



Water-Data Report 2009

01407770 SHARK RIVER AT BELMAR, NJ

SHARK RIVER BASIN

LOCATION.--Lat 40°10'52", long 74°01'49" referenced to North American Datum of 1983, Belmar Borough, Monmouth County, NJ, Hydrologic Unit 02030104, on concrete jetty in Belmar Municipal Marina next to floating fuel dock, 0.1 mi south of south end of Shark River Island, 0.3 mi southwest of bridge carrying State Route 35 over Shark River, and 1.2 mi southwest of Shark River Inlet.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Unpublished fragmentary gage-height record, August 1997 to June 2000. Continuous-record tide gage, July 2000 to January 2002, September 2004 to current year.

GAGE.--Tide level and tidal crest-stage gage. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929, add 1.20 ft. To determine approximate elevations to Mean Lower Low Water datum, add 2.19 ft (revised to Tidal Epoch 1983-2001).

REMARKS.--Missing gage-height record on Oct 19, Jan 16-17, and short portions of days. Summaries for months with short periods of missing gage-height record have been estimated with little or no loss of accuracy. Some periods cannot be estimated and are noted by dashed (---) lines. Satellite telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation recorded, 5.16 ft, Feb 12, 2006; minimum elevation, estimated at -5.6 ft, Mar 9, 2008.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.61 ft, Dec 12; minimum elevation, -4.88 ft, Dec 22.

Statistics of Tide Elevations, in feet
Water Year October 2008 to September 2009

[e, estimated]

| Month | Mean High Tide | Mean Water Level | Mean Low Tide |
|--------------------|----------------|------------------|---------------|
| October | 2.04 | -0.04 | -2.11 |
| November | 2.00 | -0.09 | -2.19 |
| December | 1.40 | -0.63 | -2.71 |
| CALENDAR YEAR 2008 | 1.94 | -0.15 | -2.29 |
| January | 1.55 | e-0.6 | e-2.8 |
| February | 1.64 | -0.49 | -2.64 |
| March | 1.89 | -0.24 | -2.35 |
| April | 1.96 | -0.18 | -2.31 |
| May | 1.96 | -0.18 | -2.30 |
| June | 2.55 | 0.41 | -1.74 |
| July | 2.35 | 0.24 | -1.87 |
| August | 2.17 | 0.08 | -2.01 |
| September | 2.44 | 0.33 | -1.79 |
| WATER YEAR 2009 | 2.00 | -0.10 | -2.22 |

01407770 SHARK RIVER AT BELMAR, NJ—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

| Day | High-high | Mean | Low-low | High-high | Mean | Low-low | High-high | Mean | Low-low | High-high | Mean | Low-low |
|------------|----------------|-------|---------|-----------------|-------|---------|-----------------|-------|---------|----------------|-------|---------|
| | October | | | November | | | December | | | January | | |
| 1 | 3.17 | 0.54 | -1.73 | 1.52 | -0.66 | -2.77 | 2.71 | 0.19 | -1.97 | 1.09 | -0.98 | -2.94 |
| 2 | 2.56 | 0.00 | -2.24 | 2.14 | -0.03 | -1.92 | 1.10 | -0.95 | -2.88 | 1.17 | --- | -2.99 |
| 3 | 1.98 | -0.46 | -2.56 | 1.66 | -0.26 | -2.12 | 1.20 | -0.88 | -2.75 | 0.76 | -1.30 | -3.09 |
| 4 | 1.77 | -0.50 | -2.22 | 1.37 | -0.42 | -2.00 | 0.87 | -0.99 | -2.91 | 0.44 | -1.28 | -3.03 |
| 5 | 1.40 | -0.47 | -2.09 | 1.82 | 0.29 | -1.21 | 1.13 | -0.74 | -2.30 | 1.54 | -0.60 | -2.58 |
| 6 | 1.63 | -0.16 | -1.44 | 2.80 | 0.82 | -1.38 | 1.28 | -0.30 | -2.12 | 1.71 | -0.45 | -2.33 |
| 7 | 1.40 | -0.20 | -1.61 | 2.06 | 0.34 | -1.57 | 1.78 | -0.67 | -3.86 | 2.97 | 0.59 | -2.34 |
| 8 | 1.56 | -0.19 | -1.76 | 2.10 | 0.34 | -1.74 | 0.45 | -1.39 | -3.35 | 1.32 | -1.59 | -4.74 |
| 9 | 1.36 | -0.29 | -2.19 | 2.07 | 0.00 | -2.53 | 1.52 | -0.82 | -3.20 | 1.43 | -1.55 | -4.34 |
| 10 | 1.55 | -0.32 | -2.40 | 2.40 | -0.26 | -3.14 | 2.12 | -0.70 | -3.36 | 2.51 | -0.54 | -4.11 |
| 11 | 2.04 | -0.13 | -1.97 | 2.33 | -0.37 | -2.91 | 2.76 | 0.15 | -2.65 | 3.64 | 0.03 | -3.22 |
| 12 | 2.23 | -0.12 | -2.49 | 2.84 | -0.24 | -3.10 | 4.61 | 0.40 | -2.72 | 3.37 | -0.06 | -2.97 |
| 13 | 2.43 | -0.18 | -2.81 | 3.35 | 0.18 | -3.06 | 2.68 | -0.72 | -3.72 | 3.18 | -0.13 | -3.12 |
| 14 | 3.11 | 0.24 | -2.43 | 3.72 | 0.27 | -2.63 | 3.04 | -0.60 | -3.53 | 2.24 | -0.69 | -3.59 |
| 15 | 3.21 | 0.11 | -2.75 | 4.04 | 0.45 | -2.48 | 2.62 | -0.86 | -3.61 | 2.05 | -0.55 | -2.85 |
| 16 | 3.59 | 0.24 | -2.64 | 2.92 | -0.60 | -3.76 | 1.68 | -1.11 | -3.86 | --- | --- | --- |
| 17 | 3.61 | 0.26 | -2.50 | 2.03 | -0.93 | -3.67 | 2.59 | --- | --- | --- | --- | --- |
| 18 | --- | --- | -2.00 | 2.80 | 0.00 | -2.16 | --- | --- | --- | 1.56 | -0.41 | -1.98 |
| 19 | --- | --- | --- | 2.77 | 0.42 | -1.71 | 2.10 | --- | -2.12 | 2.00 | 0.18 | -1.49 |
| 20 | 3.79 | --- | -1.04 | 2.48 | 0.12 | -2.45 | 3.38 | 0.89 | -1.14 | 1.96 | -0.02 | -1.55 |
| 21 | 2.91 | 0.44 | -2.22 | 1.95 | -0.02 | -2.44 | 3.24 | 0.96 | -2.44 | 2.28 | --- | -2.14 |
| 22 | 2.21 | -0.02 | -1.96 | 1.62 | -0.82 | -3.25 | -0.14 | -2.46 | -4.88 | 1.29 | -0.86 | -2.89 |
| 23 | 2.78 | 0.86 | -1.66 | 0.86 | -1.19 | -3.26 | 0.10 | --- | --- | 1.20 | -0.63 | -2.59 |
| 24 | 2.25 | 0.21 | -2.27 | 1.92 | -0.45 | -2.60 | 1.28 | -0.87 | -2.99 | 1.78 | -0.57 | -2.89 |
| 25 | 3.11 | 0.67 | -1.52 | 2.82 | 0.11 | -2.05 | 0.27 | -1.68 | -3.94 | 1.92 | -0.62 | -2.83 |
| 26 | 2.98 | 0.33 | -1.89 | 2.42 | -0.06 | -2.30 | 1.64 | -0.71 | -3.29 | 1.69 | -0.79 | -3.18 |
| 27 | 3.00 | 0.38 | -2.22 | 2.42 | -0.06 | -2.30 | 2.14 | -0.40 | -2.62 | 2.14 | -0.57 | -3.03 |
| 28 | 3.98 | 0.19 | -2.18 | 2.50 | -0.14 | -2.66 | 2.08 | -0.68 | -3.00 | 2.88 | --- | -2.56 |
| 29 | 1.16 | -1.39 | -3.80 | 2.22 | -0.26 | -2.30 | 1.62 | -0.86 | -3.02 | 1.46 | -1.02 | -3.32 |
| 30 | 2.05 | -0.60 | -2.80 | 2.71 | 0.66 | -1.86 | 1.09 | -1.00 | -3.17 | 1.75 | -0.63 | -2.97 |
| 31 | 2.02 | -0.55 | -2.61 | --- | --- | --- | 2.97 | -0.09 | -2.26 | 1.37 | -0.79 | -3.19 |
| Max | --- | --- | -1.04 | 4.04 | 0.82 | -1.21 | 4.61 | 0.96 | -1.14 | 3.64 | 0.59 | -1.49 |
| Min | --- | --- | -3.80 | 0.86 | -1.19 | -3.76 | -0.14 | -2.46 | -4.88 | 0.44 | -1.59 | -4.74 |

01407770 SHARK RIVER AT BELMAR, NJ—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

| Day | High-high | Mean | Low-low | High-high | Mean | Low-low | High-high | Mean | Low-low | High-high | Mean | Low-low |
|------------|-----------------|-------|---------|--------------|-------|---------|--------------|-------|---------|------------|-------|---------|
| | February | | | March | | | April | | | May | | |
| 1 | 0.96 | -0.78 | -2.87 | 3.31 | 0.55 | -1.72 | 2.71 | 0.08 | -1.91 | 2.25 | -0.43 | -2.48 |
| 2 | 1.88 | -0.24 | -2.01 | 2.71 | 0.67 | -1.75 | 2.40 | -0.18 | -2.22 | 1.73 | -0.52 | -2.88 |
| 3 | 2.53 | 0.76 | -0.90 | 0.91 | -0.74 | -2.76 | 2.50 | 0.54 | -1.36 | 1.83 | -0.17 | -2.44 |
| 4 | 3.20 | 0.34 | -2.28 | 1.53 | -0.97 | -2.70 | 2.02 | -0.39 | -2.75 | 2.24 | -0.01 | -2.42 |
| 5 | 1.95 | -0.55 | -2.77 | 1.36 | -0.99 | -2.72 | 1.60 | -0.51 | -3.07 | 2.66 | 0.24 | -2.25 |
| 6 | 2.04 | --- | -2.92 | 1.38 | -0.89 | -2.95 | 2.89 | 0.44 | -2.52 | 2.67 | 0.08 | -2.44 |
| 7 | 2.37 | -0.44 | -3.03 | 1.68 | -0.71 | -3.04 | 2.53 | 0.04 | -2.74 | 2.62 | -0.12 | -2.59 |
| 8 | 2.62 | -0.57 | -3.51 | 2.16 | -0.29 | -3.09 | 2.48 | -0.45 | -3.22 | 2.97 | -0.03 | -2.64 |
| 9 | 2.37 | -0.76 | -3.87 | 3.01 | 0.27 | -2.70 | 2.71 | -0.29 | -2.99 | 2.97 | 0.15 | -2.42 |
| 10 | 3.03 | -0.24 | -3.35 | 3.10 | 0.11 | -2.90 | 2.80 | -0.34 | -3.02 | 2.21 | -0.41 | -2.62 |
| 11 | 3.10 | 0.04 | -2.86 | 2.73 | -0.18 | -2.99 | 3.10 | 0.07 | -2.60 | 2.23 | -0.42 | -2.74 |
| 12 | 2.56 | -0.67 | -3.85 | 1.86 | -1.02 | -3.71 | 2.04 | -0.30 | -2.62 | 1.96 | -0.20 | -2.23 |
| 13 | 2.15 | -1.07 | -3.96 | 2.16 | -0.79 | -3.41 | 1.47 | -0.74 | -2.66 | 1.69 | -0.43 | -2.42 |
| 14 | 1.73 | -0.46 | -2.64 | 2.05 | -0.63 | -2.98 | 2.43 | -0.33 | -2.71 | 0.85 | -0.49 | -2.34 |
| 15 | 1.01 | -0.51 | -2.78 | 1.18 | -0.61 | -2.63 | 2.09 | 0.69 | -1.16 | 1.46 | -0.61 | -2.51 |
| 16 | 2.23 | -0.05 | -1.62 | 1.74 | -0.35 | -2.37 | 2.17 | 0.08 | -1.60 | 1.26 | -0.38 | -2.21 |
| 17 | 1.88 | -0.01 | -1.46 | 2.32 | -0.03 | -1.52 | 1.60 | -0.37 | -1.75 | 1.53 | -0.24 | -2.04 |
| 18 | 1.81 | 0.17 | -1.26 | 1.63 | -0.40 | -1.73 | 0.96 | -0.51 | -2.11 | 1.52 | -0.17 | -1.94 |
| 19 | 2.41 | 0.25 | -2.80 | 1.15 | -0.49 | -1.83 | 1.72 | 0.11 | -1.55 | 1.39 | -0.41 | -2.42 |
| 20 | 0.92 | -1.27 | -3.23 | 1.24 | -0.12 | -1.56 | 2.66 | 0.72 | -1.30 | 1.51 | -0.66 | -2.89 |
| 21 | 0.22 | -1.42 | -3.35 | 1.68 | -0.01 | -1.71 | 2.52 | 0.61 | -1.62 | 1.79 | -0.67 | -2.99 |
| 22 | 1.55 | -0.46 | -2.28 | 1.28 | -0.50 | -2.42 | 2.58 | 0.20 | -2.02 | 2.20 | -0.69 | -3.18 |
| 23 | 0.65 | -1.67 | -4.32 | 1.67 | -0.36 | -2.40 | 1.86 | -0.58 | -3.24 | 3.12 | -0.31 | -3.15 |
| 24 | 0.95 | -1.40 | -3.86 | 2.16 | -0.04 | -2.52 | 2.38 | -0.67 | -3.26 | 3.09 | -0.12 | -2.74 |
| 25 | 1.82 | -0.61 | -3.11 | 3.07 | 0.54 | -1.89 | 2.78 | -0.47 | -3.14 | 3.26 | -0.22 | -3.02 |
| 26 | 1.84 | -0.66 | -3.19 | 3.04 | 0.46 | -2.22 | 2.75 | -0.53 | -3.20 | 3.58 | 0.25 | -2.66 |
| 27 | 2.06 | -0.42 | -2.90 | 3.03 | 0.16 | -2.42 | 2.84 | -0.46 | -3.13 | 3.27 | 0.10 | -2.48 |
| 28 | 2.26 | -0.61 | -3.09 | 3.23 | 0.24 | -2.37 | 2.14 | -0.69 | -3.06 | 2.57 | 0.30 | -2.44 |
| 29 | --- | --- | --- | 3.28 | 0.43 | -2.13 | 1.43 | -0.70 | -3.17 | 3.50 | 0.53 | -1.88 |
| 30 | --- | --- | --- | 2.17 | -0.38 | -2.91 | 2.37 | -0.43 | -2.68 | 2.92 | 0.30 | -2.04 |
| 31 | --- | --- | --- | 1.45 | -0.41 | -2.89 | --- | --- | --- | 2.43 | 0.22 | -2.08 |
| Max | 3.20 | 0.76 | -0.90 | 3.31 | 0.67 | -1.52 | 3.10 | 0.72 | -1.16 | 3.58 | 0.53 | -1.88 |
| Min | 0.22 | -1.67 | -4.32 | 0.91 | -1.02 | -3.71 | 0.96 | -0.74 | -3.26 | 0.85 | -0.69 | -3.18 |

01407770 SHARK RIVER AT BELMAR, NJ—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

| Day | High-high | Mean | Low-low | High-high | Mean | Low-low | High-high | Mean | Low-low | High-high | Mean | Low-low |
|------------|-------------|-------|---------|-------------|-------|---------|---------------|-------|---------|------------------|-------|---------|
| | June | | | July | | | August | | | September | | |
| 1 | 2.22 | -0.10 | -2.46 | 3.10 | 0.75 | -1.29 | 2.10 | -0.10 | -1.79 | 2.39 | 0.30 | -1.74 |
| 2 | 2.14 | -0.19 | -2.60 | 3.08 | 0.81 | -1.28 | 2.34 | 0.16 | -1.84 | 2.42 | 0.19 | -1.82 |
| 3 | 2.56 | 0.04 | -2.25 | 2.87 | 0.59 | -1.34 | 2.49 | 0.11 | -1.90 | 2.79 | 0.31 | -1.97 |
| 4 | 2.74 | 0.26 | -1.96 | 2.61 | 0.33 | -1.54 | 2.45 | 0.02 | -2.02 | 2.69 | 0.34 | -1.97 |
| 5 | 3.41 | 0.54 | -2.03 | 2.78 | 0.29 | -1.87 | 2.34 | 0.02 | -2.07 | 2.40 | 0.14 | -2.22 |
| 6 | 3.00 | 0.45 | -1.77 | 2.88 | 0.28 | -1.95 | 2.47 | 0.06 | -2.30 | 2.69 | 0.33 | -2.43 |
| 7 | 2.72 | 0.12 | -2.09 | 2.76 | 0.38 | -1.88 | 2.27 | -0.05 | -2.32 | 2.71 | 0.23 | -2.08 |
| 8 | 2.84 | 0.12 | -2.25 | 2.74 | 0.40 | -1.83 | 2.16 | -0.06 | -2.37 | 2.65 | 0.10 | -2.25 |
| 9 | 2.78 | 0.35 | -1.88 | 2.81 | 0.40 | -1.86 | 2.17 | -0.10 | -2.54 | 2.84 | 0.45 | -1.93 |
| 10 | 2.83 | 0.42 | -1.84 | 2.38 | 0.17 | -1.94 | 2.09 | -0.01 | -2.25 | 3.76 | 1.37 | -0.87 |
| 11 | 2.75 | 0.56 | -1.55 | 2.15 | 0.03 | -2.09 | 2.28 | 0.12 | -2.05 | 3.98 | 1.59 | -0.95 |
| 12 | 2.41 | 0.48 | -1.50 | 1.84 | 0.03 | -2.17 | 2.61 | 0.35 | -1.83 | 2.69 | 0.41 | -1.43 |
| 13 | 1.78 | 0.33 | -1.67 | 2.16 | 0.17 | -1.94 | 2.73 | 0.50 | -1.44 | 2.91 | 0.55 | -1.52 |
| 14 | 2.25 | 0.44 | -1.58 | 2.15 | 0.00 | -1.95 | 2.28 | 0.04 | -1.89 | 3.02 | 0.55 | -1.98 |
| 15 | 2.23 | 0.44 | -1.49 | 1.95 | -0.10 | -2.20 | 2.24 | -0.06 | -2.09 | 3.16 | 0.46 | -1.89 |
| 16 | 2.17 | 0.31 | -1.65 | 2.43 | 0.12 | -1.85 | 2.49 | -0.10 | -2.39 | 4.01 | 0.92 | -2.21 |
| 17 | 2.23 | 0.22 | -1.76 | 2.73 | 0.39 | -1.68 | 2.77 | -0.06 | -2.40 | 3.87 | 1.05 | -1.89 |
| 18 | 2.67 | 0.45 | -1.68 | 2.96 | 0.43 | -2.05 | 3.03 | -0.10 | -2.72 | 3.25 | 0.16 | -2.84 |
| 19 | 3.07 | 0.50 | -1.76 | 3.00 | 0.12 | -2.26 | 3.31 | -0.09 | -3.10 | 3.15 | -0.05 | -3.12 |
| 20 | 3.77 | 0.63 | -1.84 | 3.32 | 0.10 | -2.52 | 3.56 | 0.14 | -3.01 | 3.05 | -0.03 | -3.03 |
| 21 | 4.09 | 0.89 | -1.72 | 3.66 | 0.38 | -2.35 | 3.13 | 0.12 | -2.87 | 2.87 | -0.20 | -2.82 |
| 22 | 4.29 | 0.89 | -1.84 | 3.53 | 0.06 | -2.75 | 3.25 | 0.28 | -2.78 | 2.76 | -0.16 | -2.55 |
| 23 | 4.10 | 0.72 | -2.04 | 4.56 | 0.46 | -2.95 | 3.44 | 0.43 | -2.40 | 2.35 | -0.23 | -2.31 |
| 24 | 3.81 | 0.37 | -2.48 | 3.24 | 0.48 | -2.32 | 2.66 | -0.15 | -2.48 | 1.90 | -0.28 | -2.17 |
| 25 | 3.48 | 0.28 | -2.51 | 3.17 | 0.25 | -2.62 | 2.76 | 0.03 | -2.20 | 2.28 | 0.15 | -1.43 |
| 26 | 2.65 | 0.29 | -2.50 | 2.86 | 0.23 | -2.41 | 2.11 | -0.18 | -2.15 | 2.16 | 0.52 | -1.00 |
| 27 | 3.26 | 0.39 | -2.29 | 2.57 | 0.00 | -2.32 | 2.26 | -0.03 | -1.65 | 2.23 | 0.48 | -1.25 |
| 28 | 3.10 | 0.60 | -2.08 | 2.30 | -0.07 | -2.24 | 2.21 | 0.21 | -1.41 | 2.07 | 0.13 | -1.54 |
| 29 | 2.98 | 0.70 | -1.65 | 2.26 | 0.00 | -2.00 | 2.60 | 0.60 | -1.07 | 1.68 | 0.04 | -2.15 |
| 30 | 3.03 | 0.69 | -1.48 | 2.12 | 0.03 | -1.72 | 2.53 | 0.42 | -1.65 | 1.89 | -0.06 | -1.63 |
| 31 | --- | --- | --- | 1.96 | 0.01 | -2.01 | 2.13 | 0.06 | -1.59 | --- | --- | --- |
| Max | 4.29 | 0.89 | -1.48 | 4.56 | 0.81 | -1.28 | 3.56 | 0.60 | -1.07 | 4.01 | 1.59 | -0.87 |
| Min | 1.78 | -0.19 | -2.60 | 1.84 | -0.10 | -2.95 | 2.09 | -0.18 | -3.10 | 1.68 | -0.28 | -3.12 |

01407770 SHARK RIVER AT BELMAR, NJ—Continued