



Water-Data Report 2009

01407081 RARITAN BAY AT KEANSBURG, NJ

RARITAN BAY

LOCATION.--Lat 40°26'57", long 74°08'51" referenced to North American Datum of 1983, Keansburg Borough, Monmouth County, NJ, Hydrologic Unit 02030104, on south bank at Bayshore Flood Control Station in Keansburg, 20 ft downstream from tide gate, 0.3 mi downstream from bridge over Waackaack Creek on Laurel Avenue, and 1.3 mi east of Union Beach.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Unpublished fragmentary gage-height record, September 1997 to October 2000. Continuous-record tide gage, November 2000 to current year.

GAGE.--Tide level, water temperature, precipitation, air temperature, relative humidity, air pressure, and wind speed and direction recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929 datum, add 1.18 ft. To determine approximate elevations to Mean Lower Low Water datum, add 3.10 ft (revised to Tidal Epoch 1983-2001).

REMARKS.--Missing gage-height record Dec 23, Jan 21-23 and 29-31, and Feb 1 and portions of other 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, 5.46 ft, Dec 25, 2002; minimum recorded elevation, -6.02 ft, Mar 9, 2008.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum known elevation, 7.9 ft (adjusted to NAVD of 1988), Nov 25, 1950, from high-water mark in Keansburg (prior to installation of flood gate), published in the report "Tidal Flood Plain Information - Sandy Hook Bay and Raritan Bay Shore Areas, Monmouth County, New Jersey, July 1972," by the U.S. Army Corp of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.88 ft, Dec 12; minimum elevation, estimated at -4.7 ft, Dec 22.

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

Month	Mean High Tide	Mean Water Level	Mean Low Tide
October	2.42	0.08	-2.37
November	2.29	-0.08	-2.55
December	1.79	-0.47	-2.97
CALENDAR YEAR 2008	2.28	-0.07	-2.55
January	--	--	--
February	1.95	--	--
March	2.25	-0.15	-2.68
April	2.28	-0.14	-2.67
May	2.33	-0.10	-2.62
June	2.90	0.48	-2.06
July	2.70	0.33	-2.18
August	2.51	0.17	-2.28
September	2.73	0.37	-2.07
WATER YEAR 2009	2.37	0.01	-2.51

01407081 RARITAN BAY AT KEANSBURG, NJ—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
[e, estimated]

Day	High-high	Mean	Low-low	High-high	Mean	Low-low	High-high	Mean	Low-low	High-high	Mean	Low-low
	October				November				December			
1	3.47	0.61	-2.08	1.62	-0.64	-3.14	3.07	0.17	-2.20	1.30	---	-3.41
2	2.70	-0.07	-2.76	2.45	0.05	-2.18	1.27	-0.96	-3.22	1.61	---	---
3	2.13	-0.49	-3.09	1.93	-0.20	-2.38	1.34	-0.87	-3.02	---	---	---
4	2.10	-0.46	-2.53	1.59	-0.40	-2.12	1.27	-0.90	-3.14	0.66	---	-3.32
5	1.56	-0.40	-2.19	1.95	0.28	-1.30	1.46	-0.74	-2.46	1.96	-0.54	-2.89
6	1.82	-0.11	-1.54	3.04	0.78	-1.56	1.63	-0.26	-2.35	2.00	-0.43	-2.74
7	1.55	-0.20	-1.80	2.31	0.35	-1.84	2.19	-0.81	-4.34	3.41	0.66	-3.42
8	1.81	-0.12	-2.00	2.40	0.43	-2.02	0.83	-1.43	-3.78	1.60	e-1.7	e-4.6
9	1.53	-0.21	-2.53	2.35	-0.01	-2.93	1.75	-0.72	-3.81	1.62	e-1.6	e-4.6
10	1.83	-0.24	-2.80	2.57	-0.31	-3.74	2.42	-0.62	-3.93	3.06	e-0.4	e-4.4
11	2.30	-0.07	-2.22	2.55	-0.36	-3.39	3.10	0.16	-3.36	4.06	0.06	-3.79
12	2.58	-0.08	-2.91	3.18	-0.20	-3.70	4.88	0.32	-3.52	3.64	---	-3.34
13	2.84	-0.15	-3.28	3.71	0.30	-3.53	3.13	-0.70	-4.21	3.52	---	-3.79
14	3.46	0.33	-2.89	4.08	0.33	-3.14	3.48	-0.52	-4.10	2.57	---	-3.79
15	3.51	0.13	-3.28	4.45	0.59	-3.04	3.12	-0.72	-4.15	2.26	-0.55	-3.19
16	3.95	0.27	-3.03	2.96	-0.85	-4.39	1.86	-1.04	-4.35	2.23	---	---
17	3.88	0.23	-2.92	2.21	-1.01	-4.31	3.27	-0.20	-3.12	1.68	---	---
18	4.18	0.61	-2.30	3.05	0.02	-2.30	2.13	-0.47	-3.10	2.02	---	---
19	4.57	1.17	-1.50	2.86	0.38	-2.03	2.46	0.25	-2.12	2.47	---	---
20	3.96	1.10	-1.23	2.78	0.08	-2.84	3.93	0.90	-1.44	2.34	---	---
21	2.90	0.37	-2.58	2.17	-0.04	-2.97	3.46	0.91	-3.24	---	---	---
22	2.39	-0.04	-2.37	1.74	-0.98	-3.73	-0.35	---	e-4.7	---	---	---
23	2.95	0.87	-2.02	0.99	-1.24	-3.57	---	---	---	---	---	---
24	2.49	0.25	-2.54	2.22	-0.31	-2.90	1.48	-0.62	-3.32	2.02	---	---
25	3.64	0.89	-1.73	3.18	0.15	-2.49	0.42	-1.68	-4.34	2.25	---	---
26	3.70	0.33	-2.32	2.70	-0.07	-2.89	2.15	-0.55	-3.47	1.95	---	---
27	3.36	0.41	-2.48	2.62	-0.04	-2.73	2.54	-0.26	-2.86	2.36	---	---
28	4.45	0.08	-2.68	2.74	-0.11	-3.26	2.30	-0.60	-3.27	2.52	---	---
29	1.31	-1.50	-4.48	2.42	-0.23	-2.61	1.85	-0.78	-3.50	---	---	---
30	2.25	-0.63	-3.24	3.10	0.79	-2.06	1.35	-1.02	-3.55	---	---	---
31	2.28	-0.54	-3.01	---	---	---	3.60	-0.01	-2.63	---	---	---
Max	4.57	1.17	-1.23	4.45	0.79	-1.30	4.88	0.91	-1.44	4.06	0.66	-2.74
Min	1.31	-1.50	-4.48	0.99	-1.24	-4.39	-0.35	-1.68	e-4.7	0.66	e-1.7	e-4.6

01407081 RARITAN BAY AT KEANSBURG, NJ—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
[e, estimated]

Day	High-high	Mean	Low-low	High-high	Mean	Low-low	High-high	Mean	Low-low	High-high	Mean	Low-low
	February				March				April			
1	---	---	---	3.44	0.52	-2.18	2.90	0.23	-2.01	2.53	-0.36	-2.67
2	2.27	-0.18	-2.11	2.60	0.54	-2.28	2.66	-0.14	-2.46	2.02	-0.42	-3.04
3	2.77	0.75	-1.03	1.14	---	---	2.92	0.63	-1.69	2.17	-0.08	-2.74
4	3.57	0.29	-2.65	1.62	---	---	1.92	-0.55	-3.48	2.68	0.07	-2.67
5	2.05	---	---	1.61	---	-2.90	1.99	-0.46	-3.51	3.02	0.31	-2.59
6	2.03	---	---	1.71	-0.81	-3.37	3.14	0.60	-2.97	2.88	0.16	-2.86
7	2.21	---	---	2.04	-0.62	-3.43	2.89	-0.08	-3.15	3.01	-0.03	-2.94
8	2.89	-0.59	-4.12	2.44	-0.17	-3.54	2.96	-0.45	-3.83	3.30	0.06	-3.08
9	2.69	e-0.7	e-4.4	3.40	0.35	-3.08	3.20	-0.21	-3.41	3.31	0.27	-2.76
10	3.52	-0.17	-3.72	3.54	0.16	-3.48	3.27	-0.23	-3.43	2.64	-0.45	-3.03
11	3.62	0.12	-3.34	3.20	-0.12	-3.60	3.54	0.11	-3.03	2.41	-0.40	-3.16
12	2.47	-0.90	-4.38	2.32	-1.06	-4.37	2.10	-0.42	-3.19	2.25	-0.14	-2.56
13	2.28	e-1.1	e-4.4	2.41	-0.79	-3.89	0.96	-0.81	-3.10	1.93	-0.34	-2.69
14	2.08	-0.51	-3.07	2.27	-0.61	-3.44	1.53	-0.27	-3.32	1.24	-0.35	-2.54
15	1.82	-0.51	-3.11	1.60	-0.54	-3.03	2.83	0.68	-1.43	1.85	-0.49	-2.71
16	2.68	-0.06	-1.72	1.87	-0.25	-2.78	2.32	0.10	-1.86	1.50	-0.20	-2.27
17	2.17	-0.03	-1.60	2.61	-0.04	-1.84	1.87	-0.33	-1.79	1.89	-0.15	-2.30
18	2.20	0.29	-1.32	1.89	-0.31	-1.80	1.21	-0.44	-2.21	1.78	-0.12	-2.13
19	2.72	0.19	-3.60	1.57	-0.40	-1.95	1.96	0.18	-1.72	1.70	-0.36	-2.60
20	1.02	-1.45	-3.57	1.55	-0.09	-1.75	3.28	1.03	-1.14	1.84	-0.56	-3.17
21	0.53	---	---	1.84	0.01	-1.64	2.66	0.62	-1.96	2.10	-0.55	-3.31
22	1.87	-0.40	-2.68	1.47	-0.46	-2.60	2.79	0.21	-2.39	2.57	-0.59	-3.57
23	0.51	e-1.8	e-4.5	1.82	-0.44	-2.81	2.04	-0.60	-3.68	3.52	-0.15	-3.56
24	1.28	---	-4.37	2.51	-0.10	-3.04	2.85	-0.60	-3.76	3.53	-0.04	-3.20
25	2.08	-0.58	-3.62	3.46	0.54	-2.36	3.19	-0.39	-3.62	3.59	-0.19	-3.58
26	2.20	-0.60	-3.74	3.46	0.53	-2.61	3.10	-0.48	-3.76	4.07	0.35	-3.24
27	2.50	-0.27	-3.19	3.50	0.19	-2.79	3.11	-0.41	-3.56	3.60	0.14	-2.82
28	2.56	-0.57	-3.53	3.64	0.28	-2.74	2.49	-0.68	-3.61	3.14	0.37	-2.86
29	---	---	---	3.53	0.46	-2.49	2.07	-0.70	-3.69	3.92	0.57	-2.12
30	---	---	---	2.34	-0.49	-3.41	2.65	-0.38	-3.05	3.31	0.31	-2.39
31	---	---	---	1.89	-0.40	-3.28	---	---	---	2.84	0.25	-2.33
Max	3.62	0.75	-1.03	3.64	0.54	-1.64	3.54	1.03	-1.14	4.07	0.57	-2.12
Min	0.51	e-1.8	e-4.5	1.14	-1.06	-4.37	0.96	-0.81	-3.83	1.24	-0.59	-3.58

01407081 RARITAN BAY AT KEANSBURG, NJ—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
[*e*, estimated]

Day	High-high	Mean	Low-low	High-high	Mean	Low-low	High-high	Mean	Low-low	High-high	Mean	Low-low
	June				July				August			
1	2.64	-0.05	-2.72	3.70	0.90	-1.42	2.35	0.02	-1.93	2.55	0.32	-2.04
2	2.43	-0.12	-2.93	3.50	0.98	-1.50	2.60	0.31	-2.12	2.65	0.23	-2.12
3	2.96	0.12	-2.53	3.05	0.68	-1.50	2.71	0.22	-2.22	3.04	0.33	-2.14
4	2.96	0.29	-2.24	2.86	0.37	-1.88	2.84	0.13	-2.28	2.92	0.33	-2.32
5	3.64	0.61	-2.46	2.95	0.31	-2.27	2.68	0.17	-2.32	2.70	0.14	-2.58
6	3.24	0.45	-2.13	3.15	0.36	-2.29	2.76	0.10	-2.63	3.03	0.40	-2.74
7	2.97	0.20	-2.51	3.15	0.53	-2.25	2.55	-0.02	-2.75	2.96	0.26	-2.34
8	3.04	0.22	-2.61	2.98	0.47	-2.20	2.36	-0.05	-2.69	2.83	0.11	-2.56
9	2.88	0.43	-2.23	2.97	0.43	-2.12	2.41	0.02	-3.00	3.06	0.49	-2.21
10	3.09	0.50	-2.15	2.62	0.20	-2.26	2.45	0.08	-2.65	3.95	1.36	-1.12
11	2.91	0.64	-1.80	2.50	0.14	-2.47	2.59	0.19	-2.27	4.19	1.59	-1.10
12	2.35	0.53	-1.74	2.25	0.08	-2.58	2.99	0.45	-1.99	2.92	0.49	-1.59
13	2.68	0.39	-1.95	2.34	0.25	-2.30	2.95	0.57	-1.80	3.10	0.58	-1.85
14	2.42	0.49	-1.73	2.50	0.07	-2.20	2.49	0.08	-1.98	3.25	0.65	-2.34
15	2.57	0.51	-1.66	2.11	-0.02	-2.47	2.51	0.02	-2.45	3.40	e0.5	e-2.3
16	2.47	0.38	-1.77	2.87	0.27	-2.00	2.79	0.01	-2.79	4.38	1.06	-2.61
17	2.57	0.32	-1.90	3.08	0.56	-1.79	3.12	0.03	-2.67	4.23	1.03	-2.34
18	3.16	0.64	-1.76	3.17	0.51	-2.10	3.46	0.01	-3.10	3.67	0.16	-3.43
19	3.39	0.63	-2.00	3.35	0.17	-2.61	3.76	0.02	-3.49	3.58	-0.05	-3.60
20	4.07	0.74	-2.38	3.62	0.19	-2.98	4.08	0.25	-3.47	3.47	0.01	-3.48
21	4.36	0.97	-2.12	4.07	0.45	-2.87	3.66	0.25	-3.32	3.29	-0.17	-3.13
22	4.69	0.96	-2.36	3.97	0.10	-3.36	3.79	0.38	-3.19	3.21	-0.08	-2.88
23	4.50	0.75	-2.53	4.78	0.52	-3.48	3.87	0.46	-2.77	2.69	-0.14	-2.53
24	4.22	0.40	-2.99	3.70	0.46	-2.84	3.03	-0.14	-2.87	2.14	-0.19	-2.37
25	3.91	0.29	-3.10	3.64	0.28	-3.15	3.03	0.08	-2.34	2.51	0.21	-1.57
26	3.51	0.36	-2.95	3.25	0.30	-2.74	2.36	-0.14	-2.36	2.48	0.63	-1.02
27	3.50	0.43	-2.92	3.12	0.07	-2.45	2.52	0.04	-1.73	2.59	0.60	-1.63
28	3.50	0.65	-2.46	2.65	0.04	-2.47	2.38	0.36	-1.39	2.50	0.23	-1.65
29	3.33	0.75	-1.97	2.76	0.15	-2.20	2.97	0.75	-1.26	1.86	0.04	-1.63
30	3.46	0.83	-1.58	2.43	0.18	-1.83	2.65	0.50	-1.03	2.03	-0.06	-2.41
31	---	---	---	2.35	0.15	-2.84	2.38	0.09	-2.04	---	---	---
Max	4.69	0.97	-1.58	4.78	0.98	-1.42	4.08	0.75	-1.03	4.38	1.59	-1.02
Min	2.35	-0.12	-3.10	2.11	-0.02	-3.48	2.35	-0.14	-3.49	1.86	-0.19	-3.60

01407081 RARITAN BAY AT KEANSBURG, NJ—Continued