Water-Data Report 2011

02288600 MIAMI CANAL AT N.W. 36TH STREET, MIAMI, FL

Southern Florida Basin
Everglades Subbasin

LOCATION.--Lat 25°48′29″, long 80°15′49″ referenced to North American Datum of 1927, in NE ¼ sec.29, T.53 S., R.41 E., Miami-Dade County, FL, Hydrologic Unit 03090202, on right bank at downstream end of NW 36th Street bridge fender at Miami, 1200 ft upstream from salinity-control structure S-26.

DRAINAGE AREA.--Indeterminate.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--February 1959 to September 2011. Discontinued.

REVISED RECORDS.--WDR FL-98-2A, 1997, WDR FL-03-2A, 2002.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic Doppler velocity meter. Prior to June 12, 2002, electronic data logger with water-stage shaft encoder and acoustic velocity meter with phone/radio telemetry provided by South Florida Water Management District. Datum of gage is National Geodetic Vertical Datum of 1929 (Dade County bench mark).

COOPERATION.--South Florida Water Management District.

REMARKS.--Records fair except for estimated daily discharges and discharges between -20 and 20 cfs, which are poor. Flowaffected by tide and is occasionally reversed. Some seepage losses above station into Miami-Dade Water and Sewer Authoritywell field for groundwater withdrawals. Natural flow materially affected by levee and control structures 31, 32 and 32A about14 mi upstream, and structure 26 downstream. Acoustic velocity meter began on October 1, 1996, and was removed on June 12,2002. Acoustic doppler velocity meter began on June 12, 2002. Discharge computed from relations between stage vs. area andindex velocity vs. mean channel velocity.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 5.28 ft (estimated) Oct. 15, 1999; minimum, -0.55 ft Apr. 26, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 3.23 ft Oct. 6, 7; minimum, 0.75 ft Jan. 18.

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GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1.86	2.54	2.55	2.67	2.69	2.53	2.19	2.15	1.53	2.44	2.48	2.59
2	1.86	2.45	2.68	2.70	2.70	2.52	2.15	2.08	1.50	2.39	2.48	2.57
3	1.89	2.54	2.66	2.71	2.59	2.48	2.13	2.04	1.47	2.33	2.47	2.58
4	1.88	2.53	2.64	2.70	2.71	2.44	2.09	2.01	1.45	2.34	2.51	2.52
5	2.07	2.52	2.61	2.69	2.72	2.43	2.12	1.99	1.43	2.32	2.48	2.52
6	2.49	2.52	2.64	2.64	2.64	2.47	2.13	2.28	1.41	2.02	2.48	2.55
7	2.75	2.52	2.63	2.62	2.70	2.47	2.09	2.24	1.38	1.67	2.55	2.50
8	2.66	2.58	2.67	2.68	2.69	2.42	2.08	2.18	1.34	1.87	2.58	2.49
9	2.62	2.59	2.68	2.67	2.66	2.39	2.07	2.13	1.32	2.27	2.56	2.59
10	2.57	2.58	2.66	2.66	2.68	2.44	2.06	2.07	1.32	2.30	2.69	2.55
11	2.57	2.59	2.65	2.68	2.68	2.49	2.01	2.01	1.33	2.30	2.64	2.52
12	2.32	2.57	2.67	---	2.68	2.45	2.00	1.99	1.36	2.35	2.60	2.50
13	2.30	2.59	2.68	---	2.67	2.43	1.98	1.95	1.44	2.42	2.60	2.53
14	2.49	2.55	2.64	2.64	2.65	2.40	1.99	1.93	1.65	2.43	2.59	2.59
15	2.52	2.60	2.61	2.64	2.64	2.37	2.00	2.00	1.73	2.42	2.58	2.57
16	2.53	2.59	2.61	2.64	2.61	2.34	2.02	1.97	1.68	2.41	2.62	2.58
17	2.54	2.54	2.62	2.70	2.61	2.34	2.17	1.92	1.62	2.48	2.69	2.62
18	2.54	2.60	2.57	2.47	2.61	2.33	2.35	1.88	1.58	2.61	2.59	2.59
19	2.55	2.62	2.56	2.67	2.62	2.32	2.23	1.85	1.75	2.58	2.69	2.62
20	2.55	2.61	2.65	2.64	2.61	2.30	2.18	1.82	2.14	2.57	2.68	2.60
21	2.51	2.61	2.64	2.59	2.59	2.30	2.14	1.81	2.14	2.59	2.67	2.63
22	2.49	2.57	2.67	2.56	2.59	2.27	2.11	1.79	2.02	2.61	2.19	2.67
23	2.51	2.61	2.64	2.60	2.58	2.25	2.08	1.74	1.94	2.59	1.77	2.61
24	2.49	2.60	2.70	2.67	2.56	2.25	2.07	1.72	1.94	2.61	1.93	2.60
25	2.48	2.62	2.71	2.69	2.56	2.23	2.03	1.68	2.01	2.57	2.57	2.46
26	2.54	2.59	2.61	2.53	2.55	2.21	2.00	1.65	2.01	2.53	2.57	2.26
27	2.56	2.59	2.59	2.60	2.53	2.18	1.95	1.66	1.98	2.48	2.63	2.63
28	2.52	2.60	2.68	2.59	2.51	2.18	1.93	1.65	1.98	2.60	2.70	2.60
29	2.51	2.62	2.68	2.65	---	2.21	2.02	1.61	1.99	2.53	2.67	2.59
30	2.49	2.65	2.67	2.69	---	2.19	2.19	1.59	2.16	2.50	2.64	2.61
31	2.47	---	2.67	2.63	---	2.18	---	1.56	---	2.47	2.62	---
Total	75.13	77.29	81.94	---	73.63	72.81	62.56	58.95	50.60	74.60	78.52	76.84
Mean	2.42	2.58	2.64	---	2.63	2.35	2.09	1.90	1.69	2.41	2.53	2.56
Max	2.75	2.65	2.71	---	2.72	2.53	2.35	2.28	2.16	2.61	2.70	2.67
Min	1.86	2.45	2.55	---	2.51	2.18	1.93	1.56	1.32	1.67	1.77	2.26

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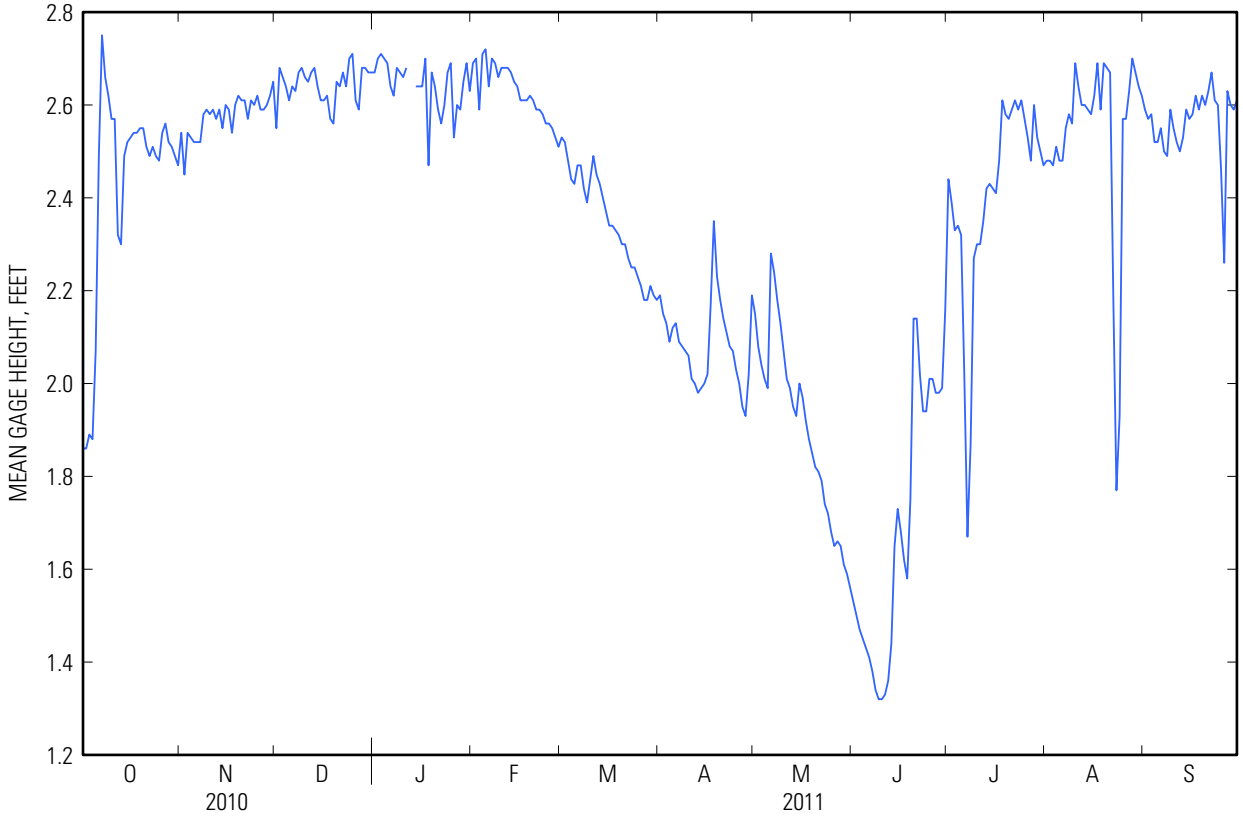

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	775	213	132	25	41	e-4.6	0.99	16	12	6.3	11	211
2	687	276	31	3.3	3.3	16	16	11	10	14	14	230
3	630	288	55	-10	80	9.3	3.5	14	10	15	5.6	318
4	518	321	81	8.6	22	11	7.6	14	13	18	19	419
5	490	289	47	1.6	18	7.7	5.2	5.9	14	17	18	335
6	341	225	55	51	60	5.8	9.9	13	16	187	6.4	291
7	275	218	40	12	13	6.3	15	8.3	16	249	6.7	356
8	293	143	7.3	2.3	3.8	17	19	9.1	12	100	15	266
9	270	158	3.5	9.5	12	11	15	1.3	8.8	8.6	53	215
10	289	150	0.31	12	4.5	23	12	6.6	14	6.6	5.9	335
11	260	137	7.6	-0.20	8.1	12	19	18	8.5	3.5	5.6	297
12	351	165	-1.3	e10	6.2	12	10	6.3	9.0	e-1.6	11	290
13	135	137	4.5	e14	7.1	13	4.0	14	6.4	19	6.5	253
14	195	168	7.3	12	11	15	11	17	0.47	12	66	172
15	169	118	8.4	6.4	5.9	18	16	4.9	1.1	11	117	182
16	133	131	8.8	13	18	20	16	e-1.3	10	13	95	147
17	138	185	-2.1	3.4	14	2.8	1.8	e-0.23	14	e-3.7	48	117
18	142	122	117	160	8.5	11	17	7.8	4.6	10	84	149
19	151	99	143	32	2.5	5.3	16	12	5.5	9.6	59	135
20	190	117	49	58	15	13	15	14	7.9	7.4	50	79
21	245	105	64	148	19	14	15	11	19	10	58	98
22	234	159	31	154	4.8	14	17	14	16	17	286	86
23	202	86	49	78	-4.4	9.9	12	8.8	19	18	166	169
24	214	109	3.2	42	6.7	e-2.8	12	13	7.3	18	54	150
25	226	110	0.49	40	10	1.7	18	11	12	15	35	239
26	161	128	97	209	10	7.4	16	8.6	12	15	15	240
27	149	137	75	102	15	13	16	12	15	12	33	155
28	210	122	7.6	97	16	15	20	18	3.8	19	52	188
29	217	109	9.3	55	---	15	5.2	17	9.2	20	121	200
30	197	52	5.5	27	---	15	15	13	11	19	149	154
31	234	---	13	74	---	9.4	---	12	---	16	233	---
Total	8,721	4,777	1,149.40	1,449.90	431.0	336.2	376.19	330.07	317.57	880.7	1,898.7	6,476
Mean	281	159	37.1	46.8	15.4	10.8	12.5	10.6	10.6	28.4	61.2	216
Max	775	321	143	209	80	23	20	18	19	249	286	419
Min	133	52	-2.1	-10	-4.4	-4.6	0.99	-1.3	0.47	-3.7	5.6	79
Ac-ft	17,300	9,480	2,280	2,880	855	667	746	655	630	1,750	3,770	12,850

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	358	270	204	161	158	138	117	130	255	246	289	359
Max	1,272	1,071	1,041	939	791	729	662	682	813	791	848	1,146
(WY)	(1961)	(1961)	(1960)	(1961)	(1961)	(1960)	(1960)	(1960)	(1968)	(1959)	(1960)	(1960)
Min	34.5	6.94	0.00	0.00	0.00	-1.61	-5.35	-5.53	0.33	4.08	2.32	54.4
(WY)	(1981)	(1989)	(1982)	(1981)	(1982)	(1962)	(2006)	(1993)	(1980)	(1981)	(1987)	(2008)

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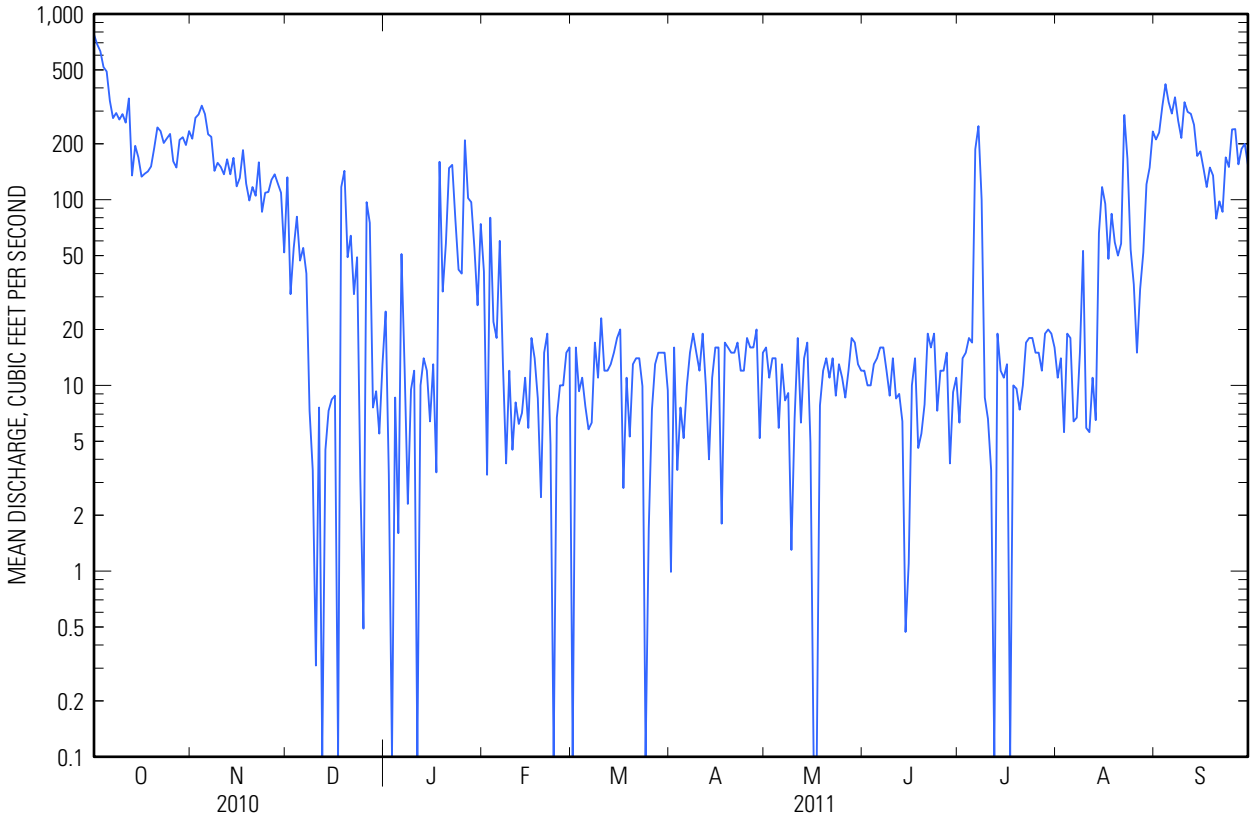
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1959 - 2011	
Annual total	110,176.00		27,143.73			
Annual mean	302		74.4		245	
Highest annual mean					843	1960
Lowest annual mean					31.2	1987
Highest daily mean	905	Sep 30	775	Oct 1	1,730	Oct 16, 1999
Lowest daily mean	-2.1	Dec 17	-10	Jan 3	-279	Jun 1, 1993
Annual seven-day minimum	4.2	Dec 8	4.2	Dec 8	-69	May 26, 1993
Annual runoff (ac-ft)	218,500		53,840		177,300	
10 percent exceeds	548		225		593	
50 percent exceeds	349		16		196	
90 percent exceeds	9.5		4.7		0.00