

were made at high tide near the time of slack water. The maximum intrusion of saltwater occurs shortly after high-slow water. Specific conductance was determined from the water surface to the channel bottom.

Eight water discharge measurements, each with a duration of approximately 12.5 hours or one tidal cycle, were made during the 1982-86 water years. The measurement of February 13, 1984 was not useable because of stage recorder malfunctions. The daily mean discharges and range of tidal stages experienced at Myrtlewood Golf Course (02110760) on days of useable discharge measurements are shown in table 3.

Table 3.--Daily mean discharges of the Atlantic Intracoastal Waterway and ranges of tide stages at Myrtlewood Golf Course (02110760) on days of discharge measurements of the Atlantic Intracoastal Waterway

Date of Measurement	Mean daily Atlantic Intracoastal Waterway (cubic feet per second)	Tide elevations at Myrtlewood Golf Course during measurements, above mean sea level (feet)	
		High	Low
October 16, 1981	423	2.2	-0.1
March 19, 1982	2,170	1.0	-0.4
June 28, 1983	896	2.0	0.1
May 7, 1985	439	2.1	0.1
October 16, 1985	482	3.4	1.3
March 20, 1986	1,300	2.1	0.4
September 18, 1986	612	3.1	1.4

Two boats were used to make each discharge measurement along a tagline strung across the channel at either the Briarcliffe or Myrtlewood gage. Depth, velocity, and time observations were taken at uniformly spaced stations along the tagline. After each traverse of the channel, both boat crews returned to their starting position, and continued traversing for approximately a tidal cycle, always measuring at the same stations. A station velocity was computed by averaging the 0.2- and 0.8- depth velocity observations for each station of the traverse. The station depth was obtained by sounding. A station width was obtained by subtracting the distance to the station to the left of the current station from the distance to the station to the right of the current station and dividing by two. The station discharge was then obtained by multiplying the station velocity by the station depth and width. Relations of station discharge to time were established for each station of the measurement section, from which station discharges were interpolated and summed for 5- or 15-minute time increments to produce a total discharge for each time increment.