

Water-Data Report 2011

02301805 PALM RIVER AT MOUTH AT TAMPA, FL.

Tampa Bay Basin
Tampa Bay Subbasin

LOCATION.--Lat 27°56'31", long 82°24'36" referenced to North American Datum of 1927, in SW ¼ NW ¼ SE ¼ sec.21, T.29 S., R.19 E., Hillsborough County, FL, Hydrologic Unit 03100206, on left bank, on City of Tampa fishing dock, at southeastern city limits of Tampa, and 4,000 ft downstream from 50th Street (U.S. Highway 41).

DRAINAGE AREA.--36.8 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 2001 to September 2003 (gage heights only); October 2003 to September 2010 (tidal high-high and low-low only); October 2010 to September 2011 (maximum and minimum only), discontinued.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 and 0.94 ft. below North American Vertical Datum of 1988.

COOPERATION.--This gage is monitored in cooperation with Tampa Bay Water.

REMARKS.--Gage height at this site is significantly affected by astronomical tides. The extremes for periods published previously as tidal high-high and low-low gage heights are equivalent to maximum and minimum gage heights.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 6.07 ft, Sept. 6, 2004; minimum, 2.59 ft below NGVD 29, Dec. 15, 2004.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 4.38 ft, Mar. 31; minimum, 2.05 ft below NGVD 29, Nov. 7.

02301805 PALM RIVER AT MOUTH AT TAMPA, FL.—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
	October		November		December		January		February		March	
1	2.11	-0.58	1.56	-0.52	1.85	-0.95	2.22	-1.05	2.40	-1.23	1.71	-0.88
2	1.94	-0.49	1.80	-0.52	1.25	-2.04	2.07	-1.36	2.41	-0.47	1.18	-1.28
3	1.90	-0.64	2.40	-0.42	1.72	-1.80	2.01	-1.66	1.71	-1.16	1.09	-0.88
4	2.06	-0.59	2.71	-0.37	2.62	-1.32	2.05	-1.24	1.74	-0.91	1.35	-0.82
5	1.73	-0.51	2.73	-1.22	2.68	-0.81	1.96	-1.24	1.73	-0.57	1.73	-0.20
6	1.45	-1.16	1.52	-2.02	1.84	-1.67	2.66	-0.47	1.25	-0.82	2.28	-0.51
7	2.09	-0.71	1.00	-2.05	1.67	-1.64	1.67	-1.19	2.30	-0.45	1.67	-0.67
8	2.45	-0.41	1.67	-1.84	1.92	-1.34	2.01	-0.37	1.15	-1.17	1.85	-0.71
9	2.85	-0.33	2.15	-1.04	1.73	-1.18	1.17	-1.07	1.55	-1.17	2.76	-0.46
10	3.19	-0.29	2.04	-0.73	1.13	-0.84	1.88	-0.30	1.77	-0.74	2.57	-0.64
11	2.86	-0.27	1.84	-0.74	1.33	-0.65	1.08	-0.52	0.94	-1.16	1.06	-0.93
12	2.63	-0.28	1.19	-0.63	2.49	0.43	0.10	-1.53	0.85	-1.72	1.43	-1.20
13	2.68	-0.12	1.43	-0.20	1.04	-0.52	0.63	-2.04	0.93	-2.01	1.74	-0.94
14	2.09	-0.22	1.96	0.30	0.52	-1.43	0.94	-1.92	1.45	-1.73	1.72	-1.11
15	1.29	-0.39	2.38	0.64	1.33	-1.00	1.58	-1.65	1.68	-1.73	1.79	-1.10
16	1.46	-0.39	2.75	0.97	2.19	-0.69	1.97	-1.40	1.65	-1.52	1.84	-0.98
17	1.60	-0.15	2.22	0.34	2.15	-0.40	2.39	-1.33	1.79	-1.35	1.82	-1.20
18	2.00	0.26	2.20	-0.23	2.05	-0.90	2.46	-1.07	1.96	-1.15	1.80	-0.99
19	2.29	0.34	2.00	-1.07	1.86	-1.38	2.45	-1.11	1.69	-1.30	1.79	-0.83
20	2.19	0.06	2.35	-0.85	2.07	-1.71	2.08	-1.33	1.49	-0.93	1.57	-1.35
21	2.19	-0.15	2.38	-0.88	2.10	-1.51	2.49	-0.99	1.96	-0.79	1.86	-1.39
22	2.11	-0.52	2.29	-0.91	2.17	-1.36	2.13	-1.17	1.73	-1.05	2.14	-1.02
23	1.99	---	2.42	-1.04	2.28	-1.54	0.88	-1.54	1.71	-1.09	2.42	-0.96
24	2.39	-0.46	2.43	-1.05	0.93	-1.88	1.35	-0.95	1.89	-1.21	2.39	-0.65
25	2.68	-0.19	2.35	-0.54	1.62	-0.83	2.83	-0.64	2.03	-0.74	2.11	-0.60
26	2.89	-0.16	2.52	-0.29	2.59	-0.84	1.34	-0.50	1.63	-0.86	1.95	-0.81
27	2.80	-0.40	2.41	-0.63	0.39	-1.34	1.15	-1.38	1.69	-0.92	1.96	-0.40
28	2.16	---	1.44	-0.54	0.91	-1.04	1.36	-1.40	1.96	-0.58	1.56	-0.41
29	---	---	2.02	0.08	1.64	-1.15	1.63	-1.39	---	---	1.69	-0.40
30	---	-0.94	2.44	0.13	2.13	-0.98	1.64	-1.35	---	---	2.23	-0.41
31	1.77	-0.39	---	---	2.20	-1.18	1.87	-1.36	---	---	4.38	0.41
Month	---	---	2.75	-2.05	2.68	-2.04	2.83	-2.04	2.41	-2.01	4.38	-1.39

02301805 PALM RIVER AT MOUTH AT TAMPA, FL.—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
	April		May		June		July		August		September	
1	1.83	-0.71	1.68	-1.10	2.36	-1.38	2.68	-0.82	2.86	-0.41	2.49	-0.34
2	1.36	-0.85	2.01	-1.15	2.30	-1.26	2.40	-0.91	2.57	-0.09	2.40	-0.36
3	1.09	-1.10	2.25	-0.98	2.45	-1.18	2.78	-0.67	2.18	0.08	2.53	-0.15
4	2.18	-0.20	2.03	-1.48	2.41	-1.15	2.64	-0.40	2.22	0.02	2.76	0.19
5	2.54	-1.19	1.73	-1.30	2.38	-1.02	2.33	-0.37	2.23	-0.20	2.86	1.17
6	1.46	-1.15	2.72	-1.00	2.40	-0.80	1.99	-0.32	2.26	-0.41	3.81	0.38
7	2.22	-0.78	2.13	-1.00	2.04	-0.69	2.07	0.06	2.31	-0.46	2.25	-0.27
8	2.01	-0.83	2.08	-1.00	1.49	-0.53	3.08	0.37	2.56	-0.39	2.10	-0.44
9	2.24	-0.83	1.62	-0.81	1.86	-0.42	2.39	-0.15	2.80	-0.63	2.08	-0.48
10	1.99	-0.83	1.70	-0.93	2.06	-0.17	2.13	-0.81	3.27	-0.47	2.32	-0.34
11	2.20	-0.78	1.64	-0.53	2.36	-0.45	2.39	-0.83	2.60	-0.67	2.20	-0.22
12	1.89	-0.35	1.48	-0.40	2.34	-0.67	2.63	-0.73	2.61	-0.62	1.89	-0.49
13	1.57	-0.61	2.12	-0.14	2.56	-0.83	2.87	-0.67	2.57	-0.53	1.74	-0.41
14	1.68	-0.75	3.07	0.07	2.83	-1.08	3.13	-0.54	2.63	-0.19	1.97	-0.42
15	1.99	-0.52	2.90	-0.33	2.88	-0.95	3.04	-0.60	2.54	0.09	2.04	-0.28
16	2.58	-0.29	2.75	-0.80	2.56	-1.10	2.83	-0.40	2.30	0.09	2.14	-0.38
17	1.95	-1.16	2.93	-0.80	2.69	-0.81	2.51	-0.41	2.09	0.06	2.05	-0.44
18	2.20	-1.18	2.82	-1.08	2.71	-0.63	2.41	-0.35	2.07	0.19	1.93	-0.44
19	2.57	-1.10	2.68	-1.11	2.49	-0.59	2.34	0.04	2.29	0.19	1.80	-0.38
20	2.46	-1.45	2.51	-0.93	1.98	-0.49	2.13	0.20	2.43	0.06	2.29	-0.08
21	2.31	-1.37	2.38	-0.92	2.00	-0.38	1.99	0.35	2.35	0.11	2.20	-0.18
22	2.13	-1.19	2.09	-0.91	1.76	0.01	2.05	0.18	2.16	-0.25	2.67	-0.05
23	2.33	-1.06	1.97	-0.65	1.94	0.17	2.19	-0.05	2.51	-0.33	2.69	-0.22
24	1.98	-0.80	1.63	-0.33	1.93	0.03	2.06	-0.21	2.45	-0.46	2.66	-0.31
25	1.72	-0.77	1.66	-0.29	2.30	-0.07	2.33	-0.46	2.26	-0.68	2.74	-0.17
26	1.89	-0.53	1.99	0.20	2.55	-0.43	2.63	-0.26	2.89	-0.36	2.85	0.10
27	1.97	0.13	1.94	-0.02	2.37	-0.65	2.93	-0.25	3.42	0.29	2.57	-0.23
28	2.12	0.35	1.94	-0.49	2.23	-0.93	3.08	-0.39	3.35	0.23	2.30	-0.64
29	1.46	-0.81	2.13	-0.89	2.79	-0.78	2.78	-0.60	3.38	0.13	2.47	-0.68
30	1.57	-1.03	2.03	-1.18	2.76	-0.85	2.96	-0.53	2.67	-0.03	2.55	-0.60
31	---	---	2.06	-1.39	---	---	2.98	-0.51	2.30	-0.21	---	---
Month	2.58	-1.45	3.07	-1.48	2.88	-1.38	3.13	-0.91	3.42	-0.68	3.81	-0.68

02301805 PALM RIVER AT MOUTH AT TAMPA, FL.—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 2001 to September 2011 (discontinued).

INSTRUMENTATION.--Water-quality monitor consisting of specific conductance and temperature sensors located near the surface and near the bottom. The top sensors for specific conductance and water temperature are .20 ft. below NGVD of 1929 and the bottom sensors for specific conductance and temperature are 1.6 ft below NGVD of 1929.

REMARKS.--Specific conductance records fair. Temperature records good. Top and bottom sensors come out of water at times during extreme low tides. Specific conductance and temperature data represents recorded data in the water. The actual maximum or minimum value for these days may have been exceeded.

COOPERATION.--This gage is monitored in cooperation with Tampa Bay Water.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Top sensor maximum, 51,200 microsiemens, May 7, 2002; bottom sensor maximum, 50,500 microsiemens, July 31, 2001; top sensor minimum, 137 microsiemens, Sept. 14, 2004; bottom sensor minimum, 148 microsiemens, Sept. 12, 2004.

TEMPERATURE: Top sensor maximum, 36.4°C, Aug. 12, 2007; bottom sensor maximum, 36.3°C, July 8, 2003; top sensor minimum, 8.8°C, Jan. 12, 2010; bottom sensor minimum, 8.1°C, Jan. 11, 2010.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Top sensor maximum, 43,800 microsiemens, June 15; bottom sensor maximum, 43,600 microsiemens, June 15; top sensor minimum, 5,180 microsiemens, Sept. 22; bottom sensor minimum, 7,190 microsiemens, July 9.

TEMPERATURE: Top sensor maximum, 35.5°C, Aug. 21; bottom sensor maximum, 35.1°C, Aug. 7; top sensor minimum, 9.4°C, Dec. 15; bottom sensor minimum, 9.8°C, Jan. 13.

02301805 PALM RIVER AT MOUTH AT TAMPA, FL.—Continued

TOP
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
	October		November		December		January		February		March	
1	38,200	34,600	41,200	---	42,000	41,300	42,600	41,800	38,900	---	39,000	---
2	38,100	35,700	---	---	42,200	41,300	42,700	---	39,200	---	37,900	---
3	37,800	36,500	40,800	---	42,200	41,000	42,600	---	39,100	---	38,700	---
4	38,800	36,400	40,400	---	42,600	---	42,400	---	39,300	---	40,000	---
5	38,900	37,800	39,300	---	42,600	---	42,600	---	39,400	---	39,700	---
6	39,000	38,200	---	---	42,100	---	42,600	37,000	36,900	---	39,900	---
7	39,200	---	---	36,900	42,200	---	41,500	---	38,800	---	39,500	37,300
8	39,400	38,500	39,800	---	41,400	40,600	41,600	37,300	38,600	---	39,600	38,800
9	39,500	---	---	---	41,800	40,700	40,600	35,800	38,100	---	40,500	39,000
10	39,600	36,900	---	---	41,700	40,800	41,000	40,000	38,700	---	40,100	31,400
11	39,000	36,600	40,400	38,100	41,900	41,200	40,900	40,000	37,500	---	---	---
12	39,600	36,800	40,500	39,500	42,400	41,000	---	---	38,100	---	37,200	---
13	39,400	36,500	40,700	40,000	42,000	40,700	---	38,500	38,800	---	38,600	---
14	39,100	37,500	41,000	39,400	---	---	40,900	---	39,100	---	39,000	---
15	39,200	37,700	41,100	39,700	41,700	---	41,800	40,900	39,100	36,800	39,200	---
16	38,700	37,800	41,700	40,900	42,400	39,800	42,000	---	39,100	---	39,500	---
17	39,100	37,800	41,500	38,600	42,400	40,400	42,000	33,900	39,500	---	39,200	---
18	39,500	38,000	41,500	39,000	41,900	38,500	41,400	---	39,700	---	40,000	---
19	40,600	37,100	41,400	---	42,200	---	40,200	---	40,000	---	40,000	---
20	40,600	---	42,100	---	42,300	---	41,100	---	39,400	---	40,700	---
21	40,600	---	42,000	---	42,800	---	41,100	16,700	39,800	---	40,600	---
22	---	---	42,200	---	42,800	---	40,000	---	39,700	---	41,100	---
23	41,400	38,500	42,300	---	42,700	---	37,500	---	39,600	---	41,100	---
24	41,500	---	42,500	---	42,500	40,900	40,700	---	38,800	---	41,300	---
25	41,200	40,700	42,300	41,100	42,500	---	41,500	22,900	39,700	---	41,100	---
26	41,500	40,700	42,600	---	42,800	---	38,400	26,500	39,500	---	41,300	---
27	41,400	39,900	42,400	40,900	42,400	---	36,900	---	39,400	36,700	41,200	---
28	41,400	---	41,600	40,900	---	---	38,600	---	39,100	---	40,400	18,600
29	41,200	---	42,000	41,200	41,700	---	37,400	---	---	---	37,000	17,300
30	41,000	40,100	42,100	41,400	41,200	40,300	38,000	---	---	---	37,500	---
31	41,100	---	---	---	42,200	40,400	39,400	---	---	---	36,900	11,700
Month	---	---	---	---	---	---	---	---	40,000	---	---	---

02301805 PALM RIVER AT MOUTH AT TAMPA, FL.—Continued

TOP
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
	April		May		June		July		August		September	
1	21,200	10,500	36,600	34,900	40,700	31,400	40,100	31,400	39,100	33,400	33,700	---
2	27,900	---	36,800	---	40,800	39,300	37,800	35,600	39,500	31,800	---	---
3	33,000	---	38,100	---	41,100	40,000	40,400	38,200	39,100	33,600	35,500	34,000
4	35,300	---	36,800	35,300	41,500	40,700	40,500	37,200	39,500	28,500	35,800	34,000
5	33,400	---	38,000	---	41,600	41,000	39,800	34,600	36,600	23,700	36,000	34,500
6	---	---	38,500	---	41,900	41,100	39,700	37,500	38,300	---	35,900	25,800
7	33,300	30,700	37,100	33,200	41,900	41,100	41,300	34,400	38,300	26,700	33,400	20,100
8	34,400	29,900	38,200	36,600	42,000	41,100	41,300	7,470	38,400	25,500	30,500	22,200
9	34,100	28,600	38,600	37,200	42,300	41,700	23,800	6,220	35,200	---	33,000	21,900
10	34,700	31,600	37,900	36,000	42,600	41,700	21,400	---	22,100	---	33,100	25,900
11	35,400	32,800	39,500	---	42,600	41,300	28,200	16,200	27,100	12,300	33,500	27,600
12	36,200	---	39,100	37,100	42,700	---	30,000	---	31,000	12,700	33,100	---
13	35,200	31,600	39,600	38,300	42,900	---	28,100	---	27,200	---	34,500	---
14	34,700	32,500	39,900	37,400	43,700	---	31,100	---	30,300	18,800	35,000	---
15	35,300	33,600	39,300	31,400	43,800	---	30,700	23,900	32,200	24,100	36,200	---
16	36,200	---	37,200	29,400	42,000	29,000	31,700	24,300	32,300	24,900	36,600	---
17	36,100	33,500	37,800	31,700	42,900	38,500	32,400	26,900	33,600	14,800	36,300	---
18	35,900	---	38,100	34,000	43,000	---	34,800	32,600	32,700	21,000	36,000	---
19	36,600	---	38,500	34,200	43,400	---	36,800	31,300	32,200	24,200	36,200	34,500
20	35,300	33,800	38,400	34,800	43,600	---	36,800	34,100	33,300	14,600	36,400	29,100
21	35,900	34,800	38,400	35,500	43,000	41,600	37,500	32,700	32,600	20,400	34,800	---
22	36,800	---	38,000	36,500	42,900	41,200	37,400	33,500	31,200	---	35,400	5,180
23	36,700	---	38,000	36,700	42,800	40,700	36,800	32,300	33,400	22,600	30,900	---
24	36,400	35,400	38,900	37,000	42,500	32,500	36,500	30,700	32,600	---	33,400	---
25	36,500	15,300	39,200	38,500	41,800	17,900	36,800	---	35,900	31,300	31,600	---
26	34,900	15,100	39,500	38,400	39,900	---	38,300	---	36,800	---	32,400	22,800
27	35,300	32,800	40,100	38,700	40,800	32,900	38,400	---	37,100	34,900	34,000	16,700
28	35,100	32,100	39,800	38,200	40,800	34,300	37,600	33,500	36,600	30,000	33,600	---
29	35,000	23,700	39,600	38,700	40,900	33,100	38,700	---	35,500	12,800	34,200	---
30	35,700	34,200	40,300	39,400	40,200	---	39,600	35,000	32,700	---	34,400	---
31	---	---	40,700	---	---	---	39,100	33,200	32,900	---	---	---
Month	---	---	40,700	---	43,800	---	41,300	---	39,500	---	---	---

02301805 PALM RIVER AT MOUTH AT TAMPA, FL.—Continued

BOTTOM
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
	October		November		December		January		February		March	
1	39,200	37,100	41,200	40,000	42,800	41,800	43,200	42,300	40,800	35,500	37,200	34,400
2	39,100	36,800	41,300	39,600	42,600	41,900	43,200	42,000	39,900	35,900	38,100	31,900
3	39,200	37,000	41,300	39,500	42,900	41,400	43,300	40,000	39,900	34,000	39,800	34,800
4	39,400	37,300	40,700	36,700	43,300	41,800	43,300	39,400	39,900	37,000	40,100	37,100
5	39,300	38,600	40,100	34,600	43,300	40,900	43,300	40,300	39,800	37,000	40,000	38,900
6	39,900	38,700	39,700	37,800	42,500	41,200	43,200	37,900	39,700	32,800	40,200	37,600
7	39,900	38,200	39,700	37,400	43,100	41,600	42,400	35,200	39,000	35,600	39,900	37,700
8	39,900	38,700	40,600	37,800	43,100	41,200	42,600	38,000	37,900	32,400	40,100	39,000
9	40,200	38,000	41,000	36,200	43,000	41,200	42,200	36,900	37,700	34,100	40,600	39,400
10	40,200	36,900	41,000	37,300	42,500	41,600	42,200	40,500	38,100	35,700	40,200	33,800
11	40,200	36,800	41,800	38,100	42,800	41,700	42,300	40,800	38,100	36,000	39,300	29,000
12	40,000	37,200	40,700	38,600	43,300	41,800	41,100	38,900	38,300	33,600	39,400	35,400
13	40,000	36,900	41,200	40,300	42,500	41,100	---	39,300	38,200	---	39,100	35,400
14	39,800	37,900	42,200	39,100	42,300	39,000	41,700	39,900	39,200	34,700	39,200	35,800
15	39,600	37,900	42,400	40,400	41,400	39,800	42,700	41,600	39,300	36,900	39,600	36,300
16	39,200	38,200	42,600	41,400	43,100	40,000	43,500	40,400	39,400	36,900	40,200	37,100
17	39,500	38,100	42,300	39,200	43,000	40,900	43,400	36,900	39,500	36,900	41,100	36,800
18	40,400	38,600	42,200	39,600	43,100	39,500	42,800	36,400	39,900	37,500	41,100	36,700
19	41,400	38,700	42,000	39,700	42,800	37,500	43,100	29,100	39,900	37,600	41,200	38,800
20	41,400	40,000	42,700	40,400	43,500	37,400	42,900	33,600	39,600	36,000	41,200	39,600
21	41,900	39,500	42,700	39,900	43,500	38,000	42,800	25,900	39,400	36,400	40,700	39,700
22	42,000	38,700	42,800	40,300	43,300	39,000	42,400	29,500	38,400	35,700	41,200	39,100
23	41,900	39,400	43,200	40,100	43,100	40,000	40,300	26,200	38,500	36,000	41,300	39,200
24	41,900	40,600	43,000	40,900	43,000	41,100	41,400	35,300	38,200	36,600	41,600	40,300
25	41,900	41,200	43,000	41,600	43,300	41,500	42,000	33,800	38,700	36,600	41,500	40,500
26	41,900	41,100	43,000	41,100	43,100	41,700	40,000	24,400	38,400	35,700	41,600	40,500
27	41,800	40,200	42,700	41,100	42,800	42,000	39,000	17,900	38,000	36,000	41,700	40,400
28	41,600	39,400	41,900	41,100	42,500	38,300	39,200	25,800	37,300	35,000	41,000	27,900
29	41,500	40,200	42,700	41,400	42,600	39,800	40,300	26,500	---	---	40,100	25,600
30	41,000	40,100	42,800	42,000	43,100	40,800	40,400	28,400	---	---	39,600	33,600
31	41,200	39,800	---	---	43,200	41,400	40,100	33,400	---	---	37,800	15,600
Month	42,000	36,800	43,200	34,600	43,500	37,400	---	17,900	40,800	---	41,700	15,600

02301805 PALM RIVER AT MOUTH AT TAMPA, FL.—Continued

BOTTOM
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
	April		May		June		July		August		September	
1	25,800	11,800	36,300	35,100	41,300	36,500	41,100	33,200	39,800	33,800	36,200	29,500
2	34,400	16,600	37,000	35,200	41,600	39,500	40,500	35,800	39,600	34,300	---	---
3	34,400	20,200	37,800	34,800	41,300	40,300	40,600	38,700	39,500	33,900	35,700	34,900
4	35,200	30,500	38,600	35,700	42,100	41,000	41,100	36,700	39,800	33,400	35,900	34,400
5	34,100	25,400	38,500	36,300	42,500	41,200	42,000	34,800	39,800	31,100	36,200	34,800
6	33,500	21,100	39,100	34,100	42,700	41,600	41,300	35,500	40,000	28,200	36,200	31,400
7	34,600	31,100	39,600	35,000	42,800	41,700	41,700	38,700	39,200	32,500	34,900	25,100
8	35,300	30,900	39,400	36,700	42,700	41,900	42,400	8,530	38,800	29,800	34,000	24,400
9	35,800	30,100	39,400	37,500	43,100	42,500	33,300	7,190	37,000	10,300	34,500	26,800
10	36,500	31,700	40,100	36,500	43,300	42,200	25,800	9,080	34,500	10,400	35,000	26,800
11	36,600	32,900	39,700	36,300	43,300	41,600	34,100	17,300	32,400	14,200	34,800	28,500
12	36,600	33,800	40,100	37,200	43,500	41,800	33,800	18,900	35,800	18,300	35,000	24,900
13	35,500	31,900	40,000	38,400	43,500	42,000	30,800	21,300	37,000	20,400	35,700	28,900
14	35,300	32,600	40,200	37,600	43,500	42,000	32,400	23,100	36,300	25,200	36,100	31,400
15	36,000	33,800	39,800	31,200	43,600	37,100	32,800	23,900	33,300	24,700	36,200	34,000
16	36,400	34,500	39,800	29,600	42,900	34,400	33,900	24,200	35,400	26,500	36,400	33,500
17	36,400	34,000	39,600	32,000	43,000	39,400	33,600	26,800	35,600	23,100	36,200	33,700
18	36,100	34,100	38,700	34,000	42,800	40,400	35,600	31,600	35,600	28,100	35,500	34,900
19	36,200	33,900	39,800	35,000	43,000	40,400	37,200	33,800	36,700	29,000	36,000	34,800
20	36,700	34,200	39,900	35,200	43,200	41,100	37,900	34,400	37,300	25,900	36,100	32,900
21	36,600	35,100	40,000	36,100	42,900	41,300	37,700	33,700	35,800	29,000	36,500	31,700
22	36,700	34,200	39,200	37,100	42,900	41,400	38,200	34,200	36,200	27,200	36,800	10,700
23	36,900	35,300	39,700	37,000	42,900	40,900	38,000	31,500	36,800	25,200	35,700	24,900
24	36,800	34,700	40,000	37,200	42,700	35,200	38,400	34,100	37,600	27,800	35,300	25,300
25	37,000	33,000	40,200	38,400	42,300	24,600	38,700	31,100	37,400	33,000	35,200	25,200
26	36,900	33,000	40,400	39,000	40,600	30,300	38,400	32,700	38,300	33,700	35,100	25,900
27	36,100	34,400	40,600	39,500	41,600	33,300	38,800	34,900	38,300	35,900	34,700	26,600
28	36,100	33,400	40,500	38,500	41,500	35,000	38,300	33,700	37,700	32,100	34,700	24,800
29	35,700	30,500	40,300	39,200	41,600	36,000	39,100	34,800	37,300	26,700	35,700	26,200
30	35,800	34,800	40,400	39,700	41,500	29,000	39,800	35,500	35,200	24,000	35,700	27,700
31	---	---	41,000	39,900	---	---	40,000	35,800	36,200	22,700	---	---
Month	37,000	11,800	41,000	29,600	43,600	24,600	42,400	7,190	40,000	10,300	---	---

02301805 PALM RIVER AT MOUTH AT TAMPA, FL.—Continued

TOP
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
	October		November		December		January		February		March	
1	---	28.2	---	25.5	23.2	20.5	16.5	---	20.8	---	24.4	22.6
2	---	27.8	26.4	25.4	20.5	18.3	17.3	14.9	20.7	19.0	23.8	---
3	29.2	27.1	27.0	24.6	19.0	---	18.4	---	21.0	---	22.9	---
4	28.5	26.5	25.9	24.1	18.9	---	16.6	---	21.8	---	22.5	---
5	27.5	25.3	24.8	21.3	19.4	17.7	18.2	---	21.1	18.7	22.6	20.9
6	26.5	25.0	22.2	19.5	17.8	15.8	18.0	15.8	21.0	17.6	23.1	21.3
7	26.3	24.5	---	---	---	14.8	18.4	---	20.3	18.4	23.1	---
8	26.4	24.6	22.6	19.8	16.5	14.6	18.0	15.8	19.8	---	22.4	20.1
9	27.0	24.7	22.4	19.2	16.8	14.8	17.0	14.9	19.1	---	22.8	20.6
10	28.6	24.8	22.7	19.2	16.6	14.1	16.6	15.4	18.8	17.8	22.0	---
11	28.8	25.6	22.3	19.5	15.5	14.2	17.9	15.9	---	15.7	21.1	---
12	29.3	25.5	21.7	19.6	15.2	13.6	---	---	---	---	22.4	---
13	29.0	26.1	22.5	19.3	14.3	12.5	---	---	18.6	---	23.1	18.4
14	27.9	26.1	22.3	19.0	---	---	15.3	---	18.5	---	22.5	19.5
15	---	24.4	21.8	19.5	13.2	---	16.1	---	20.0	---	23.8	---
16	---	24.2	22.4	20.5	13.6	---	16.6	---	20.2	---	24.5	---
17	26.6	24.0	24.3	20.6	15.6	---	15.9	14.5	21.0	---	25.1	21.5
18	25.9	23.7	22.7	20.6	15.9	---	18.0	14.9	21.7	---	26.1	---
19	26.6	23.4	21.7	---	15.4	13.4	20.2	16.7	---	---	25.4	---
20	26.9	24.2	21.5	---	14.4	---	19.5	---	21.3	---	24.5	---
21	27.1	24.8	21.8	---	15.1	---	19.9	17.6	---	19.1	24.5	21.8
22	26.7	23.9	22.5	---	16.8	---	17.8	---	---	---	25.1	21.9
23	26.1	---	23.0	---	16.8	14.1	17.1	---	24.0	21.3	24.7	22.8
24	26.5	24.3	22.8	20.3	15.5	---	16.4	13.6	23.1	21.0	25.2	22.9
25	27.5	25.3	23.2	21.0	16.1	13.4	17.5	---	23.8	21.3	25.6	23.2
26	27.8	25.8	23.7	21.8	15.7	---	18.5	---	24.2	22.2	25.8	23.5
27	28.6	26.5	---	21.8	---	---	18.1	---	24.9	20.9	25.8	23.8
28	30.9	26.8	22.5	20.6	---	9.8	18.2	---	24.8	22.5	24.8	21.3
29	---	26.5	23.2	21.3	14.0	10.5	18.1	---	---	---	26.3	20.9
30	---	25.4	24.1	21.9	14.6	12.7	19.9	---	---	---	26.2	---
31	---	25.3	---	---	16.3	---	19.8	---	---	---	25.1	21.7
Month	---	---	---	---	---	---	---	---	---	---	26.3	---

02301805 PALM RIVER AT MOUTH AT TAMPA, FL.—Continued

TOP
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
	April		May		June		July		August		September	
1	25.5	21.0	29.3	26.1	29.1	27.0	30.9	27.6	32.6	29.1	32.1	---
2	26.7	20.7	28.9	26.2	29.2	27.0	32.0	28.6	32.7	30.1	31.7	---
3	27.4	---	29.7	26.4	29.3	27.2	32.1	29.1	32.5	30.1	31.5	29.4
4	26.8	23.4	29.5	26.6	29.8	27.3	32.3	29.3	33.7	30.5	31.0	29.7
5	25.5	---	27.9	---	30.3	27.8	32.9	28.6	---	30.7	31.2	29.5
6	25.3	18.2	27.2	25.7	30.6	27.9	32.3	29.4	---	30.5	30.4	28.8
7	26.4	22.8	29.1	24.9	29.8	28.1	31.4	28.9	---	30.9	30.0	27.3
8	28.3	23.2	29.6	25.3	30.1	27.8	30.0	25.7	33.3	29.9	30.7	26.9
9	29.1	24.0	30.2	26.0	30.4	27.7	30.4	26.6	31.9	---	30.7	27.2
10	29.5	26.0	31.1	26.9	30.4	28.0	33.2	28.8	29.8	27.8	30.7	27.4
11	28.9	26.1	30.4	26.7	31.1	27.5	32.6	29.0	32.2	27.2	32.4	28.3
12	28.1	26.4	---	27.7	---	28.6	32.1	29.2	33.9	29.8	33.0	28.7
13	28.9	25.3	30.6	27.8	---	29.3	32.5	29.8	---	30.1	31.8	26.9
14	28.4	---	29.1	26.8	---	29.3	32.0	30.1	33.6	30.0	31.2	25.8
15	27.9	25.6	28.3	26.3	31.6	---	32.0	29.8	32.8	30.8	31.0	28.0
16	28.1	25.5	27.7	25.3	---	26.1	31.4	29.2	32.8	30.9	32.1	28.1
17	28.4	---	27.5	25.1	33.2	28.3	31.8	28.7	33.9	29.2	31.9	29.3
18	28.7	25.0	27.1	25.0	32.8	30.1	31.8	28.8	34.4	29.6	---	29.1
19	28.8	25.7	29.3	25.2	32.8	30.4	32.1	29.0	33.5	30.3	31.4	28.5
20	29.7	26.5	29.8	25.6	33.9	30.7	33.0	29.7	34.4	28.5	32.4	28.8
21	29.1	26.2	30.0	26.7	34.2	31.2	33.7	30.0	35.5	29.7	32.3	29.4
22	29.3	25.9	31.1	26.8	34.4	31.3	34.0	31.2	34.4	31.6	31.2	25.8
23	28.9	26.1	31.1	27.5	34.6	31.2	---	30.5	34.9	31.0	32.4	27.9
24	28.6	26.3	30.6	27.5	33.8	29.8	---	29.4	---	29.9	32.8	28.8
25	28.8	24.7	30.2	27.7	32.9	29.4	---	31.8	32.0	29.6	31.4	29.0
26	30.3	23.9	31.7	28.3	31.5	29.0	32.9	31.1	31.9	29.1	31.2	27.6
27	30.1	27.5	31.4	28.7	31.7	29.1	31.7	30.1	31.3	29.5	31.1	27.3
28	30.5	27.8	---	29.1	31.3	28.9	32.3	29.7	30.9	29.3	31.7	---
29	30.9	26.1	30.8	28.6	31.2	28.8	32.8	29.9	30.6	28.3	32.2	---
30	30.0	26.5	30.1	28.0	30.2	---	33.3	30.3	31.2	27.4	31.6	28.6
31	---	---	30.0	27.6	---	---	32.5	30.5	31.4	28.0	---	---
Month	30.9	---	---	---	---	---	---	25.7	---	---	---	---

02301805 PALM RIVER AT MOUTH AT TAMPA, FL.—Continued

BOTTOM
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
	October		November		December		January		February		March	
1	30.6	28.2	28.0	25.6	23.2	20.5	16.5	13.7	20.3	17.0	24.4	22.6
2	30.2	27.8	26.5	25.4	20.6	---	17.3	15.1	20.7	18.7	23.7	21.4
3	29.2	27.2	26.8	24.6	18.9	16.9	17.8	15.5	20.9	18.7	22.7	21.0
4	28.5	26.6	26.0	24.2	18.9	17.6	16.5	14.7	21.7	19.1	22.5	20.3
5	27.6	25.2	24.9	21.5	19.4	17.7	18.2	15.0	21.0	19.7	22.5	21.0
6	26.4	24.9	22.2	19.6	18.4	15.8	17.7	16.3	20.8	18.3	23.0	21.3
7	26.3	24.6	22.1	---	16.5	14.9	18.3	14.1	20.3	18.8	23.1	20.3
8	26.4	24.6	22.7	19.8	16.4	14.6	18.0	15.8	19.8	15.9	22.3	20.0
9	26.9	24.8	21.9	19.5	16.7	14.8	16.9	15.0	19.0	15.4	22.8	20.6
10	27.9	25.2	22.3	19.5	16.3	14.2	16.6	15.4	18.8	17.7	22.0	20.4
11	28.1	25.6	22.0	19.5	15.4	14.2	17.7	15.9	18.0	15.9	21.3	16.0
12	29.3	25.5	21.5	19.6	15.2	13.7	15.9	12.5	18.2	13.7	22.0	17.3
13	28.7	26.1	22.6	19.3	14.4	12.5	14.2	9.8	18.6	14.2	22.5	18.5
14	28.0	26.0	22.1	19.0	12.9	9.9	15.2	10.2	18.4	15.3	22.3	19.7
15	26.8	24.4	21.8	19.9	13.2	10.1	16.0	12.5	19.6	15.6	23.7	20.1
16	26.5	24.2	22.4	20.4	13.4	11.4	16.4	13.4	20.1	16.4	24.4	21.3
17	26.6	24.1	24.3	21.0	15.5	12.6	15.8	14.3	20.8	17.3	25.1	21.3
18	25.9	23.9	22.6	20.7	15.7	12.9	17.9	14.7	21.6	17.6	26.1	21.3
19	26.5	24.1	21.6	18.9	15.0	13.4	19.7	15.8	21.6	18.2	25.4	21.7
20	26.9	24.9	21.3	19.6	14.3	11.4	19.3	16.0	21.3	18.5	24.3	21.2
21	27.1	25.0	21.7	20.0	15.1	11.6	18.7	16.3	22.3	19.0	24.1	21.8
22	26.7	24.0	22.2	19.8	16.8	11.7	17.5	12.9	22.4	20.0	24.9	21.9
23	26.1	23.4	22.7	20.4	16.8	14.2	17.0	10.4	23.8	21.3	24.6	22.8
24	26.5	24.5	22.8	20.3	15.6	13.1	16.1	13.8	22.8	21.1	25.2	22.9
25	27.5	25.3	23.2	21.1	16.0	13.4	17.3	15.2	23.8	21.7	25.6	23.2
26	27.8	25.8	23.7	21.8	15.6	13.3	18.4	14.5	24.2	22.1	25.8	23.4
27	28.4	26.5	23.3	21.8	14.2	11.7	18.0	11.5	24.9	21.1	25.8	23.8
28	30.8	26.8	22.5	20.5	13.8	10.3	18.1	13.8	24.8	22.5	24.8	22.9
29	28.7	26.5	22.9	21.3	13.9	10.9	18.0	13.4	---	---	26.1	21.3
30	27.5	25.4	24.1	22.0	14.3	12.7	19.3	15.2	---	---	26.2	23.8
31	27.7	25.3	---	---	16.0	13.3	19.8	16.8	---	---	25.2	22.1
Month	30.8	23.4	28.0	---	23.2	---	19.8	9.8	24.9	13.7	26.2	16.0

02301805 PALM RIVER AT MOUTH AT TAMPA, FL.—Continued

BOTTOM
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
	April		May		June		July		August		September	
1	25.5	21.6	29.0	26.0	28.8	27.4	30.9	28.5	32.6	29.6	31.9	29.1
2	26.7	21.3	28.9	26.4	29.1	26.9	32.0	28.8	32.7	30.2	31.7	29.1
3	27.0	23.0	29.7	26.4	29.2	27.2	32.1	29.1	32.5	30.4	31.3	29.3
4	26.8	23.9	29.5	26.8	29.6	27.3	31.8	29.3	33.7	30.7	30.9	29.5
5	25.4	20.5	27.8	25.6	30.3	27.8	31.9	29.1	34.1	31.7	31.2	29.5
6	25.2	18.9	27.2	25.7	30.6	28.1	32.1	29.4	34.6	31.6	30.4	29.1
7	26.3	22.8	28.9	25.2	29.7	28.1	31.4	30.0	35.1	32.4	30.1	28.9
8	28.3	23.8	29.4	25.2	29.5	28.0	30.5	26.3	33.3	30.8	30.2	27.8
9	29.1	25.1	29.1	26.2	30.3	27.7	30.4	26.8	32.6	26.8	30.5	27.8
10	29.0	26.2	30.6	27.1	30.3	28.1	33.2	28.8	30.4	28.0	30.5	27.8
11	28.8	26.2	30.4	27.5	31.1	27.7	31.3	29.0	32.0	28.6	32.4	28.5
12	28.1	26.3	31.1	27.8	31.9	28.5	32.1	29.1	33.6	30.8	32.9	29.0
13	28.8	25.3	30.5	27.8	31.7	29.2	32.5	30.1	32.7	31.4	31.7	27.8
14	28.4	25.1	29.1	27.2	31.0	29.3	32.0	30.1	33.6	31.5	31.1	27.7
15	27.9	25.6	28.3	26.5	31.6	28.7	32.0	29.8	32.7	30.8	31.0	28.3
16	28.1	25.5	27.7	25.3	32.4	26.8	31.3	29.5	32.7	31.0	32.0	28.5
17	28.2	25.3	27.4	25.5	33.0	29.3	31.8	28.9	33.8	30.9	31.8	29.4
18	28.6	25.2	27.0	24.9	32.7	30.1	31.7	29.0	33.7	31.7	30.9	29.1
19	28.9	25.7	28.8	25.2	32.8	30.5	32.0	29.0	33.4	31.4	30.9	28.5
20	29.1	26.5	29.4	25.8	33.9	30.8	33.0	29.9	33.8	31.3	32.1	28.8
21	28.9	26.1	30.0	26.7	34.3	31.2	33.7	30.2	33.8	31.1	32.0	29.8
22	29.1	25.9	30.9	27.0	34.4	31.3	34.0	31.3	34.3	31.6	30.8	27.1
23	28.8	26.0	30.5	27.5	34.5	31.2	34.0	30.6	34.6	31.4	31.4	28.5
24	28.3	26.4	30.4	27.6	33.8	30.3	35.0	31.1	34.1	30.4	32.2	29.7
25	28.7	26.3	30.1	27.7	33.0	31.0	34.0	31.9	32.0	29.9	30.8	29.5
26	30.3	26.9	31.7	28.2	31.6	29.1	32.7	31.3	31.9	29.1	30.9	28.4
27	30.1	27.8	31.4	28.4	31.7	29.3	31.9	30.2	31.3	29.5	30.6	28.1
28	30.5	27.8	32.1	29.1	31.3	29.0	32.3	30.0	30.9	29.5	31.5	28.8
29	30.5	26.9	30.8	28.6	31.2	29.3	32.8	30.0	30.8	29.7	31.8	28.4
30	29.8	26.8	29.9	28.0	30.5	27.1	33.2	30.3	30.9	28.9	31.4	28.7
31	---	---	29.8	27.6	---	---	32.5	30.6	30.9	28.9	---	---
Month	30.5	18.9	32.1	24.9	34.5	26.8	35.0	26.3	35.1	26.8	32.9	27.1