

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02277110 ST. LUCIE ESTUARY AT A1A (STEELE PT), STUART, FL

LOCATION.--Lat 27°11'58", long 80°12'25", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, sec.2, T.38 S., R.41 E., Martin County, Hydrologic Unit 03090202, middle of Evans Crary Sr. Bridge footing, 2.7 mi west of Atlantic Ocean, 3.4 mi southeast of Stuart.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--

DISCHARGE: August 1997 to September 2000.

GAGE HEIGHT: August 1997 to current year.

SALINITY (TOP, BOTTOM): August 1997 to current year.

WATER TEMPERATURE (TOP, BOTTOM): August 1997 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and water-quality monitor with top and bottom sensors. Prior to October 1, 2000, an acoustic doppler velocity meter. Datum of gage is National Geodetic Vertical Datum of 1929 (NGVD) converted through VERTCON using the NAVD 88 survey levels from a benchmark provided by Florida Department of Environmental Protection (FDEP). Gage height data prior to water year 2003 are 0.07 ft lower than current datum. Operated by U.S. Geological Survey Project Section personnel prior to October 1, 2001.

REMARKS.--Gage height record rated poor due to obstructed stilling well intakes until March 4, when a new stilling well was installed. Maximum and minimum daily values - salinity (top) record rated excellent except the following periods: Jan. 14 to Feb. 9, Mar. 5-16, May 19 to June 4, 19-21, Aug. 25 to Sept. 23, which is rated good; June 5-14, 22, 23, which is rated fair; June 24 to July 13, which is rated poor. Maximum and minimum daily values - salinity (bottom) record rated excellent except the following periods: Jan. 14 to Feb. 9, maximum daily values only, May 21 to June 9, July 23 to Aug. 11, Aug. 26 to Sept. 23, which are rated good. Maximum and minimum daily values - temperatures (top and bottom) records are rated good. Elevation of the top salinity-temperature sensor ranged from -1.6 ft to -1.9 ft NGVD, bottom salinity-temperature sensor -6.8 ft NGVD. Data ratings for salinity (top) from Dec. 10 to Jan. 7, 11, 12, Jan. 25 to Feb. 12, has been revised to good in the 2003 water year.

EXTREMES FOR PERIOD OF RECORD.--

DISCHARGE: Maximum positive discharge, 48,900 ft³/s Aug. 31, 1997; minimum negative, 44,600 ft³/s July 24, 2000.

GAGE HEIGHT: Maximum gage height, 5.47 ft Sept. 25, 2004; minimum, -1.21 ft Apr. 28, 1998.

SALINITY (TOP): Maximum recorded, 37 ppt May 31, 2004; minimum recorded, 0.01 ppt Apr. 7, 1998.

SALINITY (BOTTOM): Maximum recorded, 38 ppt Mar. 22, 1999, Mar. 11, 31, 2002, but may have been higher during period of missing record; minimum, 0.0 ppt Mar. 20, 21, 26, Apr. 1, 1998.

WATER TEMPERATURE (TOP): Maximum recorded, 33.8°C Aug. 18, 1998, but may have been higher during period of missing record; minimum recorded, 12.0°C Jan. 25, 2003.

WATER TEMPERATURE (BOTTOM): Maximum recorded, 33.4°C Sept. 1, 1998, but may have been higher during period of missing record; minimum recorded, 12.4°C Jan. 25, 2003.

EXTREMES FOR CURRENT YEAR.--

GAGE HEIGHT: Maximum gage height, 5.47 ft Sept. 25; minimum, -1.03 ft Apr. 23

SALINITY (TOP): Maximum recorded, 37.0 ppt May 31; minimum recorded, 0.1 ppt Sept. 27-30.

SALINITY (BOTTOM): Maximum recorded, 37.6 ppt May. 31; minimum recorded, 0.1 ppt Sept. 27-30.

WATER TEMPERATURE (TOP): Maximum recorded, 32.5°C June 15, 29, 30, July 1, 15, Aug. 23; minimum recorded, 14.7°C Dec. 22.

WATER TEMPERATURE (BOTTOM): Maximum recorded, 32.1°C July 15; minimum recorded, 15.1°C Dec. 21.

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02277110 ST. LUCIE ESTUARY AT A1A (STEELE PT), STUART, FL-Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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02277110 ST. LUCIE ESTUARY AT A1A (STEELE PT), STUART, FL-Continued

TOP
SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

02277110 ST. LUCIE ESTUARY AT A1A (STEELE PT), STUART, FL-Continued

TOP
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02277110 ST. LUCIE ESTUARY AT A1A (STEELE PT), STUART, FL-Continued

**BOTTOM
SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004**

02277110 ST. LUCIE ESTUARY AT A1A (STEELE PT), STUART, FL-Continued

**BOTTOM
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004**