

## CHARLOTTE HARBOR AND COASTAL AREA

02293240 ARIES CANAL AT CAPE CORAL, FL

LOCATION.--Lat 26°36'00", long 81°59'39", in SE ¼ SW ¼ NE ¼ sec.34, T.44 S., R.23 E., Lee County, Hydrologic Unit 03090205, on right wingwall on downstream side of bridge at SW 28th Street, 0.33 mi west of Skyline Boulevard, and 4.6 mi upstream from Caloosahatchee River at Cape Coral.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--December 1989 to current year.

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Zero flow occurs for numerous days, during most water years. Station subjected to major shifting of the stage discharge relationship based on heavy debris build up on carp grates and installation/removal of stoplogs, which are installed on top of the weir.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 15 complete water years of discharge (1990-2004).

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	3.59	3.19	3.09	3.26	3.26	3.34	3.12	3.52	3.11	3.69	4.37	3.57
2	3.50	3.18	3.09	3.28	3.25	3.33	3.11	3.40	3.09	3.74	5.13	3.50
3	3.39	3.22	3.10	3.29	3.23	3.33	3.10	3.37	3.08	3.74	5.17	3.46
4	3.35	3.24	3.10	3.31	3.22	3.32	3.09	3.34	3.06	3.74	5.23	3.41
5	3.32	3.23	3.09	3.32	3.21	3.27	3.07	3.30	3.05	3.78	4.62	3.47
6	3.31	3.22	3.10	3.32	3.23	3.26	3.08	3.29	3.04	3.75	4.61	3.72
7	3.30	3.20	3.09	3.31	3.23	3.24	3.08	3.28	---	3.48	4.25	3.75
8	3.28	3.19	3.08	3.31	3.22	3.23	3.07	3.28	---	3.31	4.02	3.66
9	3.27	3.18	3.06	3.34	3.21	3.21	3.08	3.28	---	3.25	3.89	3.58
10	3.26	3.16	3.08	3.36	3.21	3.20	3.08	3.28	---	3.22	3.79	3.64
11	3.25	3.16	3.08	3.35	3.22	3.20	3.08	3.25	---	3.22	3.81	3.52
12	3.24	3.16	3.07	3.33	3.23	3.20	3.20	3.23	---	3.24	3.68	3.45
13	3.24	3.16	3.07	3.23	3.23	3.20	3.24	3.21	---	3.23	4.00	3.41
14	3.23	3.14	3.30	3.18	3.24	3.20	3.20	3.20	---	3.21	4.55	3.39
15	3.22	3.14	3.31	3.14	3.31	3.20	3.17	3.19	---	3.19	3.90	3.37
16	3.20	3.14	3.32	3.13	3.31	3.23	3.15	3.18	---	3.19	3.72	3.36
17	3.20	3.14	3.50	3.12	3.31	3.22	3.14	3.18	---	3.19	3.99	3.36
18	3.19	3.15	3.36	3.35	3.28	3.20	3.13	3.17	---	3.19	4.33	3.35
19	3.20	3.17	3.30	3.46	3.22	3.17	3.12	3.16	---	3.23	4.03	3.35
20	3.20	3.17	3.27	3.40	3.19	3.16	3.12	3.16	---	3.32	3.79	3.34
21	3.20	3.17	3.25	3.36	3.18	3.15	3.12	3.15	---	3.36	3.75	3.35
22	3.22	3.18	3.24	3.33	3.17	3.15	3.12	3.14	---	3.37	3.60	3.35
23	3.24	3.18	3.23	3.31	3.17	3.13	3.12	3.14	---	3.46	3.60	3.35
24	3.22	3.18	3.25	3.30	3.18	3.12	3.12	3.12	---	3.40	3.65	3.34
25	3.21	3.18	3.25	3.30	3.36	3.12	3.13	3.12	---	3.40	3.72	3.33
26	3.20	3.14	3.24	3.31	3.50	3.13	3.12	3.11	---	3.46	3.69	3.36
27	3.20	3.13	3.24	3.33	3.42	3.14	3.12	3.12	---	3.61	3.58	3.38
28	3.20	3.13	3.23	3.33	3.38	3.14	3.11	3.12	---	3.84	3.52	3.38
29	3.24	3.11	3.23	3.31	3.35	3.13	3.17	3.12	---	3.96	3.48	3.36
30	3.21	3.09	3.24	3.25	---	3.13	3.38	3.12	3.77	3.92	3.45	3.34
31	3.20	---	3.25	3.25	---	3.14	---	3.11	---	3.95	3.45	---
TOTAL	101.08	95.03	99.11	102.17	94.52	99.19	93.94	99.64	---	107.64	124.37	103.20
MEAN	3.26	3.17	3.20	3.30	3.26	3.20	3.13	3.21	---	3.47	4.01	3.44
MAX	3.59	3.24	3.50	3.46	3.50	3.34	3.38	3.52	---	3.96	5.23	3.75
MIN	3.19	3.09	3.06	3.12	3.17	3.12	3.07	3.11	---	3.19	3.45	3.33

02293240 ARIES CANAL AT CAPE CORAL, 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	39	11	3.5	14	15	13	4.0	28	5.3	68	83	52
2	34	11	3.2	13	13	12	2.9	16	4.5	75	187	44
3	32	14	3.4	13	11	12	2.2	13	3.3	76	190	39
4	27	16	3.6	12	8.3	18	1.7	11	2.5	76	167	33
5	24	15	3.3	11	7.9	19	1.1	8.0	1.7	81	67	41
6	23	14	3.2	9.7	8.9	18	1.3	7.0	1.4	76	85	73
7	22	13	2.6	7.4	9.2	17	1.3	6.5	e4.20	32	55	77
8	20	12	1.7	6.0	8.1	15	0.96	5.9	e38	8.4	43	64
9	19	11	0.90	6.3	7.6	14	1.3	6.0	e68	12	43	54
10	18	9.6	1.8	7.6	7.7	13	1.4	11	e58	14	38	62
11	17	9.3	2.0	7.3	7.9	12	1.4	17	e54	13	48	47
12	16	9.2	1.4	14	7.6	12	10	15	e51	14	55	38
13	16	8.9	1.4	15	7.2	12	14	14	e54	12	127	34
14	15	7.9	21	9.8	7.4	12	9.6	13	e78	9.4	217	31
15	14	7.7	20	7.0	11	12	7.3	12	e78	7.6	99	29
16	13	7.7	22	5.5	12	14	6.3	11	e76	6.7	73	29
17	12	8.0	42	4.8	11	14	5.0	11	e65	6.5	119	28
18	12	8.4	28	27	17	11	4.4	10	e62	5.5	173	27
19	12	9.7	22	36	14	9.6	3.7	9.2	e59	7.8	121	27
20	12	10	19	29	12	7.9	3.0	8.8	e55	15	82	26
21	13	10	17	25	11	7.3	2.9	8.1	e54	18	78	27
22	14	11	16	22	10	6.6	2.8	7.7	e51	18	56	27
23	16	11	16	20	10	5.8	2.4	7.4	e49	26	56	27
24	15	11	17	19	11	5.2	2.4	6.6	e51	20	63	26
25	13	11	17	19	23	4.8	2.5	5.9	e51	19	72	25
26	13	8.1	16	20	30	5.2	1.9	5.8	e51	24	68	29
27	13	6.7	16	21	21	5.4	1.9	6.1	e50	38	54	31
28	13	6.1	15	21	17	5.3	1.1	6.1	e50	67	47	27
29	16	4.7	15	19	15	4.8	4.4	6.1	e50	78	42	23
30	14	3.8	16	17	---	5.0	14	6.0	79	51	38	18
31	12	---	15	16	---	5.2	---	5.5	---	35	39	---
TOTAL	549	296.8	382.00	474.4	351.8	328.1	119.16	304.7	1,354.90	1,009.9	2,685	1,115
MEAN	17.7	9.89	12.3	15.3	12.1	10.6	3.97	9.83	45.2	32.6	86.6	37.2
MAX	39	16	42	36	30	19	14	28	79	81	217	77
MIN	12	3.8	0.90	4.8	7.2	4.8	0.96	5.5	1.4	5.5	38	18
AC-FT	1,090	589	758	941	698	651	236	604	2,690	2,000	5,330	2,210

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2004, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
MEAN	16.2	5.78	5.12	8.48	5.87	4.41	2.94	3.09	23.5	40.0	35.3	41.9			
MAX	33.2	15.3	20.6	22.3	31.6	11.8	8.56	9.83	71.5	127	86.6	110			
(WY)	(1992)	(1999)	(1998)	(1999)	(1998)	(1998)	(1992)	(2004)	(2003)	(1999)	(2004)	(2000)			
MIN	2.52	0.01	0.40	1.25	0.74	0.23	0.00	0.00	0.92	7.92	6.02	13.6			
(WY)	(1999)	(1997)	(1991)	(1990)	(2001)	(1997)	(1999)	(1994)	(1994)	(1994)	(1994)	(1996)			

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1990 - 2004

ANNUAL TOTAL	8,431.81	8,970.76	
ANNUAL MEAN	23.1	24.5	16.1
HIGHEST ANNUAL MEAN			27.9
LOWEST ANNUAL MEAN			5.73
HIGHEST DAILY MEAN	595	217	595
LOWEST DAILY MEAN	0.36	0.90	0.00**
ANNUAL SEVEN-DAY MINIMUM	0.81	1.3	0.00**
MAXIMUM PEAK FLOW		338	849
MAXIMUM PEAK STAGE		5.59	7.17
INSTANTANEOUS LOW FLOW		0.01	
ANNUAL RUNOFF (AC-FT)	16,720	17,790	11,660
10 PERCENT EXCEEDS	50	62	40
50 PERCENT EXCEEDS	11	14	5.7
90 PERCENT EXCEEDS	1.8	3.7	0.00

e Estimated

\*\* Many days during water years 1990-91, 1994-2002.

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.