10.37	9.69
26	10.51	9.87	10.21	10.27	10.24	10.20	10.36	10.00	10.12	10.05	10.05	10.43
27	9.84	9.87	10.29	10.23	10.18	10.53	10.33	9.85	9.65	9.73	11.51	10.39
28	9.78	9.96	10.24	10.13	10.13	10.76	10.11	9.71	9.80	10.43	10.88	9.96
29	11.23	9.96	10.21	10.20	10.27	10.77	10.14	---	10.15	10.70	10.43	9.90
30	11.44	10.09	10.20	10.20	---	10.57	10.25	10.05	10.25	10.01	10.68	10.67
31	10.49	---	10.21	10.33	---	10.38	---	9.86	---	10.23	9.93	---
Total	313.41	297.08	314.97	316.99	302.36	319.99	311.39	---	300.20	313.56	315.94	296.12
Mean	10.11	9.90	10.16	10.23	10.43	10.32	10.38	---	10.01	10.11	10.19	9.87
Max	11.44	10.37	10.44	10.54	10.80	10.77	10.67	---	11.12	10.88	11.51	10.98
Min	9.21	9.23	8.99	10.12	10.13	9.95	9.34	---	9.09	8.99	9.66	8.86

02286400 MIAMI CANAL AT S-354, AND S-3, AT LAKE HARBOR, FL—Continued



02286400 MIAMI CANAL AT S-354, AND S-3, AT LAKE HARBOR, FL—Continued

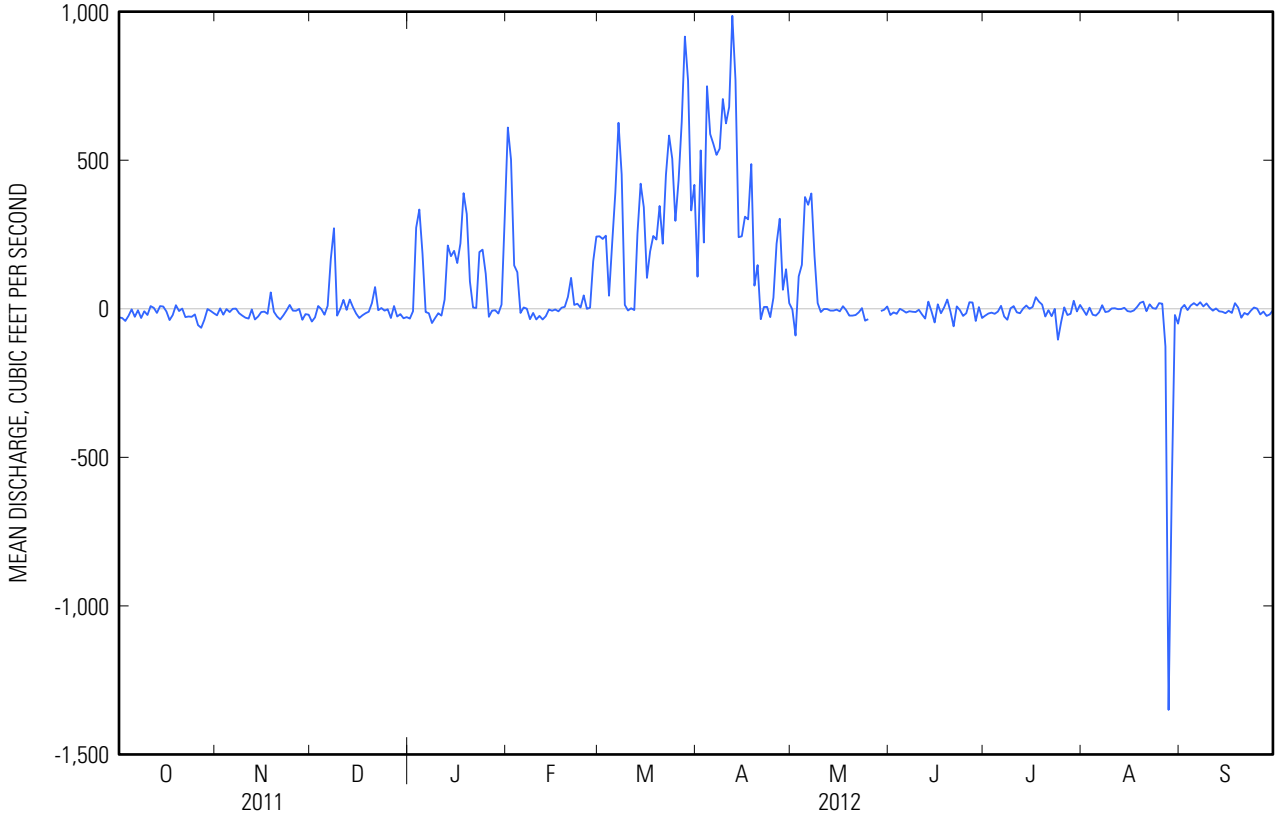
DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	-29	-22	-43	-33	610	244	108	-2.7	-21	-23	-3.7	1.4
2	-31	1.3	-29	-8.2	502	235	533	-90	-12	-16	-21	13
3	-41	-20	9.4	273	146	246	223	109	-17	-13	3.8	-4.4
4	-24	-1.0	-1.3	334	123	44	749	148	-0.18	-17	-20	11
5	-2.0	-11	-20	186	-14	221	588	376	-5.7	-9.4	-23	19
6	-27	-0.09	9.9	-11	4.4	391	555	350	-13	9.9	-12	11
7	-4.9	0.59	168	-15	0.35	626	518	388	-8.2	-26	12	22
8	-31	-15	271	-48	-35	452	539	178	-10	-37	-11	8.0
9	-8.4	-23	-23	-31	-14	13	706	19	-11	1.5	-8.8	18
10	-21	-30	-0.33	-15	-36	-5.7	624	-11	-3.3	8.9	1.1	3.7
11	9.0	-33	30	-23	-24	1.7	679	-0.77	-19	-12	1.8	-6.3
12	3.2	-2.3	-3.7	31	-36	-4.4	986	-0.90	-33	-15	-1.3	1.1
13	-14	-36	31	213	-25	254	771	-6.1	24	0.84	-0.85	-8.6
14	9.0	-26	5.4	177	-2.5	421	241	-6.1	-8.5	11	3.4	-10
15	7.6	-11	-16	195	-6.6	342	244	-2.8	-46	-0.01	-7.8	-15
16	-9.1	-9.6	-31	154	-2.4	104	310	-8.6	15	6.3	-9.8	-6.5
17	-38	-17	-22	220	-8.6	193	301	8.6	-15	39	-5.7	-14
18	-21	55	-15	389	3.6	245	487	-4.4	4.9	24	5.8	19
19	12	-10	-9.9	319	6.5	233	78	-23	31	14	20	4.2
20	-7.6	-26	19	92	40	346	147	-23	-9.6	-26	24	-30
21	e0.64	-36	73	4.2	104	219	-35	-21	-59	-4.7	-8.2	-14
22	-28	-22	-4.9	2.7	13	450	6.0	-12	8.0	-25	15	-20
23	-26	-5.6	2.5	191	17	583	6.3	e2.2	-4.5	-0.38	2.1	-6.6
24	-27	13	-6.3	199	4.2	505	-28	e-40	-24	-104	-0.03	4.3
25	-19	-6.3	-1.7	118	45	296	37	e-35	-15	-45	19	0.74
26	-55	-6.7	-31	-27	-0.17	432	219	---	22	4.7	17	-19
27	-64	-0.51	9.2	-6.4	3.5	629	303	---	21	-21	-127	-9.5
28	-37	-37	-26	-4.9	160	916	64	---	-41	-17	-1,350	-24
29	-0.93	-18	-18	-16	243	768	133	e-7.5	5.6	27	-608	-19
30	-7.3	-20	-32	14	---	331	19	-3.5	-31	-8.9	-21	-5.2
31	-15	---	-28	304	---	417	---	7.7	---	13	-50	---
Total	-546.79	-375.21	266.27	3,177.4	1,821.28	10,147.6	10,111.3	---	-275.48	-260.25	-2,164.18	-75.66
Mean	-17.6	-12.5	8.59	102	62.8	327	337	---	-9.18	-8.40	-69.8	-2.52
Max	12	55	271	389	610	916	986	---	31	39	24	22
Min	-64	-37	-43	-48	-36	-5.7	-35	---	-59	-104	-1,350	-30
Ac-ft	-1,080	-744	528	6,300	3,610	20,130	20,060	---	-546	-516	-4,290	-150

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	-46.5	46.3	93.5	117	184	240	439	354	25.5	-48.8	-79.4	-137
Max	609	420	411	634	1,439	1,415	1,480	1,065	1,157	936	302	1,191
(WY)	(1989)	(1974)	(2005)	(1993)	(1993)	(1966)	(1993)	(2000)	(1998)	(1992)	(1993)	(1992)
Min	-1,167	-429	-330	-849	-373	-1,185	-316	-296	-897	-769	-899	-1,614
(WY)	(1961)	(1961)	(1958)	(1958)	(1983)	(1970)	(1958)	(1972)	(1968)	(1985)	(1981)	(1960)

02286400 MIAMI CANAL AT S-354, AND S-3, AT LAKE HARBOR, FL—Continued

SUMMARY STATISTICS

	Water Years 1958 - 2012	
Annual mean	85.0	
Highest annual mean	487	1993
Lowest annual mean	-290	1960
Highest daily mean	2,280	Mar 24, 1966
Lowest daily mean	-2,790	Mar 26, 1970
Annual seven-day minimum	-2,170	Jun 18, 1959
Annual runoff (ac-ft)	61,580	
10 percent exceeds	550	
50 percent exceeds	15	
90 percent exceeds	-303