

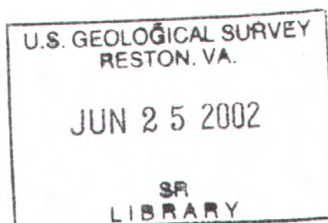
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2001
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Water Resources Data New Jersey Water Year 2001

Volume 2. Ground-Water Data

Water-Data Report NJ-01-2



U.S. Department of the Interior
U.S. Geological Survey



Prepared in cooperation with the New
Jersey Department of Environmental
Protection and with other agencies

CALENDAR FOR WATER YEAR 2001

2000

OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7				1	2	3	4						1	2
8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9
15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16
22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23
29	30	31					26	27	28	29	30			24	25	26	27	28	29	30
														31						

2001

JANUARY							FEBRUARY							MARCH						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6					1	2	3					1	2	3
7	8	9	10	11	12	13	4	5	6	7	8	9	10	4	5	6	7	8	9	10
14	15	16	17	18	19	20	11	12	13	14	15	16	17	11	12	13	14	15	16	17
21	22	23	24	25	26	27	18	19	20	21	22	23	24	18	19	20	21	22	23	24
28	29	30	31				25	26	27	28				25	26	27	28	29	30	31

APRIL							MAY							JUNE						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7			1	2	3	4	5						1	2
8	9	10	11	12	13	14	6	7	8	9	10	11	12	3	4	5	6	7	8	9
15	16	17	18	19	20	21	13	14	15	16	17	18	19	10	11	12	13	14	15	16
22	23	24	25	26	27	28	20	21	22	23	24	25	26	17	18	19	20	21	22	23
29	30						27	28	29	30	31			24	25	26	27	28	29	30

JULY							AUGUST							SEPTEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7				1	2	3	4							1
8	9	10	11	12	13	14	5	6	7	8	9	10	11	2	3	4	5	6	7	8
15	16	17	18	19	20	21	12	13	14	15	16	17	18	9	10	11	12	13	14	15
22	23	24	25	26	27	28	19	20	21	22	23	24	25	16	17	18	19	20	21	22
29	30	31					26	27	28	29	30	31		23	24	25	26	27	28	29
														30						



United States Department of the Interior

U.S. GEOLOGICAL SURVEY

Water Resources Division
Mountain View Office Park
810 Bear Tavern Road, Suite 206
West Trenton, New Jersey 08628

I am pleased to announce the release of our Annual report "Water Resources Data for New Jersey, Water Year 2001". This report was prepared by the U.S. Geological Survey, in cooperation with the State of New Jersey as well as many local and federal government agencies.

This report is again being published in three volumes:

Volume 1.--Surface-water streamflow data.

Volume 2.--Ground-water level data.

Volume 3 --Water-quality data.

This volume contains a summary of the hydrologic conditions for the 2001 water year (October 1, 2000 - September 30, 2001), a listing of current water-resources projects in the New Jersey District, a bibliography of recent reports, articles and fact sheets, and records of ground-water levels in 193 wells.

During the 2001 water year, the U.S. Geological Survey, in cooperation with the New Jersey Department of Environmental Protection (NJDEP), established a Drought Monitoring Network. The frequency of measurements was increased in 11 wells and real-time satellite telemetry was added to 7 wells open to unconfined and fractured-rock aquifers to make more data available to the public.

The New Jersey District of the U.S. Geological Survey has made a home page available on the world wide web. Real-time data for more than 56 stream-gaging stations and 7 ground-water wells around the State, peak-flow files for many gaging stations, ground-water level data, water-quality data, monthly hydrologic conditions, and links to other sites of interest can be accessed. This information is available at:

<http://nj.usgs.gov/>

Copies of this report in paper or microfiche are for sale through the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22161. Data can also be provided by file transfer (ftp), or on floppy disk. When ordering, refer to U.S. Geological Survey Water-Data Report NJ-01-1 (for Volume 1), NJ-01-2 (for Volume 2), or NJ-01-3 (for Volume 3). For further information on this report, or to change or remove your address from our mailing list, please contact me at the above address, telephone (609) 771-3980, or send e-mail to wbauers@usgs.gov.

Sincerely,

William R. Bauersfeld, Chief
Hydrologic Data Assessment Program

Water Resources Data New Jersey Water Year 2001

Volume 2. Ground-Water Data

By Walter D. Jones and Richard W. Edwards

Water-Data Report NJ-01-2



UNITED STATES DEPARTMENT OF THE INTERIOR

GALE A. NORTON, *Secretary*

GEOLOGICAL SURVEY

Charles G. Groat, *Director*

For information on the water program in New Jersey write to:

District Chief, Water Resources Division
U.S. Geological Survey
Mountain View Office Park
810 Bear Tavern Road, Suite 206
West Trenton, New Jersey 08628

PREFACE

This volume of the annual hydrologic data report of New Jersey is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and water quality provide the hydrologic information needed by state, local, and federal agencies, and the private sector for developing and managing our Nation's land and water resources.

Hydrologic data for New Jersey are contained in 3 volumes:

Volume 1. Surface-Water Data

Volume 2. Ground-Water Data

Volume 3. Water-Quality Data

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. The authors had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines. The following individuals contributed significantly to the completion of the report.

Darryl A. Pope

M.D. Morgan word processed the text of the report, and W.H. Ellis, G.L. Simpson, and D.K. Sun prepared the illustrations.

The data were collected, computed, and processed by the following U.S. Geological Survey personnel:

V. Corcino, Jr.
R.W. Edwards
W.D. Jones

E. Melvin
A.R. Protz
J. Rauth

R. Rosman
A.B. Spehar
B.T. White

This report was prepared in cooperation with the State of New Jersey and with other agencies under the general supervision of William R. Bauersfeld, Chief of the Hydrologic Data Assessment Program; David A. Stedfast, Associate District Chief for Hydrologic Data Assessment Studies and Information Management; Richard H. Kropp, District Chief, New Jersey; and Cathy Hill, Regional Hydrologist, Northeastern Region.

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13. ABSTRACT (Maximum 200 words) Water-resources data for the 2001 water year for New Jersey are presented in three volumes, and consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. Volume 2 contains a summary of the hydrologic conditions for 2001 water year; a listing of current water resource projects in New Jersey; a bibliography of water-related reports, articles, and fact sheets completed by the Geological Survey in recent years; records of ground-water levels from 193 wells; and a table of discontinued observation wells for which ground-water level data are available. The locations of the ground-water level sites are shown on figure 4. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating Federal, State, and local agencies in New Jersey.				
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GROUND WATER WELLS, BY COUNTY, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

GROUND-WATER LEVEL RECORDS

	<u>NJ-WRD</u>	<u>PAGE</u>
<u>ATLANTIC COUNTY</u>	<u>WELL NUMBER</u>	
Galen Hall Obs.....	01-0037	19
Oceanville 1 Obs.....	01-0180	20
Scholler 1 Obs.....	01-0256	21
Jobs Point Obs	01-0578	22
Burk Ave TW Obs	01-0702	23
FAA Pomona Obs	01-0703	24
FAA Intermediate Obs	01-0775	25
FAA Shallow Obs	01-0776	26
Margate Firehouse 1 Obs	01-0834	27
HTMUA 9 Obs	01-1219	28
<u>BERGEN COUNTY</u>		
Saddle River 17 Obs	03-0289	30
<u>BURLINGTON COUNTY</u>		
Willingboro 1 Obs.....	05-0063	32
Medford 1 Obs	05-0258	33
Medford 2 Obs	05-0259	34
Medford 5 Obs	05-0261	35
Medford 4 Obs	05-0262	36
Campbell 1 Obs	05-0274	37
Atsion 1 Obs	05-0407	38
Atsion 2 Obs	05-0408	39
Atsion 3 Obs	05-0409	40
Rhodia 1 Obs	05-0440	41
Mount Obs	05-0570	42
Penn SF Shallow Obs	05-0628	43
Penn SF Deep Obs	05-0630	44
Willingboro 2 Obs.....	05-0645	45
Coyle Airport Obs.....	05-0676	46
Butler Place 1 Obs	05-0683	47
Butler Place 2 Obs	05-0684	48
Lebanon SF 23-D Obs	05-0689	49
Medford Twp MW-1 Obs.....	05-1155	50
McGuire 08-MW-52 Obs.....	05-1250	51
McGuire 08-MW-102 Obs.....	05-1251	52
Evesham 4 Obs	05-1387	53
New Lisbon 1 Obs	05-1389	54
New Lisbon 2 Obs	05-1390	55
Coyle 2 Obs	05-1391	56
<u>CAMDEN COUNTY</u>		
Hutton Hill 1 Obs.....	07-0117	58
Hutton Hill 2 Obs.....	07-0118	59
Egbert Obs	07-0283	60
Elm Tree 2 Obs	07-0412	61
Elm Tree 3 Obs	07-0413	62
New Brooklyn Park 1 Obs.....	07-0476	63
New Brooklyn Park 2 Obs.....	07-0477	64
New Brooklyn Park 3 Obs.....	07-0478	65
Winslow 5 Obs.....	07-0503	66
CMMUA PZ 3	07-0740	67
CMMUA PZ 4	07-0741	68
CMMUA PZ 2	07-0742	69
CMMUA PZ 1	07-0743	70
CMMUA PZ 5	07-0744	71
CMMUA PZ 8	07-0745	72

GROUND WATER WELLS, BY COUNTY, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

GROUND-WATER LEVEL RECORDS

	<u>NJ-WRD</u>	<u>PAGE</u>
<u>CAMDEN COUNTY--Cont'd</u>	<u>WELL NUMBER</u>	
CMMUA PZ 7	07-0746	73
CMMUA PZ 6	07-0747	74
<u>CAPE MAY COUNTY</u>		
Traffic Circle Obs	09-0020	76
Canal 5 Obs.....	09-0048	77
Higbee Beach 3 Obs	09-0049	78
Airport 7 Obs	09-0060	79
Cape May 42 Obs	09-0080	80
Cape May 23 Obs	09-0081	81
Oyster Lab 4 Obs	09-0089	82
Cape May County Park 8 Obs	09-0099	83
West Cape May 1 Obs.....	09-0150	84
Coast Guard 800 Obs	09-0302	85
Airport Rio Grande Obs.....	09-0304	86
Oyster 800 Obs	09-0306	87
Pump Pond N. Obs.....	09-0333	88
M-1 N Wildwood 800 Obs.....	09-0337	89
NJDEP Belleplain Mw 44.....	09-0510	90
<u>CUMBERLAND COUNTY</u>		
Vocational School 2 Obs	11-0042	92
Vocational School 1 Obs	11-0043	93
Vocational School 3 Obs	11-0044	94
Sheppards 2 Obs	11-0073	95
Jones Island 2 Obs	11-0096	96
Jones Island 1 Obs	11-0097	97
Heislerville 1 Obs	11-0118	98
Heislerville 2 Obs	11-0119	99
Ragovin 2100 Obs	11-0137	100
Fair Grounds 3 Obs	11-0163	101
Natural Area 1 Obs	11-0237	102
<u>ESSEX COUNTY</u>		
Canoe Brook 30 Obs	13-0013	104
Neutral Zone Obs	13-0014	105
Christ Church 2 Obs	13-0095	106
East Orange Shallow Obs	13-0096	107
<u>GLOUCESTER COUNTY</u>		
Newfield 2-A Obs	15-0372	109
Deptford Deep Obs	15-0671	110
Stefka 1 Obs	15-0712	111
Stefka 2 Obs	15-0713	112
Stefka 3 Obs	15-0727	113
Stefka 4 Obs	15-0728	114
Mantua Shallow Obs	15-0741	115
Mantua Deep Obs	15-0742	116
National Park #3-OW-AL	15-0772	117
National Park #5-OW-AU	15-0773	118
National Park #4-OW-AM	15-0774	119
WTMUA Monitoring 1 Obs	15-1033	120
USGS GSC Obs-1 Shallow	15-1054	121
Glassboro ML-1 Obs	15-1126	122
USGS AG02	15-1208	123
USGS UND06.....	15-1213	124

GROUND WATER WELLS, BY COUNTY, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

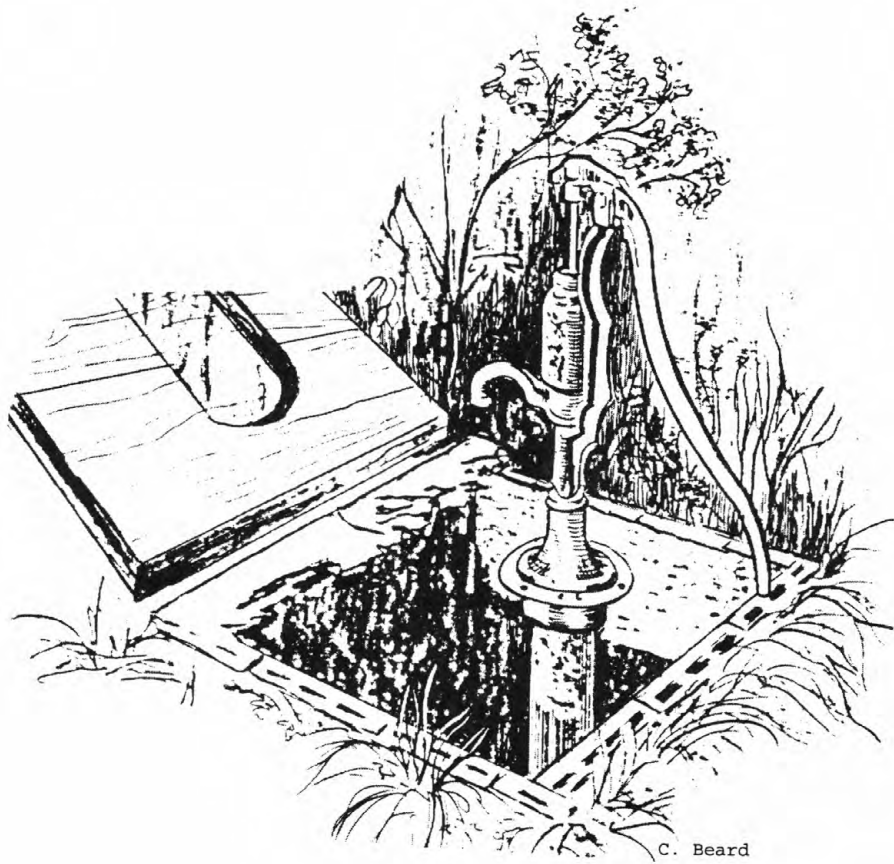
GROUND-WATER LEVEL RECORDS

	<u>NJ-WRD</u>	<u>PAGE</u>
<u>HUNTERDON COUNTY</u>	<u>WELL NUMBER</u>	
Bird Obs	19-0002	126
Corsalo Rd TB 1 Obs	19-0251	127
Readington School 11 Obs	19-0270	128
Environmental Ctr 1 Obs	19-0276	129
<u>MERCER COUNTY</u>		
Civil Defense Obs	21-0028	131
SBMWA Honey Branch 10 Obs	21-0088	132
Bristol-Myers 100 Obs	21-0289	133
Cranston Farms 15 Obs	21-0364	134
AT&T North Obs	21-0365	135
Washington Crossing Pk 14 Obs	21-0366	136
<u>MIDDLESEX COUNTY</u>		
Fischer Obs	23-0070	138
Morrell 1 Obs	23-0104	139
Runyon 1 Obs	23-0194	140
Forsgate 3 Obs	23-0228	141
Forsgate 4 Obs	23-0229	142
Plainsboro Pond Obs	23-0273	143
Forsgate 1 Obs	23-0291	144
Forsgate 2 Obs	23-0292	145
SWD 2 Obs	23-0344	146
SWD 1 Obs	23-0351	147
Duh Say 4 Obs	23-0365	148
SRWD 2 Obs	23-0439	149
American Cyanamid 1 Obs	23-0482	150
Rutgers Golf 13 Obs	23-1165	151
Rutgers MW-12A	23-1330	152
Rutgers MW-12B	23-1331	153
Rutgers MW-12C	23-1332	154
<u>MONMOUTH COUNTY</u>		
Keyport 4 Obs	25-0206	156
Village 215 Obs	25-0250	157
Marlboro 1 Obs	25-0272	158
Sandy Hook SP 1 Obs	25-0316	159
Fort Monmouth 1-NCO Obs	25-0353	160
Allaire State Park C Obs	25-0429	161
DOE-Sea Girt Obs	25-0486	162
Howell Twp 1 Obs	25-0635	163
Howell Twp 2 Obs	25-0636	164
Howell Twp 3 Obs	25-0637	165
Howell Twp 4 Obs	25-0638	166
Howell Twp 5 Obs	25-0639	167
AHWD B Obs	25-0715	168
Sandy Hook 2 Obs	25-0771	169
<u>MORRIS COUNTY</u>		
Recreation Fld Obs	27-0001	171
W B Driver 2 Obs	27-0003	172
Clemens Obs	27-0004	173
Sandoz Obs	27-0005	174
Green Acres Obs	27-0006	175
Briarwood School Obs	27-0012	176
MBWD 4 Obs	27-0017	177
Troy Meadows 1 Obs	27-0020	178
Mt Freedom 2 Obs	27-0023	179

GROUND WATER WELLS, BY COUNTY, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

GROUND-WATER LEVEL RECORDS

	NJ-WRD WELL NUMBER	PAGE
<u>MORRIS COUNTY--Cont'd</u>		
Berkshire Valley 9 Obs	27-0027	180
Green Pond 5 Obs	27-0028	181
Black River 10 Obs	27-1190	182
Roxbury 1 Obs	27-1191	183
Morris Maint Yd 22 Obs	27-1192	184
<u>OCEAN COUNTY</u>		
Island Beach 1 Obs	29-0017	186
Island Beach 2 Obs	29-0018	187
Island Beach 3 Obs	29-0019	188
Island Beach 4 Obs	29-0020	189
Toms River 84 Obs	29-0085	190
Normandy 3 Obs	29-0100	191
Colliers Mills 1 Obs	29-0138	192
Colliers Mills 2 Obs	29-0139	193
Colliers Mills 3 Obs	29-0140	194
Colliers Mills 4 Obs	29-0141	195
Webbs Mills 2 Obs	29-0425	196
Mantoloking 6 Obs	29-0503	197
Garden St Pky 1 Obs	29-0513	198
Garden St Pky 2 Obs	29-0514	199
PPWD 6 Obs	29-0530	200
Toms River 2 Obs	29-0534	201
DOE-Forked River Obs	29-0585	202
Fort Dix RLF-30 Obs	29-1059	203
LNAS-EC Obs	29-1060	204
Great Bay Blvd 1 Obs	29-1210	205
<u>SALEM COUNTY</u>		
Horner Obs	33-0020	207
Point Airy Obs	33-0187	208
Salem 1 Obs	33-0251	209
Salem 2 Obs	33-0252	210
Salem 3 Obs	33-0253	211
Penns Grove 14 Obs	33-0348	212
Parvin SP 1 Obs	33-0841	213
<u>SUSSEX COUNTY</u>		
Taylor Obs	37-0202	215
Whittingham 19 Obs	37-0203	216
Sparta Twp 6 Obs	37-0204	217
Swartwood Park 5 Obs	37-0205	218
Fairgrounds 7 Obs	37-0206	219
Walpack Twp 4 Obs	37-0207	220
Byram Twp PW-1 Obs	37-0359	221
<u>UNION COUNTY</u>		
Schweitzer Obs	39-0058	223
White Lab 3 Obs	39-0102	224
White Lab 4 Obs	39-0115	225
Union County Park Obs	39-0119	226
<u>WARREN COUNTY</u>		
Blairstown 1 Obs	41-0349	228



C. Beard

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State agencies, gathers a large amount of data pertaining to the water resources of New Jersey each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data - New Jersey."

This report series includes records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground-water. Volume 2 contains records of ground-water levels in 193 wells. Locations of these wells are shown on figure 4. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in New Jersey.

This series of annual reports for New Jersey began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. For the 1975 through 1989 water years, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels. Beginning with the 1977 water year, these data were published in two volumes. Beginning with the 1990 water year, the report format was changed to include surface-water and surface-water-quality data in Volume 1 and ground-water-level and ground-water-quality data in Volume 2. Beginning in the 1998 water year, the format changed to include surface-water discharge records in Volume 1, ground-water level records in Volume 2, and surface-water and ground-water quality records in Volume 3.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for New Jersey were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage, and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Part 1B." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from the U.S. Geological Survey, Branch of Information Services, Box 25286, Denver, Colorado, 80225-0286.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report NJ-01-2." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information, Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (609) 771-3900.

The U.S. Geological Survey, New Jersey District, maintains a World Wide Web site which has water-resource related information for New Jersey and information on New Jersey District activities. We invite you to visit us at:

<http://nj.usgs.gov/>

COOPERATION

This report was prepared by the U.S. Geological Survey under cooperative agreement with the following organizations:

New Jersey Department of Environmental Protection,
Bradley M. Campbell, Commissioner.

County of Gloucester, Charles E. Romick, Director of
Planning.

Atlantic Highlands Water Department, Robert Dougherty,
Superintendent.

Medford Township Department of Municipal Utilities,
Michael Achey, Sr., Director.

Washington Township Municipal Utilities Authority,
Sheldon Belson, Executive Director.

Pinelands Commission, Annette Barbaccia, Executive
Director

Evesham Municipal Utilities Authority, Louis Russo,
Director

SUMMARY OF HYDROLOGIC CONDITIONS

Ground-Water Levels

More than one-half of New Jersey's drinking water comes from ground water. The New Jersey Statewide Water Supply Plan reported in 1990 that the majority of New Jersey's water supplies are now developed, and although supplies are sufficient for the foreseeable future in most regions, some regions (mostly those relying heavily on ground water) are presently in deficit. As population and demand for water increase, strategic water management will be required if New Jersey is to meet its future water-supply needs. Long-term water-level records are needed to evaluate the effects of climate changes on ground-water systems, to develop a data base that can be used to measure the effects of development, to facilitate the prediction of future ground-water supplies, and to provide data for ground-water-resource management. These data document the general response of the ground-water system to climate changes and ground-water withdrawals. The U.S. Geological Survey (USGS) has operated a network of observation wells in New Jersey for the purpose of monitoring water-level changes throughout the State since 1923.

During the 2001 water year, ground-water levels were measured in 193 wells. Observation wells in which water levels exceeded their previous measured extremes (highest or lowest water levels), and for which more than 2 years of data are available, are listed in table 1. Previous record low water levels were exceeded in 27 of the 193 wells in the statewide observation-well network during the 2001 water year. Twenty-five of the record low water levels were in wells located in the Coastal Plain, and two were in wells located in the northern part of the State. Previous record high water levels were exceeded in 16 network observation wells during the 2001 water year. Twelve of these wells are located in the Coastal Plain, and four are located in the northern part of the State.

Water levels measured in confined aquifers in the Coastal Plain in water year 2001, together with those measured during previous years, show four general trends. (1) Water levels in observation wells that tap the Atlantic City 800-foot sand of the Kirkwood Formation, parts of the Wenonah-Mount Laurel aquifer, and the Piney Point Formation in the southern part of the Coastal Plain continued to undergo long-term net declines. (2) Water levels in the Englishtown aquifer system and the Wenonah-Mount Laurel aquifer in the northeastern part of the Coastal Plain (Monmouth and Ocean Counties) continued to rise. (3) A rise in water levels in many observation wells in the Potomac-Raritan-Magothy aquifer system in Burlington, Gloucester, and Salem Counties has reversed a trend of long-term water-level declines. (4) The use of a desalination plant, which pumps brackish water from the Atlantic City 800-foot sand in Cape May City, has affected two confined aquifers in the Cape May City area. Increased withdrawals from the Atlantic City 800-foot sand resulted in a decline in the water level in the Coast Guard 800 observation well (NJ-WRD well number 9-302). A reduction in withdrawals from the Cohansey sand has resulted in higher water levels over the past 3 years in three observation wells (NJ-WRD well numbers 9-48, 9-49, and 9-150) in the Cape May City area.

The greatest long-term water-level decline in an observation well occurred in the New Brooklyn Park 3

observation well (NJ-WRD well number 07-478), screened in the Wenonah-Mount Laurel aquifer in Camden County. The water level in this well declined more than 72 feet since April 1983. In contrast, the greatest increase in water levels occurred in the PPWD 6 observation well (NJ-WRD well number 29-530), screened in the Englishtown aquifer system in Ocean County. The water level in this well rose more than 173 feet from August 1989 to April 2001.

In 1986, the New Jersey Department of Environmental Protection (NJDEP) designated two "Critical Water-Supply Management Areas" in the New Jersey Coastal Plain. (See figure 1.) This legislation was initiated as a result of concerns about long-term declines in ground-water levels in these areas where ground water is the primary source of water supply. Ground-water withdrawals from specified aquifers in these areas were reduced, and new allocations may be limited. In Critical Area 1, withdrawals from the Wenonah-Mount Laurel aquifer, Englishtown aquifer system, and Upper and Middle Potomac-Raritan-Magothy aquifers are restricted. Pumpage restrictions in this area began in 1989. In Critical Area 2, withdrawals from the Potomac-Raritan-Magothy aquifer system are restricted. Pumping restrictions here went into effect in 1996.

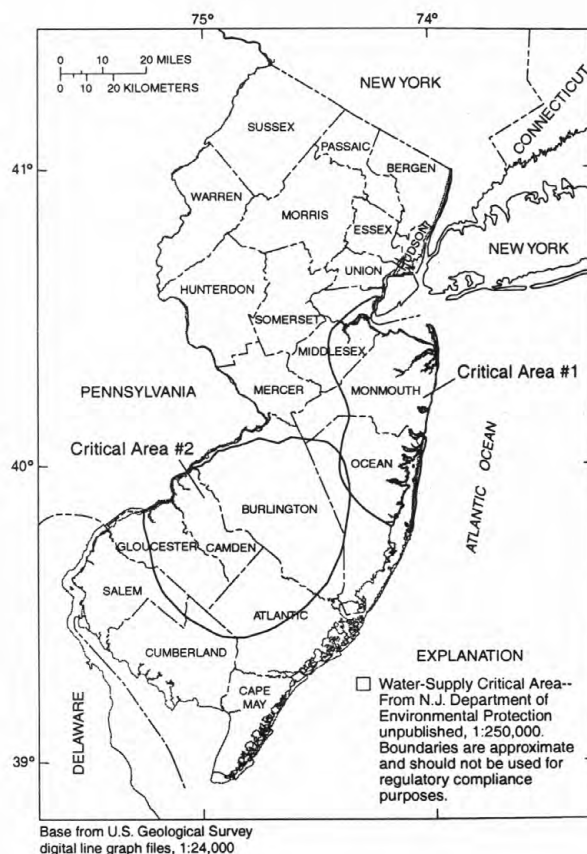


Figure 1. Location of Water-Supply Critical Areas in New Jersey. These areas were designated to help control the decline in water levels in some of the confined aquifers. (From Watt, 2000)

Early in the 1991 water year, long-term declines in water levels reversed in several observation wells screened in the Potomac-Raritan-Magothy aquifer system, Englishtown aquifer system, and Wenonah-Mount Laurel aquifer in Critical Area 1. Water levels rose dramatically in these aquifers from 1991 to 1998. Water levels in the Potomac Raritan Magothy aquifer system have remained level from 1998 to 2001, but water levels in four observation wells located in Critical area 1 and screened in the Englishtown aquifer system and the Wenonah-Mount Laurel aquifer have continued to rise (NJ-WRD well numbers 25-486, 29-503, 29-530, and 29-534). This rise in water levels is the result of the reduction in ground-water withdrawals from deep, confined aquifers, an increase in withdrawals from shallower aquifers, and a shift in withdrawals from ground water to surface water for some public water supply.

In Critical Area 2, the shift in withdrawals away from the deeper, confined aquifers to surface water and ground water in shallower, confined and unconfined aquifers began in 1996. As a result, water levels rose from 1996 through 1999 in many observation wells screened in the Potomac-Raritan-Magothy aquifer system in the Critical Area (NJ-WRD well numbers 5-258, 5-261, 5-262, 5-440, 5-645, 7-117, 7-412, 7-413, 7-476, 7-477, 15-671, 15-741, and 15-742). Water levels in several of these wells have recovered to the levels measured during the 1970's. Previous record high water levels were exceeded in four observation wells screened in the Potomac-Raritan Magothy aquifer system in this Critical Area during the 2001 water year (table 1).

The shifting of water withdrawals to shallower confined and unconfined aquifers will likely result in reduced groundwater flow to streams and wetlands. In addition, the vulnerability of these aquifers to drought and to recharge from undesirable sources likely will increase. The effects of the shift in withdrawals can be seen in water levels in the southern part of the State, where water levels in the Wenonah-Mount Laurel aquifer and the Englishtown aquifer system have declined in several observation wells (NJ-WRD well numbers 5-259, 5-1387, 33-20). In the northern part of the State, a large part of ground-water withdrawals are from unconfined and fractured rock aquifers. Water levels in two observation wells open to stratified drift exceeded their previous record lows during 2001, and the water level in the Briarwood school observation well (NJ-WRD well number 27-12) in Morris County dropped steadily (7.2 feet) between June 1998 and March 2000, and remained near the lowest recorded levels since 1967.

During 2001, the U.S. Geological Survey, in cooperation with the New Jersey Department of Environmental Protection (NJDEP) established a Drought Monitoring Network. NJDEP divided New Jersey into six drought regions on the basis of watersheds and water-supply characteristics. Drought indicators (ground-water levels, precipitation, streamflow, and reservoir contents) are monitored continuously in each region. The ground-water-level network, which is one part of the Drought Monitoring Network, was created to provide data to indicate water-level trends in shallow ground-water systems. Satellite telemetry was added to seven wells with continuous recorders in order to make the data available in the shortest time possible. An additional seven wells, which previously were measured

periodically, were equipped with continuous recorders, and the frequency of measurements was increased at four additional wells. Current data from these wells, and other shallow observation wells, are compared to monthly statistics of historical data to put the current water levels in context. These data, along with data on precipitation, streamflow, and reservoir contents provide the information needed to determine the hydrologic conditions in each drought region. The USGS Fact Sheet FS-011-02 "Real-Time Ground-Water Level Monitoring in New Jersey, 2001" (Jones and others, 2002) describes the ground-water level satellite telemetry segment of the Drought Monitoring Network in more detail. Real-time ground-water-level data can be accessed on the Internet web pages of the USGS at <http://water.usgs.gov/nj/nwis/current/?type=gw>.

The effects of climate on daily mean water levels in six observation wells during water year 2001 can be seen in the hydrographs shown in figure 2. Monthly extreme and long-term average water levels are shown for comparison. The Taylor, Cranston Farms 15, and Readington School 11 Obs wells (NJ-WRD well numbers 37-202, 21-364, and 19-270) are open to fractured-rock aquifers; the Lebanon State Forest 23-D, Morrell 1, and Vocational School 2 Obs wells (NJ-WRD well numbers 5-689, 23-104 and 11-42) tap unconfined sand and gravel aquifers. These wells are all part of the new Drought Monitoring Network.

According to the New Jersey State Climatologist, monthly precipitation, calculated from a spatially weighted average of stations throughout New Jersey, (Office of the NJ State Climatologist, Rutgers University, New Jersey, unpub. data accessed March 14, 2002, on the World Wide Web at URL <http://climate.rutgers.edu>) ranged from 7.5 to 8.5 inches below normal in New Jersey between October 2000 and September 2001. (Normal is based on precipitation values from 1971 to 2000). Below-average cumulative precipitation, ranging from 4.7 inches below normal in the north to 3.9 inches below normal in the south, from October to February, caused water levels in many observation wells to decline. Above normal precipitation was recorded during the months of March and June and water levels in many observation wells rose. A prolonged dry spell in April and May, and rainfall that ranged from 2 inches (north) to 4 inches (south) below normal from July to September caused water levels in many observation wells that tap unconfined and fractured rock aquifers to decline to below average levels. (See figure 2.) Previous record low water levels were exceeded in seven observation wells, and record high water levels were exceeded in five observation wells open to unconfined or fractured-rock aquifers during the 2001 water year. (See table 1.)

EXPLANATION OF THE RECORDS

The ground-water level data published in this report are for the 2001 water year that began October 1, 2000, and ended September 30, 2001. A calendar of the water year is provided on the inside of the front cover. The locations of the wells where data were collected are shown in figure 3. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Table 1. Water-level records set during the 2001 water year, in observation wells with more than 2 years of data

NJ-WRD Well Number	Local identifier	Aquifer ¹ code	Lowest water- level, in feet below land surface	Value by which previous record low was exceeded, in feet	Year record began
<u>Record Lows in the Coastal Plain of New Jersey</u>					
07-0742	CCMUA PZ 2	121CKKD	4.61	0.05	1992
07-0743	CCMUA PZ 1	121CKKD	3.69	0.04	1992
07-0744	CCMUA PZ 5	121CKKD	32.14	0.06	1992
07-0746	CCMUA PZ 7	121CKKD	11.70	0.01	1992
15-1033	WTMUA Monitoring 1 Obs	121CKKD	18.34	0.04	1989
09-0304	Airport Rio Grande Obs	122KRKDU	49.61	0.96	1990
01-0037	Galen Hall Obs	122KRKDL	112.55	1.21	1949
01-0180	Oceanville 1 Obs	122KRKDL	76.67	0.29	1959
01-0702	Burk Ave TW Obs	122KRKDL	124.41	2.33	1985
09-0302	Coast Guard 800 Obs	122KRKDL	30.26	0.36	1990
09-0306	Oyster 800 Obs	122KRKDL	28.74	0.26	1990
09-0337	M-1 N Wildwood 800 Obs	122KRKDL	40.39	0.18	1992
01-0834	Margate Firehouse 1 Obs	124PNPN	40.60	1.05	1988
01-1219	HTMUA 9 Obs	124PNPN	85.16	0.72	1996
05-0407	Atsion 1 Obs	124PNPN	-2.97	0.35	1963
11-0044	Vocational School 3 Obs	124PNPN	88.17	0.35	1972
11-0163	Fair Grounds 3 Obs	124PNPN	89.82	0.61	1973
29-0018	Island Beach 2 Obs	124PNPN	11.42	0.99	1962
29-1210	Great Bay Blvd 1 Obs	124PNPN	21.65	0.66	1997
05-1387	Evesham 4 Obs	211MLRW	129.37	4.67	1997
07-0478	New Brooklyn Park 3 Obs	211MLRW	144.68	1.44	1961
25-0250	Village 215 Obs	211EGLS	54.43	1.16	1971
25-0715	AHWD B Obs	211EGLS	226.47	0.08	1991
25-0771	Sandy Hook 2 Obs	211EGLS	10.93	0.10	1997
29-0100	Normandy 3	211MRPAU	47.29	3.06	1998
<u>Record Lows in Northern New Jersey</u>					
27-1191	Roxbury 1 Obs	112SFDF	52.34	0.02	1989
37-0204	Sparta TWP 6 Obs	112SFDF	50.21	3.05	1991
NJ-WRD Well Number	Local identifier	Aquifer ¹ code	Highest water- level, in feet below land surface	Value by which previous record high was exceeded, in feet	Year record began
<u>Record Highs in the Coastal Plain of New Jersey</u>					
05-1251	Mcguire 08-MW-102 Obs	121CKKD	7.43	0.51	1996
05-1250	Mcguire 08-MW-52 Obs	125VNCN	8.11	0.20	1996
25-0486	DOE-Sea Girt Obs	211MLRW	60.66	2.81	1984
29-0503	Mantoloking 6 Obs	211EGLS	64.79	2.34	1983
29-0530	PPWD 6 Obs	211EGLS	76.75	0.83	1988
05-1389	New Lisbon 1 Obs	211MRPAU	140.12	0.63	1997
15-0741	Mantua Shallow Obs	211MRPAU	108.91	1.17	1987
25-0639	Howell Twp 5 Obs	211MRPAU	118.12	0.03	1988
33-0841	Parvin SP 1 Obs (OW A)	211MRPAU	119.56	1.02	1997
15-0671	Deptford Deep Obs	211MRPAL	77.32	1.11	1986
15-0742	Mantua Deep Obs	211MRPAL	105.55	0.96	1986
23-0351	SWD 1 Obs	211ODBG	10.89	0.19	1968
<u>Record Highs in Northern New Jersey</u>					
37-0206	Fairgrounds 7 Obs	112SFDF	31.07	0.04	1991
21-0366	Wash Crossing Pk 14 Obs	227PSSC	59.76	0.92	1991
23-1330	Rutgers MW-12A	227PSSC	10.39	0.92	1998
23-1331	Rutgers MW-12B	227PSSC	7.36	0.38	1998

¹AQUIFER CODES:

112SFDF -Stratified drift
 121CKKD -Kirkwood-Cohansey aquifer system
 124PNPN -Piney Point Formation
 125VNCN -Vincentown aquifer
 211MLRW -Wenonah-Mount Laurel aquifer
 221EGLS -Englishtown aquifer system

211MRPAU -Upper Potomac-Raritan-Magothy aquifer
 211MRPAM -Middle Potomac-Raritan-Magothy aquifer
 211MRPAL -Lower Potomac-Raritan-Magothy aquifer
 211ODBG -Old Bridge aquifer
 227PSSC -Passaic Formation

WATER RESOURCES DATA - NEW JERSEY, 2001

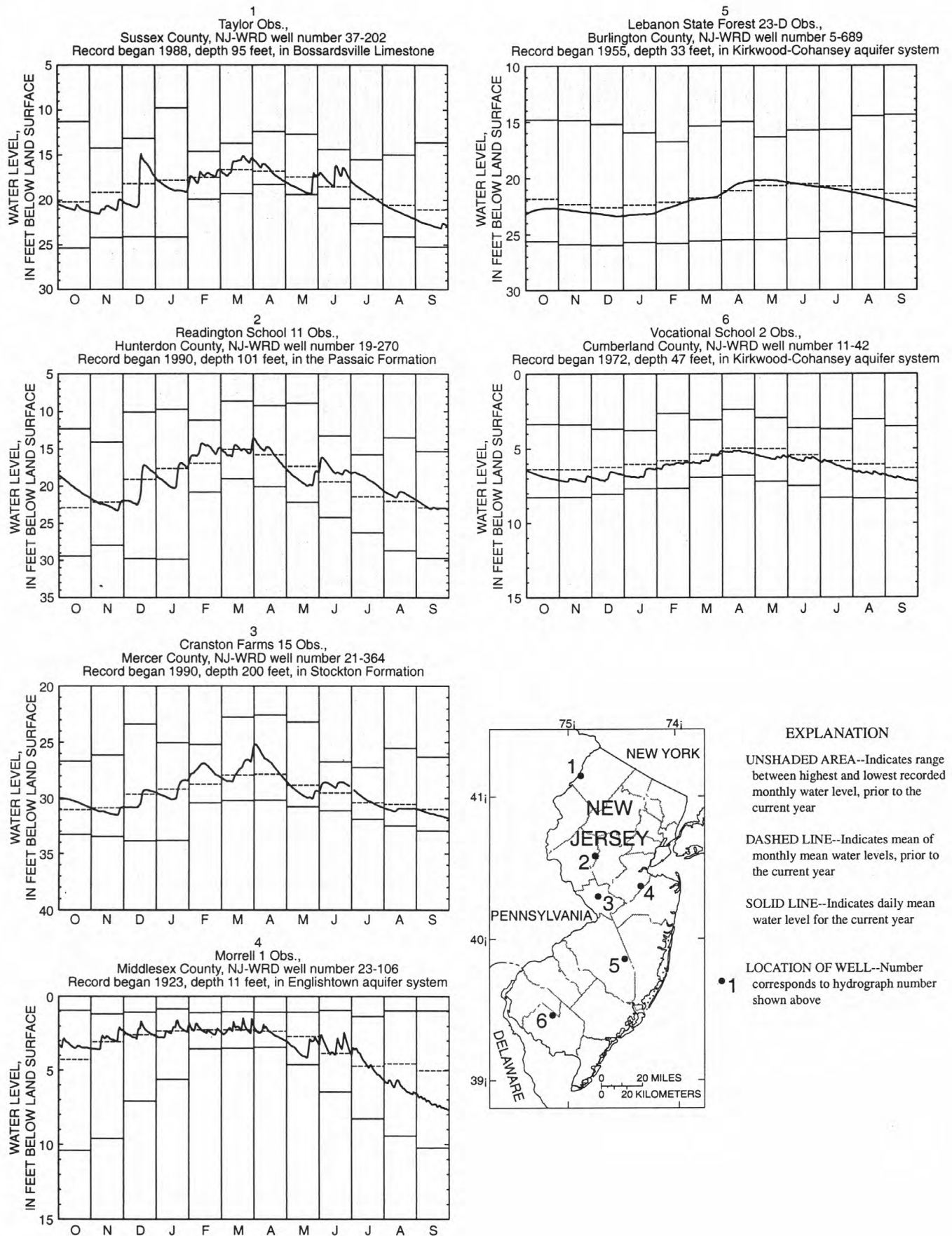


Figure 2. Ground-water levels at key observation wells in New Jersey during water year 2001.

Station Identification Numbers

Each well in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given well and to no other. The number is assigned when a well is first established and is retained for that well indefinitely. The latitude-longitude system used by the U.S. Geological Survey to assign identification numbers to ground-water well sites is based on geographic location.

Latitude-Longitude System

The identification numbers for wells are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude; the next seven digits denote degrees, minutes, and seconds of longitude; and the last two digits (assigned sequentially) identify the wells within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the well will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description (fig. 3).

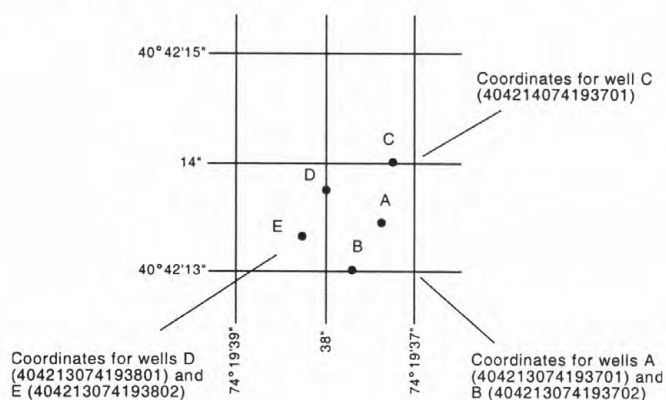


Figure 3. System for numbering wells and miscellaneous sites (latitude and longitude)

Records of Ground-Water Levels

Water-level data from the New Jersey Observation-Well Network and other current ground water projects are given in this report. These data are intended to provide a historical record of water-level changes in the State's most important aquifers. The locations of these wells are shown in figure 4.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions. The methods of measurement are standardized to incorporate continuous precision. The equipment and measuring techniques used at each well ensure that measurements are of consistent accuracy and reliability.

Water-level data are presented by counties arranged in alphabetical order. The primary identification number for a given well is the NJ-WRD well number, a hyphenated 6 digit identification number assigned to all New Jersey wells in the Ground Water Site Inventory (GWSI) data base. The first two digits are a code for the county in which the well is located and the last four digits are a sequence number. These NJ-WRD well numbers are used in the ground-water level descriptions, and on the corresponding location maps in this report. The secondary identification number for a given well is the 15-digit number described in the previous section. Where available, New Jersey Water Allocation Permit Numbers are included as an additional identifier.

Water levels are measured manually using a steel tape at regular time intervals. Many wells are equipped with water-level recorders or pressure transducer-data logger combinations to observe daily fluctuations in water level. Beginning in the 1977 water year, water-level recorders were removed from some wells and replaced by water-level extremes recorders. The extremes are read from these recorders at about three month intervals, but the actual dates of occurrence of these extremes (highest and lowest water levels) are unknown. In this report, the water-level extremes are given together with the manually measured water levels.

Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. The altitude of the land-surface and the height of the measuring point (MP) above or below land-surface are given in each well description.

Data Presentation

Each water-level record consists of three parts: the well description, the data table of water levels observed during the current water year, and a hydrograph of the water levels for a selected time period including the current water year. The comments to follow clarify information presented under the various headings of the well description.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); the hydrologic-unit number; a description of the location; and the owner's name. The hydrologic unit number is a code for the river basin where the well is located (U.S. Geological Survey, 1974: Hydrologic Unit Map).

AQUIFER.--This entry designates by name and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter of screened interval or open hole segment, method of construction, use, and additional information known about the physical characteristics of the well.

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on weekly, monthly, or some other frequency of measurement.

DATUM.--This entry describes both the measuring point and the land-surface altitude at the well. The measuring point is described physically (such as top of coupling, top of recorder shelf, plug in pump base and so on), and in relation to land surface (such as 1.3 ft. above land-surface). The altitude of the land-surface is described in feet above sea level; it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It may give other important data relevant to the well site.

PERIOD OF RECORD.--This entry indicates the period for which there are records for the well. It reports the month and year of the start of collection of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, are noted.

EXTREMES FOR PERIOD OF RECORD.--This entry identifies the highest and lowest water levels during the period of record, with respect to land-surface datum, and the dates of their occurrence.

A table of water levels follows the station description for each well. Water levels are reported in reference to land surface datum. For wells not equipped with continuous recorders, the table lists the water levels and measurement dates. For wells equipped with continuous recorders, only abbreviated tables are published. Daily mean water-levels are listed for every fifth day and at the end of the month (eom). The highest and lowest daily mean water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level. For wells equipped with water-level extremes recorders, the extremes (highest and lowest water levels) for each time period are given together with the manually measured water levels.

A hydrograph for a selected period of record follows each water-level table. One of four types of hydrographs is shown depending on the method of data collection. For wells equipped with continuous recorders, daily mean water levels are plotted as continuous line graphs. For wells equipped with maximum-minimum recorders, the graphs have horizontal lines representing the extremes (highest and lowest water level for each time period) and dashed vertical lines delineating each time period. The measured water levels are plotted as small circles at the date of each servicing interval. For wells without recorders, a scatter plot shows each individual water level measurement. Trend lines may be shown on the graphs where there are at least 3 sequential measurements at a well, each within 70 days of the last measurement. The trend line may be interpreted as a general direction of water-level movement. Actual water levels may deviate from this line. Some hydrographs may contain both periodic and continuous data.

CURRENT WATER RESOURCES PROJECTS IN NEW JERSEY

The Geological Survey is currently involved in a number of hydrologic investigations in the State of New Jersey. The following is a list of these investigations. Results are published at the conclusion of short-term projects or periodically in the case of long-term projects. Hydrologic data from these projects are entered into the NWIS data base.

- Delaware River Basin National Water Quality Assessment
- Development of Database and Models to Support Source Water Assessment Program
- Distribution of MTBE and Related Volatile Organic Compounds in Lakes in Northern NJ and Investigation of Lake-Well Interactions
- Distribution of Radium and Related Radionuclides in Coastal-Plain Aquifers
- Effects of Land Use, Septic Systems, and Sewering on the Distribution of Nitrate in Shallow Ground Water
- EPA Technical Assistance Program
- Estimation of the Relative Importance of Nonpoint Source Loads in the Raritan River Basin
- Flood Characteristics of New Jersey Streams
- Flow Characteristics and Basis for Development of Ecological Goals for New Jersey Streams
- Geohydrology of the Naval Air Warfare Center, West Trenton, New Jersey
- Ground-Water Data Collection Network
- Ground-Water Levels and Chloride Concentrations in Major Aquifers of the Coastal Plain
- Ground-Water Supply Availability in Southern Ocean County
- Head of Tide Sampling Program for the New Jersey Harbour
- Toxic Contaminant Assessment Reduction Program
- High-Flow Water Quality Management Objectives
- Hydrology of Surficial Aquifer Systems
- Hydrogeologic Support to McGuire Air Force Base, Burlington County, New Jersey
- Hydrogeologic Support to Picatinny Arsenal, Morris County, New Jersey
- Investigation of Contaminant Transport in a Fractured Rock Aquifer, Rutgers University, Busch Campus
- Investigation of Ground-Water/Surface-Water Interaction in the Northern Passaic River Valley, New Jersey
- Investigation of hydrogeology and Volatile Organic Compound Contamination in Fair Lawn, New Jersey
- Investigation of Potential Threats to Water Supply from the Potomac-Raritan-Magothy Aquifer in Salem and Western Gloucester Counties, New Jersey
- Lower Delaware Non-Point Source
- Low Flow Characteristics of New Jersey Streams

**CURRENT WATER RESOURCES PROJECTS IN
NEW JERSEY--Continued**

Modeling and Experimental Investigation of Hydrocarbon Transport and Biodegradation in the Unsaturated Zone

Movement of Chromium in the Ground Water of Pennsauken Township, Camden County

New Jersey Drought Monitoring System

New Jersey-Long Island National Water Quality Assessment

New Jersey Tide Telemetry System

Pascack Brook Flood Warning System

Passaic Flood Warning System

Program to Maintain and Update Ground-Water Models to Evaluate Continued Water-Supply Development

Quality of Water Data Collection Network

Rahway Flood Warning System

Refinement of a Data Model for Watershed Water Transfer Analysis

Small Watershed Flood Data Collection

Somerset County Flood-Information System

Surface Water Data Collection Network

Vulnerability Assessment of the Kirkwood-Cohansey Aquifer System to Radium, Mercury, and Trace Metals

Vulnerability of Public Supply Wells and Surface-Water Intakes in New Jersey for Chemicals of Concern (Source Water Assessment Program)

Water-Quality Characteristics of Upper-Delaware Watershed

**WATER-RELATED REPORTS FOR NEW
JERSEY COMPLETED BY THE GEOLOGICAL
SURVEY IN RECENT YEARS**

Baehr, A.L., and Reilly, T.J., 2001, Water quality and occurrence of Methyl tert-butyl ether (MTBE) and other fuel-related compounds in lakes and ground water at lakeside communities in Sussex and Morris Counties, New Jersey, 1998-1999: U.S. Geological Survey Water-Resources Investigations Report 01-4149, 86 p.

Baehr, A.L., and Zapecza, O.S., 1998, Methyl tert-butyl ether (MTBE) and other volatile organic compounds in lakes in Byram Township, Sussex County, New Jersey, summer 1998: U.S. Geological Survey Water-Resources Investigations Report 98-4264, unpaginated.

Barringer, J.L., Barringer, T.H., Lacombe, P.J., and Holmes, C.W., 2001, Arsenic in soils and sediments adjacent to Birch Swamp Brook in the vicinity of Texas Road (downstream from the Imperial Oil Company Superfund site), Monmouth County, New Jersey: U.S. Geological

Survey Water-Resources Investigations Report 00-4185, 111 p.

Barringer, J.L., and MacLeod, C.L., 2001, Relation of mercury to other chemical constituents in ground water in the Kirkwood-Cohansey aquifer system, New Jersey Coastal Plain, and mechanisms for mobilization of mercury from sediments to ground water: U.S. Geological Survey: Water-Resources Investigations Report 00-4230, 162 p.

Barringer, J.L., 1998, Arsenic and metals in soils in the vicinity of the Imperial Oil Superfund site, Marlboro Township, New Jersey: U.S. Geological Survey Water Resources Investigations Report 98-4016, 251 p.

Barringer, J.L., Szabo, Z., and Barringer, T.H., 1998, Arsenic and metals in soils in the vicinity of the Imperial Oil Company Superfund site, Marlboro Township, Monmouth County, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 98-4016, 268 p.

Barringer, T.H., Reiser, R.G., and Price, C.V., 2000, Use of low-flow trend and transfer-function models to determine relation of low flows to regional urbanization and precipitation, Rahway River Basin, New Jersey, 1940-91: U.S. Geological Survey Open-File Report 99-257, 24 p.

Buxton, D.E., Hunchak-Kariouk, K., Hickman, R.E., 1998, Relations of surface-water quality to stream flow in the Hackensack, Passaic, Elizabeth, and Rahway River Basins, New Jersey, water years 1976-93: U.S. Geological Survey Water-Resources Investigations Report 98-4049, 102 p.

Buxton, D.E., Hunchak-Kariouk, K., and Hickman, R.E., 1999, Relations of surface-water quality to stream flow in the Wallkill and upper Delaware River Basins, New Jersey and vicinity, water years 1976-93: U.S. Geological Survey Water-Resources Investigations Report 99-4016, 98 p.

Carleton, G.B., Welty, C., and Buxton, H.T., 1999, Design and analysis of tracer tests to determine effective porosity and dispersivity in fractured sedimentary rocks, Newark Basin, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 98-4126A, 80 p.

Cauller, S.J., Carleton, G.B., and Storck, M.J., 1999, Hydrogeology of water withdrawal from, and water levels and chloride concentrations in the major Coastal Plain aquifers of Gloucester and Salem Counties, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 98-4136, 123 p., 6 pl.

WATER-RELATED REPORTS FOR NEW JERSEY COMPLETED BY THE GEOLOGICAL SURVEY IN RECENT YEARS--Continued

- Chang, M., Tasker, G., and Nieswand, S., 2001, Model simulation of the Manasquan water-supply system in Monmouth County, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 01-4172, 51 p.
- Clawges, R.M., Oden, T.D., and Vowinkel, E.F., 1998, Water-quality data for 90 community water supply wells in New Jersey, 1994-95: U.S. Geological Survey Open-File Report 97-625, 31 p.
- DeLuca, M.J., M.L., Mattes, G.L., Burns, H.L., Thomas, A.M., Gray, B.J., and Doyle, H.A., 2000, Water-resources data for New Jersey - water year 2000, Volume 3, Water-quality data: U.S. Geological Survey Water-Data Report NJ-99-3, 618 p.
- DeLuca, M.J., Romanok, K.M., Riskin, M.L., Mattes, G.L., Thomas, A.M., and Gray, B.J., 2000, Water-resources data for New Jersey - water year 1999, Volume 3, Water-quality data: U.S. Geological Survey Water-Data Report NJ-99-3, 517 p.
- Gibs, J., Gray, B.J., Rice, D.E., Tessler, S., and Barringer, T.H., 2001, Water quality of the Delaware and Raritan Canal, New Jersey, 1998-99: U.S. Geological Survey Water Resources Investigations Report 01-4072, 67 p.
- Gibs, J., 1998, Literature review of the environmental fate of four herbicides applied to surface-water bodies in New Jersey: U.S. Geological Survey Open-File Report 98-573, 55 p.
- Hickman, R.E., and Barringer, T.H., 1999, Trends in water quality of New Jersey streams, water years 1986-95: U.S. Geological Survey Water-Resources Investigations Report 98-4204, 174 p.
- Hunchak-Kariouk, K., 1999, Relation of water quality to land use in the drainage basins of four tributaries to the Toms River, New Jersey, 1994-95: U.S. Geological Survey Water-Resources Investigations Report 99-4001, 120 p.
- Hunchak-Kariouk, K., Buxton, D.E., and Hickman, R.E., 1999, Relations of surface-water quality to stream flow in the Atlantic Coastal, lower Delaware River, and Delaware Bay Basins, New Jersey, water years 1976-93: U.S. Geological Survey Water-Resources Investigations Report 98-4244, 158 p.
- Jacobsen, E., 2000, Ground-water quality, water levels, and precipitation at the biosolids study site, Lakehurst Naval Air Engineering Station, New Jersey, 1995-97: U.S. Geological Survey Open-File Report 00-197, 61 p.
- Jones, W.D., 2000, Water-resources data for New Jersey - water year 1999, Volume 2. Ground-water data: U.S. Geological Survey Water-Data Report NJ-99-2, 233 p.
- Jones, W.D., 1999, Water resources data for New Jersey - water year 1998, volume 2, Ground-water data: U.S. Geological Survey Water-Data Report NJ-98-2, 211 p.
- Jones, W.D., 1998, Water resources data for New Jersey - water year 1997, volume 2, Ground-water data: U.S. Geological Survey Water-Data Report NJ-97-2, 226 p.
- Kauffman, L.J., Baehr, A.L., Ayers, M.A., and Stackelberg, P.E., 2001, Effects of land use and travel time on the distribution of nitrate in the Kirkwood-Cohansey aquifer system in southern New Jersey: U.S. Geological Survey Water-Resources Investigations Report 01-4117, 58 p.
- Lacombe, P.J., 2000, Hydrogeologic framework, water levels, and trichloroethylene contamination, Naval Air Warfare Center, West Trenton, New Jersey, 1993-97: U.S. Geological Survey Water-Resources Investigations Report 98-4167, 139 p.
- Lewis-Brown, J.C., dePaul, V., 2000, Ground-water flow and distribution of volatile organic compounds, Rutgers University Busch Campus and vicinity, Piscataway Township, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 99-4256, 72 p.
- Long, G.R., Chang, M., Kennen, J.G., 2000, Trace elements and organochlorine compounds in bed sediment and fish tissue at selected sites in New Jersey streams--Sources and effects: U.S. Geological Survey Water-Resources Investigations Report 99-4235, 29 p.
- McAuley, S.D., Barringer, J.L., Paulachok, G.N., Clark, J.S., Zapecza, O.S., 2001, Ground-water flow and quality in the Atlantic City 800-foot sand, New Jersey: New Jersey Department of Environmental Protection Geological Survey Report GSR 41, 86 p.
- Modica, E., 1998, Analytical methods, numerical modeling and monitoring strategies for evaluating the effects of ground-water withdrawals on unconfined aquifers in the New Jersey Coastal Plain: U.S. Geological Survey Water-Resources Investigations Report 98-4003, 66 p.
- Nawyn, J.P., 1998, Withdrawals of ground water and surface water in New Jersey, 1991-92: U.S. Geological Survey Open-File Report 98-282, 57 p.
- Nicholson, R.S., and Watt, M.K., 1998, Simulation of ground-water-flow patterns and areas contributing recharge to streams and water-supply wells in a valley-fill and carbonate-rock aquifer system, southwestern Morris County, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 97-4216, 40 p.
- Pope, D.A., and Gordon, A.D., 1999, Simulation of ground-water flow and movement of the freshwater-saltwater interface in the New Jersey Coastal Plain: U.S. Geological Survey Water-Resources Investigations Report 98-4216, 159 p.

WATER-RELATED REPORTS FOR NEW JERSEY COMPLETED BY THE GEOLOGICAL SURVEY IN RECENT YEARS--Continued

- Reed, T.J., Centinaro, G.L., DeLuca, M.J., and Oden, J.H., 1998, Water resources data for New Jersey - water year 1997, volume 1, Surface-water data: U.S. Geological Survey Water-Data Report NJ-97-1, 608 p.
- Reed, T.J., Centinaro, G.L., Dudek, J.F., Corcino, V., and Steckrodt, G.C., 2000, Water-resources data for New Jersey - water year 1999, Volume 1. Surface-water data: U.S. Geological Survey Water-Data Report NJ-99-1, 293 p.
- Reiser, R.G., and O'Brien, A.K., 1998, Occurrence and seasonal variability of volatile organic compounds in seven New Jersey streams: U.S. Geological Survey Water-Resources Investigations Report 98-4074, unpaginated.
- Reiser, R.G., and O'Brien, A.K., 1999, Pesticides in streams in New Jersey and Long Island, New York, and relation to land use: U.S. Geological Survey Water-Resources Investigations Report 98-4261, unpaginated.
- Spitz, F.J., 2001, Method and computer programs to improve pathline resolution near weak sinks representing wells in MODFLOW and MODPATH ground-water-flow simulations: U.S. Geological Survey Open-File Report 00-392, 51 p.
- Spitz, F.J., 1998, Analysis of ground-water flow and saltwater encroachment in the shallow aquifer system of Cape May County, New Jersey: U.S. Geological Survey Water-Supply Paper 2490, 51 p.
- Stackelberg, P.E., Kauffman, L.J., Baehr, A.L., and Ayers, M.A., 2000, Comparison of nitrate, pesticides, and volatile organic compounds in samples from monitoring and public-supply wells, Kirkwood-Cohansey aquifer system, southern New Jersey: U.S. Geological Survey Water-Resources Investigations Report 00-4123, 78 p.
- Storck, D.A., and Nawyn, J.P., 2001, Reconstruction of streamflow records in the Passaic and Hackensack River Basins, New Jersey and New York, water years 1993-96: U.S. Geological Survey Water-Resources Investigations Report 01-4078, 95 p.
- Suro, T.P., 1998, December 11-12, 1992, in New Jersey, in Perry, C.A., and Combs, L.J., eds., Summary of floods in the United States, January 1992 through September 1993: U.S. Geological Survey Water-Supply Paper 2499, p. 165-171.
- Watt, M.K., 2001, A hydrologic primer for New Jersey watershed management: U.S. Geological Survey Water-Resources Investigations Report 00-4140, 116 p.

WATER-RELATED ARTICLES FOR NEW JERSEY COMPLETED BY THE GEOLOGICAL SURVEY IN RECENT YEARS

- Baehr, A.L., 1999, Evaluation of the atmosphere as a source of volatile organic compounds in shallow groundwater: *Water Resources Research*, v. 35, no. 1, p. 127-136.
- Ivashenko, T., Szabo, Z., and Gibbs, J., 2001, Changes in sample collection and analytical techniques and effects on retrospective comparability of low-level concentrations of trace elements in ground water: *Water Resources*, v. 35, no. 15, p. 3611-3624.
- Mast, M.A., and Turk, J.T., 1999, Environmental characteristics and water quality of hydrologic benchmark network stations--McDonalds Branch in Lebanon State Forest, New Jersey, in *Environmental characteristics and water quality of hydrologic benchmark network stations in the eastern United States, 1963-95*: U.S. Geological Survey Circular 1173-A, p. 63-71.
- Spitz, F.J., Nicholson, R.S., and Pope, D.A., 2001, A nested rediscritization method to improve pathline resolution by eliminating weak sinks representing wells: *Ground Water* vol. 39, no. 5, p. 778-785
- Vowinkel, E.F., 1998, Use of a numerical rating model to determine the vulnerability of community water-supply wells in New Jersey to contamination by pesticides, in *Monitoring: Critical foundations to protect our waters: Proceedings of the NWQMC National Conference*, Reno, Nevada, July 7-9, 1998, p. III 539 - III 546.
- WATER-RELATED FACT SHEETS FOR NEW JERSEY COMPLETED BY THE GEOLOGICAL SURVEY IN RECENT YEARS**
- Fischer, J.M., 1999, National Water-Quality Assessment Program, Delaware River Basin: U.S. Geological Survey Fact Sheet FS-056-99.
- Jones, W.D., Navoy, A.S., Pope, D.A., 2002, Real-time ground-water-level monitoring in New Jersey, 2001: U.S. Geological Survey Fact Sheet FS-011-02, unpaginated.
- Kennen, J.G., 1998, Relation of benthic macro invertebrate community impairment to basin characteristics in New Jersey streams: U.S. Geological Survey Fact Sheet FS-057-98.
- Modica, E., 1999, Source and age of ground-water seepage to streams: U.S. Geological Survey Fact Sheet FS-063-99, unpaginated.
- O'Brien, A.K., Reiser, R.G., and Gylling, H., 1998, Spatial variability of volatile organic compounds in streams on Long Island, New York, and in New Jersey: U.S. Geological Survey Fact Sheet FS-194-97.

WATER-RELATED FACT SHEETS FOR NEW JERSEY COMPLETED BY THE GEOLOGICAL SURVEY IN RECENT YEARS--Continued

Reiser, R.G., and Schopp, R.D., 2001, Sparta, New Jersey, flood of August 11-14, 2000: U.S. Geological Survey Fact Sheet FS-104-01, unpaginated.

Summer, W.M., 1998, New Jersey Tide Telemetry System: U.S. Geological Survey Fact Sheet FS-091-98.

Summer, W.M., 1998, Passaic Flood Warning System: U.S. Geological Survey Fact Sheet FS-092-98.

Summer, W.M., 1998, Somerset County Flood Information System: U.S. Geological Survey Fact Sheet FS-090-98.

Szabo, Z., and dePaul, V., 1998, Radium-226 and radium-228 in shallow ground water, southern New Jersey: U.S. Geological Survey Fact Sheet FS-062-98.

ACCESS TO USGS WATER DATA

The U.S. Geological Survey provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the world wide web (WWW). These data may be accessed at

<http://water.usgs.gov>

Some water-quality and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on magnetic tape or 3-1/2 inch floppy disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division District Offices (see address on the back of the title page).

DEFINITION OF TERMS

Specialized technical terms used in this report are defined below. Terms such as algae, water level, precipitation are used in their common everyday meanings, definitions of which are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Aquifer is a geologic formation, group of formation, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases, the water level can rise above the ground surface, yielding a flowing well. (See also "Aquifer")

Continuous-record station is a site where data are collected with sufficient frequency to define daily mean values and variations within a day.

Daily-record station is a site where data are collected with sufficient frequency to develop a record of one or more data values per day. The frequency of data collection can range from continuous recording to periodic sample or data collection on a daily or near-daily basis.

Data Collection Platform (DCP) is an electronic instrument that collects, processes, and stores data from various sensors, and transmits the data by satellite data relay, line-of-sight radio, and/or landline telemetry.

Data logger is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data are usually downloaded from onsite data loggers for entry into office data systems.

Datum is a surface or point relative to which measurements of height and/or horizontal position are reported. A vertical datum is a horizontal surface used as the zero point for measurements of gage height, stage, or elevation; a horizontal datum is a reference for positions given in terms of latitude-longitude, State Plane coordinates, or UTM coordinates. (See also "Land-surface datum," and "National Geodetic Vertical Datum of 1929")

Ground-water level is the elevation of the water table or another potentiometric surface at a particular location.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as defined by the former Office of Water Data Coordination and delineated on the State Hydrologic Unit Maps by the USGS. Each hydrologic unit is identified by an 8-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to water surface in a well is measured to obtain water level.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It was formerly called "Sea Level Datum of 1929" or "mean sea level." Although the datum was derived from the mean sea level at 26 tide stations, it does not necessarily represent local mean sea level at any particular place. See NOAA web site: <http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88>

DEFINITION OF TERMS--Continued

NJ-WRD well number is a hyphenated, 6-digit identification number which the U.S. Geological Survey assigned to all New Jersey wells in the Ground Water Site Inventory (GWSI) data base. This numbering system was developed in 1978 to simplify identification of wells. The first two digits are a code for the county in which the well is located, and the last four digits are a sequence number. Each well added to GWSI is assigned the next higher sequence number for the county in which the well is located. These NJ-WRD well numbers are being used in the ground-water level descriptions, to identify ground-water quality sites, and on the corresponding location maps in this report.

Open or screened interval is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

Periodic-record station is a site where stage, discharge, sediment, chemical, physical, or other hydrologic measurements are made one or more times during a year, but at a frequency insufficient to develop a daily record.

Sea level, as used in this report, refers to one of the two commonly used national vertical datums, (NGVD 1929 or NAVD 1988). See separate entries for definitions of these datums. See conversion of units page (inside back cover) for identification of the datum used in this report.

Water level is the water-surface elevation or stage of the free surface of a body of water above or below any datum, or the surface of water standing in a well, usually indicative of the position of the water table or other potentiometric surface.

Water table is the level in the saturated zone at which the pressure is equal to the atmospheric pressure.

Water-table aquifer is an unconfined aquifer within which is found the water table.

Water year in USGS reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 2001, is called the "2001 water year."

Well is an excavation (pit, hole, tunnel), generally cylindrical in form and often walled in, drilled, dug, driven, bored, or jetted into the ground to such a depth as to penetrate water-yielding geologic material and allow the water to flow or to be pumped to the surface.

WSP is used as an acronym for "Water-Supply Paper" in reference to previously published reports.

TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY

The U.S.G.S. publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is

grouped under major subject headings called books and is further divided into sections and chapters. For example, section A of book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S.G.S., Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be made in the form of a check or money order payable to the "U.S. Geological Survey." Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and mention the "U.S. Geological Survey Techniques of Water-Resources Investigations."

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

- 1-D1. *Water temperature—influential factors, field measurement, and data presentation*, by H.H. Stevens, Jr., J.F. Ficke, and G.F. Smoot: USGS-TWRI book 1, chap. D1. 1975. 65 p.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS-TWRI book 1, chap. D2. 1976. 24 p.

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

- 2-D1. *Application of surface geophysics to ground-water investigations*, by A.A.R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS-TWRI book 2, chap. D1. 1974. 116 p.
- 2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS-TWRI book 2, chap. D2. 1988. 86 p.

Section E. Subsurface Geophysical Methods

- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W.S. Keys and L.M. MacCary: USGS-TWRI book 2, chap. E1. 1971. 126 p.
- 2-E2. *Borehole geophysics applied to ground-water investigations*, by W.S. Keys: USGS-TWRI book 2, chap. E2. 1990. 150 p.

Section F. Drilling and Sampling Methods

- 2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W.E. Teasdale: USGS-TWRI book 2, chap. F1. 1989. 97 p.

TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY-- Continued

Book 3. Applications of Hydraulics

Section A. Surface-Water Techniques

- 3-A1. *General field and office procedures for indirect discharge measurements*, by M.A. Benson and Tate Dalrymple: USGS-TWRI book 3, chap. A1. 1967. 30 p.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M.A. Benson: USGS-TWRI book 3, chap. A2. 1967. 12 p.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G.L. Bodhaine: USGS-TWRI book 3, chap. A3. 1968. 60 p.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H.F. Matthai: USGS-TWRI book 3, chap. A4. 1967. 44 p.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS-TWRI book 3, chap. A5. 1967. 29 p.
- 3-A6. *General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: USGS-TWRI book 3, chap. A6. 1968. 13 p.
- 3-A7. *Stage measurement at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS-TWRI book 3, chap. A7. 1968. 28 p.
- 3-A8. *Discharge measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS-TWRI book 3, chap. A8. 1969. 65 p.
- 3-A9. *Measurement of time of travel in streams by dye tracing*, by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS-TWRI book 3, chap. A9. 1989. 27 p.
- 3-A10. *Discharge ratings at gaging stations*, by E.J. Kennedy: USGS-TWRI book 3, chap. A10. 1984. 59 p.
- 3-A11. *Measurement of discharge by the moving-boat method*, by G.F. Smoot and C.E. Novak: USGS-TWRI book 3, chap. A11. 1969. 22 p.
- 3-A12. *Fluorometric procedures for dye tracing*, Revised, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS-TWRI book 3, chap. A12. 1986. 34 p.
- 3-A13. *Computation of continuous records of streamflow*, by E.J. Kennedy: USGS-TWRI book 3, chap. A13. 1983. 53 p.
- 3-A14. *Use of flumes in measuring discharge*, by F.A. Kilpatrick and V.R. Schneider: USGS-TWRI book 3, chap. A14. 1983. 46 p.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS-TWRI book 3, chap. A15. 1984. 48 p.
- 3-A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS-TWRI book 3, chap. A16. 1985. 52 p.
- 3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS-TWRI book 3, chap. A17. 1985. 38 p.
- 3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F.A. Kilpatrick, R.E. Rathbun, Nobuhiro Yotsukura, G.W. Parker, and L.L. DeLong: USGS-TWRI book 3, chap. A18. 1989. 52 p.
- 3-A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS-TWRI book 3, chap. A19. 1990. 31 p.
- 3-A20. *Simulation of soluble waste transport and buildup in surface waters using tracers*, by F.A. Kilpatrick: USGS-TWRI book 3, chap. A20. 1993. 38 p.
- 3-A21. *Stream-gaging cableways*, by C. Russell Wagner: USGS-TWRI book 3, chap. A21. 1995. 56 p.

Section B. Ground-Water Techniques

- 3-B1. *Aquifer-test design, observation, and data analysis*, by R.W. Stallman: USGS-TWRI book 3, chap. B1. 1971. 26 p.
- 3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G.D. Bennett: USGS-TWRI book 3, chap. B2. 1976. 172 p.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J.E. Reed: USGS-TWRI book 3, chap. B3. 1980. 106 p.
- 3-B4. *Regression modeling of ground-water flow*, by R.L. Cooley and R.L. Naff: USGS-TWRI book 3, chap. B4. 1990. 232 p.
- 3-B4. *Supplement 1. Regression modeling of ground-water flow --Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems*, by R.L. Cooley: USGS-TWRI book 3, chap. B4. 1993. 8 p.
- 3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems—An introduction*, by O.L. Franke, T.E. Reilly, and G.D. Bennett: USGS-TWRI book 3, chap. B5. 1987. 15 p.

TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY-- Continued

3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS-TWRI book 3, chap. B6. 1987. 28 p.

3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow*, by E.J. Wexler: USGS-TWRI book 3, chap. B7. 1992. 190 p.

3-B8. *System and boundary conceptualization in ground-water flow simulation*, by T.E. Reilly: USGS-TWRI book 3, chap. B8. 2001. 29 p.

Section C. Sedimentation and Erosion Techniques

3-C1. *Fluvial sediment concepts*, by H.P. Guy: USGS-TWRI book 3, chap. C1. 1970. 55 p.

3-C2. *Field methods for measurement of fluvial sediment*, by T.K. Edwards and G.D. Glysson: USGS-TWRI book 3, chap. C2. 1999. 89 p.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS-TWRI book 3, chap. C3. 1972. 66 p.

Book 4. Hydrologic Analysis and Interpretation

Section A. Statistical Analysis

4-A1. *Some statistical tools in hydrology*, by H.C. Riggs: USGS-TWRI book 4, chap. A1. 1968. 39 p.

4-A2. *Frequency curves*, by H.C. Riggs: USGS-TWRI book 4, chap. A2. 1968. 15 p.

Section B. Surface Water

4-B1. *Low-flow investigations*, by H.C. Riggs: USGS-TWRI book 4, chap. B1. 1972. 18 p.

4-B2. *Storage analyses for water supply*, by H.C. Riggs and C.H. Hardison: USGS-TWRI book 4, chap. B2. 1973. 20 p.

4-B3. *Regional analyses of streamflow characteristics*, by H.C. Riggs: USGS-TWRI book 4, chap. B3. 1973. 15 p.

Section D. Interrelated Phases of the Hydrologic Cycle

4-D1. *Computation of rate and volume of stream depletion by wells*, by C.T. Jenkins: USGS-TWRI book 4, chap. D1. 1970. 17 p.

Book 5. Laboratory Analysis

Section A. Water Analysis

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M.J. Fishman and L.C. Friedman, editors: USGS-TWRI book 5, chap. A1. 1989. 545 p.

5-A2. *Determination of minor elements in water by emission spectroscopy*, by P.R. Barnett and E.C. Mallory, Jr.: USGS-TWRI book 5, chap. A2. 1971. 31 p.

5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS-TWRI book 5, chap. A3. 1987. 80 p.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L.J. Britton and P.E. Greeson, editors: USGS-TWRI book 5, chap. A4. 1989. 363 p.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS-TWRI book 5, chap. A5. 1977. 95 p.

5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L.C. Friedman and D.E. Erdmann: USGS-TWRI book 5, chap. A6. 1982. 181 p.

Section C. Sediment Analysis

5-C1. *Laboratory theory and methods for sediment analysis*, by H.P. Guy: USGS-TWRI book 5, chap. C1. 1969. 58 p.

Book 6. Modeling Techniques

Section A. Ground Water

6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M.G. McDonald and A.W. Harbaugh: USGS-TWRI book 6, chap. A1. 1988. 586 p.

6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model*, by S.A. Leake and D.E. Prudic: USGS-TWRI book 6, chap. A2. 1991. 68 p.

TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY-- Continued

6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual*, by L.J. Torak: USGS-TWRI book 6, chap. A3. 1993. 136 p.

6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions*, by R.L. Cooley: USGS-TWRI book 6, chap. A4. 1992. 108 p.

6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details*, by L.J. Torak: USGS-TWRI book 6, chap. A5, 1993. 243 p.

6-A6. *A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction*, by Eric D. Swain and Eliezer J. Wexler: USGS-TWRI book 6, chap. A5, 1996. 125 p.

Book 7. Automated Data Processing and Computations

Section C. Computer Programs

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS-TWRI book 7, chap. C1. 1976. 116 p.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L.F. Konikow and J.D. Bredehoeft: USGS-TWRI book 7, chap. C2. 1978. 90 p.

7-C3. *A model for simulation of flow in singular and interconnected channels*, by R.W. Schaffranek, R.A. Baltzer, and D.E. Goldberg: USGS-TWRI book 7, chap. C3. 1981. 110 p.

Book 8. Instrumentation

Section A. Instruments for Measurement of Water Level

8-A1. *Methods of measuring water levels in deep wells*, by M.S. Garber and F.C. Koopman: USGS-TWRI book 8, chap. A1. 1968. 23 p.

8-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS-TWRI book 8, chap. A2. 1983. 57 p.

Section B. Instruments for Measurement of Discharge

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G.F. Smoot and C.E. Novak: USGS-TWRI book 8, chap. B2. 1968. 15 p.

Book 9. Handbooks for Water-Resources Investigations

Section A. National Field Manual for the Collection of Water-Quality Data

9-A1. *National Field Manual for the Collection of Water-Quality Data: Preparations for Water Sampling*, by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS-TWRI book 9, chap. A1. 1998. 47 p.

9-A2. *National Field Manual for the Collection of Water-Quality Data: Selection of Equipment for Water Sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS-TWRI book 9, chap. A2. 1998. 94 p.

9-A3. *National Field Manual for the Collection of Water-Quality Data: Cleaning of Equipment for Water Sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS-TWRI book 9, chap. A3. 1998. 75 p.

9-A4. *National Field Manual for the Collection of Water-Quality Data: Collection of Water Samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS-TWRI book 9, chap. A4. 1999. 156 p.

9-A5. *National Field Manual for the Collection of Water-Quality Data: Processing of Water Samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS-TWRI book 9, chap. A5. 1999. 149 p.

9-A6. *National Field Manual for the Collection of Water-Quality Data: Field Measurements*, edited by F.D. Wilde and D.B. Radtke: USGS-TWRI book 9, chap. A6. 1998. Various paginated.

9-A7. *National Field Manual for the Collection of Water-Quality Data: Biological Indicators*, edited by D.N. Myers and F.D. Wilde: USGS-TWRI book 9, chap. A7. 1997 and 1999. Various paginated.

9-A8. *National Field Manual for the Collection of Water-Quality Data: Bottom-material samples*, by D.B. Radtke: USGS-TWRI book 9, chap. A8. 1998. 48 p.

9-A9. *National Field Manual for the Collection of Water-Quality Data: Safety in Field Activities*, by S.L. Lane and R.G. Fay: USGS-TWRI book 9, chap. A9. 1998. 60 p.



Figure 4. Location of ground-water-level observation wells in New Jersey.

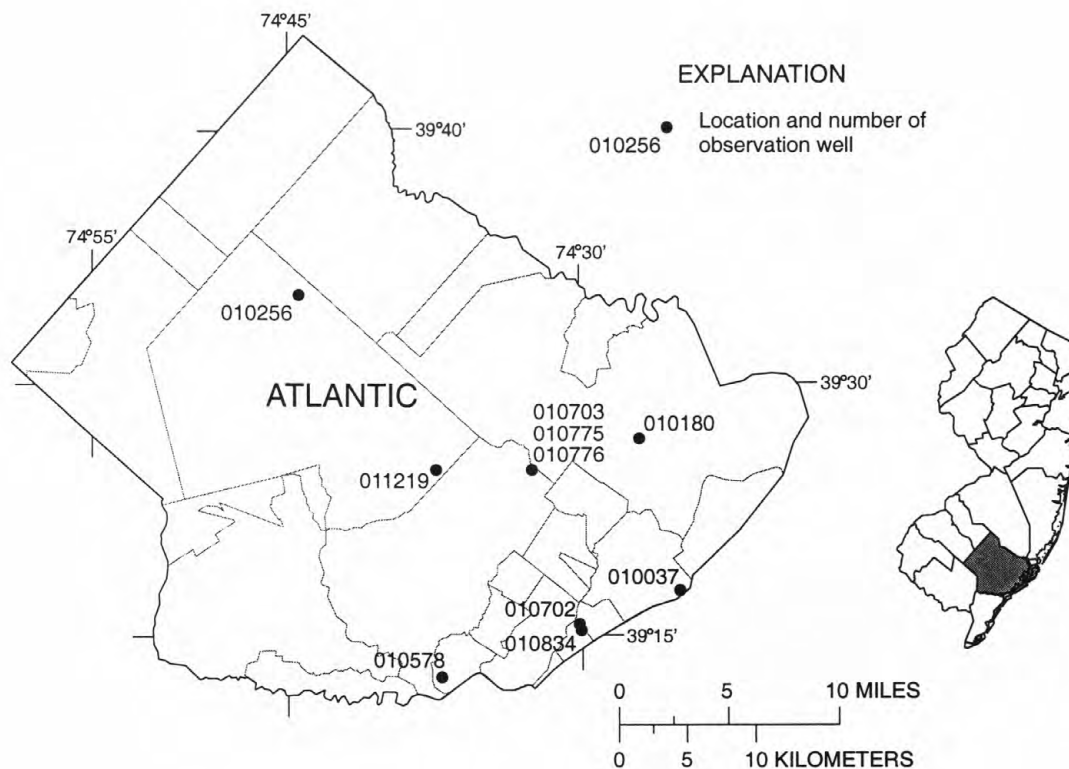
WATER RESOURCES DATA - NEW JERSEY, 2001

ATLANTIC COUNTY

NJ-WRD well number	Local identifier	Township	Well depth	Aquifer	Type of data
010037	GALEN HALL OBS	ATLANTIC CITY	842	KRKDL	DAILY
010180	OCEANVILLE 1 OBS	GALLOWAY TWP	570	KRKDL	DAILY
010256	SCHOLLER 1 OBS	HAMILTON TWP	275	CKKD	DAILY
010578	JOBS POINT OBS	SOMERS POINT CITY	680	KRKDL	DAILY
010702	BURK AVE TW OBS	MARGATE CITY	755	KRKDL	MANUAL
010703	FAA POMONA OBS	EGG HARBOR TWP	575	KRKDL	DAILY
010775	FAA INTERMEDIATE OBS	EGG HARBOR TWP	182	CKKD	MANUAL
010776	FAA SHALLOW OBS	EGG HARBOR TWP	93	CKKD	MANUAL
010834	MARGATE FIREHOUSE 1 OBS	MARGATE CITY	997	PNPN	DAILY
011219	HTMUA 9 OBS	HAMILTON TWP	742	PNPN	MANUAL

Aquifer names

- CKKD - Kirkwood-Cohansey aquifer system
- KRKDL - Atlantic City 800-foot sand of the Kirkwood Formation
- PNPN - Piney Point aquifer



ATLANTIC COUNTY

NJ-WRD Well Number, 01-0037. Site I.D., 392153074250101. Local I.D., Galen Hall Obs. NJ Permit Number, 56-00071.

LOCATION.--Lat 39°21'51", long 74°24'59", Hydrologic Unit 02040302, near the intersection of Pacific Ave. and Congress Ave., Atlantic City.

Owner: Atlantic City Municipal Utilities Authority.

AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 842 ft, screened 782 to 837 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Water-level extremes recorder, May 1977 to July 1980. Periodic measurements, Aug. 1975 to May 1977. Water-level recorder, Jan. 1949 to Aug. 1975.

DATUM.--Land surface is 9.54 ft above sea level.

Measuring point: Top of recorder shelf, 2.75 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

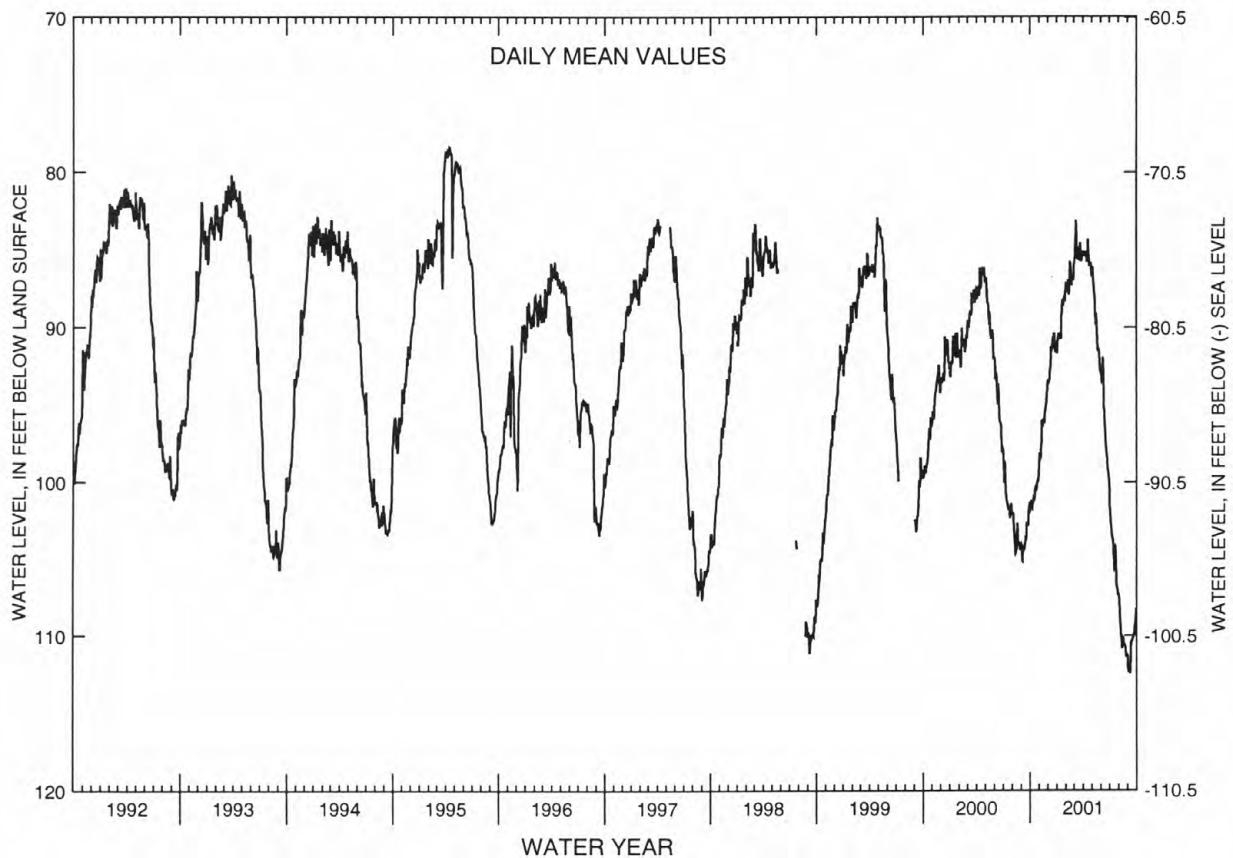
PERIOD OF RECORD.--Jan. 1949 to current year. Records for 1949 to 1976 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.58 ft below land surface, Mar. 7, 1962; lowest, 112.55 ft below land surface, Sept. 10-11, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	101.25	98.45	93.40	90.61	87.55	84.91	85.17	86.44	93.56	102.55	108.33	112.34
10	101.34	95.98	92.64	90.48	87.06	84.31	85.38	87.81	93.59	103.54	110.04	112.49
15	101.24	95.89	91.23	90.75	85.75	84.98	85.79	89.82	96.19	104.71	110.21	110.36
20	100.29	95.72	90.64	88.28	87.25	85.65	85.26	91.05	98.00	104.04	110.68	110.09
25	99.99	94.96	91.07	88.14	86.97	85.54	85.91	91.32	99.11	106.63	110.75	109.64
EOM	99.34	93.66	90.96	87.39	86.33	85.07	86.50	92.86	100.14	107.23	111.25	108.23
MEAN	100.79	96.25	91.80	89.54	86.99	85.07	85.51	89.50	96.18	104.58	110.04	110.67
WTR YR 2001 MEAN 95.63 HIGH 83.12 MAR 8 LOW 112.49 SEP 10												

NJ-WRD WELL NO. 01-0037



GROUND-WATER LEVELS

ATLANTIC COUNTY--Continued

NJ-WRD Well Number, 01-0180. Site I.D., 392754074270101. Local I.D., Oceanville 1 Obs. NJ Permit Number, 36-00294.

LOCATION.--Lat 39°27'54", long 74°27'01", Hydrologic Unit 02040302, at the Edwin B. Forsythe National Wildlife Refuge, Brigantine Division, Oceanville, Galloway Township.
Owner: U.S. Geological Survey.

AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 570 ft, screened 560 to 570 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Water-level extremes recorder, Apr. 1977 to Feb. 1984. Periodic measurements, Aug. 1975 to Apr. 1977. Water-level recorder, Oct. 1959 to Aug. 1975.

DATUM.--Land surface is 27 ft above sea level, from topographic map.
Measuring point: Top of bushing, 2.30 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

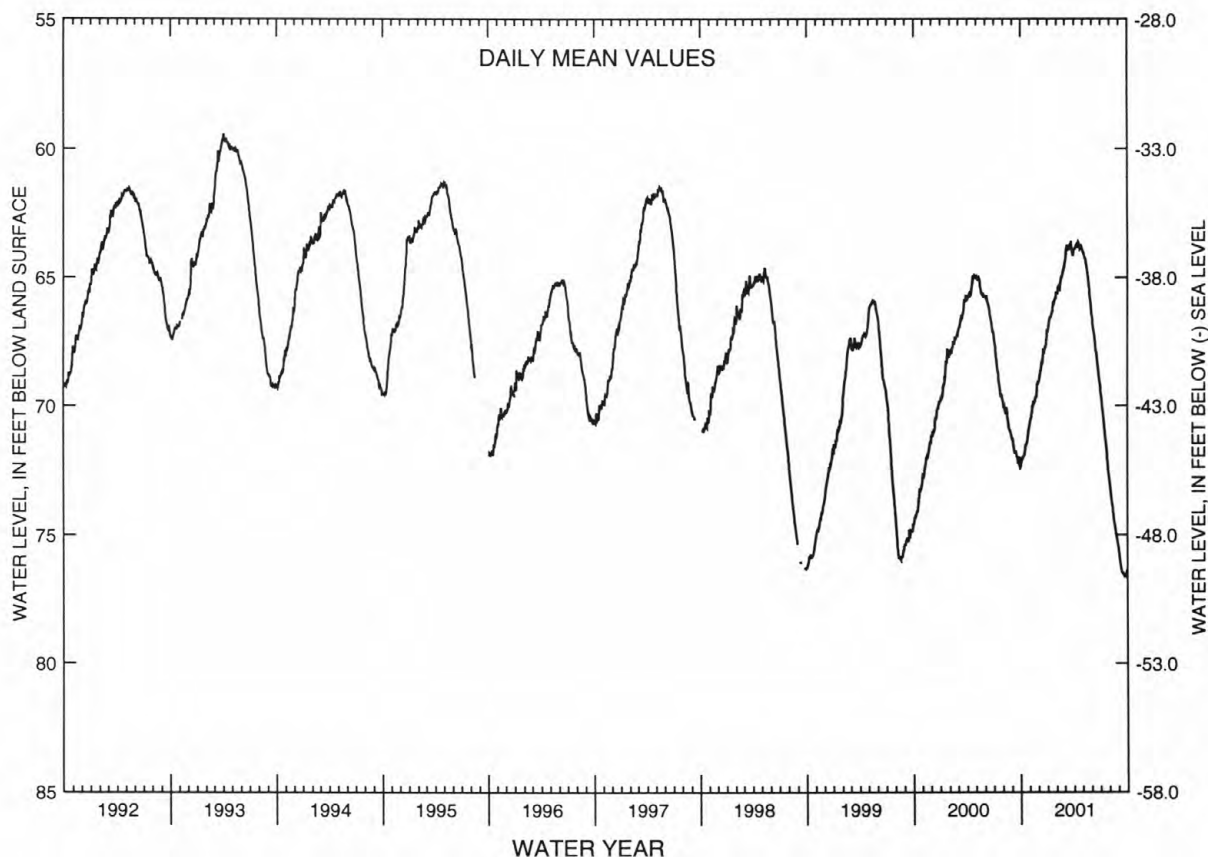
PERIOD OF RECORD.--Oct. 1959 to current year. Records for 1975 to 1981 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 33.62 ft below land surface, Apr. 13, 1961; lowest, 76.67 ft below land surface, Sept. 28-29, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	72.13	70.46	68.80	66.79	65.38	63.90	63.87	64.05	66.89	69.66	73.26	75.82
10	71.94	70.01	68.54	66.57	65.27	63.85	63.71	64.26	67.27	70.30	73.77	76.28
15	71.85	69.85	68.24	66.35	65.09	63.80	63.68	64.59	67.83	70.89	74.23	76.44
20	71.51	69.69	67.83	65.98	64.90	63.92	63.83	65.08	68.26	71.41	74.63	76.51
25	71.27	69.53	67.69	65.84	64.61	63.93	63.85	65.65	68.70	72.08	75.01	76.53
EOM	70.79	69.07	67.06	65.57	64.50	63.94	63.96	66.39	69.18	72.76	75.40	76.34
MEAN	71.67	69.89	68.13	66.31	65.12	63.91	63.79	64.86	67.82	71.01	74.25	76.29
WTR YR 2001 MEAN 68.61 HIGH 63.57 MAR 22 LOW 76.63 SEP 27												

NJ-WRD WELL NO. 01-0180



ATLANTIC COUNTY--Continued

NJ-WRD Well Number, 01-0256. Site I.D., 393333074442401. Local I.D., Scholler 1 Obs. NJ Permit Number, 32-00173.

LOCATION.--Lat 39°33'33", long 74°44'26", Hydrologic Unit 02040302, inside the boiler room at Scholler Inc., Weymouth Rd. and Blueberry Rd., Elwood, Hamilton Township.
Owner: Scholler Incorporated.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 8 in., depth 275 ft, screened 254 to 275 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Water-level extremes recorder, May 1977 to Apr. 1984. Periodic measurements, Aug. 1975 to May 1977. Water-level recorder, Apr. 1962 to Aug. 1975.

DATUM.--Land surface is 93.19 ft above sea level.
Measuring point: Top of recorder shelf, 2.66 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

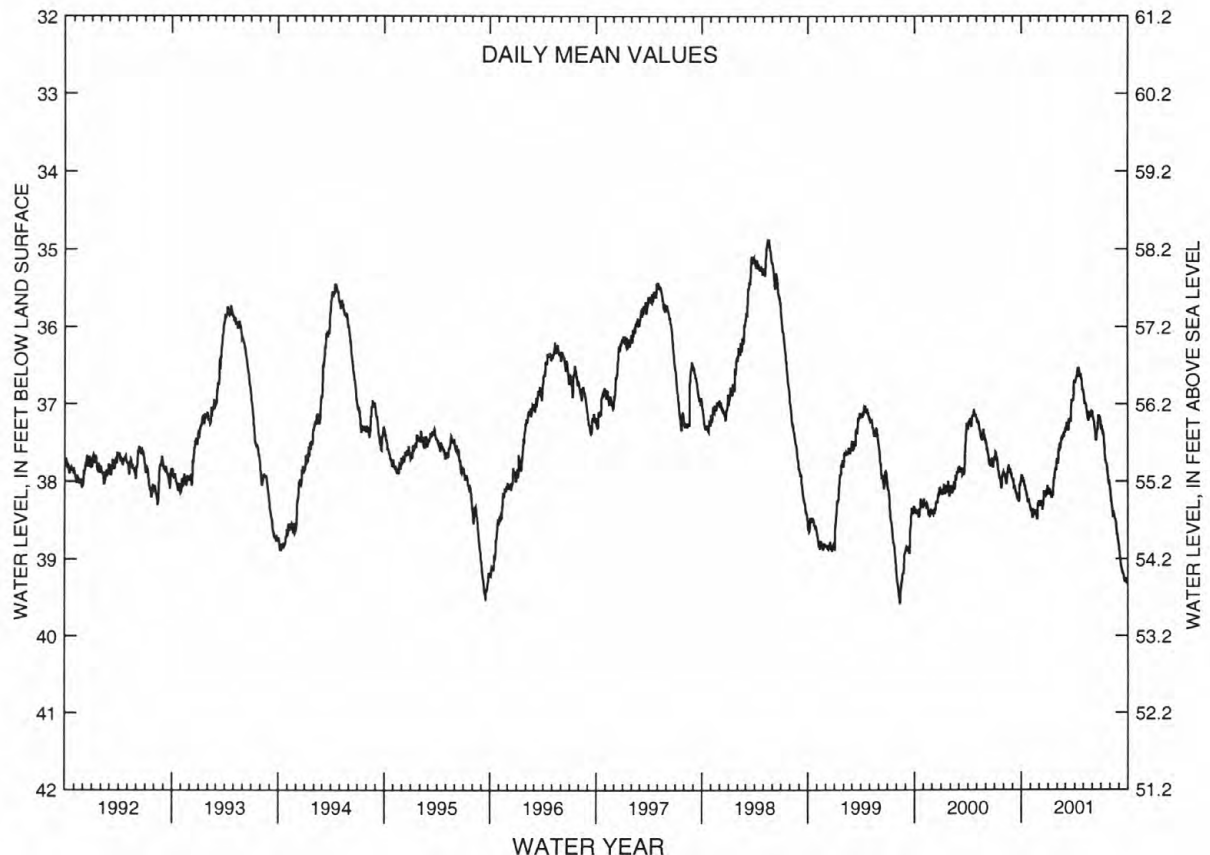
PERIOD OF RECORD.--Apr. 1962 to current year. Records for 1962 to 1976 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.18 ft below land surface, Mar. 20, 1963; lowest, 39.61 ft below land surface, Aug. 13, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	37.95	38.38	38.24	38.10	37.62	37.25	36.72	36.89	37.17	37.27	38.22	38.95
10	37.99	38.35	38.32	38.17	37.50	37.31	36.63	36.99	37.30	37.38	38.38	39.10
15	38.07	38.37	38.31	38.16	37.45	37.22	36.56	37.09	37.46	37.64	38.41	39.18
20	38.18	38.40	38.13	37.98	37.40	37.22	36.63	37.21	37.33	37.77	38.49	39.27
25	38.24	38.48	38.17	37.85	37.37	36.95	36.65	37.17	37.15	37.90	38.66	39.24
EOM	38.31	38.25	38.08	37.70	37.34	36.72	36.81	37.14	37.20	38.03	38.79	39.31
MEAN	38.11	38.38	38.21	38.04	37.51	37.14	36.65	37.05	37.25	37.63	38.44	39.15
WTR YR 2001 MEAN 37.80 HIGH 36.52 APR 16 LOW 39.31 SEP 29												

NJ-WRD WELL NO. 01-0256



GROUND-WATER LEVELS

ATLANTIC COUNTY--Continued

NJ-WRD Well Number, 01-0578. Site I.D., 391827074371001. Local I.D., Jobs Point Obs. NJ Permit Number 36-00295.

LOCATION.--Lat 39°18'26", long 74°37'09", Hydrologic Unit 02040302, on the west side of the Garden State Parkway at interchange 29, Somers Point City.

Owner: U.S. Geological Survey.

AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in., depth 680 ft, screened 670 to 680 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Water-level extremes recorder, May 1977 to Feb. 1984. Periodic measurements, June 1975 to May 1977. Water-level recorder, Oct. 1959 to June 1975.

DATUM.--Land surface is 10.00 ft above sea level.

Measuring point: Top of recorder shelf, 9.34 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

PERIOD OF RECORD.--Oct. 1959 to current year. Records for 1975 to 1980 are unpublished and are available in files of the New Jersey District Office.

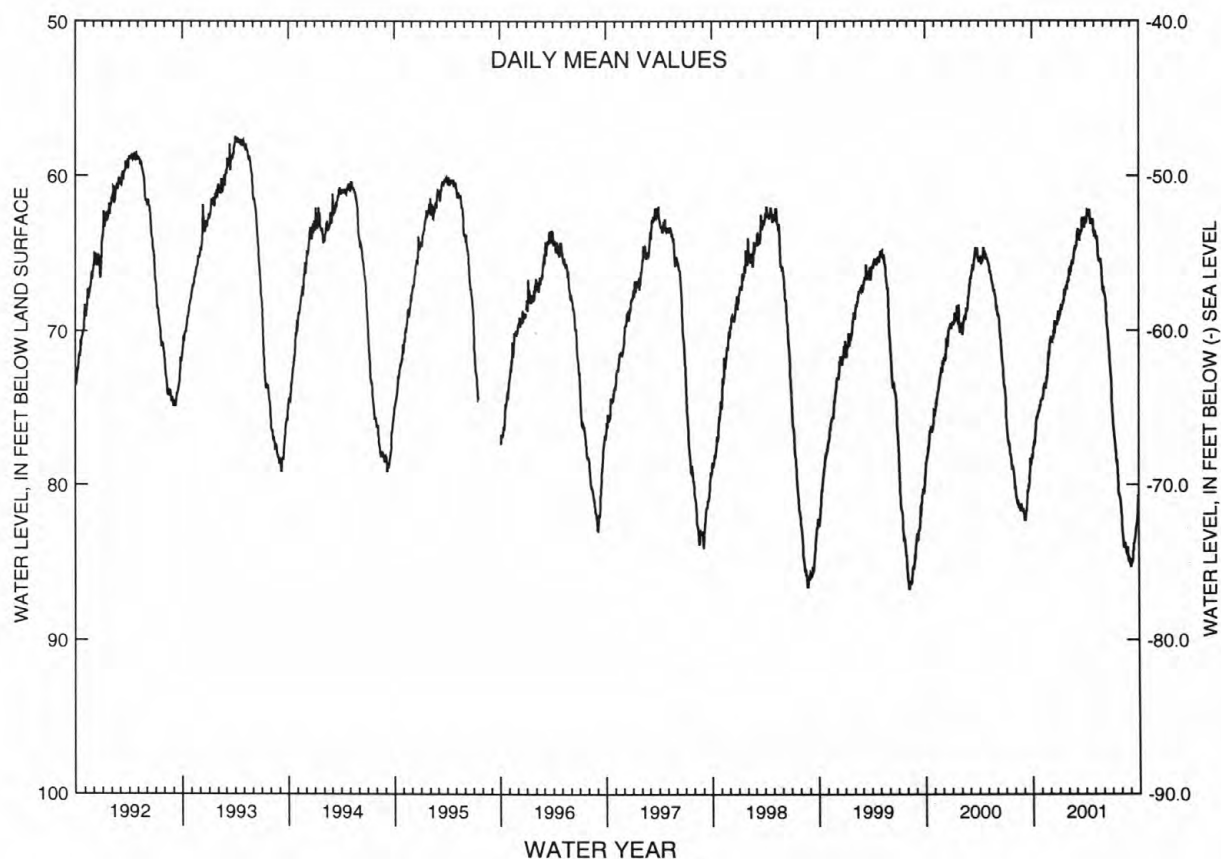
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.10 ft below land surface, Apr. 13, 1961; lowest, 87.54 ft below land surface, Aug. 8, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	77.88	74.46	70.40	68.82	65.99	63.56	62.95	63.57	67.60	75.52	82.08	85.22
10	77.13	73.78	70.56	68.67	65.98	64.14	62.33	63.89	68.10	76.82	83.79	84.93
15	76.24	73.73	70.07	68.09	65.44	63.83	62.24	65.16	69.74	77.70	83.70	83.80
20	75.60	72.99	69.58	67.31	65.33	63.53	63.08	65.40	70.79	78.38	84.30	83.25
25	75.32	72.07	69.64	67.21	64.53	63.16	63.11	65.57	72.10	80.55	84.00	82.54
BOM	74.60	71.18	69.40	66.82	64.56	62.94	63.67	67.46	73.45	80.98	84.72	80.68
MEAN	76.32	73.31	69.98	68.01	65.66	63.56	62.77	64.95	69.82	78.00	83.67	83.74

WTR YR 2001 MEAN 71.69 HIGH 62.21 APR 8 LOW 85.29 SEP 4

NJ-WRD WELL NO. 01-0578



GROUND-WATER LEVELS

23

ATLANTIC COUNTY--Continued

NJ-WRD Well Number, 01-0702. Site I.D., 392032074300801. Local I.D., Burk Ave TW Obs.

LOCATION.--Lat 39°20'32", long 74°30'08", Hydrologic Unit 02040302, about 20 ft south of the intersection of Burk Ave. and Fredericksburg Ave., Margate City.
Owner: U.S. Geological Survey.

AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 755 ft, screened 740 to 750 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Oct. 1985 to Jan. 1988.

DATUM.--Land surface is 5 ft above sea level, from topographic map.
Measuring point: Top of well shelter shelf, 2.30 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

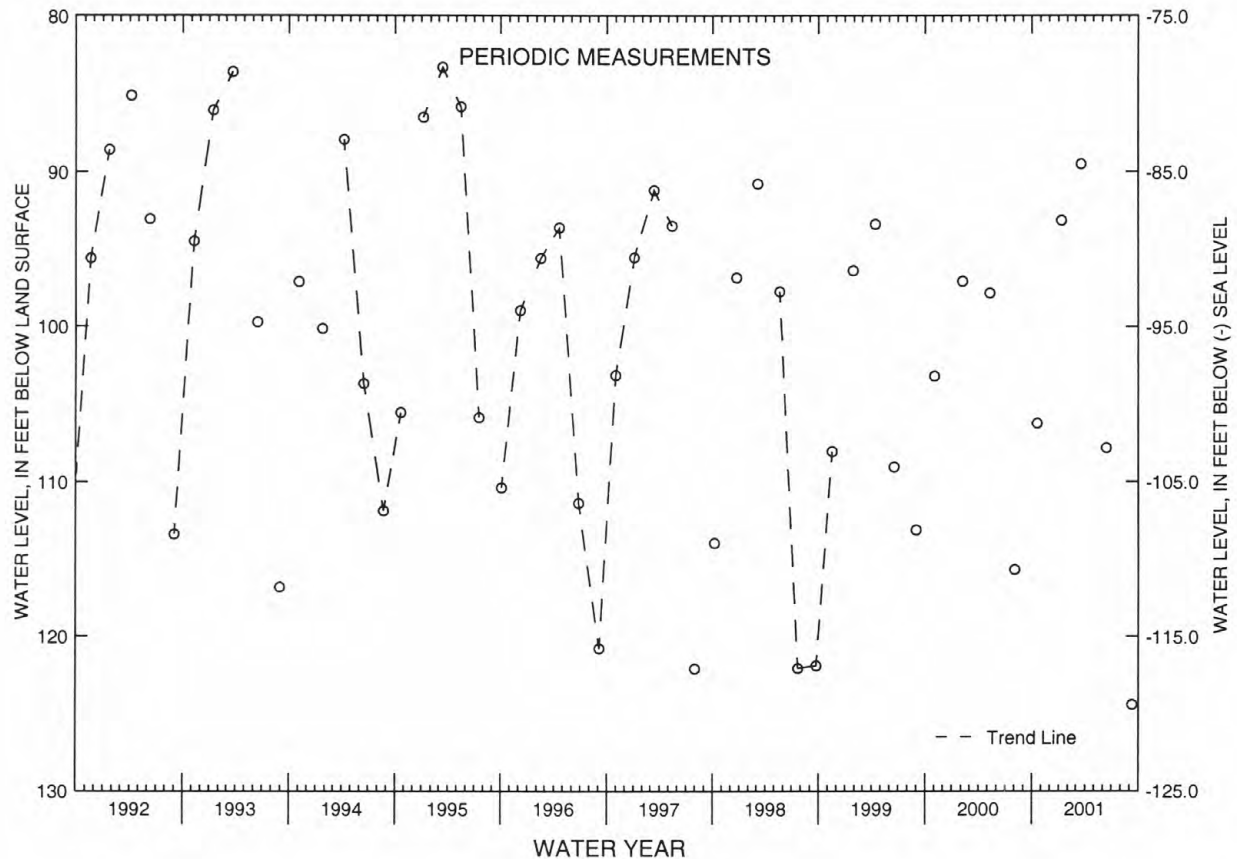
PERIOD OF RECORD.--October 1985 to current year. Records for 1985 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 73.20 ft below land surface, May 17, 1986; lowest, 124.41 ft below land surface, Sept 10, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	106.24	JAN 11	93.14	MAR 19	89.50	JUN 14	107.82	SEP 10	124.41
WATER YEAR 2001		HIGHEST	89.50	MAR 19, 2001		LOWEST	124.41	SEP 10, 2001	

NJ-WRD WELL NO. 01-0702



GROUND-WATER LEVELS

ATLANTIC COUNTY--Continued

NJ-WRD Well Number, 01-0703. Site I.D., 393232074263901. Local I.D., FAA Pomona Obs. NJ Permit Number, 36-05092.

LOCATION.--Lat 39°26'39", long 74°32'32", Hydrologic Unit 02040302, at the NAFEC Atlantic City Airport, Egg Harbor Township.
Owner: U.S. Geological Survey.

AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 575 ft, screened 560 to 570 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval. Water-level recorder, May 1985 to Mar. 2000. Periodic measurements, Mar to May 1985.

DATUM.--Land surface is 38 ft above sea level, from topographic map.
Measuring point: Top of recorder shelf, 1.75 ft above land surface.

REMARKS.--Water level is affected by nearby pumping. Water level was affected by New Jersey-American Water Company aquifer test, Aug. 23-31, 1993.

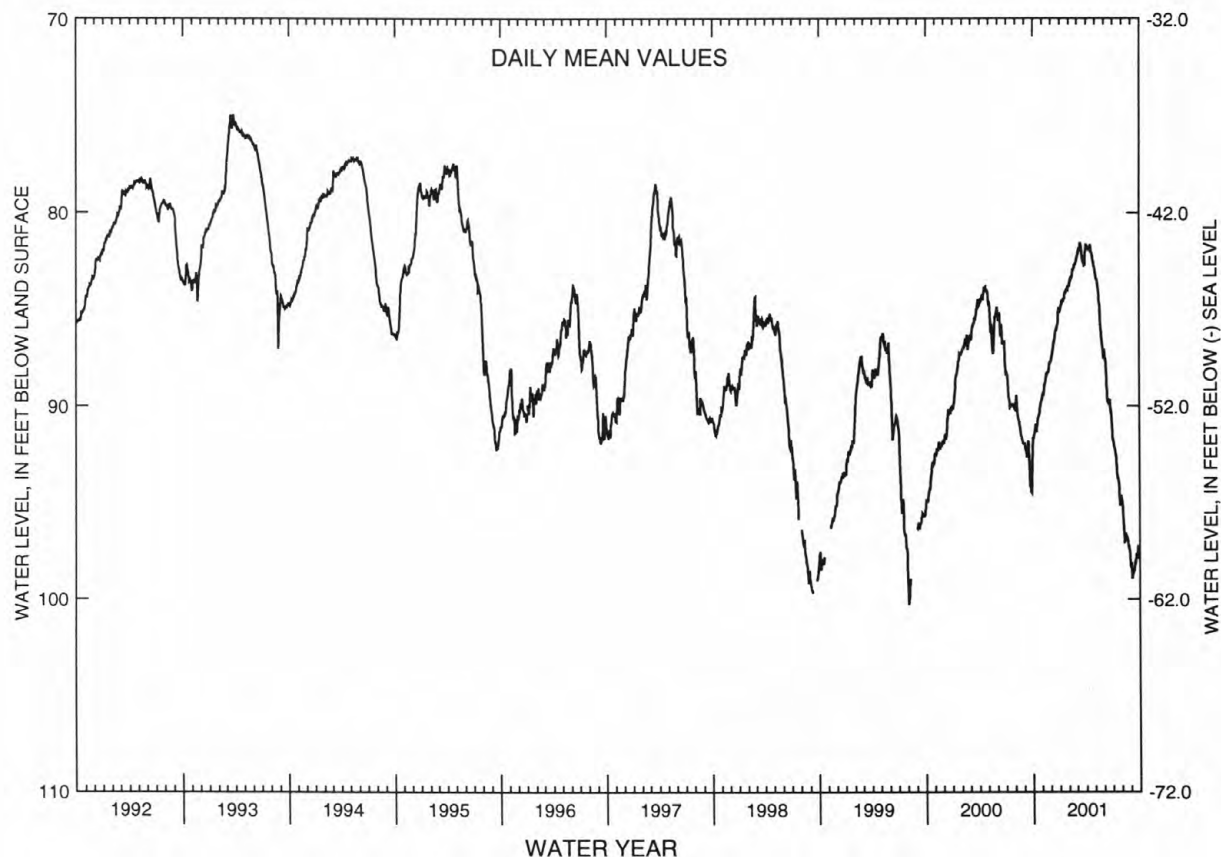
PERIOD OF RECORD.--Mar. 1985 to current year. Records for 1985 to 1986 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 69.74 ft below land surface, Mar. 18, 1986; lowest, 100.34 ft below land surface, Aug. 4, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	91.54	89.32	87.43	84.84	83.54	82.03	81.80	83.22	87.44	91.79	95.23	98.45
10	91.09	88.91	87.01	84.63	83.29	81.85	81.89	83.50	88.26	92.25	96.75	98.62
15	91.17	88.53	86.55	84.44	82.97	81.65	81.91	84.03	89.77	92.92	96.53	98.29
20	90.60	88.31	86.03	84.10	82.80	82.41	82.03	85.57	89.85	93.69	96.77	97.66
25	90.22	88.13	85.78	83.97	82.55	82.63	82.39	86.44	90.16	94.62	97.37	97.57
EOM	89.74	87.68	84.96	83.77	82.44	82.04	82.82	87.37	91.10	94.66	98.23	97.31
MEAN	90.84	88.63	86.42	84.40	83.12	82.15	82.02	84.78	89.10	93.21	96.58	98.08
WTR YR 2001 MEAN 88.31 HIGH 81.53 MAR 13 LOW 98.89 SEP 7												

NJ-WRD WELL NO. 01-0703



GROUND-WATER LEVELS

25

ATLANTIC COUNTY--Continued

NJ-WRD Well Number, 01-0775. Site I.D., 393232074263902. Local I.D., FAA Intermediate Obs.

LOCATION.--Lat 39°26'39", long 74°32'32", Hydrologic Unit 02040302, at the NAFEC Atlantic City Airport, Egg Harbor Township.
Owner: Atlantic City Municipal Utilities Authority.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in., depth 182 ft, screened 132 to 182 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 38.1 ft above sea level.

Measuring point: Top of PVC casing, 1.25 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

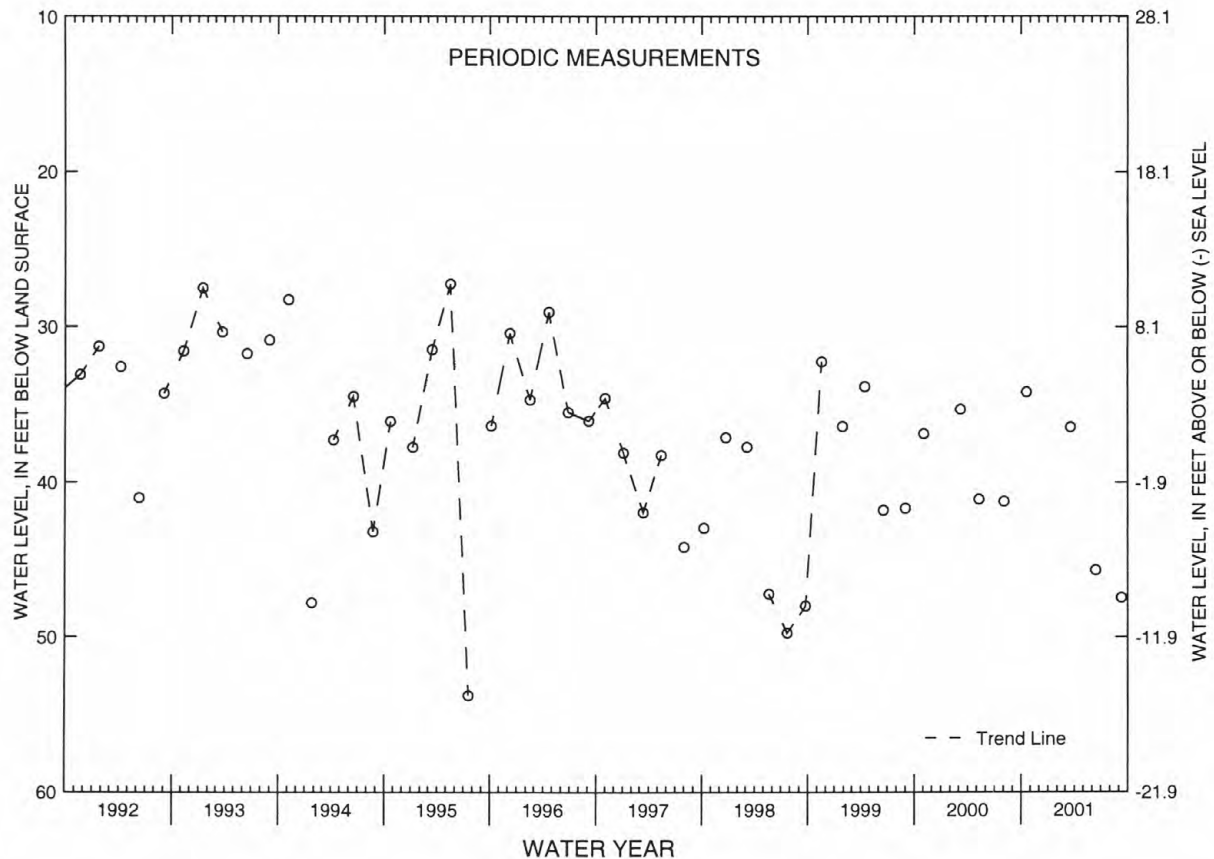
PERIOD OF RECORD.--May 1985 to current year. Records for 1985 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.06 ft below land surface, May 29, 1985; lowest, 53.76 ft below land surface, July 18, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	34.18	MAR 19	36.44	JUN 14	45.65	SEP 10	47.44
WATER YEAR 2001	HIGHEST	34.18	OCT 19, 2000	LOWEST	47.44	SEP 10, 2001	

NJ-WRD WELL NO. 01-0775



GROUND-WATER LEVELS

ATLANTIC COUNTY--Continued

NJ-WRD Well Number, 01-0776. Site I.D., 393232074263903. Local I.D., FAA Shallow Obs.

LOCATION.--Lat 39°26'39", long 74°32'32", Hydrologic Unit 02040302, at the NAFEC Atlantic City Airport, Egg Harbor Township.
Owner: Atlantic City Municipal Utilities Authority.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in., depth 93 ft, screened 73 to 93 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 38.1 ft above sea level.

Measuring point: Top of PVC casing, 0.95 ft above land surface.

REMARKS.--Water level is affected by the stage of the Atlantic City Reservoir.

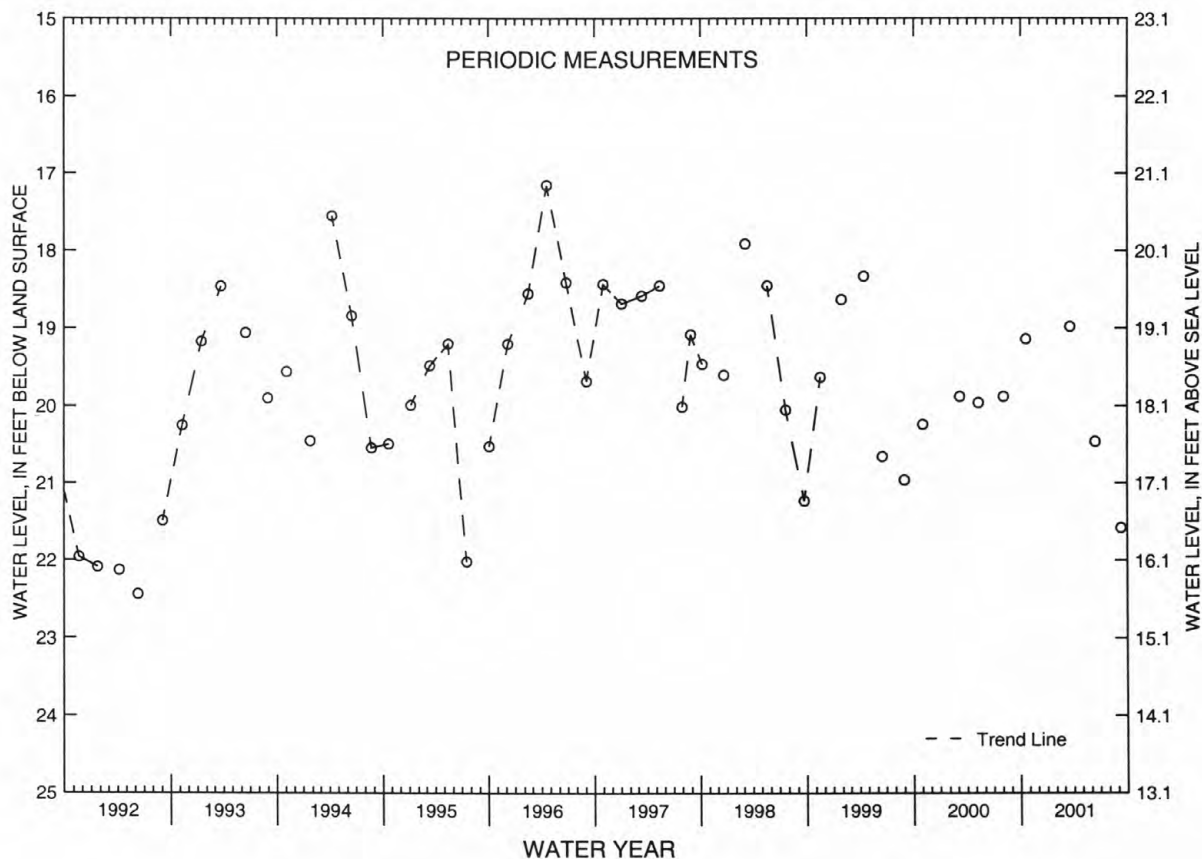
PERIOD OF RECORD.--May 1985 to current year. Records for 1985 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.86 ft below land surface, May 29, 1985; lowest, 22.44 ft below land surface, June 9, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	19.14	MAR 19	18.98	JUN 14	20.46	SEP 10	21.58
WATER YEAR 2001		HIGHEST	18.98	MAR 19, 2001	LOWEST	21.58	SEP 10, 2001

NJ-WRD WELL NO. 01-0776



ATLANTIC COUNTY--Continued

NJ-WRD Well Number, 01-0834. Site I.D., 392017074300201. Local I.D., Margate Firehouse 1 Obs.

LOCATION.--Lat 39°20'17", long 74°30'02", Hydrologic Unit 02040302, behind Margate Firehouse No. 2, Fremont Ave., Margate City.
Owner: U.S. Geological Survey.

AQUIFER.--Piney Point aquifer of Eocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 997 ft, screened 970 to 991 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval. Water-level recorder, May 1988 to May 1997.

DATUM.--Land surface is 5 ft above sea level, from topographic map.
Measuring point: Top of recorder shelf, 2.00 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation.

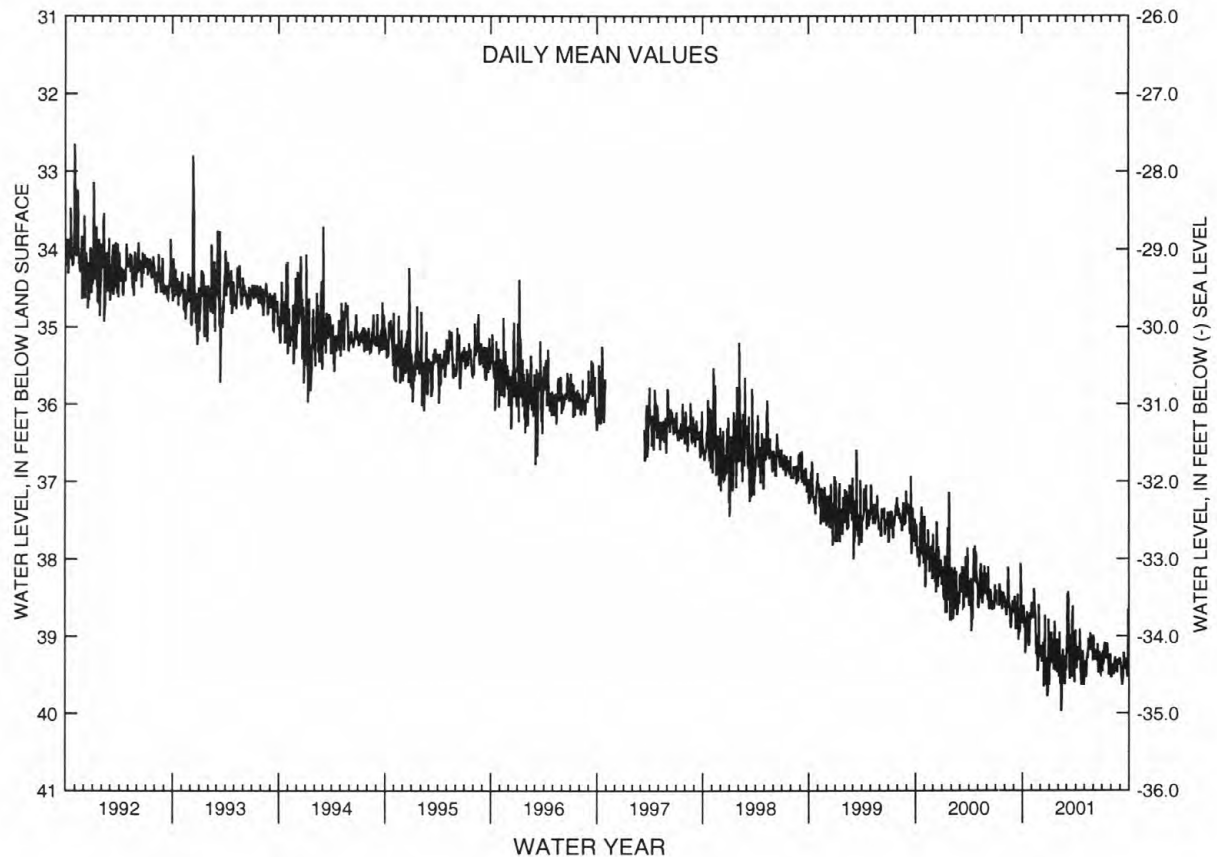
PERIOD OF RECORD.--May 1988 to current year. Records for 1988 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 31.05 ft below land surface, June 2, 1988; lowest, 40.60 ft below land surface, Feb. 12, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	38.70	38.70	39.14	39.09	38.95	38.45	39.42	39.32	39.30	39.19	39.41	39.42
10	38.81	38.38	39.20	39.35	39.49	39.26	39.22	39.31	39.19	39.11	39.44	39.57
15	38.97	38.93	39.46	39.20	39.25	39.40	39.14	39.21	39.31	39.24	39.27	39.21
20	38.99	39.01	39.28	38.81	39.49	39.49	39.57	39.12	39.46	39.14	39.32	39.35
25	39.09	39.23	39.77	39.11	39.31	39.37	39.46	39.17	39.40	39.50	39.30	39.29
EOM	38.68	39.12	39.41	39.07	39.32	39.14	39.64	39.32	39.23	39.30	39.28	38.65
MEAN	38.87	38.90	39.31	39.21	39.43	39.14	39.30	39.23	39.28	39.28	39.40	39.38
WTR YR 2001	MEAN 39.23 HIGH 38.38 NOV 10 LOW 39.97 FEB 11											

NJ-WRD WELL NO. 01-0834



GROUND-WATER LEVELS

ATLANTIC COUNTY--Continued

NJ-WRD Well Number, 01-1219. Site I.D., 392640074372401. Local I.D., HTMUA 9 Obs. NJ Permit Number, 36-16546.

LOCATION.--Lat 39°26'40", long 74°37'24", Hydrologic Unit 02040302, about 700 ft north of the Black Horse Pike (US 40 and 322) and 25 ft east of Lowell Ave., Hamilton Township.
Owner: Hamilton Township Municipal Utilities Authority.

AQUIFER.--Piney Point aquifer of Eocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 742 ft, screened 722 to 742 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 68 ft above sea level, from topographic map.
Measuring point: Top of protective casing, 2.20 ft above land surface.

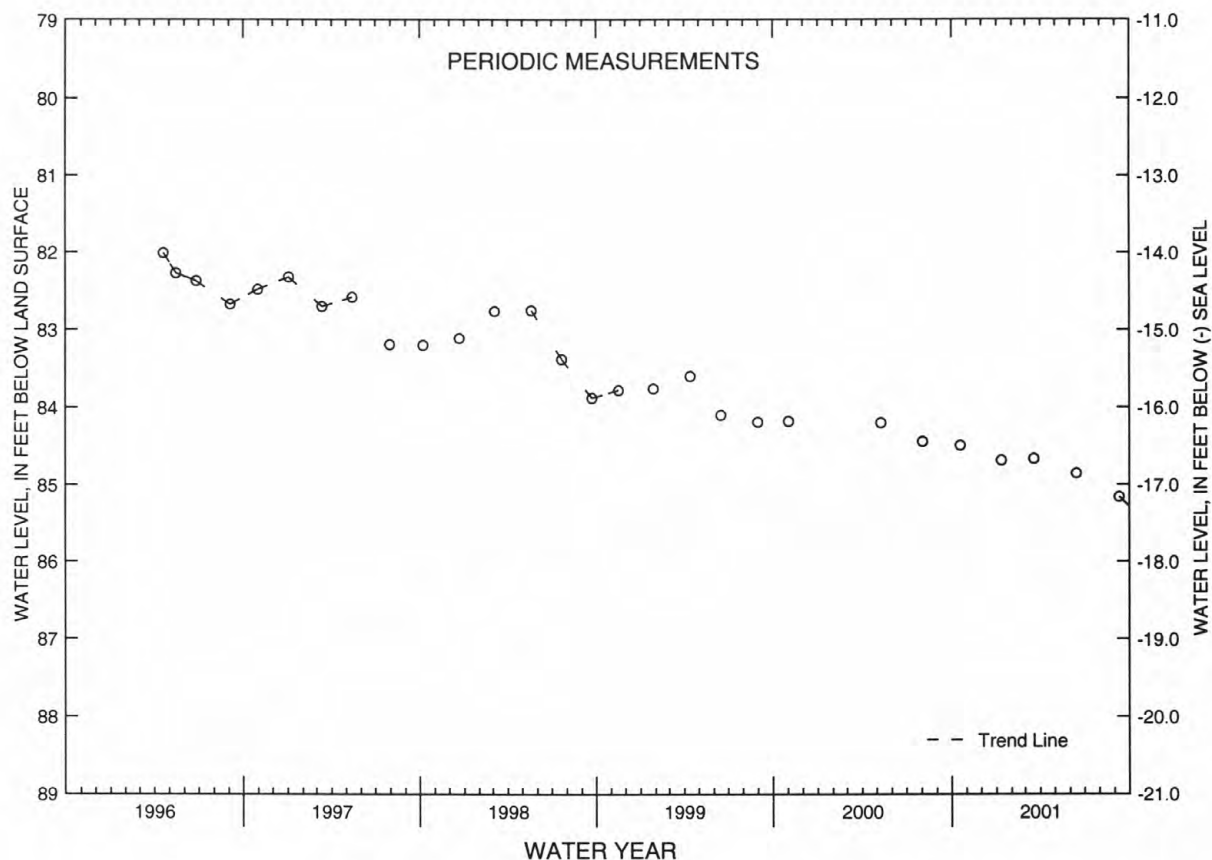
PERIOD OF RECORD.--April 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 82.01 ft below land surface, Apr. 19, 1996; lowest, 85.16 ft below land surface, Sept. 10, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	84.49	JAN 11	84.68	MAR 19	84.66	JUN 14	84.85	SEP 10	85.16
WATER YEAR 2001		HIGHEST	84.49	OCT 19, 2000	LOWEST	85.16	SEP 10, 2001		

NJ-WRD WELL NO. 01-1219



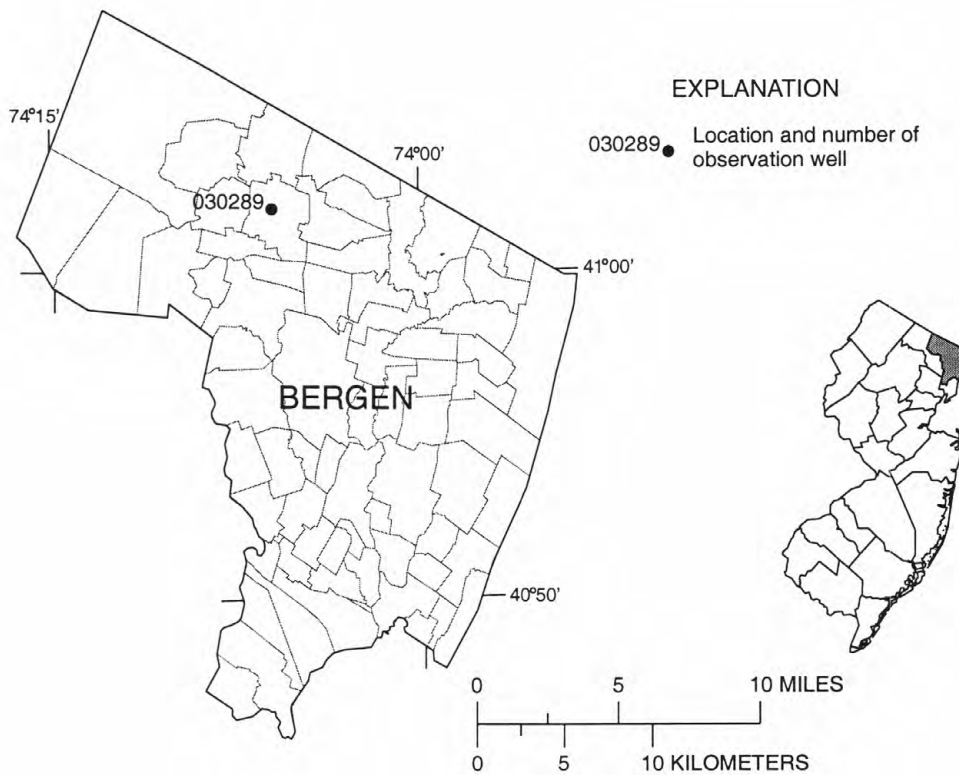
WATER RESOURCES DATA - NEW JERSEY, 2001

29

BERGEN COUNTY

NJ-WRD well number	Local identifier	Township	Well depth	Aquifer	Type of data
030289	SADDLE RIVER 17 OBS	SADDLE RIVER BORO	175	PSSC	MANUAL

Aquifer names
PSSC - Passaic Formation



GROUND-WATER LEVELS

BERGEN COUNTY

NJ-WRD Well Number, 03-0289. Site I.D., 410155074060201. Local I.D., Saddle River 17 Obs. NJ Permit Number, 23-09532-6.

LOCATION.--Lat 41°01'55", long 74°06'02", Hydrologic Unit 02030103, at the Saddle River Fire Station, East Saddle Rd. and East Allendale Rd., Saddle River Boro.

Owner: State of New Jersey - New Jersey Geological Survey.

AQUIFER.--Passaic Formation of Triassic-Jurassic age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 175 ft, open hole 165 to 175 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 148.9 ft above sea level.

Measuring point: Top of casing, 2.00 ft above land surface.

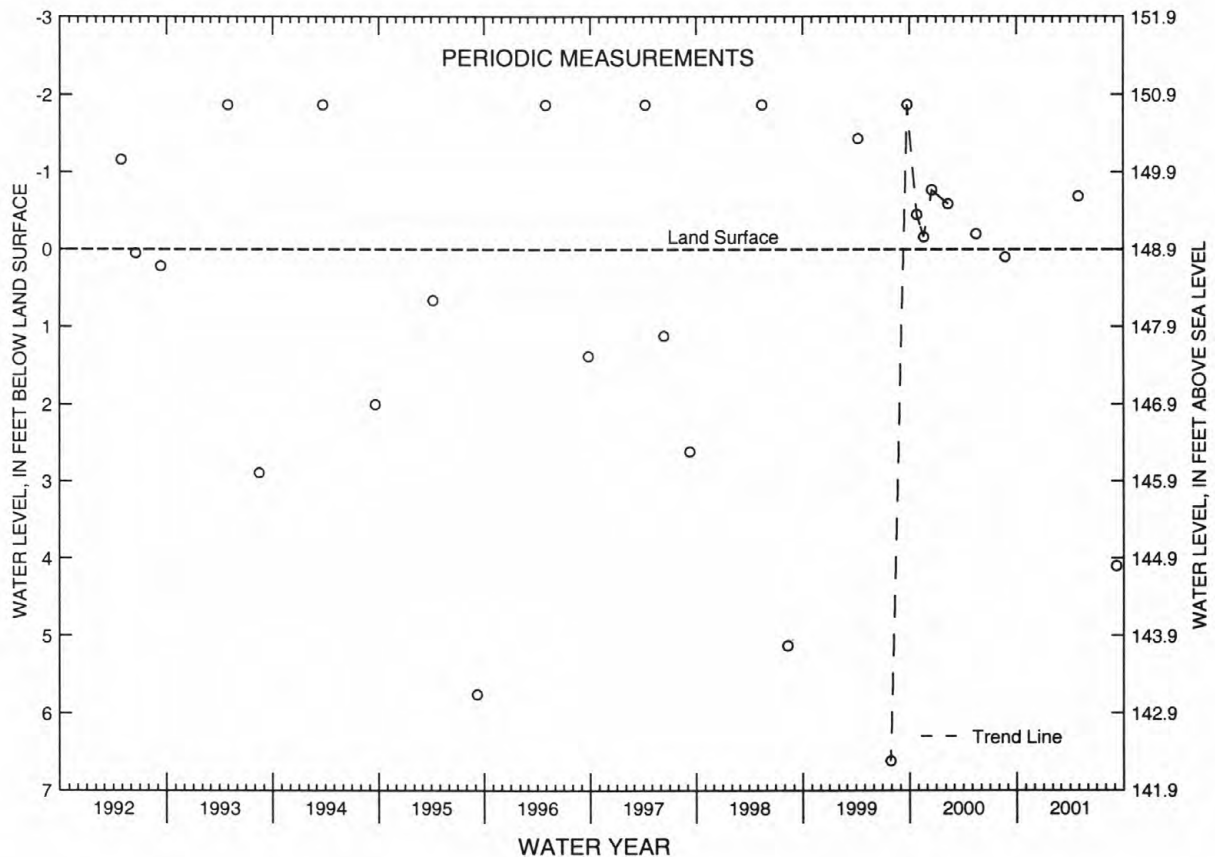
PERIOD OF RECORD.--Mar. 1991 to current year

EXTREMES FOR PERIOD OF RECORD.--Highest water level, greater than 1.87 ft above land surface, (flowing), Mar. 21, 1991, Apr. 29, 1993, Mar. 22, 1994, Apr. 29, 1996, Apr. 8, 1997, May 15, 1998, Sept. 23, 1999; lowest, 6.62 ft below land surface, July 29, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
(READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 30	+ .69	SEP 07	4.10

NJ-WRD WELL NO. 03-0289

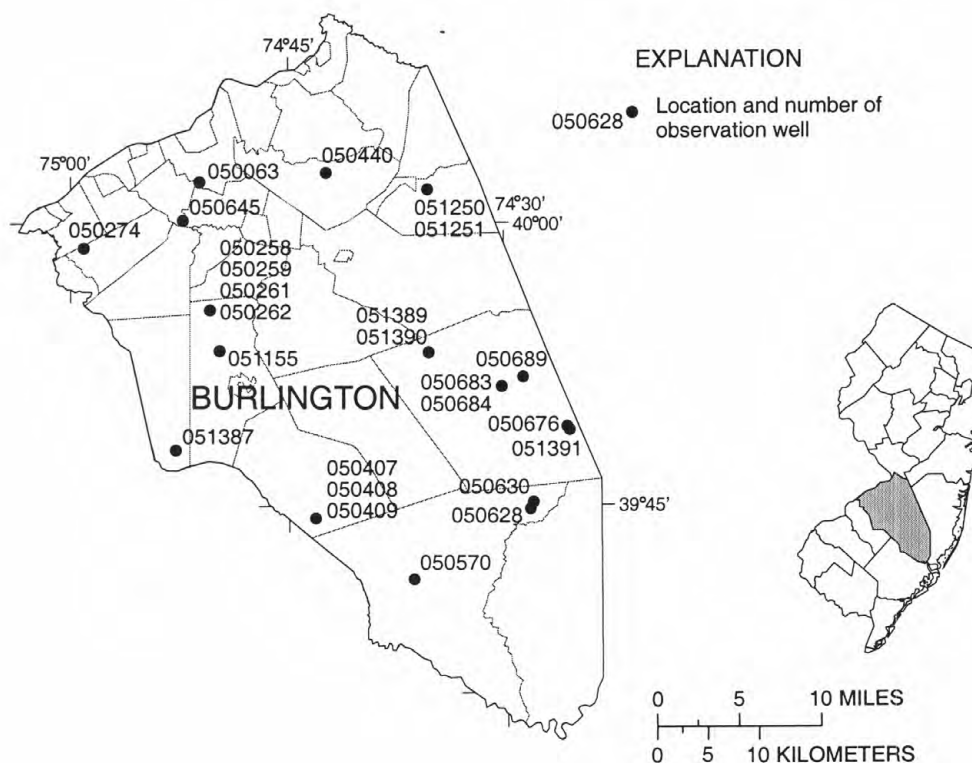


BURLINGTON COUNTY

NJ-WRD well number	Local identifier	Township	Well depth	Aquifer	Type of data
050063	WILLINGBORO 1 OBS	BURLINGTON TWP	294	MRPAM	MANUAL
050258	MEDFORD 1 OBS	MEDFORD TWP	410	MRPAU	DAILY
050259	MEDFORD 2 OBS	MEDFORD TWP	263	EGLS	DAILY
050261	MEDFORD 5 OBS	MEDFORD TWP	750	MRPAM	DAILY
050262	MEDFORD 4 OBS	MEDFORD TWP	1140	MRPAL	DAILY
050274	CAMPBELL 1 OBS	MOORESTOWN TWP	268	MRPAL	MANUAL
050407	ATSION 1 OBS	SHAMONG TWP	260	PNPN	MANUAL
050408	ATSION 2 OBS	SHAMONG TWP	65	CKKD	MANUAL
050409	ATSION 3 OBS	SHAMONG TWP	17	CKKD	MANUAL
050440	RHODIA 1 OBS	SPRINGFIELD TWP	615	MRPAM	MAXMIN
050570	MOUNT OBS	WASHINGTON TWP	25	CKKD	DAILY
050628	PENN SF SHALLOW OBS	WASHINGTON TWP	12	CKKD	DAILY
050630	PENN SF DEEP OBS	WASHINGTON TWP	41	CKKD	DAILY
050645	WILLINGBORO 2 OBS	WILLINGBORO TWP	441	MRPAL	DAILY
050676	COYLE AIRPORT OBS	WOODLAND TWP	540	PNPN	MANUAL
050683	BUTLER PLACE 1 OBS	WOODLAND TWP	2120	MRPA	DAILY
050684	BUTLER PLACE 2 OBS	WOODLAND TWP	170	CKKD	DAILY
050689	LEBANON SF 23-D OBS	WOODLAND TWP	33	CKKD	DAILY
051155	MEDFORD TWP MW-1 OBS	MEDFORD TWP	180	MLRW	DAILY
051250	MCGUIRE 08-MW-52 OBS	NEW HANOVER TWP	55	VNCN	DAILY
051251	MCGUIRE 08-MW-102 OBS	NEW HANOVER TWP	20	CKKD	DAILY
051387	EVESHAM 4 OBS	EVESHAM TWP	355	MLRW	DAILY
051389	NEW LISBON 1 OBS	WOODLAND TWP	920	MRPAU	DAILY
051390	NEW LISBON 2 OBS	WOODLAND TWP	635	EGLS	DAILY
051391	COYLE 2 OBS (OW 96)	WOODLAND TWP	1440	MRPAU	DAILY

Aquifer names

- CKKD - Kirkwood-Cohansey aquifer system
- EGLS - Englishtown aquifer system
- MLRW - Wenonah-Mount Laurel aquifer
- MRPA - Potomac-Raritan-Magothy aquifer
- MRPAL - Lower Potomac-Raritan-Magothy aquifer
- MRPAM - Middle Potomac-Raritan-Magothy aquifer
- MRPAU - Upper Potomac-Raritan-Magothy aquifer
- PNPN - Piney Point aquifer
- VNCN - Vincentown aquifer



GROUND-WATER LEVELS

BURLINGTON COUNTY

NJ-WRD Well Number, 05-0063. Site I.D., 400213074510801. Local I.D., Willingboro 1 Obs.

LOCATION.--Lat 40°02'13", long 74°51'08", Hydrologic Unit 02040202, on the west side of Rancocas Rd., about 2 mi north of Rancocas, Burlington Township.
Owner: Willingboro Municipal Utilities Authority.

AQUIFER.--Middle Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 294 ft, screened 284 to 294 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Dec. 1984 to Sept. 1987. Water-level extremes recorder, Feb. 1977 to Dec. 1984. Periodic measurements, Sept. 1975 to Feb. 1977. Water-level recorder, Mar. 1966 to Sept. 1975.

DATUM.--Land surface is 45.45 ft above sea level.
Measuring point: Top of well shelter shelf, 0.60 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

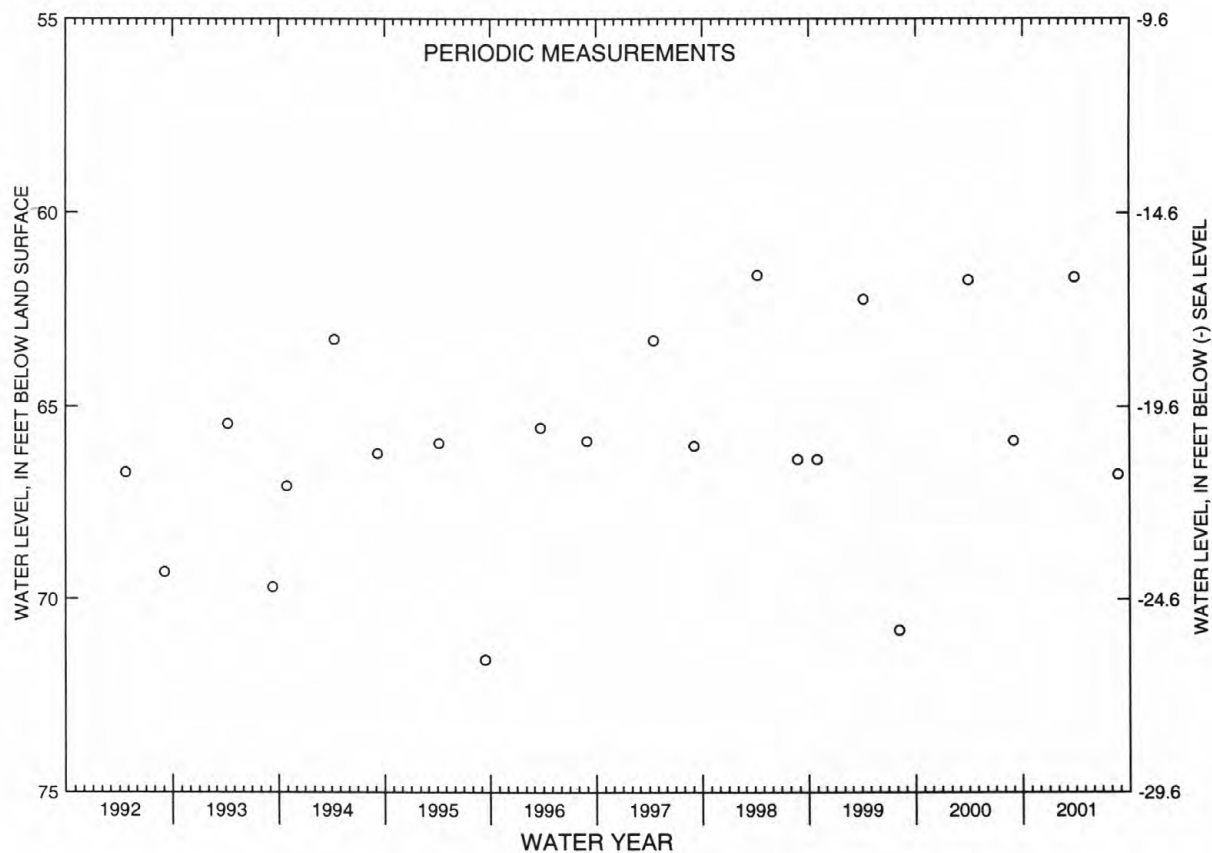
PERIOD OF RECORD.--Mar. 1966 to current year. Records for 1966 to 1975 and 1988 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 46.25 ft below land surface, Mar. 19, 1966; lowest, 71.57 ft below land surface, Sept. 13, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 28	61.66	AUG 23	66.76

NJ-WRD WELL NO. 05-0063



BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-0258. Site I.D., 395524074502501. Local I.D., Medford 1 Obs. NJ Permit Number, 31-04627.

LOCATION.--Lat 39°55'24", long 74°50'25", Hydrologic Unit 02040202, at Medford Wildlife Management Area, Medford Township.
Owner: U.S. Geological Survey.

AQUIFER.--Upper Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 410 ft, screened 400 to 410 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Water-level extremes recorder, Feb. 1977 to Dec. 1984. Periodic measurements, Aug. 1975 to Feb. 1977. Water-level recorder, Oct. 1963 to Aug. 1975.

DATUM.--Land surface is 70.77 ft above sea level.
Measuring point: Top of coupling, 2.70 ft above land surface.

REMARKS.-- Water level is affected by nearby pumping.

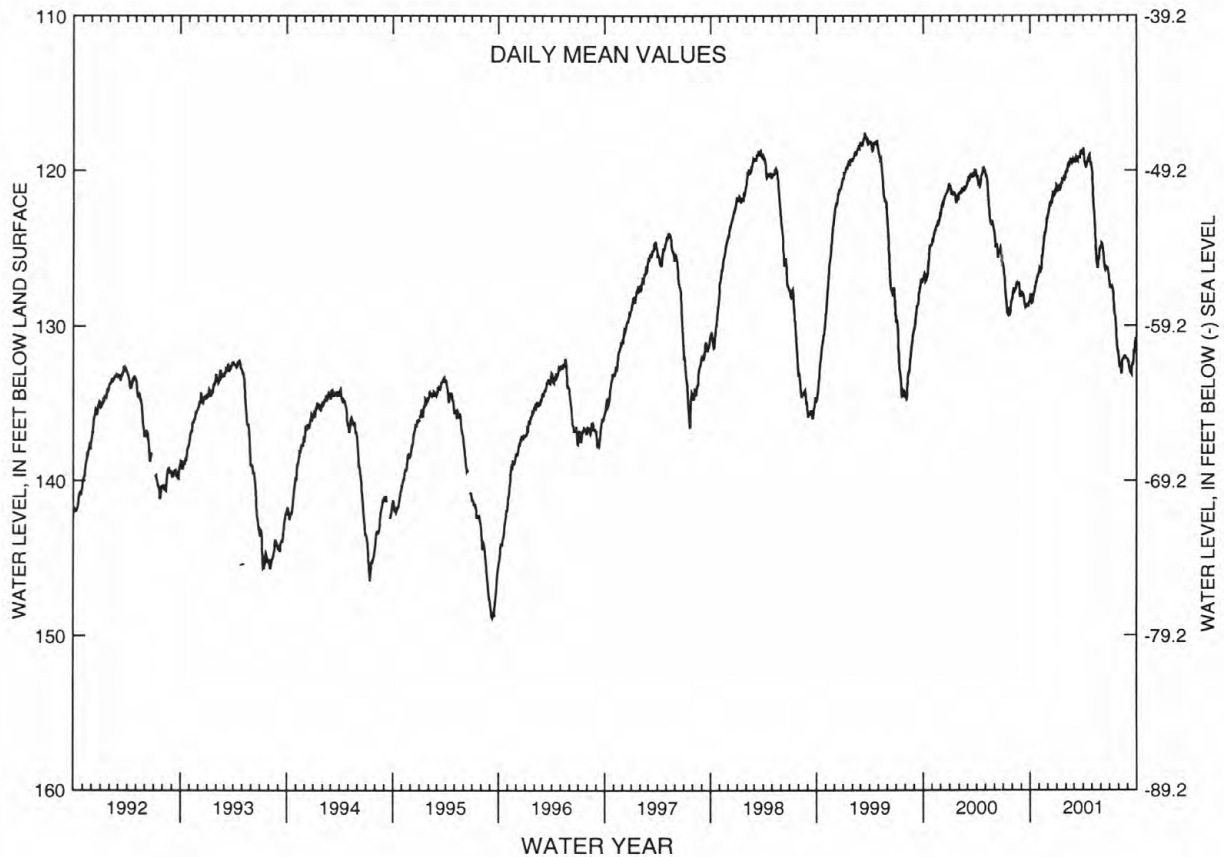
PERIOD OF RECORD.--Oct. 1963 to current year. Records for 1963 to 1975 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 85.22 ft below land surface, Feb. 16-19, 1964; lowest, 148.95 ft below land surface, Sept. 8-9, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	128.21	126.37	122.30	121.21	119.85	119.21	119.44	121.62	124.70	127.53	132.67	132.38
10	128.44	125.74	122.14	121.00	119.44	119.31	119.62	123.18	125.46	127.53	132.98	133.01
15	127.82	124.87	121.95	120.78	119.30	119.16	119.48	125.04	126.32	128.26	132.13	132.84
20	127.41	124.03	121.54	120.53	119.21	119.13	119.06	126.20	126.26	129.31	131.99	132.45
25	126.88	123.59	121.48	120.51	119.28	118.72	119.47	125.76	126.34	130.80	132.00	131.58
EOM	126.60	122.94	120.93	120.09	119.46	118.68	119.86	124.99	127.13	131.74	132.13	130.79
MEAN	127.63	124.85	121.81	120.80	119.55	119.08	119.34	124.14	125.89	128.99	132.30	132.24
WTR YR 2001	MEAN 124.75 HIGH 118.55 APR 1 LOW 133.12 SEP 14											

NJ-WRD WELL NO. 05-0258



GROUND-WATER LEVELS

BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-0259. Site I.D., 395524074502502. Local I.D., Medford 2 Obs.

LOCATION.--Lat 39°55'24", long 74°50'25", Hydrologic Unit 02040202, at the Medford Wildlife Management Area, Medford Township.
Owner: U.S. Geological Survey.

AQUIFER.--Englishtown aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 263 ft, screened 253 to 263 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Sept. 1987 to Mar. 2000. Water-level recorder, Dec. 1984 to Sept. 1987. Water-level extremes recorder, Feb. 1977 to Dec. 1984. Water-level recorder, Oct. 1963 to Aug. 1975.

DATUM.--Land surface is 72.92 ft above sea level.

Measuring point: Top of well shelter shelf, 3.22 ft above land surface.

REMARKS.--Water level is occasionally affected by nearby pumping.

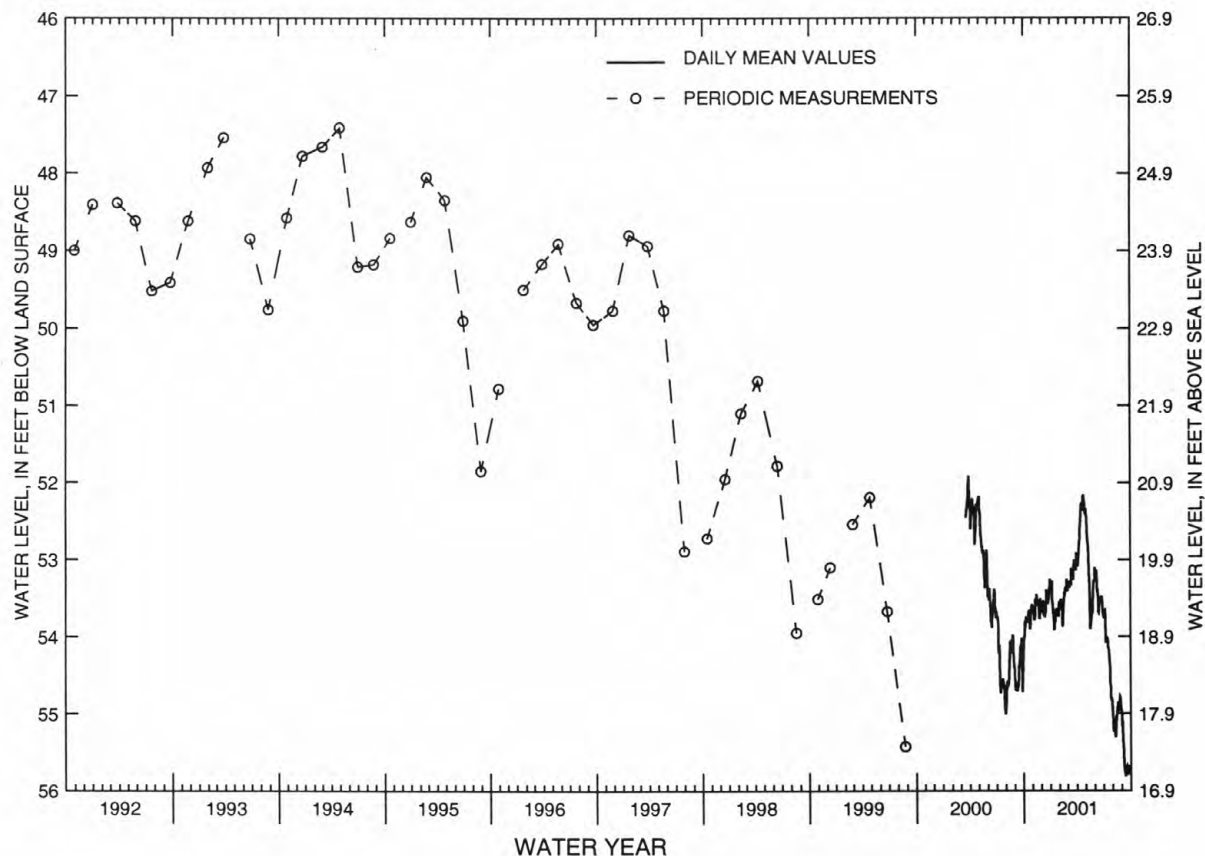
PERIOD OF RECORD.--Oct. 1963 to Aug. 1975, Feb. 1977 to current year. Records for 1963 to 1975 and 1987 to 1989 are unpublished and are available in files of the New Jersey District office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 45.42 ft below land surface, Apr. 27, 1973; lowest, 111.96 ft below land surface, July 9, 1964.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	53.91	53.70	53.55	53.29	53.51	53.35	53.09	52.50	53.15	53.64	55.24	55.23
10	53.74	53.51	53.66	53.69	53.52	53.32	52.76	52.86	53.43	54.07	55.28	55.74
15	53.82	53.50	53.70	53.85	53.53	53.24	52.38	53.48	53.69	54.04	55.09	55.77
20	53.70	53.53	53.47	53.65	53.36	53.26	52.35	53.81	53.50	54.21	54.85	55.76
25	53.82	53.76	53.52	53.68	53.25	53.09	52.27	53.71	53.47	54.61	54.90	55.68
EOM	53.61	53.56	53.29	53.54	53.39	52.97	52.35	53.27	53.67	54.87	54.95	55.69
MEAN	53.79	53.61	53.54	53.63	53.52	53.20	52.55	53.22	53.44	54.18	55.03	55.61
WTR YR 2001 MEAN 53.78 HIGH 52.16 APR 24 LOW 55.82 SEP 14												

NJ-WRD WELL NO. 05-0259



BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-0261. Site I.D., 395525074502505. Local I.D., Medford 5 Obs.

LOCATION.--Lat 39°55'25", long 74°50'25", Hydrologic Unit 02040202, at Medford Wildlife Management Area, Medford Township.
Owner: U.S. Geological Survey.

AQUIFER.--Middle Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 750 ft, screened 740 to 750 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Mar. 1975 to Feb. 1977. Water-level recorder, Jan. 1968 to Mar. 1975.

DATUM.--Land surface is 72.60 ft above sea level.
Measuring point: Top of recorder shelf, 3.60 ft above land surface.

REMARKS.-- Water level is affected by nearby pumping.

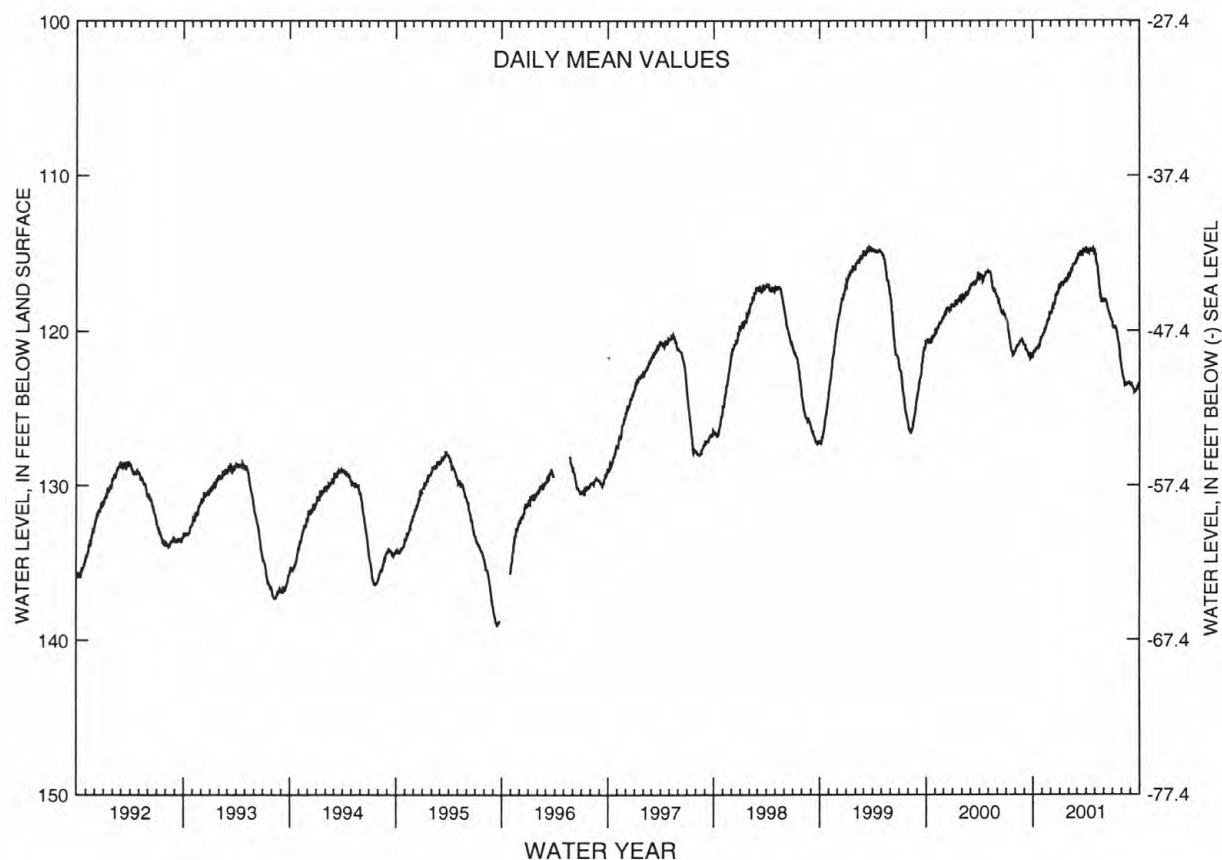
PERIOD OF RECORD.--Jan. 1968 to current year. Records for 1968 to 1977 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 94.46 ft below land surface, Mar. 1, 1968; lowest, 139.15 ft below land surface, Sept. 16, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	121.30	120.15	118.56	116.90	116.25	115.09	114.95	115.21	118.09	119.69	122.85	123.50
10	121.18	119.81	118.41	116.92	115.94	115.11	114.92	115.82	118.13	119.71	123.26	123.70
15	121.03	119.66	118.20	116.86	115.75	115.01	114.78	116.63	118.59	119.99	123.52	123.97
20	121.02	119.33	117.68	116.69	115.65	115.11	114.91	117.64	118.86	120.60	123.36	123.88
25	120.71	119.22	117.58	116.69	115.52	114.88	114.80	118.15	119.17	121.14	123.46	123.57
EOM	120.40	118.76	117.06	116.34	115.44	114.68	114.89	118.16	119.40	122.28	123.35	123.35
MEAN	121.01	119.61	117.99	116.83	115.94	115.00	114.84	116.76	118.59	120.45	123.24	123.68
WTR YR 2001 MEAN 118.68 HIGH 114.64 MAR 30 LOW 123.97 SEP 15												

NJ-WRD WELL NO. 05-0261



GROUND-WATER LEVELS

BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-0262. Site I.D., 395525074502601. Local I.D., Medford 4 Obs.

LOCATION.--Lat 39°55'24", long 74°50'25", Hydrologic Unit 02040202, at Medford Wildlife Management Area, Medford Township.
Owner: U.S. Geological Survey.

AQUIFER.--Lower Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 1,145 ft, screened 1,125 to 1,145 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Water-level extremes recorder, Feb. 1977 to Dec. 1984. Periodic measurements, July 1975 to Feb. 1977. Water-level recorder, Jan. 1968 to July 1975.

DATUM.--Land surface is 72.32 ft above sea level.

Measuring point: Top of recorder shelf, 2.40 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

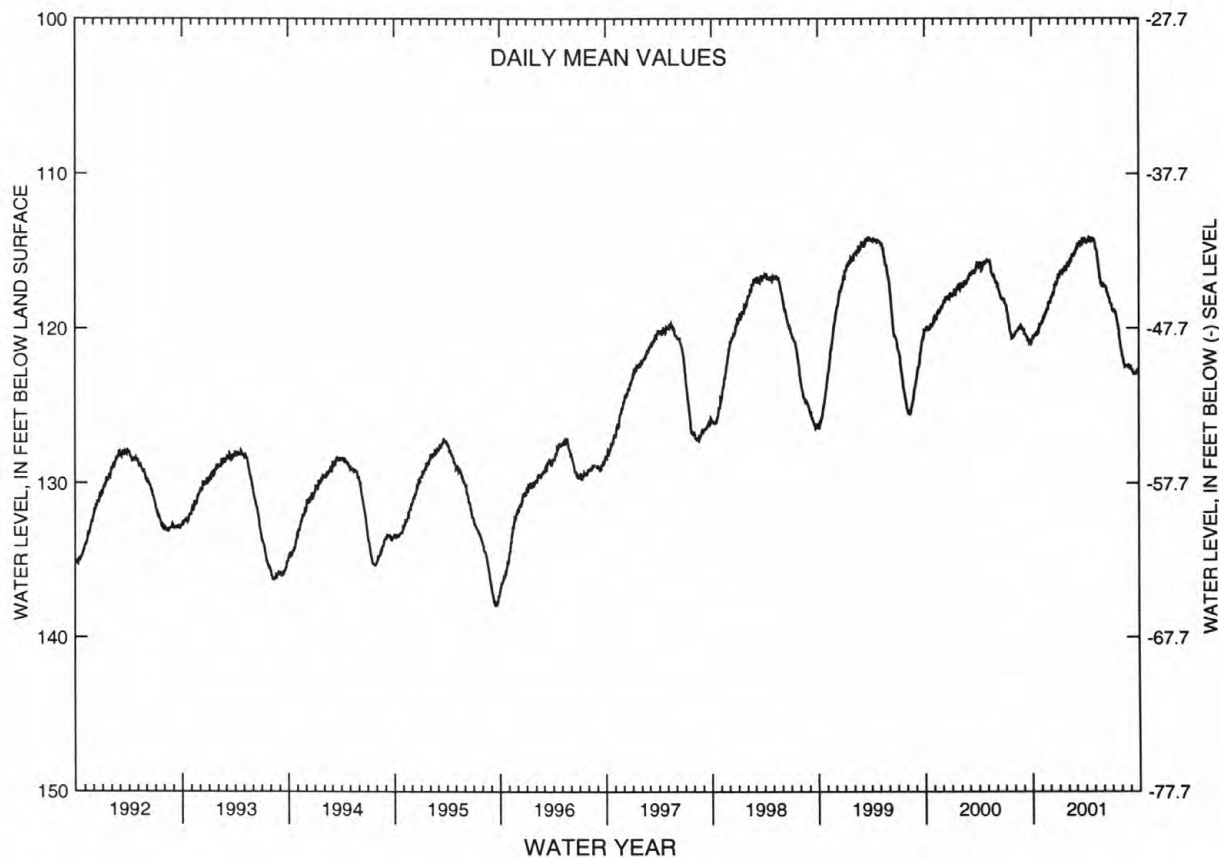
PERIOD OF RECORD.--Jan. 1968 to current year. Records for 1968 to 1975 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 94.24 ft below land surface, Mar. 13, 1968; lowest, 138.00 ft below land surface, Sept. 16, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	120.56	119.54	118.07	116.37	115.71	114.60	114.42	114.49	117.30	118.75	121.65	122.59
10	120.45	119.20	117.95	116.38	115.48	114.63	114.33	114.99	117.32	118.86	122.08	122.73
15	120.32	119.13	117.74	116.28	115.26	114.51	114.21	115.63	117.70	119.09	122.44	122.98
20	120.34	118.86	117.20	116.09	115.20	114.63	114.38	116.57	117.98	119.59	122.41	122.97
25	120.08	118.75	117.11	116.09	115.05	114.39	114.26	117.16	118.29	120.04	122.54	122.74
EOM	119.78	118.27	116.58	115.77	114.96	114.18	114.33	117.32	118.48	121.11	122.42	122.60
MEAN	120.32	119.07	117.52	116.27	115.44	114.51	114.29	115.86	117.74	119.46	122.18	122.77
WTR YR 2001 MEAN 117.97 HIGH 114.13 MAR 30 LOW 122.99 SEP 16												

NJ-WRD WELL NO. 05-0262



GROUND-WATER LEVELS

37

BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-0274. Site I.D., 395838074590501. Local I.D., Campbell 1 Obs. NJ Permit Number, 31-03674.

LOCATION.--Lat 39°58'41", long 74°59'05", Hydrologic Unit 02040202, at Denton Vacuum Inc., Church Rd., Moorestown Township.
Owner: Denton Vacuum Inc.

AQUIFER.--Lower Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 10 in., depth 268 ft, screened 241 to 262 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Jan. 1973 to May 1975. Periodic measurements, Apr. 1972 to Jan. 1973.

DATUM.--Land surface is 40 ft above sea level, from topographic map.
Measuring point: Top of coupling, 1.50 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

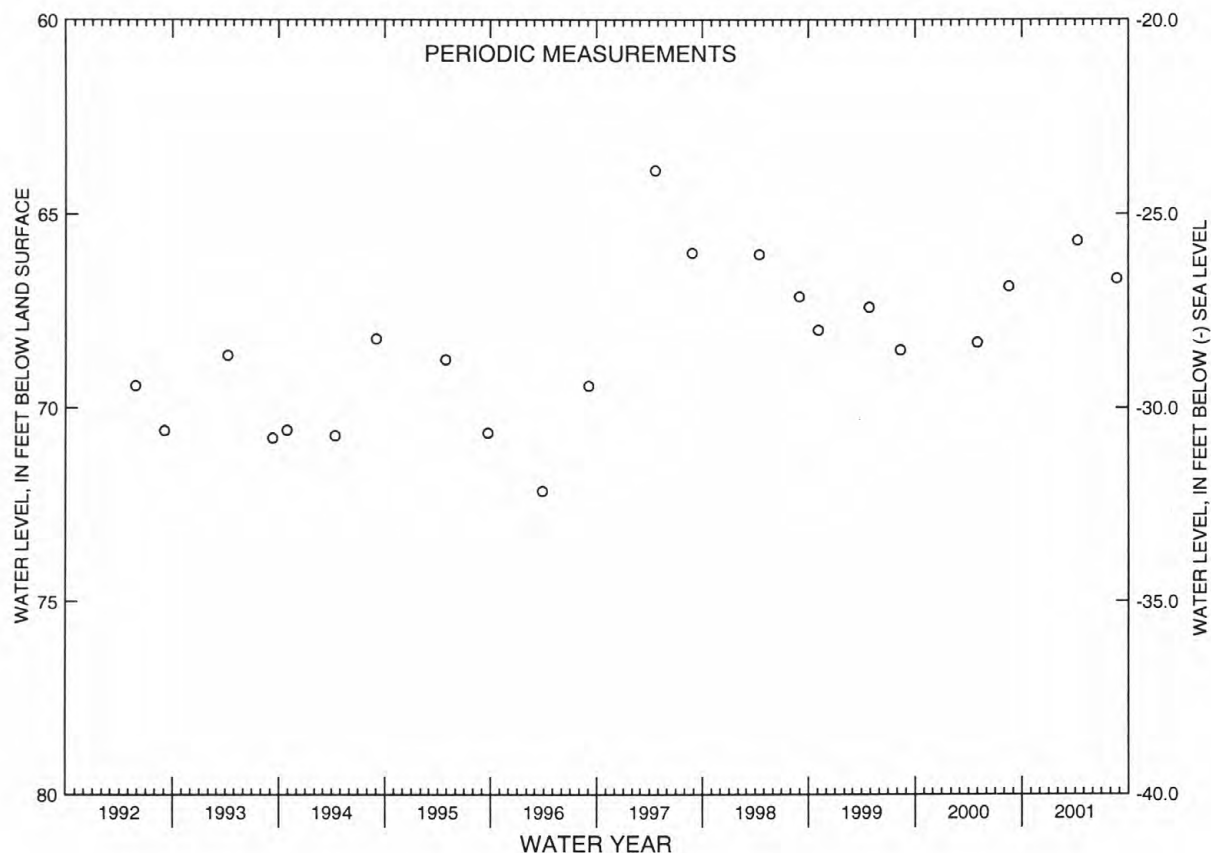
PERIOD OF RECORD.--Apr. 1972 to Apr. 1984, May 1986 to current year. Records for 1972 to 1984 and 1986 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 50.35 ft below land surface, June 30, 1973; lowest, 72.14 ft below land surface, Mar. 27, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 10	65.69	AUG 23	66.67

NJ-WRD WELL NO. 05-0274



GROUND-WATER LEVELS

BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-0407. Site I.D., 394422074430901. Local I.D., Atsion 1 Obs.

LOCATION.--Lat 39°44'22", long 74°43'09", Hydrologic Unit 02040301, about 2,200 ft east of Rt. 206, in Atsion, Shamong Township.
Owner: U.S. Geological Survey.

AQUIFER.--Piney Point aquifer of Eocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, depth 260 ft, screened 240 to 260 ft.

INSTRUMENTATION.--None: periodic measurements with a 6 ft ruler.

DATUM.--Land surface is 46.76 ft above sea level.
Measuring point: Top edge of cap, 3.87 ft above land surface.

REMARKS.--This is a flowing well. The water level is measured in a clear plastic tube above land surface.

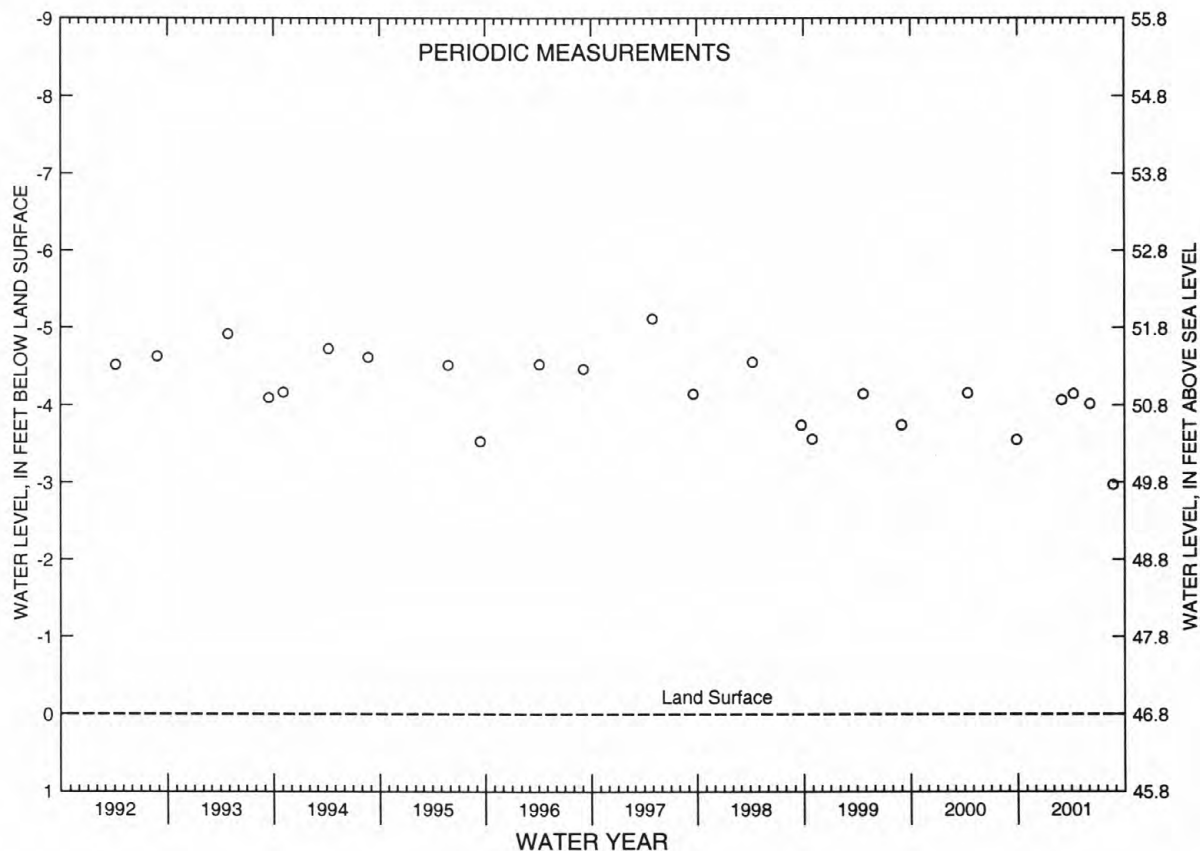
PERIOD OF RECORD.--Oct. 1963 to Sept. 1966, June 1968 to current year. Records for 1963 to 1966 and 1968 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.49 ft above land surface, Dec. 15, 1965; lowest, 2.97 ft above land surface, Aug. 23, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
(READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 28	+4.07	APR 10	+4.15	JUN 05	+4.02	AUG 23	+2.97
WATER YEAR 2001		HIGHEST	+4.15	APR 10, 2001		LOWEST	+2.97
							AUG 23, 2001

NJ-WRD WELL NO. 05-0407



GROUND-WATER LEVELS

39

BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-0408. Site I.D., 394422074430902. Local I.D., Atsion 2 Obs.

LOCATION.--Lat 39°44'22", long 74°43'09", Hydrologic Unit 02040301, about 2,200 ft east of Rt. 206, in Atsion, Shamong Township.
Owner: U.S. Geological Survey.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Driven water-table observation well, diameter 1.25 in., depth 65 ft, screened 63 to 65 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 47.52 ft above sea level.
Measuring point: Top of casing, 1.00 ft above land surface.

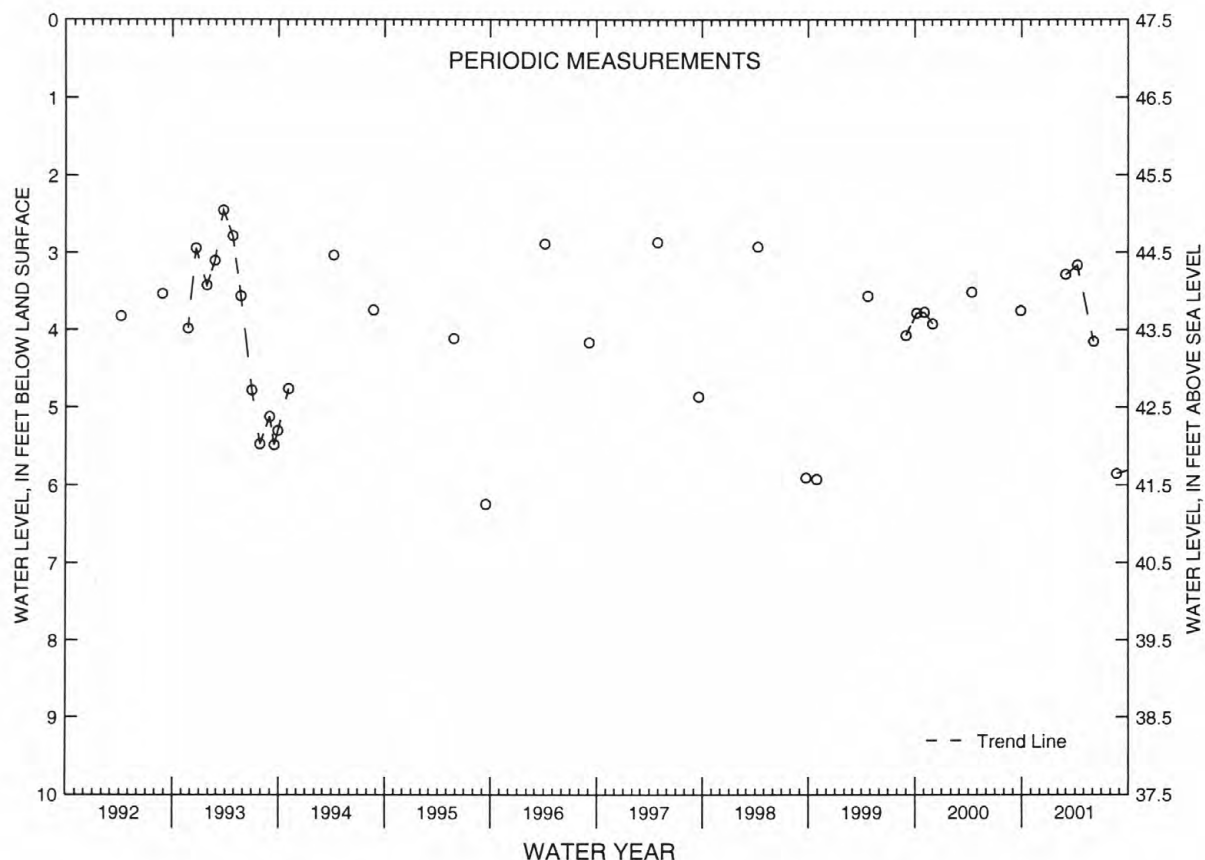
PERIOD OF RECORD.--Oct. 1963 to current year. Records for 1963 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.40 ft below land surface, Apr. 28, 1983; lowest, 6.51 ft below land surface, Sept. 9, 1965.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 28	3.28	APR 10	3.16	JUN 05	4.15	AUG 23	5.85
WATER YEAR 2001		HIGHEST	3.16	APR 10, 2001	LOWEST	5.85	AUG 23, 2001

NJ-WRD WELL NO. 05-0408



GROUND-WATER LEVELS

BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-0409. Site I.D., 394422074430903. Local I.D., Atsion 3 Obs.

LOCATION.--Lat 39°44'22", long 74°43'09", Hydrologic Unit 02040301, about 2,200 ft east of Rt. 206, in Atsion, Shamong Township.
Owner: U.S. Geological Survey.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Driven water-table observation well, diameter 1.25 in., depth 17 ft, screened 14 to 17 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 47.13 ft above sea level.
Measuring point: Top of casing, 2.00 ft above land surface.

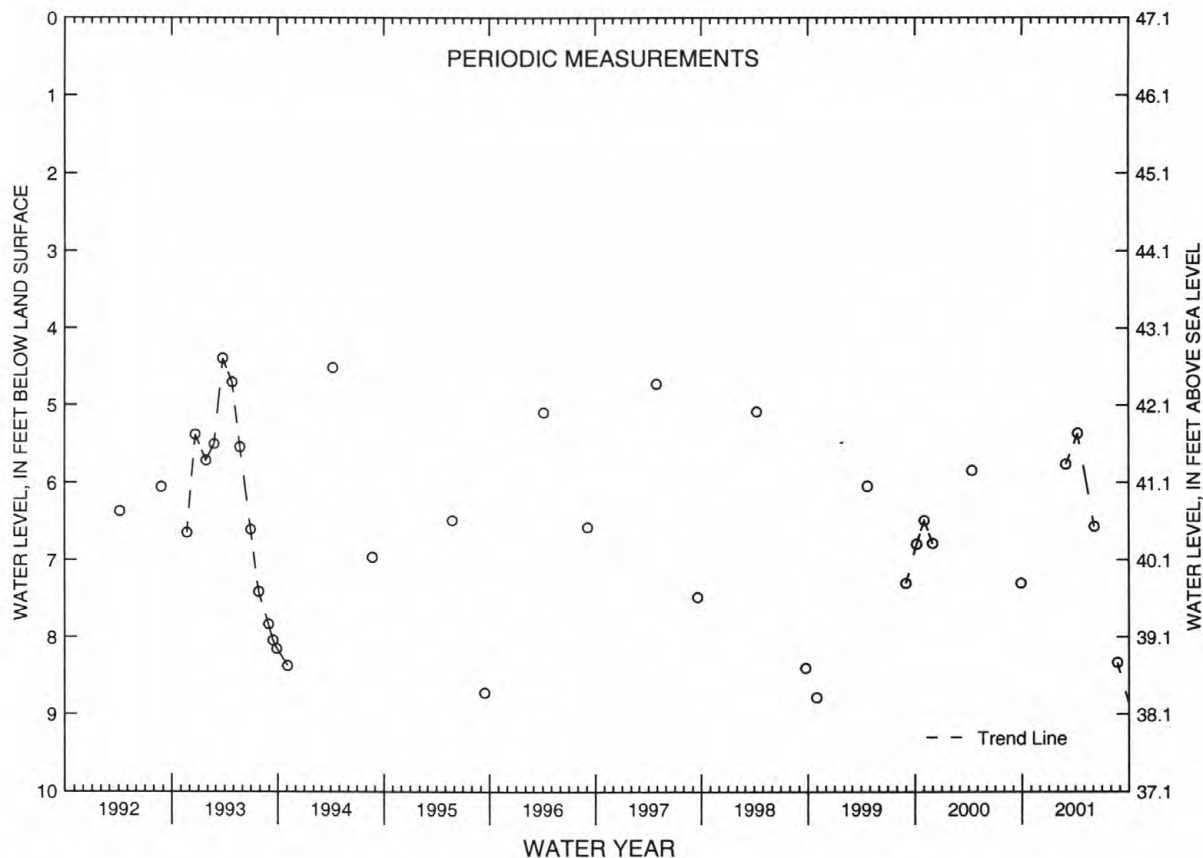
PERIOD OF RECORD.--October 1963 to current year. Records for 1963 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.04 ft below land surface, Apr. 28, 1983; lowest, 8.85 ft below land surface, Dec. 15, 1965.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 28	5.76	APR 10	5.36	JUN 05	6.56	AUG 23	8.33
WATER YEAR 2001		HIGHEST	5.36	APR 10, 2001	LOWEST	8.33	AUG 23, 2001

NJ-WRD WELL NO. 05-0409



BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-0440. Site I.D., 400242074422301. Local I.D., Rhodia 1 Obs. NJ Permit Number, 28-05128.

LOCATION.--Lat 40°02'42", long 74°42'23", Hydrologic Unit 02040201, at 1 Devi Dr. in Saddle Ridge Estates, near Jobstown, Springfield Township.
Owner: Fred Goodwin.

AQUIFER.--Middle Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 615 ft, screened 603 to 613 ft.

INSTRUMENTATION.--Water-level extremes recorder. Periodic measurements, Aug. 1975 to Apr. 1977. Water-level recorder, Dec. 1968 to Aug. 1975.

DATUM.--Land surface is 71.65 ft above sea level.

Measuring point: Front edge of cutout in recorder housing, 2.22 ft above land surface.

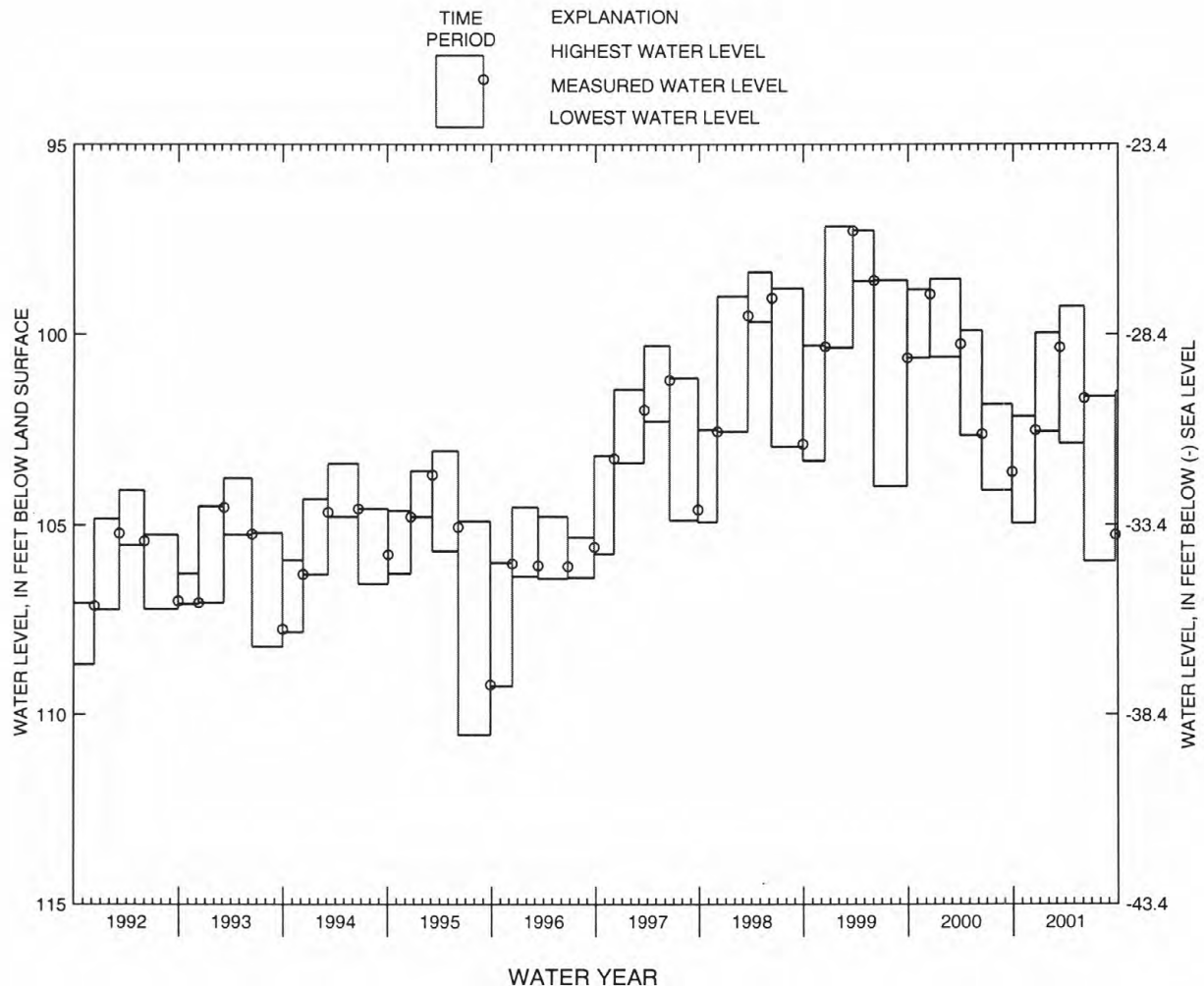
PERIOD OF RECORD.--Dec. 1968 to current year. Records for 1968 to 1978 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 86.55 ft below land surface, Dec. 31, 1969; lowest, 110.55 ft below land surface, between June 5 and Sept. 26, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
WATER-LEVEL EXTREMES MEASURED WATER LEVELS

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 28, 2000 TO DEC. 18, 2000	102.16	104.96	DEC. 18, 2000	102.52
DEC. 18, 2000 TO MAR. 12, 2001	99.96	102.56	MAR. 12, 2001	100.34
MAR. 12, 2001 TO JUNE 6, 2001	99.26	102.87	JUNE 6, 2001	101.68
JUNE 6, 2001 TO SEPT. 24, 2001	101.64	105.96	SEPT. 24, 2001	105.26

NJ-WRD WELL NO. 05-0440



GROUND-WATER LEVELS

BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-0570. Site I.D., 394106074362501. Local I.D., Mount Obs.

LOCATION.--Lat 39°41'06", long 74°36'23", Hydrologic Unit 02040301, at Mount in Wharton State Forest, Washington Township.
Owner: U.S. Geological Survey.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 8 in., depth 25 ft, open-end concrete casing.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval. Periodic measurements, Apr. 1987 to Apr. 2001. Water-level recorder, Sept. 1977 to Apr. 1987. Periodic measurements, July 1970 to Sept. 1977. Water-level recorder, Sept. 1955 to July 1970.

DATUM.--Land surface is 63.24 ft above sea level.

Measuring point: Top of concrete casing, 0.60 ft above land surface.

PERIOD OF RECORD.--Sept. 1955 to current year. Records for 1955 to 1977 and 1987 to 1989 are unpublished and are available in files of the New Jersey District Office.

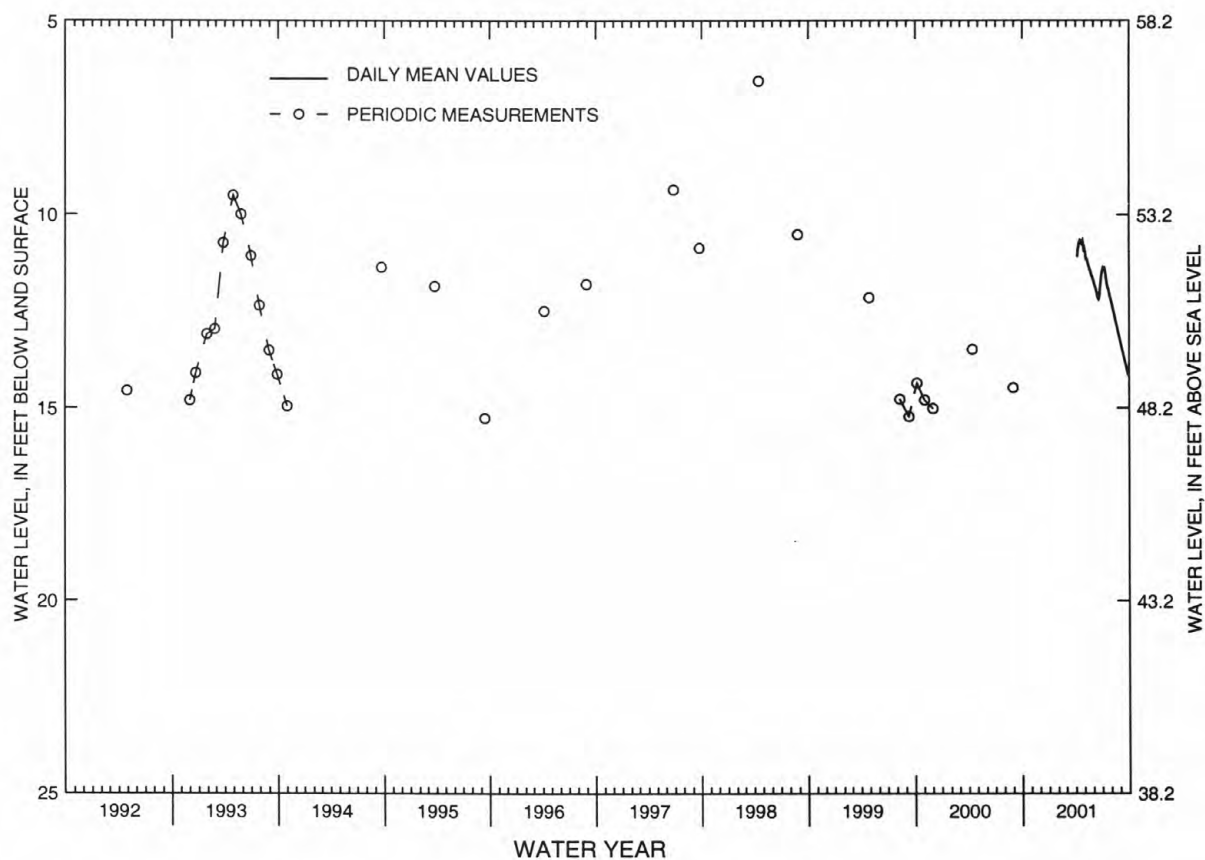
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.92 ft below land surface, Aug. 26, 1958; lowest, 18.51 ft below land surface, Sept. 30-Oct. 6, 1966.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	11.00	11.80	11.36	12.35	13.38
10	---	---	---	---	---	---	10.88	11.15	11.93	11.38	12.51	13.54
15	---	---	---	---	---	---	10.69	11.27	12.08	11.65	12.69	13.70
20	---	---	---	---	---	---	10.73	11.43	12.17	11.87	12.85	13.86
25	---	---	---	---	---	---	10.73	11.55	11.87	12.00	13.03	14.01
EOM	---	---	---	---	---	---	10.85	11.68	11.49	12.20	13.21	14.16
MEAN	---	---	---	---	---	---	10.79	11.30	11.89	11.71	12.72	13.71

WTR YR 2001 HIGH 10.66 APR 17 LOW 14.16 SEP 30

NJ-WRD WELL NO. 05-0570



BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-0628. Site I.D., 394452074281901. Local I.D., Penn SF Shallow Obs.

LOCATION.--Lat 39°44'52", long 74°28'19", Hydrologic Unit 02040301, about 500 ft south of the intersection of Sooy Rd. and Cabin Rd., Penn State Forest, Washington Township.
Owner: U.S. Geological Survey.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in., depth 12 ft, open-end steel casing.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval. Periodic measurements, Oct. 1991 to Apr. 2001. Water-level recorder, June 1990 to Oct. 1991. Periodic measurements, Oct. 1984 to June 1990. Water-level recorder, Oct. 1977 to Oct. 1984. Periodic measurements, Jan. 1975 to Oct. 1977. Water-level recorder, Dec. 1936 to Jan. 1975.

DATUM.--Land surface is 78.78 ft above sea level.

Measuring point: Top of well seal, 2.77 ft above land surface. Measuring point prior to July 1963, top of coupling, 0.11 ft above land surface.

REMARKS.--Well deepened from 10 ft to 12 ft in July 1963.

PERIOD OF RECORD.--Dec. 1936 to current year. Records for 1975 to 1981 and 1985 to 1989 are unpublished and are available in files of the New Jersey District Office.

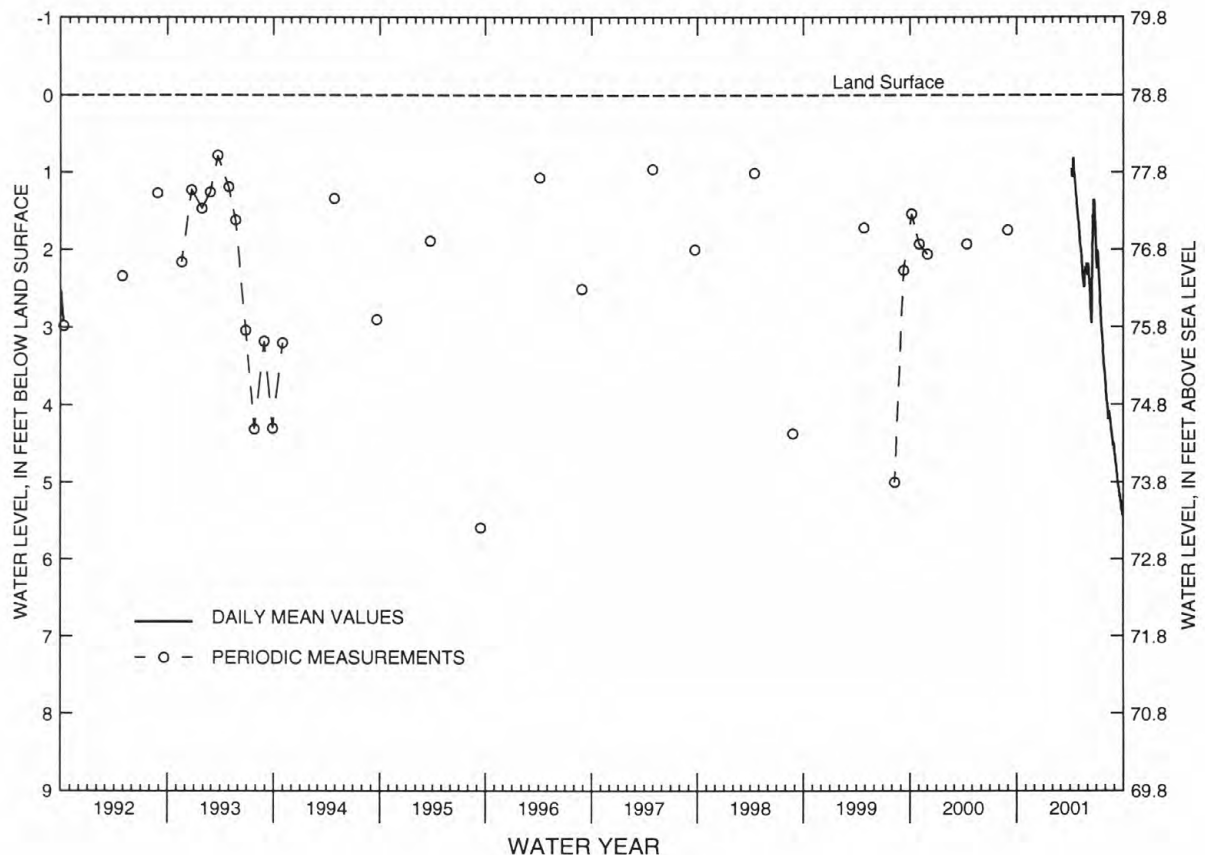
EXTREMES FOR PERIOD OF RECORD.--Highest water level, greater than 0.11 ft above land surface (flowing), several times, 1959-62; lowest, 6.12 ft below land surface, Sept. 26, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	1.82	2.21	2.11	3.91	4.70
10	---	---	---	---	---	---	.98	2.02	2.61	2.27	4.08	4.87
15	---	---	---	---	---	---	.97	2.28	2.92	2.69	4.11	5.05
20	---	---	---	---	---	---	1.22	2.48	1.56	3.05	4.25	5.19
25	---	---	---	---	---	---	1.41	2.26	1.38	3.34	4.44	5.32
EOM	---	---	---	---	---	---	1.62	2.25	1.94	3.63	4.51	5.43
MEAN	---	---	---	---	---	---	1.17	2.15	2.13	2.77	4.17	5.03

WTR YR 2001 HIGH .81 APR 13 LOW 5.43 SEP 30

NJ-WRD WELL NO. 05-0628



GROUND-WATER LEVELS

BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-0630. Site I.D., 394513074280601. Local I.D., Penn SF Deep Obs.

LOCATION.--Lat 39°45'13", long 74°28'06", Hydrologic Unit 02040301, about 800 ft south of the intersection of Sooy Rd. and Chatsworth Rd., Penn State Forest, Washington Township.
Owner: U.S. Geological Survey.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in., depth 41 ft, open end steel casing.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval. Periodic measurements, Oct. 1991 to Apr. 2001. Water-level recorder, Aug. 1990 to Oct. 1991. Periodic measurements, Feb. 1982 to Aug. 1990. Water-level recorder, Nov. 1977 to Feb. 1982. Periodic measurements, July 1970 to Nov. 1977. Water-level recorder, Aug. 1963 to July 1970. Periodic measurements, Jan. 1951 to Aug. 1963.

DATUM.--Land surface is 104.30 ft above sea level.

Measuring point: Top of well seal, 2.40 ft above land surface.

REMARKS.--Well depth was 30 ft before deepening in July 1963.

PERIOD OF RECORD.--Jan 1951 to current year. Records for 1951 to 1989 are unpublished and are available in files of the New Jersey District Office.

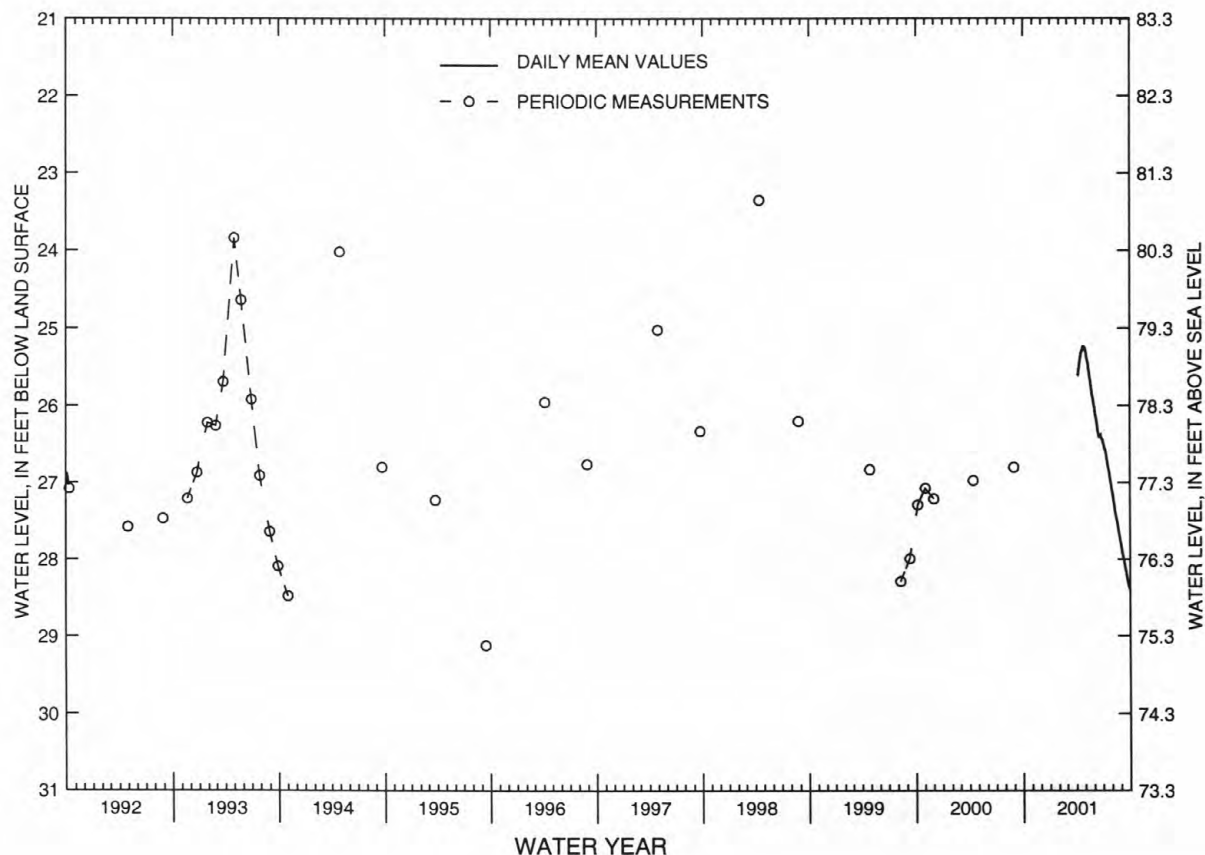
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 22.73 ft below land surface, May 11, 1970; lowest, 29.60 ft below land surface, Jan. 24-Feb. 15, 1966.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	25.33	26.10	26.51	27.19	27.90
10	---	---	---	---	---	---	25.53	25.44	26.21	26.59	27.32	27.98
15	---	---	---	---	---	---	25.38	25.56	26.34	26.70	27.44	28.10
20	---	---	---	---	---	---	25.29	25.71	26.40	26.81	27.53	28.21
25	---	---	---	---	---	---	25.25	25.85	26.41	26.92	27.66	28.29
EOM	---	---	---	---	---	---	25.26	25.99	26.45	27.08	27.78	28.39
MEAN	---	---	---	---	---	---	25.37	25.61	26.29	26.73	27.45	28.10

WTR YR 2001 HIGH 25.23 APR 24 LOW 28.39 SEP 30

NJ-WRD WELL NO. 05-0630



BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-0645. Site I.D., 400010074521601. Local I.D., Willingboro 2 Obs.

LOCATION.--Lat 40°00'10", long 74°52'16", Hydrologic Unit 02040202, near intersection of Bridge Street and Tiffany Lane, Willingboro Township.

Owner: Willingboro Municipal Utilities Authority.

AQUIFER.--Lower Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 441 ft, screened 431 to 441 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60-minute recording interval. Water-level recorder, Jan. 1968 to May 1999. Periodic measurements, Mar. 1966 to Jan. 1968.

DATUM.--Land surface is 40.30 ft above sea level.

Measuring point: Top of hole in well seal, 1.94 ft below land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

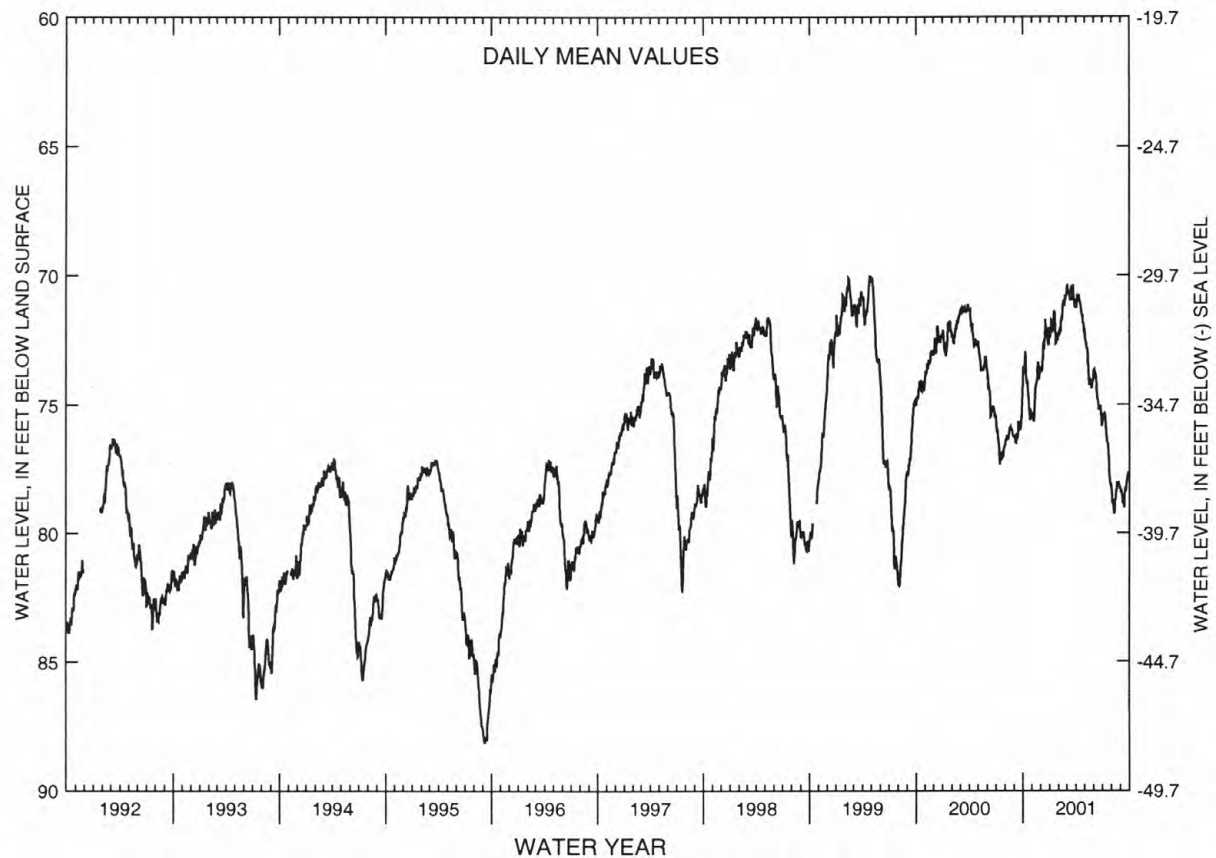
PERIOD OF RECORD.--Mar. 1966 to Sept. 1975, Mar. 1977 to current year. Records for 1966 to 1975 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 49.79 ft below land surface, June 21, 1967; lowest, 88.36 ft below land surface, Sept. 8-9, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	73.65	75.47	73.60	72.10	72.06	70.56	70.95	72.63	73.72	75.37	78.76	78.34
10	72.95	75.16	72.76	72.22	71.62	70.77	70.87	72.83	74.08	75.38	79.23	78.82
15	74.06	74.22	72.50	71.50	71.17	70.56	71.04	73.78	74.78	76.16	78.67	78.82
20	74.64	73.60	72.03	71.70	71.16	70.89	71.45	74.08	75.11	76.54	78.07	78.31
25	75.44	74.03	72.45	72.40	70.82	70.93	71.80	74.37	75.06	77.67	78.04	77.82
EOM	75.37	73.54	72.01	72.32	70.66	71.00	72.07	73.84	75.71	78.11	78.28	77.64
MEAN	74.33	74.45	72.69	72.08	71.46	70.75	71.27	73.50	74.64	76.47	78.49	78.33
WTR YR 2001 MEAN 74.05 HIGH 70.35 MAR 2 LOW 79.23 AUG 10												

NJ-WRD WELL NO. 05-0645



GROUND-WATER LEVELS

BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-0676. Site I.D., 394914074254401. Local I.D., Coyle Airport Obs.

LOCATION.--Lat 39°49'14", long 74°25'46", Hydrologic Unit 02040301, about 200 ft north of Rt. 72, and 3.5 mi west of the intersection of Routes 549 and 72, Woodland Township.
Owner: U.S. Geological Survey.

AQUIFER.--Piney Point aquifer of Eocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 540 ft, screened 530 to 540 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Feb. 1962 to July 1970.

DATUM.--Land surface is 199.19 ft above sea level.

Measuring point: Top of shelter shelf, 2.40 ft above land surface.

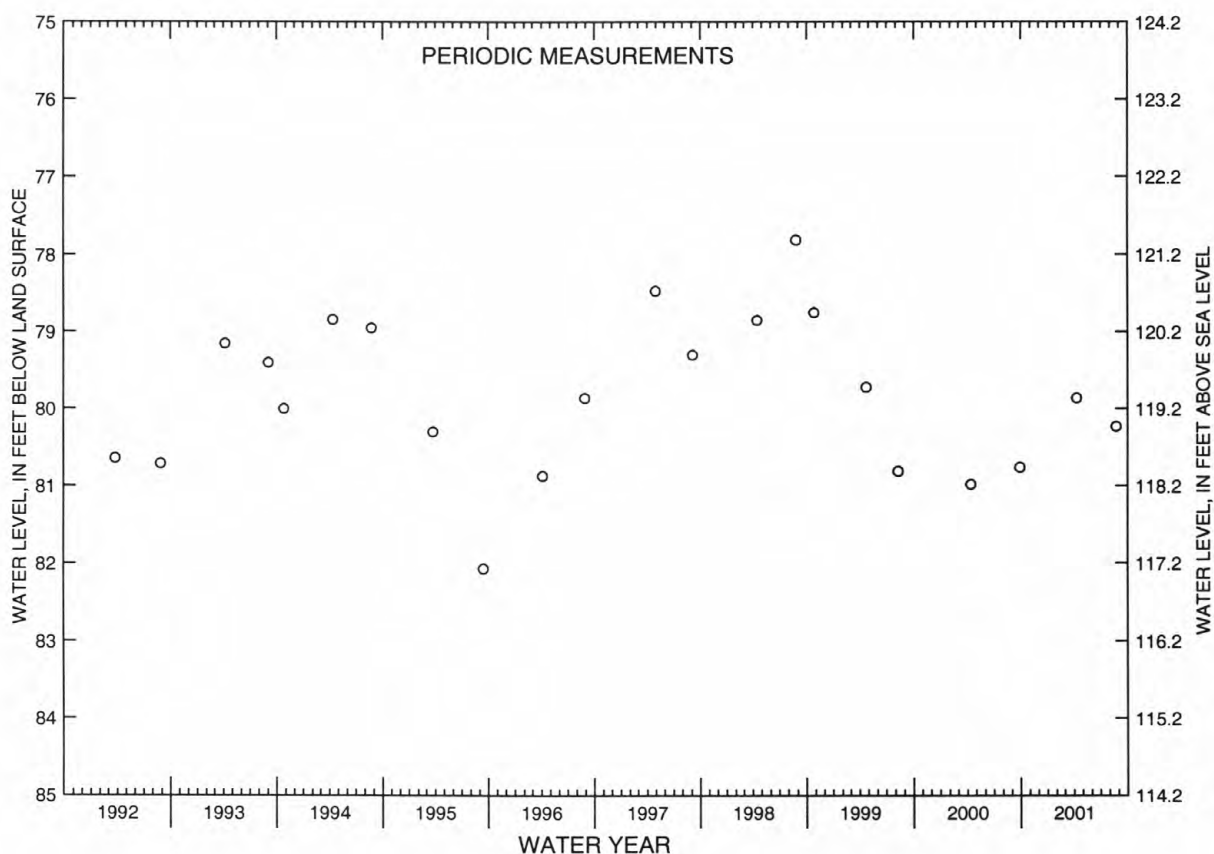
PERIOD OF RECORD.--Feb. 1962 to current year. Records for 1962 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 75.41 ft below land surface, June 14, 1973; lowest, 83.24 ft below land surface, Sept. 12, 1966.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 10	79.86	AUG 23	80.23

NJ-WRD WELL NO. 05-0676



GROUND-WATER LEVELS

47

BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-0683. Site I.D., 395122074301701. Local I.D., Butler Place 1 Obs.

LOCATION.--Lat 39°51'22", long 74°30'17", Hydrologic Unit 02040301, in Lebanon State Forest, Woodland Township.
Owner: U.S. Geological Survey.

AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 2,117 ft, screened 2,102 to 2,117 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, June 1975 to Sept. 1976. Water-level recorder, Oct. 1964 to June 1975.

DATUM.--Land surface is 140.66 ft above sea level.

Measuring point: Top of coupling, 2.80 ft above land surface.

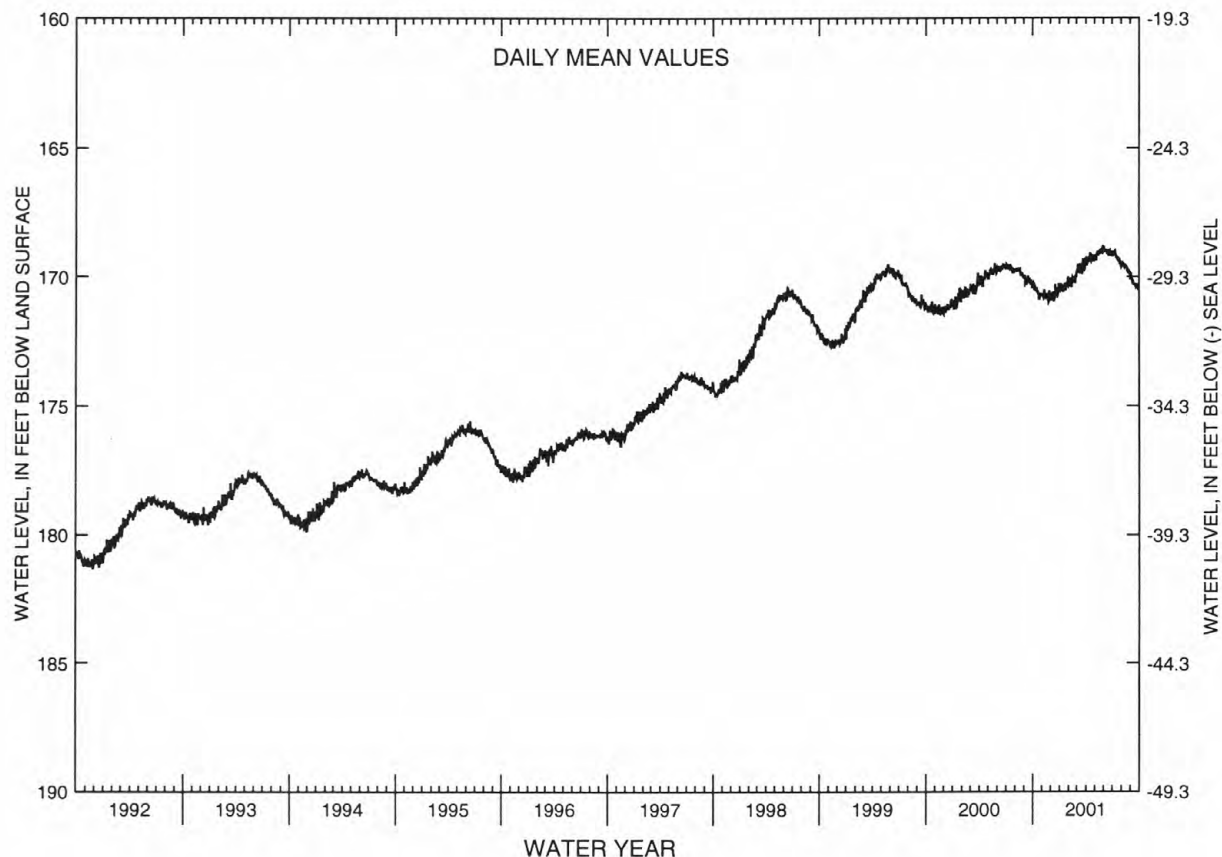
PERIOD OF RECORD.--Oct. 1964 to current year. Records for 1964 to 1977 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 143.20 ft below land surface, Feb. 25, 1965; lowest, 182.96 ft below land surface, Dec. 22-23, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	170.30	170.68	170.65	170.29	170.06	169.58	169.55	169.13	169.01	169.00	169.54	170.00
10	170.40	170.49	170.81	170.41	170.03	169.76	169.32	169.11	168.98	169.00	169.51	170.16
15	170.48	170.69	170.85	170.41	170.02	169.68	169.17	169.00	169.11	169.18	169.58	170.30
20	170.67	170.73	170.48	170.23	170.06	169.89	169.38	169.08	169.05	169.33	169.61	170.37
25	170.75	170.95	170.70	170.29	170.00	169.56	169.28	169.09	169.10	169.28	169.86	170.27
EOM	170.71	170.61	170.33	170.01	169.93	169.31	169.32	169.02	169.05	169.53	169.83	170.51
MEAN	170.54	170.72	170.64	170.37	170.14	169.64	169.31	169.08	169.02	169.22	169.64	170.23
WTR YR 2001 MEAN 169.88 HIGH 168.83 JUN 2 LOW 170.97 NOV 24												

NJ-WRD WELL NO. 05-0683



GROUND-WATER LEVELS

BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-0684. Site I.D., 395122074301702. Local I.D., Butler Place 2 Obs.

LOCATION.--Lat 39°51'22", long 74°30'17", Hydrologic Unit 02040301, in Lebanon State Forest, Woodland Township.
Owner: U.S. Geological Survey.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in., depth 170 ft, screened 160 to 170 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval. Water-level extremes recorder, Mar. 1977 to Mar. 2001. Periodic measurements, Apr. 1975 to Mar. 1977. Water-level recorder, May 1965 to Apr. 1975.

DATUM.--Land surface is 140.82 ft above sea level.

Measuring point: Top of coupling, 2.52 ft above land surface.

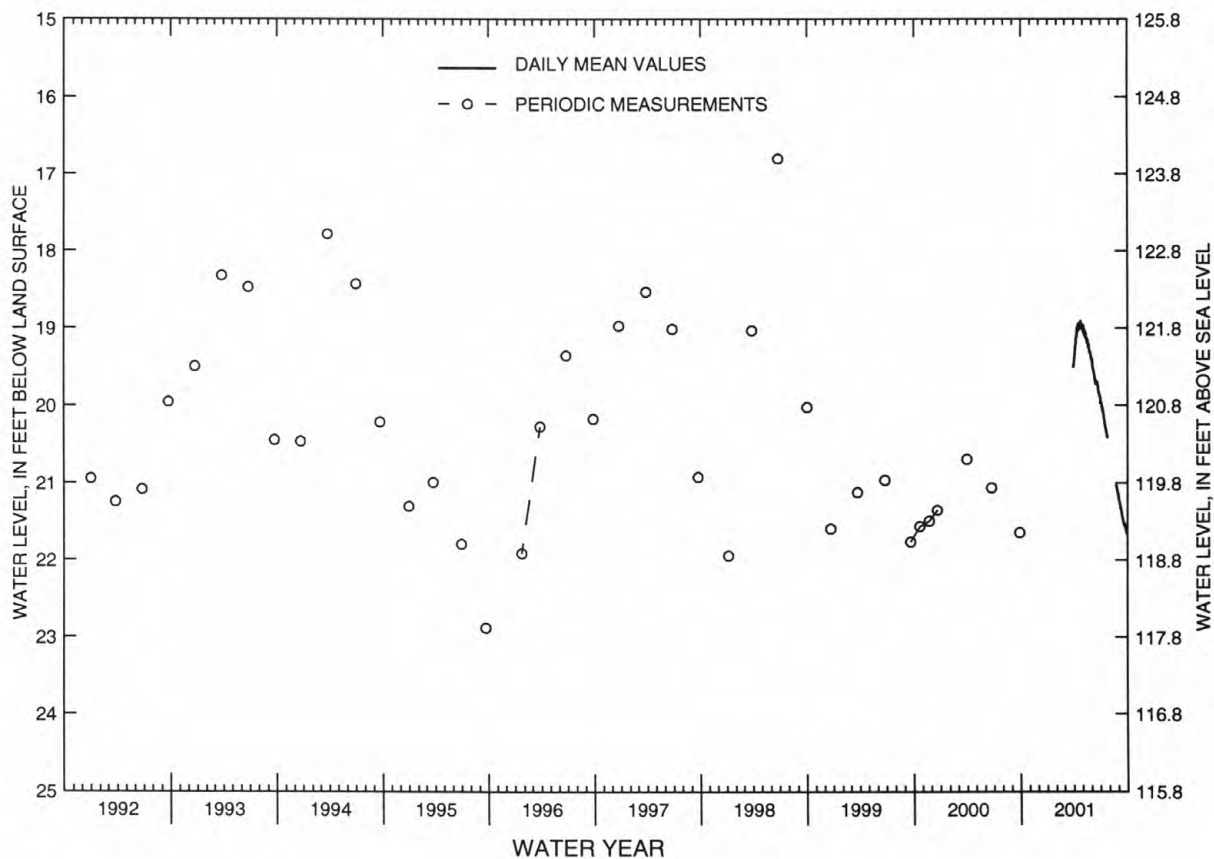
PERIOD OF RECORD.--May 1965 to current year. Records for 1965 to 1981 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.14 ft below land surface, Feb. 15, 1973; lowest, 23.53 ft below land surface, between Sept. 26, and Dec. 11, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	19.30	19.02	19.51	19.97	---	21.25
10	---	---	---	---	---	---	19.12	19.05	19.61	20.07	---	21.34
15	---	---	---	---	---	---	18.96	19.12	19.72	20.21	---	21.44
20	---	---	---	---	---	---	18.99	19.25	19.70	20.31	---	21.54
25	---	---	---	---	---	---	18.98	19.32	19.82	20.42	21.05	21.56
EOM	---	---	---	---	---	19.50	18.97	19.41	19.89	---	21.14	21.66
MEAN	---	---	---	---	---	---	19.07	19.17	19.67	20.15	---	21.43
WTR YR 2001 HIGH 18.90 APR 24 LOW 21.66 SEP 30												

NJ-WRD WELL NO. 05-0684



GROUND-WATER LEVELS

49

BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-0689. Site I.D., 395150074284201. Local I.D., Lebanon State Forest 23-D Obs.

LOCATION.--Lat 39°51'52", long 74°28'48", Hydrologic Unit 02040202, in Lebanon State Forest, Woodland Township.
Owner: U.S. Geological Survey.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 8 in., depth 33 ft, open-end cement casing.

INSTRUMENTATION.--Data collection platform with satellite telemetry--60-minute recording interval. Water-level recorder, Jan. 1979 to May 2001. Periodic measurements, Apr. 1975 to Jan. 1979. Water-level recorder, Sept. 1955 to Apr. 1975.

DATUM.--Land surface is 152.02 ft above sea level.
Measuring point: Top of casing, 0.70 ft above land surface.

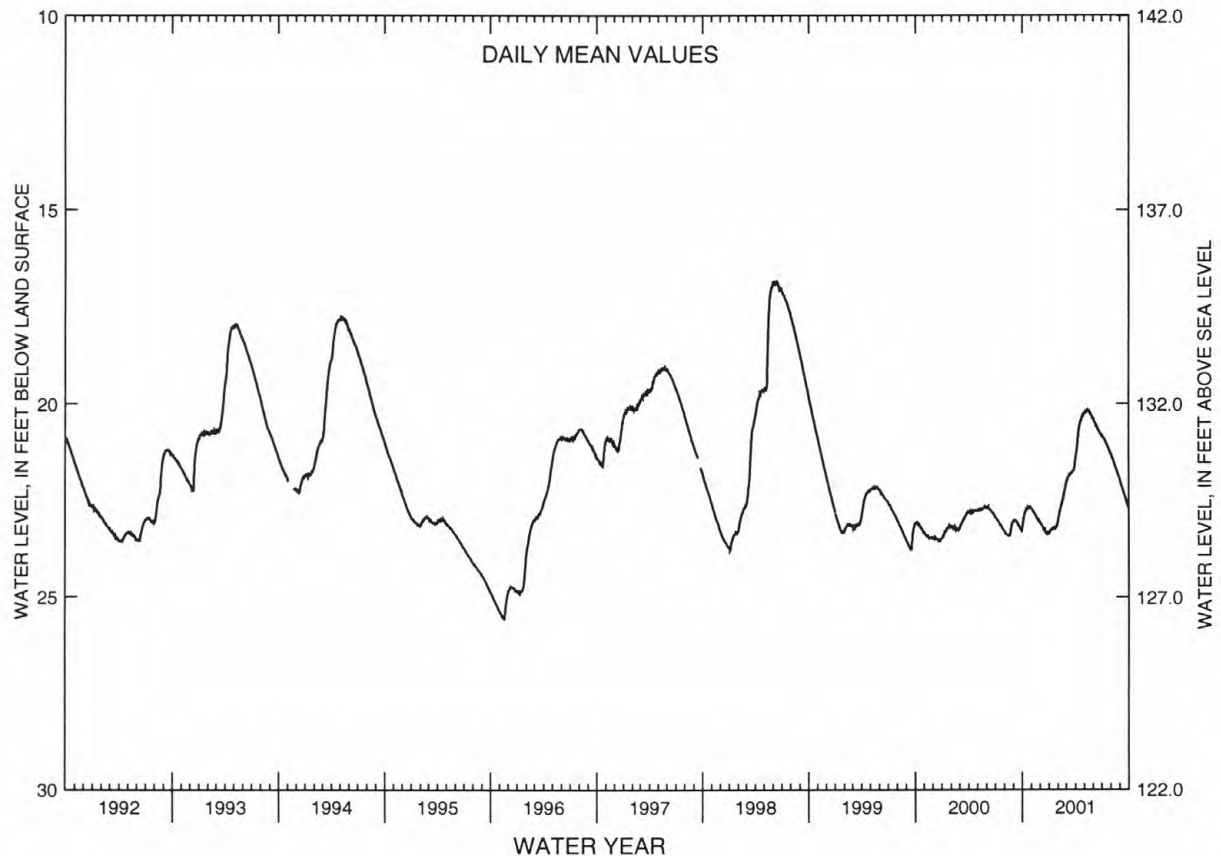
PERIOD OF RECORD.--Sept. 1955 to current year. Records for 1955 to 1979 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.37 ft below land surface, Sept. 11, 1958; lowest, 25.97 ft below land surface, Dec. 8-10, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.99	22.74	23.11	23.27	22.82	21.93	21.24	20.20	20.46	20.84	21.37	22.06
10	22.81	22.79	23.18	23.24	22.66	21.86	20.89	20.18	20.53	20.90	21.46	22.18
15	22.71	22.88	23.26	23.21	22.52	21.81	20.59	20.17	20.61	21.00	21.58	22.30
20	22.68	22.95	23.31	23.19	22.36	21.79	20.44	20.23	20.68	21.08	21.69	22.42
25	22.66	23.02	23.38	23.18	22.17	21.73	20.32	20.30	20.76	21.16	21.81	22.53
EOM	22.69	23.05	23.34	23.03	22.08	21.50	20.25	20.39	20.80	21.28	21.92	22.66
MEAN	22.79	22.88	23.25	23.21	22.53	21.81	20.70	20.24	20.60	21.02	21.60	22.31
WTR YR 2001	MEAN 21.91 HIGH 20.16 MAY 12 LOW 23.38 DEC 25											

NJ-WRD WELL NO. 05-0689



GROUND-WATER LEVELS

BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-1155. Site I.D., 395315074494601. Local I.D., Medford Twp MW-1 Obs. NJ Permit Number, 31-39849.

LOCATION.--Lat 39°53'15", long 74°49'46", Hydrologic Unit 02040202, on the east side of Mill St. (County Rt. 623), 0.6 mi south of County Rt. 541, Medford Township.
Owner: Medford Township.

AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 180 ft, screened 120 to 180 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60-minute recording interval. Water-level recorder, Sept. 1992 to May 1998.

DATUM.--Land surface is 46.15 ft above sea level (levels by Medford Township).
Measuring point: Top of recorder shelf, 2.90 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

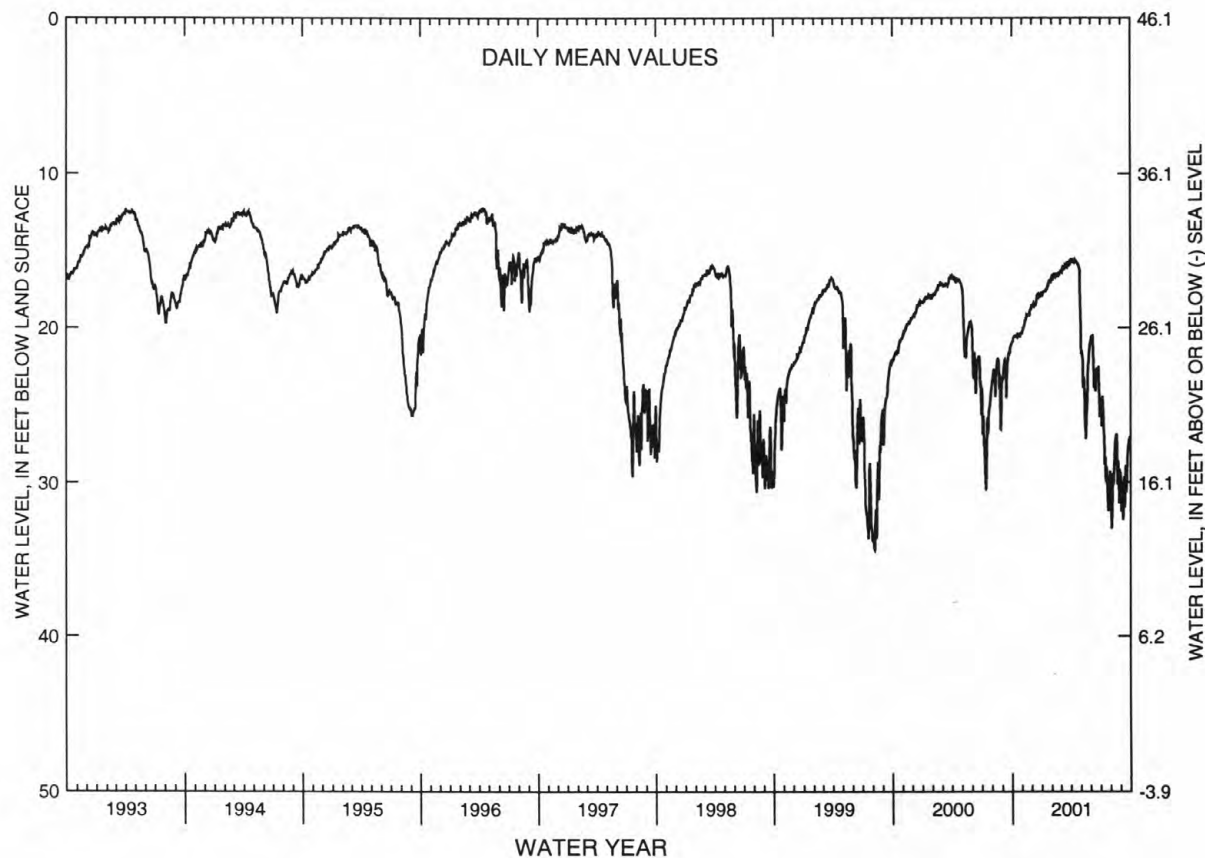
PERIOD OF RECORD.--Sept. 1992 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.17 ft below land surface, Apr. 16, 1996; lowest, 34.43 ft below land surface, Aug. 7, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.78	20.02	18.53	17.72	16.72	16.21	15.75	21.65	20.56	26.04	32.61	30.06
10	20.50	19.58	18.54	17.67	16.52	16.17	15.78	23.27	23.25	26.11	30.16	31.74
15	20.54	19.32	18.39	17.53	16.54	16.08	15.69	26.36	24.11	28.35	27.25	29.86
20	20.56	19.16	17.93	17.17	16.49	16.12	15.82	25.40	22.80	28.96	26.92	30.18
25	20.49	19.16	18.04	16.98	16.47	15.85	16.06	22.16	22.50	31.89	29.11	27.50
EOM	20.39	18.64	17.89	16.79	16.38	15.64	18.64	20.90	24.91	31.01	29.66	27.03
MEAN	20.58	19.44	18.24	17.41	16.60	16.05	15.96	23.23	22.76	28.21	29.50	29.70
WTR YR 2001	MEAN 21.51	HIGH 15.59	MAR 30	LOW 33.01	AUG 4							

NJ-WRD WELL NO. 05-1155



GROUND-WATER LEVELS

51

BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-1250. Site I.D., 400148074352001. Local I.D., McGuire 08-MW-52 Obs. NJ Permit Number, 28-20189-2.

LOCATION.--Lat 40°01'48", long 74°35'20", Hydrologic Unit 02040201, at base fuel storage area, New Hanover Township.
Owner: U.S. Air Force-McGuire AFB.

AQUIFER.--Vincentown aquifer of Paleocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 55 ft, screened 45 to 55 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Recording interval was 15 minutes from June 1996 to July 2001.

DATUM.--Land surface is 112.20 ft above sea level.
Measuring point: Top of recorder shelf, 4.73 ft above land surface.

REMARKS.--Water level affected by pumping between Nov. 30 and Dec. 16, 2000.

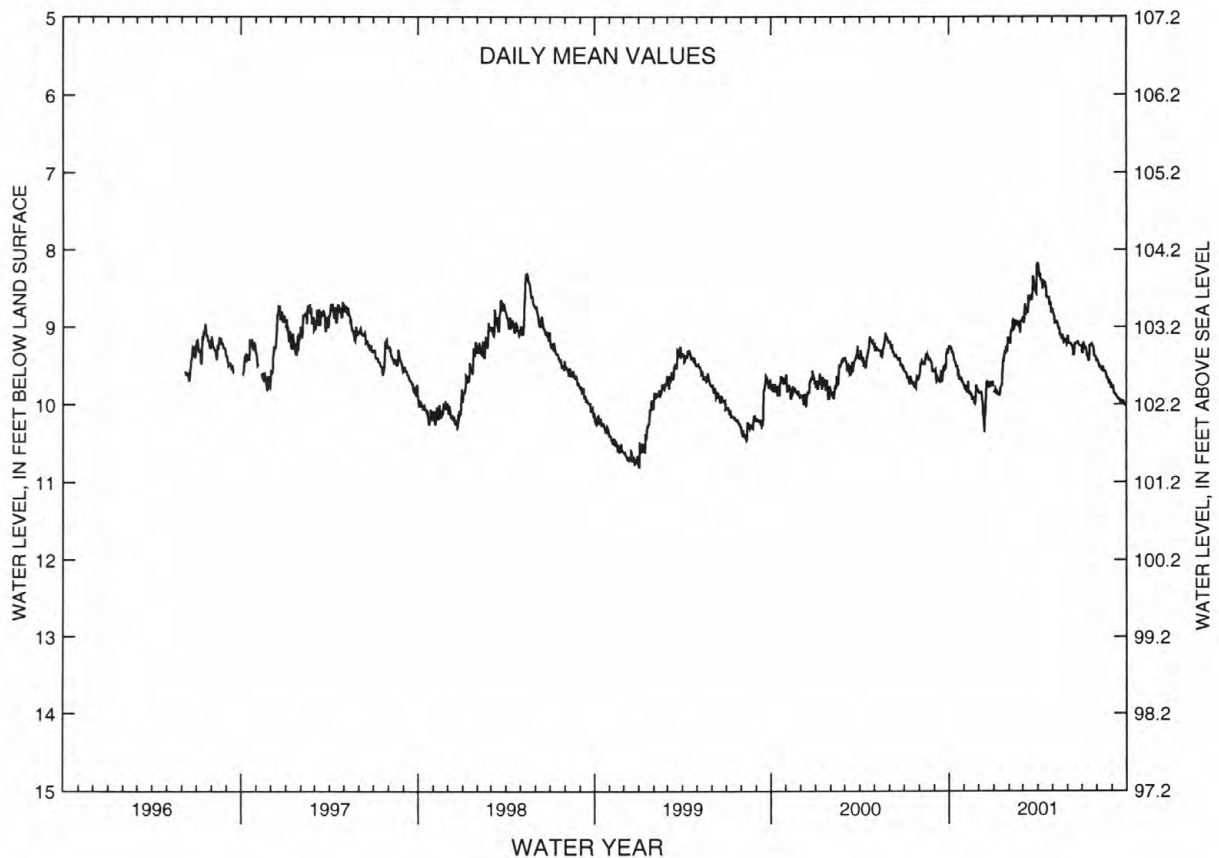
PERIOD OF RECORD.--June 1996 to current year. Records from 1996 to 1998 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.11 ft below land surface, Mar. 30, 2001; lowest, 10.84 ft below land surface, Jan. 1-2, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.28	9.78	9.85	9.80	9.07	8.82	8.36	8.86	9.21	9.19	9.47	9.81
10	9.33	9.70	9.99	9.88	8.89	8.78	8.44	8.93	9.23	9.27	9.52	9.88
15	9.46	9.87	10.11	9.80	8.92	8.65	8.43	9.00	9.36	9.42	9.55	9.93
20	9.59	9.90	9.73	9.47	8.92	8.65	8.62	9.15	9.21	9.23	9.59	9.95
25	9.66	9.98	9.76	9.31	8.93	8.48	8.71	9.20	9.23	9.26	9.70	9.94
EOB	9.73	9.80	9.77	9.14	8.90	8.18	8.80	9.22	9.25	9.41	9.74	10.02
MEAN	9.48	9.85	9.86	9.62	9.00	8.63	8.50	9.03	9.23	9.31	9.58	9.91
WTR YR 2001	MEAN 9.34 HIGH 8.18 MAR 31 LOW 10.36 DEC 13											

NJ-WRD WELL NO. 05-1250



GROUND-WATER LEVELS

BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-1251. Site I.D., 400148074352101. Local I.D., McGuire 08-MW-102 Obs. NJ Permit Number, 28-27186.

LOCATION.--Lat 40°01'48", long 74°35'21", Hydrologic Unit 02040201, at base fuel storage area, New Hanover Township.
Owner: U.S.Air Force-McGuire AFB.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 20 ft, screened 10 to 20 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Recording interval was 15 minutes from June 1996 to July 2001.

DATUM.--Land surface is 113.49 ft above sea level.

Measuring point: Top of recorder shelf, 3.25 ft above land surface.

REMARKS.--Water level affected by pumping between Nov. 30 and Dec. 16, 2000.

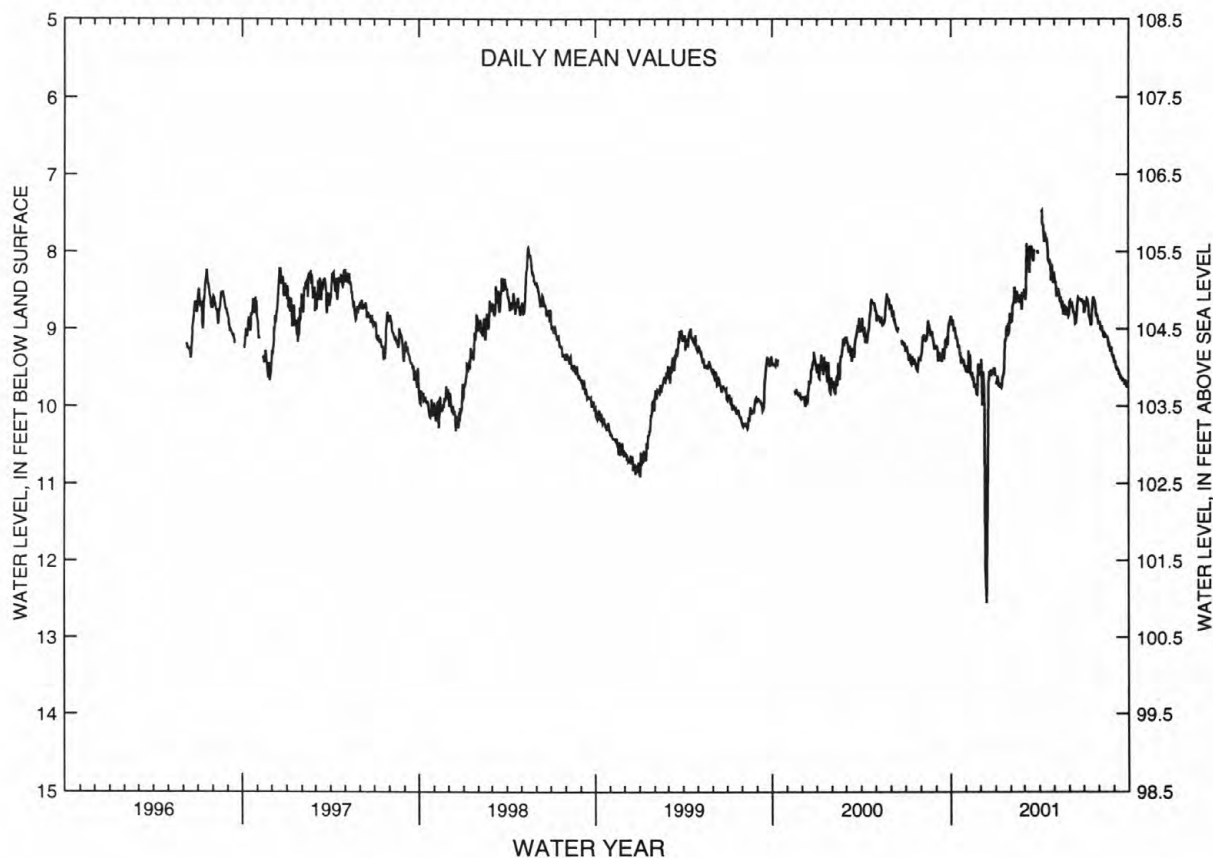
PERIOD OF RECORD.--June 1996 to current year. Records from 1996 to 1998 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.43 ft below land surface, Apr. 6, 2001; lowest, 12.80 ft below land surface, Dec. 14, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.94	9.57	9.99	9.61	8.70	8.24	7.47	8.42	8.68	8.64	9.00	9.47
10	8.98	9.33	10.72	9.76	8.48	8.11	7.80	8.49	8.78	8.64	9.04	9.53
15	9.15	9.64	10.85	9.64	8.55	7.99	7.83	8.58	8.92	8.90	9.07	9.63
20	9.34	9.71	9.59	9.16	8.55	8.12	8.12	8.80	8.59	8.64	9.12	9.67
25	9.39	9.82	9.59	8.99	8.54	---	8.37	8.82	8.62	8.66	9.29	9.66
EOY	9.51	9.60	9.61	8.81	8.53	---	8.31	8.83	8.66	8.90	9.33	9.75
MEAN	9.19	9.60	10.05	9.41	8.64	8.13	7.96	8.62	8.70	8.74	9.12	9.59
WTR YR 2001	MEAN 9.01	HIGH 7.46	APR 6	LOW 12.55	DEC 13							

NJ-WRD WELL NO. 05-1251



BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-1387. Site I.D., 394800074524601. Local I.D., Evesham 4 Obs. NJ Permit Number, 31-40373.

LOCATION.--Lat 39°48'00", long 74°52'46", Hydrologic Unit 02040301, near the intersection of Thomas Eakins and Georgia O'Keefe roads, Evesham Township.
Owner: Evesham Municipal Utilities Authority.

AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.

WELL CHARACTERISTICS.-- Drilled artesian observation well, diameter 2 in., depth 355 ft, screened 335 to 355 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval.

DATUM.-- Land surface is 119 ft above sea level, from topographic map.
Measuring point: Top of base of aluminum locking cap, 1.40 ft above land surface.

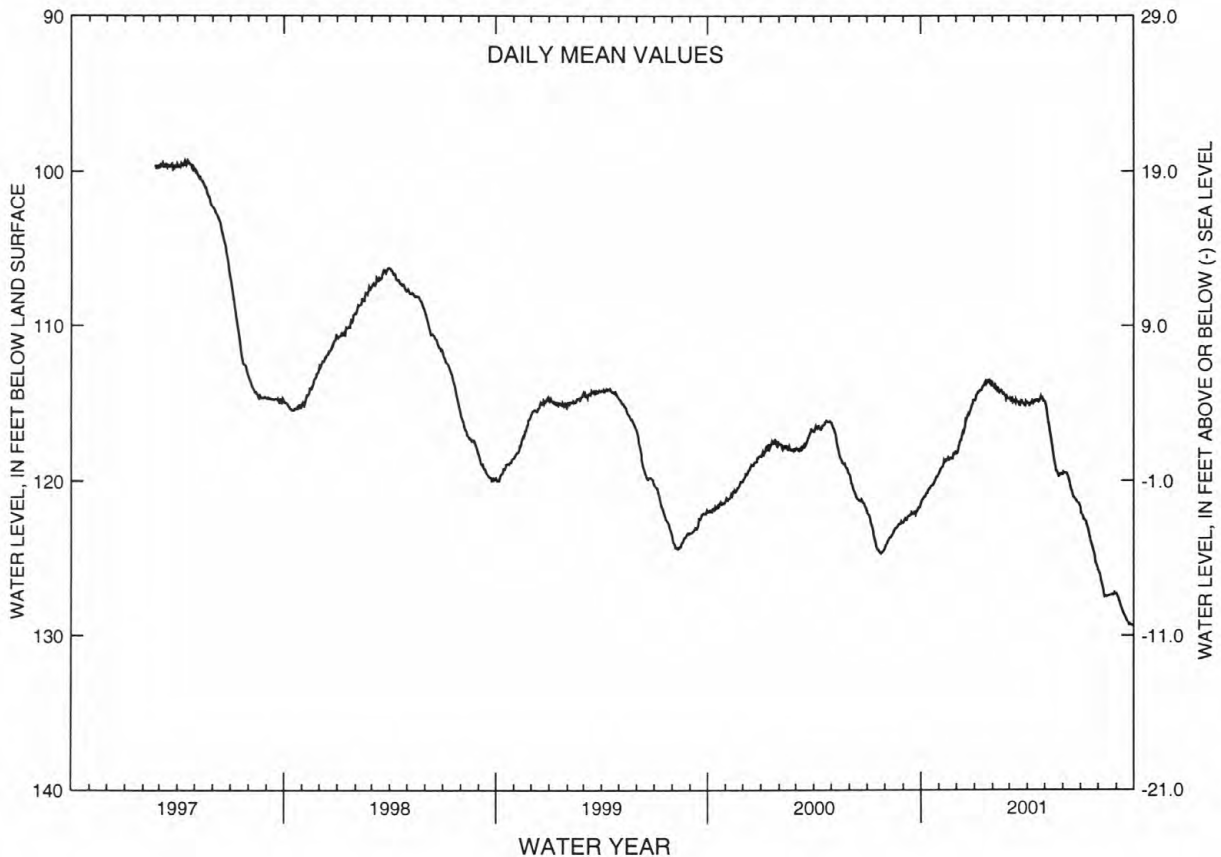
PERIOD OF RECORD.--Feb. 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 99.24 ft below land surface, Apr. 18, 1997; lowest, 129.37 ft below land surface, Sept. 29-30, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	121.09	119.16	117.74	114.42	113.85	114.66	115.12	115.52	119.51	122.21	126.27	127.62
10	120.82	118.65	117.25	114.21	114.00	114.91	114.94	116.79	119.72	122.58	127.10	128.22
15	120.49	118.62	116.68	113.93	114.16	114.92	114.81	118.04	120.57	123.18	127.45	128.71
20	120.32	118.52	115.83	113.51	114.37	115.14	114.92	119.24	121.08	124.04	127.35	129.09
25	120.01	118.53	115.49	113.60	114.60	115.01	114.69	119.70	121.35	124.68	127.38	129.24
EOM	119.59	118.17	114.78	113.64	114.73	114.94	114.88	119.59	121.59	125.65	127.25	129.33
MEAN	120.50	118.72	116.46	114.00	114.26	114.90	114.87	117.88	120.48	123.53	127.04	128.57
WTR YR 2001	MEAN 119.29 HIGH 113.51 JAN 20 LOW 129.35 SEP 29											

NJ-WRD WELL NO. 05-1387



GROUND-WATER LEVELS

BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-1389. Site I.D., 395309074352101. Local I.D., New Lisbon 1 Obs. NJ Permit Number, 32-22005.

LOCATION.--Lat 39°53'09", long 74°35'21", Hydrologic Unit 02040202, at New Lisbon Developmental Center, Woodland Township.
Owner: State of New Jersey - Human Services Dept.

AQUIFER.--Upper Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.-- Drilled artesian observation well, diameter 4 in., depth 920 ft, screened 900 to 920 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.-- Land surface is 107.3 ft above sea level.

Measuring point: Top of recorder shelf, 2.30 ft above land surface.

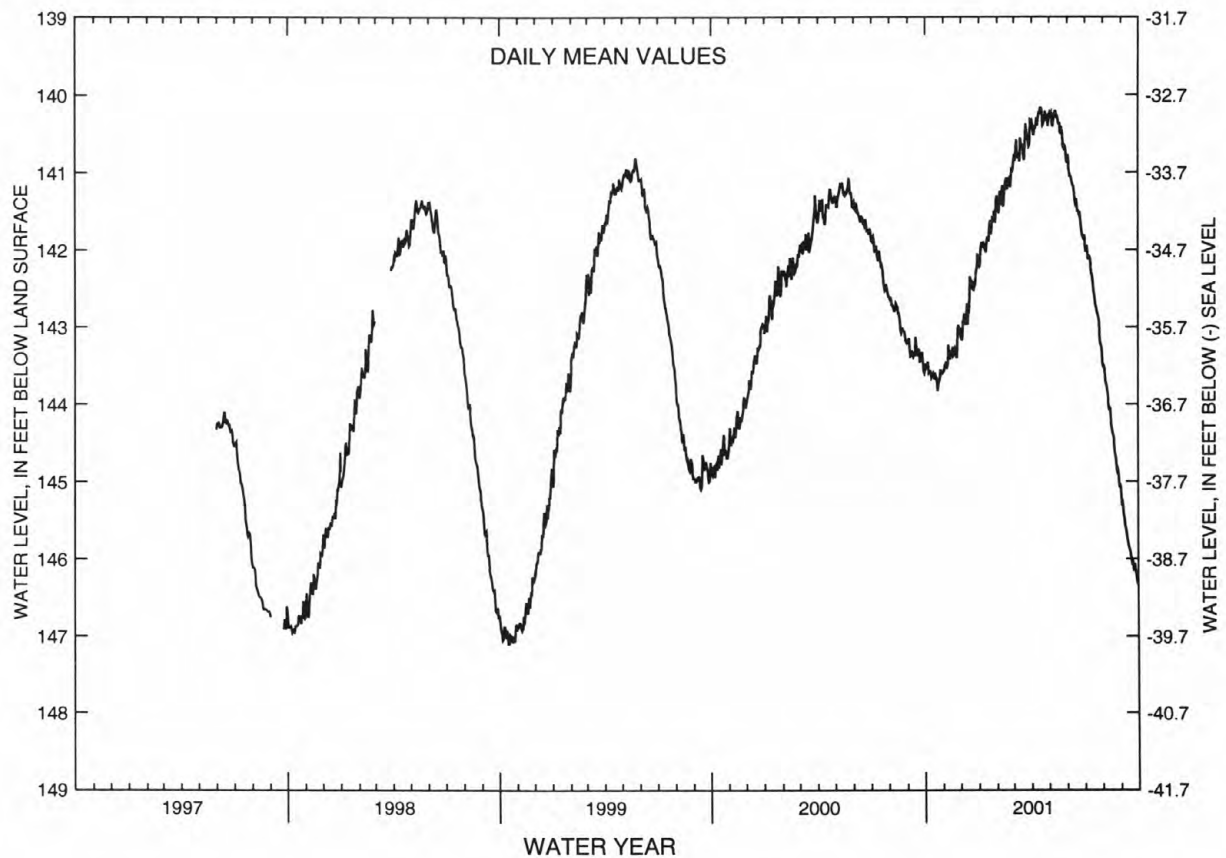
PERIOD OF RECORD.--May 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 140.12 ft below land surface, Apr. 18, 2001; lowest, 147.14 ft below land surface, Oct. 16-17, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	143.51	143.48	142.93	141.96	141.27	140.65	140.52	140.22	141.01	141.94	143.64	145.33
10	143.56	143.23	142.94	141.96	141.17	140.77	140.32	140.25	141.14	142.10	143.87	145.61
15	143.59	143.32	142.83	141.88	141.10	140.69	140.22	140.26	141.40	142.40	144.16	145.85
20	143.68	143.29	142.40	141.62	141.10	140.84	140.39	140.47	141.50	142.73	144.41	146.04
25	143.70	143.36	142.47	141.60	141.01	140.57	140.31	140.66	141.68	142.88	144.83	146.06
EOM	143.59	143.01	142.06	141.30	140.94	140.33	140.36	140.85	141.83	143.37	145.05	146.33
MEAN	143.61	143.34	142.65	141.82	141.22	140.66	140.33	140.41	141.34	142.51	144.25	145.79
WTR YR 2001 MEAN 142.33 HIGH 140.16 APR 16 LOW 146.33 SEP 30												

NJ-WRD WELL NO. 05-1389



BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-1390. Site I.D., 395309074352102. Local I.D., New Lisbon 2 Obs. NJ Permit Number 32-21804.

LOCATION.--Lat 39°53'09", long 74°35'21", Hydrologic Unit 02040202, at New Lisbon Developmental Center, Woodland Township.
Owner: State of New Jersey-Human Services Dept.

AQUIFER.--Englishtown aquifer system of Cretaceous age.

WELL CHARACTERISTICS.-- Drilled artesian observation well, diameter 4 in., depth 635 ft, screened 615 to 635 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval. Water-level recorder, May 1997 to Mar. 2000.

DATUM.-- Land surface is 107 ft above sea level.

Measuring point: Top of recorder shelf, 3.60 ft above land surface.

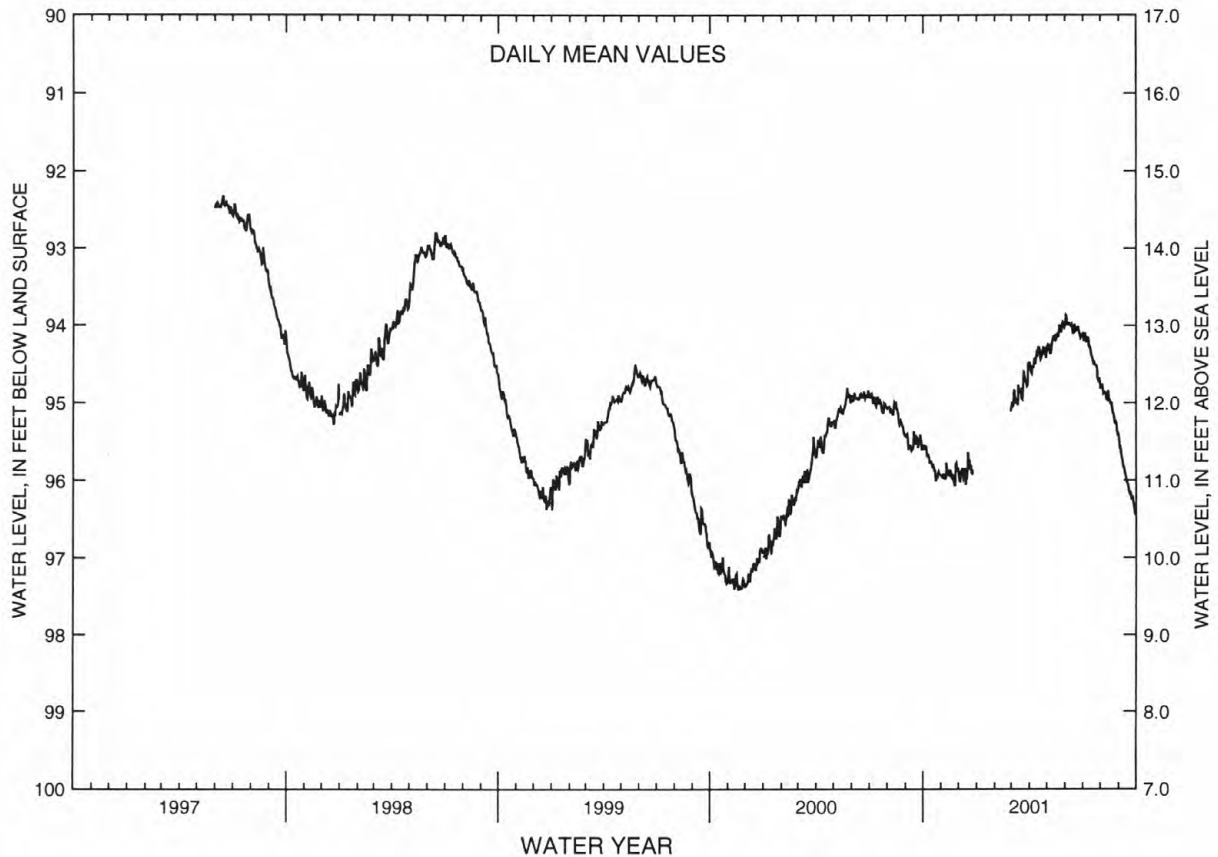
PERIOD OF RECORD.--May 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 92.30 ft below land surface, June 13-14, 1997; lowest, 97.41 ft below land surface, Nov. 19, 22-23, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	95.58	95.92	95.87	---	---	94.88	94.62	94.24	93.99	94.09	94.84	95.63
10	95.68	95.77	95.97	---	---	94.96	94.45	94.20	94.00	94.15	94.90	95.84
15	95.76	95.89	95.99	---	---	94.87	94.33	94.12	94.10	94.33	94.91	96.02
20	95.88	95.92	95.76	---	---	94.96	94.43	94.15	94.06	94.49	94.99	96.17
25	95.94	96.06	95.91	---	---	94.72	94.35	94.09	94.10	94.52	95.26	96.20
EOM	95.93	95.83	---	---	95.11	94.50	94.36	94.01	94.12	94.76	95.40	96.45
MEAN	95.78	95.92	95.89	---	---	94.84	94.41	94.14	94.03	94.37	95.02	95.99
WTR YR 2001	MEAN 95.03	HIGH 93.87	JUN 2	LOW 96.45	SEP 30							

NJ-WRD WELL NO. 05-1390



GROUND-WATER LEVELS

BURLINGTON COUNTY--Continued

NJ-WRD Well Number, 05-1391. Site I.D., 394904074253601. Local I.D., Coyle 2 Obs (OW96). NJ Permit Number, 32-21805.

LOCATION.--Lat 39°49'04", long 74°25'36", Hydrologic Unit 02040301, at the State Forest Fire Service installation, Coyle Field, Woodland Township.

Owner: State of New Jersey-DEP/Division of Parks and Forestry.

AQUIFER.--Upper Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.-- Drilled artesian observation well, diameter 4 in., depth 1,441 ft, screened 1,416 to 1,436 ft.

INSTRUMENTATION.--Water-level recorder--60 minute-punch.

DATUM.-- Land surface is 186.8 ft above sea level.

Measuring point: Top of recorder shelf, 4.00 ft above land surface.

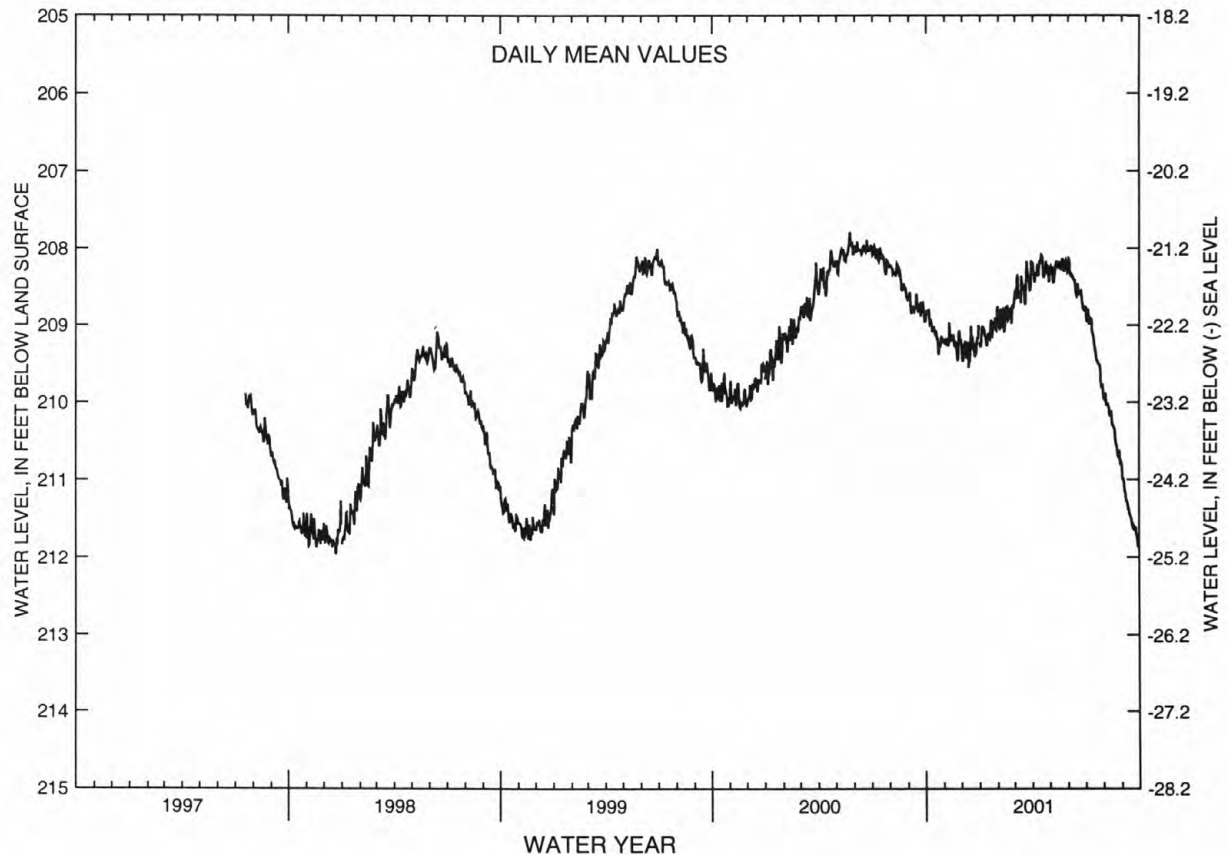
PERIOD OF RECORD.--July 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 207.75 ft below land surface, May 25, 2000; lowest, 212.01 ft below land surface, Dec. 22, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	208.83	209.18	209.24	209.04	208.79	208.40	208.44	208.24	208.35	208.79	210.00	211.04
10	208.95	208.97	209.42	209.14	208.77	208.59	208.27	208.24	208.40	208.91	210.06	211.27
15	209.03	209.15	209.48	209.13	208.75	208.53	208.15	208.17	208.61	209.19	210.21	211.46
20	209.18	209.21	209.17	208.93	208.81	208.73	208.38	208.28	208.57	209.46	210.35	211.61
25	209.25	209.44	209.38	208.98	208.77	208.41	208.31	208.30	208.71	209.51	210.69	211.61
EOB	209.21	209.18	209.06	208.75	208.72	208.20	208.37	208.30	208.77	209.87	210.78	211.87
MEAN	209.07	209.21	209.29	209.08	208.87	208.49	208.28	208.25	208.50	209.26	210.30	211.42
WTR YR 2001	MEAN 209.17	HIGH 208.09	APR 16	LOW 211.87	SEP 30							

NJ-WRD WELL NO. 05-1391

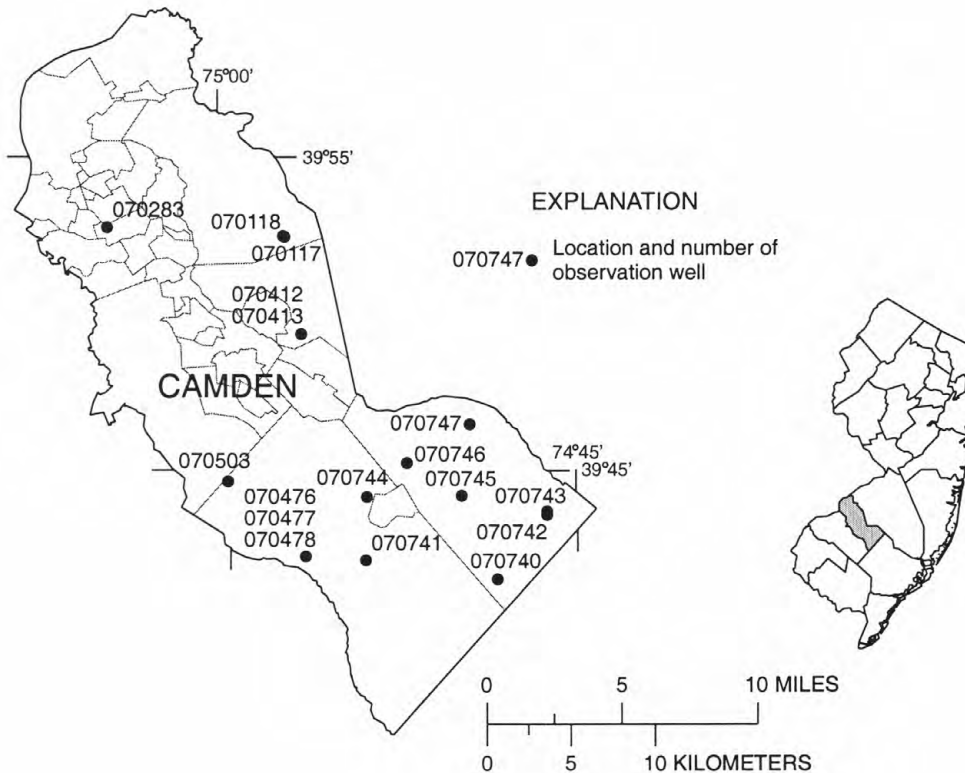


CAMDEN COUNTY

NJ-WRD well number	Local identifier	Township	Well depth	Aquifer	Type of data
070117	HUTTON HILL 1 OBS	CHERRY HILL TWP	562	MRPAU	DAILY
070118	HUTTON HILL 2 OBS	CHERRY HILL TWP	147	MLRW	DAILY
070283	EGBERT OBS	HADDON HEIGHTS BORO	455	MRPAL	MANUAL
070412	ELM TREE 2 OBS	VOORHEES TWP	1090	MRPAL	DAILY
070413	ELM TREE 3 OBS	VOORHEES TWP	717	MRPAM	DAILY
070476	NEW BROOKLYN PARK 1 OBS	WINSLOW TWP	1500	MRPA	DAILY
070477	NEW BROOKLYN PARK 2 OBS	WINSLOW TWP	849	MRPAU	DAILY
070478	NEW BROOKLYN PARK 3 OBS	WINSLOW TWP	530	MLRW	DAILY
070503	WINSLOW 5 OBS	WINSLOW TWP	76	CKKD	DAILY
070740	CCMUA PZ 3	WATERFORD TWP	13	CKKD	MANUAL
070741	CCMUA PZ 4	WINSLOW TWP	32	CKKD	MANUAL
070742	CCMUA PZ 2	WATERFORD TWP	18	CKKD	MANUAL
070743	CCMUA PZ 1	WATERFORD TWP	17	CKKD	MANUAL
070744	CCMUA PZ 5	WINSLOW TWP	47	CKKD	MANUAL
070745	CCMUA PZ 8	WATERFORD TWP	25	CKKD	MANUAL
070746	CCMUA PZ 7	WATERFORD TWP	23	CKKD	MANUAL
070747	CCMUA PZ 6	WATERFORD TWP	35	CKKD	MANUAL

Aquifer names

- CKKD - Kirkwood-Cohansey aquifer system
- MLRW - Wenonah-Mount Laurel aquifer
- MRPA - Potomac-Raritan-Magothy aquifer
- MRPAL - Lower Potomac-Raritan-Magothy aquifer
- MRPAM - Middle Potomac-Raritan-Magothy aquifer
- MRPAU - Upper Potomac-Raritan-Magothy aquifer



GROUND-WATER LEVELS

CAMDEN COUNTY

NJ-WRD Well Number, 07-0117. Site I.D., 395229074571201. Local I.D., Hutton Hill 1 Obs. NJ Permit Number, 31-04897.

LOCATION.--Lat 39°52'29", long 74°57'12", Hydrologic Unit 02040202, about 800 ft northeast of intersection of Kresson Rd. and Cropwell Rd., Cherry Hill Township.
Owner: New Jersey - American Water Company.

AQUIFER.--Upper Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 562 ft, screened 552 to 562 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Water-level extremes recorder, Feb. 1977 to Dec. 1984. Periodic measurements, Apr. 1975 to Feb. 1977. Water-level recorder, Aug. 1967 to Apr. 1975.

DATUM.--Land surface is 157.61 ft above sea level.

Measuring point: Top of recorder shelf, 1.60 ft above land surface.

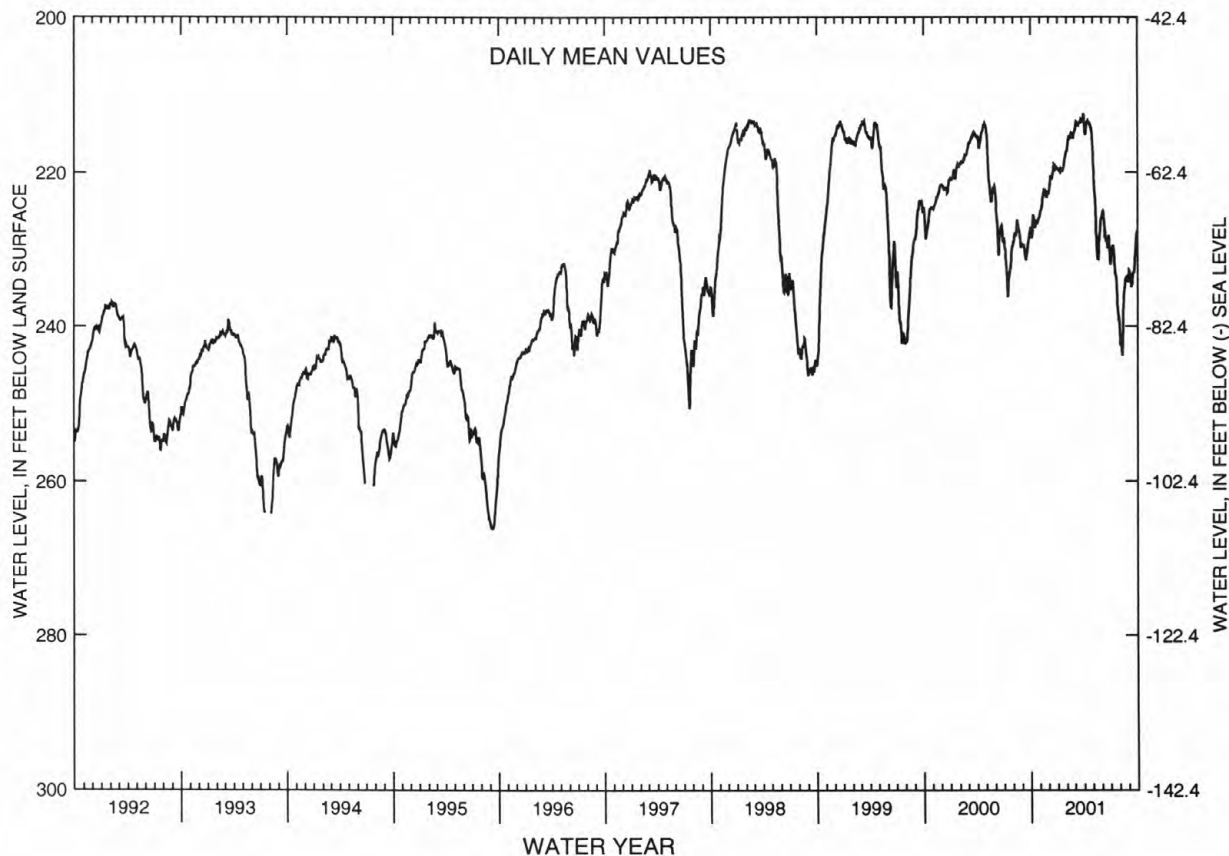
PERIOD OF RECORD.--Aug. 1967 to current year. Records for 1967 to 1978 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 200.77 ft below land surface, Mar. 23, 1968; lowest, 266.26 ft below land surface, Sept. 9, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	228.56	224.81	221.58	219.80	215.87	213.41	214.96	220.84	224.99	230.48	242.25	233.11
10	225.50	223.61	220.65	220.03	215.47	213.80	213.74	223.92	226.80	229.54	243.85	234.84
15	226.98	222.24	220.29	219.62	215.02	213.71	213.42	229.42	228.78	231.89	236.71	233.99
20	226.40	222.75	218.92	219.48	215.35	213.72	213.85	231.28	229.39	233.46	234.35	232.99
25	226.43	223.19	219.56	218.26	214.94	213.27	214.36	228.11	228.17	237.20	233.44	230.10
EOB	225.74	222.66	219.45	217.25	214.69	212.48	216.24	225.86	231.69	239.33	234.13	227.57
MEAN	226.69	223.41	220.23	219.16	215.54	213.54	214.08	226.02	227.95	233.36	237.68	232.30
WTR YR 2001	MEAN 224.23	HIGH 212.43	MAR 30	LOW 243.85	AUG 10							

NJ-WRD WELL NO. 07-0117



CAMDEN COUNTY--Continued

NJ-WRD Well Number, 07-0118. Site I.D., 395229074571202. Local I.D., Hutton Hill 2 Obs. NJ Permit Number, 31-04898.

LOCATION.--Lat 39°52'29", long 74°57'12", Hydrologic Unit 02040202, about 800 ft northeast of the intersection of Kresson Rd. and Cropwell Rd., Cherry Hill Township.
Owner: New Jersey - American Water Company.

AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 147 ft, screened 137 to 147 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Apr. 1975 to Jan. 1997. Water-level recorder, Aug. 1967 to Apr. 1975.

DATUM.--Land surface is 157.53 ft above sea level.
Measuring point: Top of recorder shelf, 1.89 ft above land surface.

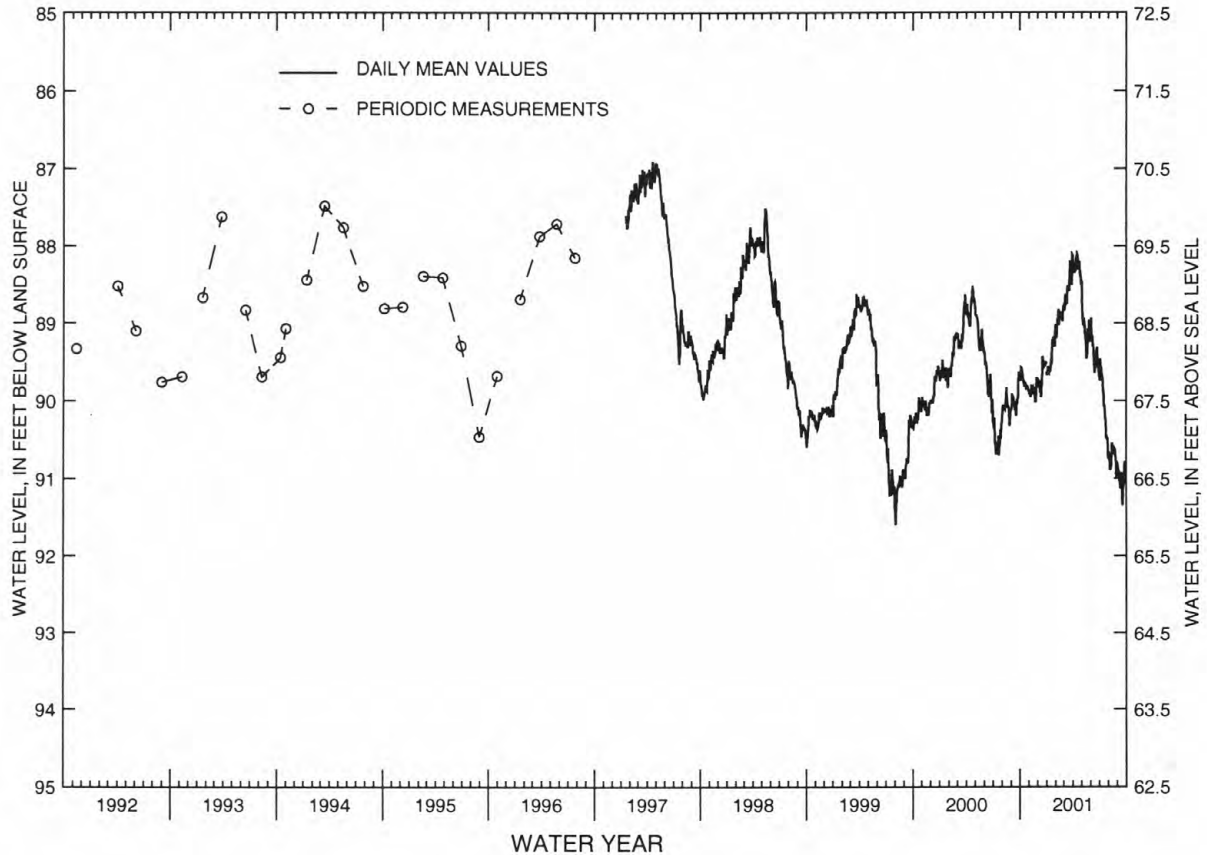
PERIOD OF RECORD.--Sept. 1967 to current year. Records for 1967 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 84.87 ft below land surface, Apr. 27, 1973; lowest, 91.68 ft below land surface, Aug. 3, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	89.66	89.91	89.75	89.57	89.03	88.70	88.34	88.92	89.20	89.46	90.72	90.91
10	89.64	89.79	89.90	89.62	88.82	88.70	88.28	88.96	89.29	89.74	90.85	91.08
15	89.75	89.82	89.83	89.52	88.85	88.59	88.14	89.20	89.62	89.85	90.56	90.96
20	89.79	89.91	89.47	89.26	88.87	88.58	88.31	89.43	89.49	90.13	90.58	91.28
25	89.80	90.00	89.55	89.21	88.90	88.40	88.30	89.24	89.37	90.48	90.69	90.95
EOM	89.87	89.72	89.53	89.02	88.78	88.11	88.49	89.14	89.69	90.70	90.78	90.89
MEAN	89.75	89.88	89.67	89.44	88.94	88.55	88.27	89.07	89.38	90.01	90.72	91.00
WTR YR 2001	MEAN 89.56 HIGH 88.10 APR 16 LOW 91.35 SEP 19											

NJ-WRD WELL NO. 07-0118



GROUND-WATER LEVELS

CAMDEN COUNTY--Continued

NJ-WRD Well Number, 07-0283. Site I.D., 395246075043301. Local I.D., Egbert Obs. NJ Permit Number, 31-04282.

LOCATION.--Lat 39°52'46", long 75°04'34", Hydrologic Unit 02040202, in Camden County Park, about 400 ft south of the corner of Dallas and Sylvan Avenues, Haddon Heights Borough.
Owner: New Jersey - American Water Company.

AQUIFER.--Lower Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 455 ft, screened 445 to 455 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Dec. 1984 to Apr. 1988. Water-level extremes recorder, Feb. 1977 to Dec. 1984. Periodic measurements, Apr. 1975 to Feb. 1977. Water-level recorder, June 1963 to Apr. 1975.

DATUM.--Land surface is 23.66 ft above sea level.

Measuring point: Top of base of aluminum locking cap, 2.78 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

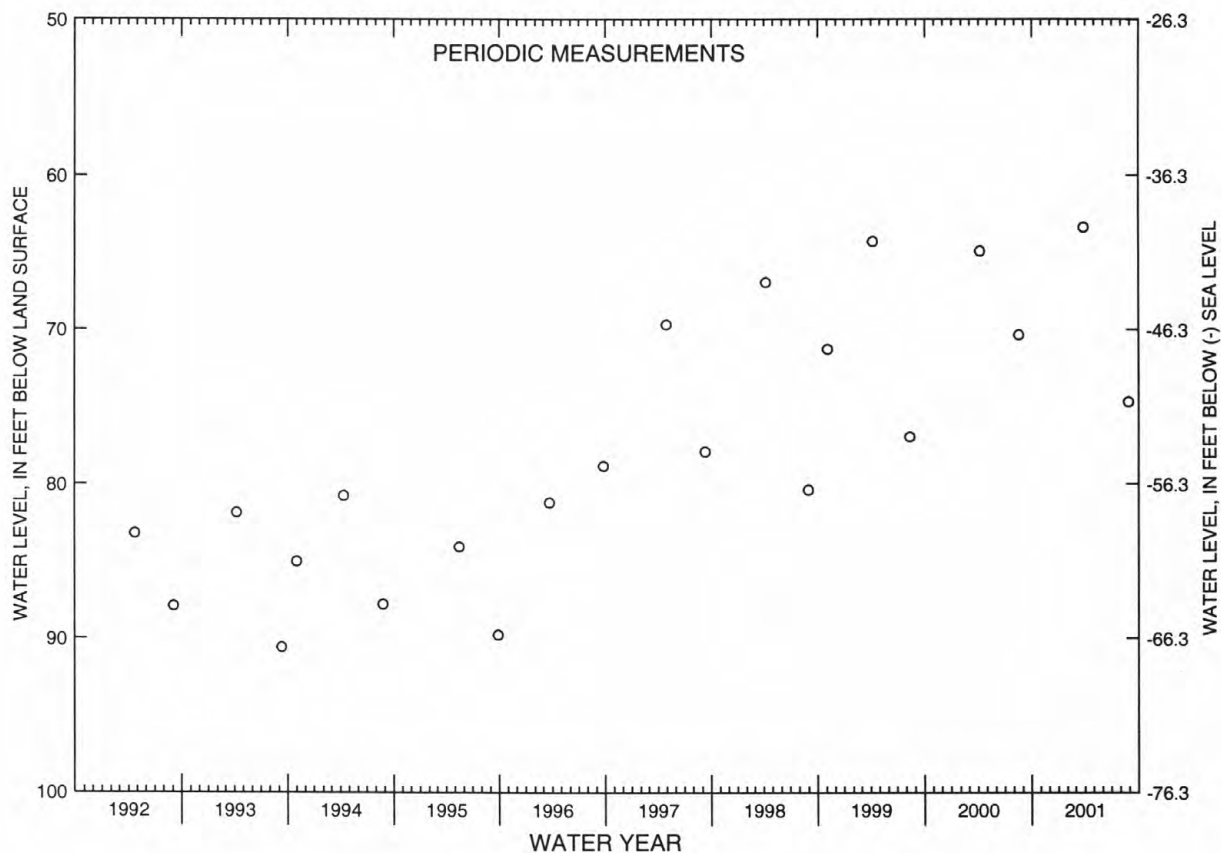
PERIOD OF RECORD.--June 1963 to current year. Records for 1963 to 1982 and 1988 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 61.93 ft below land surface, Apr. 8, 1964; lowest, 130.41 ft below land surface, between July 12 and Sept. 29, 1983.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 27	63.35	AUG 28	74.67

NJ-WRD WELL NO. 07-0283



GROUND-WATER LEVELS

61

CAMDEN COUNTY--Continued

NJ-WRD Well Number, 07-0412. Site I.D., 394922074563301. Local I.D., Elm Tree 2 Obs. NJ Permit Number, 31-09560.

LOCATION.--Lat 39°49'22", long 74°56'30", Hydrologic Unit 02040202, about 200 ft northeast of Thomas Rd. and about 2 mi northwest of Berlin, Voorhees Township.
Owner: New Jersey - American Water Company.

AQUIFER.--Lower Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 1,092 ft, screened 1,082 to 1,092 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Water-level extremes recorder, Mar. 1977 to Dec. 1984. Periodic measurements, June 1975 to Mar. 1977. Water-level recorder, July 1965 to June 1975. Periodic measurements, Feb. 1964 to July 1965.

DATUM.--Land surface is 148.68 ft above sea level.
Measuring point: Top of recorder shelf, 2.80 ft above land surface.

REMARKS.--Well was originally screened 1,217 to 1,227 ft; rehabilitated Aug. 1969.

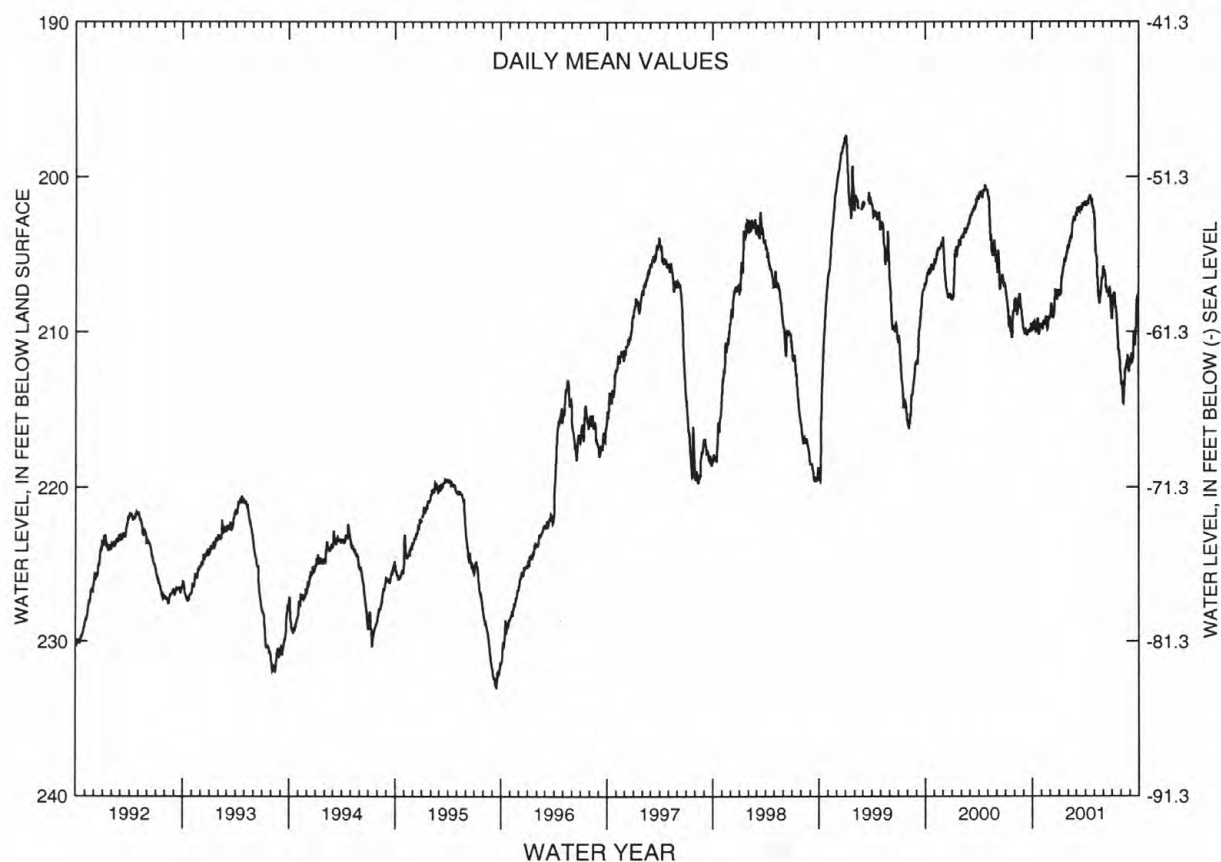
PERIOD OF RECORD.--Mar. 1964 to current year. Records for 1964 to 1978 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 142.28 ft below land surface, Mar. 3, 1964; lowest, 233.08 ft below land surface, Sept. 16, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	209.75	209.63	208.22	207.54	204.14	202.04	201.73	203.46	206.09	208.29	213.41	211.99
10	209.34	209.24	209.05	206.64	203.77	202.17	201.57	205.08	206.37	207.51	214.60	212.06
15	209.95	209.20	208.90	205.89	203.32	201.98	201.31	206.95	207.38	208.42	213.36	210.69
20	209.26	209.30	207.21	205.32	202.60	202.15	201.43	208.06	207.35	209.43	212.26	210.86
25	210.07	209.44	207.89	205.15	202.63	201.82	201.75	207.61	207.16	211.11	211.55	208.90
EOM	209.60	209.17	207.41	204.42	202.46	201.64	202.23	206.36	208.75	212.31	212.26	207.89
MEAN	209.64	209.38	208.20	206.09	203.42	201.98	201.62	206.04	207.02	209.31	212.86	210.55
WTR YR 2001	MEAN 207.21	HIGH 201.25	APR 19	LOW 214.62	AUG 11							

NJ-WRD WELL NO. 07-0412



CAMDEN COUNTY--Continued

NJ-WRD Well Number, 07-0413. Site I.D., 394922074563302. Local I.D., Elm Tree 3 Obs. NJ Permit Number, 31-04561.

LOCATION.--Lat 39°49'22", long 74°56'30", Hydrologic Unit 02040202, about 200 ft northeast of Thomas Rd. and about 2 mi northwest of Berlin, Voorhees Township.
Owner: New Jersey - American Water Company.

AQUIFER.--Middle Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 717 ft, screened 706 to 717 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Apr. 1975 to Mar. 1977. Water-level recorder, Dec. 1963 to Apr. 1975.

DATUM.--Land surface is 148.73 ft above sea level.
Measuring point: Top of recorder shelf, 0.60 ft above land surface.

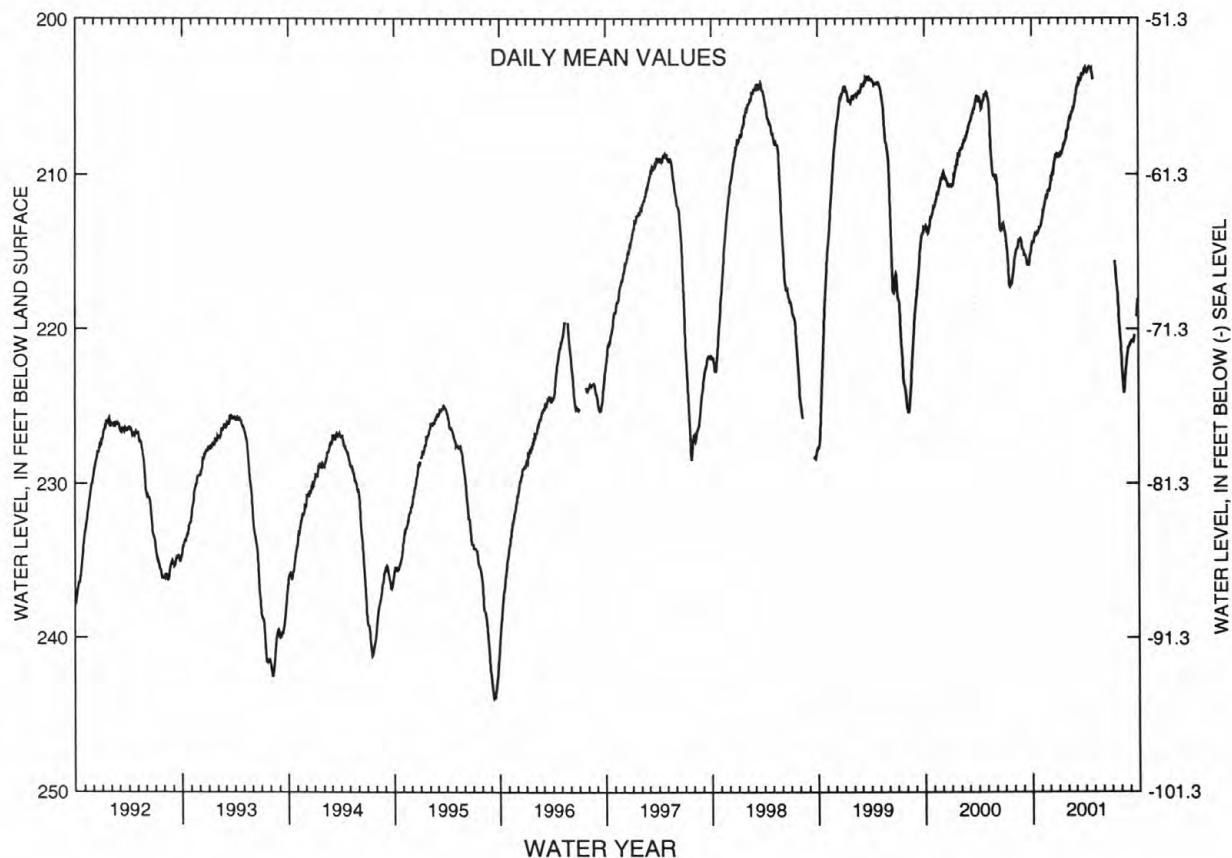
PERIOD OF RECORD.--Dec. 1963 to current year. Records for 1963 to 1977 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 174.21 ft below land surface, Feb. 6, 1964; lowest, 243.99 ft below land surface, Sept. 11-12, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	214.32	213.03	210.60	208.66	206.74	204.45	203.35	---	---	---	221.93	220.89
10	214.22	212.40	210.17	208.73	206.23	204.21	203.38	---	---	---	223.45	220.72
15	213.74	211.97	209.87	208.43	206.05	203.93	203.17	---	---	215.86	223.93	220.86
20	213.82	211.46	209.10	208.01	205.83	203.94	203.24	---	---	217.08	222.48	---
25	213.63	211.43	208.87	207.80	205.47	203.57	203.35	---	---	218.27	221.70	---
EOY	213.39	210.94	208.74	207.16	205.14	203.20	---	---	---	220.45	221.11	218.06
MEAN	213.94	212.05	209.66	208.27	206.18	203.98	203.31	---	---	217.71	222.37	220.36
WTR YR 2001	HIGH 203.08 APR 17 LOW 224.19 AUG 13											

NJ-WRD WELL NO. 07-0413



CAMDEN COUNTY--Continued

NJ-WRD Well Number, 07-0476. Site I.D., 394215074561701. Local I.D., New Brooklyn Park 1 Obs.

LOCATION.--Lat 39°42'15", long 74°56'17", Hydrologic Unit 02040302, on eastern shore of New Brooklyn Lake about 900 ft upstream of Rt. 536, Winslow Township.
Owner: U.S. Geological Survey.

AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 1,505 ft, screened 1,485 to 1,495 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Water-level extremes recorder, Mar. 1977 to Dec. 1984. Periodic measurements, Aug. 1975 to Mar. 1977. Water-level recorder, Jan. 1963 to Aug. 1975. Periodic measurements, Aug. 1960 to Jan. 1963.

DATUM.--Land surface is 111.13 ft above sea level.
Measuring point: Top of coupling, 1.75 ft above land surface.

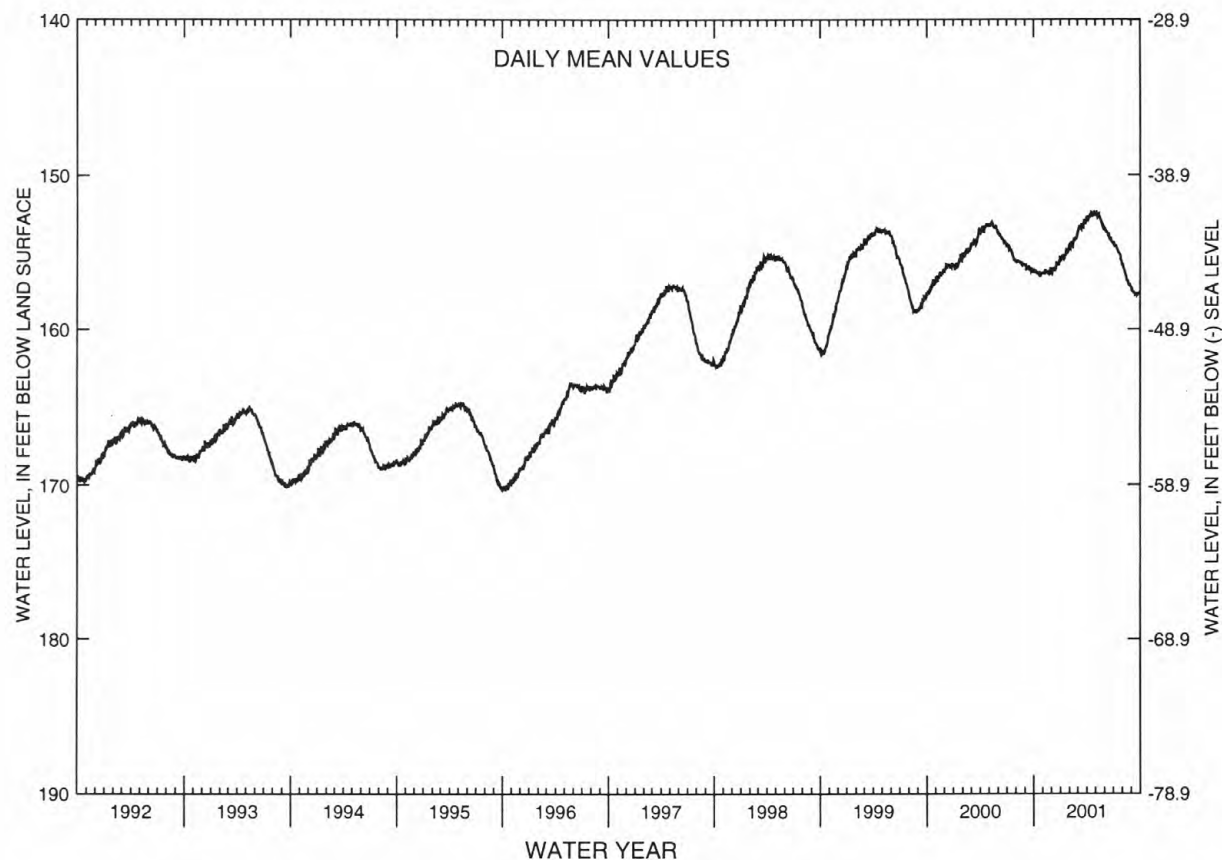
PERIOD OF RECORD.--Aug. 1960 to current year. Records for 1960 to 1981 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 117.24 ft below land surface, Nov. 16, 1960; lowest, 170.36 ft below land surface, Sept. 30, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	156.23	156.33	156.12	155.29	154.47	153.38	152.97	152.44	153.69	154.49	156.02	157.47
10	156.30	156.12	156.19	155.33	154.34	153.46	152.68	152.55	153.77	154.61	156.28	157.65
15	156.33	156.28	156.16	155.25	154.20	153.30	152.51	152.70	154.00	154.84	156.66	157.77
20	156.45	156.28	155.75	154.92	154.14	153.43	152.68	153.04	154.14	155.10	156.87	157.77
25	156.47	156.44	155.85	154.87	153.95	153.10	152.55	153.33	154.29	155.20	157.23	157.64
EOM	156.41	156.13	155.40	154.51	153.82	152.74	152.60	153.56	154.38	155.75	157.26	157.74
MEAN	156.36	156.30	155.94	155.15	154.33	153.27	152.65	152.87	153.96	154.95	156.65	157.65
WTR YR 2001	MEAN 155.01 HIGH 152.41 APR 24 LOW 157.77 SEP 15											

NJ-WRD WELL NO. 07-0476



GROUND-WATER LEVELS

CAMDEN COUNTY--Continued

NJ-WRD Well Number, 07-0477. Site I.D., 394215074561702. Local I.D., New Brooklyn Park 2 Obs.

LOCATION.--Lat 39°42'15", long 74°56'17", Hydrologic Unit 02040302, on eastern shore of New Brooklyn Lake about 900 ft upstream of Rt. 536, Winslow Township.
Owner: U.S. Geological Survey.

AQUIFER.--Upper Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 849 ft, screened 829 to 839 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Aug. 1975 to Mar. 1977. Water-level recorder, Dec. 1962 to Aug. 1975. Periodic measurements, May 1961 to Dec. 1962.

DATUM.--Land surface is 111.13 ft above sea level.
Measuring point: Top of recorder shelf, 3.30 ft above land surface.

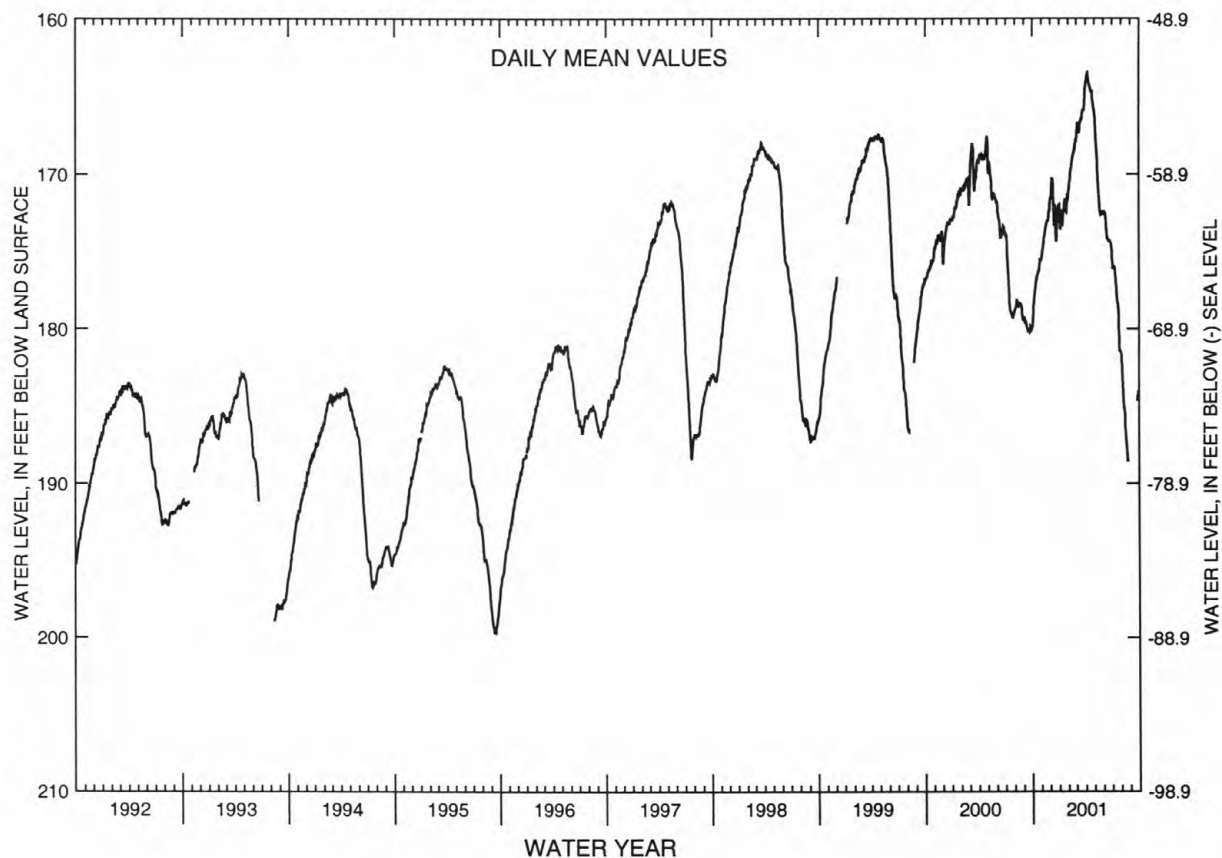
PERIOD OF RECORD.--May 1961 to current year. Records for 1961 to 1976 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 127.48 ft below land surface, May 5, 1961; lowest, 199.76 ft below land surface, Sept. 16, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	178.84	174.89	171.15	173.56	170.53	166.66	163.83	166.72	172.51	175.97	182.52	---
10	177.63	174.07	170.49	172.70	169.62	167.37	163.65	168.59	172.85	175.98	184.61	---
15	176.75	173.53	173.36	172.47	169.02	166.66	164.26	170.53	174.05	177.04	185.74	---
20	176.50	173.06	173.11	171.82	168.57	166.45	164.68	172.17	174.27	178.28	187.57	---
25	176.02	172.87	173.17	172.45	168.00	165.88	165.04	172.63	174.37	180.01	188.41	---
BOM	175.59	172.00	171.95	171.54	167.87	164.48	165.81	172.51	174.82	181.47	---	183.98
MEAN	177.15	173.68	172.11	172.36	169.35	166.46	164.41	170.15	173.64	177.86	185.20	---
WTR YR 2001	MEAN 172.95 HIGH 163.35 APR 9 LOW 188.58 AUG 24											

NJ-WRD WELL NO. 07-0477



GROUND-WATER LEVELS

65

CAMDEN COUNTY--Continued

NJ-WRD Well Number, 07-0478. Site I.D., 394215074561703. Local I.D., New Brooklyn Park 3 Obs.

LOCATION.--Lat 39°42'15", long 74°56'17", Hydrologic Unit 02040302, on eastern shore of New Brooklyn Lake about 900 ft upstream of Rt. 536, Winslow Township.
Owner: U.S. Geological Survey.

AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 530 ft, screened 520 to 530 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Aug. 1975 to Mar. 1977. Water-level recorder, Dec. 1962 to Aug. 1975. Periodic measurements, May 1961 to Dec. 1962.

DATUM.--Land surface is 111.45 ft above sea level.
Measuring point: Top of coupling, 2.10 ft above land surface.

REMARKS.--Water level is affected by regional cone of depression.

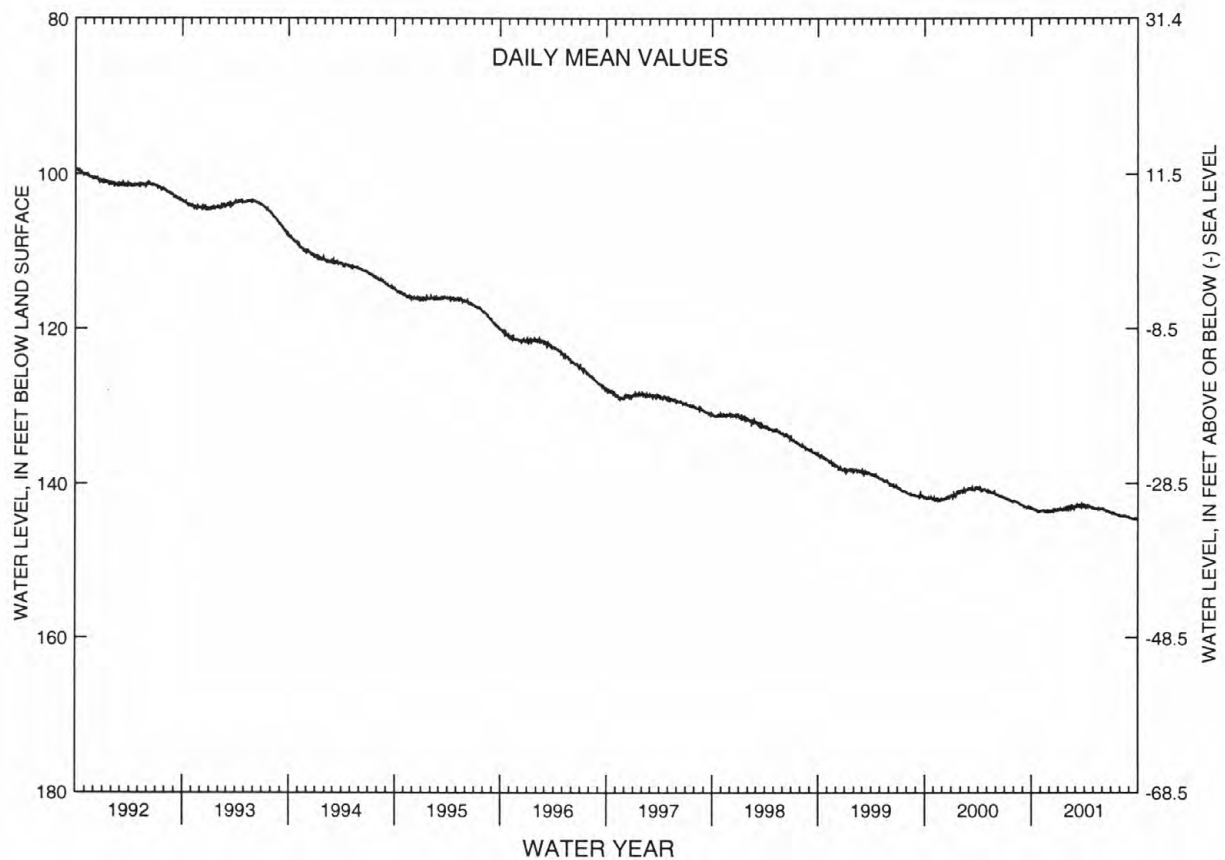
PERIOD OF RECORD.--May 1961 to current year. Records for 1961 to 1976 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 56.12 ft below land surface, Aug. 14, 1962; lowest, 144.68 ft below land surface, Sept. 29-30, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	143.22	143.51	143.53	143.31	143.08	142.78	143.03	143.18	143.36	143.74	144.20	144.41
10	143.33	143.34	143.65	143.33	142.98	142.90	142.91	143.25	143.43	143.77	144.21	144.54
15	143.40	143.46	143.62	143.38	142.97	142.86	142.88	143.26	143.58	143.89	144.17	144.59
20	143.50	143.54	143.29	143.16	143.07	143.09	143.08	143.31	143.57	144.06	144.18	144.62
25	143.58	143.69	143.52	143.20	143.05	142.87	143.09	143.33	143.64	144.05	144.31	144.53
EOM	143.53	143.45	143.27	142.99	142.99	142.71	143.26	143.33	143.72	144.18	144.31	144.68
MEAN	143.41	143.51	143.49	143.30	143.09	142.87	142.98	143.26	143.51	143.94	144.24	144.54
WTR YR 2001 MEAN 143.51 HIGH 142.66 MAR 22 LOW 144.68 SEP 30												

NJ-WRD WELL NO. 07-0478



GROUND-WATER LEVELS

CAMDEN COUNTY--Continued

NJ-WRD Well Number, 07-0503. Site I.D., 394440074593101. Local I.D., Winslow 5 Obs. NJ Permit Number, 31-05926.

LOCATION.--Lat 39°44'40", long 74°59'31", Hydrologic Unit 02040302, about 1,000 ft east of intersection of Cross Keys-Berlin Rd. and Erial-Williamstown Rd., Winslow Township.
Owner: Winslow Township Water Company.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in., depth 76 ft, screened 71 to 76 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval. Water-level recorder, Dec. 1984 to May 2001. Water-level extremes recorder, Nov. 1977 to Dec. 1984. Water-level recorder, Dec. 1972 to Nov. 1977.

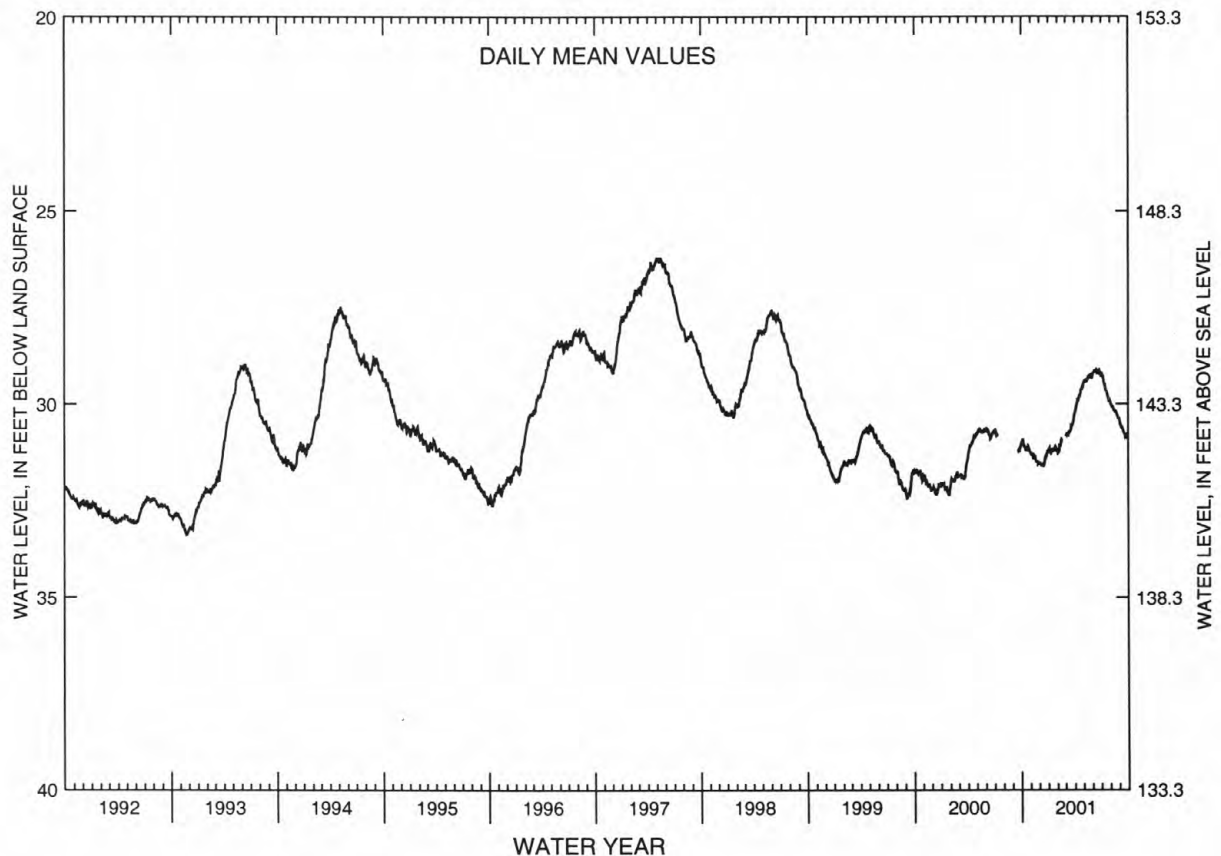
DATUM.--Land surface is 173.26 ft above sea level.
Measuring point: Top of well seal, 1.07 ft above land surface.

PERIOD OF RECORD.--Dec. 1972 to current year. Records for 1972 to 1980 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.11 ft below land surface, May 3, 1997; lowest, 38.35 ft below land surface, between June 3 and Oct. 6, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001 DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.94	31.28	31.53	31.12	31.19	30.76	30.16	29.39	29.20	29.25	30.03	30.53
10	31.06	31.33	31.57	31.27	31.07	30.79	29.97	29.43	29.16	29.42	30.05	30.62
15	31.12	31.35	31.62	31.16	30.95	30.72	29.86	29.37	29.12	29.56	30.17	30.67
20	31.14	31.45	31.47	31.16	---	30.63	29.76	29.30	29.17	29.67	30.20	30.77
25	31.10	31.50	31.35	31.12	---	30.53	29.64	29.27	29.18	29.82	30.28	30.82
EOM	31.24	31.48	31.21	31.19	---	30.30	29.52	29.32	29.21	29.90	30.37	30.89
MEAN	31.09	31.39	31.46	31.18	---	30.64	29.86	29.35	29.18	29.58	30.16	30.68
WTR YR 2001	MEAN 30.45 HIGH 29.12 JUN 15 LOW 31.62 DEC 15											

NJ-WRD WELL NO. 07-0503



GROUND-WATER LEVELS

67

CAMDEN COUNTY--Continued

NJ-WRD Well Number, 07-0740. Site I.D., 394131074481901. Local I.D., CCMUA PZ 3. NJ Permit Number, 31-39312.

LOCATION.--Lat 39°41'31", long 74°48'19", Hydrologic Unit 02040301, on the south side of Albertson Brook near the intersection of Myrtle and Fleming Avenues, Waterford Township.
Owner: Camden County Municipal Utilities Authority.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.-- Drilled water-table observation well, diameter 2 in., depth 13 ft, screened 8 to 13 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.-- Land surface is 65 ft above sea level, from topographic map.
Measuring point: Top of coupling, 2.05 ft above land surface.

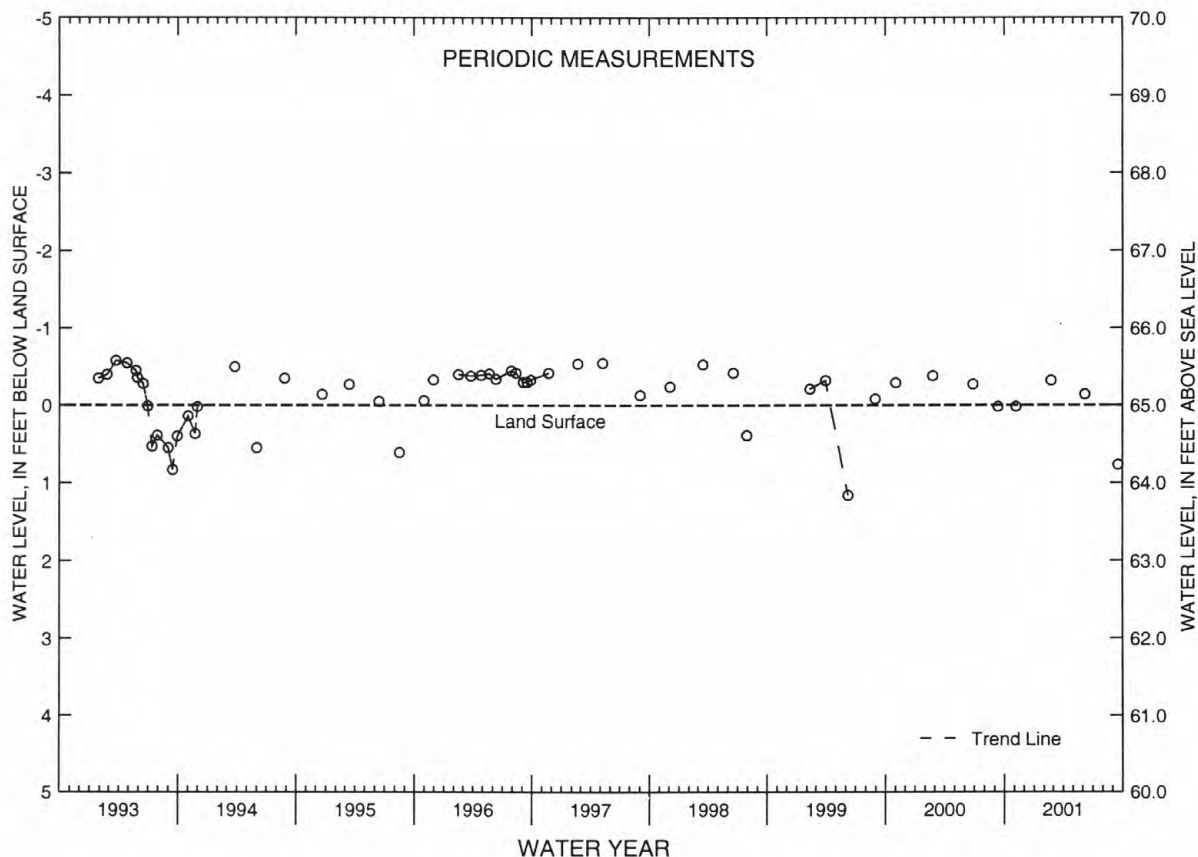
PERIOD OF RECORD.--Jan. 1993 to Sept. 2001 (discontinued). Records for 1993 to 1996 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.58 ft above land surface, Mar. 22, 1993; lowest, 1.16 ft below land surface, June 8, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
(READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 06	.02	FEB 22	+.32	JUN 07	+.14	SEP 18	.77
WATER YEAR 2001		HIGHEST	+.32	FEB 22, 2001	LOWEST	.77	SEP 18, 2001

NJ-WRD WELL NO. 07-0740



GROUND-WATER LEVELS

CAMDEN COUNTY--Continued

NJ-WRD Well Number, 07-0741. Site I.D., 394208074534801. Local I.D., CCMUA PZ 4. NJ Permit Number, 31-37739.

LOCATION.--Lat 39°42'08", long 74°53'48", Hydrologic Unit 02040301, on the west side of Cedar Brook Rd. (Rt. 73) near Braddock, Winslow Township.

Owner: Camden County Municipal Utilities Authority.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.-- Drilled water-table observation well, diameter 4 in., depth 32 ft, screened 27 to 32 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.-- Land surface is 135 ft above sea level, from topographic map.
Measuring point: Top of casing, 2.30 ft above land surface.

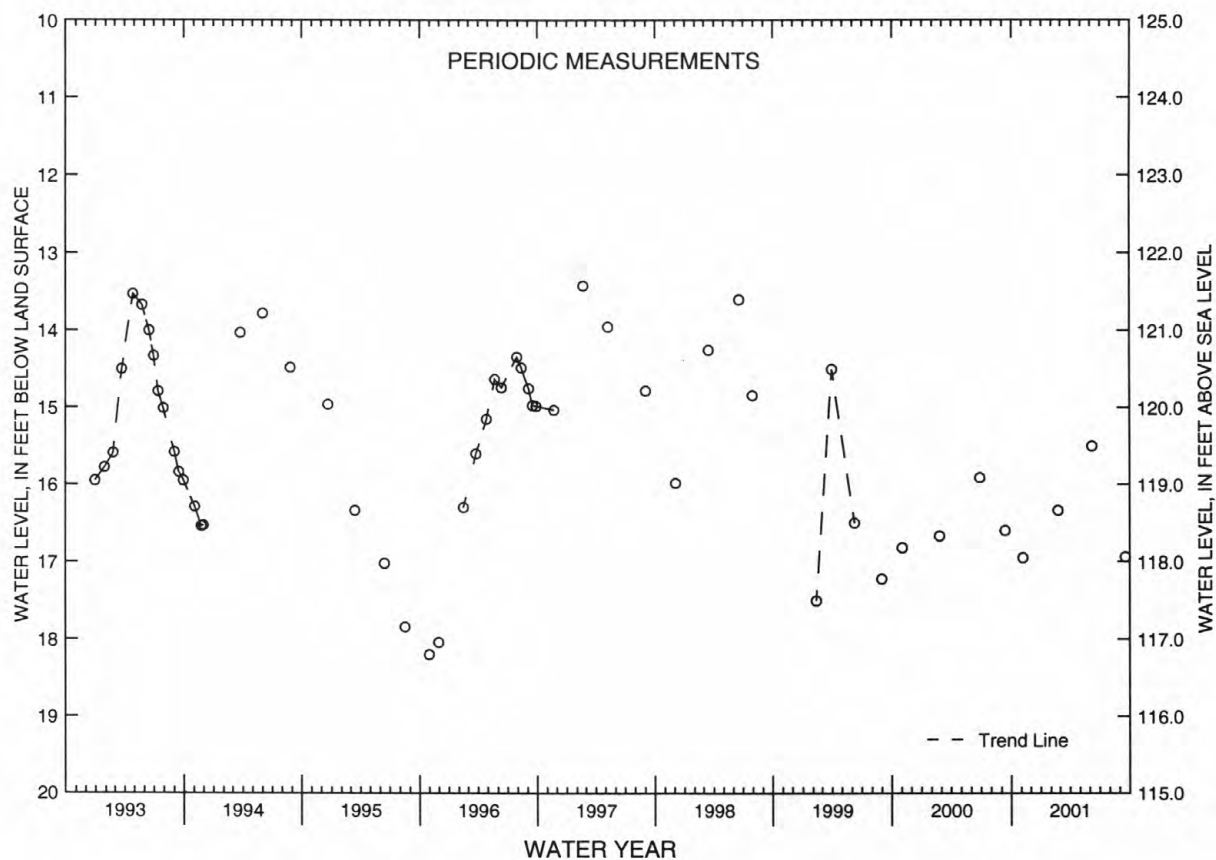
PERIOD OF RECORD.--Dec. 1992 to Sept. 2001 (discontinued). Records for 1992 to 1996 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.42 ft below land surface, Feb. 20, 1997; lowest, 18.20 ft below land surface, Oct. 31, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 06	16.95	FEB 22	16.34	JUN 07	15.50	SEP 18	16.94
WATER YEAR 2001		HIGHEST	15.50	JUN 07, 2001	LOWEST	16.95	NOV 06, 2000

NJ-WRD WELL NO. 07-0741



GROUND-WATER LEVELS

69

CAMDEN COUNTY--Continued

NJ-WRD Well Number, 07-0742. Site I.D., 394337074461401. Local I.D., CCMUA PZ 2. NJ Permit Number, 31-37726.

LOCATION.--Lat 39°43'37", long 74°46'14", Hydrologic Unit 02040301, on the east side of Burnt House Rd, near Sleeper Branch, Waterford Township.

Owner: Camden County Municipal Utilities Authority.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.-- Drilled water-table observation well, diameter 4 in., depth 18 ft, screened 13 to 18 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.-- Land surface is 60 ft above sea level, from topographic map.
Measuring point: Top of casing, 1.46 ft above land surface.

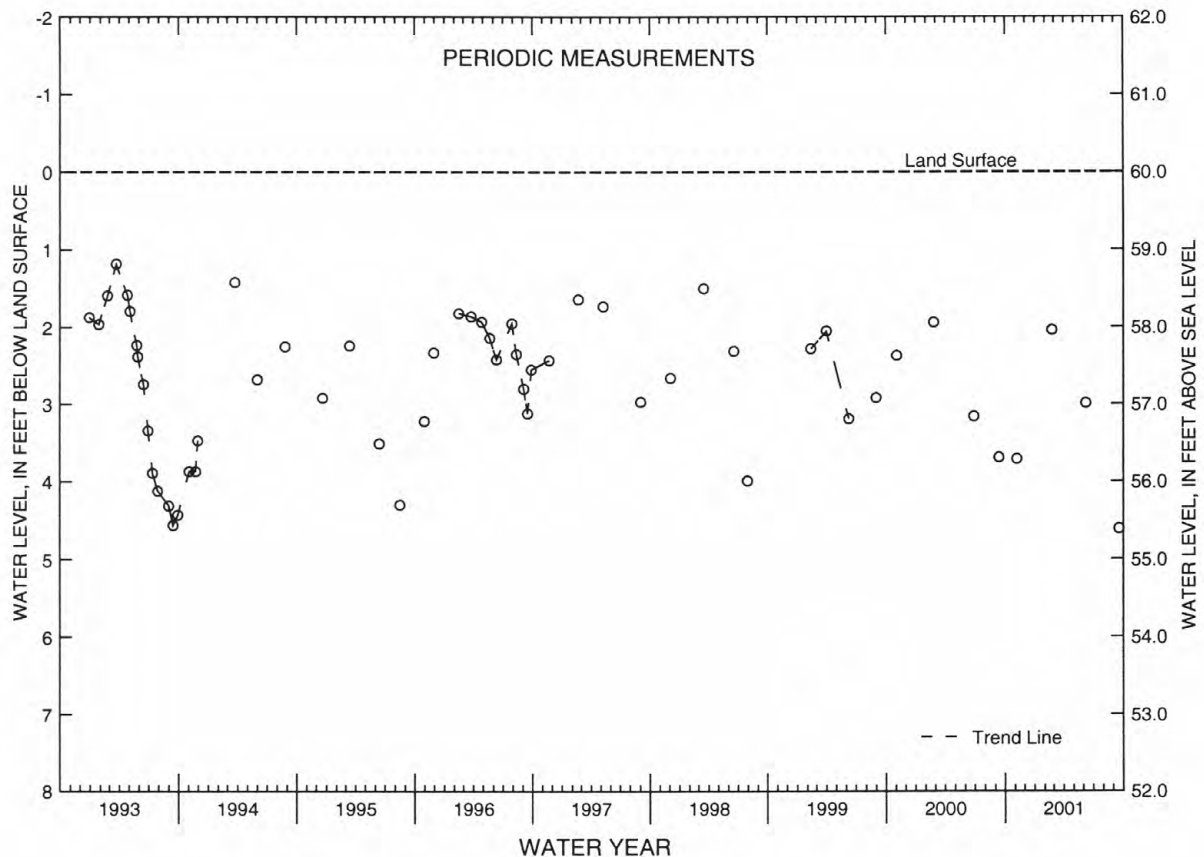
PERIOD OF RECORD.--Dec. 1992 to Sept. 2001 (discontinued). Records for 1992 to 1996 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.18 ft below land surface, Mar. 22, 1993; lowest, 4.61 ft below land surface, Sept. 18, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 06	3.71	FEB 22	2.04	JUN 07	2.99	SEP 18	4.61
WATER YEAR 2001		HIGHEST	2.04	FEB 22, 2001	LOWEST	4.61	SEP 18, 2001

NJ-WRD WELL NO. 07-0742



GROUND-WATER LEVELS

CAMDEN COUNTY--Continued

NJ-WRD Well Number, 07-0743. Site I.D., 394340074461401. Local I.D., CCMUA PZ 1. NJ Permit Number, 31-37727.

LOCATION.--Lat 39°43'40", long 74°46'14", Hydrologic Unit 02040301, on the west side of Burnt House Rd. near Sleeper Branch, Waterford Township.
Owner: Camden County Municipal Utilities Authority.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.-- Drilled water-table observation well, diameter 4 in., depth 17 ft, screened 12 to 17 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.-- Land surface is 60 ft above sea level, from topographic map.
Measuring point: Top of casing, 1.43 ft above land surface.

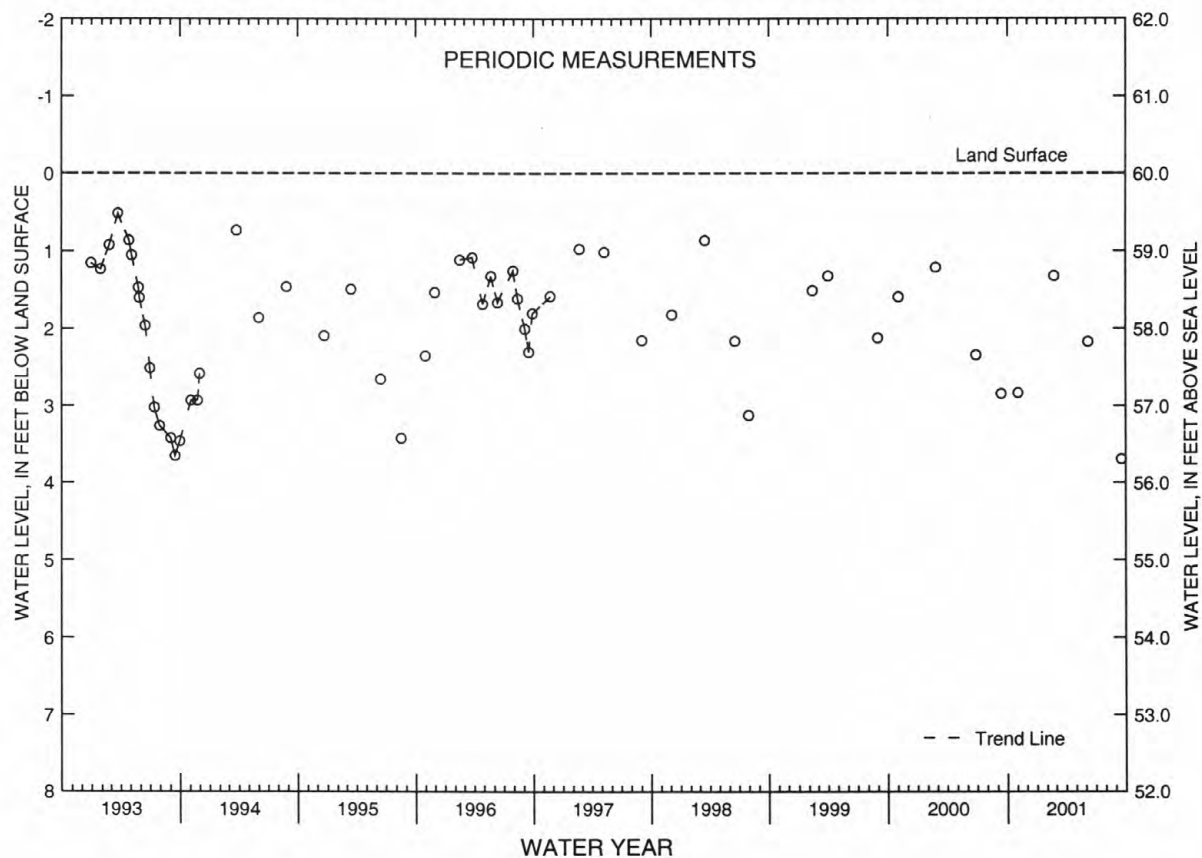
PERIOD OF RECORD.--Dec. 1992 to Sept. 2001 (discontinued). Records for 1992 to 1996 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.51 ft below land surface, Feb. 22, 1993; lowest, 3.69 ft below land surface, Sept. 18, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 03	2.83	FEB 22	1.32	JUN 07	2.17	SEP 18	3.69
WATER YEAR 2001		HIGHEST	1.32	FEB 22, 2001	LOWEST	3.69	SEP 18, 2001

NJ-WRD WELL NO. 07-0743



GROUND-WATER LEVELS

71

CAMDEN COUNTY--Continued

NJ-WRD Well Number, 07-0744. Site I.D., 394410074534501. Local I.D., CCMUA PZ 5. NJ Permit Number, 31-39311.

LOCATION.--Lat 39°44'10", long 74°53'45", Hydrologic Unit 02040301, on the north side of Center Ave. near Chesilhurst, Winslow Township.

Owner: Camden County Municipal Utilities Authority.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.-- Drilled artesian observation well, diameter 4 in., depth 47 ft, screened 42 to 47 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.-- Land surface is 155 ft above sea level, from topographic map.
Measuring point: Top of casing, 2.13 ft above land surface.

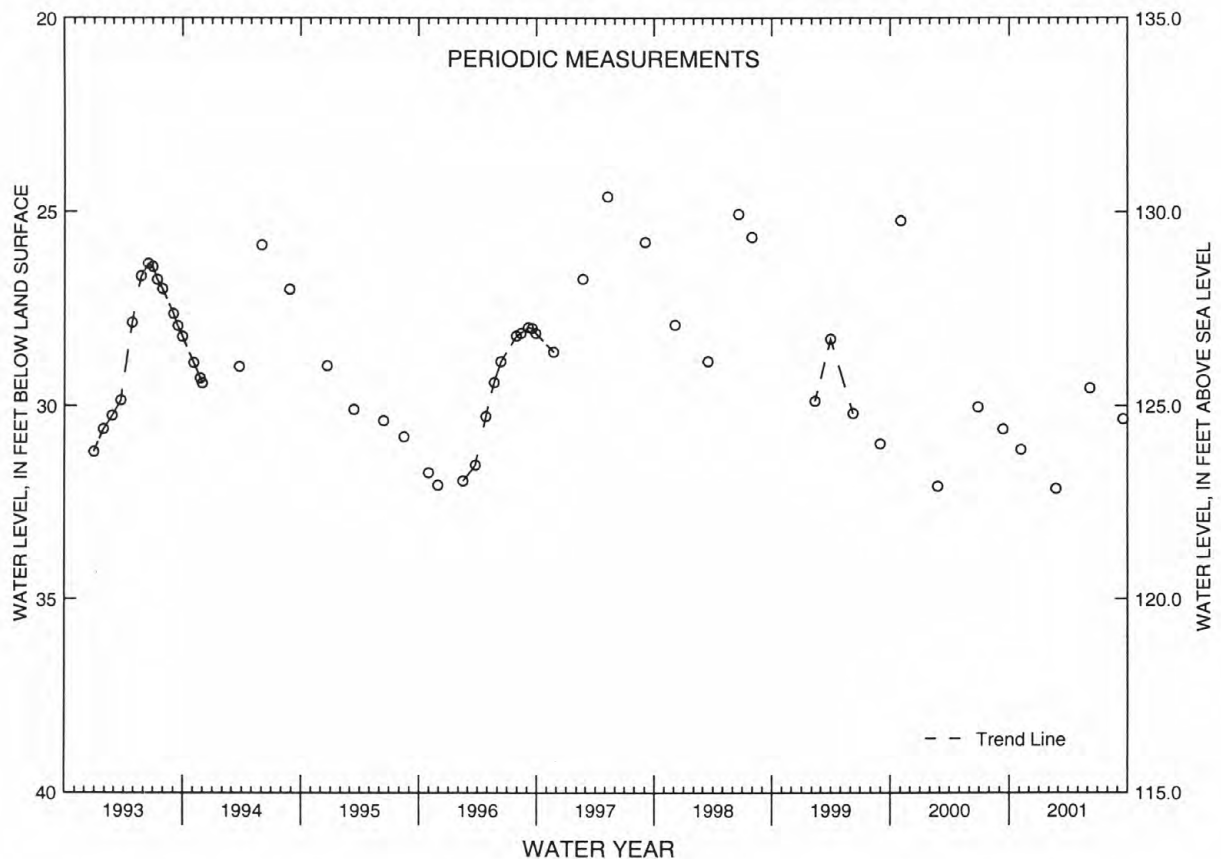
PERIOD OF RECORD.--Dec. 1992 to Sept. 2001 (discontinued). Records for 1992 to 1996 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.60 ft below land surface, May 8, 1997; lowest, 32.14 ft below land surface, Feb. 22, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 06	31.13	FEB 22	32.14	JUN 07	29.54	SEP 18	30.34
WATER YEAR 2001		HIGHEST	29.54	JUN 07, 2001	LOWEST	32.14	FEB 22, 2001

NJ-WRD WELL NO. 07-0744



GROUND-WATER LEVELS

CAMDEN COUNTY--Continued

NJ-WRD Well Number, 07-0745. Site I.D., 394413074494901. Local I.D., CCMUA PZ 8. NJ Permit Number, 31-37724.

LOCATION.--Lat 39°44'13", long 74°49'49", Hydrologic Unit 02040301, on the south side of Burnt Mill Rd and southeast of Beaverdam Lake, Waterford Township.
Owner: Camden County Municipal Utilities Authority.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.-- Drilled water-table observation well, diameter 4 in., depth 25 ft, screened 20 to 25 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.-- Land surface is 90 ft above sea level, from topographic map.
Measuring point: Top of casing, 0.81 ft above land surface.

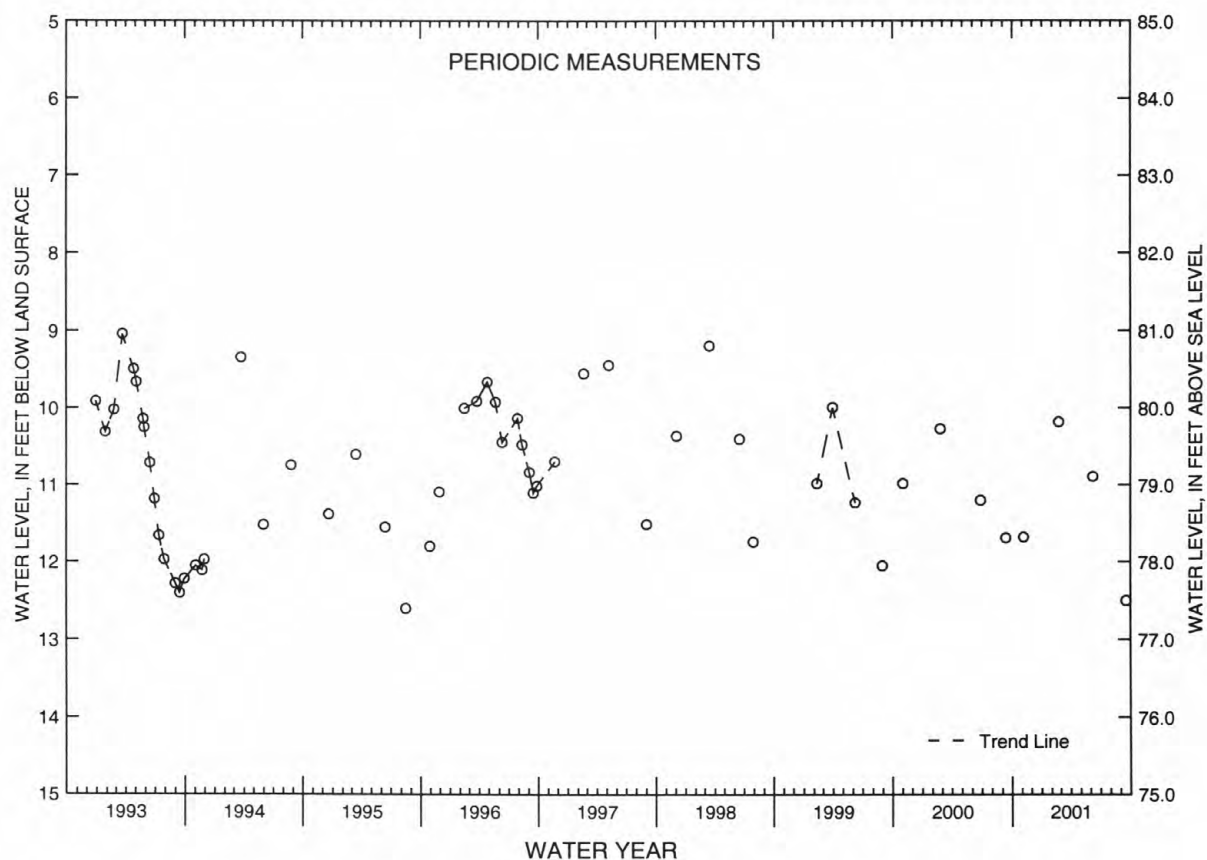
PERIOD OF RECORD.--Dec. 1992 to Sept. 2001 (discontinued). Records for 1992 to 1996 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.04 ft below land surface, Mar. 22, 1993; lowest, 12.60 ft below land surface, Aug. 16, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 06	11.66	FEB 22	10.18	JUN 07	10.89	SEP 18	12.50
WATER YEAR 2001		HIGHEST	10.18	FEB 22, 2001	LOWEST	12.50	SEP 18, 2001

NJ-WRD WELL NO. 07-0745



GROUND-WATER LEVELS

73

CAMDEN COUNTY--Continued

NJ-WRD Well Number, 07-0746. Site I.D., 394516074520501. Local I.D., CCMUA PZ 7. NJ Permit Number, 31-37738.

LOCATION.--Lat 39°45'16", long 74°52'05", Hydrologic Unit 02040301, on the north side of Burnt Mill Rd., Waterford Township.
Owner: Camden County Municipal Utilities Authority.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.-- Drilled water-table observation well, diameter 4 in., depth 23 ft, screened 18 to 23 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.-- Land surface is 110 ft above sea level, from topographic map.
Measuring point: Top of casing, 1.33 ft above land surface.

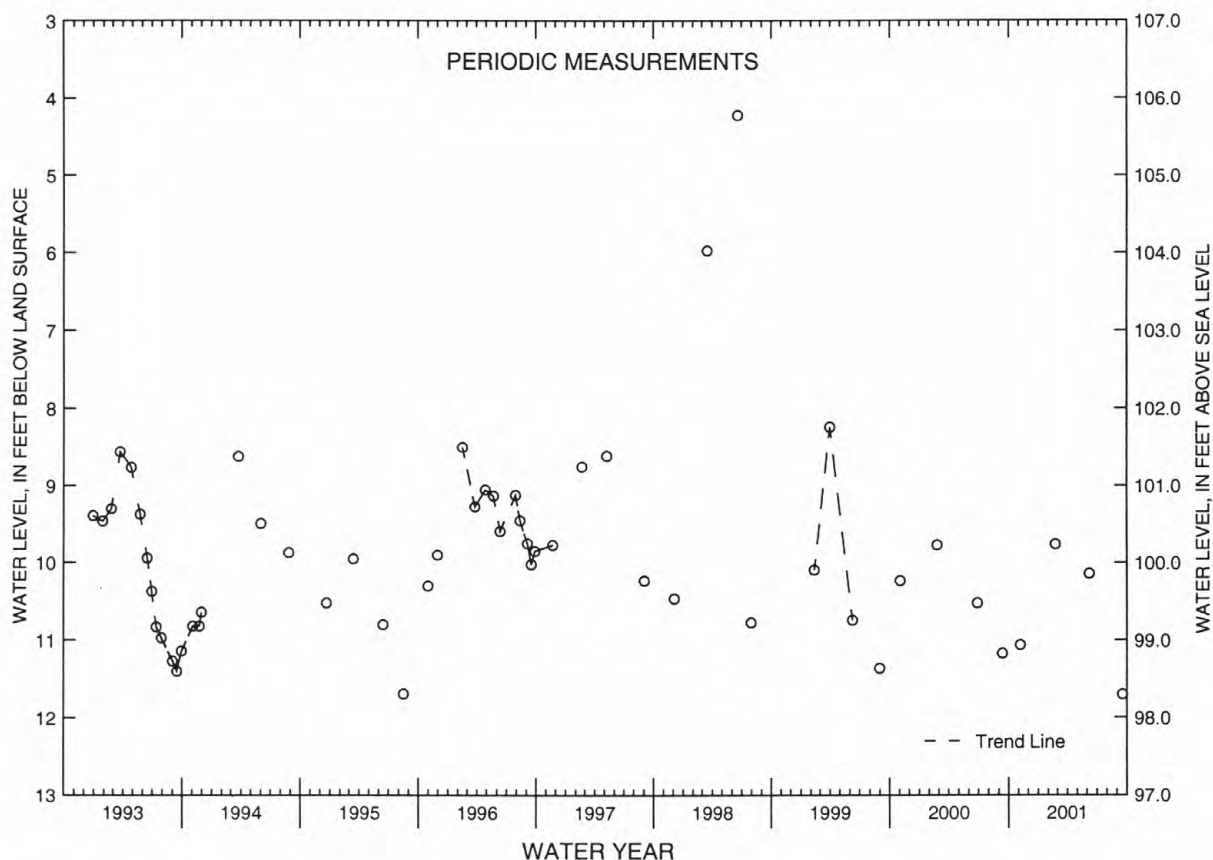
PERIOD OF RECORD.--Dec. 1992 to Sept. 2001 (discontinued). Records for 1992 to 1996 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.22 ft below land surface, Jun. 19, 1998; lowest, 11.70 ft below land surface, Sept. 18, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 06	11.06	FEB 22	9.76	JUN 07	10.14	SEP 18	11.70
WATER YEAR 2001		HIGHEST	9.76	FEB 22, 2001	LOWEST	11.70	SEP 18, 2001

NJ-WRD WELL NO. 07-0746



GROUND-WATER LEVELS

CAMDEN COUNTY--Continued

NJ-WRD Well Number, 07-0747. Site I.D., 394630074492801. Local I.D., CCMUA PZ 6. NJ Permit Number, 31-37725.

LOCATION.--Lat 39°46'30", long 74°49'28", Hydrologic Unit 02040301, on the north side of Jackson Rd., about 1,500 ft east of Atco Dragway, Waterford Township.

Owner: Camden County Municipal Utilities Authority.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in., depth 35 ft, screened 30 to 35 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 110 ft above sea level, from topographic map.
Measuring point: Top of casing, 3.01 ft above land surface.

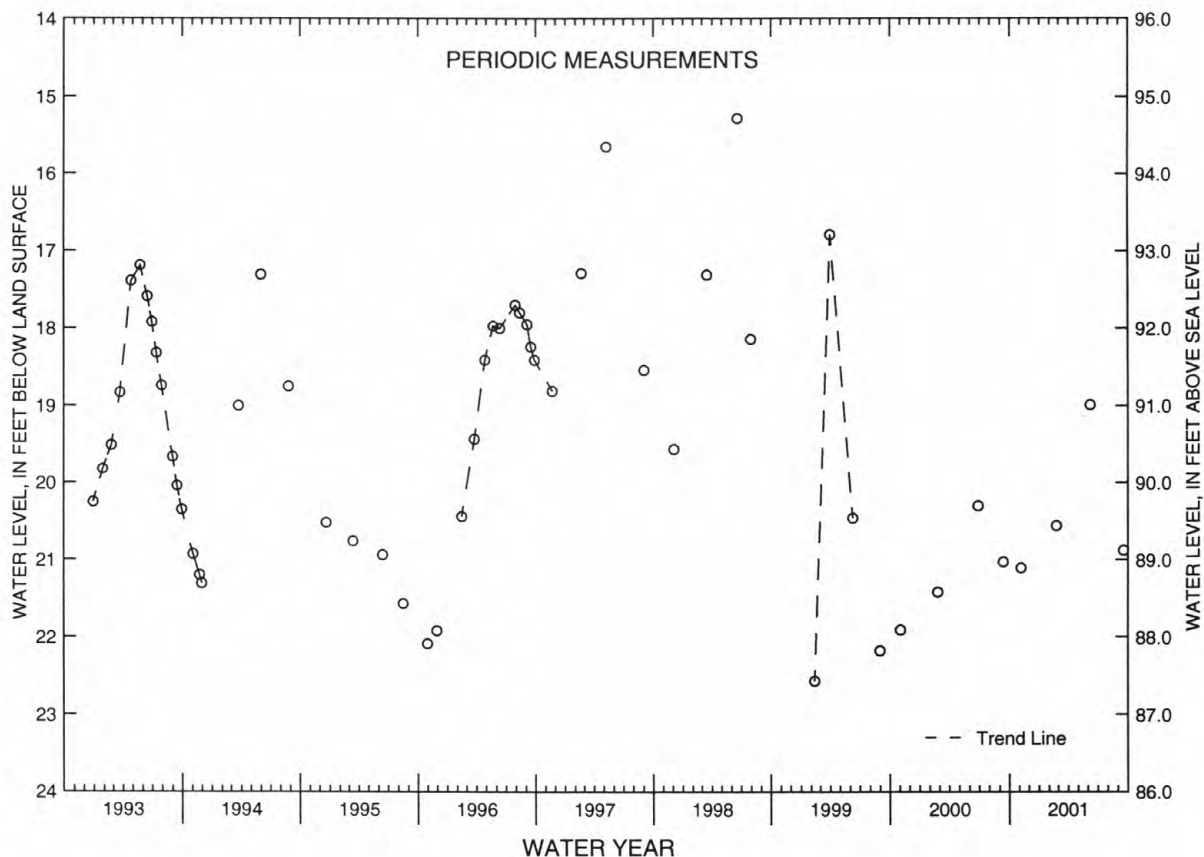
PERIOD OF RECORD.--Dec. 1992 to Sept. 2001 (discontinued). Records for 1992 to 1996 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.28 ft below land surface, Jun. 19, 1998; lowest, 22.57 ft below land surface, Feb. 11, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 06	21.11	FEB 23	20.56	JUN 07	18.99	SEP 18	20.88
WATER YEAR 2001		HIGHEST	18.99	JUN 07, 2001		LOWEST	21.11
							NOV 06, 2000

NJ-WRD WELL NO. 07-0747



WATER RESOURCES DATA - NEW JERSEY, 2001

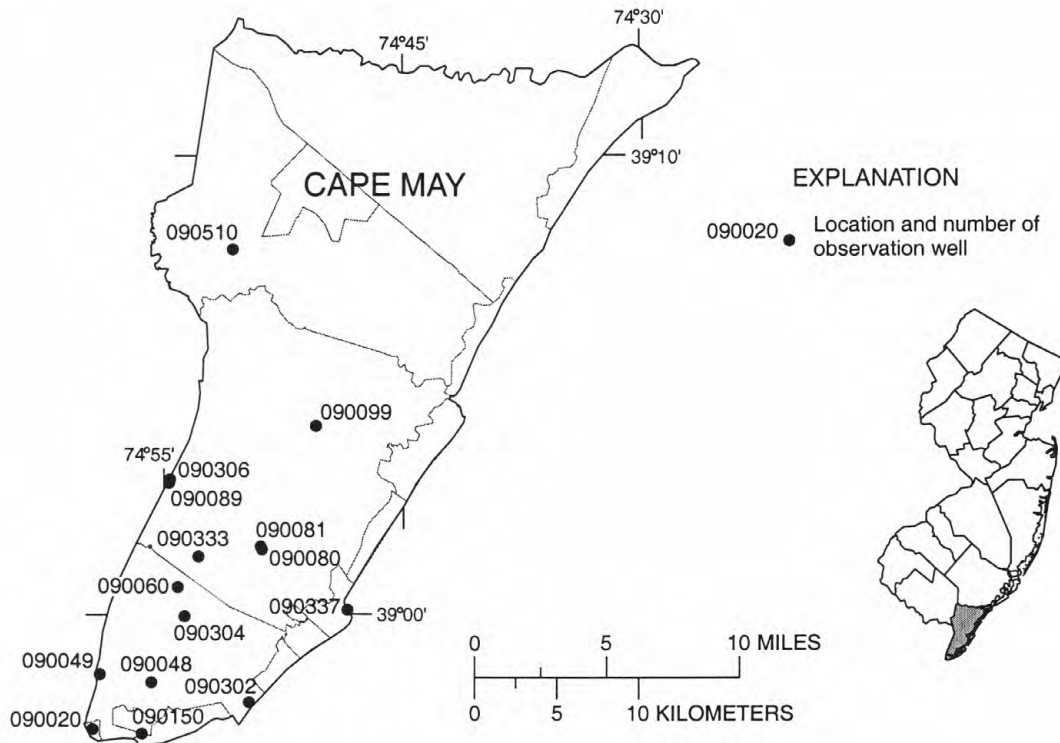
75

CAPE MAY COUNTY

NJ-WRD well number	Local identifier	Township	Well depth	Aquifer	Type of data
090020	TRAFFIC CIRCLE OBS	CAPE MAY POINT BORO	20	HLBC	MANUAL
090048	CANAL 5 OBS	LOWER TWP	252	CNSY	MANUAL
090049	HIGBEE BEACH 3 OBS	LOWER TWP	250	CNSY	MAXMIN
090060	AIRPORT 7 OBS	LOWER TWP	257	CNSY	MANUAL
090080	CAPE MAY 42 OBS	MIDDLE TWP	252	CNSY	MANUAL
090081	CAPE MAY 23 OBS	MIDDLE TWP	26	HLBC	MANUAL
090089	OYSTER LAB 4 OBS	MIDDLE TWP	210	CNSY	MAXMIN
090099	CAPE MAY COUNTY PK 8 OBS	MIDDLE TWP	230	CNSY	DAILY
090150	WEST CAPE MAY 1 OBS	WEST CAPE MAY BORO	293	CNSY	MAXMIN
090302	COAST GUARD 800 OBS	LOWER TWP	903	KRKDL	DAILY
090304	AIRPORT RIO GRANDE OBS	LOWER TWP	510	KRKDU	DAILY
090306	OYSTER 800 OBS	MIDDLE TWP	709	KRKDL	DAILY
090333	PUMP POND N OBS	MIDDLE TWP	43	HLBC	DAILY
090337	M-1 N WILDWOOD 800 OBS	NORTH WILDWOOD CITY	965	KRKDL	DAILY
090510	NJDEP BELLEPLAIN MW 44	DENNIS TWP	11	CKKD	DAILY

Aquifer names

- CKKD - Kirkwood-Cohansey aquifer system
- CNSY - Cohansey Sand
- HLBC - Holly Beach water-bearing zone
- KRKDL - Atlantic City 800-foot sand of the Kirkwood Formation
- KRKDU - Rio Grande water-bearing zone of the Kirkwood Formation



GROUND-WATER LEVELS

CAPE MAY COUNTY

NJ-WRD Well Number, 09-0020. Site I.D., 385616074580001. Local I.D., Traffic Circle Obs.

LOCATION.--Lat 38°56'16", long 74°58'00", Hydrologic Unit 02040206, at the traffic circle at the intersection of Central, Cape, and Ocean Avenues, Cape May Point, Cape May Point Borough.
Owner: U.S. Geological Survey.

AQUIFER.--Holly Beach water-bearing zone.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 1.25 in., depth 20 ft, screened 15 to 20 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level extremes recorder, May 1977 to Oct. 1984.
Water-level recorder, Jan. 1963 to May 1977.

DATUM.--Land surface is 9.12 ft above sea level.
Measuring point: Top of shelter shelf, 3.00 ft above land surface.

REMARKS.--Water level is affected by the stage of Lake Lilly.

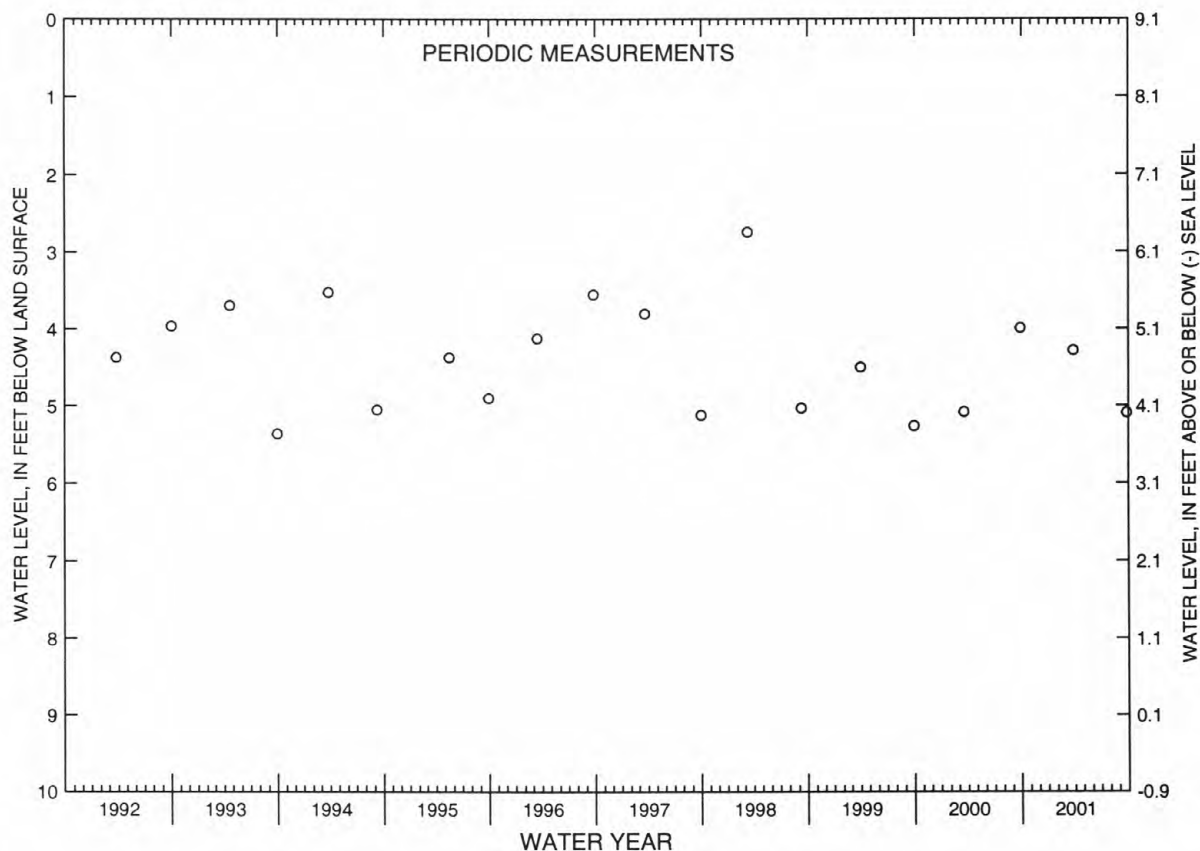
PERIOD OF RECORD.--Jan. 1963 to current year. Records for 1963 to 1982 and 1985 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.45 ft below land surface, between Nov. 11, 1977 and Feb. 21, 1978;
lowest, 7.75 ft below land surface, Aug. 25, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 26	4.28	SEP 26	5.09

NJ-WRD WELL NO. 09-0020



GROUND-WATER LEVELS

77

CAPE MAY COUNTY--Continued

NJ-WRD Well Number, 09-0048. Site I.D., 385748074553301. Local I.D., Canal 5 Obs. NJ Permit Number, 37-00159.

LOCATION.--Lat 38°57'48", long 74°55'33", Hydrologic Unit 02040206, between the Cape May Canal and Jonathon Hoffman Rd., Lower Township.

Owner: U.S. Geological Survey.

AQUIFER.--Cohansey Sand of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 252 ft, screened 242 to 252 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Apr. 1963 to Aug. 1975. Periodic measurements, Oct. 1958 to Apr. 1963. Water-level recorder, July 1957 to Oct. 1958.

DATUM.--Land surface is 17.48 ft above sea level.

Measuring point: Top of shelter shelf, 3.10 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

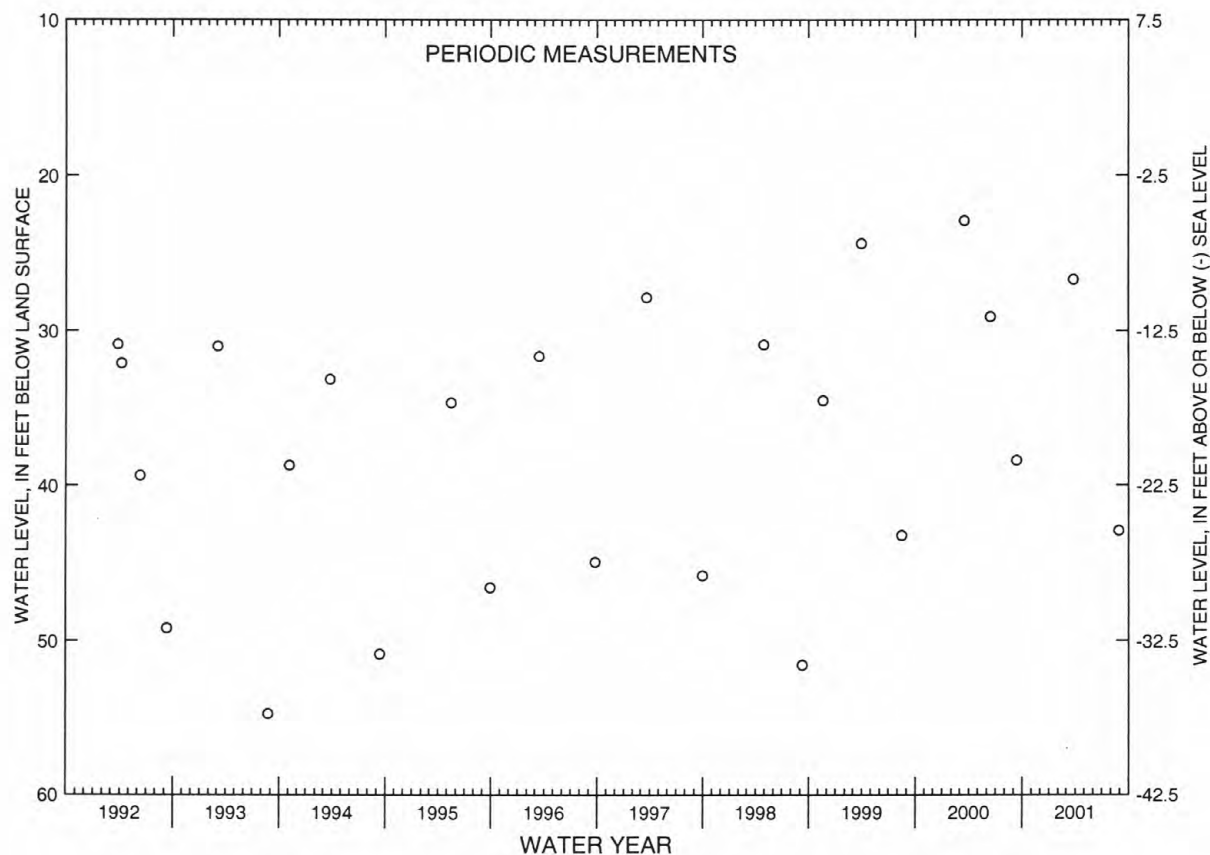
PERIOD OF RECORD.--July 1957 to current year. Records for 1957 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 22.90 ft below land surface, Mar. 17, 2000; lowest, 56.67 ft below land surface, Aug. 11, 1977.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 26	26.68	AUG 29	42.90

NJ-WRD WELL NO. 09-0048



GROUND-WATER LEVELS

CAPE MAY COUNTY--Continued

NJ-WRD Well Number, 09-0049. Site I.D., 385804074574201. Local I.D., Higbee Beach 3 Obs.

LOCATION.--Lat 38°58'04", long 74°57'42", Hydrologic Unit 02040206, on the north bank at the west end of the Cape May Canal, Lower Township.

Owner: U.S. Geological Survey.

AQUIFER.--Cohansey Sand of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 250 ft, screened 241 to 250 ft.

INSTRUMENTATION.--Water-level extremes recorder. Periodic measurements, Aug. 1975 to May 1977. Water-level recorder, May 1965 to Aug. 1975.

DATUM.--Land surface is 6.00 ft above sea level.

Measuring Point: Front edge of cutout in recorder housing, 2.93 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

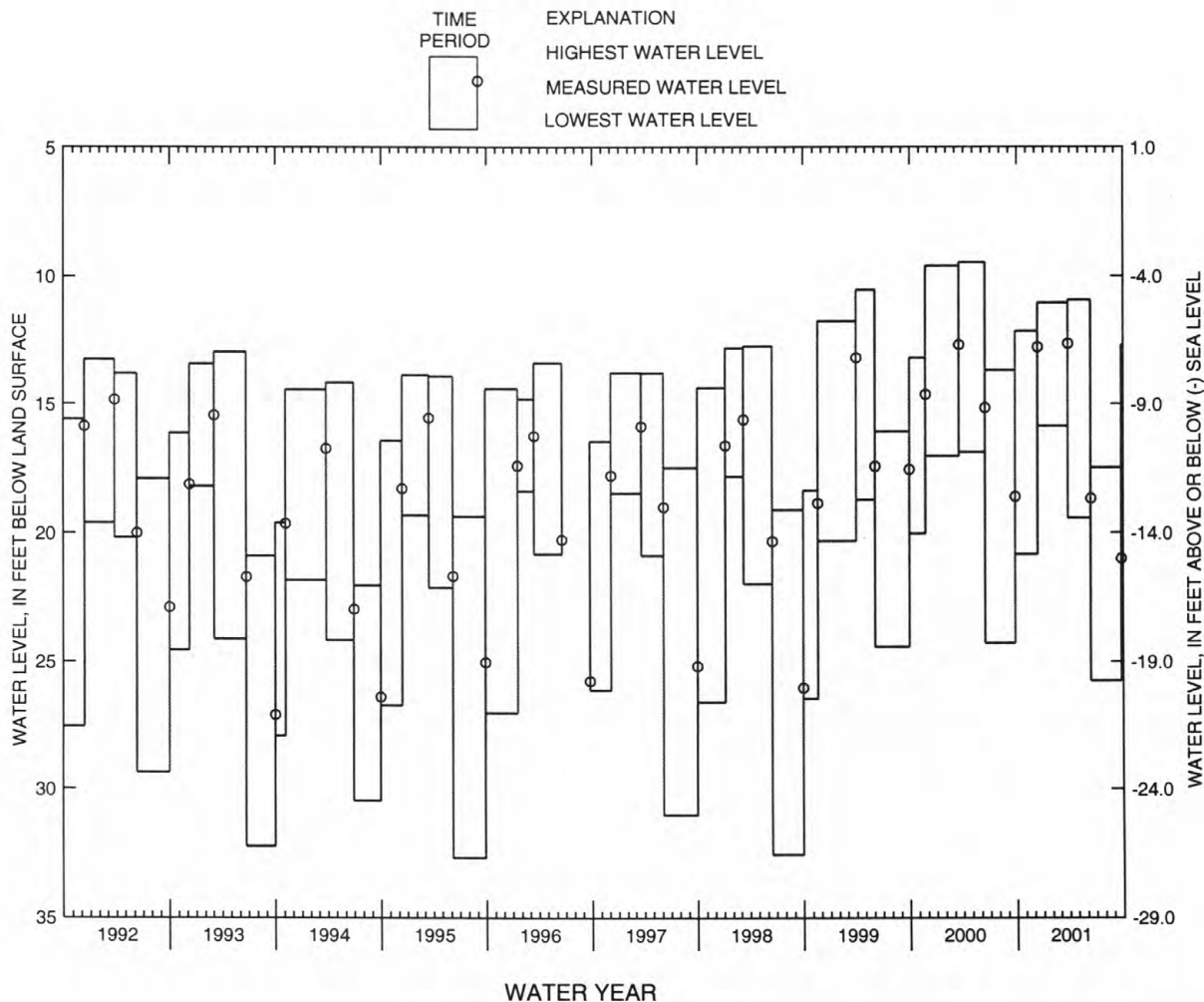
PERIOD OF RECORD.--May 1965 to current year. Records for 1975 to 1980 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.47 ft below land surface, between Mar. 17 and June 14, 2000; lowest, 34.22 ft below land surface, July 31, 1974.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
WATER-LEVEL EXTREMES MEASURED WATER LEVELS

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 26, 2000 TO DEC. 12, 2000	12.16	20.83	DEC. 12, 2000	12.78
DEC. 12, 2000 TO MAR. 26, 2001	11.05	15.85	MAR. 26, 2001	12.64
MAR. 26, 2001 TO JUNE 13, 2001	10.95	19.43	JUNE 13, 2001	18.67
JUNE 13, 2001 TO SEPT. 26, 2001	17.49	25.76	SEPT. 26, 2001	21.00

NJ-WRD WELL NO. 09-0049



GROUND-WATER LEVELS

79

CAPE MAY COUNTY--Continued

NJ-WRD Well Number, 09-0060. Site I.D., 390058074542701. Local I.D., Airport 7 Obs.

LOCATION.--Lat 39°00'56", long 74°54'26", Hydrologic Unit 02040206, at the Cape May County Airport, Lower Township.
Owner: U.S. Geological Survey.

AQUIFER.--Cohansey Sand of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 257 ft, screened 242 to 257 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Apr. 1963 to Aug. 1975. Periodic measurements, Jan. 1963 to Apr. 1963.

DATUM.--Land surface is 13.11 ft above sea level.
Measuring point: Top of shelter shelf, 3.00 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

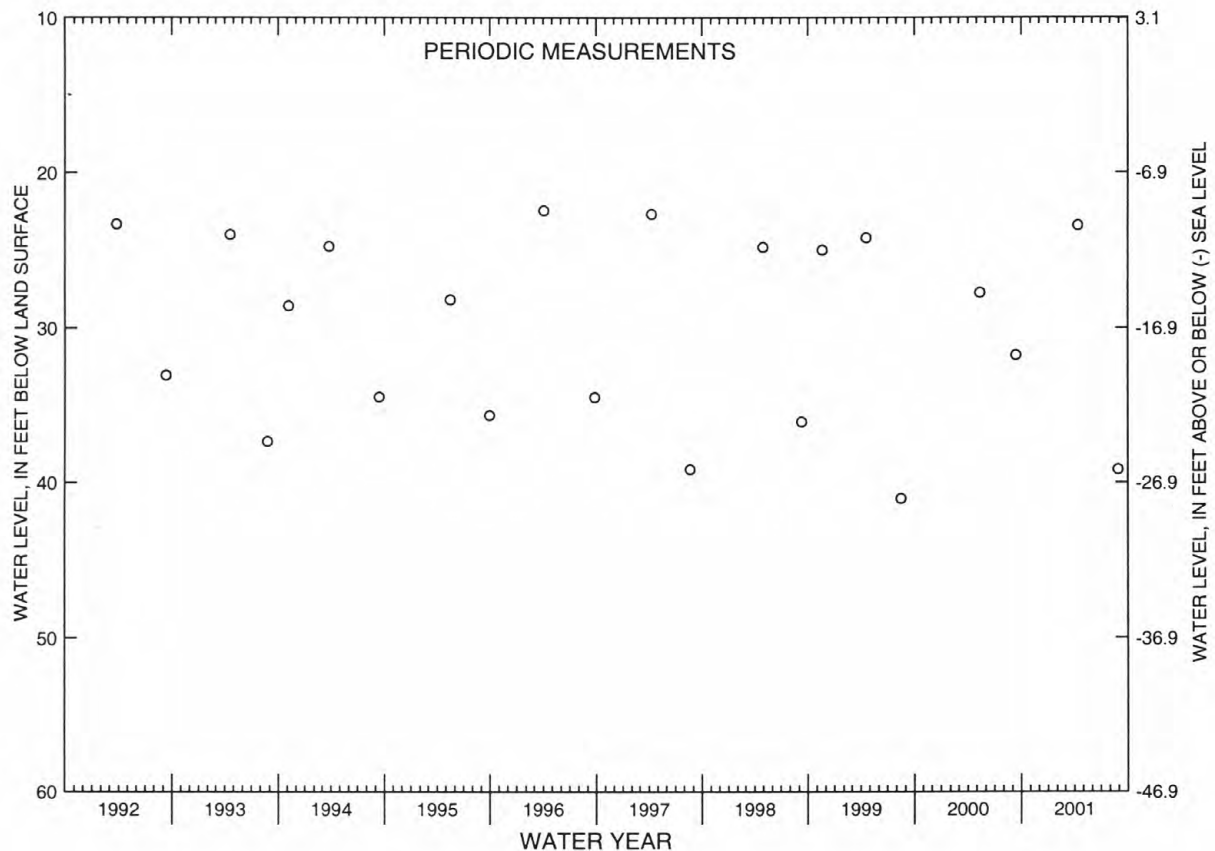
PERIOD OF RECORD.--Jan. 1963 to current year. Records for 1963 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.00 ft below land surface, Apr. 9, 1964; lowest, 42.43 ft below land surface, Aug. 11, 1977.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 13	23.40	AUG 29	39.15

NJ-WRD WELL NO. 09-0060



GROUND-WATER LEVELS

CAPE MAY COUNTY--Continued

NJ-WRD Well Number, 09-0080. Site I.D., 390211074505501. Local I.D., Cape May 42 Obs.

LOCATION.--Lat 39°02'13", long 74°50'56", Hydrologic Unit 02040302, in the center of the median of the Garden State Parkway, near mile marker 6, Middle Township.
Owner: U.S. Geological Survey.

AQUIFER.--Cohansey Sand of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 252 ft, screened 242 to 252 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, May 1963 to July 1970. Periodic measurements, Oct. 1958 to May 1963. Water-level recorder, July 1957 to Oct. 1958.

DATUM.--Land surface is 13.67 ft above sea level.

Measuring point: Top of base of aluminum locking cap, 2.41 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

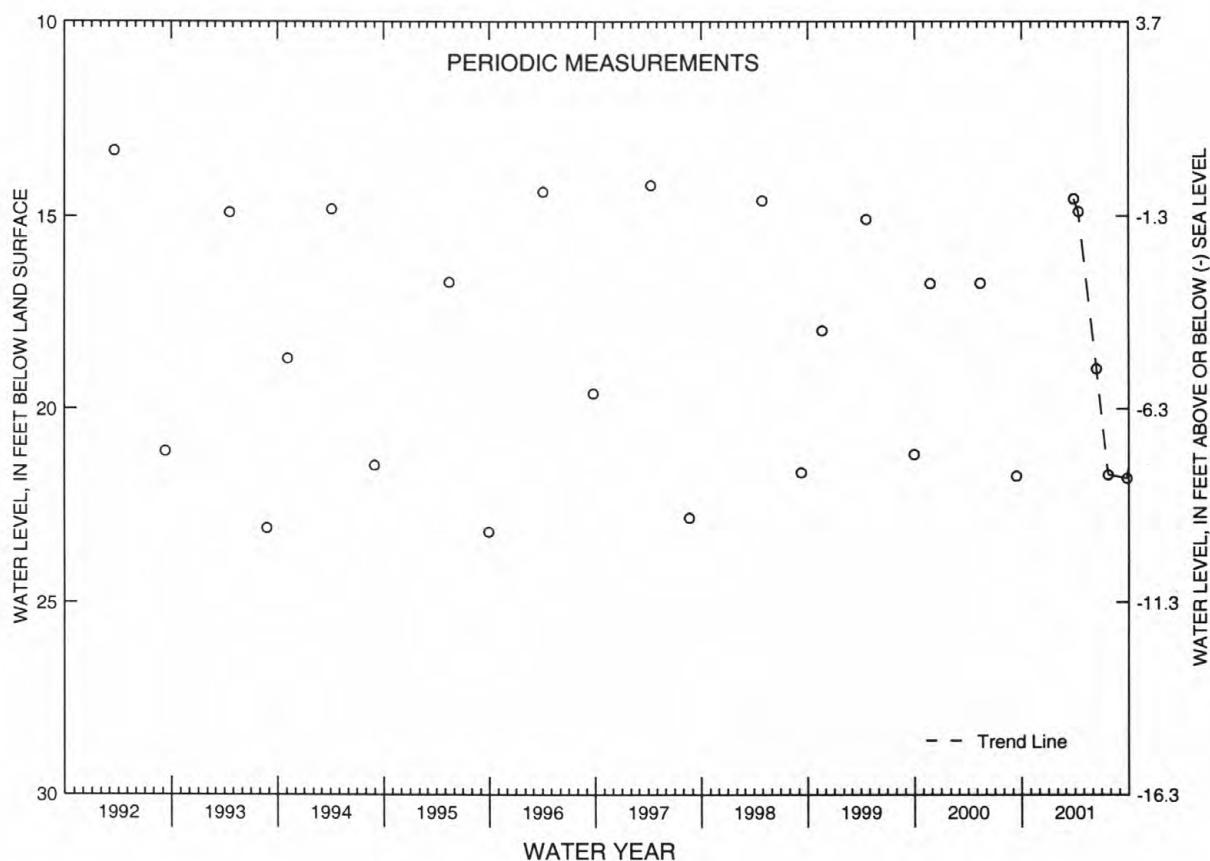
PERIOD OF RECORD.--July 1957 to current year. Records for 1957 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.82 ft below land surface, Apr. 3, 6, 1958; lowest, 23.18 ft below land surface, Sept. 28, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 28	14.55	APR 13	14.88	JUN 13	18.96	JUL 23	21.72	SEP 26	21.81
WATER YEAR 2001	HIGHEST	14.55	MAR 28, 2001	LOWEST	21.81	SEP 26, 2001			

NJ-WRD WELL NO. 09-0080



GROUND-WATER LEVELS

81

CAPE MAY COUNTY--Continued

NJ-WRD Well Number, 09-0081. Site I.D., 390211074505502. Local I.D., Cape May 23 Obs.

LOCATION.--Lat 39°02'11", long 74°50'55", Hydrologic Unit 02040302, in the center of the median of the Garden State Parkway, near mile marker 6, Middle Township.
Owner: U.S. Geological Survey.

AQUIFER.--Holly Beach water-bearing zone.

WELL CHARACTERISTICS.--Driven water-table observation well, diameter 1.25 in., depth 26 ft, screened 23 to 26 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 14.90 ft above sea level.
Measuring point: Top of casing, 1.30 ft above land surface.

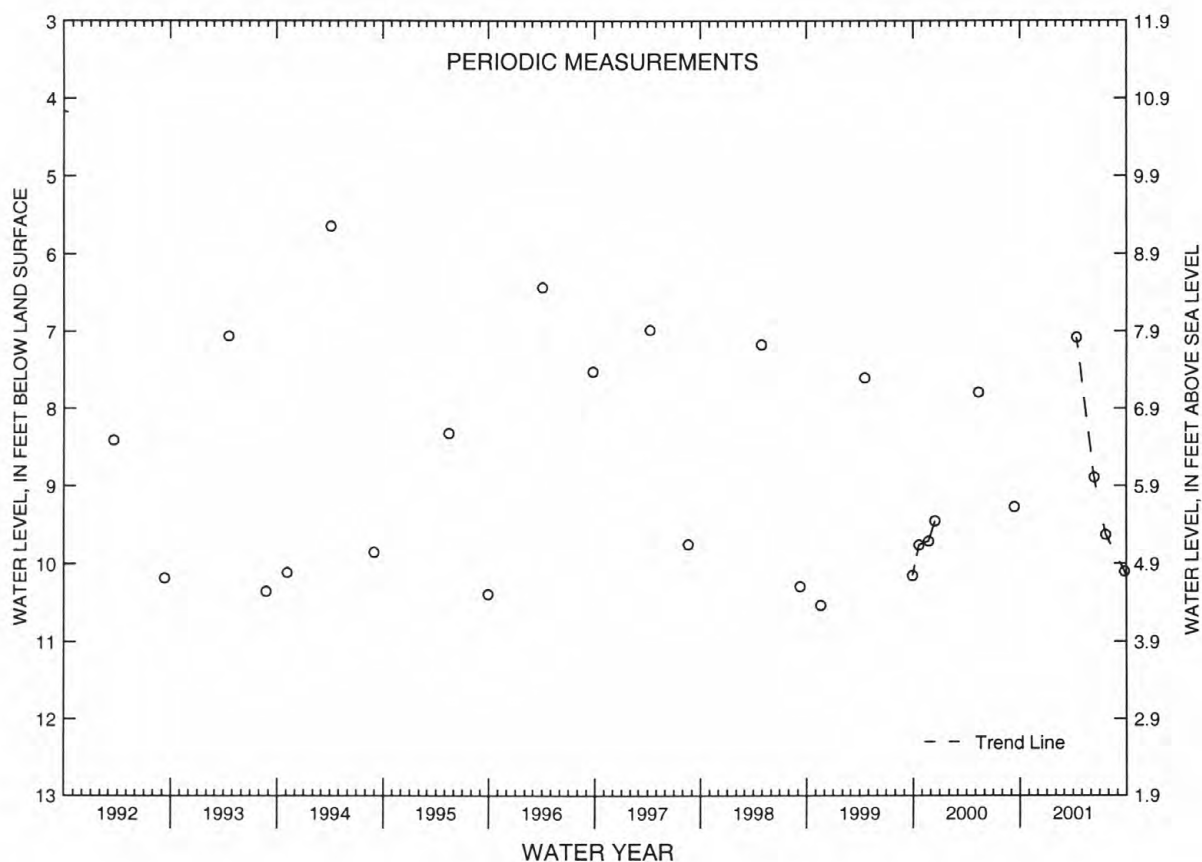
PERIOD OF RECORD.--June 1957 to current year. Records for 1957 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.64 ft below land surface, Apr. 5, 1994; lowest, 10.82 ft below land surface, Sept. 30, 1986.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
APR 13	7.08	JUN 13	8.89	JUL 23	9.63	SEP 26	10.10
WATER YEAR 2001		HIGHEST	7.08	APR 13, 2001	LOWEST	10.10	SEP 26, 2001

NJ-WRD WELL NO. 09-0081



GROUND-WATER LEVELS

CAPE MAY COUNTY--Continued

NJ-WRD Well Number, 09-0089. Site I.D., 390425074544601. Local I.D., Oyster Lab 4 Obs. NJ Permit Number, 37-00158.

LOCATION.--Lat 39°04'25", long 74°54'46", Hydrologic Unit 02040206, at the Rutgers Oyster Laboratory near Green Creek, Middle Township.

Owner: U.S. Geological Survey.

AQUIFER.--Cohansey Sand of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 210 ft, screened 195 to 210 ft.

INSTRUMENTATION.--Water-level extremes recorder. Periodic measurements, Aug. 1975 to May 1977. Water-level recorder, Aug. 1957 to Aug. 1975.

DATUM.--Land surface is 7.37 ft above sea level.

Measuring point: Front edge of cutout in recorder housing, 3.90 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

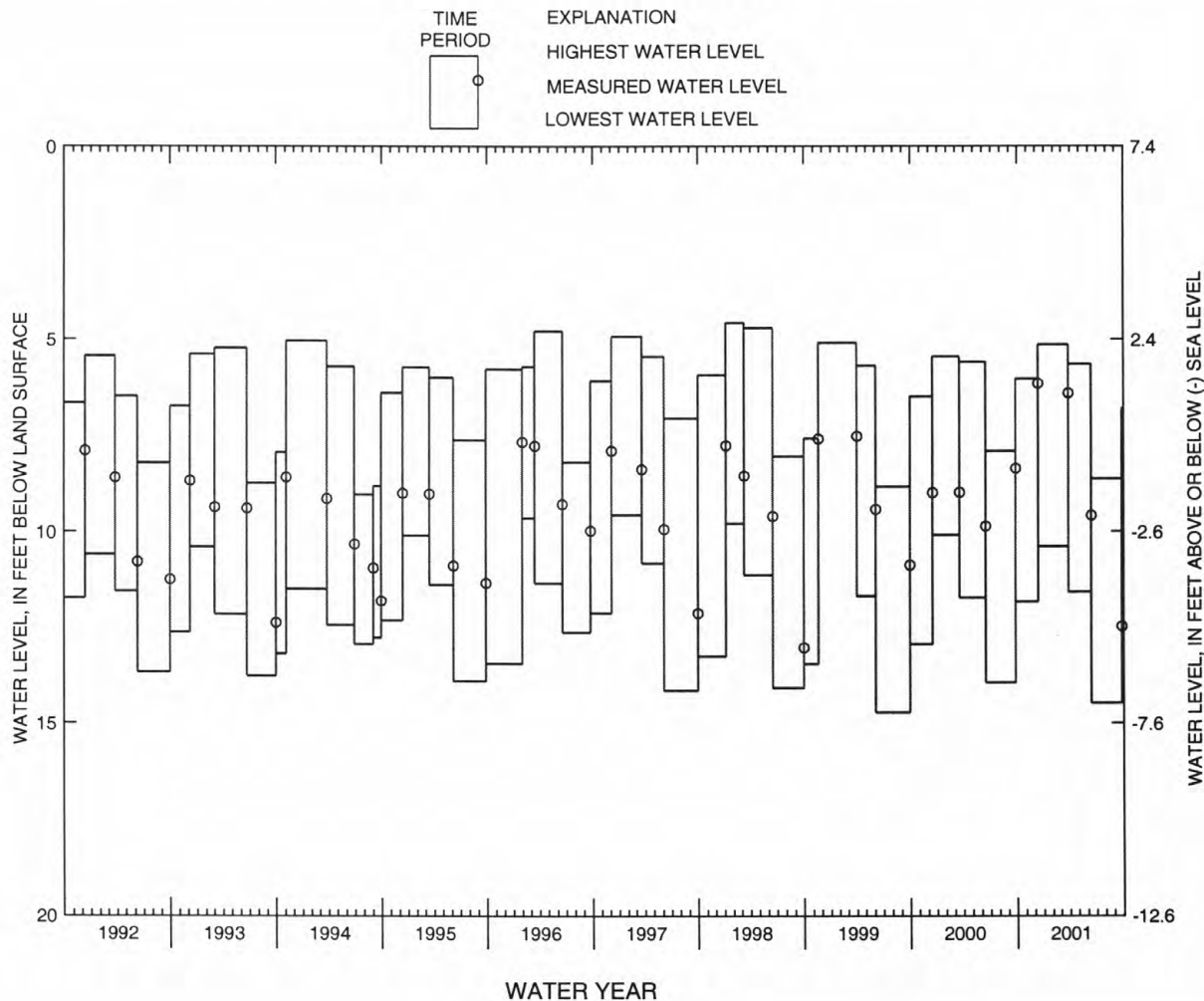
PERIOD OF RECORD.--Aug. 1957 to current year. Records for 1957 to 1982 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.07 ft below land surface, Apr. 3, 1958; lowest, 15.71 ft below land surface, between June 4 and Sept. 30, 1986.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
WATER-LEVEL EXTREMES MEASURED WATER LEVELS

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 26, 2000 TO DEC. 12, 2000	6.03	11.83	DEC. 12, 2000	6.15
DEC. 12, 2000 TO MAR. 26, 2001	5.14	10.39	MAR. 26, 2001	6.40
MAR. 26, 2001 TO JUNE 13, 2001	5.65	11.57	JUNE 13, 2001	9.58
JUNE 13, 2001 TO SEPT. 26, 2001	8.64	14.47	SEPT. 26, 2001	12.47

NJ-WRD WELL NO. 09-0089



CAPE MAY COUNTY--Continued

NJ-WRD Well Number, 09-0099. Site I.D., 390608074483801. Local I.D., Cape May County Park 8 Obs. NJ Permit Number, 35-00680.

LOCATION.--Lat 39°06'11", long 74°48'38", Hydrologic Unit 02040302, at Cape May County Park, Rt. 9, Middle Township.
Owner: U.S. Geological Survey.

AQUIFER.--Cohansey Sand of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 230 ft, screened 214 to 230 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval. Water-level recorder, Nov. 1986 to May 2000. Periodic measurements, Nov. 1968 to Nov. 1986. Water-level recorder, Apr. 1961 to Nov. 1968. Periodic measurements, Nov. 1958 to Apr. 1961. Water-level recorder, Oct. 1957 to Oct. 1958.

DATUM.--Land surface is 10.73 ft above sea level.

Measuring point: Top of well seal, 2.27 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

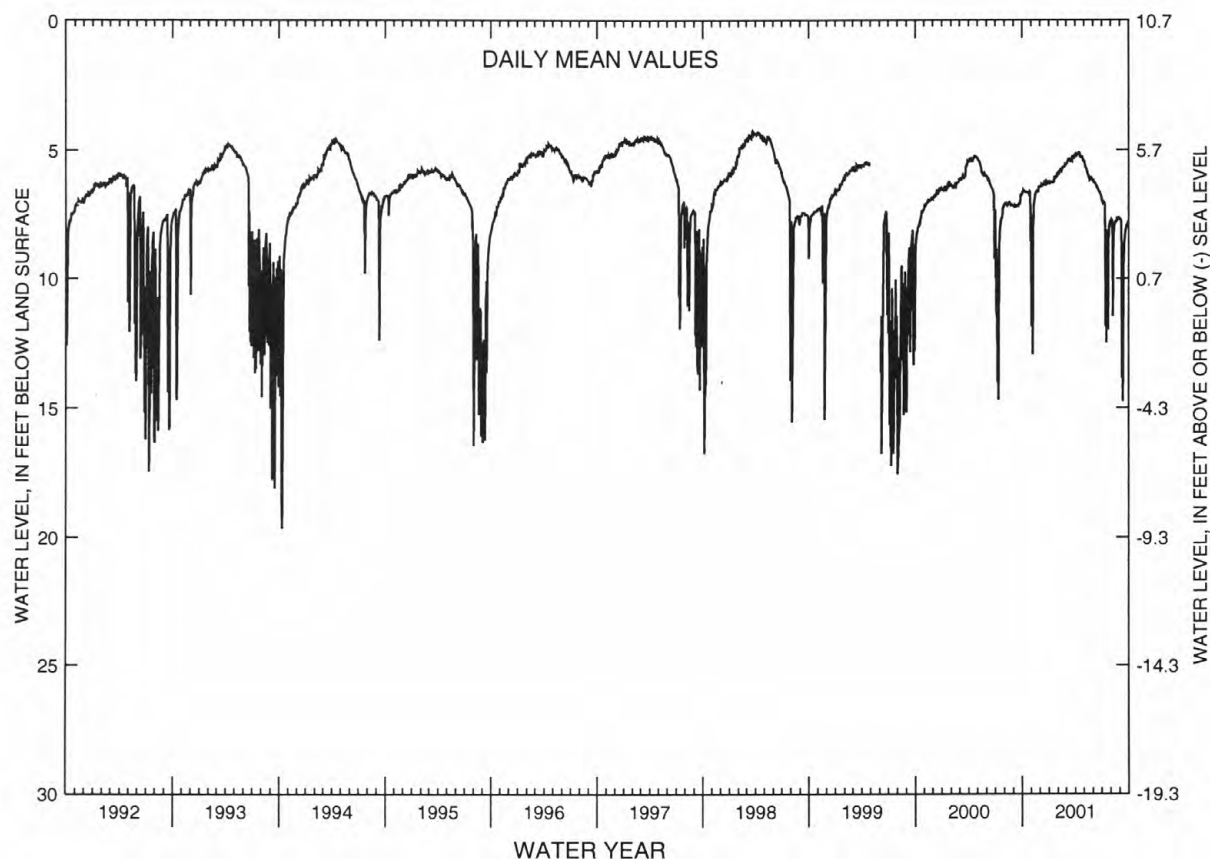
PERIOD OF RECORD.--Oct. 1957 to current year. Records from 1957 to 1987 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.73 ft below land surface, Apr. 5, 1958; lowest, 22.01 ft below land surface, July 9, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.60	10.40	6.37	6.24	5.81	5.41	5.22	5.58	6.27	6.95	7.74	7.74
10	6.61	7.17	6.39	6.26	5.76	5.39	5.14	5.75	6.34	7.06	8.91	13.24
15	6.66	6.70	6.35	6.23	5.71	5.38	5.13	5.95	6.47	8.74	7.88	9.49
20	6.66	6.60	6.25	6.06	5.66	5.45	5.27	6.14	6.57	8.44	7.74	8.22
25	6.67	6.60	6.31	6.03	5.58	5.30	5.32	6.11	6.66	8.46	7.68	7.92
EOM	7.53	6.40	6.23	5.89	5.56	5.19	5.43	6.20	6.84	7.78	7.66	7.77
MEAN	6.73	7.47	6.32	6.16	5.74	5.37	5.22	5.90	6.47	8.31	7.97	9.10
WTR YR 2001 MEAN 6.74 HIGH 5.11 APR 13 LOW 14.76 SEP 12												

NJ-WRD WELL NO. 09-0099



GROUND-WATER LEVELS

CAPE MAY COUNTY--Continued

NJ-WRD Well Number, 09-0150. Site I.D., 385607074555201. Local I.D., West Cape May 1 Obs. NJ Permit Number, 37-00155.

LOCATION.--Lat 38°56'07", long 74°55'56", Hydrologic Unit 02040302, on the north side of Sunset Blvd., West Cape May Borough.
Owner: U.S. Geological Survey.

AQUIFER.--Cohansey Sand of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 293 ft, screened 283 to 293 ft.

INSTRUMENTATION.--Water-level extremes recorder. Periodic measurements, Aug. 1975 to May 1977. Water-level recorder, June 1957 to Aug. 1975.

DATUM.--Land surface is 6.60 ft above sea level.

Measuring point: Front edge of cutout in recorder housing, 2.88 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

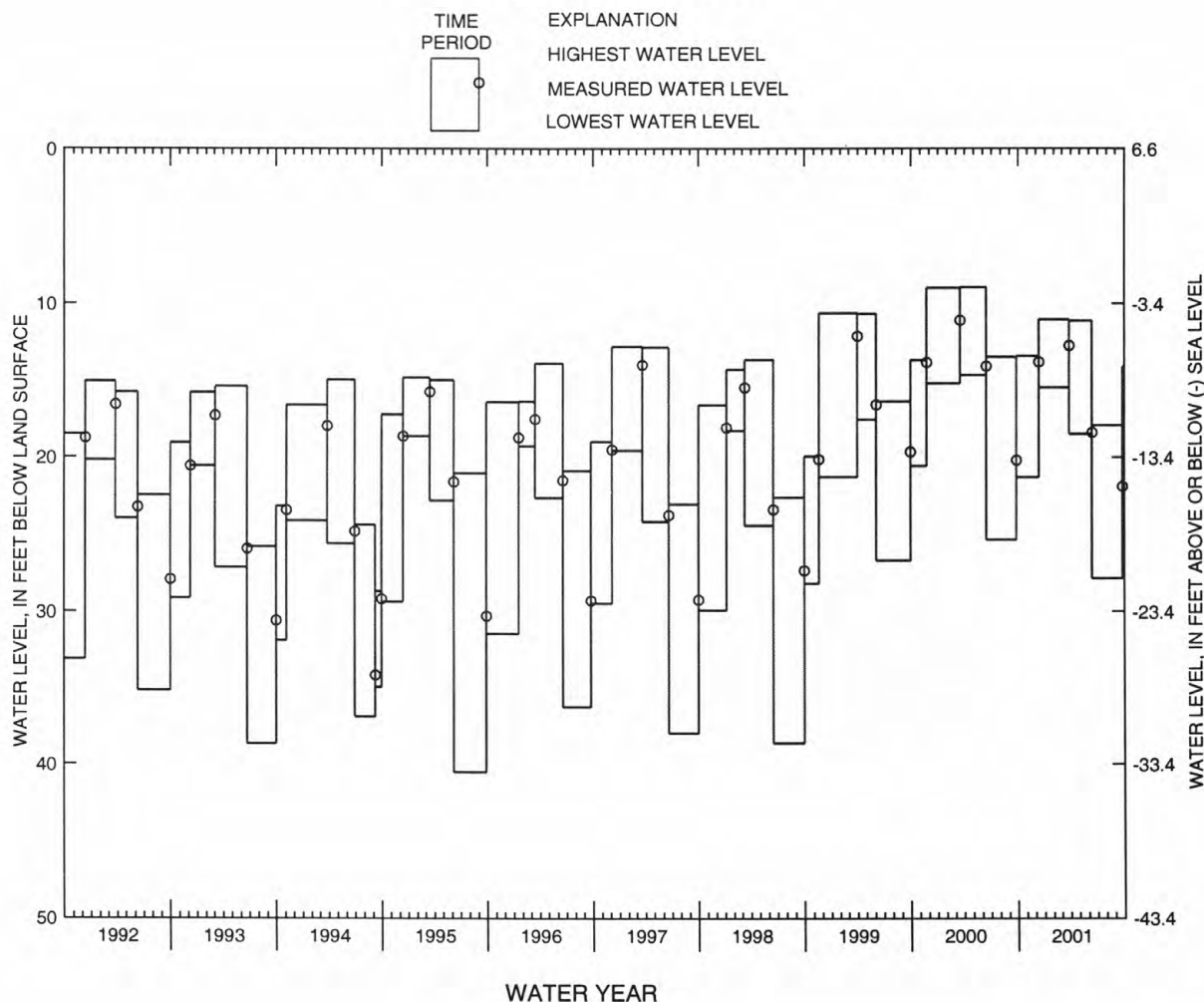
PERIOD OF RECORD.--June 1957 to current year. Records for 1957 to 1982 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.93 ft below land surface, between Mar. 17, and June 14, 2000; lowest, 41.30 ft below land surface, Sept. 3, 1963.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
WATER-LEVEL EXTREMES MEASURED WATER LEVELS

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 26, 2000 TO DEC. 12, 2000	13.41	21.27	DEC. 12, 2000	13.80
DEC. 12, 2000 TO MAR. 26, 2001	11.04	15.48	MAR. 26, 2001	12.72
MAR. 26, 2001 TO JUNE 13, 2001	11.13	18.50	JUNE 13, 2001	18.39
JUNE 13, 2001 TO SEPT. 26, 2001	17.92	27.84	SEPT. 26, 2001	21.87

NJ-WRD WELL NO. 09-0150



GROUND-WATER LEVELS

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CAPE MAY COUNTY--Continued

NJ-WRD Well Number, 09-0302. Site I.D., 385709074512801. Local I.D., Coast Guard 800 Obs. NJ Permit Number, 37-03628-9.

LOCATION.--Lat 38°57'09", long 74°51'28", Hydrologic Unit 02040302, at U.S. Coast Guard Electronics and Engineering Center, Lower Township.

Owner: U. S. Geological Survey.

AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 903 ft, screened 883 to 893 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval. Water-level recorder, Feb. 1990 to June 1997.

DATUM.--Land surface is 5 ft above sea level, from topographic map.

Measuring point: Top of recorder shelf, 3.05 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation.

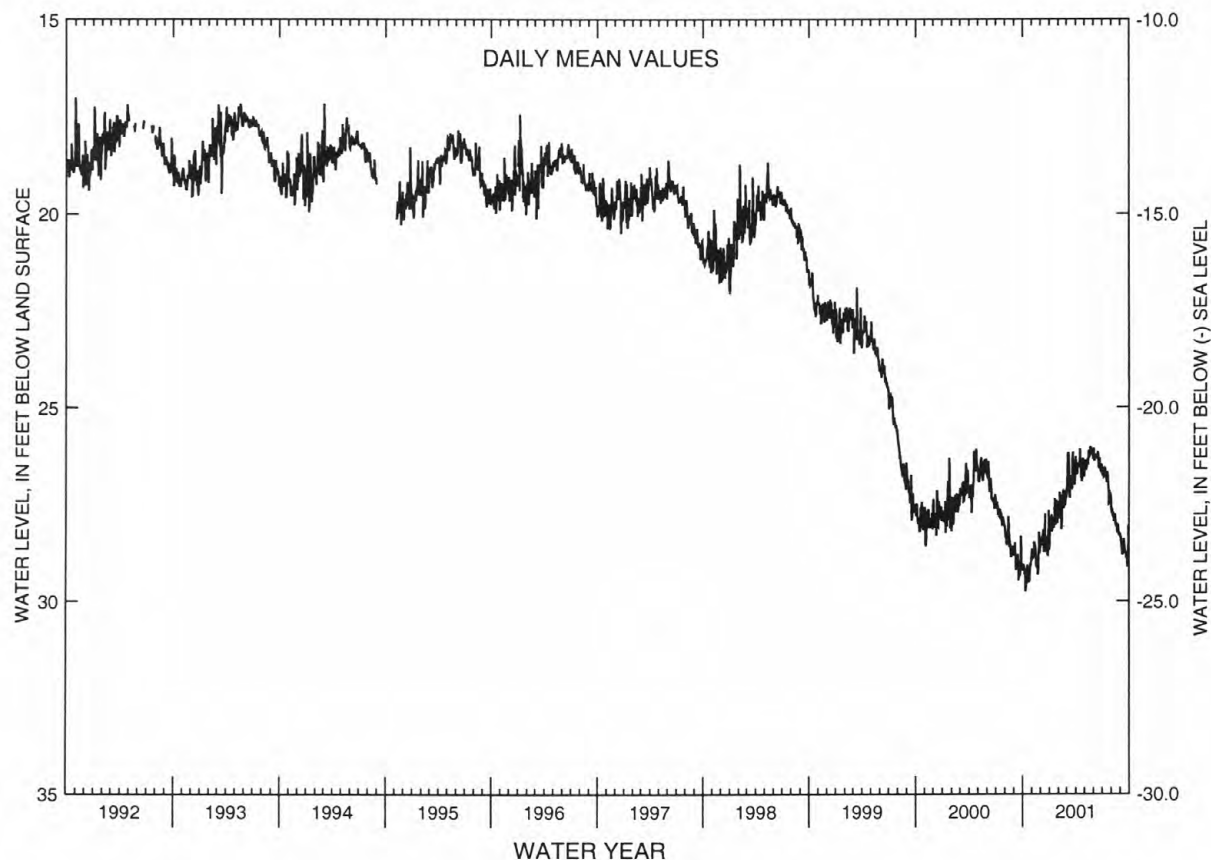
PERIOD OF RECORD.--Feb. 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.04 ft below land surface, Apr. 21, 1991; lowest, 30.26 ft below land surface, Oct. 11, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.13	28.80	28.38	27.97	27.19	26.19	---	26.49	26.37	26.58	27.63	28.45
10	29.25	28.48	28.25	28.21	27.75	27.03	26.52	26.46	26.24	26.56	27.83	28.78
15	29.49	28.84	28.44	27.91	27.28	27.10	26.42	26.40	26.30	26.82	27.76	28.39
20	29.40	28.84	28.33	27.36	27.54	27.03	26.83	26.21	26.57	26.69	28.02	28.73
25	29.49	28.83	28.81	27.67	27.25	26.94	26.65	26.17	26.51	27.47	28.02	28.82
EOM	28.92	28.66	28.38	27.50	27.20	26.53	26.79	26.34	26.48	27.28	28.24	28.05
MEAN	29.28	28.80	28.40	27.90	27.52	26.77	26.55	26.32	26.36	26.90	27.95	28.67
WTR YR 2001	MEAN 27.63 HIGH 26.02 MAY 23 LOW 29.75 OCT 11											

NJ-WRD WELL NO. 09-0302



GROUND-WATER LEVELS

CAPE MAY COUNTY--Continued

NJ-WRD Well Number, 09-0304. Site I.D., 390002074541002. Local I.D., Airport Rio Grande Obs. NJ Permit Number, 37-03763-3.

LOCATION.--Lat 39°00'02", long 74°54'10", Hydrologic Unit 02040302, at the Cape May County Airport, Lower Township.
Owner: U.S. Geological Survey.

AQUIFER.--Rio Grande water-bearing zone of the Kirkwood Formation of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 510 ft, screened 495 to 505 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60-minute recording interval. Water-level recorder, Feb. 1990 to Oct. 1992.

DATUM.--Land surface is 25 ft above sea level, from topographic map.
Measuring point: Top of protective casing, 2.50 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

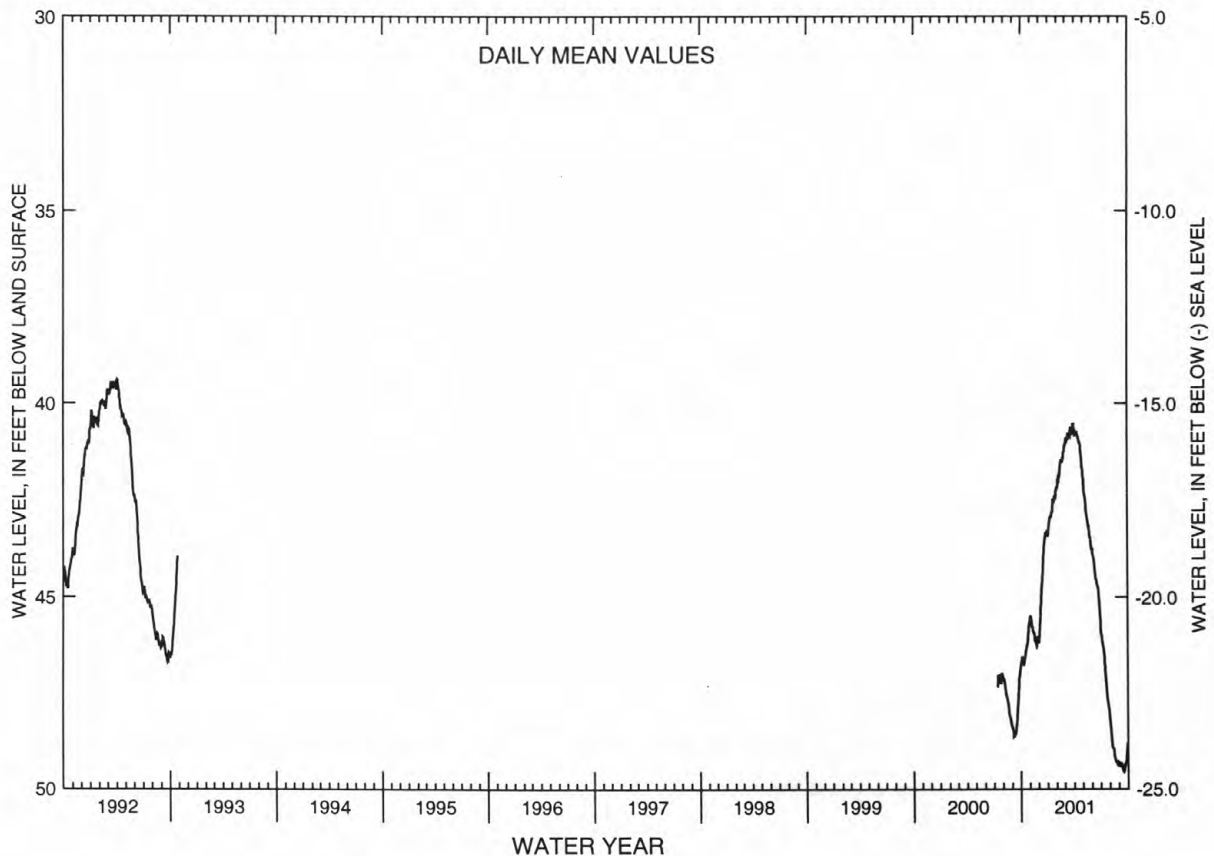
PERIOD OF RECORD.--Feb. 1990 to Oct. 1992, July 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 32.21 ft below land surface, Mar. 18, 1990; lowest, 49.61 ft below land surface, Sept. 16, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	46.61	45.56	45.72	43.16	41.95	40.93	40.77	42.06	43.90	45.97	48.47	49.43
10	46.73	45.75	44.99	42.95	41.81	40.89	40.78	42.47	44.15	46.31	48.94	49.37
15	46.55	45.94	44.39	42.81	41.52	40.83	40.82	42.85	44.52	46.74	49.02	49.53
20	46.34	46.12	43.67	42.51	41.48	40.87	41.00	43.17	44.68	47.30	49.27	49.44
25	46.06	46.26	43.41	42.42	41.27	40.73	41.20	43.39	44.94	47.70	49.34	49.29
EOM	45.59	46.09	43.32	42.18	41.18	40.54	41.67	43.74	45.57	48.03	49.31	48.82
MEAN	46.38	45.92	44.40	42.77	41.68	40.82	40.95	42.82	44.49	46.89	48.98	49.36
WTR YR 2001	MEAN 44.64	HIGH 40.51	MAR 30	LOW 49.57	SEP 17							

NJ-WRD WELL NO. 09-0304



CAPE MAY COUNTY--Continued

NJ-WRD Well Number, 09-0306. Site I.D., 390422074544701. Local I.D., Oyster 800 Obs.

LOCATION.--Lat 39°04'22", long 74°54'47", Hydrologic Unit 02040206, at the Rutgers Oyster Laboratory near Green Creek, Middle Township.

Owner: U. S. Geological Survey.

AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 709 ft, screened 656 to 666 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval. Water-level recorder, Mar. 1990 to Dec. 1992.

DATUM.--Land surface is 6 ft above sea level, from topographic map.
Measuring point: Top of PVC casing, 3.05 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation.

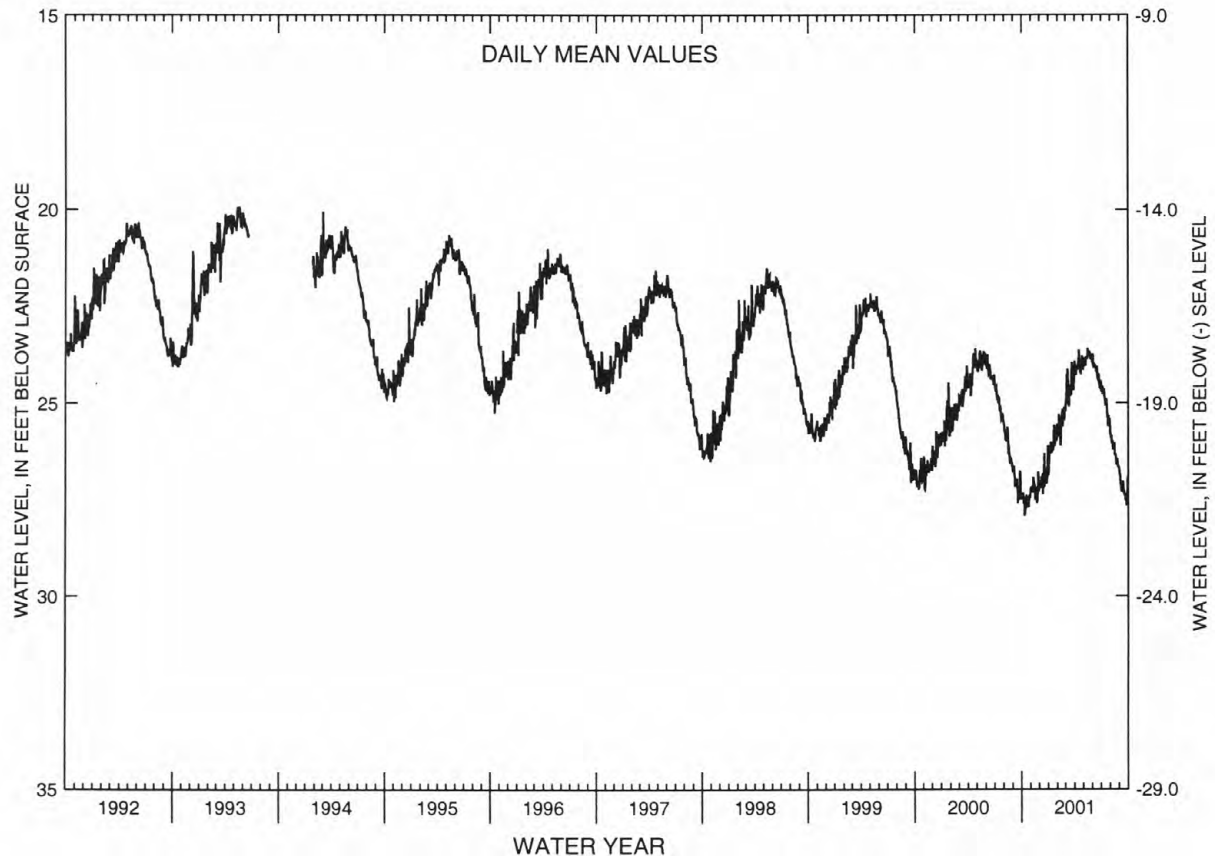
PERIOD OF RECORD.--Mar. 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.74 ft below land surface, May 15, 1991; lowest, 28.74 ft below land surface, Oct. 11, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.40	27.29	27.01	26.21	25.30	24.27	24.29	23.86	24.08	24.58	25.84	26.97
10	27.49	26.92	26.93	26.30	25.71	24.84	24.11	23.86	24.04	24.67	26.12	27.25
15	27.67	27.30	27.08	26.10	25.33	24.84	23.93	23.81	24.19	24.95	26.03	27.02
20	27.61	27.18	26.73	25.57	25.42	24.70	24.22	23.75	24.40	25.00	26.36	27.35
25	27.69	27.29	27.09	25.77	25.12	24.56	24.05	23.84	24.50	25.59	26.44	27.42
EOM	27.33	27.21	26.61	25.60	25.09	24.23	24.13	23.97	24.46	25.51	26.64	26.92
MEAN	27.53	27.25	26.90	26.05	25.50	24.57	24.06	23.83	24.21	25.02	26.24	27.22
WTR YR 2001	MEAN 25.70 HIGH 23.59 MAY 16 LOW 27.92 OCT 11											

NJ-WRD WELL NO. 09-0306



GROUND-WATER LEVELS

CAPE MAY COUNTY--Continued

NJ-WRD Well Number, 09-0333. Site I.D., 390156074533401. Local I.D., Pump Pond N. Obs. NJ Permit Number, 37-04769.

LOCATION.--Lat 39°01'56", long 74°53'34", Hydrologic Unit 02040206, on the east side of Rt. 47, about 1,000 ft north of Pumping Station Pond, Middle Township.
Owner: U. S. Geological Survey - Wildwood Water Department.

AQUIFER.--Holly Beach water-bearing zone.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 2 in., depth 43 ft, screened 28 to 38 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval.

DATUM.--Land surface is 20 ft above sea level, from topographic map.

Measuring point: Top of base of aluminum locking cap, 3.61 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

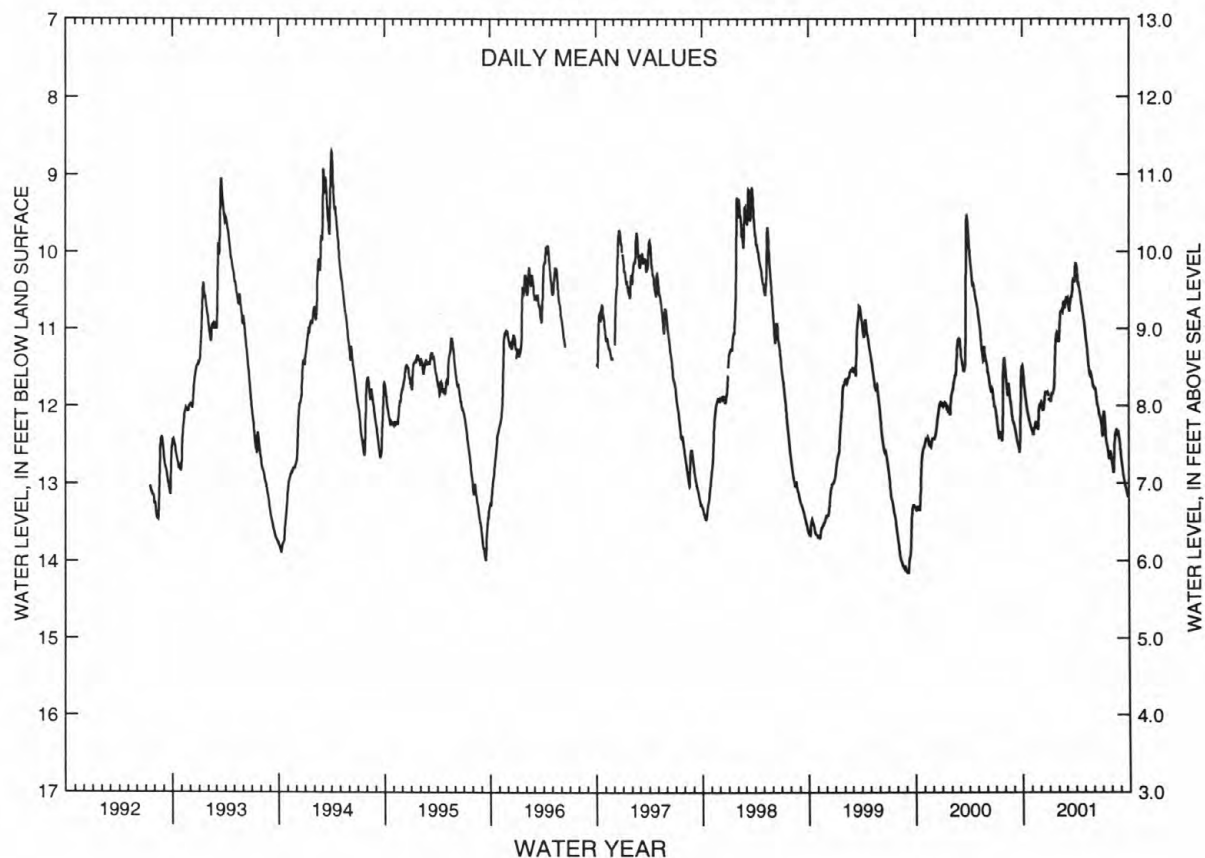
PERIOD OF RECORD.--July 1992 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.68 ft below land surface, Apr. 2, 1994; lowest, 14.16 ft below land surface, Sept. 5-9, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.57	12.33	11.96	11.91	11.10	10.61	10.20	11.03	11.76	12.32	12.73	12.64
10	11.77	12.33	12.03	11.87	10.77	10.72	10.40	11.20	11.81	12.12	12.86	12.80
15	11.95	12.23	11.99	11.82	10.77	10.67	10.48	11.40	11.95	12.40	12.41	12.93
20	12.08	12.24	11.83	11.68	10.64	10.59	10.62	11.59	12.05	12.52	12.31	13.04
25	12.17	12.30	11.83	11.09	10.69	10.35	10.74	11.59	12.13	12.66	12.33	13.11
EOM	12.26	11.99	11.87	11.05	10.59	10.21	10.88	11.72	12.25	12.60	12.44	13.18
MEAN	11.92	12.25	11.92	11.61	10.80	10.55	10.50	11.37	11.96	12.42	12.52	12.90
WTR YR 2001	MEAN 11.73 HIGH 10.15 APR 2 LOW 13.18 SEP 30											

NJ-WRD WELL NO. 09-0333



GROUND-WATER LEVELS

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CAPE MAY COUNTY--Continued

NJ-WRD Well Number, 09-0337. Site I.D., 390012074472001. Local I.D., M-1 N Wildwood 800 Obs. NJ Permit Number, 37-04660.

LOCATION.--Lat 39°00'12", long 74°47'20", Hydrologic Unit 02040302, on the north side of 2nd Ave., between Surf Ave. and Ocean Ave., North Wildwood City.
Owner: U.S. Geological Survey - North Wildwood City.

AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 965 ft, screened 910 to 960 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60-minute recording interval. Water-level recorder, July 1992 to May 1998.

DATUM.--Land surface is 10 ft above sea level, from topographic map.
Measuring point: Top of recorder shelf, 4.40 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

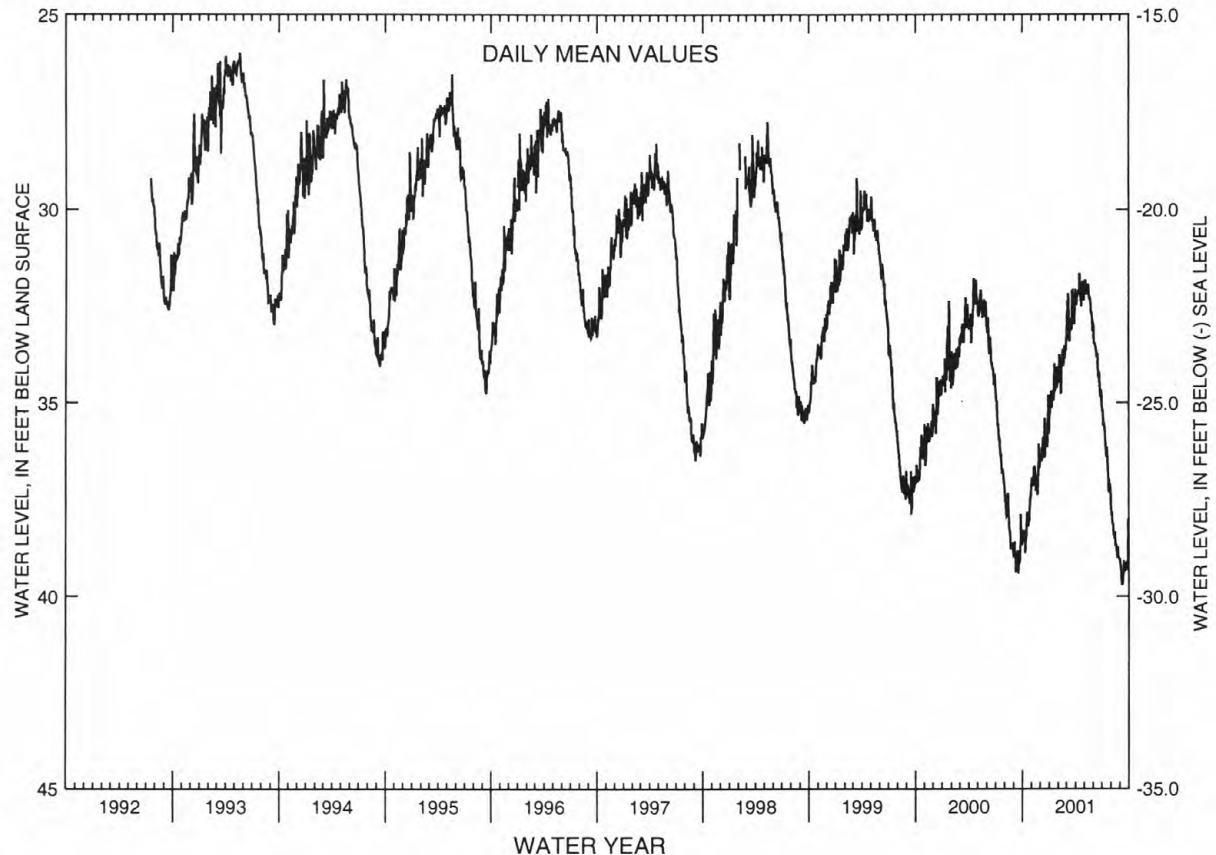
PERIOD OF RECORD.--July 1992 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.93 ft below land surface, May 20, 1993; lowest, 40.39 ft below land surface, Sept. 17-18, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	38.37	37.10	36.32	35.00	33.75	32.37	32.49	31.94	33.44	35.18	37.84	39.30
10	38.34	36.66	36.05	35.14	34.38	33.17	32.17	32.09	33.56	35.58	38.31	39.66
15	38.36	37.03	36.10	34.71	33.79	33.18	32.00	32.20	33.83	36.13	38.33	39.07
20	38.09	36.89	35.84	33.99	33.93	32.98	32.39	32.27	34.36	36.29	38.71	39.24
25	38.01	36.71	36.14	34.27	33.54	32.84	32.17	32.61	34.56	37.29	38.71	39.09
EOM	37.26	36.57	35.67	34.12	33.47	32.41	32.37	33.16	34.77	37.27	39.01	38.00
MEAN	38.13	36.91	35.99	34.71	34.01	32.82	32.18	32.30	33.93	36.19	38.48	39.25
WTR YR 2001 MEAN 35.42 HIGH 31.65 APR 16 LOW 39.71 SEP 9												

NJ-WRD WELL NO. 09-0337



GROUND-WATER LEVELS

CAPE MAY COUNTY--Continued

NJ-WRD Well Number, 09-510. Site I.D., 391145074520401. Local I.D., NJDEP Belleplain Mw 44. NJ Permit Number, 35-20735.

LOCATION.--Lat 39°11'45", long 74°52'04", Hydrologic Unit 02040206, in Belleplain State Forest, Old Robbins Trail, Dennis Township.

Owner: State of NJ - DEP.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 2 in., depth 11 ft, screened 6 to 11 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval.

DATUM.--Land surface is 10 ft above sea level, from topographic map.

Measuring point: Top of protective casing, 1.95 ft above land surface.

PERIOD OF RECORD.--Aug. 2001 to current year.

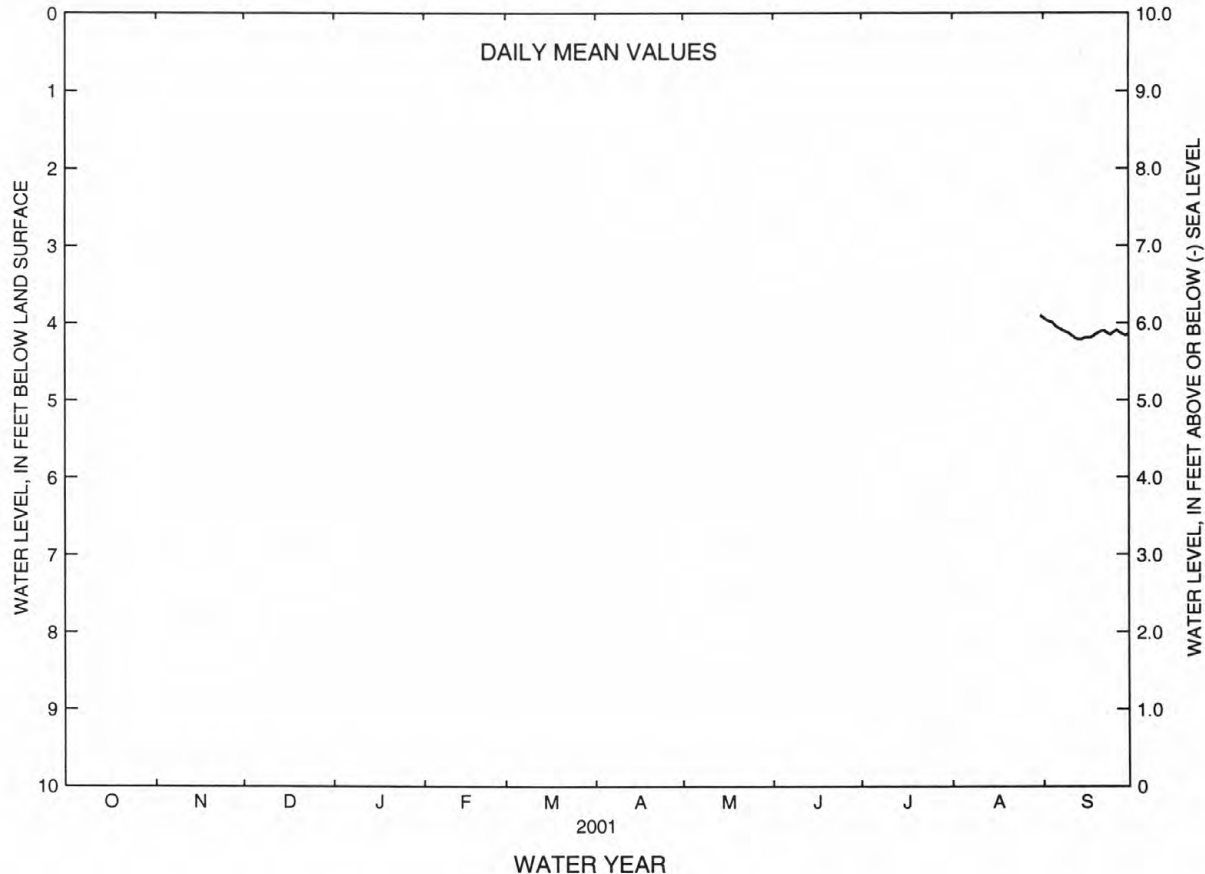
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.84 ft below land surface, Aug. 29, 2001; lowest, 4.23 ft below land surface, Sept. 14, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	---	---	---	4.03
10	---	---	---	---	---	---	---	---	---	---	---	4.14
15	---	---	---	---	---	---	---	---	---	---	---	4.19
20	---	---	---	---	---	---	---	---	---	---	---	4.12
25	---	---	---	---	---	---	---	---	---	---	---	4.12
EOM	---	---	---	---	---	---	---	---	---	---	3.90	4.14
MEAN	---	---	---	---	---	---	---	---	---	---	---	4.11

WTR YR 2001 HIGH 3.88 AUG 30 LOW 4.21 SEP 13

NJ-WRD WELL NO. 09-0510

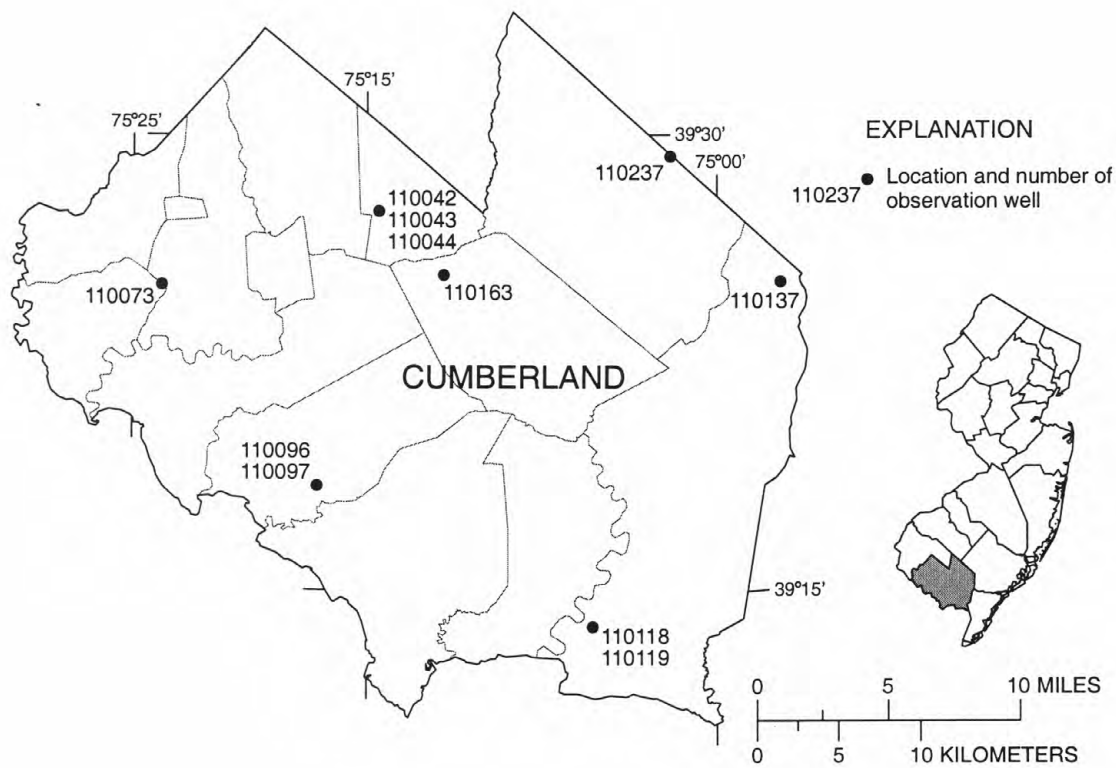


CUMBERLAND COUNTY

NJ-WRD well number	Local identifier	Township	Well depth	Aquifer	Type of data
110042	VOCATIONAL SCHOOL 2 OBS	DEERFIELD TWP	47	CKKD	DAILY
110043	VOCATIONAL SCHOOL 1 OBS	DEERFIELD TWP	138	CKKD	MANUAL
110044	VOCATIONAL SCHOOL 3 OBS	DEERFIELD TWP	376	PNPN	MANUAL
110073	SHEPPARDS 2 OBS	GREENWICH TWP	40	CKKD	MANUAL
110096	JONES ISLAND 2 OBS	LAWRENCE TWP	375	PNPN	DAILY
110097	JONES ISLAND 1 OBS	LAWRENCE TWP	171	CKKD	MANUAL
110118	HEISLERVILLE 1 OBS	MAURICE RIVER TWP	41	CKKD	MANUAL
110119	HEISLERVILLE 2 OBS	MAURICE RIVER TWP	135	CKKD	MANUAL
110137	RAGOVIN 2100 OBS	MAURICE RIVER TWP	2090	MRPA	DAILY
110163	FAIR GROUNDS 3 OBS	MILLVILLE CITY	473	PNPN	MANUAL
110237	NATURAL AREA 1 OBS	VINELAND CITY	81	CKKD	DAILY

Aquifer names

- CKKD - Kirkwood-Cohansey aquifer system
- MRPA - Potomac-Raritan-Magothy Aquifer
- PNPN - Piney Point aquifer



GROUND-WATER LEVELS

CUMBERLAND COUNTY

NJ-WRD Well Number, 11-0042. Site I.D., 392731075092401. Local I.D., Vocational School 2 Obs. NJ Permit Number, 35-01145.

LOCATION.--Lat 39°27'32", long 75°09'29", Hydrologic Unit 02040206, next to the Cumberland County Technical Education Center, Bridgeton Ave., Deerfield Township.
Owner: Cumberland County.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in., depth 47 ft, screened 42 to 47 ft.

INSTRUMENTATION.--Data collection platform with satellite telemetry--60 minute recording interval. Submersible logger pressure transducer, July 2000 to May 2001. Water-level recorder, July 1987 to July 2000. Periodic measurements, Mar. 1972 to July 1987.

DATUM.--Land surface is 81.77 ft above sea level.

Measuring point: Top of casing, 1.90 ft above land surface.

REMARKS.--Water level is occasionally affected by pumping from nearby irrigation well.

PERIOD OF RECORD.--Mar. 1972 to current year. Records from 1972 to 1987 are unpublished and are available in files of the New Jersey District Office.

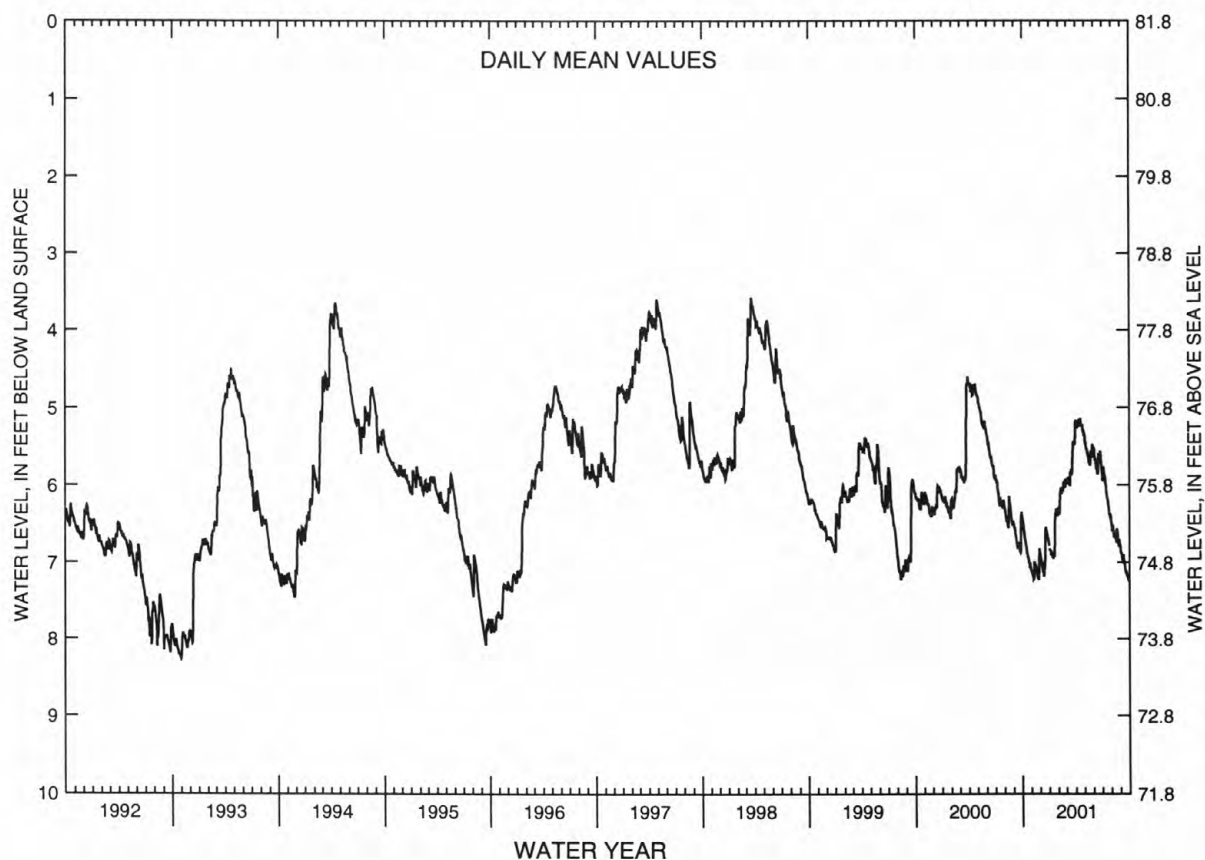
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.40 ft below land surface, Apr. 21, 1972; lowest, 8.39 ft below land surface, Sept. 2, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.57	7.17	6.99	6.85	6.23	5.90	5.23	5.46	5.64	5.76	6.59	6.87
10	6.70	7.00	7.11	6.90	6.06	5.98	5.24	5.58	5.78	5.94	6.68	7.00
15	6.83	7.04	7.06	6.88	6.08	5.84	5.18	5.65	5.85	6.08	6.64	7.00
20	6.93	7.14	6.57	6.47	5.95	5.83	5.23	5.75	5.65	6.21	6.56	7.14
25	7.02	7.21	6.67	6.34	5.94	5.46	5.29	5.65	5.59	6.38	6.75	7.16
EOM	7.10	6.88	6.78	6.29	5.93	5.18	5.34	5.60	5.85	6.45	6.77	7.24
MEAN	6.82	7.08	6.86	6.68	6.07	5.74	5.23	5.57	5.69	6.11	6.65	7.04

WTR YR 2001 MEAN 6.30 HIGH 5.15 APR 12 LOW 7.24 SEP 30

NJ-WRD WELL NO. 11-0042



GROUND-WATER LEVELS

93

CUMBERLAND COUNTY--Continued

NJ-WRD Well Number, 11-0043. Site I.D., 392732075092401. Local I.D., Vocational School 1 Obs. NJ Permit Number, 35-01146.

LOCATION.--Lat 39°27'32", long 75°09'29", Hydrologic Unit 02040206, next to the Cumberland County Technical Education Center, Bridgeton Ave., Deerfield Township.
Owner: Cumberland County.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in., depth 138 ft, screened 133 to 138 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 82.14 ft above sea level.

Measuring point: Top of base of aluminum locking cap, 0.51 ft above land surface.

REMARKS.--Water level is occasionally affected by pumping from nearby wells.

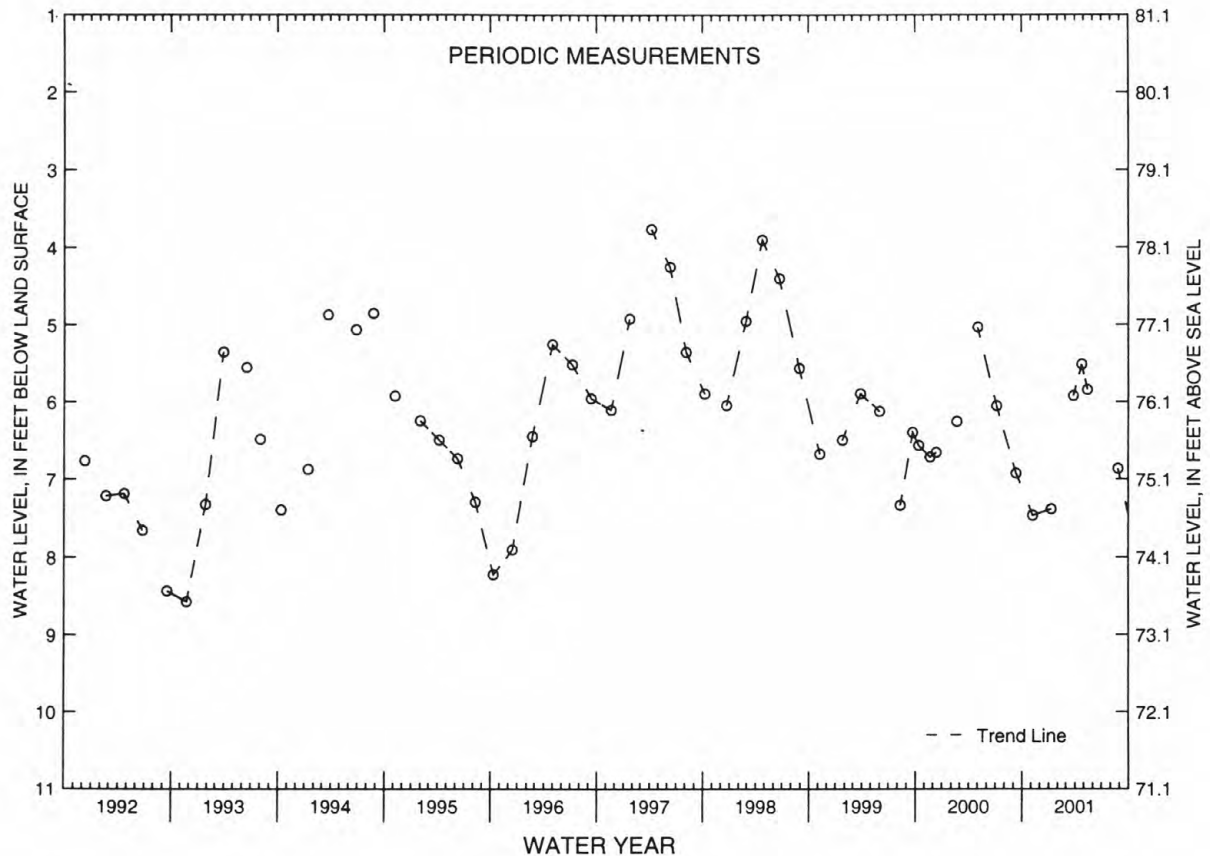
PERIOD OF RECORD.--Mar. 1972 to current year. Records for 1972 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.31 ft below land surface, Feb. 8, 1973; lowest, 8.57 ft below land surface, Nov. 23, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 07	7.46	JAN 10	7.38	MAR 27	5.92	APR 25	5.51	MAY 14	5.84	AUG 28	6.86
WATER YEAR 2001		HIGHEST	5.51	APR 25, 2001		LOWEST	7.46	NOV 07, 2000			

NJ-WRD WELL NO. 11-0043



GROUND-WATER LEVELS

CUMBERLAND COUNTY--Continued

NJ-WRD Well Number, 11-0044. Site I.D., 392733075092401. Local I.D., Vocational School 3 Obs. NJ Permit Number, 35-01197.

LOCATION.--Lat 39°27'32", long 75°09'29", Hydrologic Unit 02040206, next to the Cumberland County Technical Education Center, Bridgeton Ave., Deerfield Township.
Owner: Cumberland County.

AQUIFER.--Piney Point aquifer of Eocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 376 ft, screened 361 to 376 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 81.95 ft above sea level.

Measuring point: Top of base of aluminum locking cap, 0.31 ft above land surface.

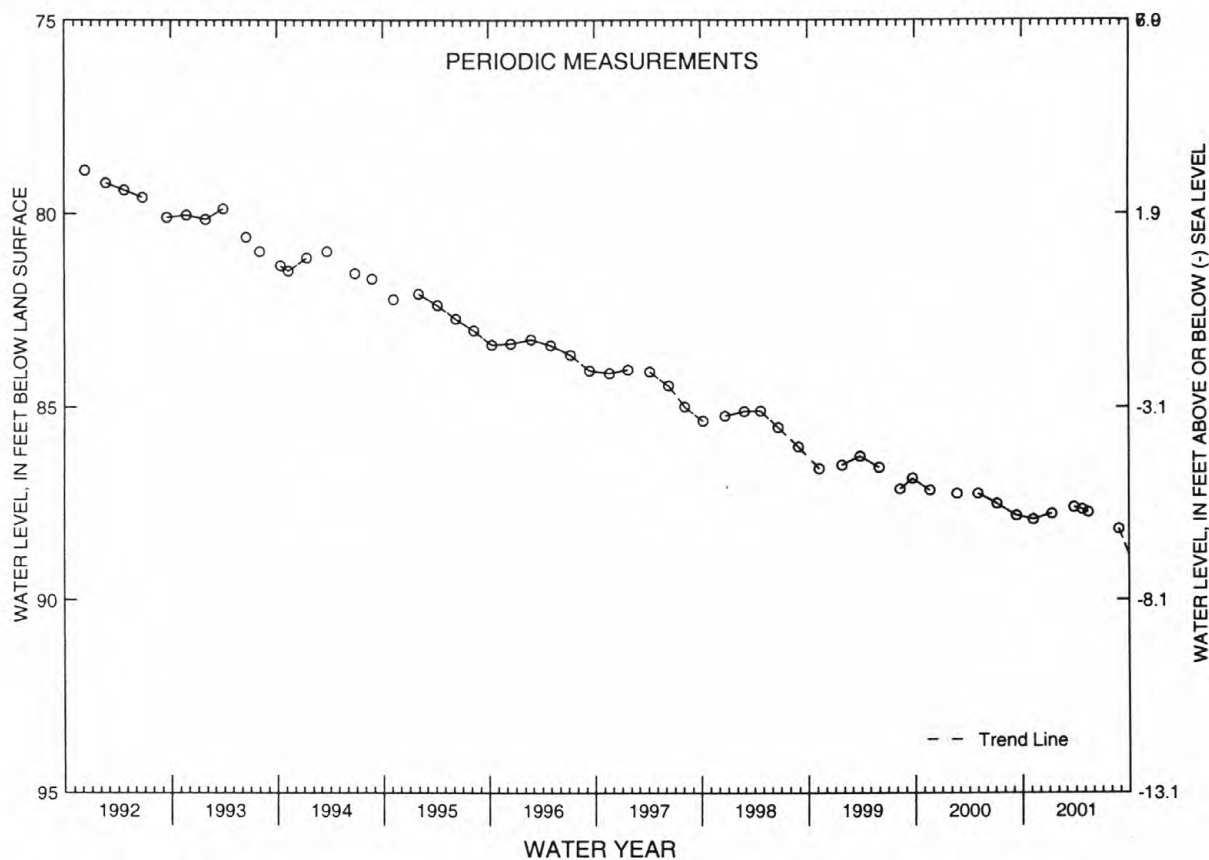
PERIOD OF RECORD.--July 1972 to current year. Records for 1972 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.79 ft below land surface, July 31, 1972; lowest, 88.17 ft below land surface, Aug. 28, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 07	87.92	JAN 10	87.77	MAR 27	87.60	APR 25	87.66	MAY 14	87.73	AUG 28	88.17
WATER YEAR 2001		HIGHEST	87.60	MAR 27, 2001	LOWEST		88.17	AUG 28, 2001			

NJ-WRD WELL NO. 11-0044



GROUND-WATER LEVELS

95

CUMBERLAND COUNTY--Continued

NJ-WRD Well Number, 11-0073. Site I.D., 392508075184601. Local I.D., Sheppards 2 Obs.

LOCATION.--Lat 39°25'08", long 75°18'46", Hydrologic Unit 02040206, at the Holly Shores Girl Scout Camp at Sheppards Mill, Greenwich Rd., Hopewell Township.
Owner: Cumberland County.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in., depth 40 ft, screened 35 to 40 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 37.35 ft above sea level.

Measuring point: Top of base of aluminum locking cap, 2.61 ft above land surface.

REMARKS.--Water level is affected by the stage of Sheppards Mill Pond.

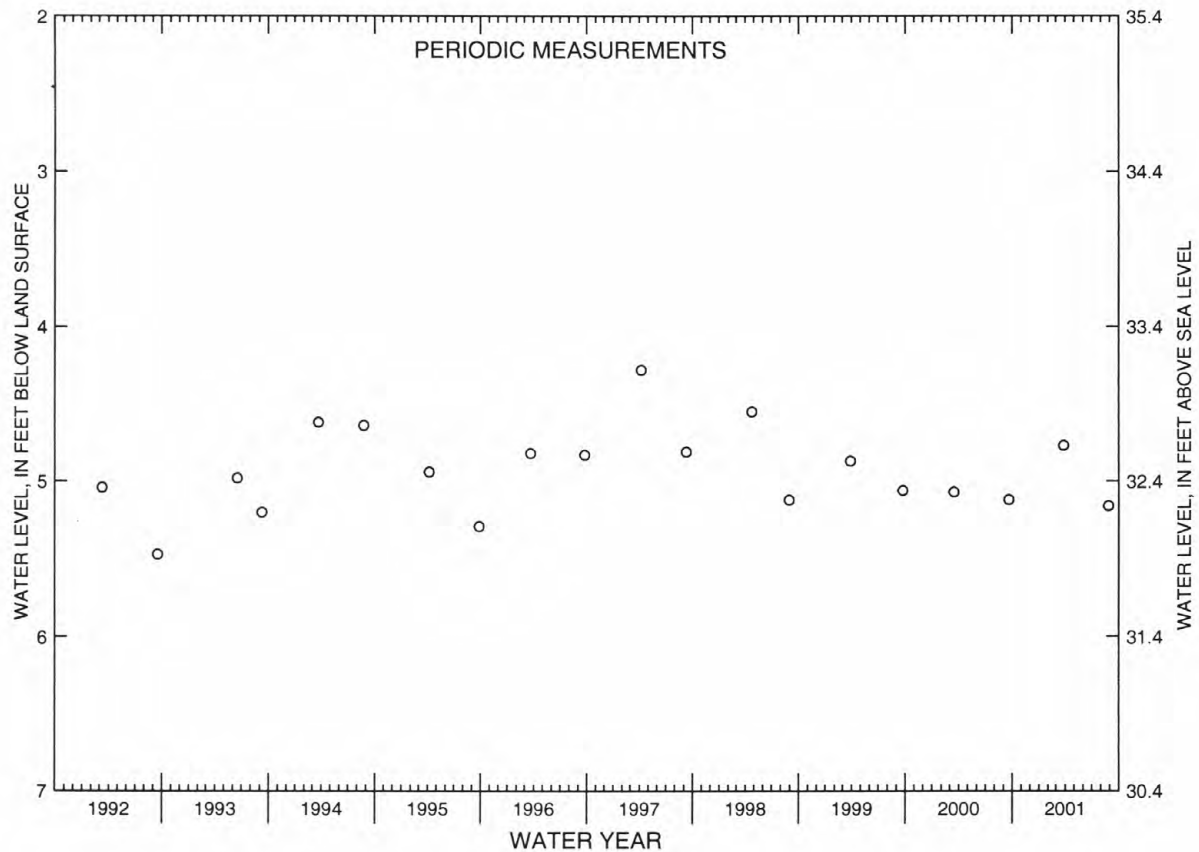
PERIOD OF RECORD.--Mar. 1973 to current year. Records for 1973 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.00 ft below land surface, May 4, 1973; lowest, 5.47 ft below land surface, Sept. 17, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 27	4.77	AUG 28	5.16

NJ-WRD WELL NO. 11-0073



GROUND-WATER LEVELS

CUMBERLAND COUNTY--Continued

NJ-WRD Well Number, 11-0096. Site I.D., 391828075120902. Local I.D., Jones Island 2 Obs.

LOCATION.--Lat 39°18'29", long 75°12'08", Hydrologic Unit 02040206, in Nantuxent Wildlife Management Area, about 1.7 mi south of Cedarville, Lawrence Township.
Owner: Cumberland County.

AQUIFER.--Piney Point aquifer of Eocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 375 ft, screened 365 to 375 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Mar. 1972 to Mar. 1977.

DATUM.--Land surface is 10.10 ft above sea level.
Measuring point: Top of recorder shelf, 1.90 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation.

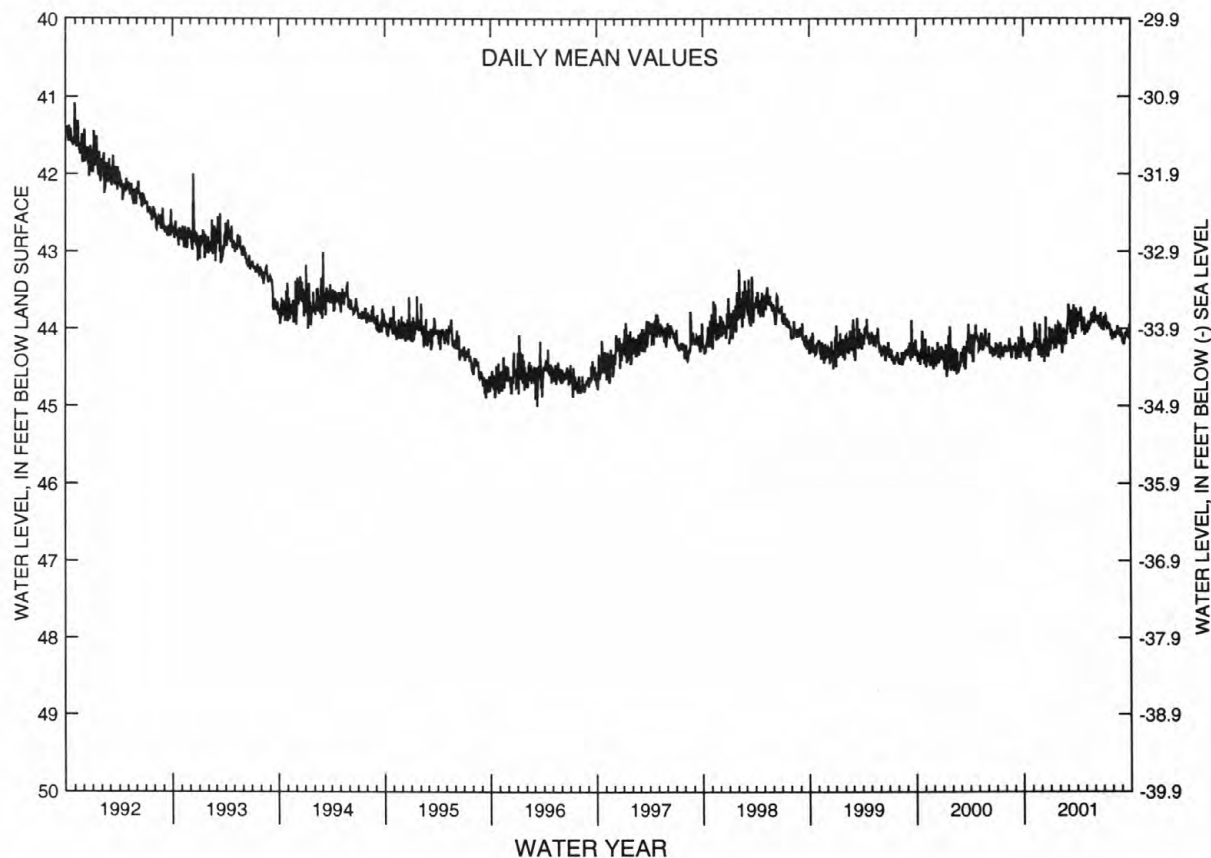
PERIOD OF RECORD.--Mar. 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.27 ft below land surface, Apr. 11, 1972; lowest, 45.04 ft below land surface, Mar. 10, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	44.20	44.20	44.21	44.05	43.94	43.68	43.98	43.94	43.89	43.84	44.07	44.12
10	44.25	43.92	44.27	44.15	44.01	43.94	43.85	43.95	43.87	43.83	44.05	44.17
15	44.25	44.12	44.34	44.12	44.00	43.95	43.80	43.97	43.93	43.98	44.07	44.08
20	44.32	44.15	44.17	43.95	44.09	44.11	44.00	43.94	43.93	43.94	43.96	44.04
25	44.34	44.28	44.35	44.08	44.02	43.97	43.97	43.90	43.93	43.99	44.07	44.01
EOM	44.25	44.19	44.11	43.93	44.02	43.82	44.04	43.93	43.89	44.06	44.01	43.94
MEAN	44.27	44.16	44.22	44.11	44.09	43.90	43.90	43.92	43.88	43.96	44.06	44.09
WTR YR 2001	MEAN 44.05 HIGH 43.68 MAR 5 LOW 44.43 DEC 13											

NJ-WRD WELL NO. 11-0096



GROUND-WATER LEVELS

97

CUMBERLAND COUNTY--Continued

NJ-WRD Well Number, 11-0097. Site I.D., 391830075120801. Local I.D., Jones Island 1 Obs. NJ Permit Number, 34-00845.

LOCATION.--Lat 39°18'29", long 75°12'08", Hydrologic Unit 02040206, in Nantuxent Wildlife Management Area, about 1.7 mi south of Cedarville, Lawrence Township.
Owner: Cumberland County.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in., depth 171 ft, screened 166 to 171 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 10.10 ft above sea level.
Measuring point: Top of base of aluminum locking cap, 3.30 ft above land surface.

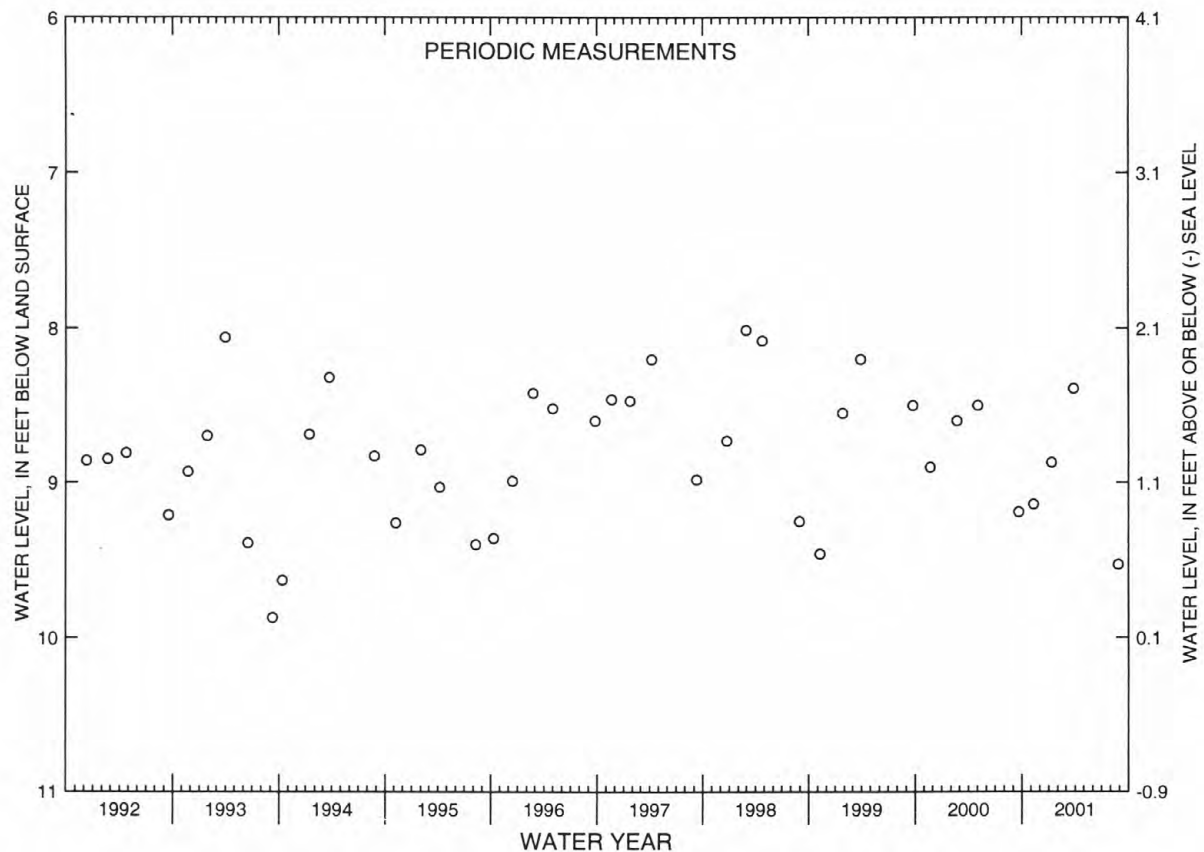
PERIOD OF RECORD.--Mar. 1972 to current year. Records for 1972 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.86 ft below land surface, Feb. 8, 1973; lowest, 10.13 ft below land surface, Sept. 22, 1986.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 09	9.14	JAN 10	8.87	MAR 27	8.39	AUG 28	9.53
WATER YEAR 2001		HIGHEST	8.39	MAR 27, 2001		LOWEST	9.53
							AUG 28, 2001

NJ-WRD WELL NO. 11-0097



GROUND-WATER LEVELS

CUMBERLAND COUNTY--Continued

NJ-WRD Well Number, 11-0118. Site I.D., 391350075002001. Local I.D., Heislerville 1 Obs. NJ Permit Number, 34-01148.

LOCATION.--Lat 39°13'50", long 75°00'18", Hydrologic Unit 02040206, in Heislerville Wildlife Management Area, Matts Landing Rd., Heislerville, Maurice River Township.
Owner: Cumberland County.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 41 ft, screened 36 to 41 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 6.22 ft above sea level.

Measuring point: Top of coupling, 1.00 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation.

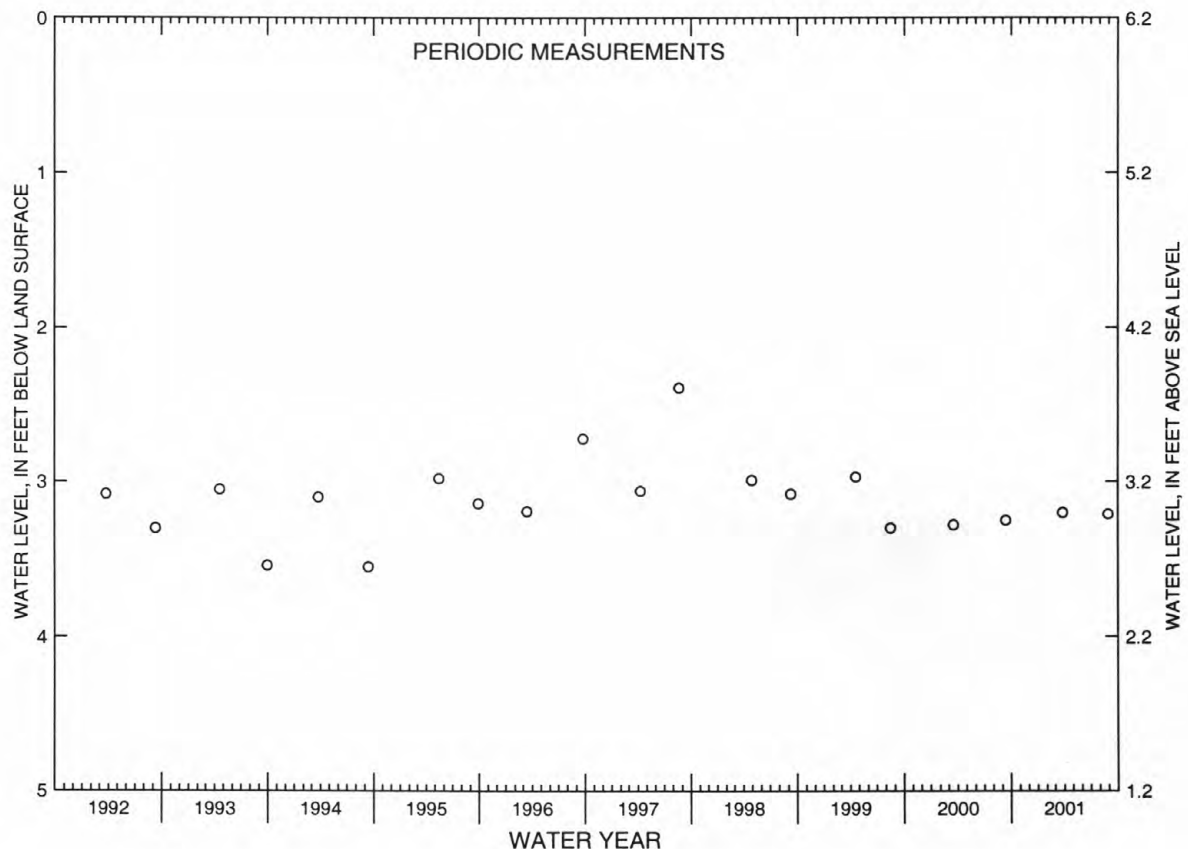
PERIOD OF RECORD.--Mar. 1972 to Aug. 2001 (discontinued). Records for 1972 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.39 ft below land surface, Aug. 21, 1997; lowest, 3.79 ft below land surface, Aug. 12, 1977.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 26	3.20	AUG 29	3.21

NJ-WRD WELL NO. 11-0118



GROUND-WATER LEVELS

99

CUMBERLAND COUNTY--Continued

NJ-WRD Well Number, 11-0119. Site I.D., 391351075001801. Local I.D., Heislerville 2 Obs.

LOCATION.--Lat 39°13'50", long 75°00'18", Hydrologic Unit 02040206, in Heislerville Wildlife Management Area, Matts Landing Rd., Heislerville, Maurice River Township.
Owner: Cumberland County.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 135 ft, screened 125 to 135 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 5.98 ft above sea level.

Measuring point: Top of coupling, 1.00 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation.

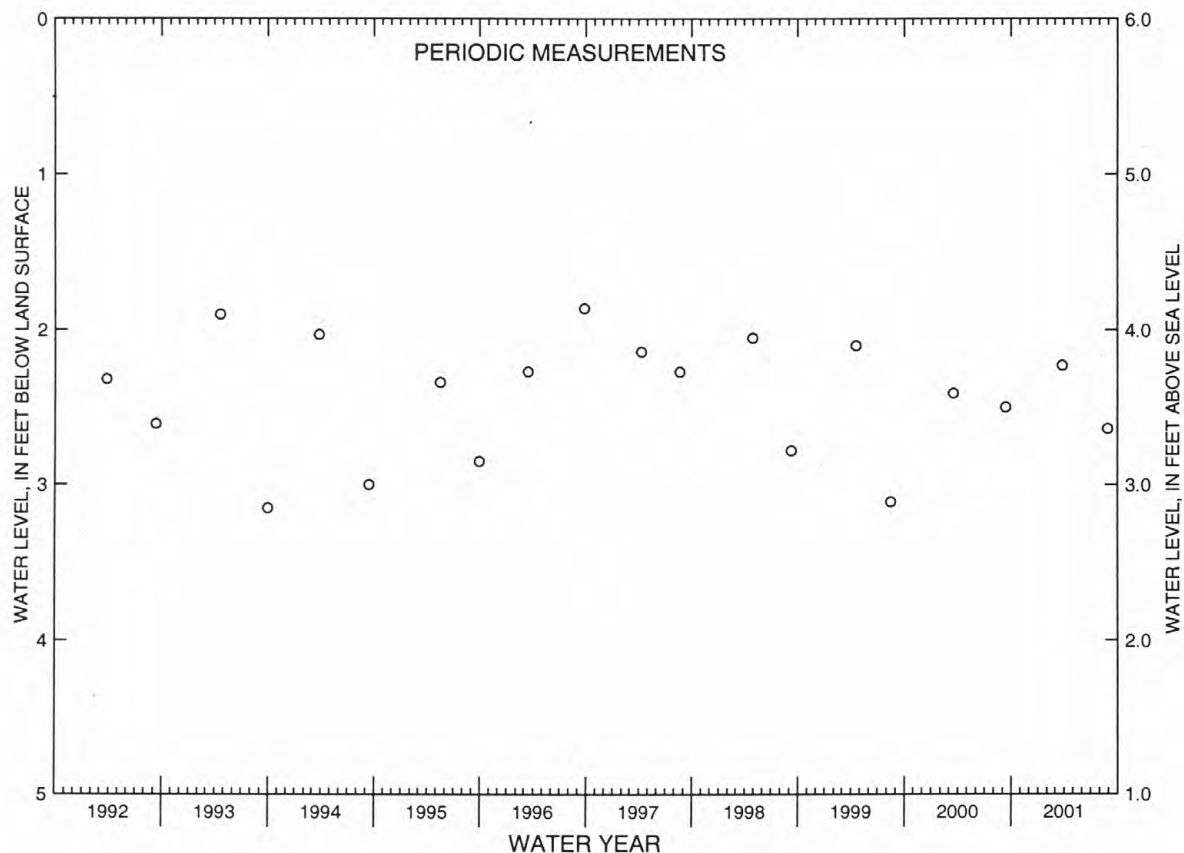
PERIOD OF RECORD.--Mar. 1972 to Aug. 2001 (discontinued). Records for 1972 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.64 ft below land surface, Apr. 28, 1983; lowest, 3.25 ft below land surface, Aug. 12, 1977.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 26	2.23	AUG 29	2.64

NJ-WRD WELL NO. 11-0119



GROUND-WATER LEVELS

CUMBERLAND COUNTY--Continued

NJ-WRD Well Number, 11-0137. Site I.D., 392512074521206. Local I.D., Ragovin 2100 Obs.

LOCATION.--Lat 39°25'14", long 74°52'17", Hydrologic Unit 02040302, in wooded area off Harriet Ave., 1.5 mi southeast of Milmay, Maurice River Township.
Owner: Sam DeRosa.

AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 5 in., depth 2,093 ft, perforated casing 2,083 to 2,093 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Oct. 1974 to Mar. 1977.

DATUM.--Land surface is 85 ft above sea level, by altimeter.

Measuring point: Top of recorder shelf, 2.40 ft above land surface.

REMARKS.--This well is perforated in a saline zone of the aquifer system. A correction is needed to obtain the equivalent freshwater head. The well was pumped on July 28, 1995. After pumping, the water-level did not return to its previous level. Therefore, the perforated area may have been partially clogged prior to the pumping.

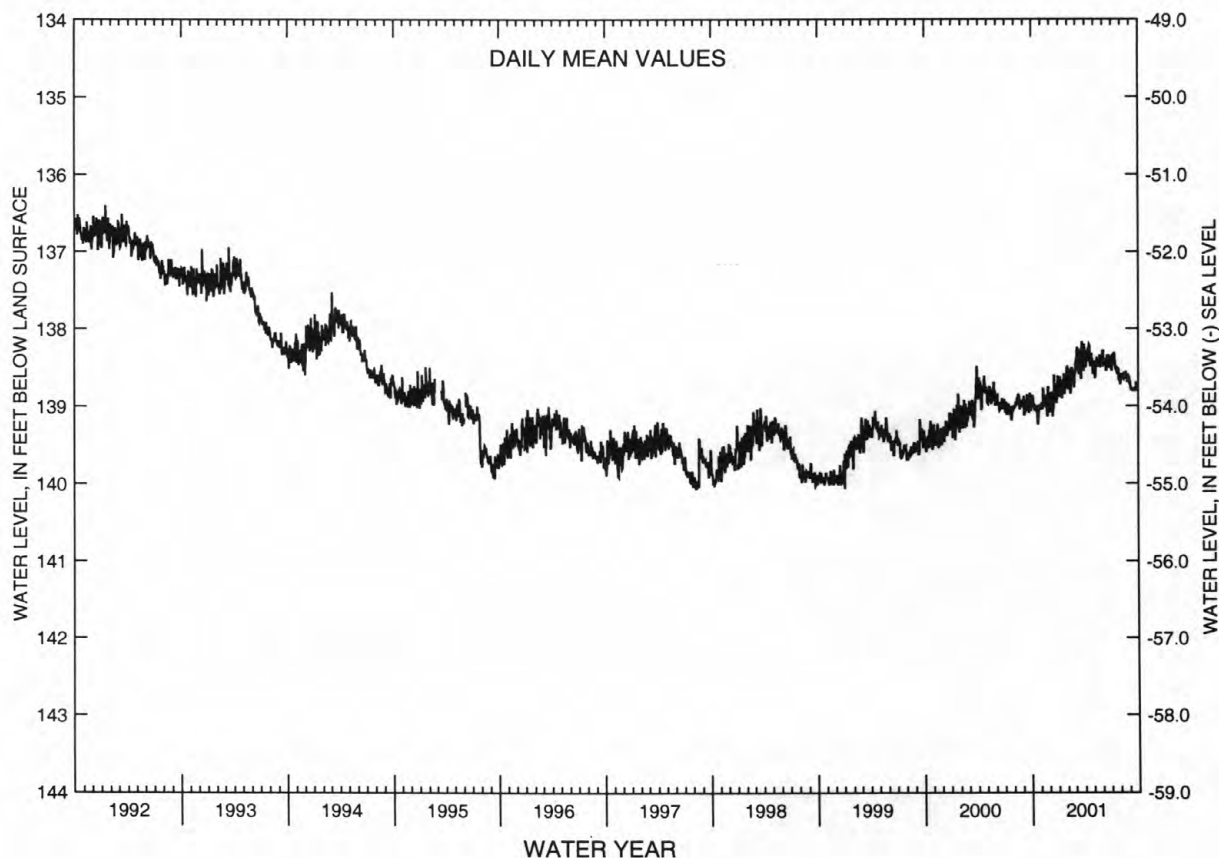
PERIOD OF RECORD.--Oct. 1974 to current year. Records for 1974 to 1977 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 115.82 ft below land surface, Apr. 3, 1975; lowest, 140.11 ft below land surface, Jan. 1-2, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	138.92	138.97	138.87	138.64	138.52	138.29	138.50	138.42	138.45	138.33	138.64	138.72
10	138.97	138.77	138.99	138.77	138.53	138.49	138.33	138.45	138.43	138.32	138.59	138.78
15	138.99	138.92	139.04	138.76	138.50	138.44	138.26	138.41	138.53	138.47	138.61	138.81
20	139.09	138.94	138.77	138.58	138.59	138.65	138.48	138.49	138.43	138.55	138.55	138.80
25	139.11	139.11	138.95	138.67	138.57	138.41	138.44	138.50	138.44	138.51	138.69	138.69
EOM	139.03	138.84	138.68	138.48	138.53	138.25	138.53	138.45	138.40	138.67	138.63	138.80
MEAN	139.02	138.95	138.88	138.73	138.64	138.42	138.38	138.45	138.42	138.48	138.63	138.76
WTR YR 2001	MEAN 138.65 HIGH 138.17 MAR 22 LOW 139.24 OCT 23											

NJ-WRD WELL NO. 11-0137



GROUND-WATER LEVELS

101

CUMBERLAND COUNTY--Continued

NJ-WRD Well Number, 11-0163. Site I.D., 392528075064101. Local I.D., Fair Grounds 3 Obs. NJ Permit Number, 35-01196.

LOCATION.--Lat 39°25'26", long 75°06'43", Hydrologic Unit 02040206, at the Cumberland County Fairgrounds, between Carmel and Morais Avenues, Millville City.
Owner: Cumberland County.

AQUIFER.--Piney Point aquifer of Eocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 473 ft, screened 463 to 473 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 80 ft above sea level, from topographic map.

Measuring point: Top of base of aluminum locking cap, 3.34 ft above land surface.

REMARKS.--The well was pumped on Sept. 11, 2000. After pumping, the water-level did not return to its previous level. Therefore, the well screen may have been partially clogged prior to the pumping.

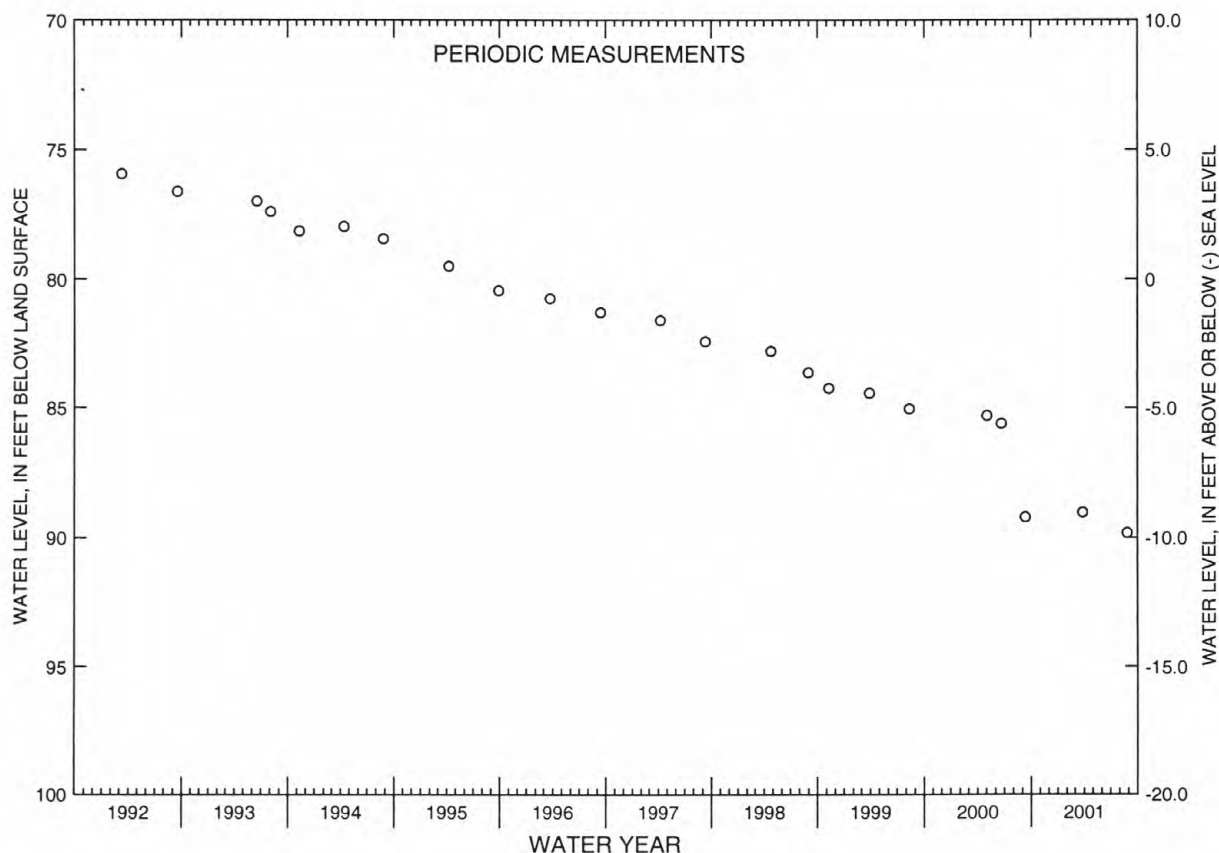
PERIOD OF RECORD.--May 1973 to current year. Records for 1973 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 54.62 ft below land surface, May 4, 1973; lowest, 89.82 ft below land surface, Aug. 28, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 27	89.03	AUG 28	89.82

NJ-WRD WELL NO. 11-0163



GROUND-WATER LEVELS

CUMBERLAND COUNTY--Continued

NJ-WRD Well Number, 11-0237. Site I.D., 392920074570001. Local I.D., Natural Area 1 Obs. NJ Permit Number, 35-01165.

LOCATION.--Lat 39°29'20", long 74°57'00", Hydrologic Unit 02040206, in the Willow Oak Natural Area, about 600 ft east of the intersection of Maple Ave. and Lincoln Ave., Vineland City.
Owner: Cumberland County.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in., depth 81 ft, screened 76 to 81 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval. Periodic measurements, Apr. 1972 to Mar. 2001.

DATUM.--Land surface is 88 ft above sea level, by altimeter.

Measuring point: Top of base of aluminum locking cap, 0.98 ft above land surface.

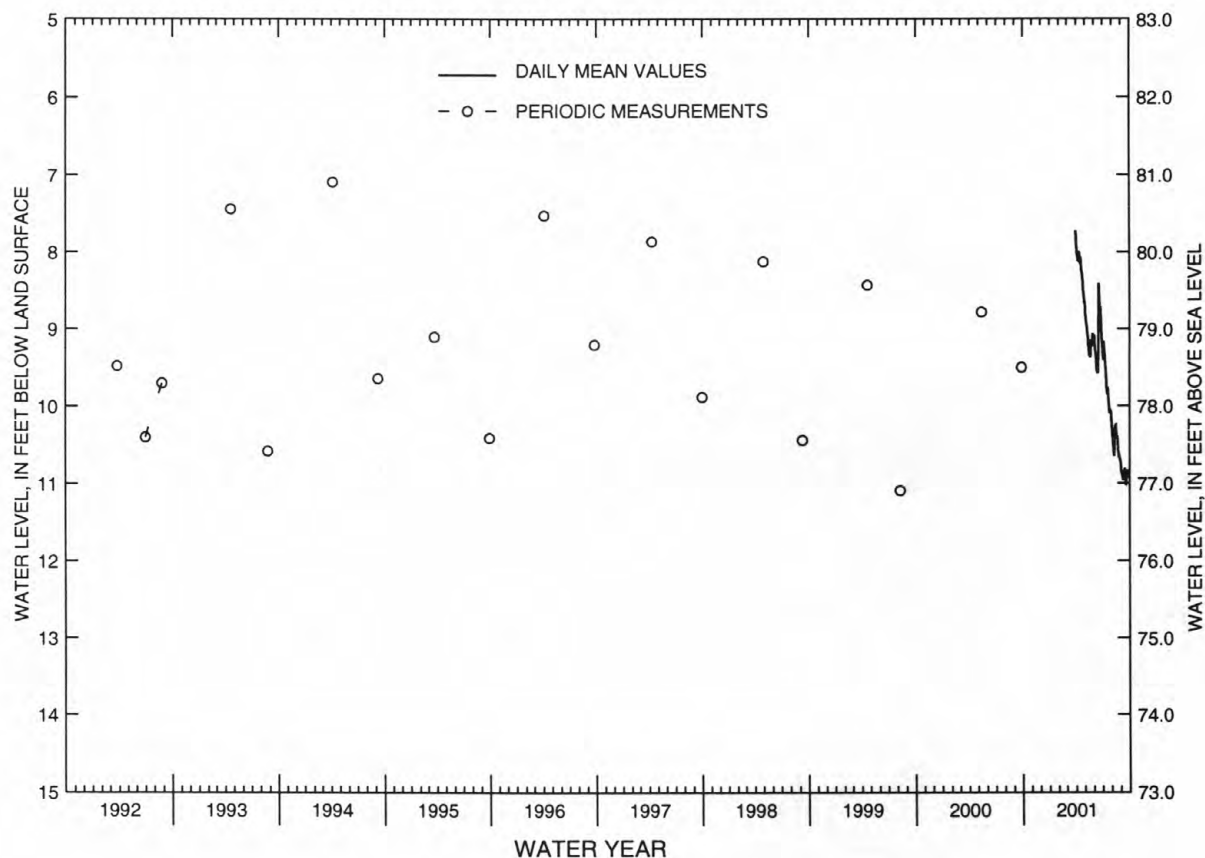
PERIOD OF RECORD.--Apr. 1972 to current year. Records for 1972 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.92 ft below land surface, Feb. 9, 1973; lowest, 11.09 ft below land surface, Aug. 9, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	8.04	8.88	9.25	9.16	10.41	10.88
10	---	---	---	---	---	---	8.11	9.07	9.51	9.47	10.65	10.95
15	---	---	---	---	---	---	8.12	9.27	9.57	9.75	10.25	10.81
20	---	---	---	---	---	---	8.26	9.37	8.65	9.85	10.39	10.99
25	---	---	---	---	---	---	8.46	9.22	8.79	10.09	10.65	10.84
EOM	---	---	---	---	---	7.72	8.65	9.21	9.25	10.17	10.71	10.90
MEAN	---	---	---	---	---	---	8.20	9.11	9.12	9.71	10.47	10.88
WTR YR 2001 HIGH 7.72 MAR 31 LOW 11.03 SEP 19												

NJ-WRD WELL NO. 11-0237

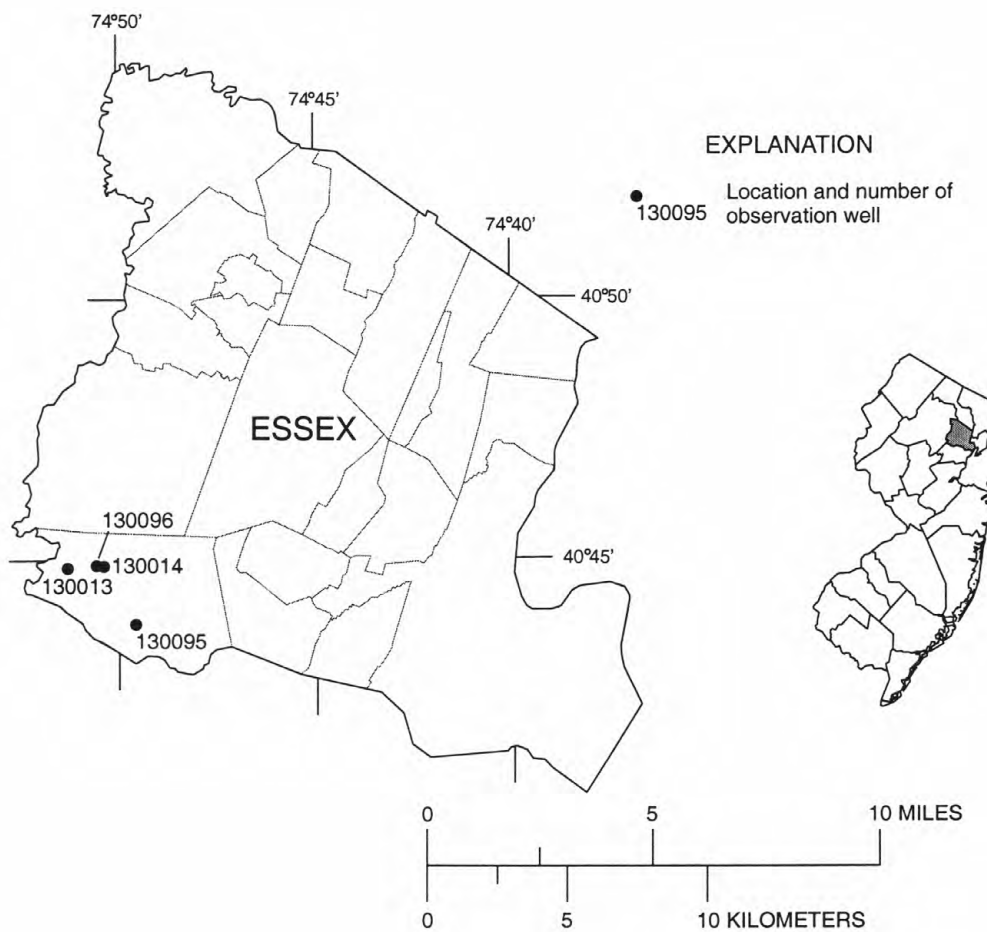


ESSEX COUNTY

NJ-WRD well number	Local identifier	Township	Well depth	Aquifer	Type of data
130013	CANOE BROOK 30 OBS	MILLBURN TWP	130	SFDF	MANUAL
130014	NEUTRAL ZONE OBS	MILLBURN TWP	64	SFDF	MANUAL
130095	CHRIST CHURCH 2 OBS	MILLBURN TWP	200	SFDF	MANUAL
130096	EAST ORANGE SHALLOW OBS	MILLBURN TWP	84	SFDF	DAILY

Aquifer names

SFDF - Stratified drift



GROUND-WATER LEVELS

ESSEX COUNTY

NJ-WRD Well Number, 13-0013. Site I.D., 404452074211601. Local I.D., Canoe Brook 30 Obs.

LOCATION.--Lat 40°44'52", long 74°21'16", Hydrologic Unit 02030103, about 0.3 mi north of the New Jersey - American Water Company's Canoe Brook pumping station, near Chatham, Millburn Township.
Owner: New Jersey - American Water Company.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, depth 130 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Apr. 1977 to July 1984. Periodic measurements, Apr. 1975 to Apr. 1977. Water-level recorder, Sept. 1925 to Apr. 1975.

DATUM.--Land surface is 170 ft above sea level.

Measuring point: Top of well shelter shelf, 6.57 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

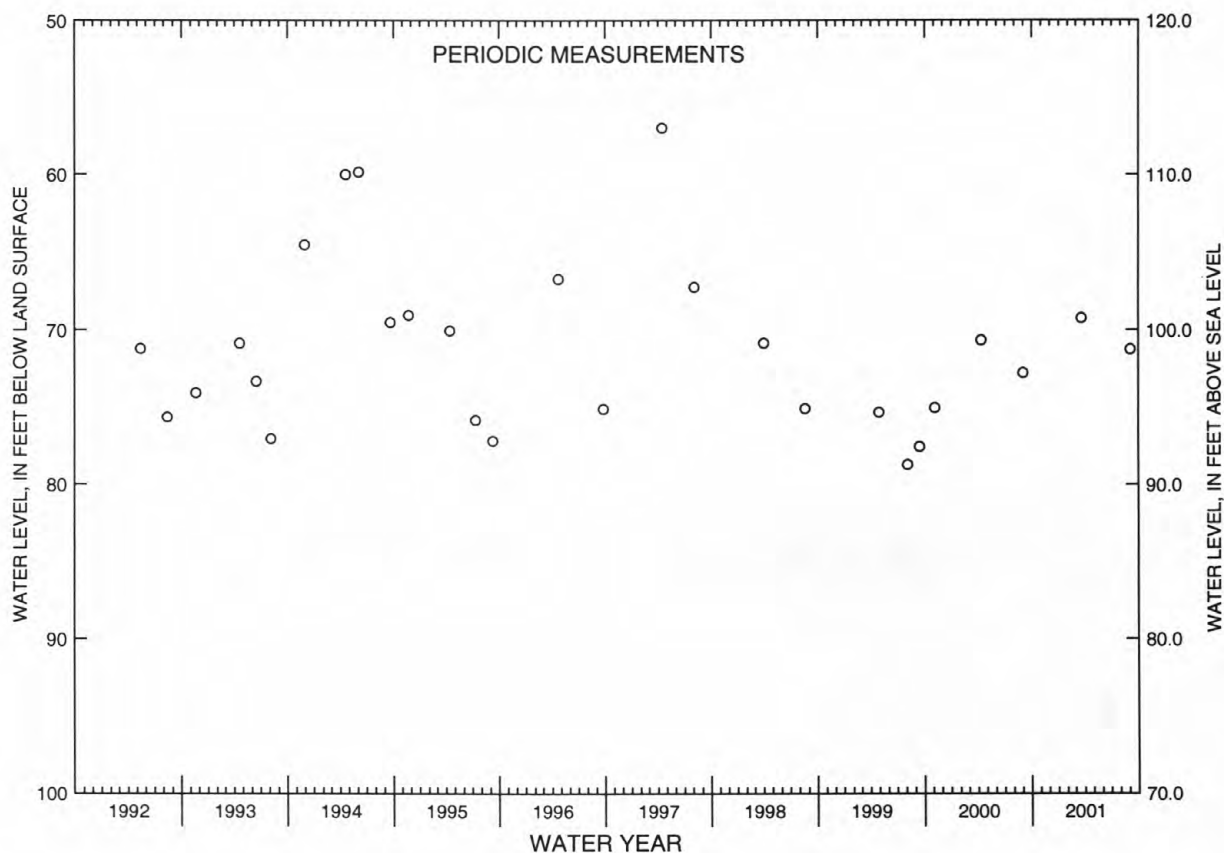
PERIOD OF RECORD.--Sept. 1925 to current year. Records for 1985 to 1989 are unpublished and are available in files of the New Jersey District office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.25 ft below land surface, Aug. 25, 1931; lowest, 86.70 ft below land surface, Oct. 23, 1977.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 20	69.23	SEP 04	71.23

NJ-WRD WELL NO. 13-0013



NJ-WRD Well Number, 13-0014. Site I.D., 404454074202101. Local I.D., Neutral Zone Obs.

LOCATION.--Lat 40°44'54", long 74°20'21", Hydrologic Unit 02030103, about 1,500 ft south of the East Orange Water Department pumping station, Parsonage Hill Rd., Millburn Township.
Owner: East Orange Water Department.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, depth 64 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Nov. 1926 to May 1975.

DATUM.--Land surface is 179.37 ft above sea level.
Measuring point: Top of casing, 3.50 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

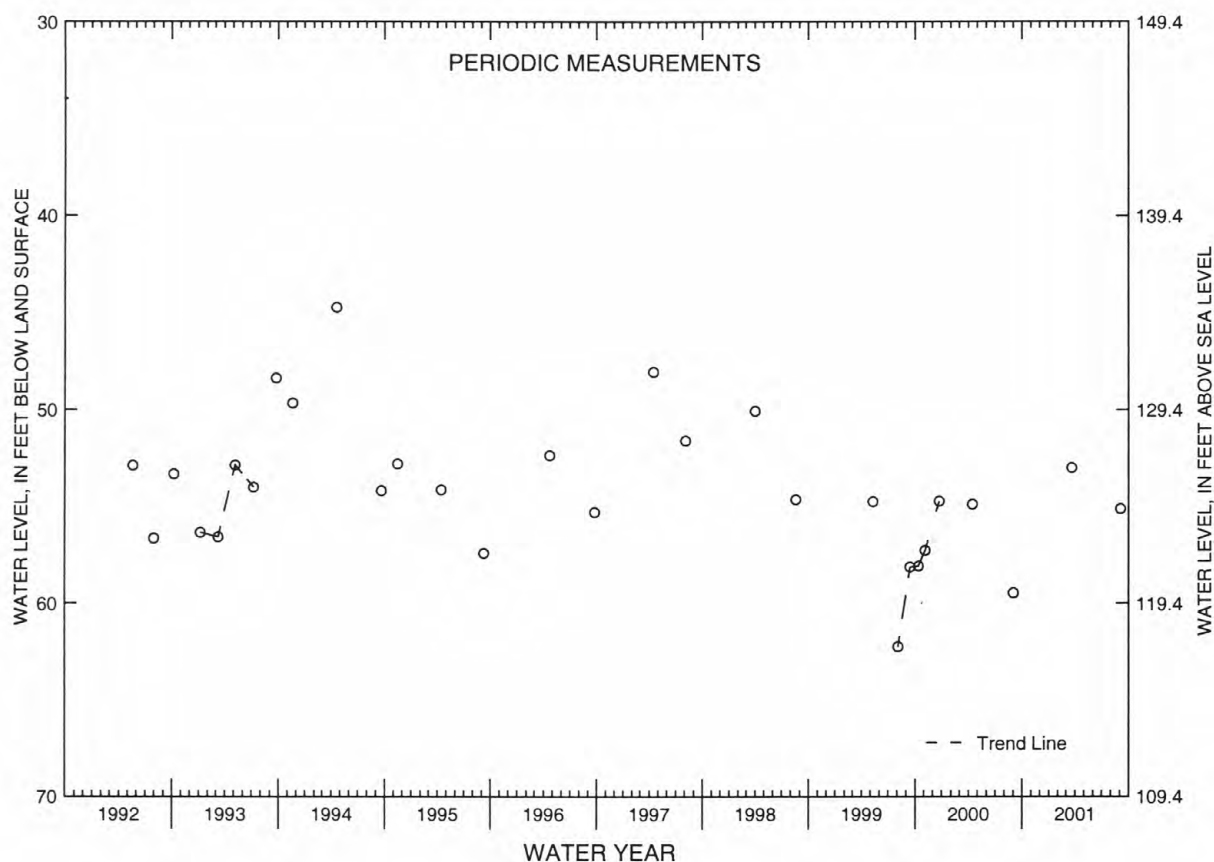
PERIOD OF RECORD.--Nov. 1926 to Oct. 1984, May 1986 to current year. Records for 1975 to 1984 and 1986 to 1989 are unpublished and are available in files of the New Jersey District office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.57 ft below land surface, Oct. 25, 1927; lowest, 63.12 ft below land surface, Apr. 10, 1967.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 20	53.01	SEP 04	55.14

NJ-WRD WELL NO. 13-0014



GROUND-WATER LEVELS

ESSEX COUNTY--Continued

NJ-WRD Well Number, 13-0095. Site I.D., 404347074193301. Local I.D., Christ Church 2 Obs. NJ Permit Number, 26-16359-4.

LOCATION.--Lat 40°43'47", long 74°19'33", Hydrologic Unit 02030104, at Christ Church, about 200 ft east of Highland Ave., Millburn Township.

Owner: State of New Jersey - Christ Church.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 200 ft, screened 180 to 200 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 276.9 ft above sea level.

Measuring point: Top of casing, 0.67 ft below land surface.

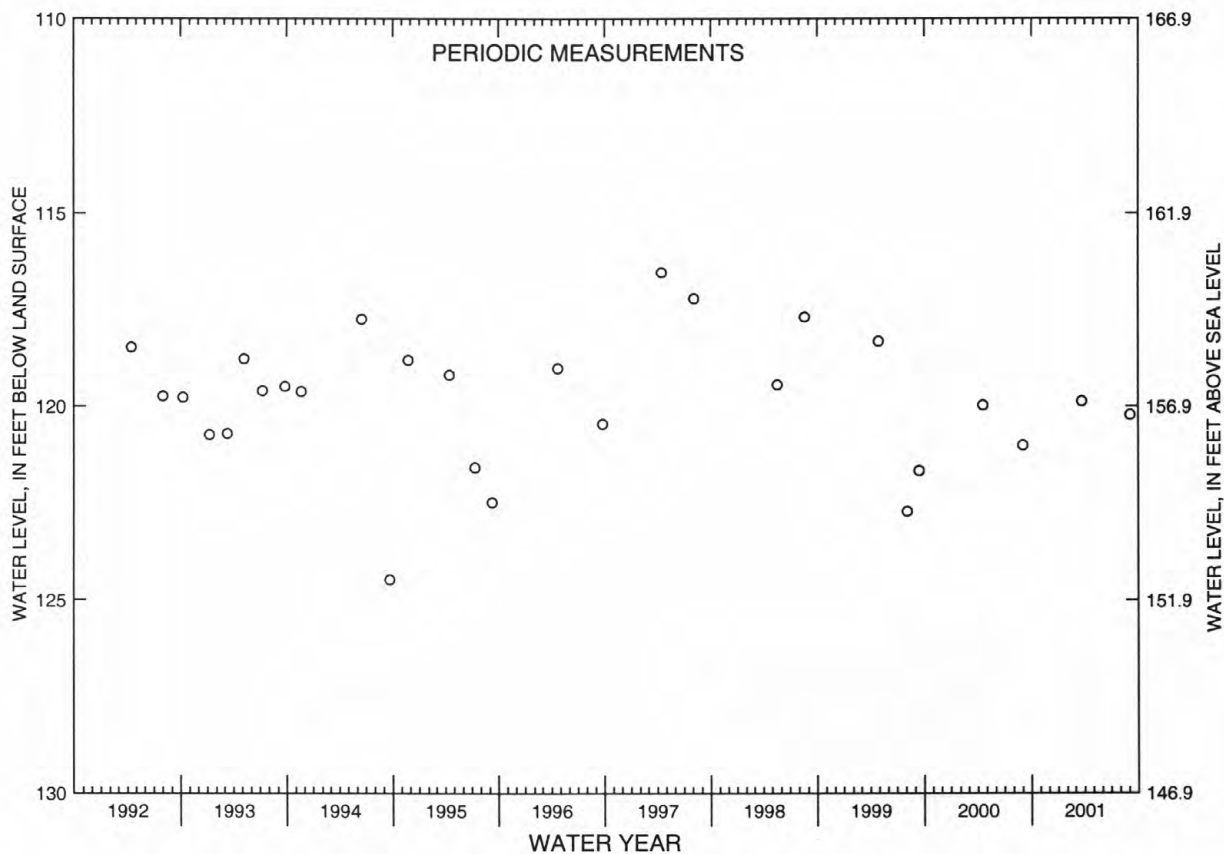
PERIOD OF RECORD.--Apr. 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 116.53 ft below land surface, Apr. 15, 1997; lowest, 124.47 ft below land surface, Sept. 20, 1994.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 22	119.87	SEP 04	120.22

NJ-WRD WELL NO. 13-0095



ESSEX COUNTY--Continued

NJ-WRD Well Number, 13-0096. Site I.D., 404455074203202 Local I.D., East Orange Shallow Obs. NJ Permit Number, 25-34870.

LOCATION.--Lat 40°44'55", long 74°20'32", Hydrologic Unit 02030103, at East Orange Water Company, JFK Blvd. and Parsonage Hill Rd., Millburn Township.

Owner: State of New Jersey - New Jersey Geological Survey.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 84 ft, screened 79 to 84 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Apr. 1991 to Apr. 1992.

DATUM.--Land surface is 184.7 ft above sea level.

Measuring point: Top of recorder shelf, 2.40 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

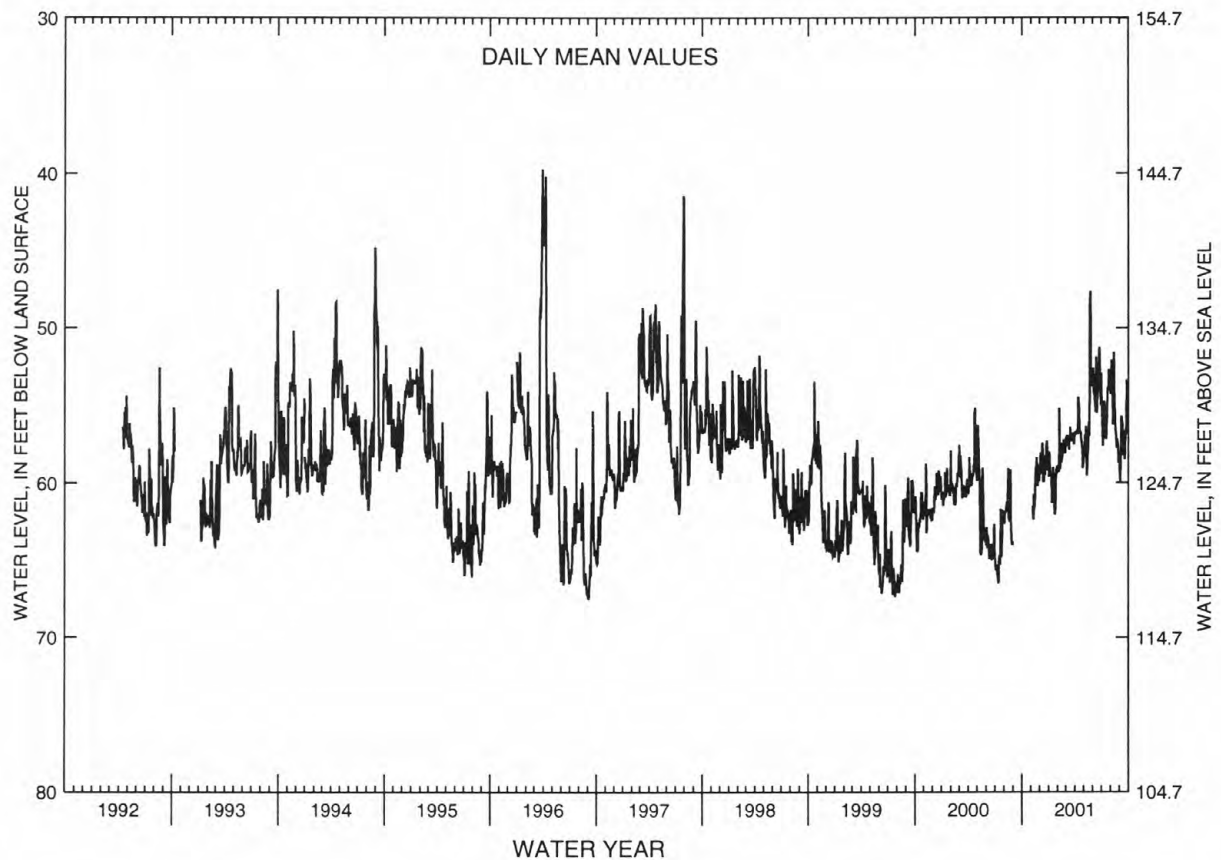
PERIOD OF RECORD.--Apr. 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 39.17 ft below land surface, Mar. 30, 1996; lowest, 67.69 ft below land surface, Sept. 4, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	58.92	59.03	59.17	56.95	56.88	57.48	54.26	56.07	52.09	59.48
10	---	62.28	57.46	59.48	57.94	57.46	56.79	57.20	55.02	55.31	56.27	56.10
15	---	60.62	59.98	59.66	58.17	57.06	54.98	58.27	53.47	56.25	54.46	57.18
20	---	58.74	59.31	61.07	57.90	57.30	56.82	56.77	53.06	56.17	56.81	58.51
25	---	59.71	57.33	59.86	57.84	57.05	57.63	51.74	51.29	53.94	57.24	56.47
EOM	---	59.07	59.16	58.99	57.47	57.08	58.47	52.66	54.88	53.95	58.44	54.28
MEAN	---	60.18	58.75	59.78	58.13	57.17	56.83	55.94	53.60	55.11	55.44	56.95
WTR YR 2001 MEAN 57.02 HIGH 47.63 MAY 24 LOW 62.37 NOV 9												

NJ-WRD WELL NO. 13-0096



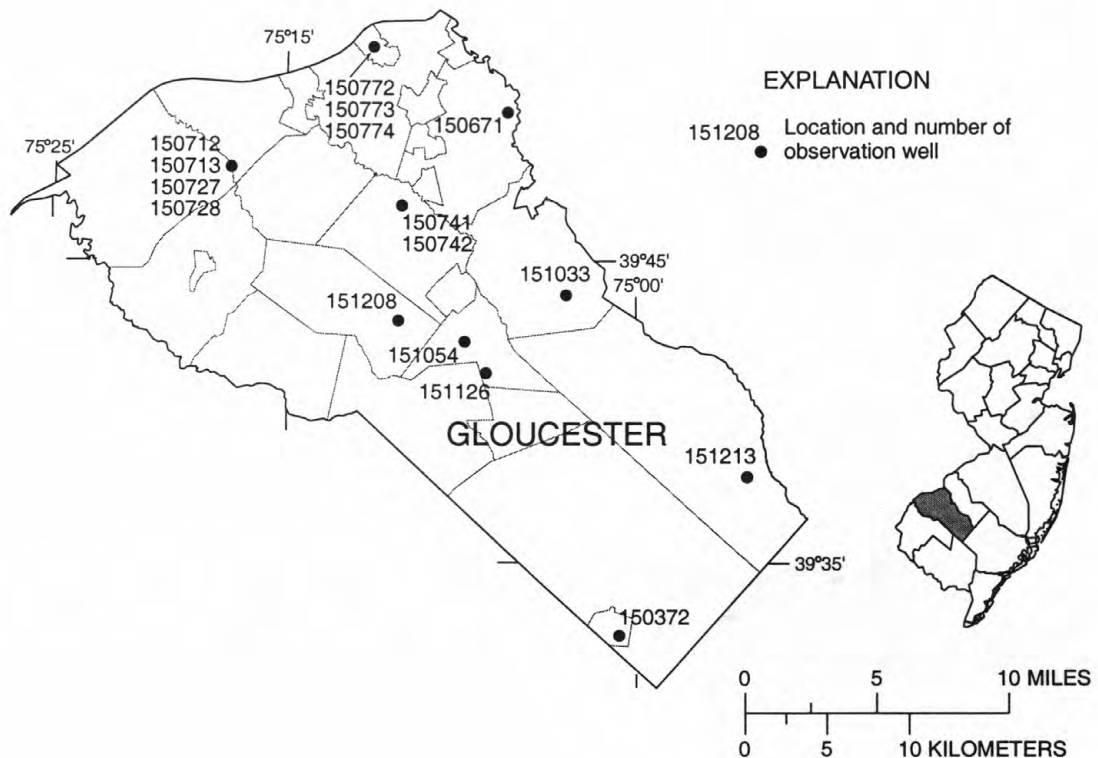
WATER RESOURCES DATA - NEW JERSEY, 2001

GLOUCESTER COUNTY

NJ-WRD well number	Local identifier	Township	Well depth	Aquifer	Type of data
150372	NEWFIELD 2-A OBS	NEWFIELD BORO	154	CKKD	DAILY
150671	DEPTFORD DEEP OBS	DEPTFORD TWP	670	MRPAL	DAILY
150712	STEFKA 1 OBS	GREENWICH TWP	295	MRPAL	DAILY
150713	STEFKA 2 OBS	GREENWICH TWP	155	MRPAM	DAILY
150727	STEFKA 3 OBS	GREENWICH TWP	210	MRPAM	MANUAL
150728	STEFKA 4 OBS	GREENWICH TWP	56	MRPAU	DAILY
150741	MANTUA SHALLOW OBS	MANTUA TWP	313	MRPAU	DAILY
150742	MANTUA DEEP OBS	MANTUA TWP	777	MRPAL	DAILY
150772	NATIONAL PARK #3OW-AL	NATIONAL PARK BORO	221	MRPAL	DAILY
150773	NATIONAL PARK #5OW-AU	NATIONAL PARK BORO	55	MRPAU	MANUAL
150774	NATIONAL PARK #4OW-AM	NATIONAL PARK BORO	118	MRPAM	MANUAL
151033	WTMUA MONITORING 1 OBS	WASHINGTON TWP	54	CKKD	DAILY
151054	USGS GSC OBS-1 SHALLOW	GLASSBORO BORO	36	CKKD	DAILY
151126	GLASSBORO ML-1 OBS	GLASSBORO BORO	338	MLRW	DAILY
151208	USGS AG02	HARRISON TWP	33	CKKD	DAILY
151213	USGS UND06	MONROE TWP	15	CKKD	DAILY

Aquifer names

- CKKD - Kirkwood-Cohansey aquifer system
- MLRW - Wenonah-Mount Laurel aquifer
- MRPAL - Lower Potomac-Raritan-Magothy aquifer
- MRPAM - Middle Potomac-Raritan-Magothy aquifer
- MRPAU - Upper Potomac-Raritan-Magothy aquifer



GLOUCESTER COUNTY

NJ-WRD Well Number, 15-0372. Site I.D., 393246075012701. Local I.D., Newfield 2-A Obs. NJ Permit Number, 31-06092.

LOCATION.--Lat 39°32'38", long 75°00'44", Hydrologic Unit 02040206, about 1,000 ft south of the intersection of Gorgo Lane and Catawba Ave., Newfield Borough.
Owner: Newfield Water Department.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, depth 154 ft, screened 129 to 149 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval. Water-level recorder, Jan. 1986 to June 1989 and July 1994 to May 2000.

DATUM.--Land surface is 120 ft above sea level, from topographic map.
Measuring point: Top of recorder shelf, 2.80 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

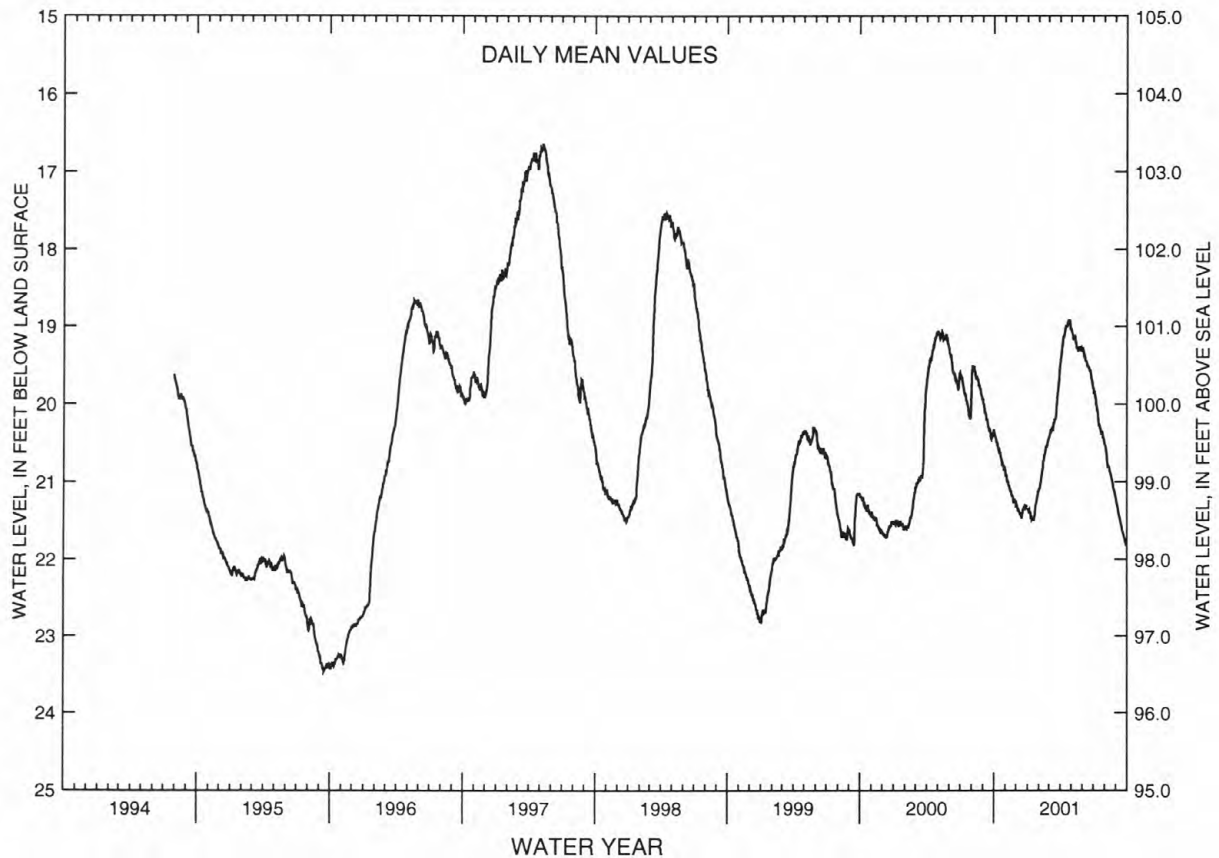
PERIOD OF RECORD.--Jan. 1987 to June 1989, Aug. 1994 to current year. Records for 1987 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.62 ft below land surface, May 3, 1997; lowest, 23.53 ft below land surface, Sept. 14-15, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.41	20.91	21.32	21.36	21.03	20.35	19.31	19.09	19.36	19.85	20.59	21.31
10	20.48	21.02	21.38	21.42	20.86	20.30	19.13	19.13	19.44	20.02	20.80	21.42
15	20.56	21.10	21.44	21.47	20.70	20.24	19.02	19.21	19.51	20.22	20.85	21.54
20	20.69	21.19	21.36	21.45	20.57	20.15	18.99	19.32	19.54	20.30	20.95	21.65
25	20.75	21.23	21.31	21.26	20.48	19.86	18.95	19.30	19.61	20.35	21.06	21.73
EOM	20.83	21.24	21.30	21.13	20.44	19.52	19.02	19.31	19.77	20.49	21.18	21.83
MEAN	20.60	21.10	21.36	21.36	20.75	20.12	19.09	19.21	19.50	20.17	20.86	21.54
WTR YR 2001 MEAN 20.47 HIGH 18.91 APR 24 LOW 21.83 SEP 30												

NJ-WRD WELL NO. 15-0372



GROUND-WATER LEVELS

GLOUCESTER COUNTY--Continued

NJ-WRD Well Number, 15-0671. Site I.D., 394957075053001. Local I.D., Deptford Deep Obs.

LOCATION.--Lat 39°49'57", long 75°05'30", Hydrologic Unit 02040202, at N.J. Department of Transportation facility, N.J. Rt. 41, Deptford Township.
 Owner: U.S. Geological Survey.

AQUIFER.--Lower Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 670 ft, screened 650 to 670 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 35 ft above sea level, from topographic map.
 Measuring point: Top of recorder shelf, 3.55 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

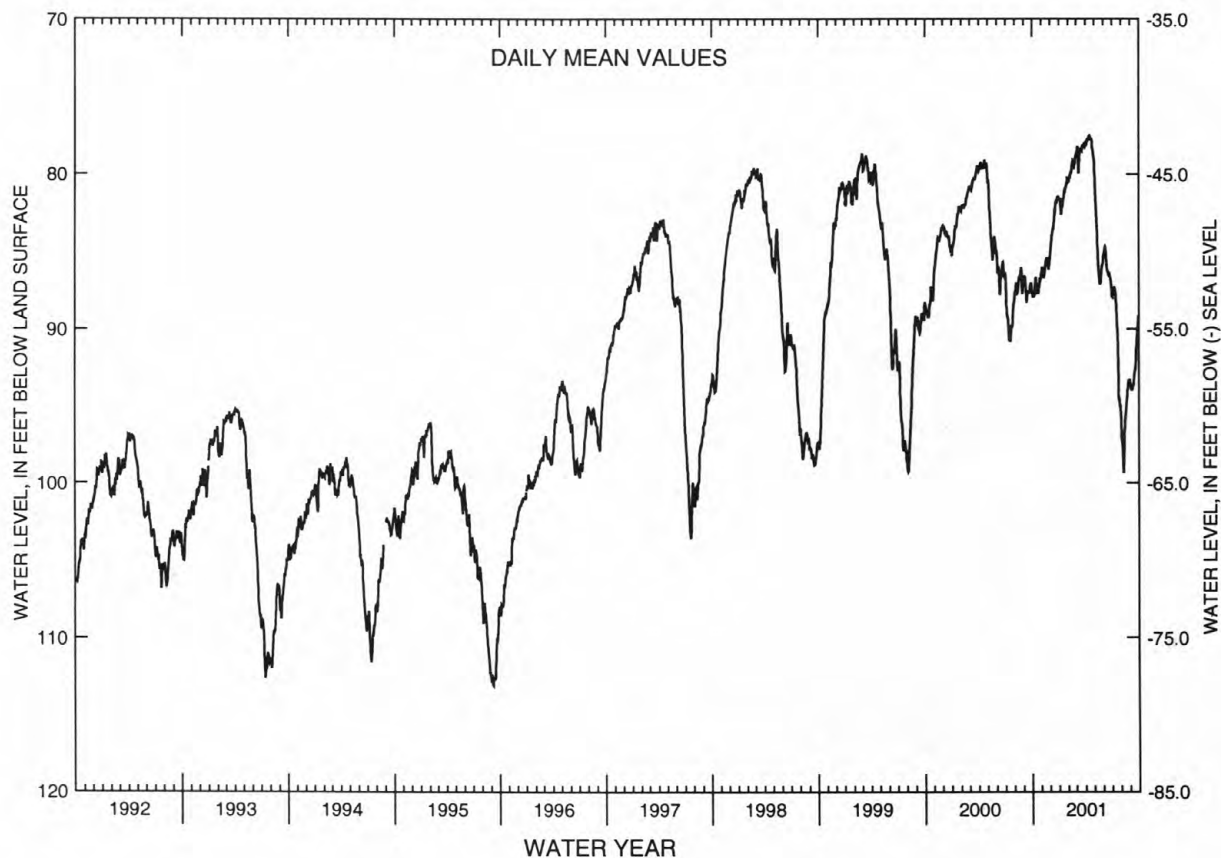
PERIOD OF RECORD.--June 1986 to current year. Records for 1986 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level 77.32 ft below land surface, Apr. 16, 2001; lowest 115.36 ft below land surface, July 19, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	87.78	86.06	84.47	81.64	80.15	78.25	78.12	80.76	85.06	87.78	97.35	93.82
10	87.61	86.72	83.75	82.48	79.88	79.63	77.73	83.15	84.92	87.33	99.38	93.84
15	87.16	85.96	83.11	81.70	79.35	78.57	77.54	85.42	86.15	88.18	96.24	93.39
20	87.13	85.38	82.07	81.09	79.58	78.53	77.75	86.96	86.43	90.16	94.90	92.51
25	87.37	85.92	81.75	80.80	78.97	78.22	78.23	86.82	86.59	94.46	93.85	90.67
EOM	86.71	85.50	81.49	80.32	78.84	78.01	78.92	85.79	87.53	95.33	93.27	89.17
MEAN	87.37	86.03	82.97	81.41	79.68	78.54	77.95	84.42	85.95	90.12	95.86	92.53
WTR YR 2001 MEAN 85.28 HIGH 77.51 APR 16 LOW 99.38 AUG 10												

NJ-WRD WELL NO. 15-0671



GLOUCESTER COUNTY--Continued

NJ-WRD Well Number, 15-0712. Site I.D., 394808075172401. Local I.D., Stefka 1 Obs. NJ Permit Number, 30-04347.

LOCATION.--Lat 39°48'08", long 75°17'24", Hydrologic Unit 02040202, near the intersection of Swedesboro and Tomlin Station Roads, next to Pargey Creek, on land owned by Mr. William Stefka, Greenwich Township.
Owner: U.S. Geological Survey.

AQUIFER.--Lower Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 295 ft, screened 275 to 290 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 6.50 ft above sea level.

Measuring point: Top of recorder shelf, 2.20 ft above land surface.

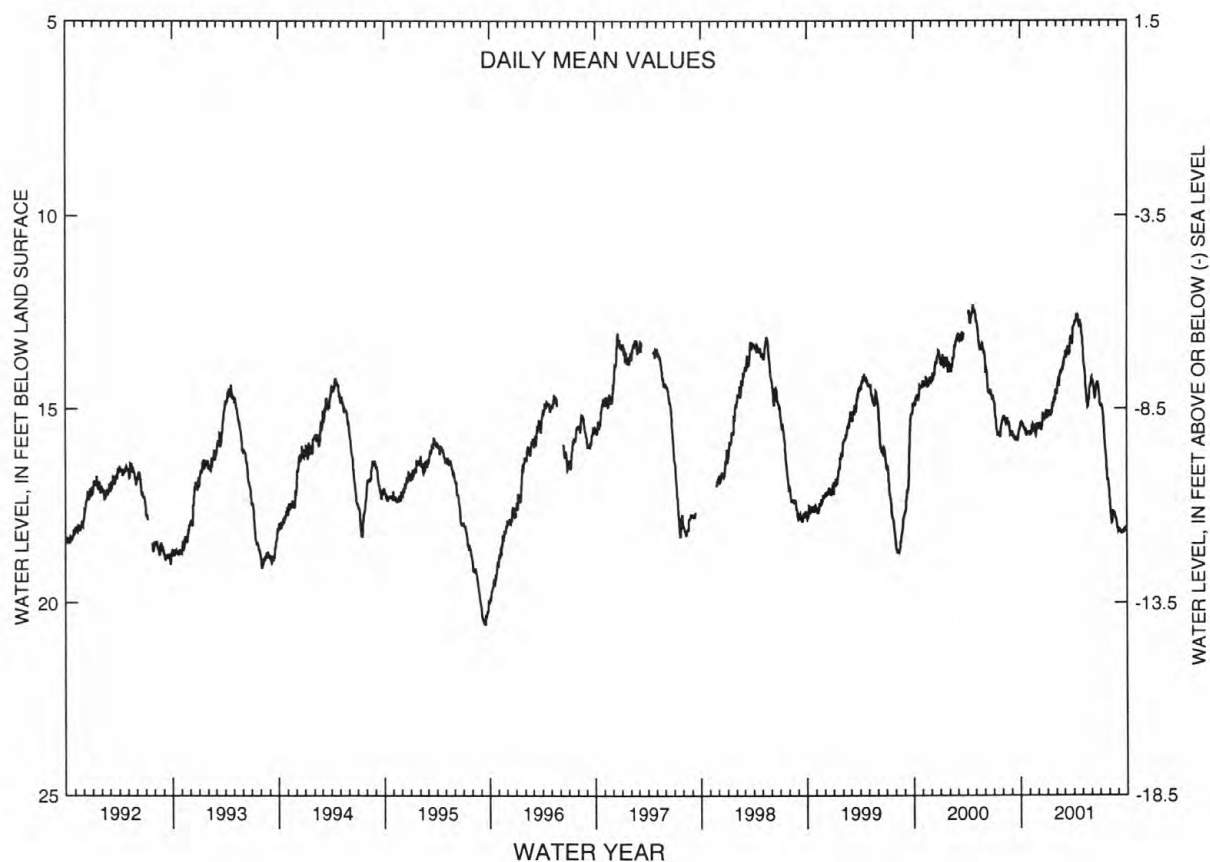
PERIOD OF RECORD.--Mar. 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.30 ft below land surface, Apr. 22, 2000; lowest, 20.58 ft below land surface, Sept. 16, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.37	15.61	15.36	15.06	14.40	13.54	12.83	13.55	14.27	14.86	17.38	18.12
10	15.37	15.42	15.49	15.16	14.18	13.55	12.70	14.02	14.46	14.98	17.89	18.14
15	15.48	15.43	15.47	15.08	14.06	13.49	12.64	14.55	14.73	15.38	17.74	18.23
20	15.59	15.55	15.19	14.88	13.98	13.54	12.85	14.97	14.39	16.00	17.67	18.19
25	15.62	15.65	15.25	14.77	13.87	13.28	12.84	14.80	14.33	16.51	17.86	18.07
EOM	15.65	15.41	15.08	14.51	13.78	12.93	13.12	14.39	14.67	16.88	18.06	18.05
MEAN	15.51	15.55	15.31	14.99	14.18	13.43	12.78	14.29	14.43	15.68	17.69	18.14
WTR YR 2001 MEAN 15.17 HIGH 12.56 APR 13 LOW 18.23 SEP 15												

NJ-WRD WELL NO. 15-0712



GROUND-WATER LEVELS

GLOUCESTER COUNTY--Continued

NJ-WRD Well Number, 15-0713. Site I.D., 394808075172402. Local I.D., Stefka 2 Obs. NJ Permit Number, 30-04348.

LOCATION.--Lat 39°48'08", long 75°17'24", Hydrologic Unit 02040202, near the intersection of Swedesboro and Tomlin Station Roads, next to Pargey Creek, on land owned by Mr. William Stefka, Greenwich Township.
Owner: U.S. Geological Survey.

AQUIFER.--Middle Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in., depth 155 ft, screened 125 to 155 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 5.64 ft above sea level.

Measuring point: Top of recorder shelf, 3.00 ft above land surface.

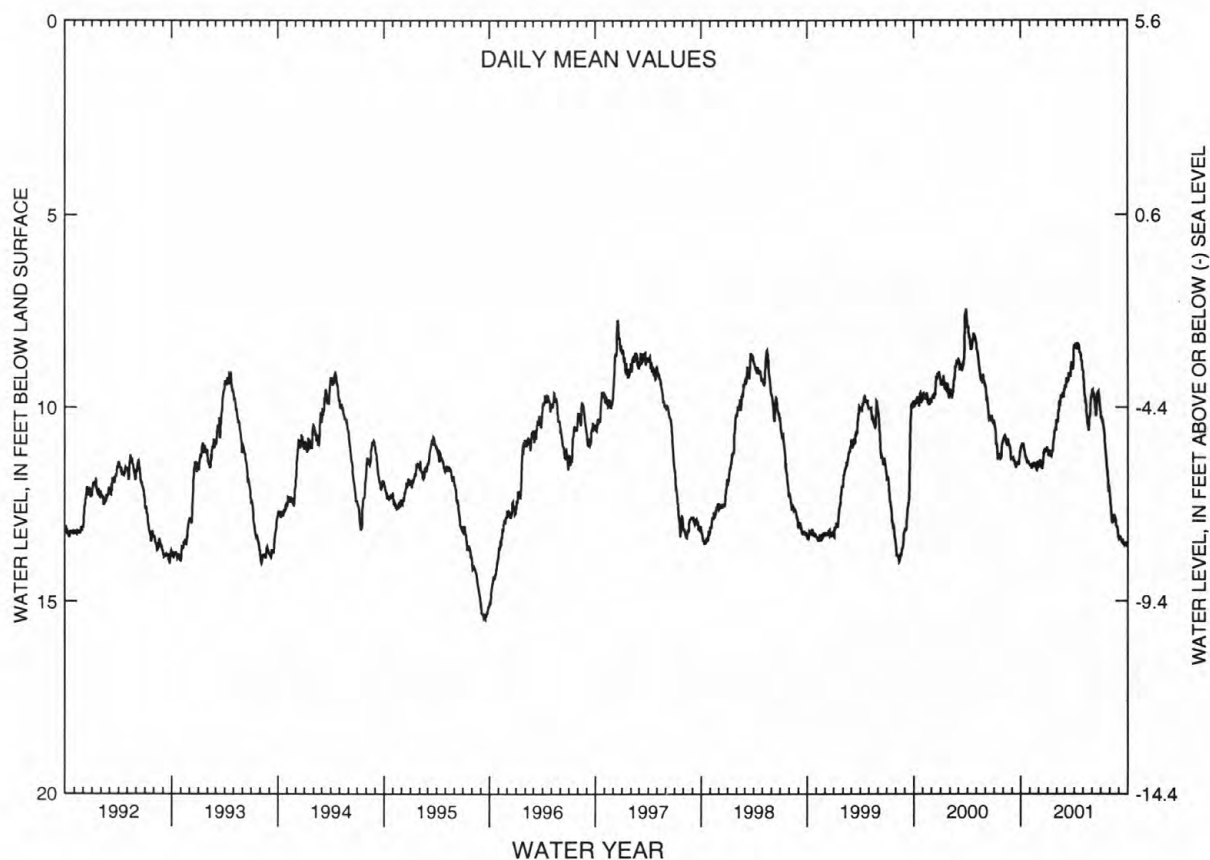
PERIOD OF RECORD.--May 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.38 ft below land surface, Mar. 28, 2000; lowest, 15.50 ft below land surface, Sept. 16, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.99	11.53	11.35	11.09	10.15	9.28	8.41	9.43	9.60	10.28	12.58	13.36
10	10.97	11.44	11.51	11.22	9.83	9.27	8.44	9.82	9.90	10.56	13.00	13.44
15	11.19	11.46	11.47	11.13	9.73	9.18	8.35	10.24	10.23	10.90	12.80	13.48
20	11.35	11.49	11.12	10.88	9.61	9.18	8.58	10.61	9.60	11.33	12.85	13.55
25	11.40	11.59	11.16	10.61	9.55	8.92	8.77	10.27	9.67	11.78	13.11	13.53
EOY	11.48	11.40	11.11	10.35	9.47	8.47	9.01	9.72	10.12	12.16	13.34	13.51
MEAN	11.21	11.50	11.29	10.95	9.86	9.12	8.52	9.95	9.80	11.08	12.88	13.47
WTR YR 2001	MEAN 10.81	HIGH 8.31	APR 13	LOW 13.56	SEP 23							

NJ-WRD WELL NO. 15-0713



GROUND-WATER LEVELS

113

GLOUCESTER COUNTY--Continued

NJ-WRD Well Number, 15-0727. Site I.D., 394808075172403. Local I.D., Stefka 3 Obs. NJ Permit Number, 30-04548.

LOCATION.--Lat 39°48'08", long 75°17'24", Hydrologic Unit 02040202, near the intersection of Swedesboro and Tomlin Station Roads, next to Pargey Creek, on land owned by Mr. William Stefka, Greenwich Township.
Owner: U.S. Geological Survey.

AQUIFER.--Middle Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 210 ft, screened 195 to 205 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Jun. 1987 to Nov. 1988.

DATUM.--Land surface is 5.06 ft above sea level.

Measuring point: Top of shelter shelf, 2.90 ft above land surface.

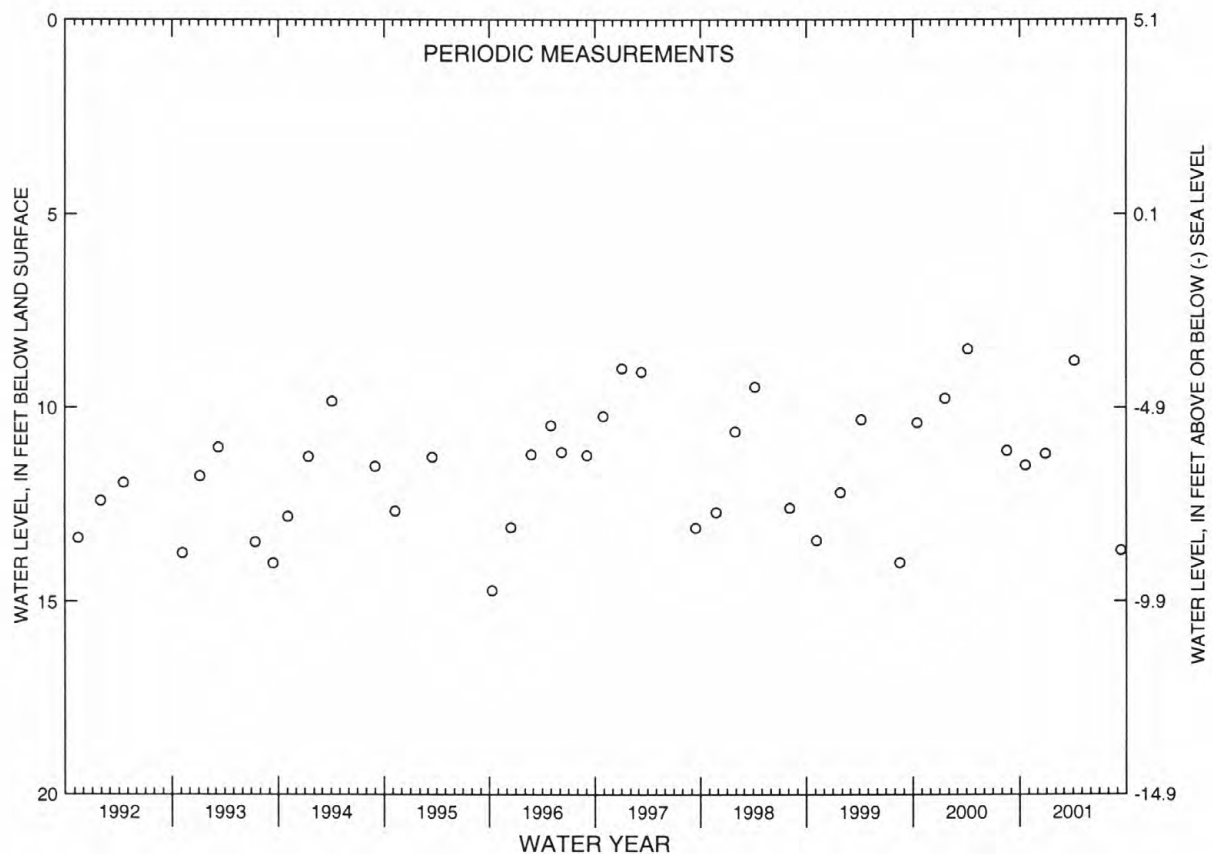
PERIOD OF RECORD.--June 1987 to current year. Records for 1987 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.48 ft below land surface, Apr. 6, 2000; lowest, 14.72 ft below land surface, Oct. 11, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT '20	11.49	DEC 27	11.19	APR 06	8.79	SEP 13	13.69
WATER YEAR 2001		HIGHEST	8.79	APR 06, 2001	LOWEST	13.69	SEP 13, 2001

NJ-WRD WELL NO. 15-0727



GROUND-WATER LEVELS

GLOUCESTER COUNTY--Continued

NJ-WRD Well Number, 15-0728. Site I.D., 394808075172404. Local I.D., Stefka 4 Obs. NJ Permit Number, 30-04549.

LOCATION.--Lat 39°48'08", long 75°17'24", Hydrologic Unit 02040202, near the intersection of Swedesboro and Tomlin Station Roads, next to Pargey Creek, on land owned by Mr. William Stefka, Greenwich Township.
Owner: U.S. Geological Survey.

AQUIFER.--Upper Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 56 ft, screened 46 to 56 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 4.46 ft above sea level.

Measuring point: Top of recorder shelf, 3.20 ft above land surface.

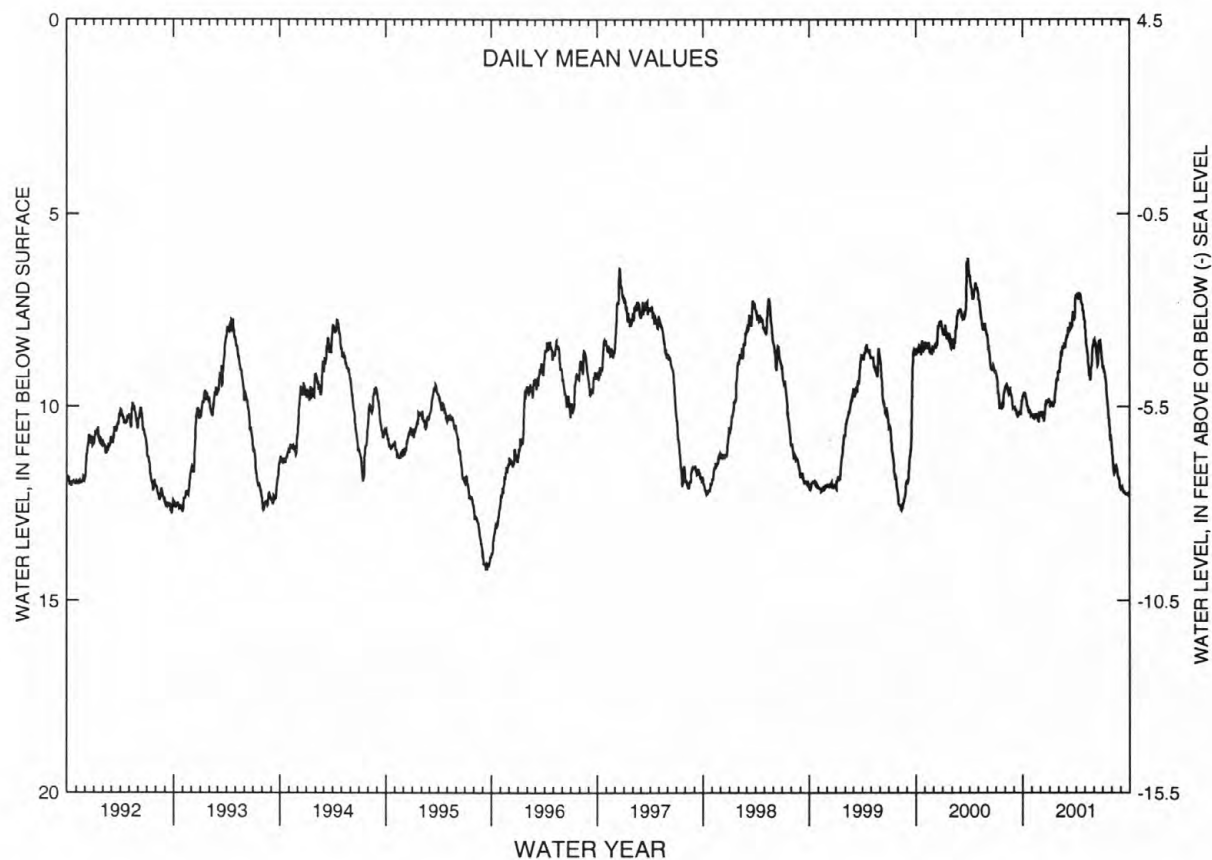
PERIOD OF RECORD.--May 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.08 ft below land surface, Mar. 28, 2000; lowest, 14.20 ft below land surface, Sept. 15-16, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.69	10.27	10.11	9.85	8.88	8.00	7.13	8.15	8.29	8.97	11.30	12.09
10	9.68	10.19	10.29	9.98	8.55	7.98	7.16	8.55	8.60	9.25	11.72	12.16
15	9.89	10.20	10.24	9.90	8.45	7.89	7.09	8.96	8.92	9.59	11.52	12.22
20	10.07	10.24	9.87	9.64	8.34	7.89	7.30	9.32	8.27	10.01	11.58	12.26
25	10.12	10.36	9.90	9.33	8.29	7.64	7.50	8.99	8.36	10.48	11.85	12.24
EOB	10.21	10.15	9.87	9.07	8.19	7.21	7.73	8.41	8.82	10.86	12.07	12.24
MEAN	9.92	10.25	10.05	9.70	8.58	7.83	7.24	8.67	8.49	9.77	11.61	12.19
WTR YR 2001	MEAN 9.53	HIGH 7.03	APR 13	LOW 12.27	SEP 23							

NJ-WRD WELL NO. 15-0728



GLOUCESTER COUNTY--Continued

NJ-WRD Well Number, 15-0741. Site I.D., 394652075100401. Local I.D., Mantua Shallow Obs.

LOCATION.--Lat 39°46'52", long 75°10'04", Hydrologic Unit 02040202, at the Township of Mantua Road Department, Main Street (County Rt. 553), Mantua Township.
Owner: U.S. Geological Survey.

AQUIFER.--Upper Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 313 ft, screened 293 to 313 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 82 ft above sea level, from topographic map.
Measuring point: Top of recorder shelf, 4.00 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

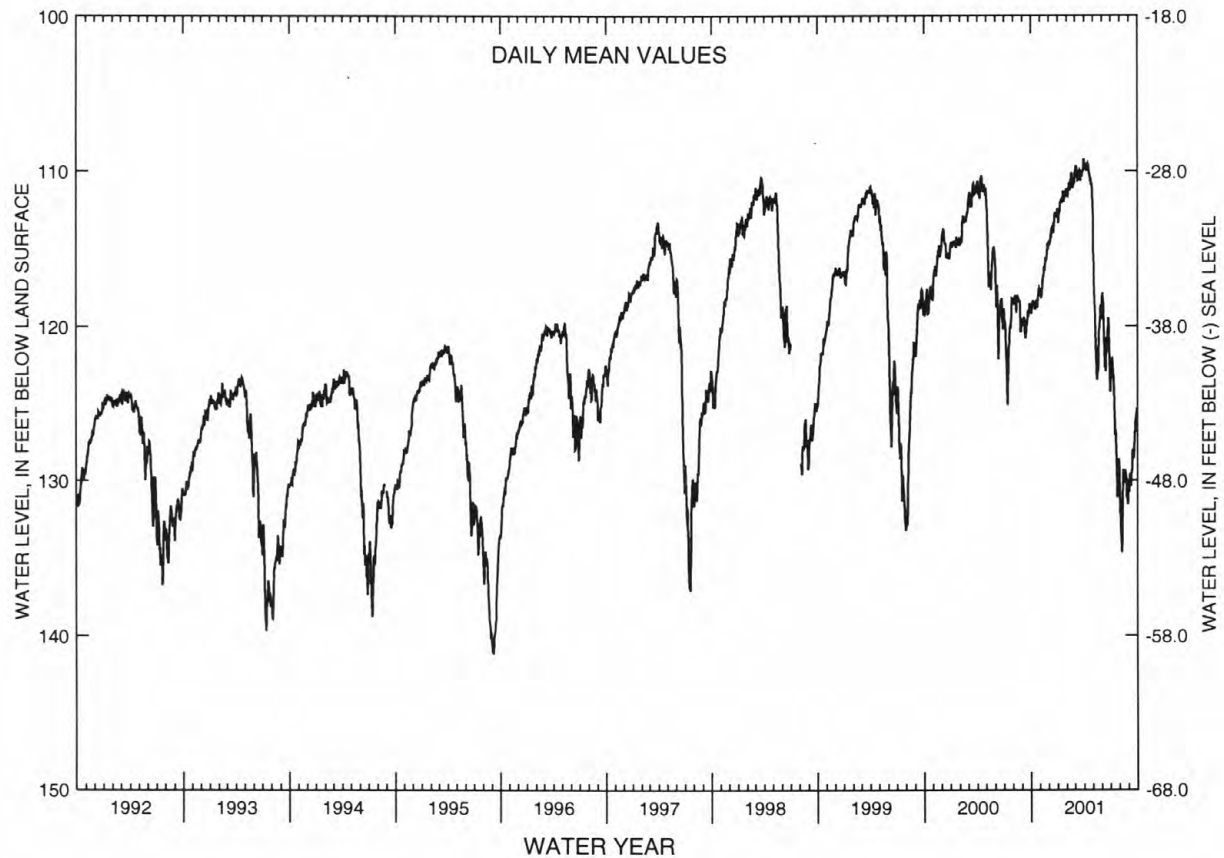
PERIOD OF RECORD.--July 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 108.91 ft below land surface, Mar. 31, 2001; lowest, 141.36 ft below land surface, Sept. 6-7, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	118.81	118.11	114.60	112.62	111.33	109.73	109.80	117.16	118.15	122.37	132.40	130.08
10	118.60	116.94	113.89	112.05	110.78	110.39	109.83	120.31	121.59	123.35	134.63	130.34
15	118.61	116.18	113.78	111.79	110.65	110.14	109.63	123.07	122.96	125.36	129.45	128.15
20	118.27	115.55	113.40	111.39	110.81	110.64	110.36	122.95	120.97	127.28	129.40	128.41
25	118.14	115.22	112.93	111.50	110.70	110.36	110.91	119.74	119.63	131.11	129.99	126.25
EOM	117.84	114.69	112.41	111.41	110.27	109.21	112.30	119.26	124.27	128.80	130.96	125.32
MEAN	118.43	116.43	113.57	111.94	110.86	110.08	110.14	119.81	120.67	126.09	131.07	128.41
WTR YR 2001	MEAN 118.18 HIGH 109.21 MAR 31 LOW 134.63 AUG 10											

NJ-WRD WELL NO. 15-0741



GLOUCESTER COUNTY--Continued

NJ-WRD Well Number, 15-0742. Site I.D., 394652075100402. Local I.D., Mantua Deep Obs. NJ Permit Number 31-25266-4.

LOCATION.--Lat 39°46'52", long 75°10'04", Hydrologic Unit 02040202, at the Township of Mantua Road Department, Main Street (County Rt. 553), Mantua Township.
Owner: U.S. Geological Survey.

AQUIFER.--Lower Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 777 ft, screened 757 to 777 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 84 ft above sea level, from topographic map.
Measuring point: Top of recorder shelf, 4.20 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

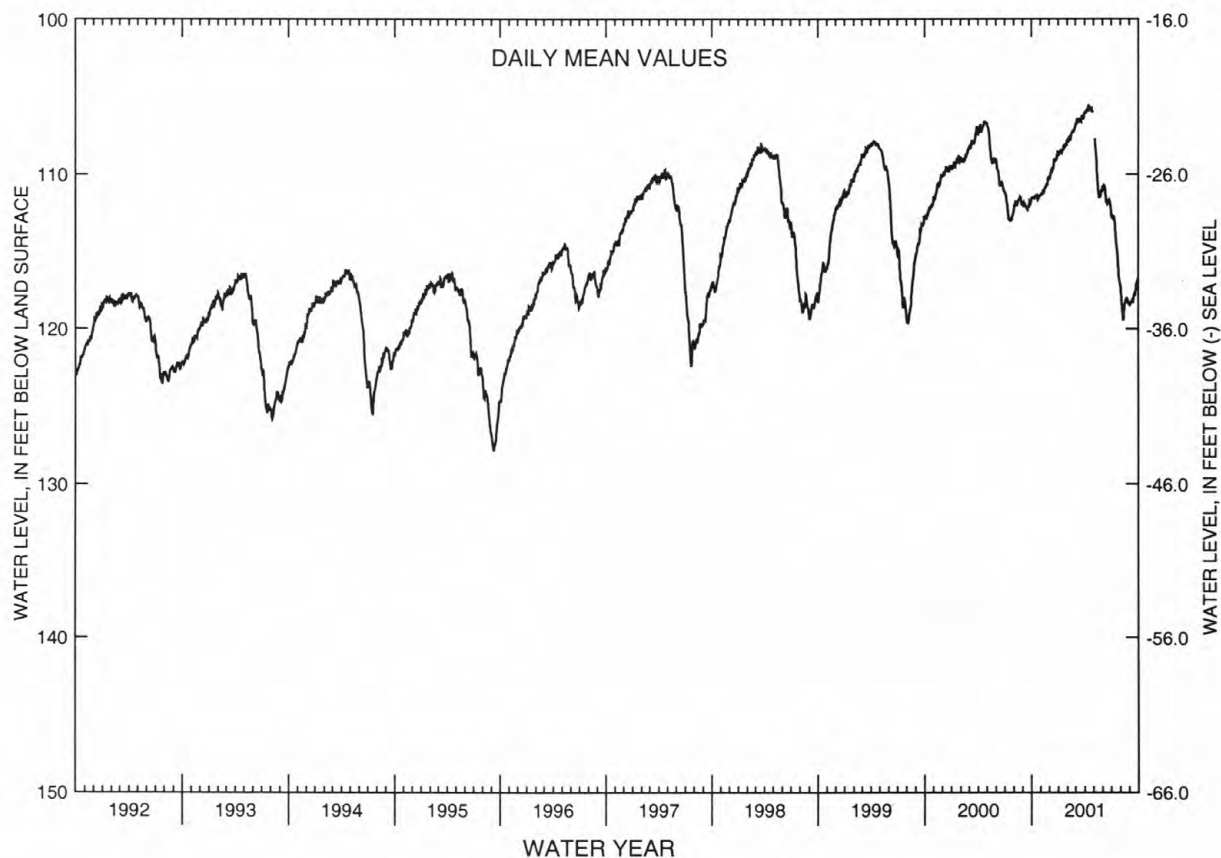
PERIOD OF RECORD.--Nov. 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 105.55 ft below land surface, Apr. 16, 2001; lowest, 127.89 ft below land surface, Sept. 8-9, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	111.55	111.25	109.99	108.51	107.65	106.48	106.05	---	110.84	112.72	117.99	118.41
10	111.48	111.03	109.85	108.51	107.50	106.56	105.81	108.78	110.98	112.73	119.18	118.26
15	111.42	110.93	109.61	108.42	107.32	106.49	105.65	110.34	111.79	113.57	118.66	118.15
20	111.46	110.71	109.10	108.16	107.17	106.62	105.85	111.44	111.75	114.73	118.14	117.82
25	111.52	110.64	109.05	108.11	106.98	106.37	105.88	111.45	111.69	115.91	118.07	117.17
EOY	111.38	110.26	108.63	107.75	106.90	106.04	---	111.04	112.24	117.02	118.40	116.80
MEAN	111.49	110.90	109.44	108.35	107.43	106.46	105.84	110.36	111.43	114.25	118.32	117.87
WTR YR 2001	MEAN 111.07	HIGH 105.59	APR 16	LOW 119.43	AUG 12							

NJ-WRD WELL NO. 15-0742



GROUND-WATER LEVELS

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GLOUCESTER COUNTY--Continued

NJ-WRD Well Number, 15-0772. Site I.D., 395206075111801. Local I.D., National Park #3-ow-al. NJ Permit Number 31-26242.

LOCATION.--Lat 39°52'06", long 75°11'18", Hydrologic Unit 02040202, near the intersection of Hessian Ave. and S. Second St, National Park Borough.
Owner: U.S. Geological Survey.

AQUIFER.--Lower Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 2 in., depth 221 ft, screened 196 to 216 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval.

DATUM.--Land surface is 10 ft above sea level, from topographic map.

Measuring point: Top of base of aluminum locking cap, 1.60 ft above land surface.

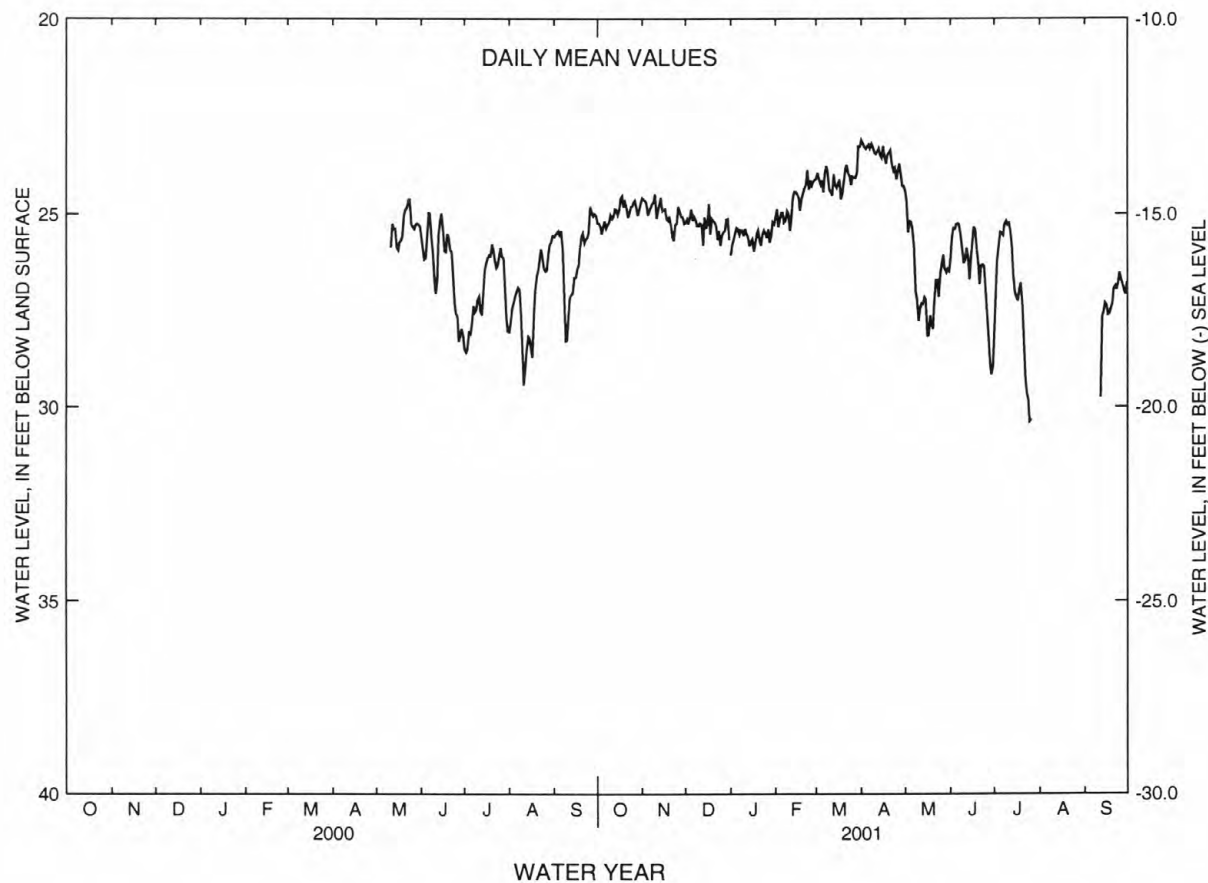
PERIOD OF RECORD.--May 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.65 ft below land surface, Apr. 1, 2001; lowest, 31.39 ft below land surface, July 25, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.30	25.03	24.87	25.35	24.96	24.13	23.27	25.20	25.26	25.47	---	---
10	25.02	24.48	25.31	25.56	24.98	24.37	23.43	27.77	26.28	25.28	---	---
15	25.01	24.91	25.37	25.70	24.43	24.33	23.56	27.22	26.20	27.04	---	27.31
20	24.69	25.05	25.17	25.42	24.49	24.18	23.41	27.99	26.29	27.30	---	27.32
25	24.80	25.24	25.81	25.50	24.13	24.25	24.10	26.54	26.93	30.37	---	26.52
EOM	24.73	25.24	25.67	25.26	24.11	23.27	24.28	26.49	28.95	---	---	26.78
MEAN	24.98	24.96	25.29	25.57	24.68	24.08	23.54	26.68	26.38	27.03	---	27.26
WTR YR 2001	MEAN 25.42	HIGH 23.11	APR 1	LOW 30.37	JUL 25							

NJ-WRD WELL NO. 15-0772



GROUND-WATER LEVELS

GLOUCESTER COUNTY--Continued

NJ-WRD Well Number, 15-0773. Site I.D., 395206075111802. Local I.D., National Park #5-ow-au. NJ Permit Number 31-26238.

LOCATION.--Lat 39°52'06", long 75°11'18", Hydrologic Unit 02040202, near the intersection of Hessian Ave. and S. Second St, National Park Borough.

Owner: U.S. Geological Survey.

AQUIFER.--Upper Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 2 in., depth 55 ft, screened 30 to 50 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 10 ft above sea level, from topographic map.

Measuring point: Top of base of aluminum locking cap, 2.40 ft above land surface.

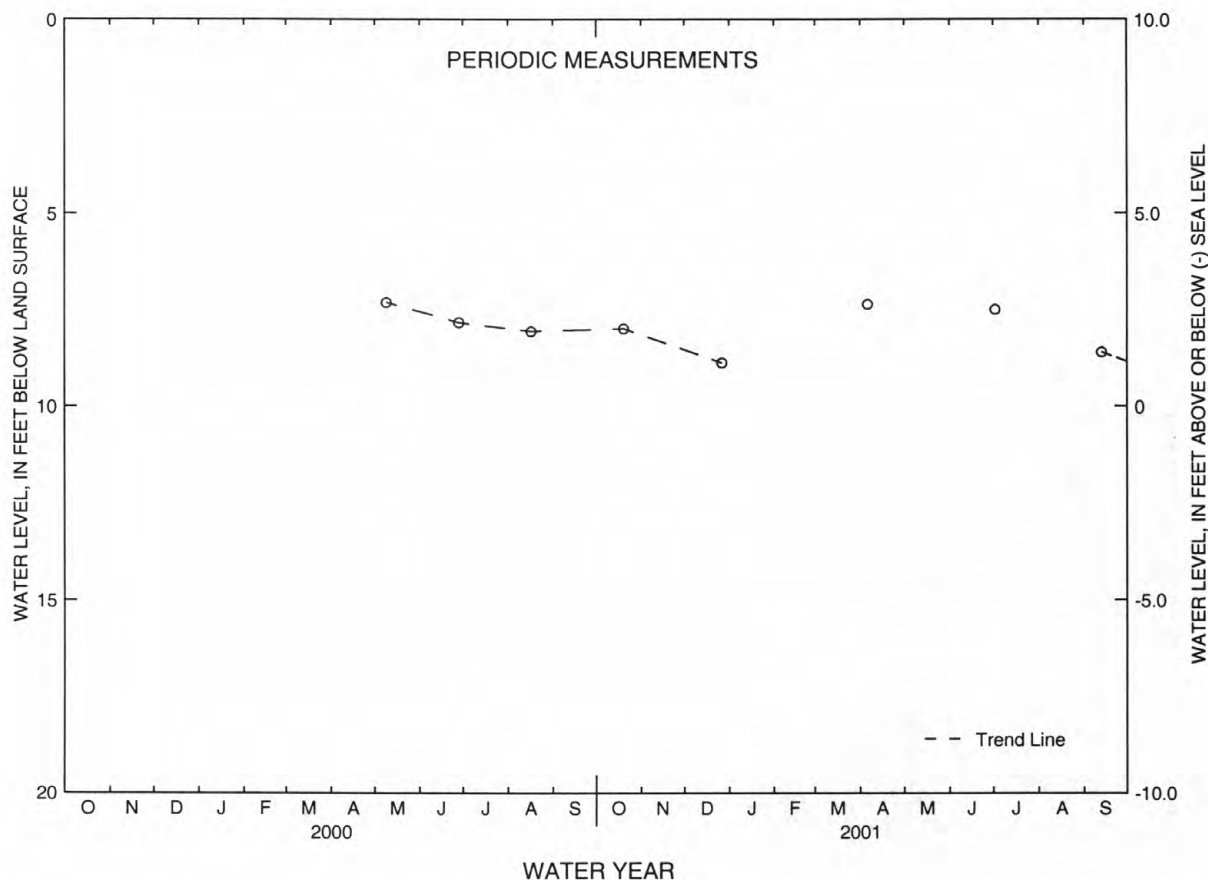
PERIOD OF RECORD.--May 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.30 ft below land surface, May 9, 2000; lowest, 8.87 ft below land surface, Dec. 27, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	7.98	DEC 27	8.87	APR 06	7.35	JUL 02	7.49	SEP 13	8.60
WATER YEAR 2001	HIGHEST	7.35	APR 06, 2001	LOWEST	8.87	DEC 27, 2000			

NJ-WRD WELL NO. 15-0773



GROUND-WATER LEVELS

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GLOUCESTER COUNTY--Continued

NJ-WRD Well Number, 15-0774. Site I.D., 395206075111803. Local I.D., National Park #4-ow-am. NJ Permit Number 31-26241.

LOCATION.--Lat 39°52'06", long 75°11'18", Hydrologic Unit 02040202, near the intersection of Hessian Ave. and S. Second St, National Park Borough.
Owner: U.S. Geological Survey.

AQUIFER.--Middle Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 2 in., depth 118 ft, screened 93 to 113 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 10 ft above sea level, from topographic map.

Measuring point: Top of base of aluminum locking cap, 2.60 ft above land surface.

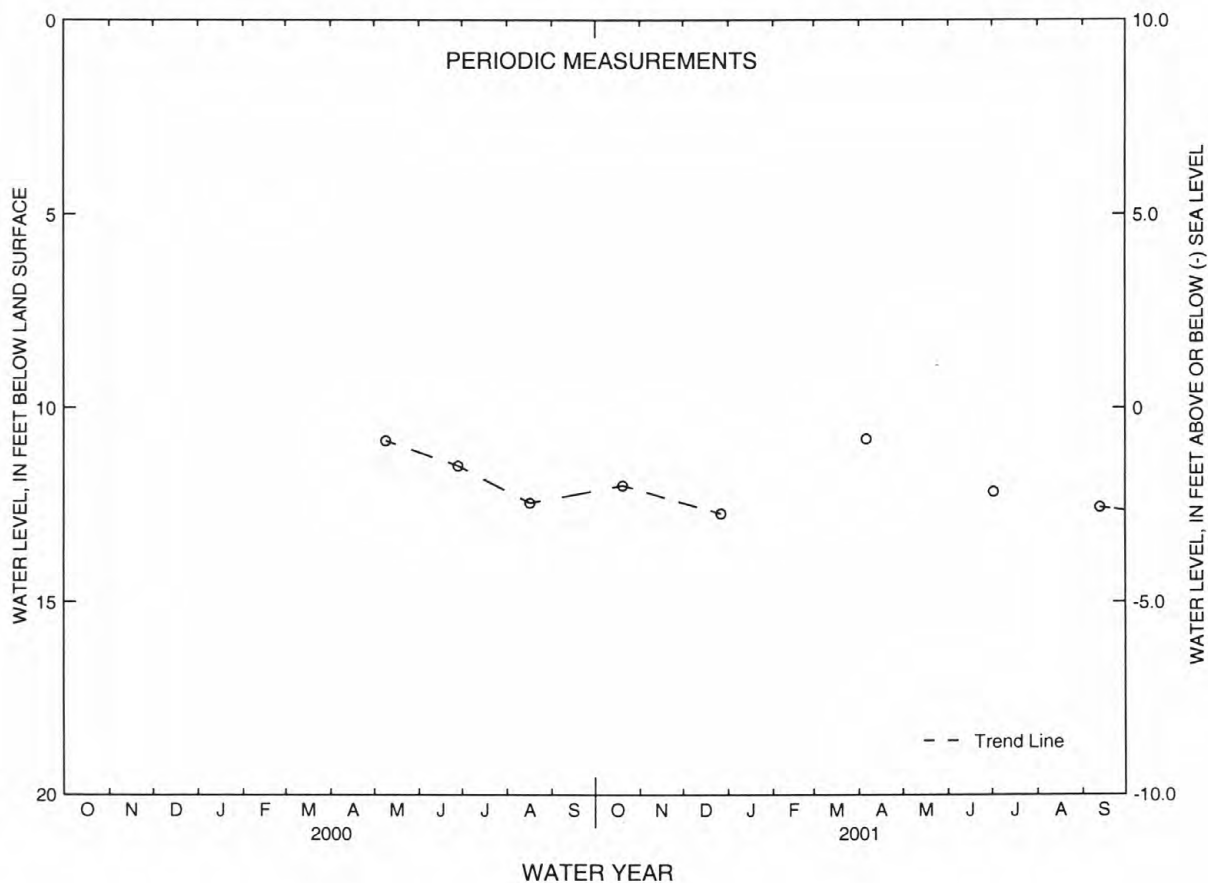
PERIOD OF RECORD.--May 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.80 ft below land surface, Apr. 6, 2001; lowest, 12.72 ft below land surface, Dec. 27, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	12.00	DEC 27	12.72	APR 06	10.80	JUL 02	12.16	SEP 13	12.56
WATER YEAR 2001		HIGHEST	10.80	APR 06, 2001		LOWEST	12.72	DEC 27, 2000	

NJ-WRD WELL NO. 15-0774



GROUND-WATER LEVELS

GLOUCESTER COUNTY--Continued

NJ-WRD Well Number, 15-1033. Site I.D., 394354075025901. Local I.D., WTMUA Monitoring 1 Obs. NJ Permit Number, 31-31399.

LOCATION.--Lat 39°43'54", long 75°02'59", Hydrologic Unit 02040202, next to the Washington Township MUA water tank at the intersection of White Birches Rd. and Rt. 655 (Fries Mill Rd.), Washington Township.
Owner: Washington Township Municipal Utilities Authority.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in., depth 54 ft, screened 44 to 54 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval. Daily mean recorded from Aug. 1989 to Apr. 21, 1992; water level recorded hourly Apr. 22, 1992 to present.

DATUM.--Land surface is 150 ft above sea level, from topographic map.

Measuring point: Top of outer protective casing, 2.50 ft above land surface.

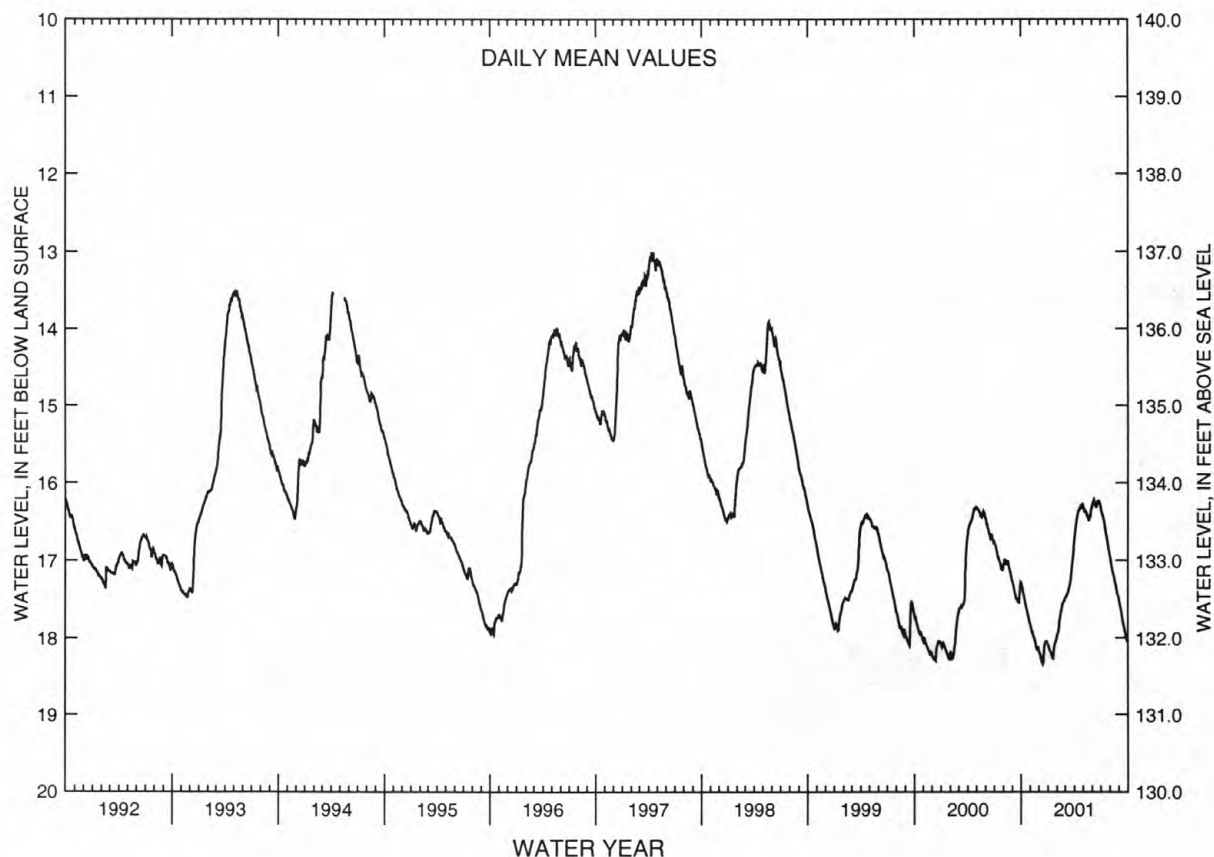
PERIOD OF RECORD.--Aug. 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.98 ft below land surface, Apr. 13, 1997; lowest, 18.34 ft below land surface, Dec. 13-14, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.34	17.88	18.22	18.13	17.92	17.46	16.60	16.33	16.24	16.38	17.02	17.58
10	17.43	17.95	18.29	18.18	17.77	17.42	16.46	16.37	16.25	16.46	17.14	17.67
15	17.53	18.00	18.32	18.24	17.65	17.35	16.36	16.41	16.31	16.57	17.20	17.79
20	17.62	18.07	18.12	18.23	17.56	17.25	16.33	16.48	16.23	16.68	17.29	17.88
25	17.70	18.16	18.05	18.07	17.52	17.06	16.31	16.44	16.23	16.78	17.39	17.97
EOM	17.80	18.15	18.07	17.99	17.49	16.80	16.31	16.31	16.30	16.92	17.48	18.05
MEAN	17.54	18.01	18.18	18.14	17.70	17.26	16.42	16.39	16.26	16.60	17.22	17.78
WTR YR 2001 MEAN 17.29 HIGH 16.22 JUN 7 LOW 18.34 DEC 14												

NJ-WRD WELL NO. 15-1033



GLOUCESTER COUNTY--Continued

NJ-WRD Well Number, 15-1054. Site I.D., 394221075072201. Local I.D., USGS GSC Obs-1 Shallow. NJ Permit Number, 31-33949.

LOCATION.--Lat 39°42'21", long 75°07'22", Hydrologic Unit 02040202, at Rowan College, about 500 ft north of the intersection of Whitney and Oakwood Streets, Glassboro Borough.
Owner: U.S. Geological Survey.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 2 in., depth 36 ft, screened 31 to 36 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60-minute recording interval. Periodic measurements, Mar. 1991 to Nov. 1994.

DATUM.--Land surface is 153.9 ft above sea level.

Measuring point: Top of base of aluminum locking cap, 3.85 ft above land surface.

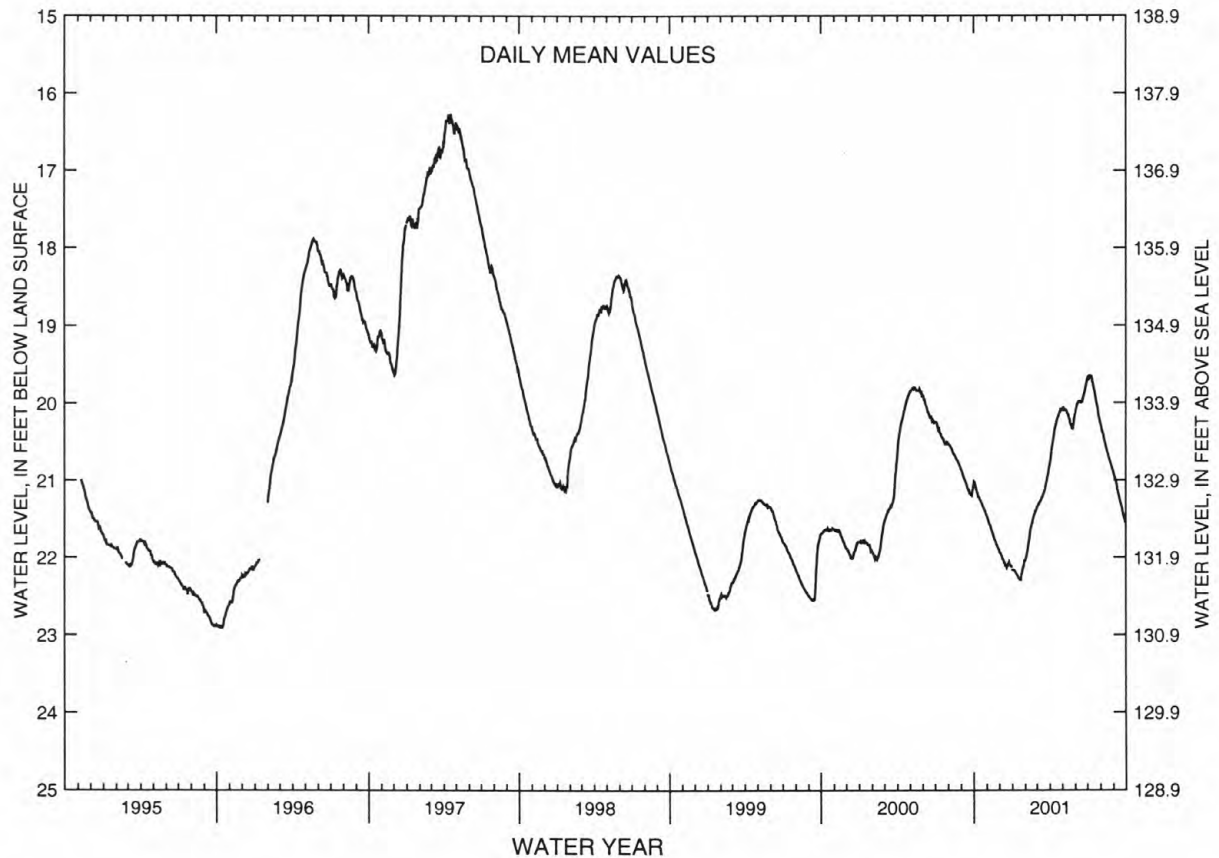
PERIOD OF RECORD.--Mar. 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.24 ft below land surface, Apr. 18, 1997; lowest, 22.98 ft below land surface, Sept. 14, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.06	21.52	21.95	22.16	21.94	21.31	20.63	20.07	20.03	19.65	20.36	20.97
10	21.16	21.59	22.02	22.20	21.78	21.26	20.45	20.09	19.98	19.66	20.46	21.07
15	21.23	21.68	22.10	22.25	21.61	21.20	20.29	20.15	20.00	19.77	20.58	21.21
20	21.29	21.76	22.12	22.28	21.49	21.12	20.19	20.27	19.93	19.92	20.67	21.32
25	21.36	21.84	22.08	22.18	21.40	20.99	20.12	20.34	19.83	20.06	20.77	21.43
EOM	21.44	21.90	22.13	22.04	21.37	20.82	20.08	20.17	19.70	20.25	20.87	21.55
MEAN	21.24	21.69	22.05	22.19	21.67	21.15	20.34	20.18	19.94	19.86	20.58	21.21
WTR YR 2001 MEAN 21.01 HIGH 19.65 JUL 4 LOW 22.30 JAN 21												

NJ-WRD WELL NO. 15-1054



GROUND-WATER LEVELS

GLOUCESTER COUNTY--Continued

NJ-WRD Well Number, 15-1126. Site I.D., 394119075062701. Local I.D., Glassboro ML-1 Obs. NJ Permit Number, 31-34033-4.

LOCATION.--Lat 39°41'19", long 75°06'27", Hydrologic Unit 02040206, at the end of Pershing St., Glassboro Borough.
Owner: Glassboro Borough.

AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 338 ft, screened 328 to 338 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Jan. to June 1995.

DATUM.--Land surface is 145.95 ft above sea level.

Measuring point: Top of recorder shelf, 2.20 ft above land surface.

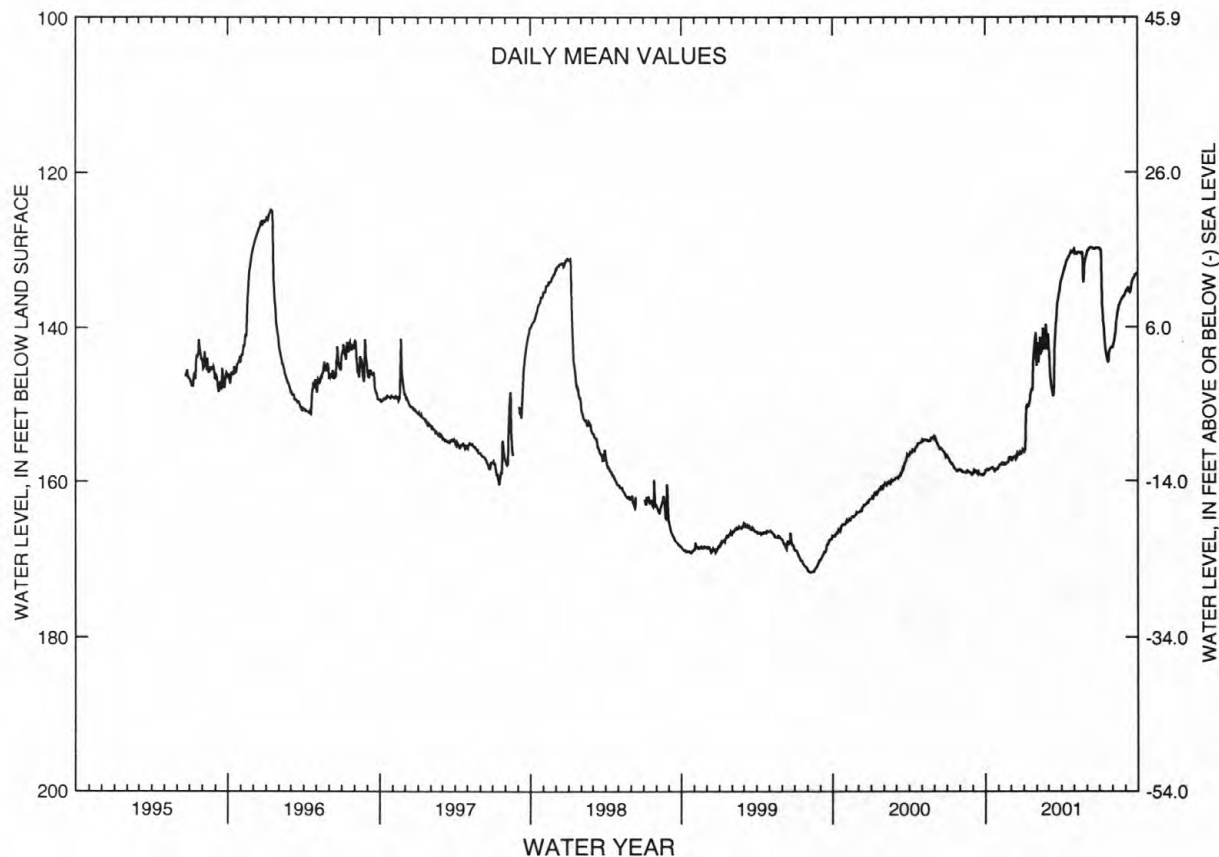
PERIOD OF RECORD.--Jan. 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 124.76 ft below land surface, Jan. 12-13, 1996; lowest, 171.71 ft below land surface, Aug. 7, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	158.49	157.82	156.99	155.61	143.87	145.93	133.06	130.34	129.95	130.05	141.93	135.03
10	158.44	157.48	156.94	149.88	143.03	148.26	132.02	130.31	129.62	139.03	139.60	135.05
15	158.24	157.78	156.84	149.59	141.35	145.26	131.19	130.28	129.79	142.30	137.68	134.81
20	158.44	157.66	156.37	147.98	141.85	138.72	130.75	130.39	129.84	144.20	136.68	133.68
25	158.39	157.44	156.46	143.37	140.98	136.00	130.17	133.45	129.69	143.10	136.19	133.15
EOM	158.26	156.87	155.89	143.51	140.79	133.99	129.99	130.70	129.71	142.53	135.70	132.89
MEAN	158.42	157.60	156.61	148.60	142.15	141.65	131.44	130.81	129.78	139.73	138.36	134.30
WTR YR 2001	MEAN 142.50	HIGH 129.58	JUN 12	LOW 158.65	OCT 1							

NJ-WRD WELL NO. 15-1126



GLOUCESTER COUNTY--Continued

NJ-WRD Well Number, 15-1208. Site I.D., 394256075101001. Local I.D., USGS AG02. NJ Permit Number, 31-49627.

LOCATION.--Lat 39°43'02", long 75°10'12", Hydrologic Unit 02040202, at Heritage Farm, Elmer-Barnsboro Rd., Richwood, Harrison Township.
Owner: U.S. Geological Survey.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.-- Drilled water-table observation well, diameter 2 in., depth 33 ft, screened 31 to 33 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval.

DATUM.-- Land surface is 140 ft above sea level, from topographic map.
Measuring point: Top of outer protective casing, 2.95 ft above land surface.

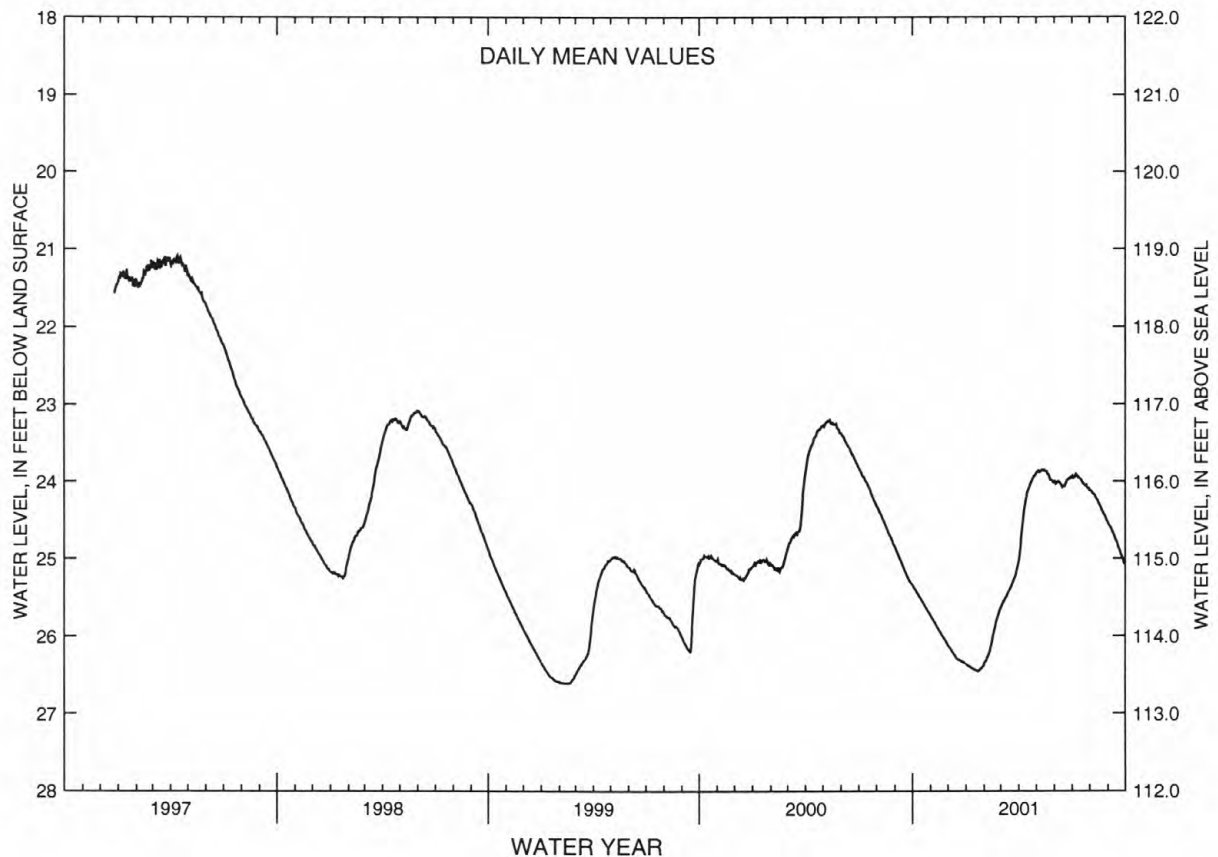
PERIOD OF RECORD.--Dec. 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.01 ft below land surface, Mar. 26, Apr. 12-13, 1997; lowest, 26.63 ft below land surface, Feb. 12, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.39	25.78	26.16	26.39	26.30	25.57	24.74	23.86	24.02	23.93	24.15	24.59
10	25.45	25.85	26.22	26.41	26.21	25.50	24.38	23.85	24.01	23.92	24.19	24.67
15	25.51	25.91	26.28	26.43	26.04	25.42	24.16	23.85	24.06	23.97	24.26	24.77
20	25.58	25.98	26.31	26.46	25.86	25.35	24.05	23.90	24.03	24.03	24.34	24.87
25	25.64	26.04	26.33	26.43	25.73	25.25	23.96	23.98	23.97	24.06	24.43	24.97
EOM	25.72	26.10	26.36	26.37	25.66	25.07	23.90	24.02	23.94	24.11	24.52	25.08
MEAN	25.53	25.92	26.26	26.42	26.04	25.40	24.27	23.90	24.01	24.00	24.30	24.79
WTR YR 2001 MEAN 25.07 HIGH 23.85 MAY 10 LOW 26.46 JAN 20												

NJ-WRD WELL NO. 15-1208



GROUND-WATER LEVELS

GLOUCESTER COUNTY--Continued

NJ-WRD Well Number, 15-1213. Site I.D., 393749074550901. Local I.D., USGS UND06. NJ Permit Number 31-49658.

LOCATION.--Lat 39°37'52", long 74°55'13", Hydrologic Unit 02040302, at Winslow Wildlife Management Area, Monroe Township.
Owner: U.S. Geological Survey - State of New Jersey-DEP/Fish, Game & Wildlife.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.-- Drilled water-table observation well, diameter 2 in., depth 15 ft, screened 13 to 15 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval.

DATUM.-- Land surface is 97 ft above sea level, from topographic map.

Measuring point: Top of outer protective casing, 2.30 ft above land surface.

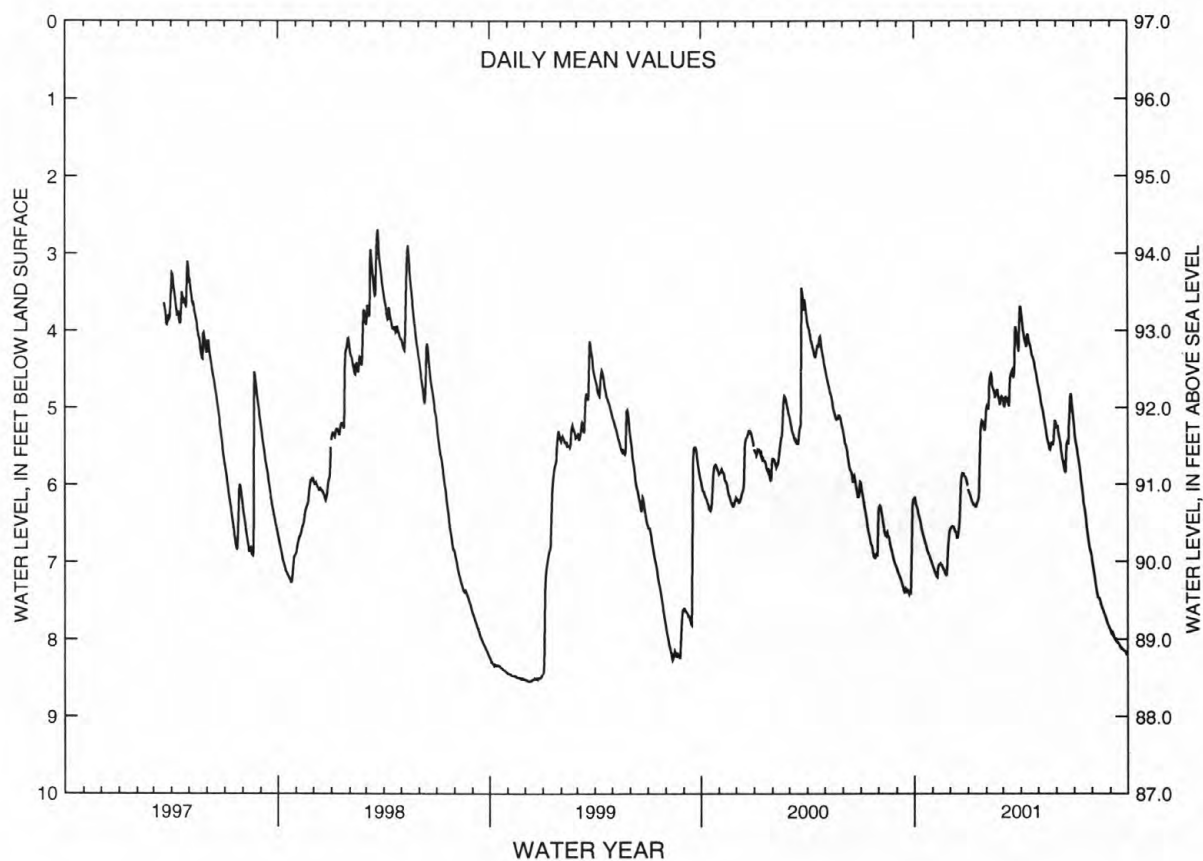
PERIOD OF RECORD.--March 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.65 ft below land surface, Mar. 21, 22, 1998; lowest, 8.55 ft below land surface, Dec. 7-8, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.29	7.13	6.54	6.15	4.95	4.91	3.98	4.88	5.34	5.50	7.18	7.92
10	6.43	7.12	6.61	6.26	4.59	4.92	4.18	5.09	5.60	5.75	7.43	8.01
15	6.62	7.03	6.64	6.28	4.83	4.57	4.13	5.33	5.82	6.08	7.51	8.05
20	6.76	7.09	5.94	5.85	4.77	4.61	4.30	5.54	5.47	6.37	7.62	8.12
25	6.89	7.18	5.88	5.17	4.91	4.04	4.46	5.48	4.82	6.70	7.74	8.15
EOY	7.02	6.61	6.01	5.06	4.86	3.69	4.67	5.20	5.18	6.93	7.86	8.19
MEAN	6.62	7.05	6.30	5.85	4.82	4.53	4.21	5.22	5.37	6.14	7.50	8.05
WTR YR 2001 MEAN 5.97 HIGH 3.69 MAR 31 LOW 8.19 SEP 29												

NJ-WRD WELL NO. 15-1213



WATER RESOURCES DATA - NEW JERSEY, 2001

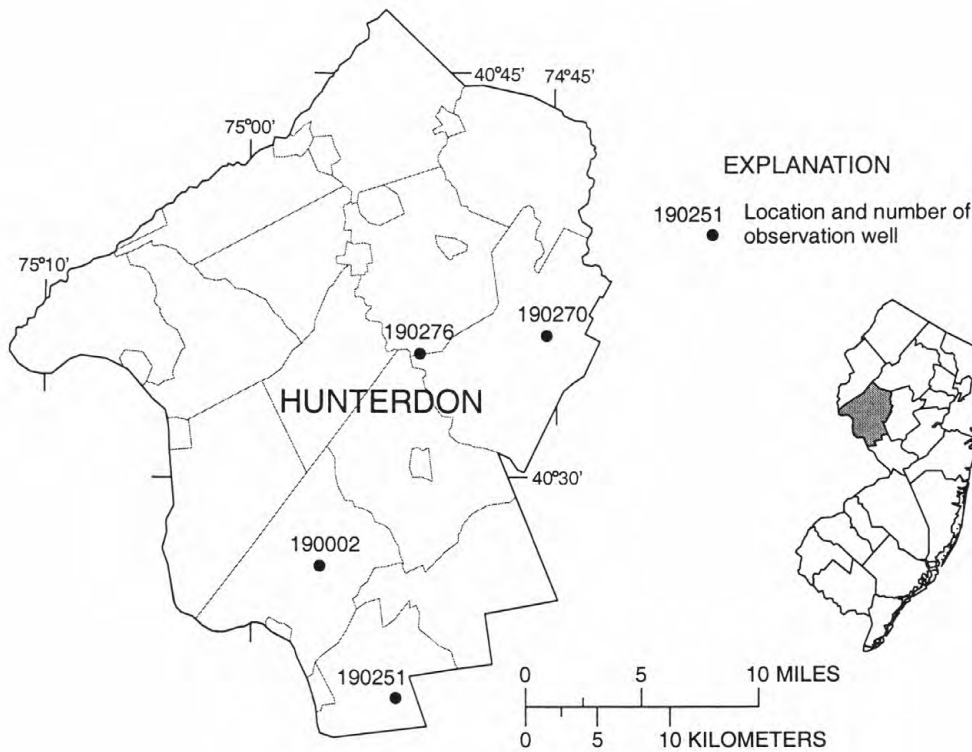
125

HUNTERDON COUNTY

NJ-WRD well number	Local identifier	Township	Well depth	Aquifer	Type of data
190002	BIRD OBS	DELAWARE TWP	21	SCKN	DAILY
190251	CORSALO RD TB1 OBS	WEST AMWELL TWP	299	PSSC	DAILY
190270	READINGTON SCHOOL 11 OBS	READINGTON TWP	101	PSSC	DAILY
190276	ENVIRONMENTAL CTR 1 OBS	CLINTON TWP	175	SCKN	DAILY

Aquifer names

PSSC - Passaic Formation
SCKN - Stockton Formation



GROUND-WATER LEVELS

HUNTERDON COUNTY

NJ-WRD Well Number, 19-0002. Site I.D., 402644074563601. Local I.D., Bird Obs.

LOCATION.--Lat 40°26'44", long 74°56'36", Hydrologic Unit 02040105, near U.S. Post Office, Sergeantsville, Delaware Township.
Owner: Phillip Fleming.

AQUIFER.--Stockton Formation of Triassic age.

WELL CHARACTERISTICS.--Dug water-table observation well, diameter 36 in., depth 21 ft, lined with stone.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, July 1970 to May 1977. Water-level recorder, June 1965 to July 1970.

DATUM.--Land surface is 342.08 ft above sea level.

Measuring point: Top of recorder shelf, 1.50 ft above land surface.

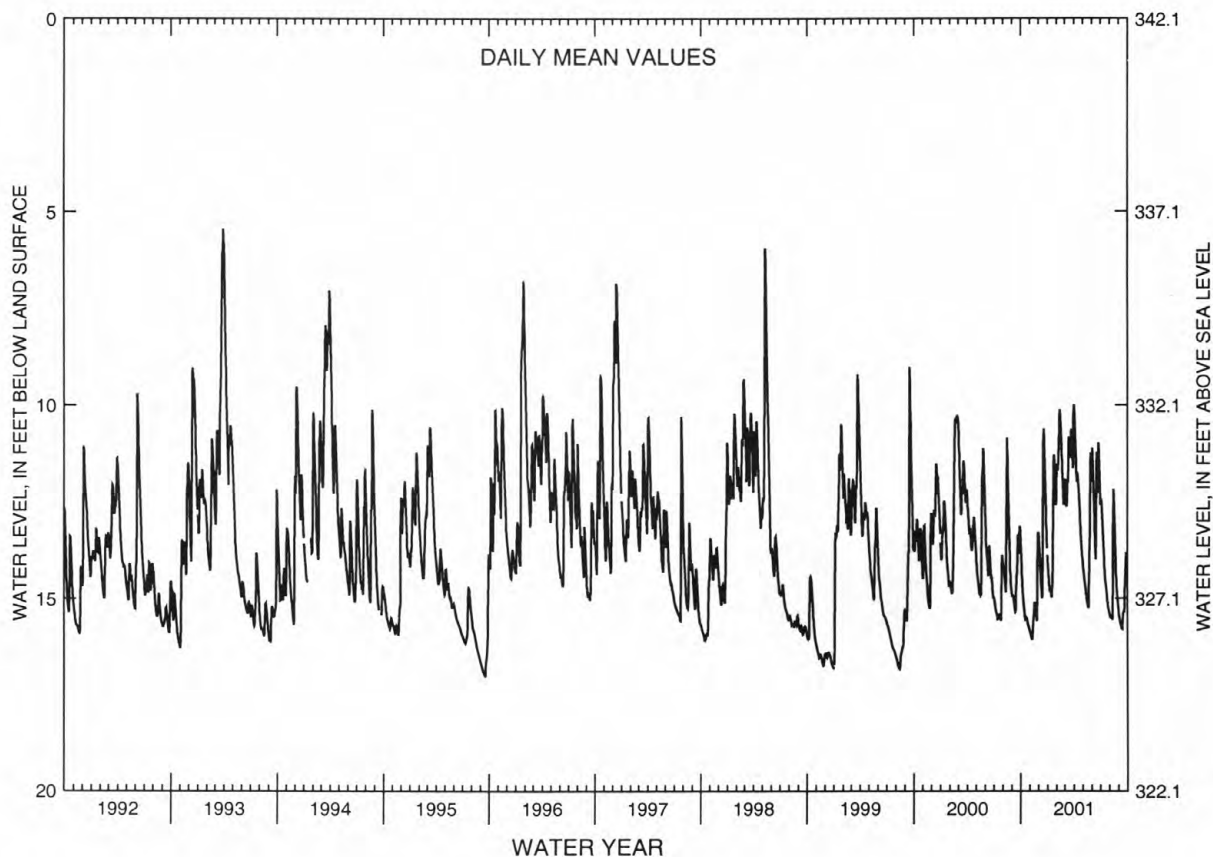
PERIOD OF RECORD.--June 1965 to current year. Records for 1965 to 1976 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.27 ft below land surface, Mar. 29, 1993; lowest, 17.04 ft below land surface, Jan. 26-28, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.21	15.94	13.80	14.45	11.70	12.50	10.62	14.33	11.33	12.47	15.49	15.53
10	14.98	16.07	14.56	14.76	10.74	12.11	11.75	14.70	12.74	13.37	15.53	15.69
15	15.40	15.41	14.79	14.97	10.55	10.83	11.89	14.99	13.85	14.17	12.28	15.69
20	15.52	15.14	10.72	13.58	11.48	11.24	12.57	15.22	11.46	14.66	13.33	15.34
25	15.62	15.54	12.22	11.54	12.59	10.73	13.34	13.78	10.98	15.06	14.53	14.46
EOM	15.79	13.33	13.71	12.42	11.92	10.29	13.95	11.71	12.25	15.36	15.22	13.96
MEAN	15.10	15.40	13.23	13.62	11.37	11.52	12.08	14.17	12.13	14.04	14.52	15.17
WTR YR 2001 MEAN 13.55 HIGH 9.99 APR 2 LOW 16.07 NOV 10												

NJ-WRD WELL NO. 19-0002



HUNTERDON COUNTY--Continued

NJ-WRD Well Number, 19-0251. Site I.D., 402151074525301. Local I.D., Corsalo Rd TB 1 Obs. NJ Permit Number, 27-10124.

LOCATION.--Lat 40°21'51", long 74°52'53", Hydrologic Unit 02040105, 1,100 ft east of the intersection of County Rt. 518 and Corsalo Rd., West Amwell Township.
Owner: U.S. Geological Survey.

AQUIFER.--Passaic Formation of Triassic-Jurassic age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 3 in., depth 299 ft, open hole 21.5 to 299 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60-minute recording interval. Water-level recorder, June 1989 to July 1999.

DATUM.--Land surface is 405 ft above sea level, from topographic map.
Measuring point: Top of recorder shelf, 2.50 ft above land surface.

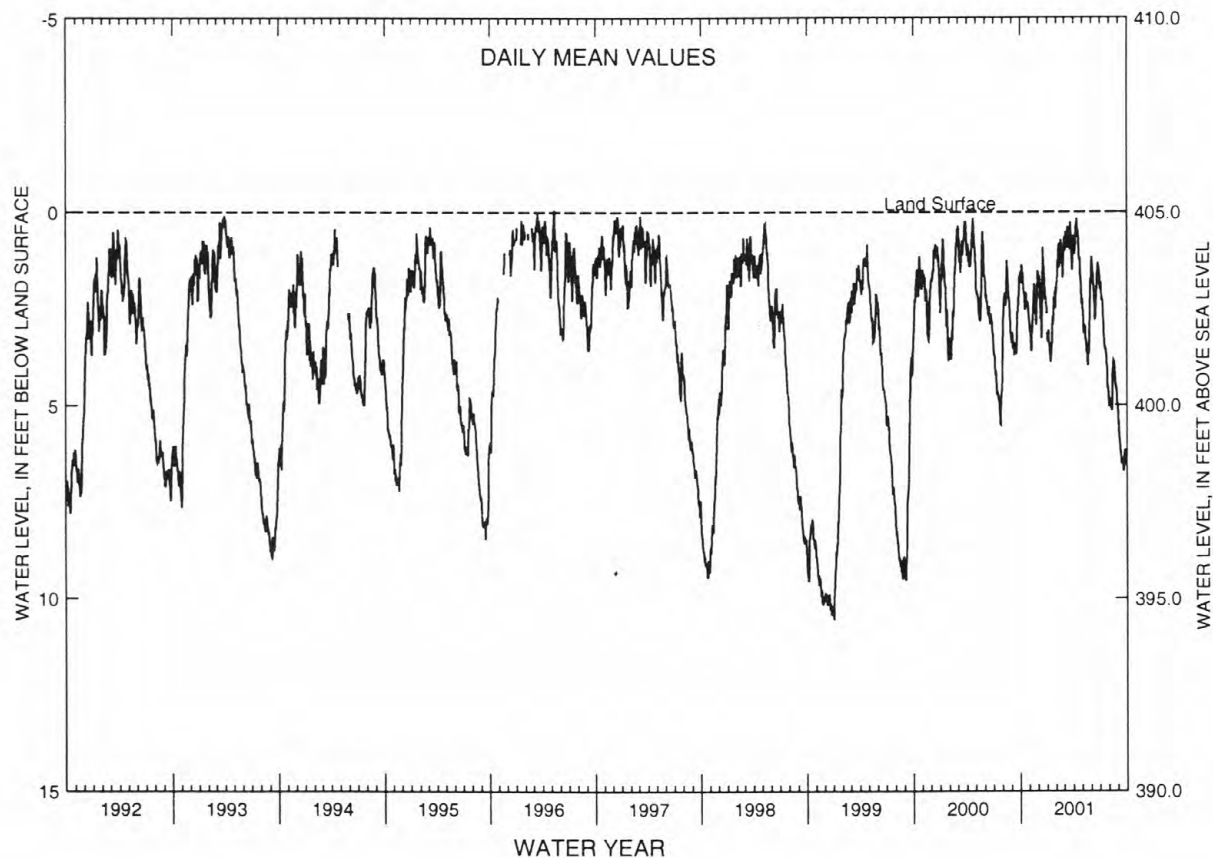
PERIOD OF RECORD.--June 1989 to current year. Records for 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.51 ft above land surface, Mar. 13, 1993; lowest, 10.65 ft below land surface, Jan. 1-2, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.75	3.17	1.65	3.07	1.31	.64	1.11	2.62	1.40	1.82	5.06	5.66
10	1.59	3.21	2.79	3.63	.82	.66	.49	2.96	2.03	2.31	5.08	6.19
15	2.17	2.23	2.53	3.62	.81	.71	.47	3.31	2.81	3.14	4.01	6.47
20	2.23	2.13	1.31	2.76	1.10	.98	1.14	3.88	1.96	3.56	3.94	6.71
25	2.32	2.93	2.17	2.25	1.38	.96	1.61	3.69	1.31	3.91	4.59	6.15
EOM	2.79	1.52	2.64	1.92	.80	.76	2.34	1.81	1.67	4.82	4.97	6.55
MEAN	2.08	2.63	2.07	3.03	1.26	.78	1.00	3.03	1.83	3.15	4.60	6.18
WTR YR 2001 MEAN 2.65 HIGH .17 APR 13 LOW 6.71 SEP 20												

NJ-WRD WELL NO. 19-0251



GROUND-WATER LEVELS

HUNTERDON COUNTY--Continued

NJ-WRD Well Number, 19-0270. Site I.D., 403517074452501. Local I.D., Readington School 11 Obs. NJ Permit Number, 25-33679-7.

LOCATION.--Lat 40°35'17", long 74°45'25", Hydrologic Unit 02030105, behind Readington School, on Readington Rd. (County Rd. 620), Readington Township.
Owner: State of New Jersey.

AQUIFER.--Passaic Formation of Triassic-Jurassic age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 101 ft, open hole 50 to 101 ft.

INSTRUMENTATION.--Data collection platform with satellite telemetry--60 minute recording interval. Water-level recorder, Apr. 1990 to May 2001.

DATUM.--Land surface is 224.99 ft above sea level.
Measuring point: Top of casing, 2.13 ft above land surface.

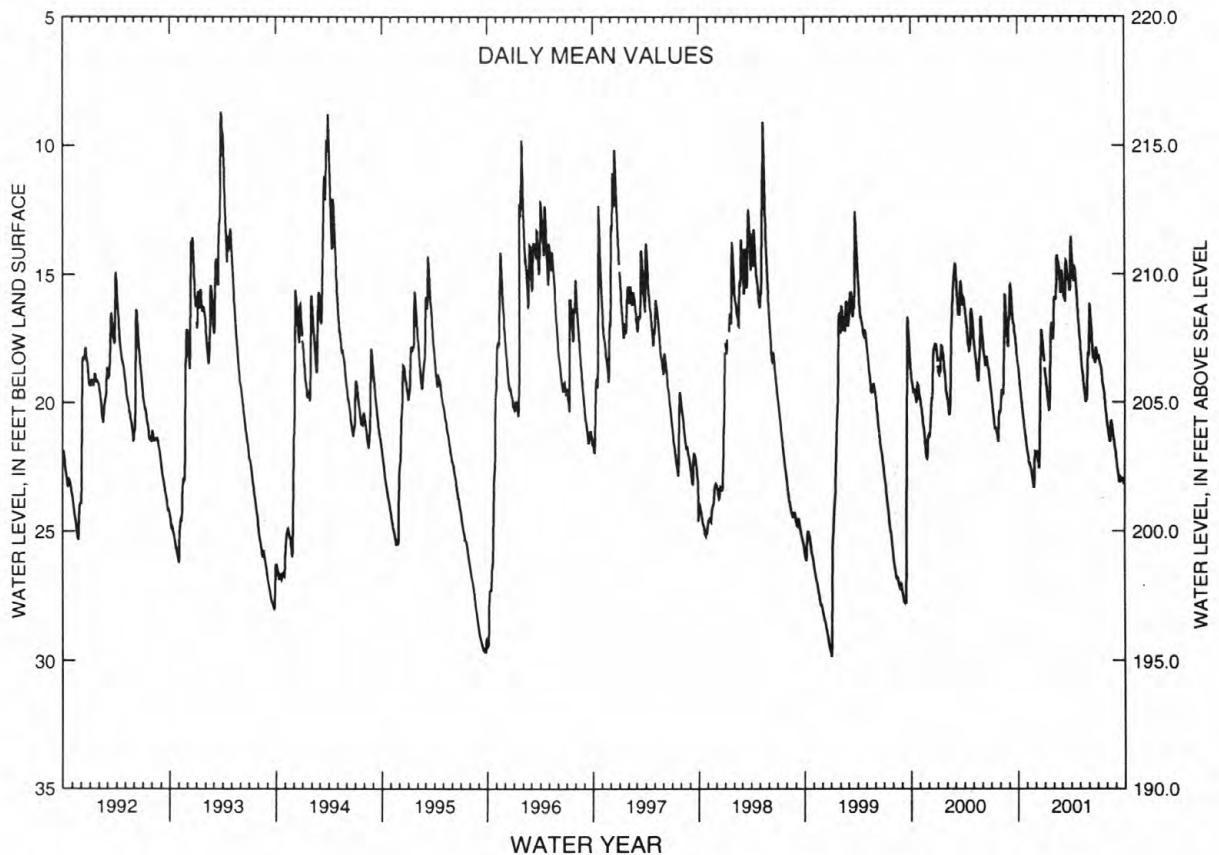
PERIOD OF RECORD.--Apr. 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.64 ft below land surface, Mar. 26, 1993; lowest, 29.86 ft below land surface, Jan. 2-3, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.95	22.05	21.94	19.09	15.86	15.42	14.37	18.17	16.24	18.17	21.03	22.34
10	19.49	22.35	22.29	19.70	15.25	15.87	15.16	18.81	17.20	18.54	21.40	22.79
15	20.06	22.58	22.06	20.18	14.51	14.48	14.78	19.34	18.16	18.89	20.83	22.93
20	20.61	22.89	17.14	18.75	14.79	15.16	15.76	19.91	18.26	19.37	20.91	23.08
25	21.12	23.33	17.73	16.98	15.74	15.22	16.66	19.88	17.87	19.86	21.38	22.95
EOM	21.65	21.92	18.40	16.89	14.86	13.92	17.48	18.10	18.21	20.56	21.85	23.19
MEAN	20.14	22.50	20.11	18.72	15.22	15.23	15.41	18.93	17.65	19.11	21.19	22.79
WTR YR 2001 MEAN 18.94 HIGH 13.54 APR 1 LOW 23.33 NOV 25												

NJ-WRD WELL NO. 19-0270



HUNTERDON COUNTY--Continued

NJ-WRD Well Number, 19-0276. Site I.D., 403455074514801. Local I.D., Environmental Ctr 1 Obs. NJ Permit Number, 24-25826.

LOCATION.--Lat 40°34'38", long 74°51'39", Hydrologic Unit 02030105, at the Hunterdon County Arboretum, Rt. 31, Clinton Township.
Owner: State of New Jersey - New Jersey Geological Survey.

AQUIFER.--Stockton Formation of Triassic age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 175 ft, open hole 55 to 175 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Mar. 1991 to May 1992.

DATUM.--Land surface is 170.4 ft above sea level.
Measuring point: Top of recorder shelf, 1.45 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

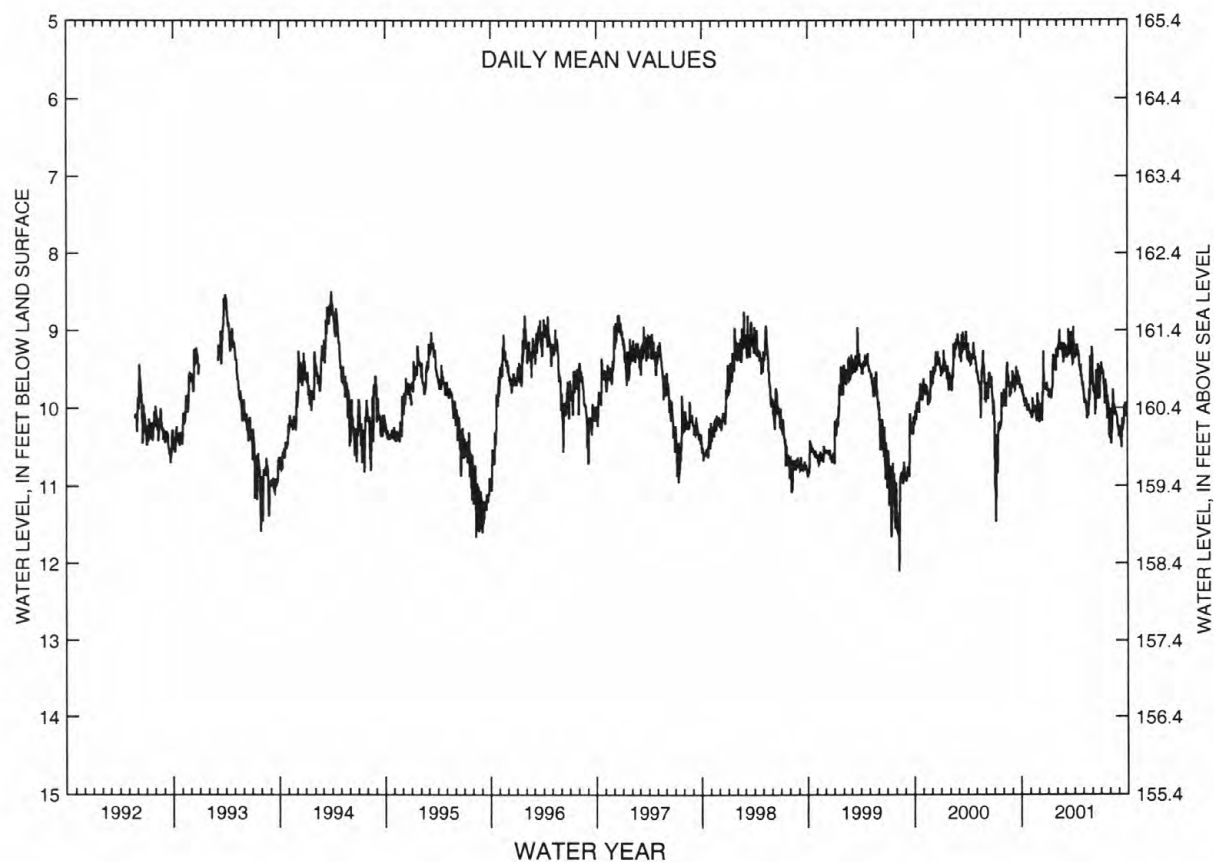
PERIOD OF RECORD.--Mar. 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.44 ft below land surface, Mar. 29, 1994; lowest, 12.75 ft below land surface, Aug. 11, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.75	10.06	9.94	9.75	9.21	9.21	9.36	9.82	9.56	9.41	10.01	10.23
10	9.82	9.87	10.07	9.85	8.99	9.25	9.29	9.90	9.76	9.56	10.32	10.42
15	9.92	9.98	9.85	9.77	9.19	9.21	9.27	10.02	10.03	9.76	9.90	10.19
20	9.94	10.03	9.66	9.31	9.25	9.30	9.47	10.10	9.71	9.74	10.00	10.17
25	9.99	10.16	9.77	9.46	9.20	9.31	9.60	9.91	9.58	10.05	10.10	9.93
EOM	10.05	9.90	9.79	9.23	9.29	9.11	9.72	9.69	9.68	10.35	10.27	10.06
MEAN	9.90	10.02	9.83	9.64	9.24	9.24	9.39	9.84	9.72	9.74	10.11	10.21
WTR YR 2001 MEAN 9.74 HIGH 8.95 MAR 30 LOW 10.51 SEP 12												

NJ-WRD WELL NO. 19-0276



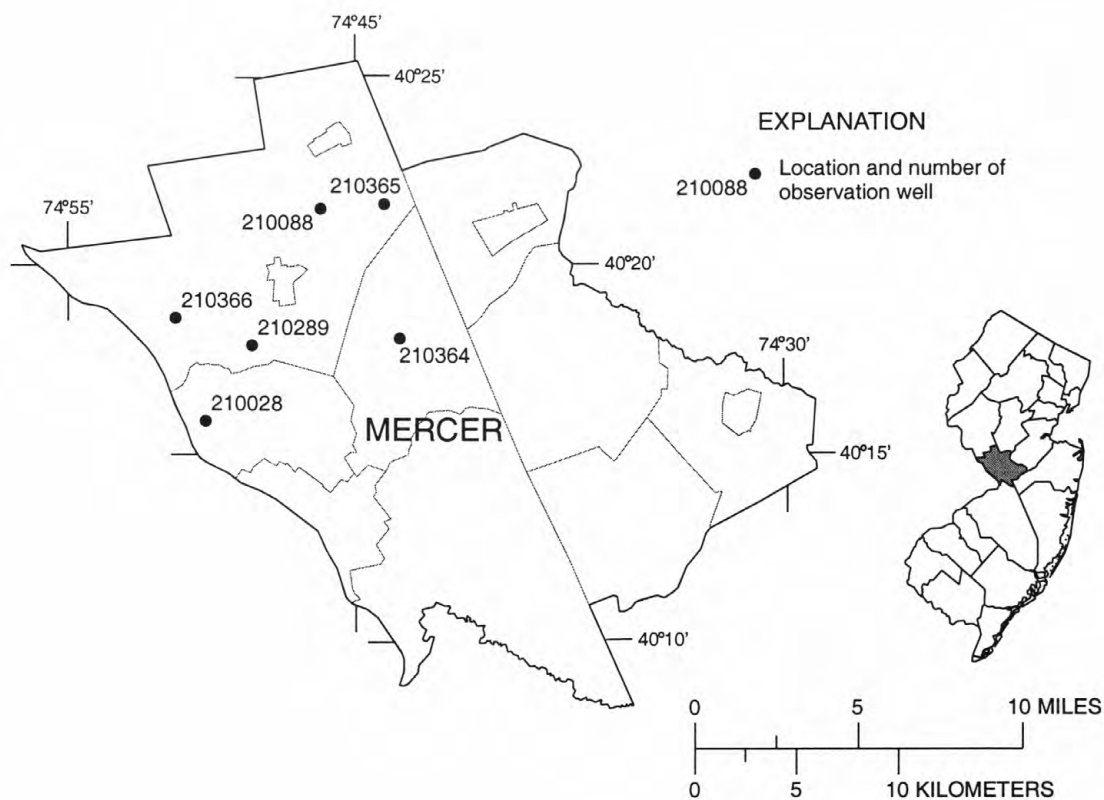
WATER RESOURCES DATA - NEW JERSEY, 2001

MERCER COUNTY

NJ-WRD well number	Local identifier	Township	Well depth	Aquifer	Type of data
210028	CIVIL DEFENSE OBS	EWING TWP	300	LCKG	DAILY
210088	SBMWA HONEY BR 10 OBS	HOPEWELL TWP	150	PSSC	MANUAL
210289	BRISTOL-MYERS 100 OBS	HOPEWELL TWP	300	PSSC	DAILY
210364	CRANSTON FARMS 15 OBS	LAWRENCE TWP	200	SCKN	DAILY
210365	AT&T NORTH OBS	HOPEWELL TWP	99	PSSC	DAILY
210366	WASH CROSSING PK 14 OBS	HOPEWELL TWP	225	PSSC	DAILY

Aquifer names

- LCKG - Lockatong Formation
- PSSC - Passaic Formation
- SCKN - Stockton Formation



MERCER COUNTY

NJ-WRD Well Number, 21-0028. Site I.D., 401552074501801. Local I.D., Civil Defense Obs. NJ Permit Number, 27-04214.

LOCATION.--Lat 40°15'53", long 74°50'12", Hydrologic Unit 02040105, at the State Police Headquarters, Ewing Township.
Owner: State of New Jersey.

AQUIFER.--Lockatong Formation of Triassic age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 300 ft, open hole 33 to 300 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60-minute recording interval. Periodic measurements, July 1970 to Sept. 1976 and Apr. 1978 to Apr. 2001. Water-level recorder, June 1964 to July 1970.

DATUM.--Land surface is 122.99 ft above sea level.

Measuring point: Top of base of aluminum locking cap, 0.0 ft above land surface.

PERIOD OF RECORD.--June 1964 to Sept. 1976, Apr. 1978 to current year. Records for 1964 to 1976 and 1978 to 1989 are unpublished and are available in files of the New Jersey District Office.

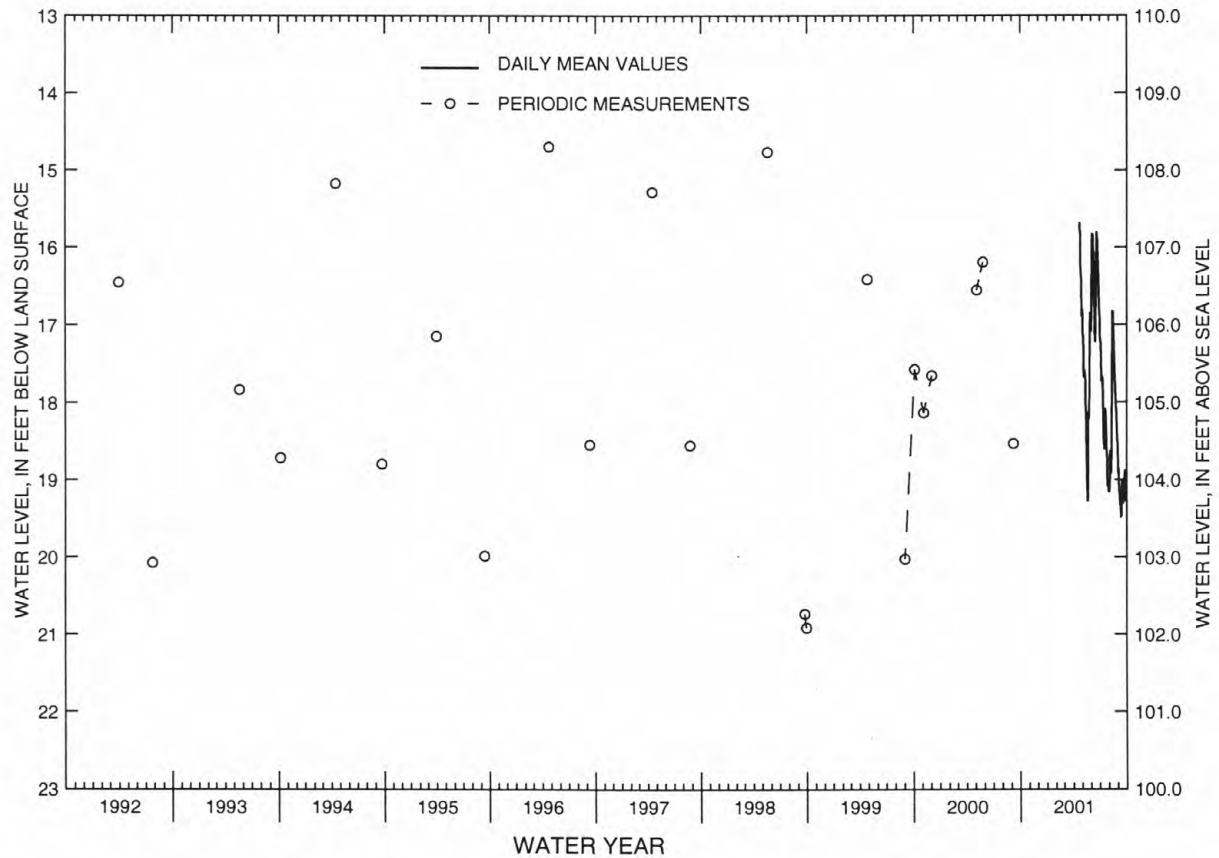
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.14 ft below land surface, Apr. 6, 1970; lowest, 49.69 ft below land surface, June 17, 1964.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	17.27	15.83	17.28	18.91	19.04
10	---	---	---	---	---	---	---	17.62	16.32	17.67	18.92	19.33
15	---	---	---	---	---	---	---	18.23	17.21	18.46	16.84	19.14
20	---	---	---	---	---	---	---	19.28	15.80	18.09	17.42	19.31
25	---	---	---	---	---	---	16.22	18.22	16.13	18.60	18.03	18.92
EOM	---	---	---	---	---	---	16.83	17.03	16.87	19.10	18.48	19.28
MEAN	---	---	---	---	---	---	16.21	17.86	16.36	18.15	18.11	19.11

WTR YR 2001 HIGH 15.60 APR 21 LOW 19.47 SEP 12

NJ-WRD WELL NO. 21-0028



GROUND-WATER LEVELS

MERCER COUNTY--Continued

NJ-WRD Well Number, 21-0088. Site I.D., 402131074461201. Local I.D., SEMWA Honey Branch 10 Obs.

LOCATION.--Lat 40°21'31", long 74°46'11", Hydrologic Unit 02030105, at the Stony Brook-Millstone Watersheds Reserve, Wargo Rd., near Pennington, Hopewell Township.

Owner: U.S. Geological Survey - Stony Brook-Millstone Watersheds Association.

AQUIFER.--Passaic Formation of Triassic-Jurassic age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 150 ft, open hole 20 to 150 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Apr. 1994 to Mar. 1995. Periodic measurements, Oct. 1988 to Apr. 1994. Water-level recorder, Jan. 1987 to Oct. 1988. Periodic measurements, July 1984 to Jan. 1987. Water-level recorder, Apr. 1977 to July 1984. Periodic measurements, Aug. 1975 to Apr. 1977. Water-level recorder, June 1967 to Aug. 1975.

DATUM.--Land surface is 179.53 ft above sea level.

Measuring point: Top of base of locking well cap, 3.78 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

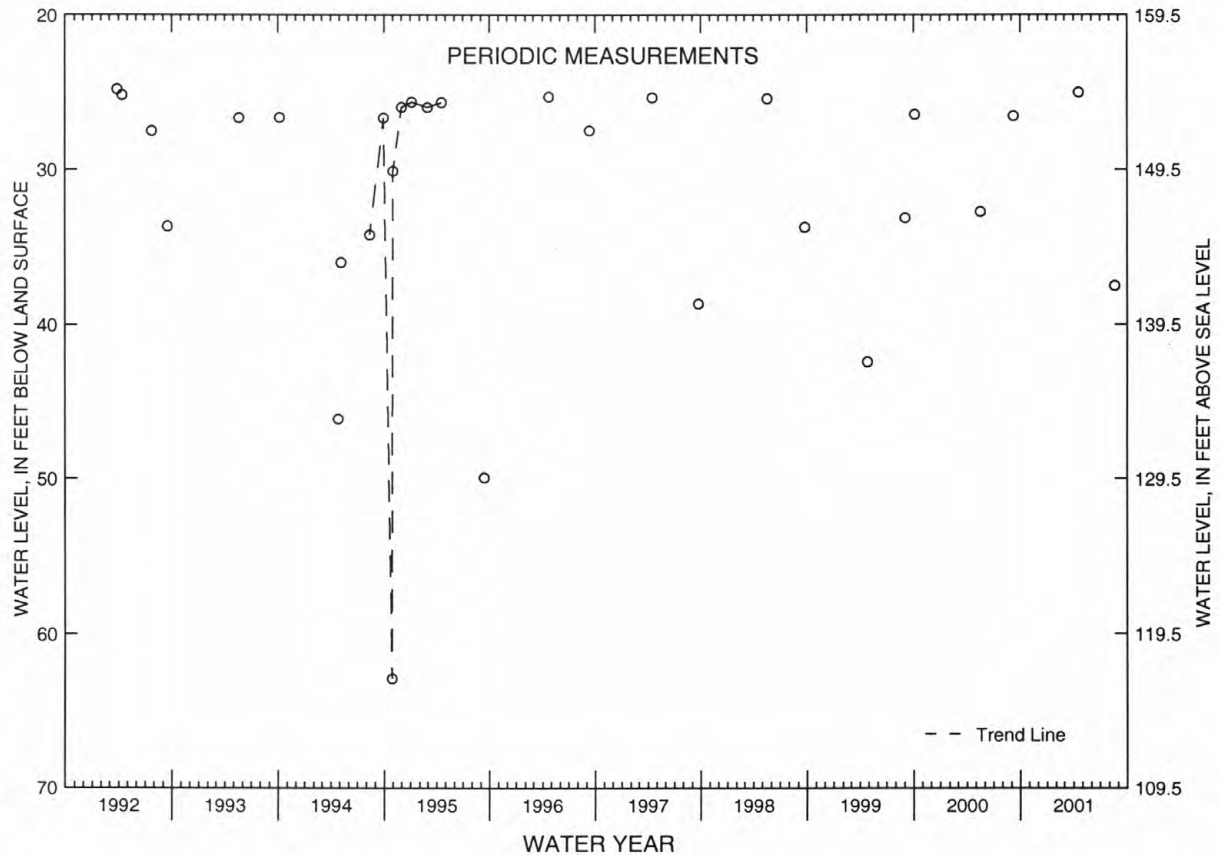
PERIOD OF RECORD.--June 1967 to current year. Records for 1967 to 1975 and 1985 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.63 ft below land surface, July 21, 1967; lowest, 62.89 ft below landsurface, Oct. 28, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 18	25.00	AUG 20	37.50

NJ-WRD WELL NO. 21-0088



MERCER COUNTY--Continued

NJ-WRD Well Number, 21-0289. Site I.D., 401753074483501. Local I.D., Bristol-Myers 100 Obs.

LOCATION.--Lat 40°17'53", long 74°48'35", Hydrologic Unit 02040105, about 600 ft east of Scotch Rd. and about 1.1 mi north of I-95, interchange 3, Hopewell Township.
Owner: Bristol-Myers Squibb Company.

AQUIFER.--Passaic Formation of Triassic-Jurassic age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 8 in., depth 300 ft, open hole 12 to 300 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 212 ft above sea level, from topographic map.
Measuring point: Top of recorder shelf, 1.65 ft above land surface.

REMARKS.--Water level is occasionally affected by pumping of nearby irrigation well. Water level was affected by Mercuri and Assoc. aquifer tests between June and Aug. 2000.

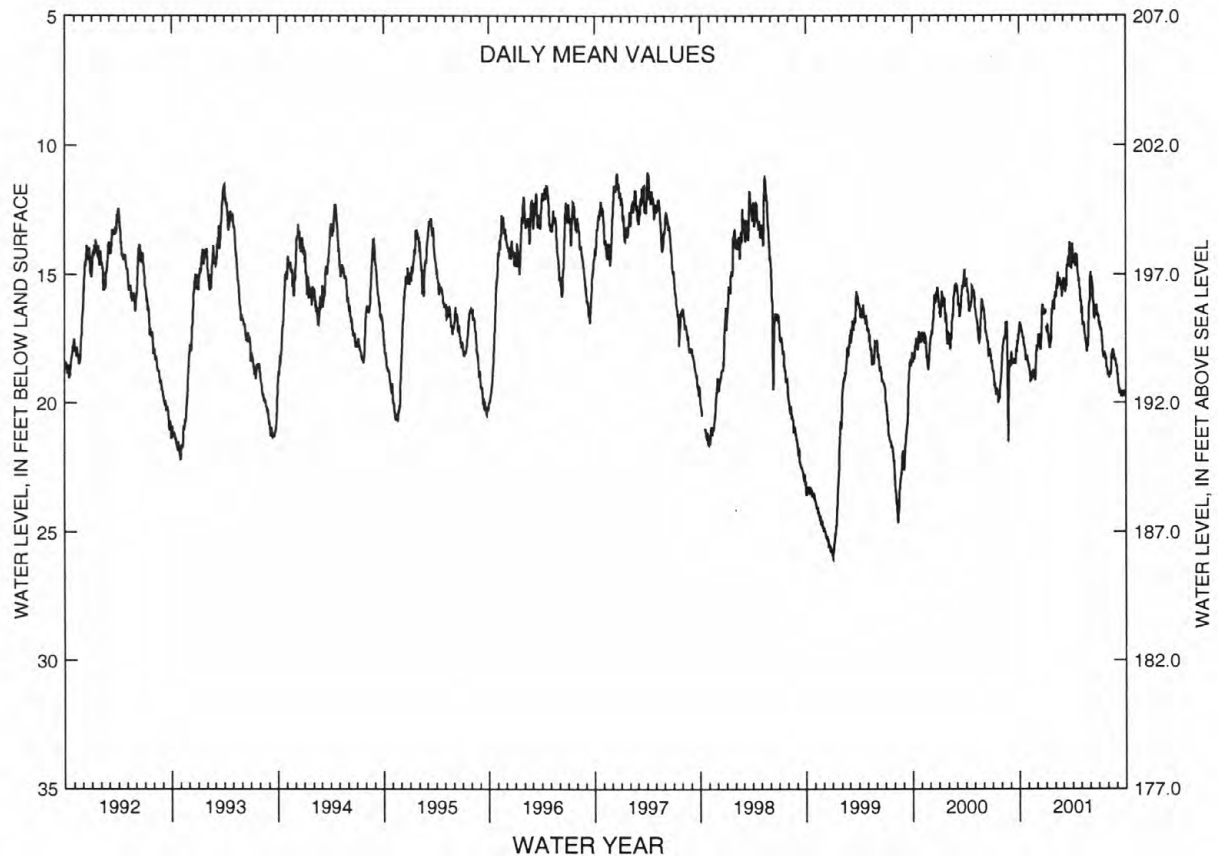
PERIOD OF RECORD.--Dec. 1986 to current year. Records for 1986 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.96 ft below land surface, Apr. 4, 1997; lowest, 26.24 ft below land surface, Jan. 1, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.02	18.70	17.32	17.00	15.52	15.22	14.51	16.43	15.16	16.82	18.96	19.05
10	17.15	18.89	17.75	17.57	14.91	15.36	14.54	16.87	15.50	17.18	18.87	19.49
15	17.46	18.82	17.59	17.69	15.12	14.71	14.25	17.36	16.67	18.00	18.10	19.68
20	17.93	18.77	16.17	16.66	15.31	14.71	14.98	17.88	16.33	18.23	17.97	19.71
25	18.17	19.07	16.54	16.11	15.64	14.17	15.43	17.82	16.36	18.21	18.38	19.51
EOM	18.41	17.75	16.51	15.72	15.38	13.89	16.05	16.04	16.66	18.77	18.53	19.75
MEAN	17.64	18.74	17.02	16.94	15.44	14.77	14.75	17.03	16.02	17.79	18.47	19.47
WTR YR 2001 MEAN 17.02 HIGH 13.74 MAR 23 LOW 19.75 SEP 30												

NJ-WRD WELL NO. 21-0289



GROUND-WATER LEVELS

MERCER COUNTY--Continued

NJ-WRD Well Number, 21-0364. Site I.D., 401804074432601. Local I.D., Cranston Farms 15 Obs. NJ Permit Number, 28-230000-1.

LOCATION.--Lat 40°18'04", long 74°43'26", Hydrologic Unit 02040105, 1,200 ft north of intersection of Cold Soil Rd. and Rt. 206, Lawrenceville, Lawrence Township.
Owner: State of New Jersey.

AQUIFER.--Stockton Formation of Triassic age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 200 ft, open hole 50 to 200 ft.

INSTRUMENTATION.--Data collection platform with satellite telemetry--60 minute recording interval. Water-level recorder, Mar. 1990 to May 2001.

DATUM.--Land surface is 123.2 ft above sea level.

Measuring point: Top of casing, 2.22 ft above land surface.

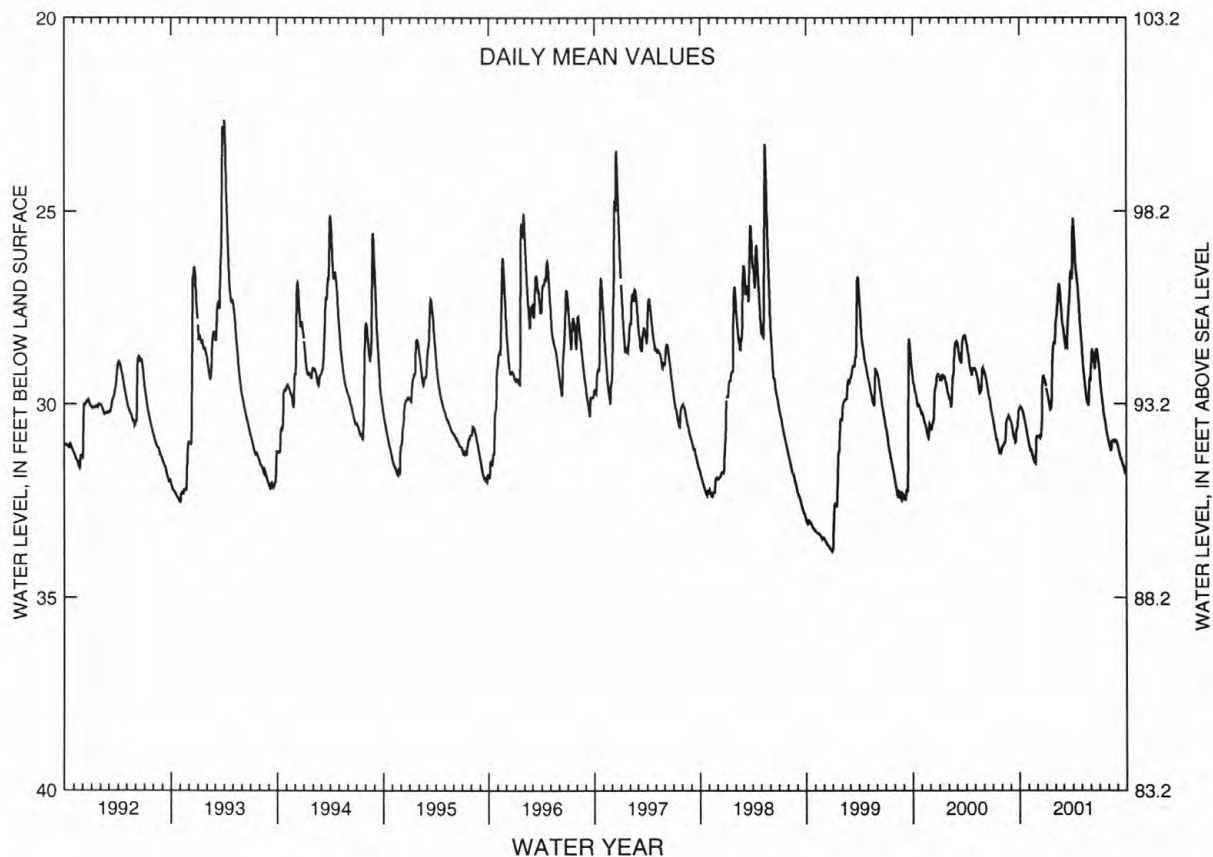
PERIOD OF RECORD.--Mar. 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 22.58 ft below land surface, Apr. 2-3, 1993; lowest, 33.85 ft below land surface, Dec. 30, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.08	31.11	30.85	29.75	27.59	28.39	25.48	28.87	28.62	29.43	31.05	31.15
10	30.13	31.21	30.85	29.96	27.04	28.50	26.32	29.30	28.72	29.83	31.21	31.32
15	30.28	31.33	30.64	30.14	26.97	27.88	26.71	29.65	29.03	30.18	30.94	31.41
20	30.45	31.47	29.29	29.29	27.44	27.31	27.24	29.95	28.58	30.40	30.96	31.58
25	30.67	31.55	29.36	28.42	27.95	26.55	27.83	30.05	28.69	30.66	30.96	31.68
EOM	30.91	30.83	29.53	28.06	28.10	25.60	28.38	29.39	---	30.89	30.99	31.82
MEAN	30.38	31.24	30.14	29.38	27.47	27.58	26.77	29.45	28.78	30.22	31.01	31.44
WTR YR 2001 MEAN 29.50 HIGH 25.18 APR 2 LOW 31.82 SEP 30												

NJ-WRD WELL NO. 21-0364



GROUND-WATER LEVELS

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MERCER COUNTY--Continued

NJ-WRD Well Number, 21-0365. Site I.D., 402138074435801. Local I.D., AT&T North Obs.

LOCATION.--Lat 40°21'38", long 74°43'58", Hydrologic Unit 02030105, AT&T, Carter Rd., Hopewell Township.
Owner: AT&T.

AQUIFER.--Passaic Formation of Triassic-Jurassic age.

WELL CHARACTERISTICS.--Drilled observation well, depth 99 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 231 ft above sea level, by altimeter.
Measuring point: Top of recorder shelf, 3.00 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

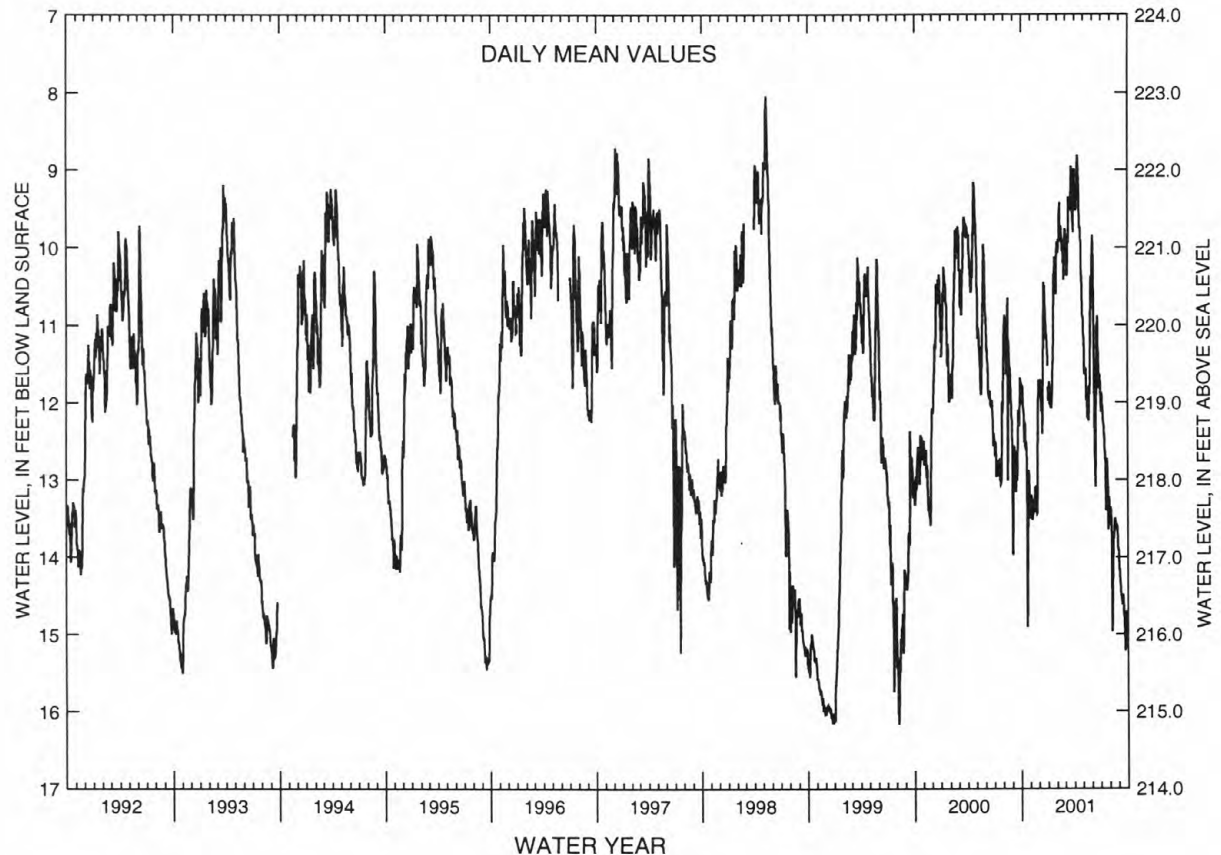
PERIOD OF RECORD.--Feb. 1987 to current year. Records for 1987 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.94 ft below land surface, May 11-12, 1998; lowest, 16.80 ft below land surface, Aug. 19, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.93	13.21	11.70	11.73	9.91	10.10	9.51	11.32	9.98	11.87	13.40	14.25
10	12.10	13.33	12.08	12.06	9.42	9.85	9.24	11.55	10.88	12.29	14.43	14.48
15	12.41	13.26	11.64	11.90	9.80	9.50	9.06	11.87	12.09	12.59	13.76	14.51
20	12.68	13.26	10.58	10.55	9.91	9.53	9.76	12.18	10.88	13.13	13.52	14.86
25	13.18	13.42	11.11	10.28	10.19	9.55	10.25	11.90	11.82	12.97	13.65	14.81
BOM	13.23	11.71	11.53	9.93	9.77	9.00	10.89	10.53	11.88	13.39	13.88	14.81
MEAN	12.59	13.12	11.43	11.26	9.93	9.63	9.61	11.52	11.24	12.64	13.74	14.60
WTR YR 2001	MEAN 11.79	HIGH 8.81	APR 13	LOW 15.22	SEP 23							

NJ-WRD WELL NO. 21-0365



GROUND-WATER LEVELS

MERCER COUNTY--Continued

NJ-WRD Well Number, 21-0366. Site I.D., 401834074515501. Local I.D., Washington Crossing Park 14 Obs. NJ Permit Number, 27-10248-3.

LOCATION.--Lat 40°18'37", long 74°51'15", Hydrologic Unit 02040105, off Brick Yard Rd., in Washington Crossing State Park, Hopewell Township.

Owner: State of New Jersey - New Jersey Geological Survey.

AQUIFER.--Passaic Formation of Triassic-Jurassic age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 225 ft, open hole 50 to 225 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Apr. 1991 to Apr. 1992.

DATUM.--Land surface is 183.3 ft above sea level.

Measuring point: Top of recorder shelf, 2.10 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

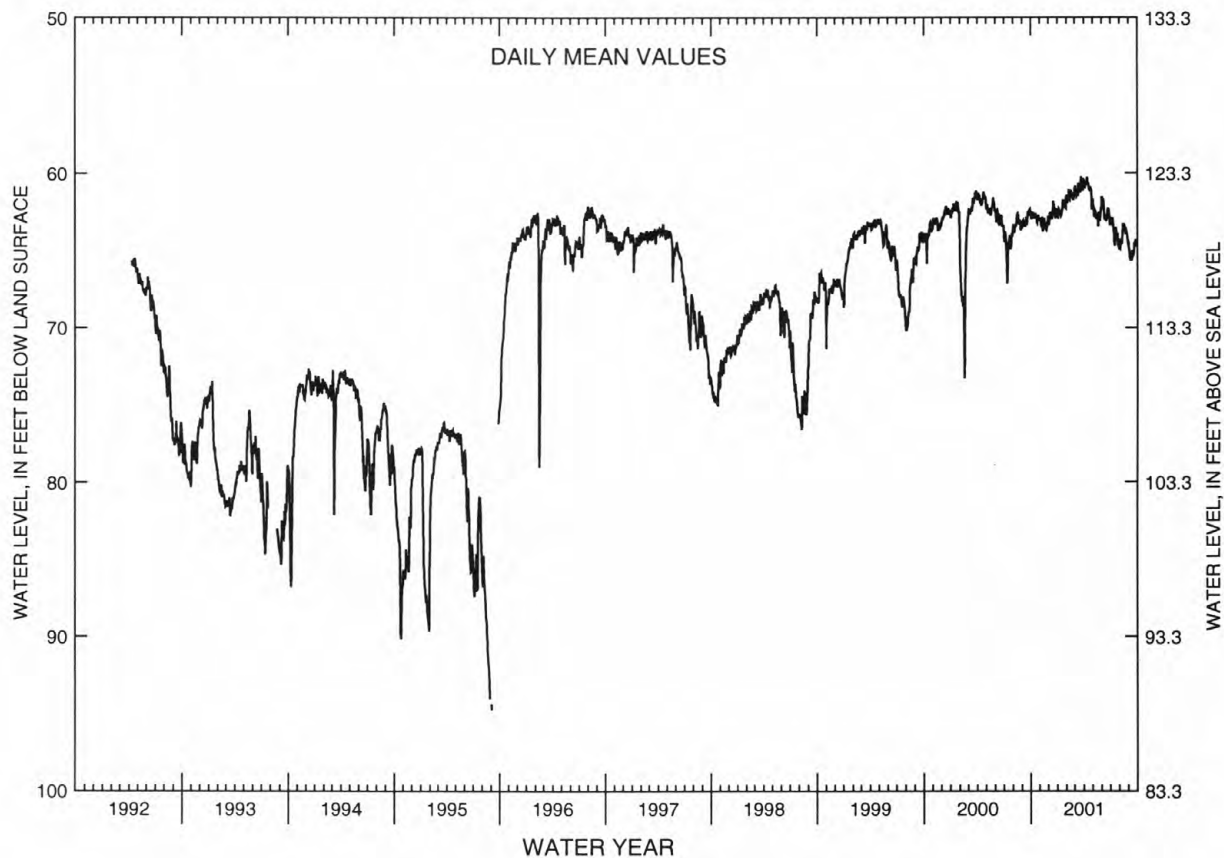
PERIOD OF RECORD.--Apr. 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 59.76 ft below land surface, Apr. 13, 2001; lowest, 95.09 ft below land surface, Sept. 3, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	62.79	63.39	62.74	62.34	61.56	61.27	60.92	62.18	61.82	62.89	64.46	65.08
10	62.79	62.85	63.00	62.64	61.13	61.15	60.61	62.48	62.80	63.23	64.61	65.61
15	62.83	63.11	62.54	62.52	61.09	60.90	60.72	62.99	63.05	64.43	63.38	65.04
20	62.85	63.31	62.14	61.71	61.47	61.23	61.02	63.45	62.74	63.52	63.54	65.15
25	62.85	63.66	62.93	61.98	61.50	60.99	61.06	62.66	62.36	64.09	63.84	64.49
EOM	62.96	62.78	62.58	61.42	61.06	60.36	61.92	62.24	63.38	64.63	64.39	64.80
MEAN	62.84	63.26	62.62	62.31	61.44	60.98	60.94	62.62	62.51	63.78	64.03	65.02
WTR YR 2001 MEAN 62.70 HIGH 60.23 MAR 22 LOW 65.70 SEP 9												

NJ-WRD WELL NO. 21-0366

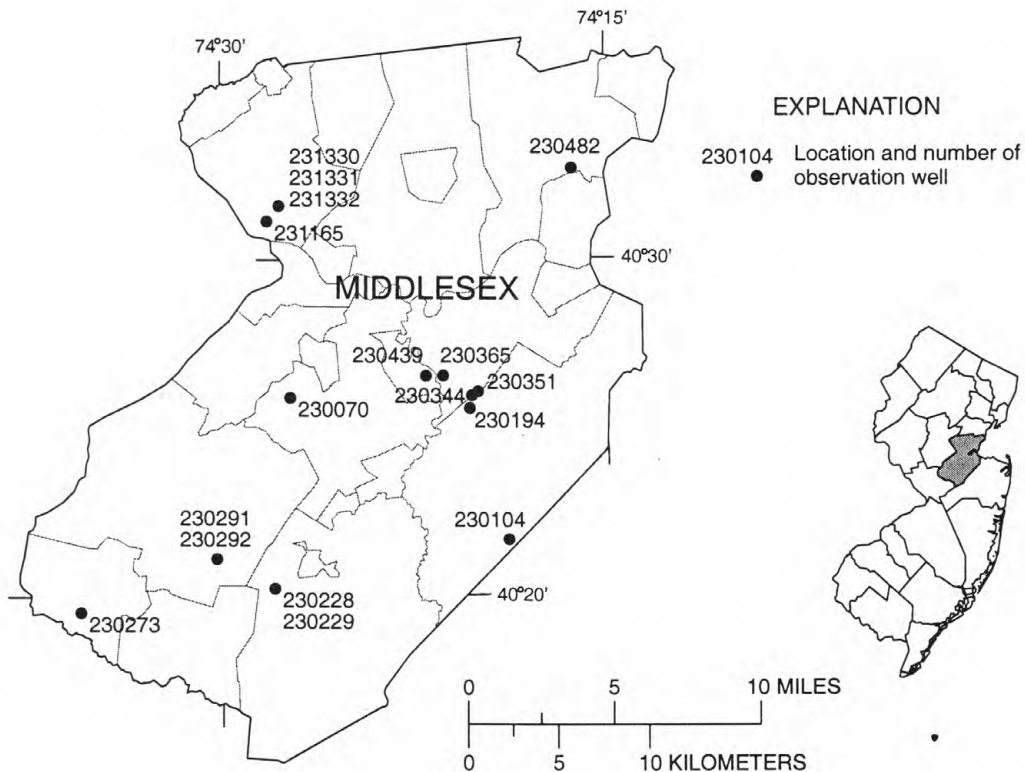


MIDDLESEX COUNTY

NJ-WRD well number	Local identifier	Township	Well depth	Aquifer	Type of data
230070	FISCHER OBS	EAST BRUNSWICK TWP	21	FRNG	DAILY
230104	MORRELL 1 OBS	OLD BRIDGE TWP	11	EGLS	DAILY
230194	RUNYON 1 OBS	OLD BRIDGE TWP	281	FRNG	MANUAL
230228	FORS_GATE 3 OBS	MONROE TWP	138	ODBG	MAXMIN
230229	FORS_GATE 4 OBS	MONROE TWP	330	FRNG	MAXMIN
230273	PLAINSBORO POND OBS	PLAINSBORO TWP	75	MRPAM	MANUAL
230291	FORS_GATE 1 OBS	SOUTH BRUNSWICK TWP	203	FRNG	MANUAL
230292	FORS_GATE 2 OBS	SOUTH BRUNSWICK TWP	104	ODBG	MANUAL
230344	SWD 2 OBS	SAYREVILLE BORO	37	ODBG	MANUAL
230351	SWD 1 OBS	SAYREVILLE BORO	82	ODBG	MANUAL
230365	DUH SAY 4 OBS	SAYREVILLE BORO	160	FRNG	MANUAL
230439	SRWD 2 OBS	SOUTH RIVER BORO	126	FRNG	MANUAL
230482	AMERICAN CYANAMID 1 OBS	WOODBRIIDGE TWP	76	FRNG	MANUAL
231165	RUTGERS GOLF 13 OBS	PISCATAWAY TWP	200	PSSC	DAILY
231330	RUTGERS MW-12A	PISCATAWAY TWP	80	PSSC	DAILY
231331	RUTGERS MW-12B	PISCATAWAY TWP	50	PSSC	DAILY
231332	RUTGERS MW-12C	PISCATAWAY TWP	25	PSSC	DAILY

Aquifer names

- EGLS - Englishtown aquifer system
- FRNG - Farrington aquifer
- MRPAM - Middle Potomac-Raritan-Magothy aquifer
- ODBG - Old Bridge aquifer
- PSSC - Passaic Formation



GROUND-WATER LEVELS

MIDDLESEX COUNTY

NJ-WRD Well Number, 23-0070. Site I.D., 402553074271701. Local I.D., Fischer Obs.

LOCATION.--Lat 40°25'55", long 74°27'19", Hydrologic Unit 02030105, 32 Beaver Dam Drive and Hardenburg Lane, East Brunswick Township.
Owner: Abe Weiss.

AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Dug water-table observation well, diameter 54 in., depth 21 ft, lined with concrete blocks.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Water-level extremes recorder, Jan. 1977 to Apr. 1985. Water-level recorder, July 1936 to April 1975.

DATUM.--Land surface is 73.00 ft above sea level.

Measuring point: Top of angle iron at bottom of shelter doors, 1.70 ft above land surface.

REMARKS.--Well deepened on Oct. 29, 1965 from 17 to 21 ft.

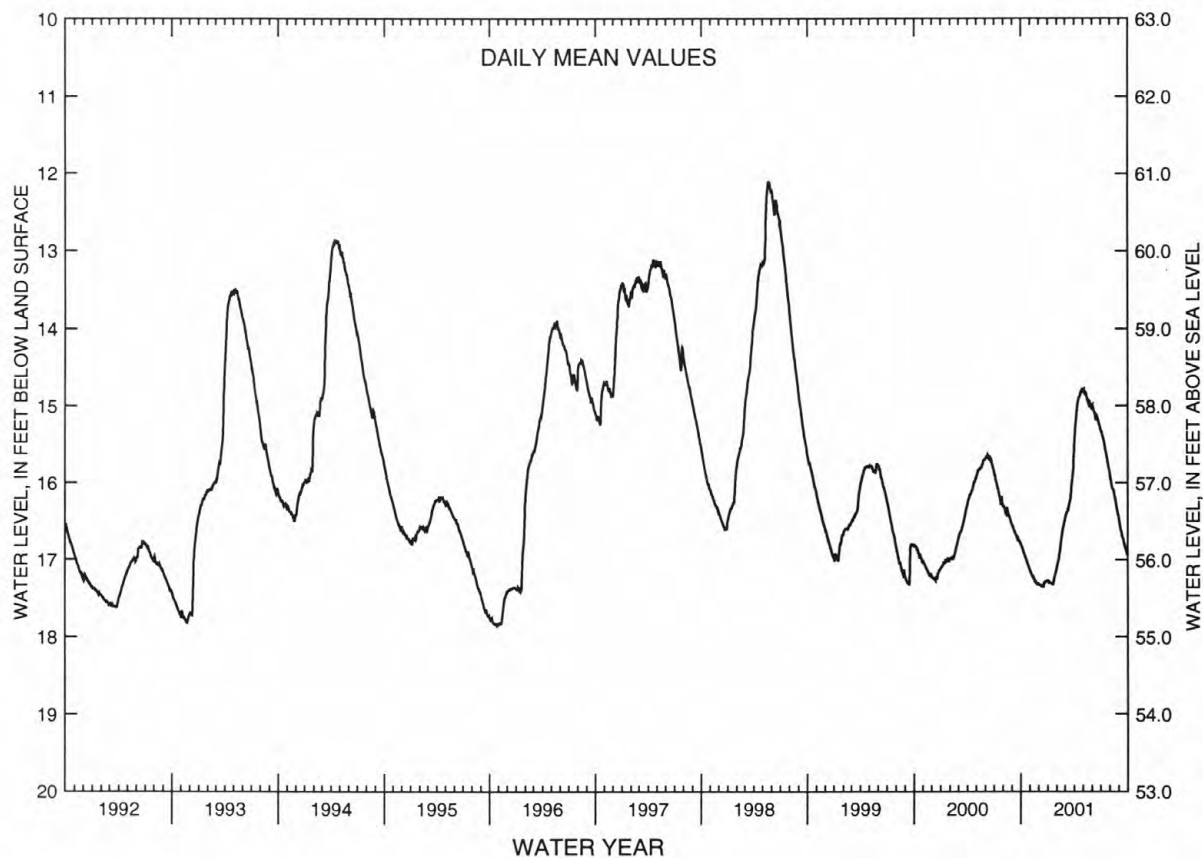
PERIOD OF RECORD.--June 1936 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.88 ft below land surface, Apr. 26-27, 1939; lowest, 19.11 ft below land surface, between July 24 and Oct. 6, 1981. Well was dry many times from 1963 to 1965, before deepening.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.84	17.18	17.33	17.29	17.02	16.40	15.30	14.79	15.03	15.34	15.97	16.54
10	16.89	17.21	17.34	17.30	16.91	16.36	15.08	14.82	15.09	15.42	16.07	16.64
15	16.95	17.25	17.35	17.31	16.76	16.28	14.93	14.89	15.18	15.52	16.11	16.71
20	17.00	17.29	17.30	17.31	16.63	16.19	14.87	14.98	15.15	15.62	16.21	16.80
25	17.06	17.32	17.28	17.20	16.53	15.99	14.83	14.98	15.22	15.73	16.32	16.86
EOM	17.12	17.31	17.27	17.11	16.48	15.68	14.79	15.04	15.30	15.85	16.43	16.94
MEAN	16.96	17.25	17.31	17.26	16.78	16.20	15.02	14.90	15.14	15.55	16.16	16.72
WTR YR 2001 MEAN 16.27 HIGH 14.78 MAY 1 LOW 17.35 DEC 12												

NJ-WRD WELL NO. 23-0070



MIDDLESEX COUNTY--Continued

NJ-WRD Well Number, 23-0104. Site I.D., 402143074185201. Local I.D., Morrell 1 Obs.

LOCATION.--Lat 40°21'43", long 74°18'49", Hydrologic Unit 02030105, on the north side of Texas Rd., about 0.4 mi west of Rt. 9, Old Bridge Township.

Owner: Olympia and York Bridge Development Corp.

AQUIFER.--Englishtown aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Dug water-table observation well, diameter 17 in., depth 11 ft, cased with precast concrete rings.

INSTRUMENTATION.--Data collection platform with satellite telemetry--60 minute recording interval. Water-level recorder, Dec. 1984 to May 2001. Periodic measurements, Aug. 1975 to Dec. 1984. Water-level recorder, Oct. 1923 to Aug. 1975.

DATUM.--Land surface is 76.75 ft above sea level.

Measuring point: Top of concrete ring, 0.20 ft above land surface.

REMARKS.--Well depth was 6 ft before deepening in Sept. 1932.

PERIOD OF RECORD.--Oct. 1923 to current year. Records for 1973 to 1985 are unpublished and are available in files of the New Jersey District Office.

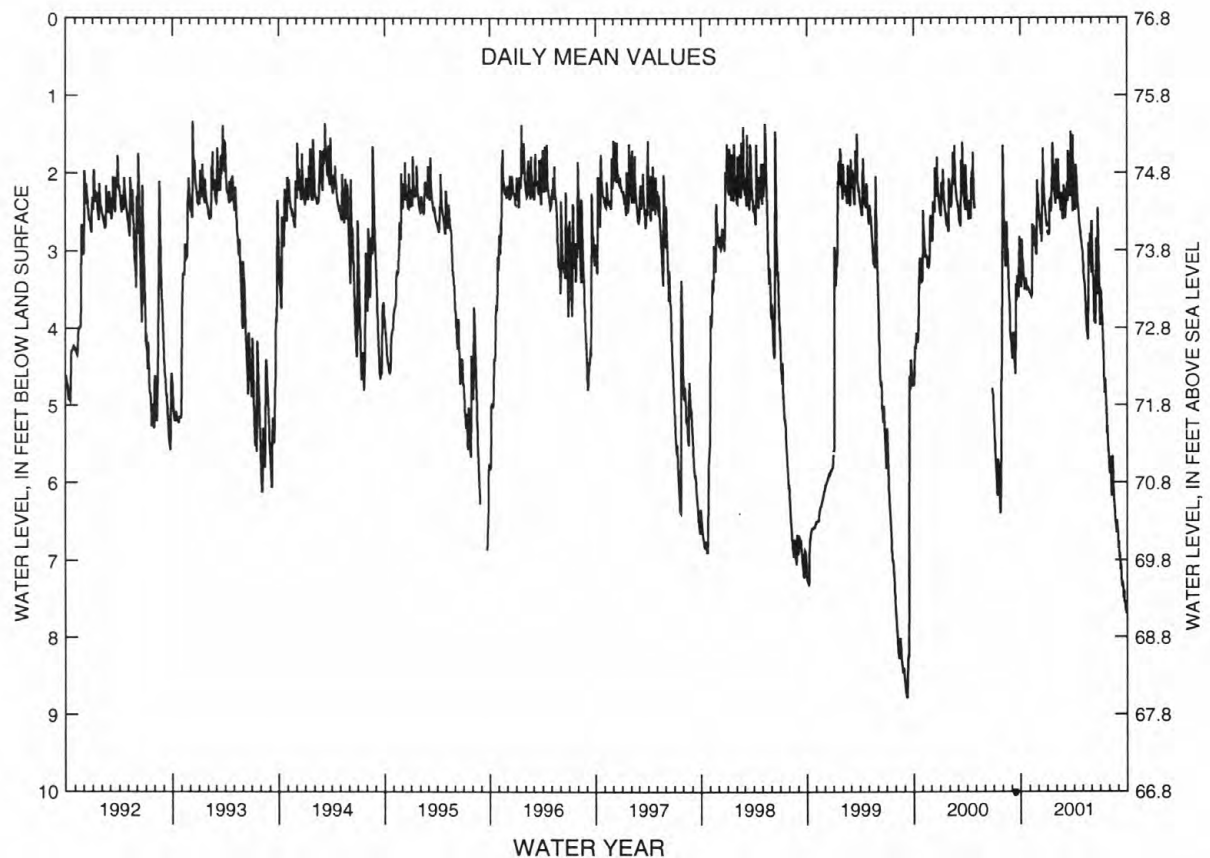
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.84 ft below land surface, Jan. 19, 1996; lowest, 10.40 ft below land surface, Oct. 13, 1953. Well was dry, Aug. to Sept. 1932, before deepening.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.97	3.56	2.57	2.77	2.20	2.51	2.45	3.29	3.03	3.52	5.67	6.89
10	3.14	2.93	2.79	2.34	2.14	2.13	1.89	3.54	3.81	4.09	6.18	7.05
15	3.47	2.68	2.15	2.31	2.44	2.11	2.37	3.95	3.93	4.64	5.90	7.33
20	3.37	2.93	2.14	1.61	2.45	2.31	2.63	4.16	3.32	4.79	6.33	7.48
25	3.47	3.06	2.48	2.23	2.40	2.18	2.81	3.05	2.69	5.32	6.60	7.55
EOM	3.53	2.26	2.69	1.82	2.33	1.81	2.98	3.19	3.85	5.67	6.60	7.68
MEAN	3.35	2.97	2.46	2.33	2.28	2.17	2.48	3.46	3.34	4.57	6.15	7.26

WTR YR 2001 MEAN 3.57 HIGH 1.46 MAR 22 LOW 7.69 SEP 29

NJ-WRD WELL NO. 23-0104



GROUND-WATER LEVELS

MIDDLESEX COUNTY--Continued

NJ-WRD Well Number, 23-0194. Site I.D., 402536074201801. Local I.D., Runyon 1 Obs.

LOCATION.--Lat 40°25'36", long 74°20'18", Hydrologic Unit 02030105, at the Runyon Watershed, Old Waterworks Rd., Old Bridge Township.

Owner: Perth Amboy Water Department.

AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 18 in., depth 281 ft, screened 201 to 231 ft and 251 to 281 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Aug. 1934 to Aug. 1975.

DATUM.--Land surface is 18.30 ft above sea level.

Measuring point: Top of casing, 0.00 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

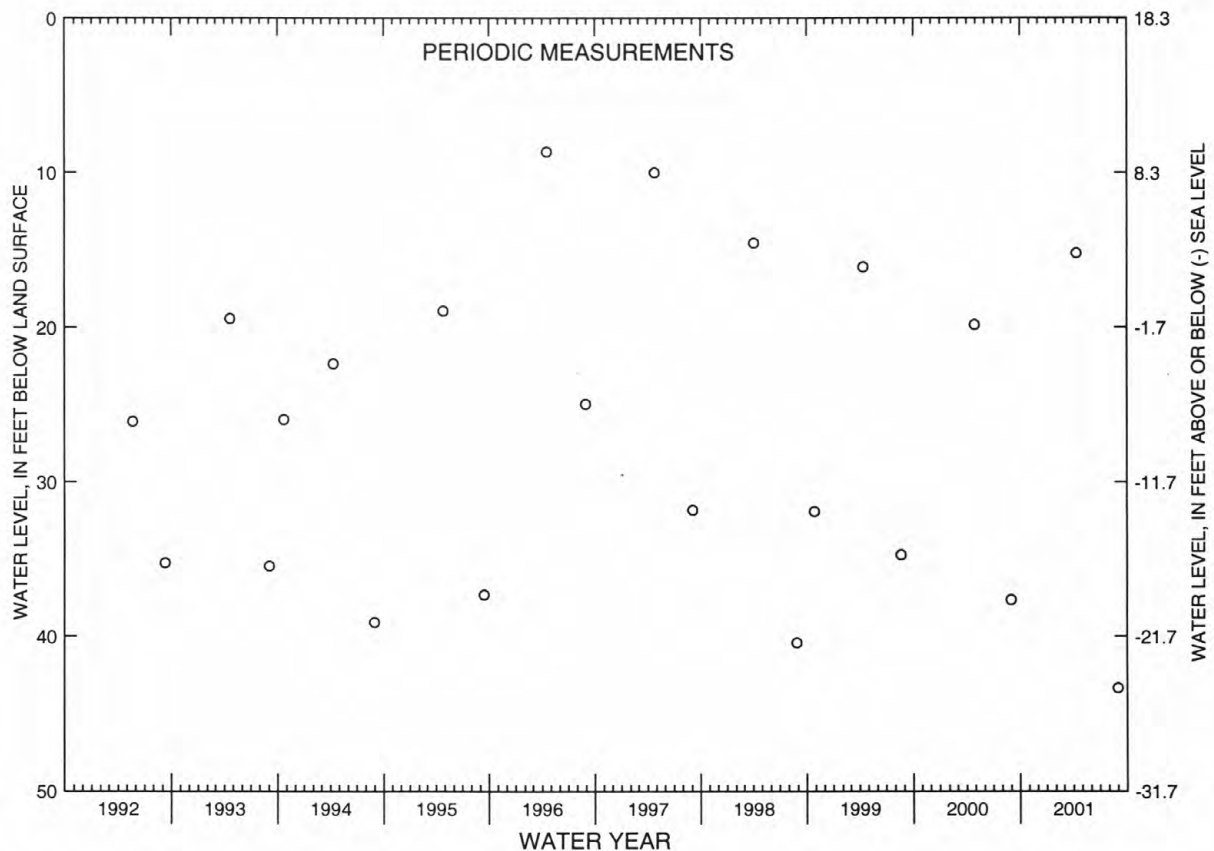
PERIOD OF RECORD.--Aug. 1934 to current year. Records for 1934 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.50 ft below land surface, Mar. 1, 1943, Mar. 26, 1944; lowest, 109.32 ft below land surface, Oct. 21, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 12	15.22	AUG 31	43.31

NJ-WRD WELL NO. 23-0194



MIDDLESEX COUNTY--Continued

NJ-WRD Well Number, 23-0228. Site I.D., 402015074275701. Local I.D., Forsgate 3 Obs. NJ Permit Number, 28-04251.

LOCATION.--Lat 40°20'15", long 74°27'57", Hydrologic Unit 02030105, Hanover Lane at Rossmoor, Monroe Township.
Owner: Monroe Township Municipal Utilities Authority.

AQUIFER.--Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 138 ft, screened 128 to 138 ft.

INSTRUMENTATION.--Water-level extremes recorder. Periodic measurements, Feb. 1975 to Jan. 1977. Water-level recorder, Oct. 1961 to Feb. 1975.

DATUM.--Land surface is 147.34 ft above sea level.

Measuring point: Front edge of cutout in recorder housing, 1.40 ft below land surface.

REMARKS.--Water level is affected by nearby pumping. Water level was affected by aquifer test between Sept. 11 and Sept. 26, 1996.

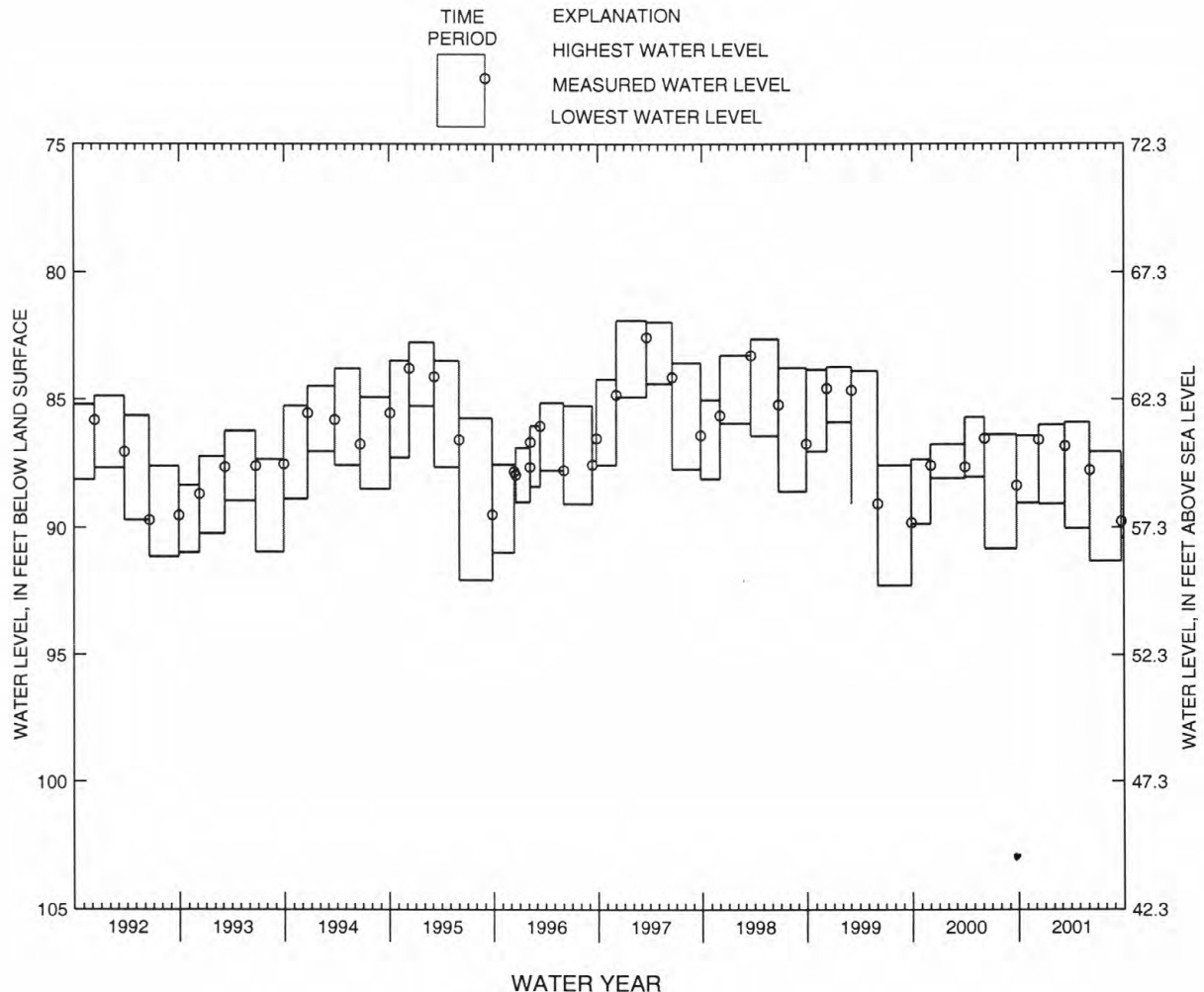
PERIOD OF RECORD.--Oct. 1961 to current year. Records for 1961 to 1976 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 70.32 ft below land surface, May 6, 1962; lowest, 93.72 ft below land surface, between June 22 and Sept. 28, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
WATER-LEVEL EXTREMES MEASURED WATER LEVELS

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 25, 2000 TO DEC. 11, 2000	86.42	89.03	DEC. 11, 2000	86.57
DEC. 11, 2000 TO MAR. 12, 2001	86.00	89.07	MAR. 12, 2001	86.82
MAR. 12, 2001 TO JUNE 6, 2001	85.90	90.02	JUNE 6, 2001	87.76
JUNE 6, 2001 TO SEPT. 24, 2001	87.05	91.30	SEPT. 24, 2001	89.75

NJ-WRD WELL NO. 23-0228



GROUND-WATER LEVELS

MIDDLESEX COUNTY--Continued

NJ-WRD Well Number, 23-0229. Site I.D., 402015074275702. Local I.D., Forsgate 4 Obs. NJ Permit Number, 28-04252.

LOCATION.--Lat 40°20'15", long 74°27'57", Hydrologic Unit 02030105, Hanover Lane at Rossmoor, Monroe Township.
Owner: Monroe Township Municipal Utilities Authority.

AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 330 ft, screened 319 to 330 ft.

INSTRUMENTATION.--Water-level extremes recorder. Periodic measurements, Oct. 1975 to Jan. 1977. Water-level recorder, Apr. 1965 to Oct. 1975.

DATUM.--Land surface is 147.34 ft above sea level.

Measuring point: Front edge of cutout in recorder housing, 1.50 ft below land surface.

REMARKS.--Water level is affected by nearby pumping. Water level was affected by aquifer test between Sept. 11 and Sept. 26, 1996.

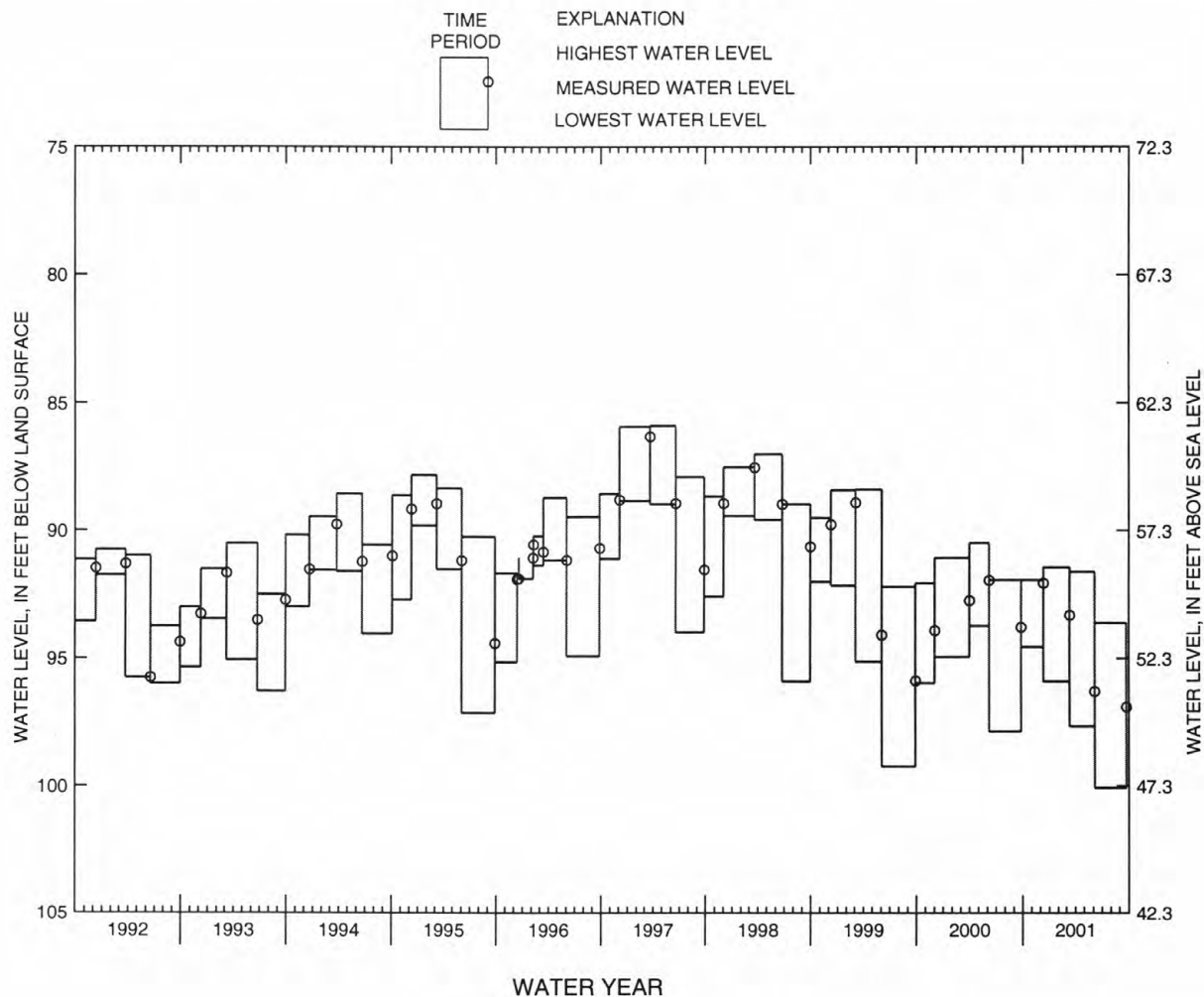
PERIOD OF RECORD.--Apr. 1965 to current year. Records for 1965 to 1976 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 80.09 ft below land surface, July 16, 1973; lowest, 101.23 ft below land surface, between June 22 and Sept. 28, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
WATER-LEVEL EXTREMES MEASURED WATER LEVELS

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 25, 2000 TO DEC. 11, 2000	91.94	94.55	DEC. 11, 2000	92.06
DEC. 11, 2000 TO MAR. 12, 2001	91.44	95.91	MAR. 12, 2001	93.31
MAR. 12, 2001 TO JUNE 6, 2001	91.62	97.67	JUNE 6, 2001	96.30
JUNE 6, 2001 TO SEPT. 24, 2001	93.62	100.08	SEPT. 24, 2001	96.91

NJ-WRD WELL NO. 23-0229



MIDDLESEX COUNTY--Continued

NJ-WRD Well Number, 23-0273. Site I.D., 401932074352901. Local I.D., Plainsboro Pond Obs.

LOCATION.--Lat 40°19'32", long 74°35'29", Hydrologic Unit 02030105, near Plainsboro High School, Grovers Mill Rd. Plainsboro Township.

Owner: State of New Jersey - NJ Water Policy.

AQUIFER.--Middle Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in., depth 75 ft, screened 70 to 75 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 76 ft above sea level, from topographic map.
Measuring point: Top of shelf, 1.40 ft above land surface.

REMARKS.--Water level is affected by the stage of Plainsboro Pond.

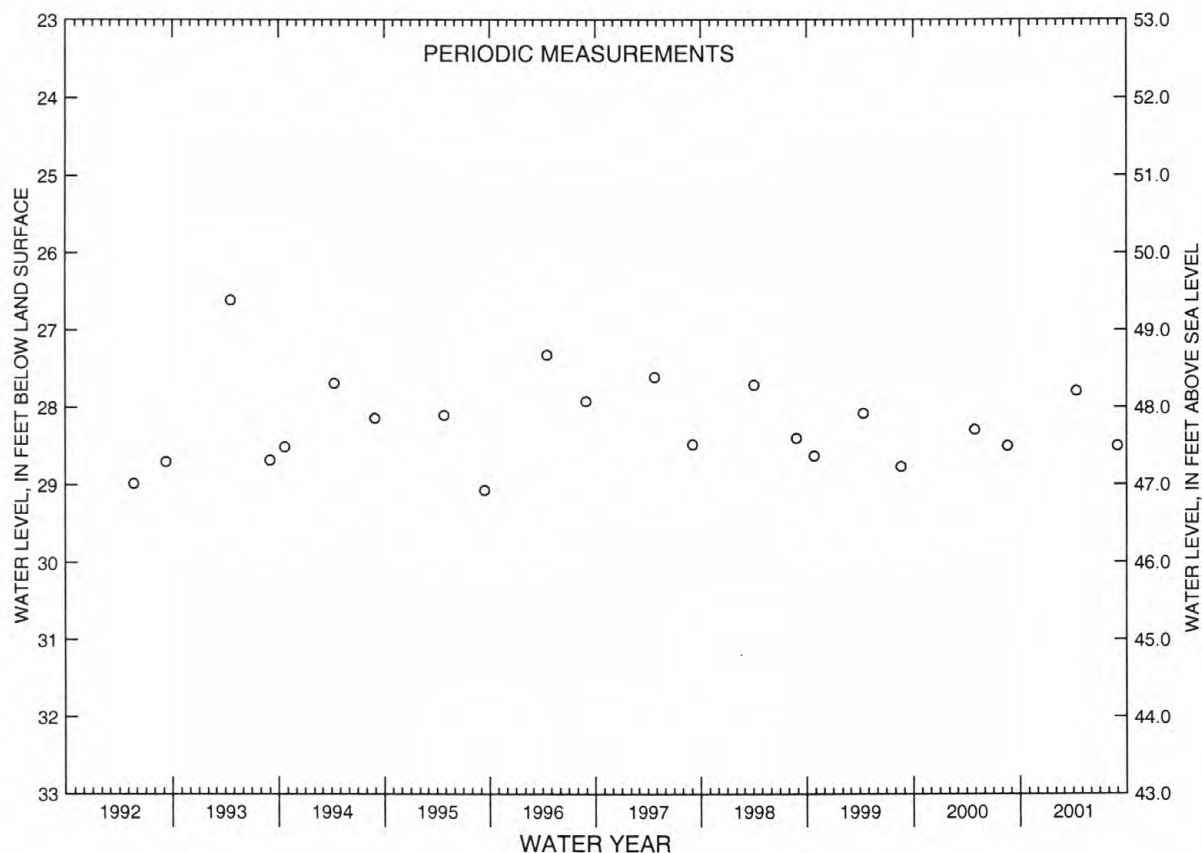
PERIOD OF RECORD.--Dec. 1970 to Nov. 1984, Apr. 1987 to Sept. 1987, Apr. 1990 to current year. Records for 1970 to 1984, and 1987 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.49 ft below land surface, May 20, 1983; lowest, 29.94 ft below land surface, July 27, 1971.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 12	27.79	AUG 31	28.50

NJ-WRD WELL NO. 23-0273



GROUND-WATER LEVELS

MIDDLESEX COUNTY--Continued

NJ-WRD Well Number, 23-0291. Site I.D., 402109074301301. Local I.D., Forsgate 1 Obs. NJ Permit Number, 28-04249.

LOCATION.--Lat 40°21'09", long 74°30'13", Hydrologic Unit 02030105, on the south side of Friendship Rd., about 0.4 mi west of Rt. 130, South Brunswick Township.
Owner: Monroe Township Municipal Utilities Authority.

AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 203 ft, screened 192 to 203 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level extremes recorder, Jan. 1977 to Sept. 1984. Periodic measurements, Oct. 1975 to Jan. 1977. Water-level recorder, Apr. 1965 to Oct. 1975.

DATUM.--Land surface is 106.79 ft above sea level.
Measuring point: Top of shelf, 1.90 ft above land surface.

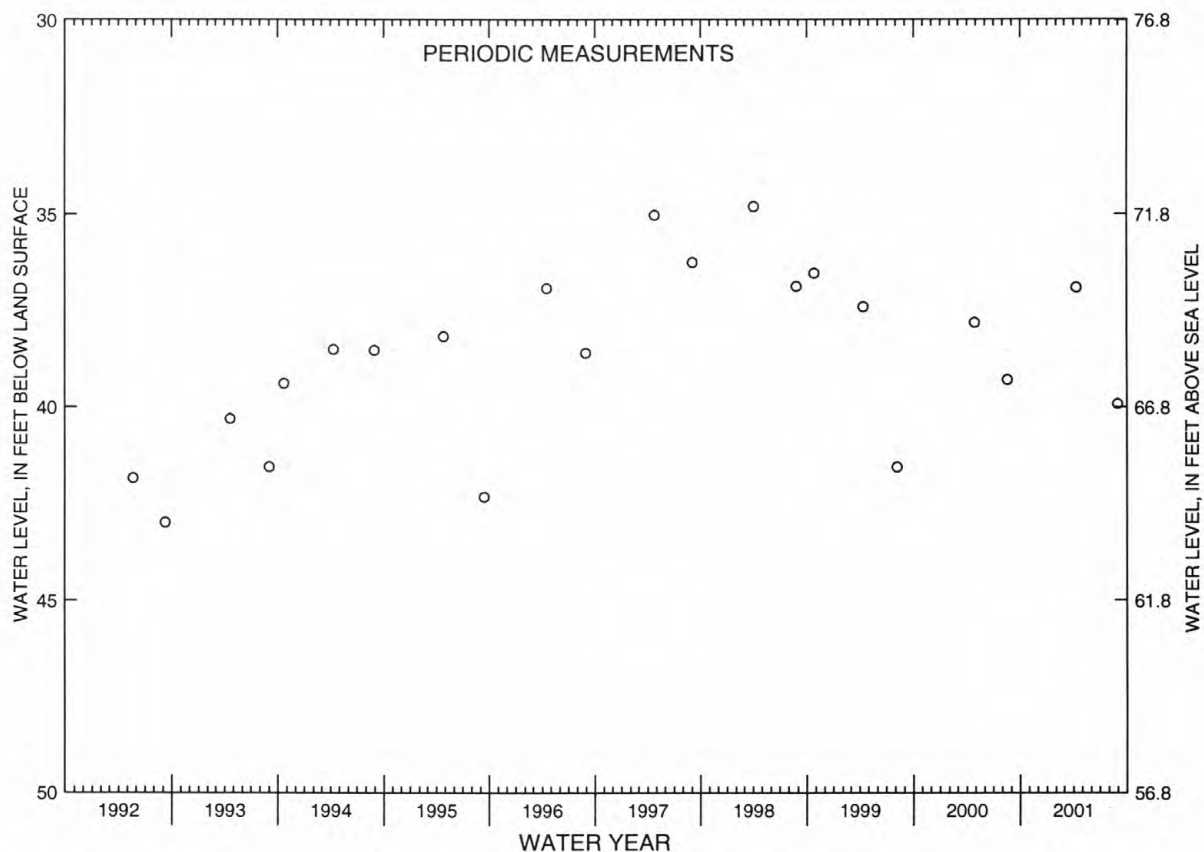
PERIOD OF RECORD.--Apr. 1965 to current year. Records for 1965 to 1975 and 1985 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.70 ft below land surface, July 5, 1973; lowest, 44.31 ft below land surface, between Jan. 12 and Apr. 21, 1983.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 12	36.89	AUG 31	39.92

NJ-WRD WELL NO. 23-0291



MIDDLESEX COUNTY--Continued

NJ-WRD Well Number, 23-0292. Site I.D., 402109074301302. Local I.D., Forsgate 2 Obs. NJ Permit Number, 28-04250.

LOCATION.--Lat 40°21'09", long 74°30'12", Hydrologic Unit 02030105, on the south side of Friendship Rd., about 0.4 mi west of Rt. 130, South Brunswick Township.

Owner: Monroe Township Municipal Utilities Authority.

AQUIFER.--Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 104 ft, screened 93 to 104 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level extremes recorder, Aug. 1983 to Sept. 1985. Periodic measurements, Oct. 1975 to Aug. 1983. Water-level recorder, Oct. 1961 to Oct. 1975.

DATUM.--Land surface is 106.89 ft above sea level.

Measuring point: Top of shelf, 2.60 ft above land surface.

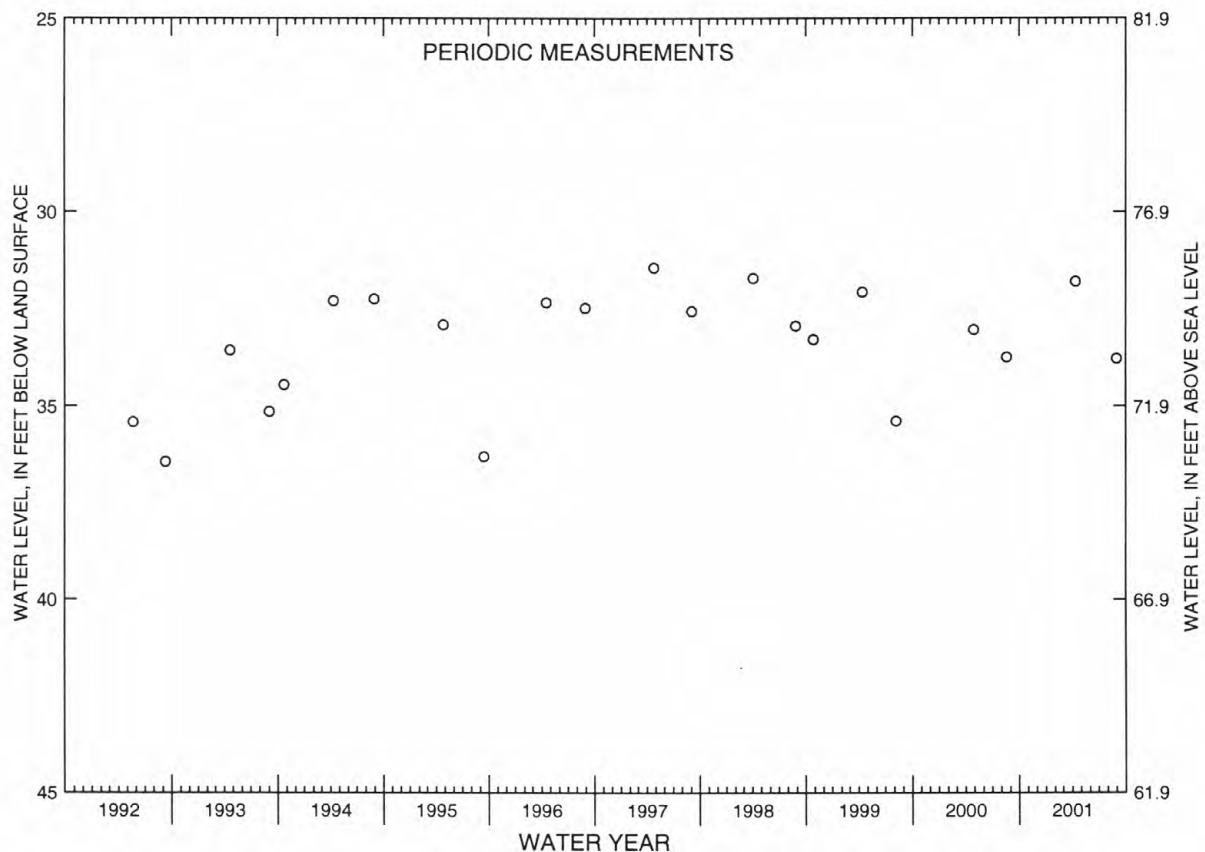
PERIOD OF RECORD.--October 1961 to current year. Records for 1961 to 1983 and 1985 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.09 ft below land surface, May 2-3, 1962; lowest, 36.98 ft below land surface, Sept. 29, 1982.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 12	31.79	AUG 31	33.78

NJ-WRD WELL NO. 23-0292



GROUND-WATER LEVELS

MIDDLESEX COUNTY--Continued

NJ-WRD Well Number, 23-0344. Site I.D., 402558074201301. Local I.D., SWD 2 Obs.

LOCATION.--Lat 40°25'58", long 74°20'13", Hydrologic Unit 02030105, 1,200 ft west of the Sayreville Water Treatment Plant, Old Bridge-South Amboy Rd., Sayreville Borough.
Owner: Sayreville Water Department.

AQUIFER.--Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in., depth 37 ft, screened 31 to 37 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Oct. 1968 to July 1975.

DATUM.--Land surface is 22.19 ft above sea level.

Measuring point: Top of well shelter shelf, 2.00 ft above land surface.

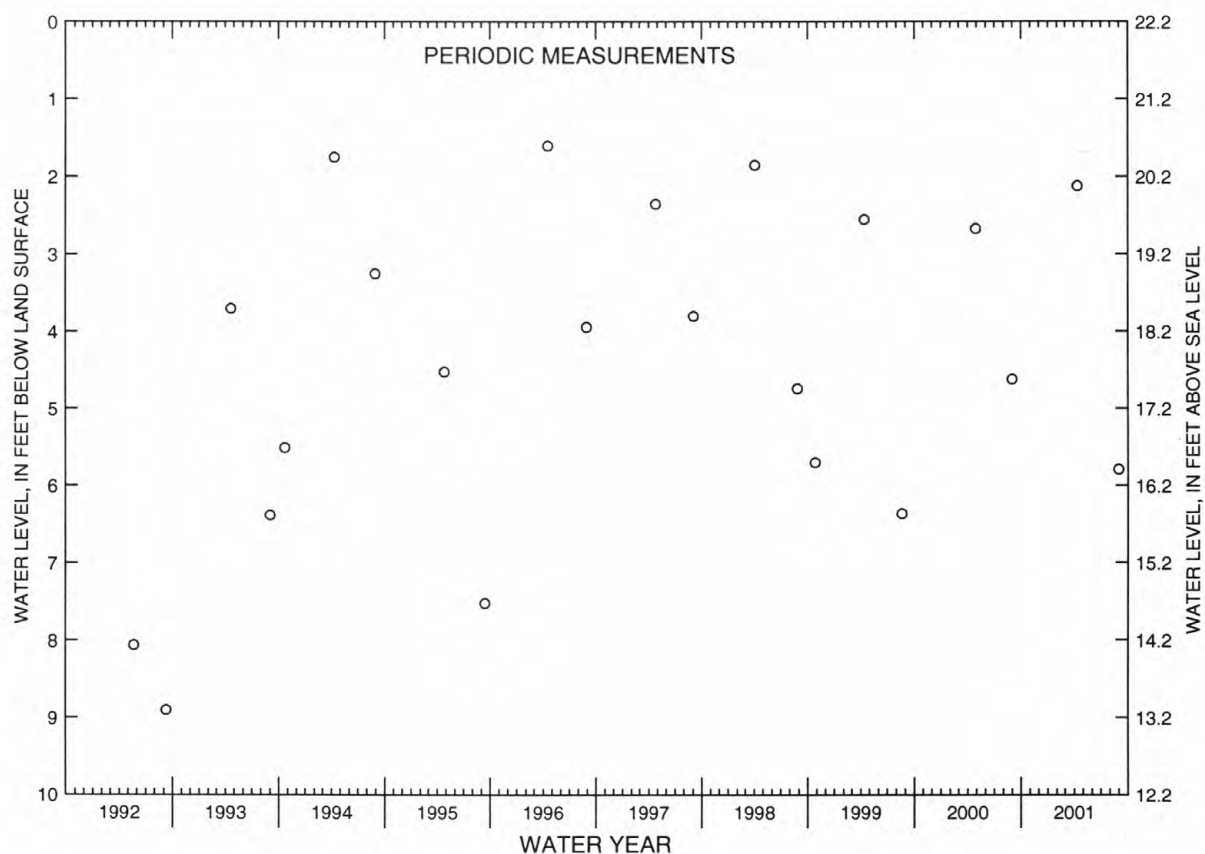
PERIOD OF RECORD.--Nov. 1968 to current year. Records for 1968 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.60 ft below land surface, Apr. 17, 1996; lowest, 14.04 ft below land surface, Nov. 30, 1969, Dec. 16, 1969, Nov. 17-22, 1970.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 12	2.12	AUG 31	5.79

NJ-WRD WELL NO. 23-0344



GROUND-WATER LEVELS

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MIDDLESEX COUNTY--Continued

NJ-WRD Well Number, 23-0351. Site I.D., 402608074195701. Local I.D., SWD 1 Obs.

LOCATION.--Lat 40°26'05", long 74°19'59", Hydrologic Unit 02030105, near the Sayreville Water Treatment Plant, Old Bridge-South Amboy Rd, Sayreville Borough.
Owner: Sayreville Water Department.

AQUIFER.--Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in., depth 82 ft, screened 76 to 82 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 35.27 ft above sea level.
Measuring point: Top of casing, 1.70 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

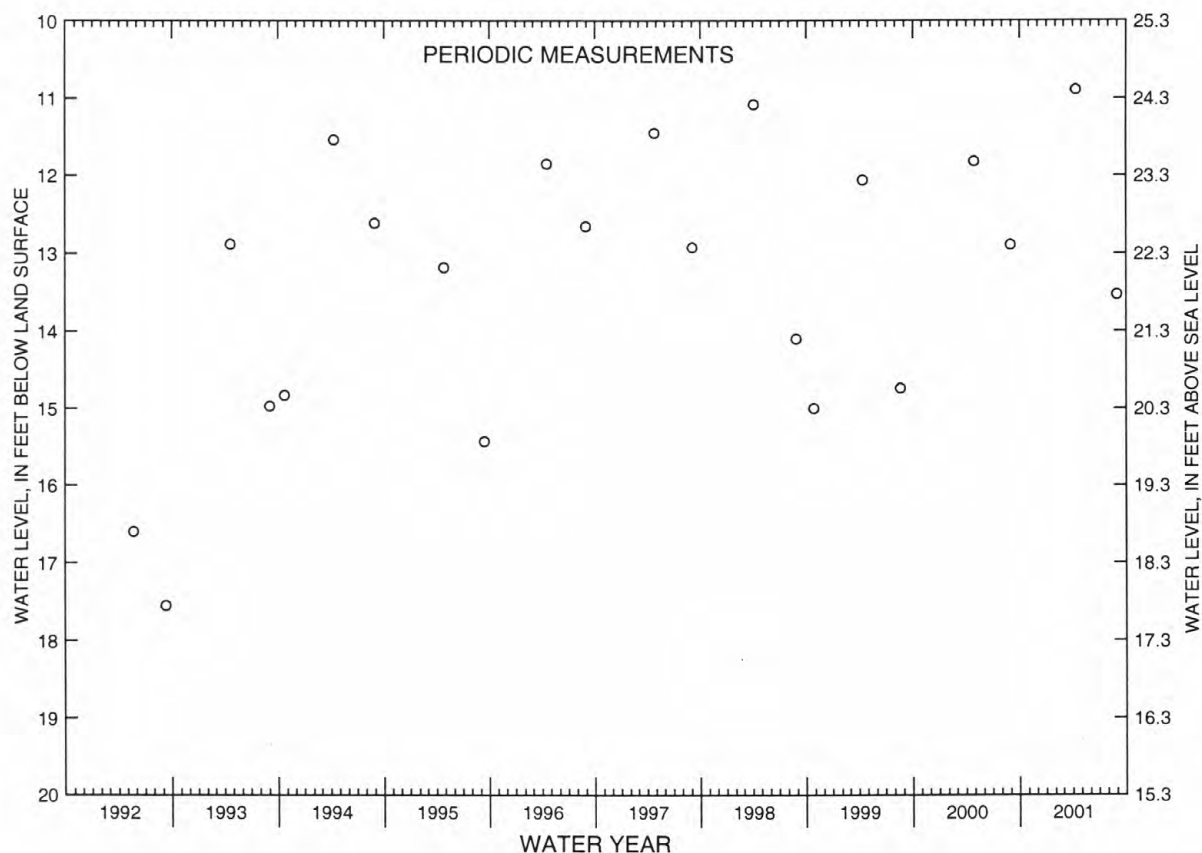
PERIOD OF RECORD.--Nov. 1968 to current year. Records for 1968 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.89 ft below land surface, Apr. 12, 2001; lowest, 27.20 ft below land surface, Dec. 16, 1969.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 12	10.89	AUG 31	13.53

NJ-WRD WELL NO. 23-0351



GROUND-WATER LEVELS

MIDDLESEX COUNTY--Continued

NJ-WRD Well Number, 23-0365. Site I.D., 402623074212701. Local I.D., Duh Say 4 Obs.

LOCATION.--Lat 40°26'33", long 74°21'20", Hydrologic Unit 02030105, in the Maristat Inc. Auto Exchange, Jernee Mill Rd, Sayreville Borough.
Owner: Duhernal Water Company.

AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, depth 160 ft, screened 148 to 160 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Jan. 1936 to Dec. 1973.

DATUM.--Land surface is 5.70 ft above sea level.

Measuring point: Top of well shelter shelf, 3.00 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

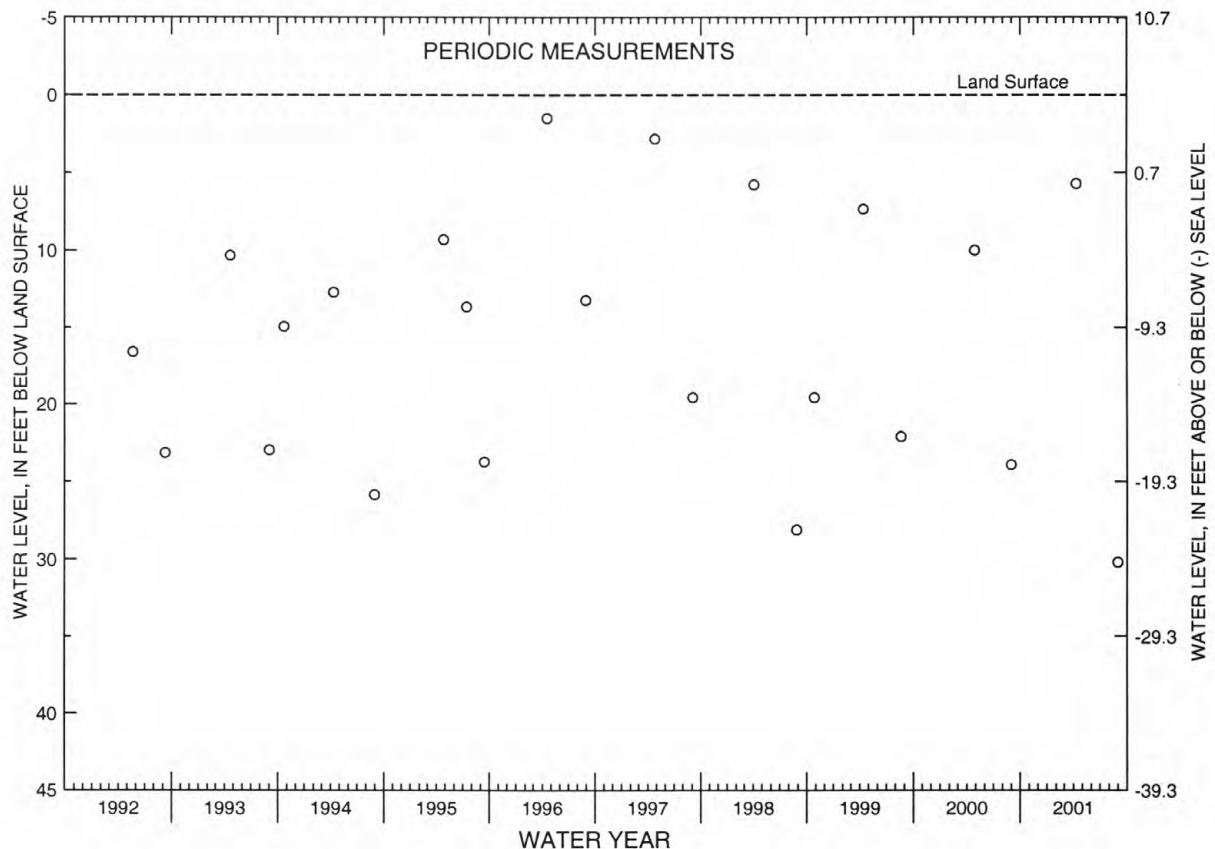
PERIOD OF RECORD.--Jan. 1936 to Nov. 1984, May 1986 to current year. Records for 1936 to 1984 and 1986 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.87 ft above land surface, Mar. 27, 1944; lowest, 72.00 ft below land surface, Oct. 21, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 12	5.71	AUG 31	30.21

NJ-WRD WELL NO. 23-0365



MIDDLESEX COUNTY--Continued

NJ-WRD Well Number, 23-0439. Site I.D., 402633074220001. Local I.D., SRWD 2 Obs. NJ Permit Number, 28-05987.

LOCATION.--Lat 40°26'33", long 74°22'00", Hydrologic Unit 02030105, at the corner of Whitehead Ave. and Anne St. South River Borough.

Owner: South River Water Department.

AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 5 in., depth 126 ft, screened 121 to 126 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level extremes recorder, Jan. 1977 to Sept. 1987. Periodic measurements, Apr. 1975 to Jan. 1977. Water-level recorder, Jan. 1968 to Apr. 1975.

DATUM.--Land surface is 20.69 ft above sea level.

Measuring point: Top of coupling, 2.12 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

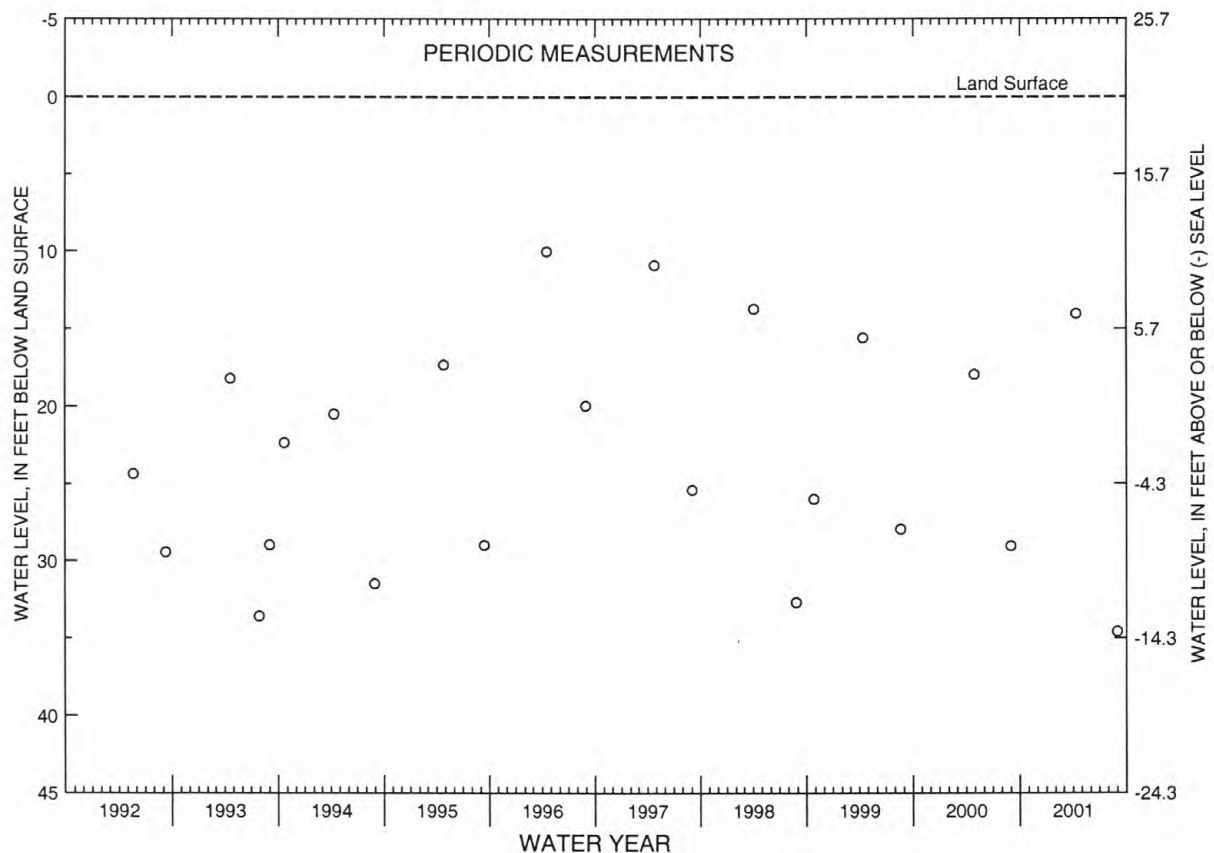
PERIOD OF RECORD.--January 1968 to current year. Records for 1968 to 1975 and 1988 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.00 ft below land surface, Apr. 17, 1996; lowest, 73.64 ft below land surface, between Aug. 25 and Oct. 16, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 12	14.02	AUG 31	34.57

NJ-WRD WELL NO. 23-0439



GROUND-WATER LEVELS

MIDDLESEX COUNTY--Continued

NJ-WRD Well Number, 23-0482. Site I.D., 403242074161701. Local I.D., American Cyanamid 1 Obs.

LOCATION.--Lat 40°32'42", long 74°16'17", Hydrologic Unit 02030104, at the rear of plant near Cutters Dock Rd., Woodbridge Township.
Owner: American Cyanamid Company.

AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 76 ft, screened 44 to 54 ft and 64 to 76 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level extremes recorder, Jan. 1977 to July 1984. Periodic measurements, July 1970 to Jan. 1977. Water-level recorder, Nov. 1952 to July 1970. Periodic measurements, Mar. 1952 to Nov. 1952. Water-level recorder, Oct. 1950 to Mar. 1952. Periodic measurements, Sept. 1950 to Oct. 1950.

DATUM.--Land surface is 11.00 ft above sea level.
Measuring point: Top of shelf, 2.10 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation.

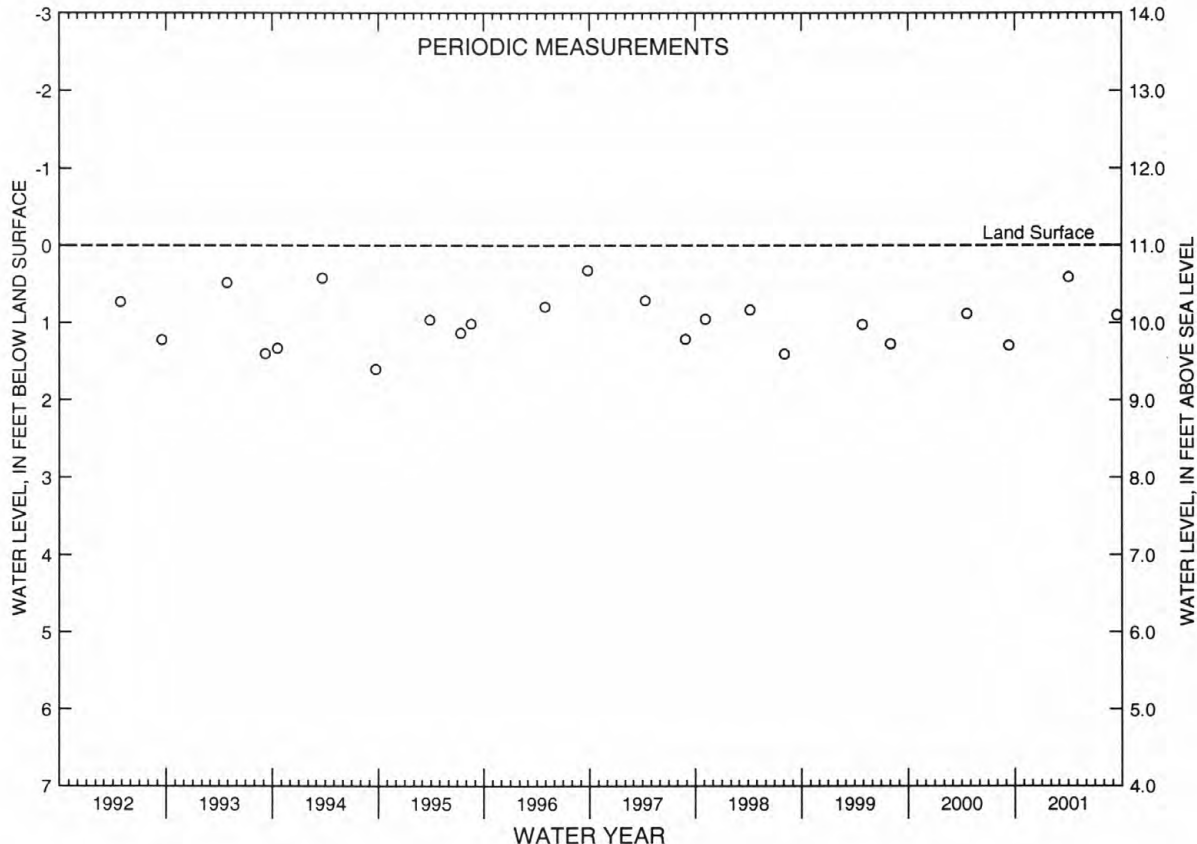
PERIOD OF RECORD.--Sept. 1950 to current year. Records for 1950 to 1982 and 1985 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.34 ft above land surface, between Mar. 30 and July 17, 1984; lowest, 15.43 ft below land surface, between Aug. 26 and Oct. 14, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 03	.41	SEP 17	.90

NJ-WRD WELL NO. 23-0482



MIDDLESEX COUNTY--Continued

NJ-WRD Well Number, 23-1165. Site I.D., 403119074290301. Local I.D., Rutgers Golf 13 Obs. NJ Permit Number, 25-33677-1.

LOCATION.--Lat 40°31'08", long 74°28'12", Hydrologic Unit 02030105, at the Rutgers University Golf Course, Piscataway Township.
Owner: State of New Jersey.

AQUIFER.--Passaic Formation of Triassic-Jurassic age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 200 ft, open hole 50 to 200 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--30-minute recording interval. Water-level recorder, May 1992 to Dec. 1997. Periodic measurements, June 1991 to May 1992.

DATUM.--Land surface is 58.8 ft above sea level.

Measuring point: Top of base of aluminum locking cap, 3.81 ft above land surface.

REMARKS.--Water level is affected by pumping of nearby irrigation well. As of Dec. 10, 1998, recorded water-levels greater than 0.57 ft above land surface indicate a flowing condition.

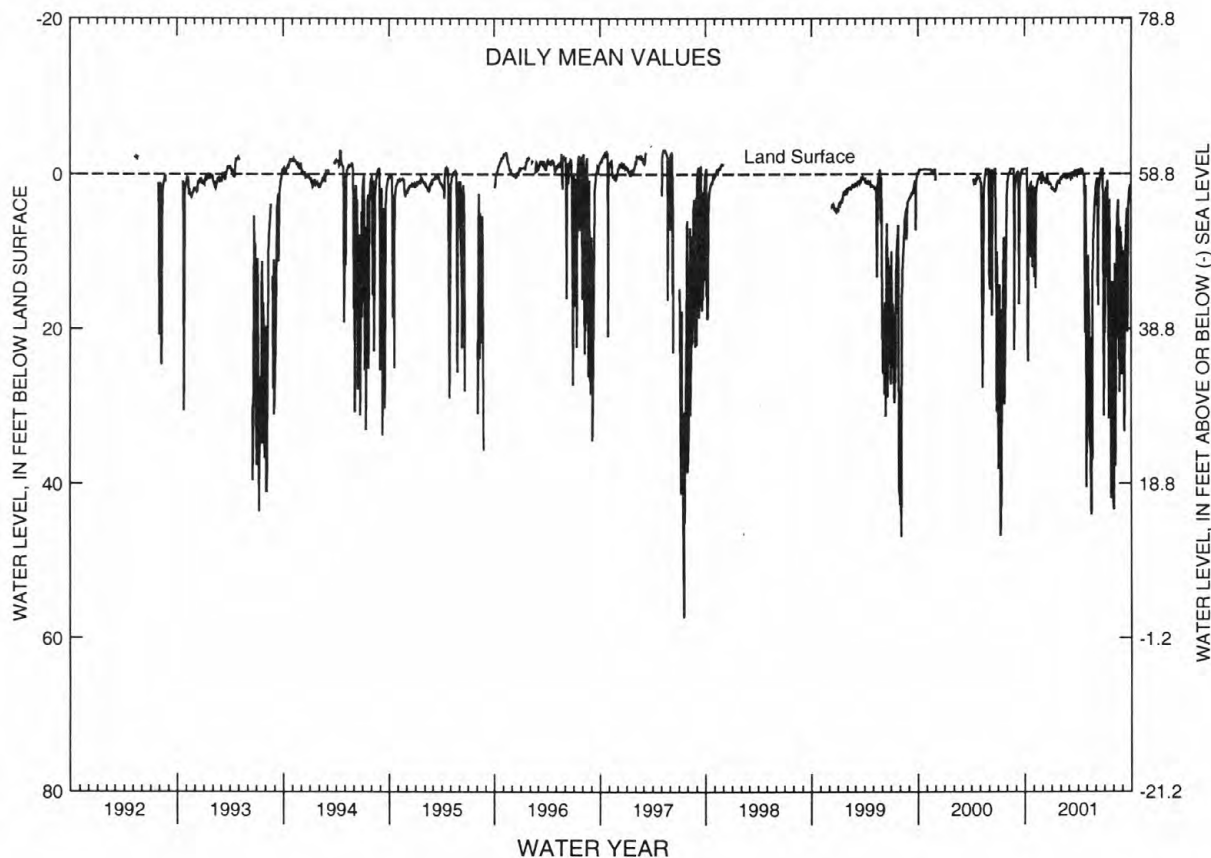
PERIOD OF RECORD.--June 1991 to Dec. 1997, and Dec. 1998 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.72 ft above land surface, many days between Mar. 12 and May 1, 1997;
lowest, 58.29 ft below land surface, July 18, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-.59	2.48	.51	1.81	.40	.19	-.08	32.57	1.09	5.07	19.59	18.20
10	-.59	2.49	.96	2.15	.04	.36	-.49	14.88	4.43	4.99	27.61	28.50
15	6.56	.92	.80	2.12	.11	.00	-.58	32.34	1.42	5.12	6.01	6.74
20	1.56	.42	.74	1.18	.25	.22	.13	21.16	-.36	3.31	16.18	20.43
25	3.23	.38	1.38	1.05	.47	-.15	.52	8.67	-.58	41.95	9.48	2.50
EOM	10.79	-.15	1.43	.59	.15	-.47	24.29	2.99	31.30	35.28	9.41	1.45
MEAN	4.27	2.19	.85	1.63	.36	.06	2.13	22.85	3.99	16.33	17.77	12.12
WTR YR 2001 MEAN 7.12 HIGH -.59 OCT 1 LOW 44.05 MAY 18												

NJ-WRD WELL NO. 23-1165



GROUND-WATER LEVELS

MIDDLESEX COUNTY--Continued

NJ-WRD Well Number, 23-1330. Site I.D., 403135074274401. Local I.D., Rutgers MW-12A. NJ Permit number, 25-52624.

LOCATION.--Lat 40°31'35", long 74°27'44", Hydrologic Unit 02030105, near the intersection of Davidson Ave. and Titsworth Ave., Rutgers University, Piscataway Township.
Owner: Rutgers University.

AQUIFER.--Passaic Formation of Triassic-Jurassic age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 80 ft, screened 60 to 80 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--30 minute recording interval.

DATUM.--Land surface is 90.86 ft above sea level.

Measuring point: Top edge of base of manhole cover, at land surface.

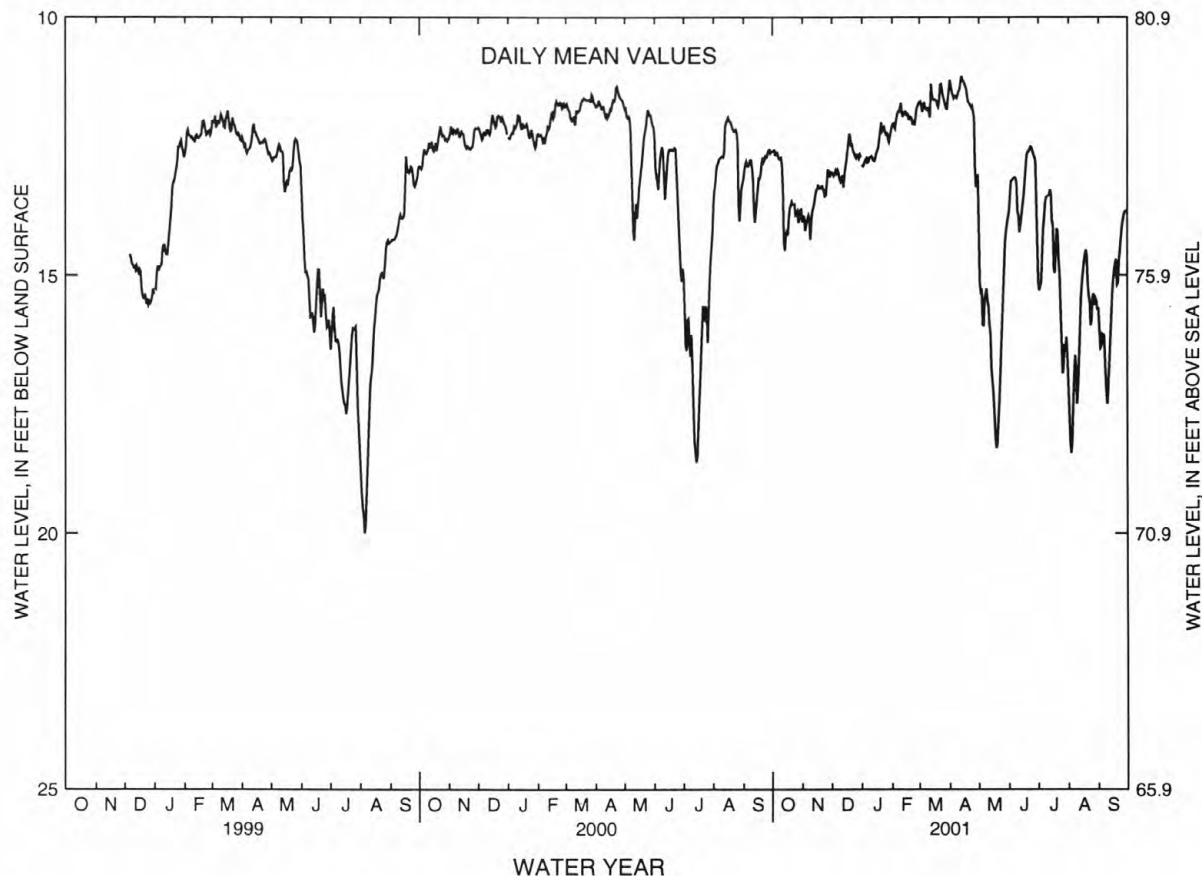
PERIOD OF RECORD.--Dec. 1998 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.39 ft below land surface, Mar. 13, 2001; lowest, 20.18 ft below land surface, Aug. 5, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.66	14.00	12.96	12.75	12.00	11.71	11.56	15.94	13.12	14.52	18.20	16.13
10	12.72	13.95	13.17	12.70	11.65	11.76	11.43	15.48	13.75	---	17.50	17.51
15	14.22	13.35	12.90	12.73	11.82	11.58	11.24	17.06	13.61	13.94	15.15	15.36
20	13.65	13.27	12.30	---	11.92	11.73	11.64	18.29	12.61	14.09	14.60	15.17
25	13.86	13.44	12.69	12.20	11.96	11.53	11.83	15.48	12.59	16.40	15.87	14.04
EOM	13.71	12.99	12.70	---	11.66	---	13.04	13.87	14.40	16.57	15.67	13.74
MEAN	13.44	13.53	12.83	12.56	11.91	11.64	11.70	15.93	13.20	14.89	16.12	15.39
WTR YR 2001	MEAN 13.63 HIGH 11.14 APR 13 LOW 18.45 AUG 4											

NJ-WRD WELL NO. 23-1330



MIDDLESEX COUNTY--Continued

NJ-WRD Well Number, 23-1331. Site I.D., 403135074274402. Local I.D., Rutgers MW-12B. NJ Permit number, 25-52625

LOCATION.--Lat 40°31'35", long 74°27'44", Hydrologic Unit 02030105, near the intersection of Davidson Ave. and Titsworth Ave., Rutgers University, Piscataway Township.
Owner: Rutgers University.

AQUIFER.--Passaic Formation of Triassic-Jurassic age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 50 ft, screened 30 to 50 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--30 minute recording interval.

DATUM.--Land surface is 89.28 ft above sea level.

Measuring point: Top edge of base of manhole cover, at land surface.

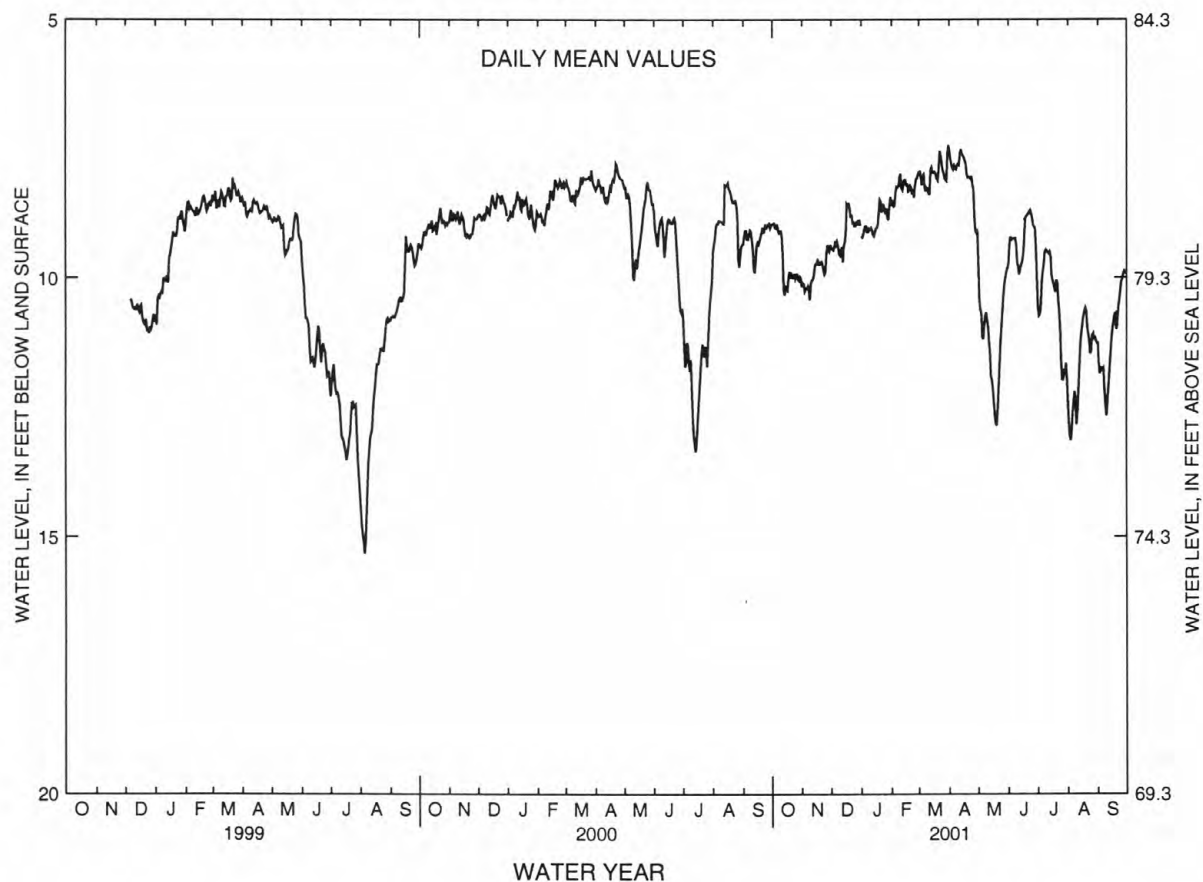
PERIOD OF RECORD.--Dec. 1998 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.36 ft below land surface, Mar. 30, 2001; lowest, 15.45 ft below land surface, Aug. 5, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.03	10.21	9.28	8.99	8.33	8.01	7.90	11.14	9.24	10.09	12.99	11.75
10	9.07	10.10	9.56	9.05	7.97	8.26	7.78	10.80	9.70	---	12.85	12.67
15	10.18	9.72	9.31	9.12	8.09	7.95	7.63	11.97	9.67	9.94	11.04	11.18
20	9.95	9.69	8.62	8.48	8.21	8.11	8.05	12.87	8.76	10.04	10.65	11.00
25	10.01	9.89	8.99	8.67	8.21	7.91	8.19	10.94	8.83	11.61	11.42	10.06
EOM	10.01	9.35	8.98	8.42	7.99	7.43	9.06	9.80	10.13	11.92	11.27	9.88
MEAN	9.67	9.87	9.12	8.90	8.25	7.99	8.00	11.18	9.26	10.56	11.68	11.13
WTR YR 2001 MEAN 9.64 HIGH 7.43 MAR 31 LOW 13.15 AUG 4												

NJ-WRD WELL NO. 23-1331



GROUND-WATER LEVELS

MIDDLESEX COUNTY--Continued

NJ-WRD Well Number, 23-1332. Site I.D., 403135074274403. Local I.D., Rutgers MW-12C. NJ Permit number, 25-52623.

LOCATION.--Lat 40°31'35", long 74°27'44", Hydrologic Unit 02030105, near the intersection of Davidson Ave. and Titsworth Ave., Rutgers University, Piscataway Township.
Owner: Rutgers University.

AQUIFER.--Passaic Formation of Triassic-Jurassic age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 25 ft, screened 10 to 25 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--30 minute recording interval.

DATUM.--Land surface is 89.87 ft above sea level.

Measuring point: Top of base of aluminum locking cap, 3.16 ft above land surface.

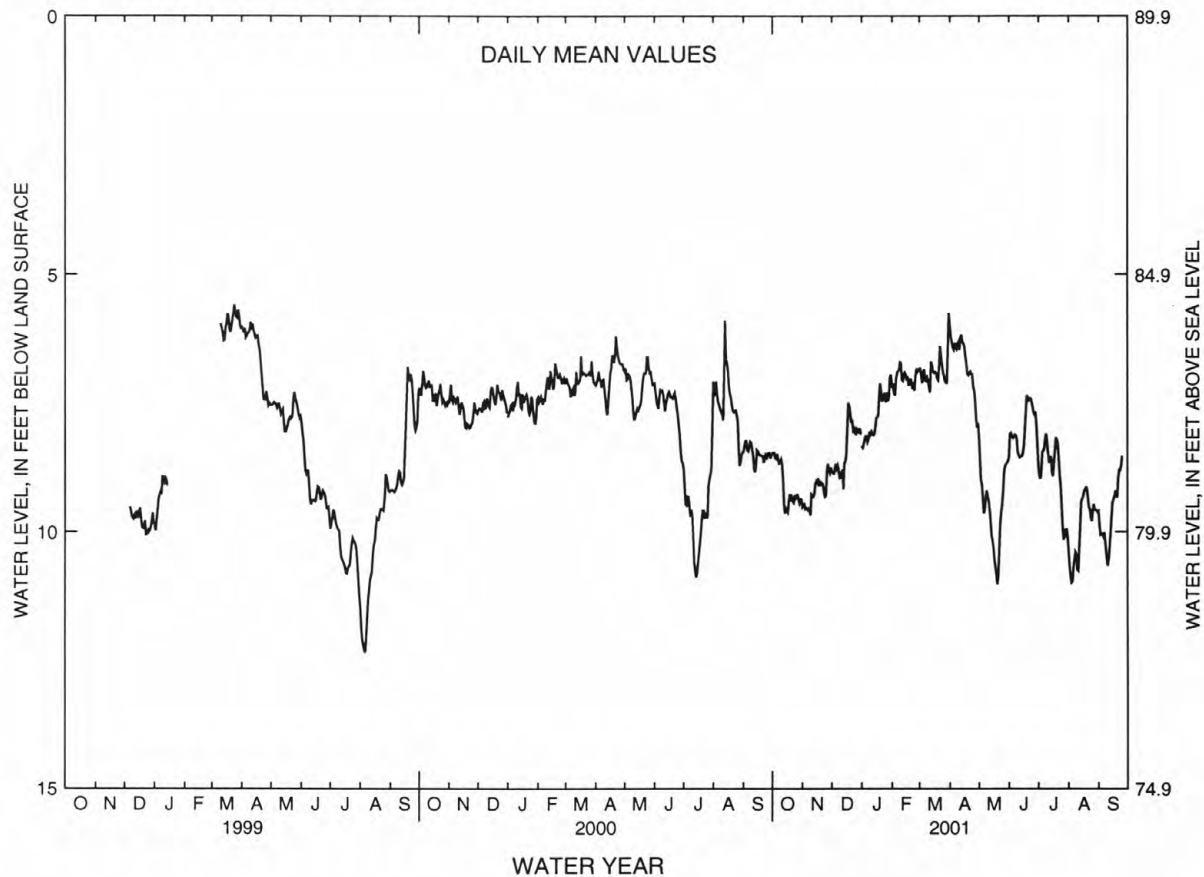
PERIOD OF RECORD.--Dec. 1998 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.95 ft below land surface, Aug. 13, 2000; lowest, 12.40 ft below land surface, Aug. 6, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.58	9.54	8.68	8.15	7.04	6.89	6.45	9.35	8.18	8.45	10.96	10.04
10	8.60	9.27	8.95	8.11	6.71	7.06	6.29	9.31	8.44	---	10.74	10.65
15	9.55	9.02	8.64	7.98	6.94	6.89	6.34	10.17	8.47	8.82	9.35	9.44
20	9.35	9.04	7.68	7.12	7.02	7.05	6.96	11.01	7.39	8.23	9.15	9.34
25	9.36	9.30	8.09	7.43	6.97	6.91	7.18	9.48	7.57	9.52	9.79	8.53
EOM	9.37	8.75	8.11	6.95	6.85	5.75	7.89	8.62	8.33	10.08	9.62	---
MEAN	9.10	9.21	8.39	7.77	7.02	6.89	6.71	9.56	8.02	8.95	9.93	9.66
WTR YR 2001	MEAN 8.43	HIGH 5.75	MAR 31	LOW 11.01	MAY 20							

NJ-WRD WELL NO. 23-1332

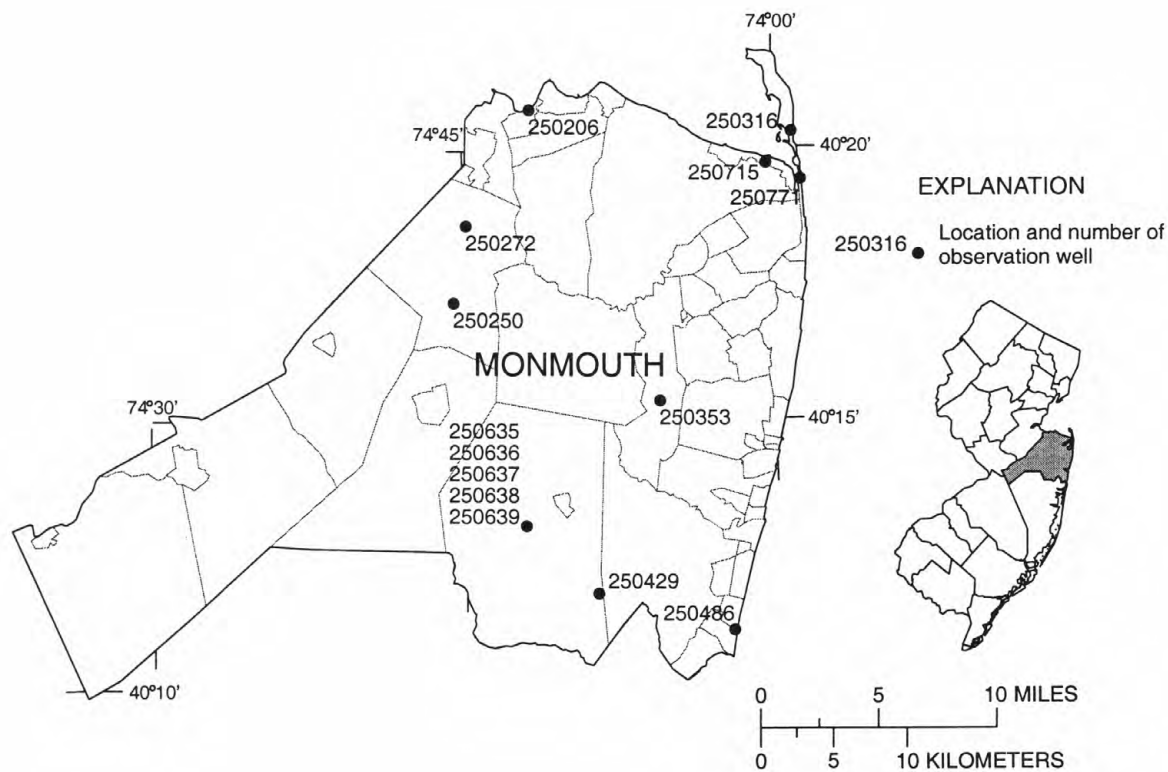


MONMOUTH COUNTY

NJ-WRD well number	Local identifier	Township	Well depth	Aquifer	Type of data
250206	KEYPORT 4 OBS	KEYPORT BORO	249	ODBG	MAXMIN
250250	VILLAGE 215 OBS	MARLBORO TWP	215	EGLS	MANUAL
250272	MARLBORO 1 OBS	MARLBORO TWP	680	FRNG	DAILY
250316	SANDY HOOK SP1 OBS	MIDDLETOWN TWP	397	ODBG	MANUAL
250353	FORT MONMOUTH 1-NCO OBS	TINTON FALLS BORO	327	MLRW	DAILY
250429	ALLAIRE STATE PARK C OBS	HOWELL TWP	633	EGLS	MAXMIN
250486	DOE-SEA GIRT OBS	SEA GIRT BORO	614	MLRW	DAILY
250635	HOWELL TWP 1 OBS	HOWELL TWP	1360	MRPA	DAILY
250636	HOWELL TWP 2 OBS	HOWELL TWP	100	VNCN	DAILY
250637	HOWELL TWP 3 OBS	HOWELL TWP	324	MLRW	DAILY
250638	HOWELL TWP 4 OBS	HOWELL TWP	499	EGLS	DAILY
250639	HOWELL TWP 5 OBS	HOWELL TWP	907	MRPAU	DAILY
250715	AHWD B OBS	ATLANTIC HIGHLANDS BORO	360	EGLS	DAILY
250771	SANDY HOOK 2 OBS	SEA BRIGHT BORO	278	EGLS	DAILY

Aquifer names

- EGLS - Englishtown aquifer system
- FRNG - Farrington aquifer
- MLRW - Wenonah-Mount Laurel aquifer
- MRPA - Potomac-Raritan-Magothy aquifer
- MRPAU - Upper Potomac-Raritan-Magothy aquifer
- ODBG - Old Bridge aquifer
- VNCN - Vincentown aquifer



GROUND-WATER LEVELS

MONMOUTH COUNTY

NJ-WRD Well Number, 25-0206. Site I.D., 402626074114204. Local I.D., Keyport 4 Obs.

LOCATION.--Lat 40°26'25", long 74°11'45", Hydrologic Unit 02030104, at the Benjamin C. Terry Park, Myrtle Ave., Keyport Borough.
Owner: Keyport Borough Water Department.

AQUIFER.--Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in., depth 249 ft, screened 225 to 249 ft.

INSTRUMENTATION.--Water-level extremes recorder. Water-level recorder, June 1978 to Nov. 1987.

DATUM.--Land surface is 14.47 ft above sea level.

Measuring point: Front edge of cutout in recorder housing, 2.47 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

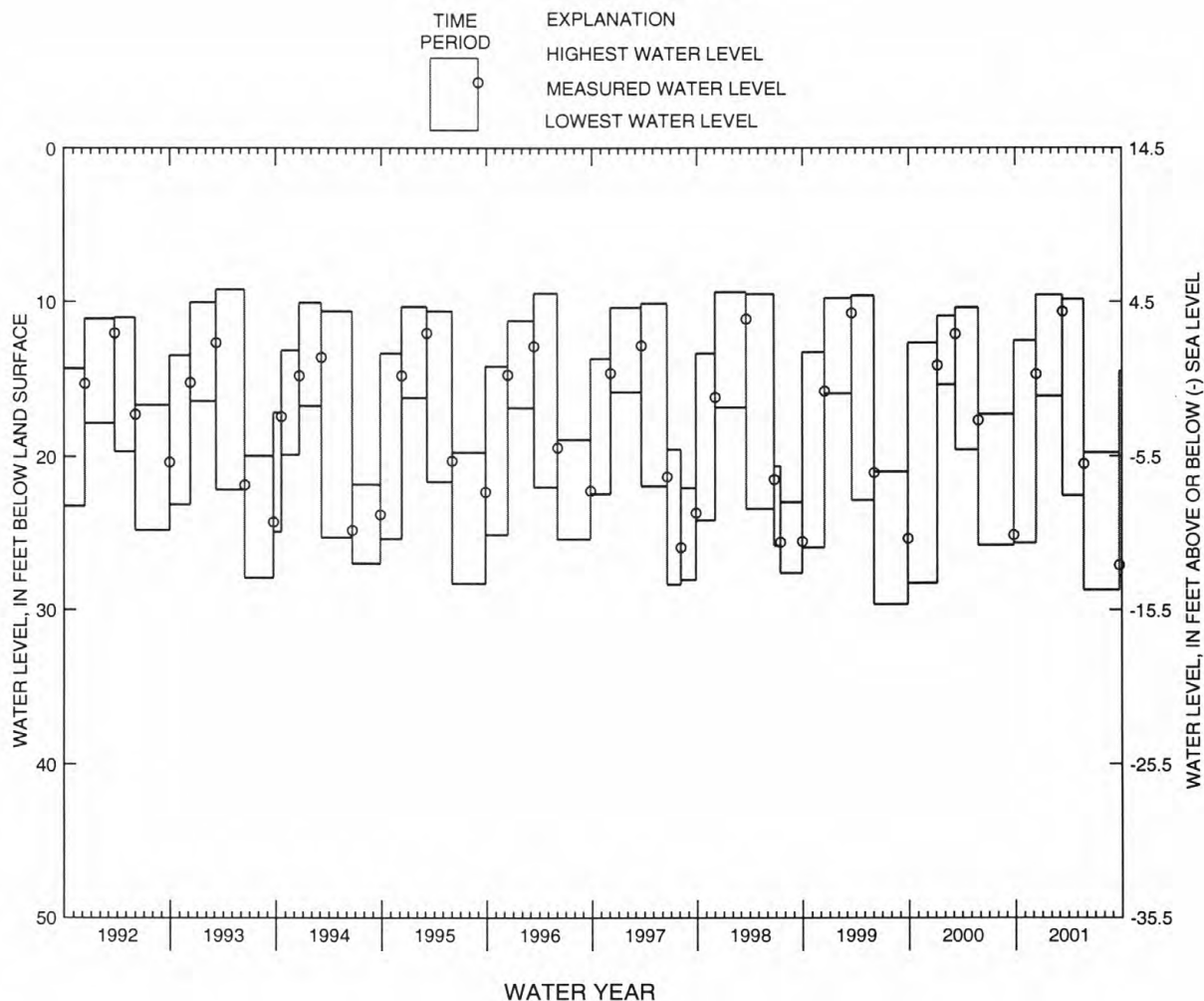
PERIOD OF RECORD.--June 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.20 ft below land surface, between Mar. 8 and June 14, 1993; lowest, 35.22 ft below land surface, between June 20 and Sept. 28, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
WATER-LEVEL EXTREMES MEASURED WATER LEVELS

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 25, 2000 TO DEC. 11, 2000	12.51	25.64	DEC. 11, 2000	14.69
DEC. 11, 2000 TO MAR. 12, 2001	9.52	16.12	MAR. 12, 2001	10.63
MAR. 12, 2001 TO MAY 24, 2001	9.83	22.55	MAY 24, 2001	20.48
MAY 24, 2001 TO SEPT. 24, 2001	19.75	28.70	SEPT. 24, 2001	27.07

NJ-WRD WELL NO. 25-0206



MONMOUTH COUNTY--Continued

NJ-WRD Well Number, 25-0250. Site I.D., 401906074151401. Local I.D., Village 215 Obs. NJ Permit Number, 29-04437.

LOCATION.--Lat 40°19'18", long 74°15'29", Hydrologic Unit 02030104, near the intersection of River Dr. and Newport Rd., Marlboro Township.

Owner: Gordons Corner Water Company.

AQUIFER.--Englishtown aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in., depth 215 ft, screened 185 to 215 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Periodic measurements, July 1975 to Sept. 1984. Water-level recorder, Apr. 1971 to July 1975.

DATUM.--Land surface is 138.60 ft above sea level.

Measuring point: Top of base of aluminum locking cap, 2.26 ft above land surface.

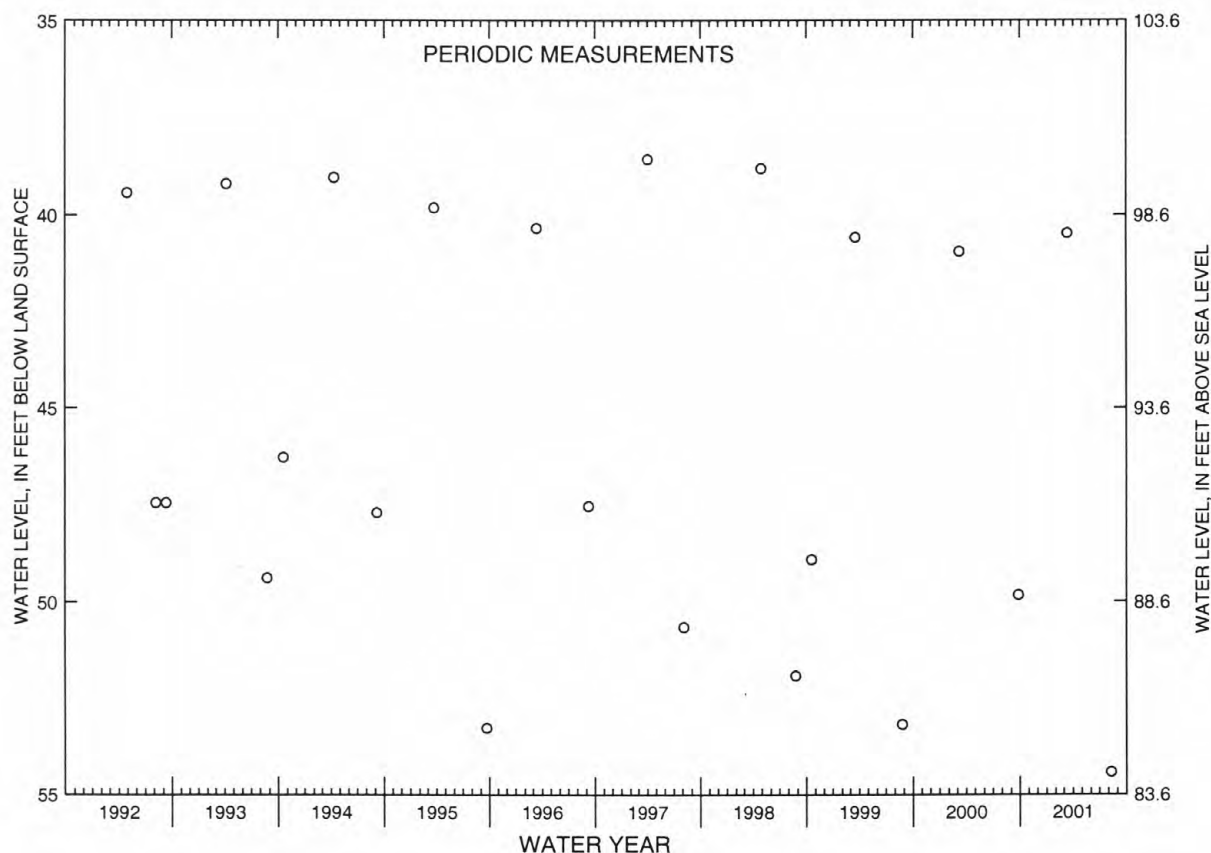
PERIOD OF RECORD.--Apr. 1971 to Sept. 1984, May 1986 to current year. Records for 1971 to 1976 and 1985 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 33.92 ft below land surface, between Mar. 27 and July 12, 1984, lowest, 54.43 ft below land surface, Aug. 10, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 12	40.47	AUG 10	54.43

NJ-WRD WELL NO. 25-0250



GROUND-WATER LEVELS

MONMOUTH COUNTY--Continued

NJ-WRD Well Number, 25-0272. Site I.D., 402208074145201. Local I.D., Marlboro 1 Obs. NJ Permit Number, 29-06527.

LOCATION.--Lat 40°22'08", long 74°14'52", Hydrologic Unit 02030105, on the west side of NJ Rt. 79, 0.9 mi south of Morganville, Marlboro Township.

Owner: Marlboro Township Municipal Utilities Authority.

AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 680 ft, screened 670 to 680 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval. Water-level recorder, Jan. 1973 to May 1998.

DATUM.--Land surface is 116.93 ft above sea level.

Measuring point: Top of hole in well seal, 2.54 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

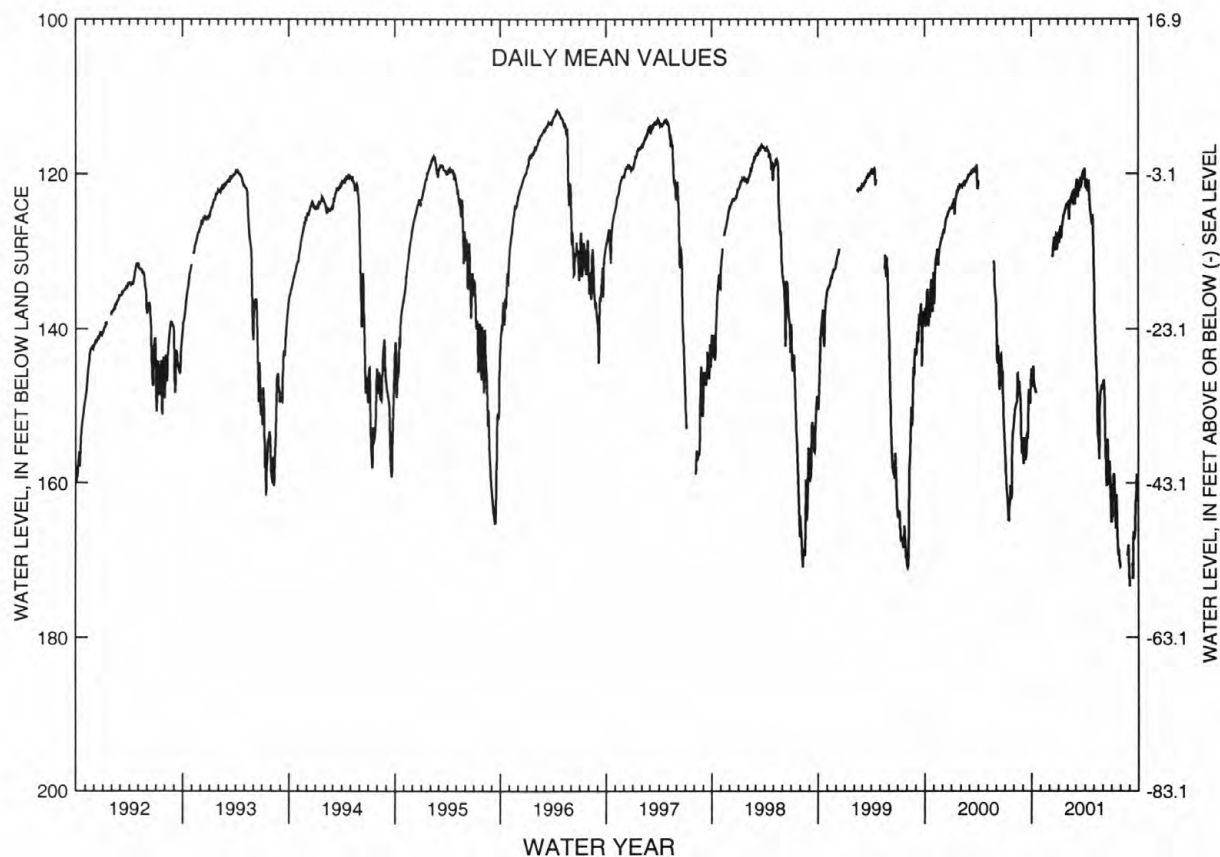
PERIOD OF RECORD.--Jan. 1973 to current year. Records for 1973 to 1977 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 111.77 ft below land surface, Apr. 16, 1996; lowest, 207.78 ft below land surface, July 16, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	147.48	---	---	128.72	123.63	120.95	121.74	137.67	147.19	162.28	---	---
10	146.89	---	---	126.94	123.88	122.11	121.96	144.56	154.57	158.75	---	---
15	147.92	---	129.36	126.46	122.89	122.12	121.08	151.76	159.81	164.20	169.97	167.23
20	---	---	128.36	125.33	122.25	121.85	124.55	155.50	157.06	162.28	---	167.04
25	---	---	127.83	124.58	122.55	120.06	126.09	148.72	157.30	169.11	169.40	161.58
EOM	---	---	127.89	123.83	123.55	120.03	127.99	147.68	164.28	170.53	172.13	159.67
MEAN	147.04	---	128.97	126.18	123.55	121.11	123.10	146.04	155.21	164.62	170.15	165.57
WTR YR 2001 MEAN 140.59 HIGH 119.28 APR 2 LOW 173.43 SEP 2												

NJ-WRD WELL NO. 25-0272



MONMOUTH COUNTY--Continued

NJ-WRD Well Number, 25-0316. Site I.D., 402536073590501. Local I.D., Sandy Hook SP 1 Obs. NJ Permit Number, 29-04299.

LOCATION.--Lat 40°25'36", long 73°59'05", Hydrologic Unit 02030104, about 1.9 mi north of the main entrance of Sandy Hook National Park, Middletown Township.
Owner: State of New Jersey.

AQUIFER.--Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in., depth 397 ft, screened 371 to 397 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level extremes recorder, Feb. 1977 to Dec. 1984. Periodic measurements, Aug. 1975 to Feb. 1977. Water-level recorder, May 1965 to Aug. 1975.

DATUM.--Land surface is 10.91 ft above sea level.

Measuring point: Top of base of aluminum locking cap, 1.76 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation.

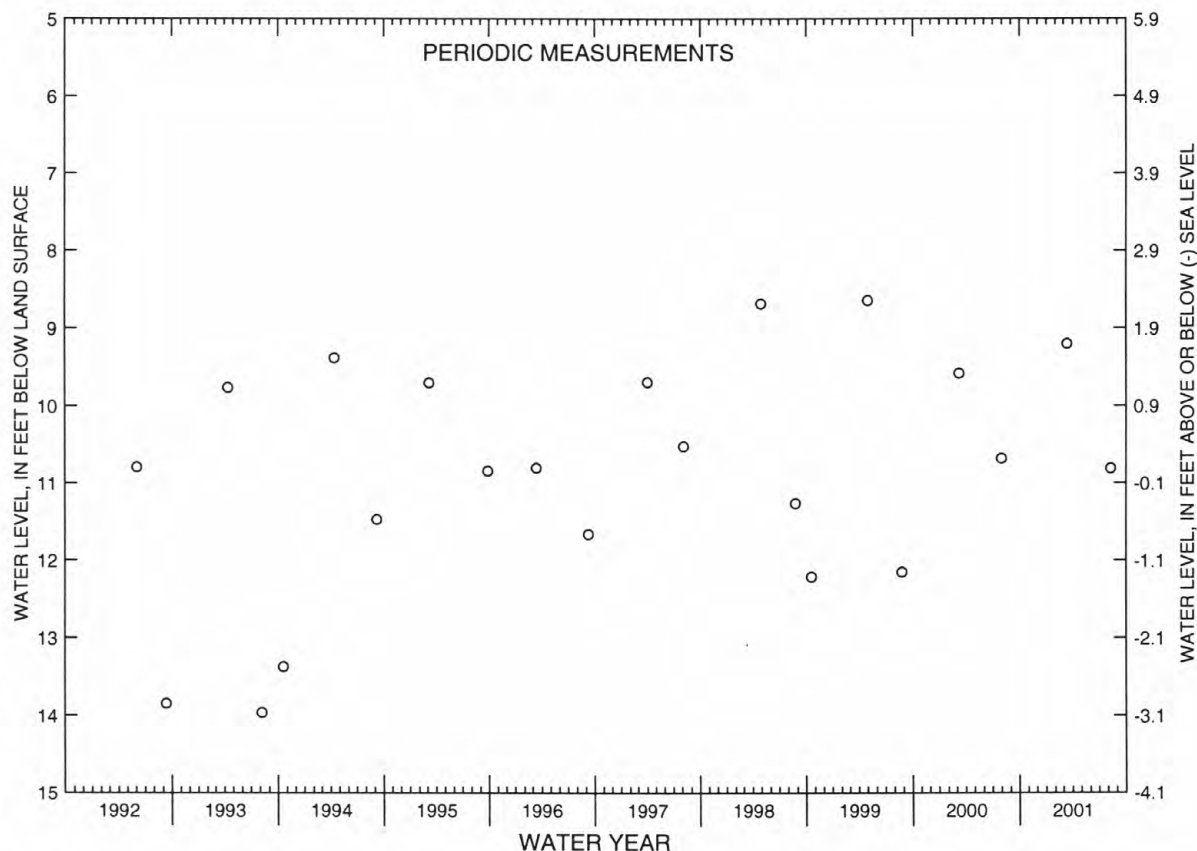
PERIOD OF RECORD.--May 1965 to Dec. 1984, Aug. 1988 to current year. Records for 1965 to 1976 and 1988 to 1992 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.64 ft below land surface, Apr. 30, 1999; lowest, 20.12 ft below land surface, between Sept. 7 and Nov. 2, 1977.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 12	9.20	AUG 10	10.81

NJ-WRD WELL NO. 25-0316



GROUND-WATER LEVELS

MONMOUTH COUNTY--Continued

NJ-WRD Well Number, 25-0353. Site I.D., 401542074053001. Local I.D., Fort Monmouth 1-NCO Obs.

LOCATION.--Lat 40°15'42", long 74°05'30", Hydrologic Unit 02030104, at Training Center, Wyckoff Rd. and Wayside Rd., Tinton Falls Borough.
Owner: U.S. Army.

AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 3.5 in., depth 327 ft, screened 321 to 327 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 140 ft above sea level, from topographic map.
Measuring point: Top of recorder shelf, 1.50 ft above land surface.

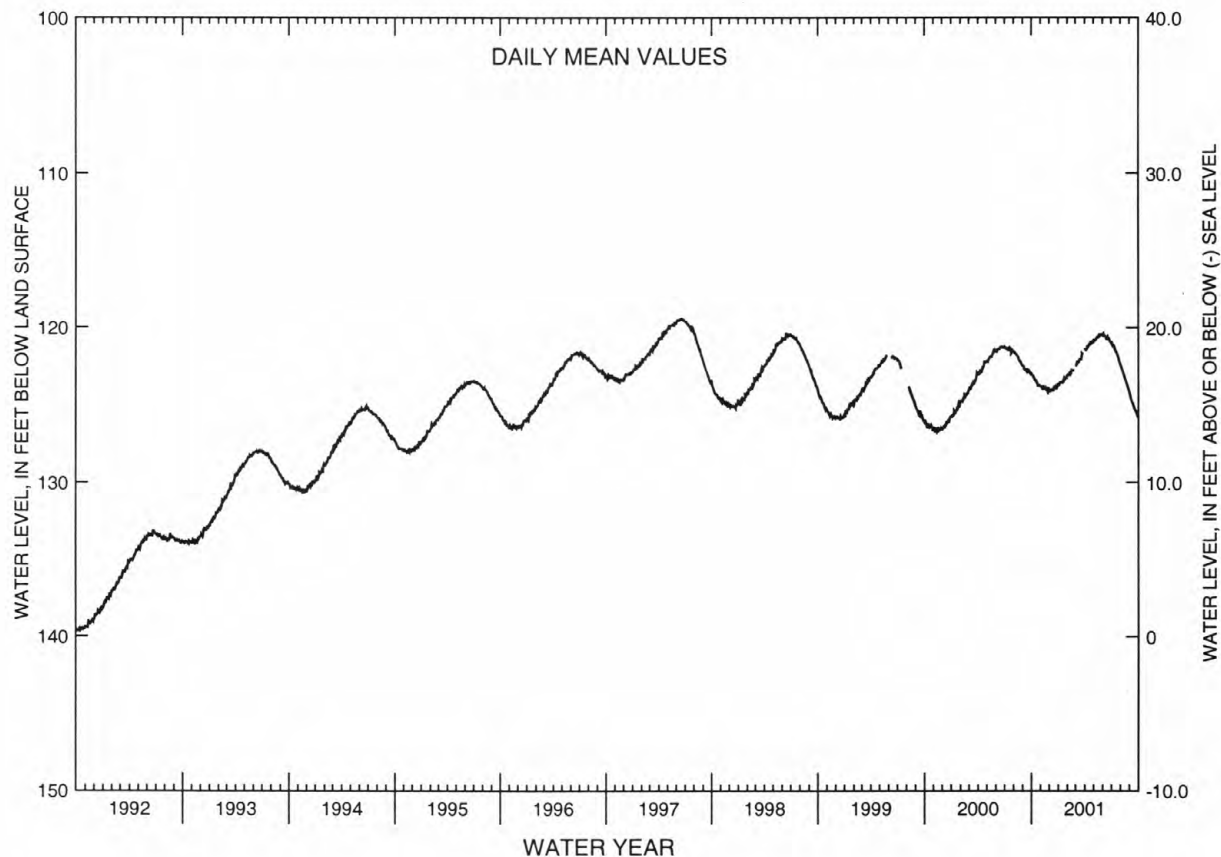
PERIOD OF RECORD.--Feb. 1985 to current year. Records for 1985 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level 119.39 ft below land surface, June 13-14, 1997; lowest, 155.63 ft below land surface, Dec. 22-23, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	123.09	123.84	124.02	123.58	123.01	122.28	121.43	120.75	120.47	121.01	122.56	124.46
10	123.24	123.74	124.09	123.51	122.81	122.17	121.21	120.68	120.57	121.14	122.83	124.81
15	123.39	123.86	124.04	123.48	122.75	122.02	121.13	120.59	120.74	121.45	123.15	125.04
20	123.57	124.00	123.80	123.34	122.74	122.04	121.08	120.57	120.66	121.64	123.42	125.32
25	123.71	124.15	123.93	123.27	---	121.69	120.93	120.48	120.81	121.86	123.75	125.43
EOM	123.77	123.96	123.60	123.01	---	121.36	120.93	120.48	120.95	122.27	124.10	125.80
MEAN	123.43	123.92	123.93	123.43	122.89	122.05	121.13	120.61	120.65	121.51	123.21	125.03
WTR YR 2001 MEAN 122.65 HIGH 120.36 JUN 3 LOW 125.80 SEP 30												

NJ-WRD WELL NO. 25-0353



MONMOUTH COUNTY--Continued

NJ-WRD Well Number, 25-0429. Site I.D., 400832074082101. Local I.D., Allaire State Park C Obs. NJ Permit Number, 29-04140.

LOCATION.--Lat 40°08'34", long 74°08'34", Hydrologic Unit 02040301, about 1.3 mi southeast of Lower Squankum off County Rt. 21, in Allaire State Park, Howell Township.
Owner: U.S. Geological Survey.

AQUIFER.--Englishtown aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 633 ft, screened 623 to 633 ft.

INSTRUMENTATION.--Water-level extremes recorder. Periodic measurements, July 1975 to Feb. 1977. Water-level recorder, Feb. 1964 to July 1975.

DATUM.--Land surface is 97.93 ft above sea level.

Measuring point: Front edge of cutout in recorder housing, 1.64 ft above land surface.

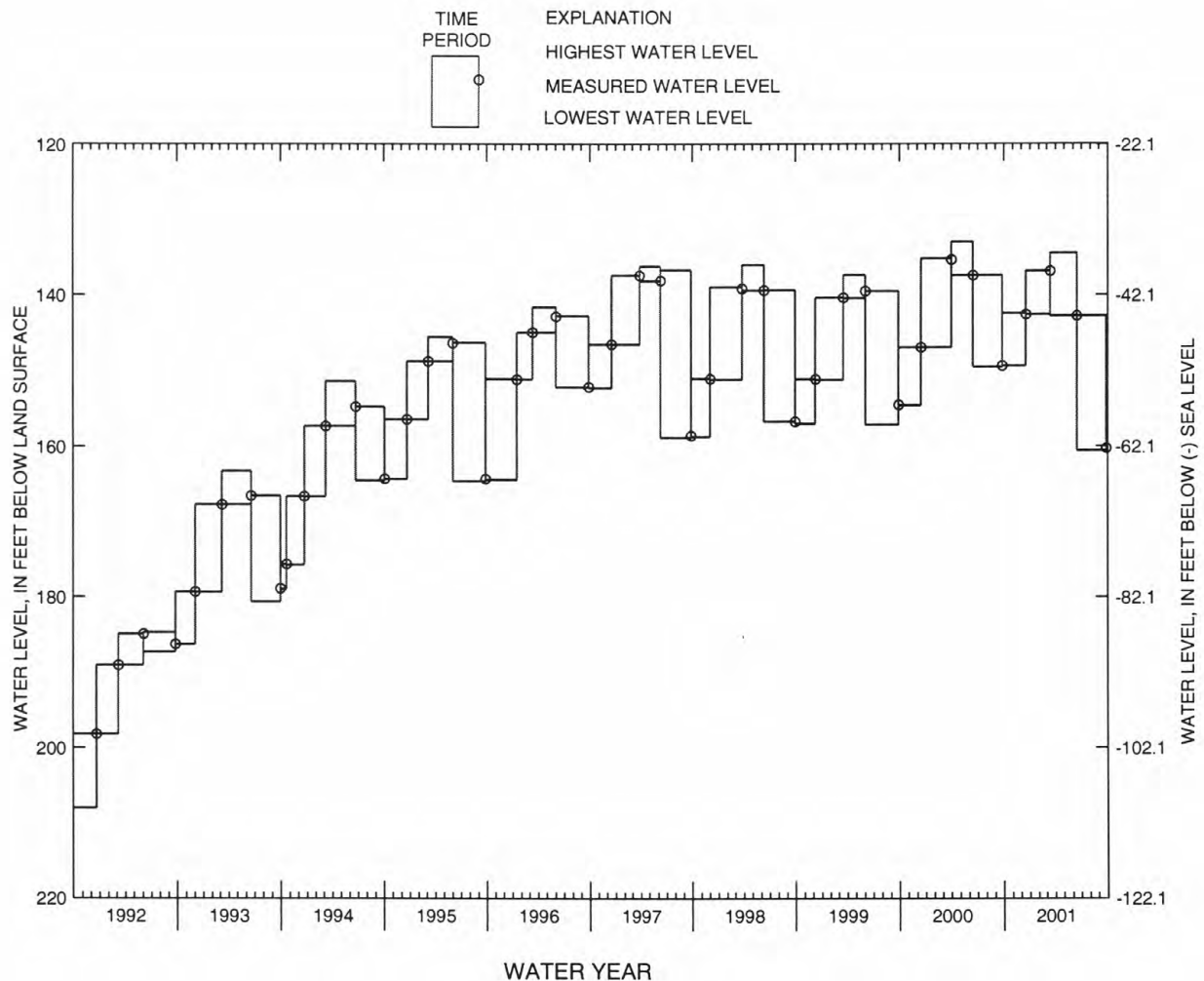
PERIOD OF RECORD.--Feb. 1964 to current year. Records for 1964 to 1976 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 132.96 ft below land surface, between Mar. 31 and June 15, 2000; lowest, 249.89 ft below land surface, between June 24 and Sept. 28, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
WATER-LEVEL EXTREMES MEASURED WATER LEVELS

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 25, 2000 TO DEC. 18, 2000	142.46	149.42	DEC. 18, 2000	142.60
DEC. 18, 2000 TO MAR. 13, 2001	136.83	142.60	MAR. 13, 2001	136.84
MAR. 13, 2001 TO JUNE 15, 2001	134.46	142.79	JUNE 15, 2001	142.79
JUNE 15, 2001 TO SEPT. 27, 2001	142.79	160.59	SEPT. 27, 2001	160.28

NJ-WRD WELL NO. 25-0429



GROUND-WATER LEVELS

MONMOUTH COUNTY--Continued

NJ-WRD Well Number, 25-0486. Site I.D., 400711074020201. Local I.D., DOE - Sea Girt Obs.

LOCATION.--Lat 40°07'11", long 74°02'02", Hydrologic Unit 02040301, at the National Guard Camp, Sea Girt, Sea Girt Borough.
Owner: State of New Jersey.

AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 614 ft, perforated casing 604 to 614 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 10 ft above sea level, from topographic map.
Measuring point: Top of recorder shelf, 3.00 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping. Well damaged by construction equipment, Oct. 1997; repaired June 1998.

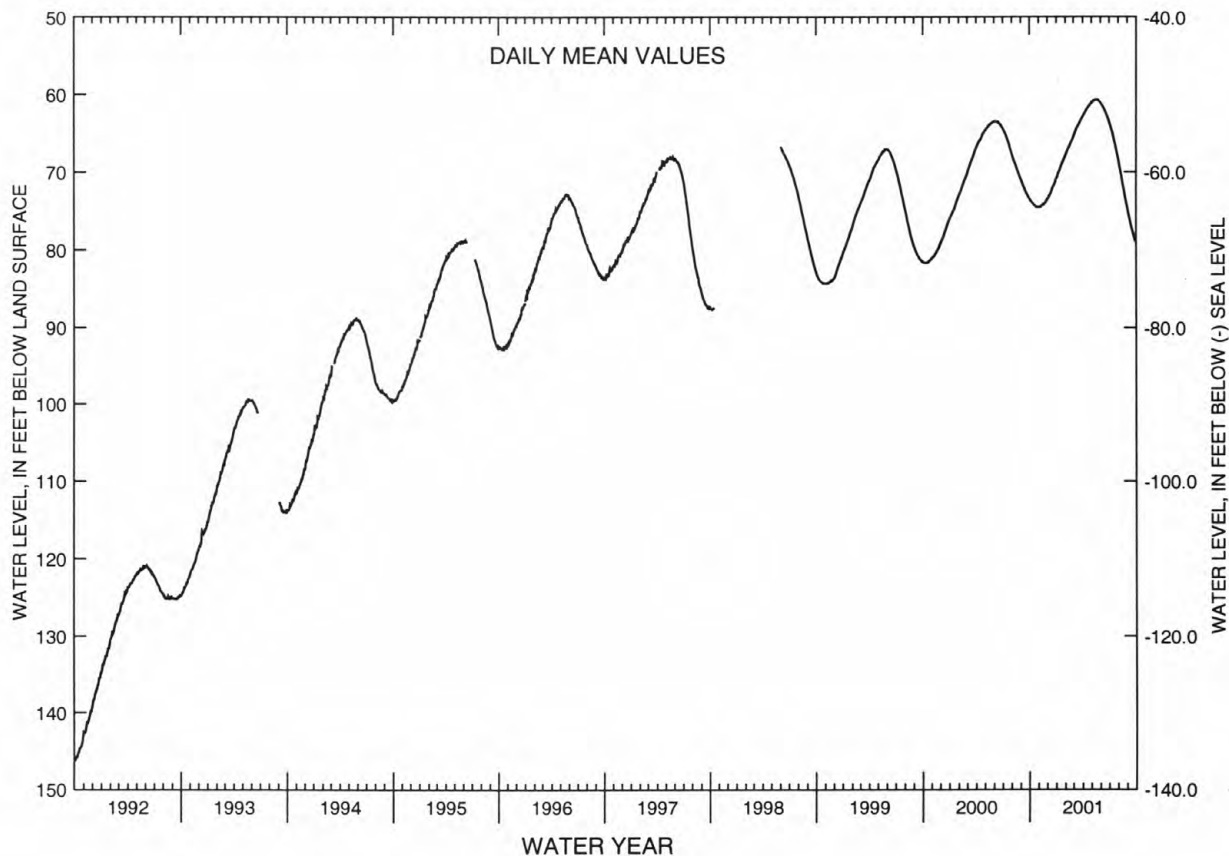
PERIOD OF RECORD.--May 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 60.66 ft below land surface, May 16-18, 2001; lowest, 195.60 ft below land surface, Sept. 17, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	73.64	74.50	73.28	70.47	67.44	65.00	62.58	60.90	61.27	63.98	69.05	75.19
10	73.89	74.42	72.91	69.93	66.99	64.47	62.25	60.76	61.59	64.63	70.06	76.08
15	74.14	74.25	72.48	69.48	66.60	64.11	61.91	60.67	61.96	65.34	71.08	76.89
20	74.31	74.10	71.97	68.99	66.17	63.77	61.59	60.67	62.39	66.14	72.11	77.64
25	74.46	73.91	71.55	68.50	65.75	63.36	61.35	60.76	62.86	66.99	73.13	78.31
EOM	74.53	73.60	70.95	67.91	65.48	62.94	61.11	61.00	63.40	68.09	74.28	78.94
MEAN	74.10	74.20	72.34	69.38	66.64	64.08	61.92	60.80	62.08	65.61	71.29	76.87
WTR YR 2001	MEAN 68.28 HIGH 60.66 MAY 17 LOW 78.94 SEP 30											

NJ-WRD WELL NO. 25-0486



MONMOUTH COUNTY--Continued

NJ-WRD Well Number, 25-0635. Site I.D., 401105074120201. Local I.D., Howell Twp 1 Obs. NJ Permit Number, 29-18402-9.

LOCATION.--Lat 40°11'05", long 74°12'02", Hydrologic Unit 02040301, on the south side of Peskin Rd., about 5,000 ft east of the intersection of Georgia Tavern Rd. and Peskin Rd., Howell Township.
Owner: U.S. Geological Survey.

AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 2 in., depth 1,360 ft, screened 1,226 to 1,240, and 1,280 to 1,290 and 1,320 to 1,330 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 111.3 ft above sea level.
Measuring point: Top of recorder shelf, 2.10 ft above land surface.

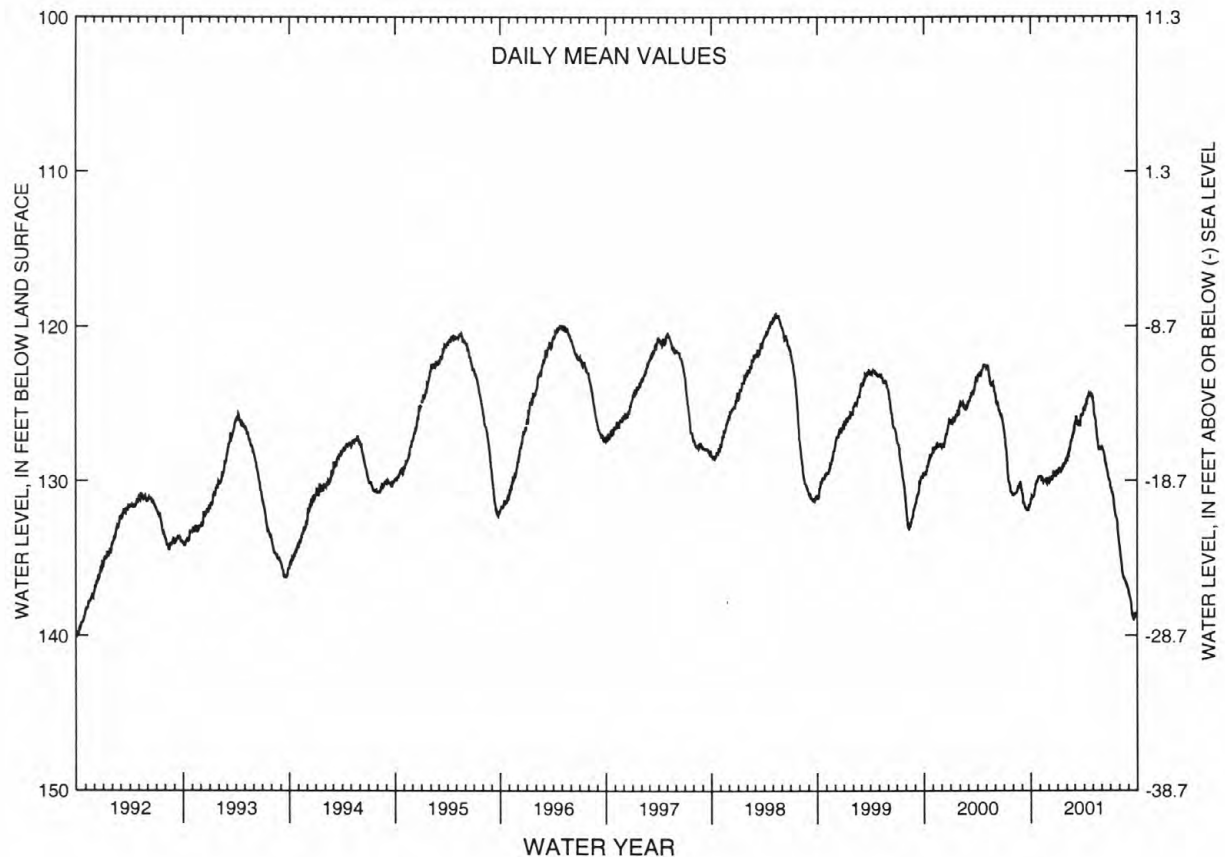
PERIOD OF RECORD.--Dec. 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 119.12 ft below land surface, May. 11, 1998; lowest, 150.32 ft below land surface, Sept. 2, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	131.09	129.69	129.87	129.23	128.31	125.89	125.40	125.16	127.95	130.44	134.66	137.30
10	130.99	129.70	129.89	129.22	127.87	126.18	124.87	125.94	128.20	130.84	135.43	137.71
15	130.54	129.98	129.85	129.20	127.46	126.37	124.58	126.77	128.83	131.60	136.14	138.64
20	130.16	129.91	129.50	128.93	127.14	126.42	124.47	127.68	129.25	132.31	136.35	138.95
25	129.89	130.15	129.70	128.85	126.76	125.76	124.47	127.96	129.73	132.52	136.65	138.62
EOM	129.73	129.90	129.31	128.48	126.54	125.28	124.58	127.97	130.04	133.89	136.89	138.57
MEAN	130.49	129.90	129.71	129.10	127.64	126.02	124.74	126.73	128.83	131.75	135.86	138.19
WTR YR 2001 MEAN 129.93 HIGH 124.29 APR 24 LOW 138.95 SEP 20												

NJ-WRD WELL NO. 25-0635



GROUND-WATER LEVELS

MONMOUTH COUNTY--Continued

NJ-WRD Well Number, 25-0636. Site I.D., 401105074120202. Local I.D., Howell Twp 2 Obs. NJ Permit Number, 29-18404-5

LOCATION.--Lat 40°11'05", long 74°12'02", Hydrologic Unit 02040301, on the south side of Peskin Rd., about 5,000 ft east of the intersection of Georgia Tavern Rd. and Peskin Rd., Howell Township.
Owner: U.S. Geological Survey.

AQUIFER.--Vincentown aquifer of Paleocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 100 ft, screened 85 to 95 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 111.9 ft above sea level.
Measuring point: Top of recorder shelf, 1.20 ft above land surface.

REMARKS.--Water level is affected by the stage of the Manasquan Reservoir and by nearby pumping.

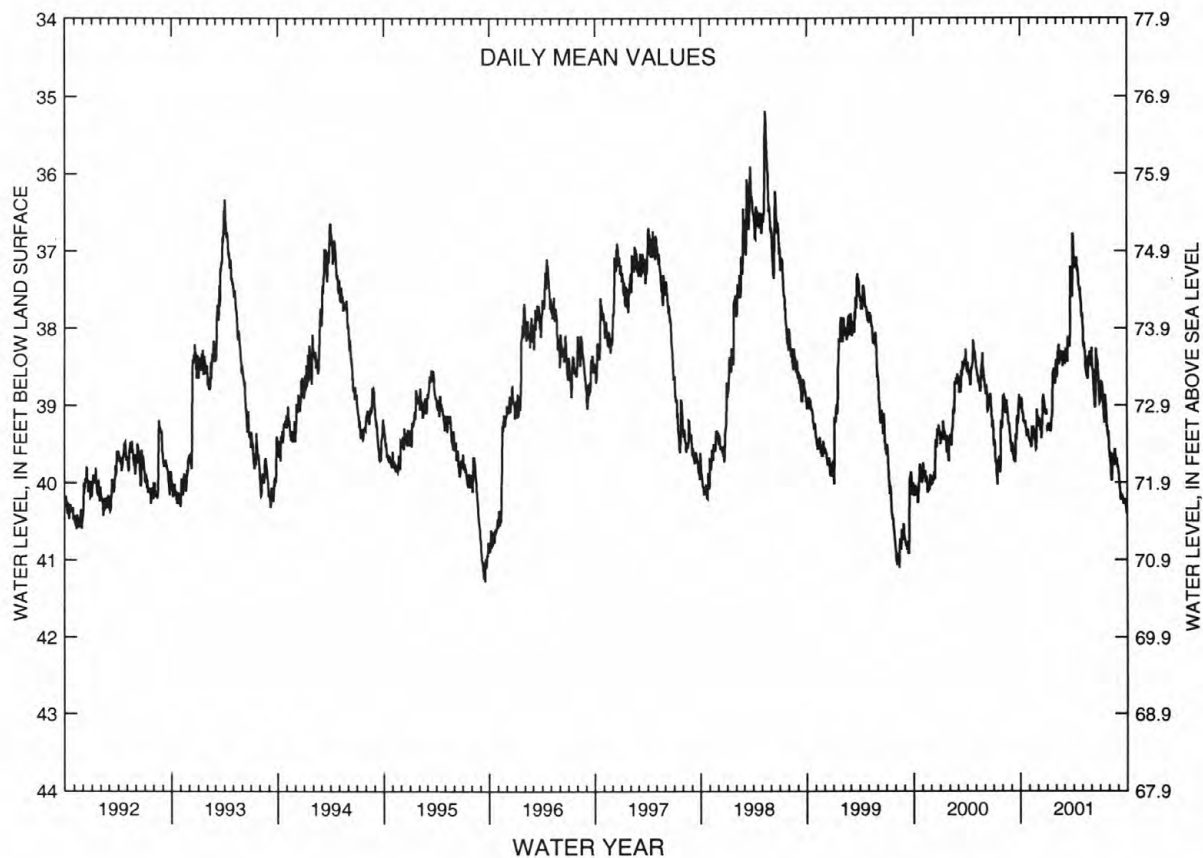
PERIOD OF RECORD.--Dec. 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.15 ft below land surface, May. 12, 1998; lowest, 56.09 ft below land surface, Apr. 29, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	38.95	39.47	39.16	39.23	38.46	38.31	37.17	38.19	38.44	38.69	39.64	39.95
10	39.09	39.27	39.33	39.30	38.21	38.36	37.14	38.27	38.79	38.75	39.98	40.23
15	39.20	39.28	39.27	39.23	38.31	38.18	37.26	38.53	39.03	39.12	39.66	40.15
20	39.29	39.42	38.87	38.71	38.32	38.24	37.47	38.66	38.42	38.91	39.61	40.28
25	39.34	39.55	39.07	38.58	38.38	37.40	37.59	38.40	38.52	39.28	39.73	40.21
EOM	39.42	39.12	39.12	38.41	38.34	36.77	37.84	38.45	38.96	39.40	39.79	40.34
MEAN	39.19	39.38	39.14	39.00	38.39	37.97	37.33	38.35	38.62	39.03	39.72	40.16
WTR YR 2001	MEAN 38.86 HIGH 36.77 MAR 31 LOW 40.35 SEP 29											

NJ-WRD WELL NO. 25-0636



MONMOUTH COUNTY--Continued

NJ-WRD Well Number, 25-0637. Site I.D., 401105074120203. Local I.D., Howell Twp 3 Obs. NJ Permit Number, 29-18400-2.

LOCATION.--Lat 40°11'05", long 74°12'02", Hydrologic Unit 02040301, on the south side of Peskin Rd., about 5,000 ft east of the intersection of Georgia Tavern Rd. and Peskin Rd., Howell Township.
Owner: U.S. Geological Survey.

AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 324 ft, screened 307 to 317 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 111.9 ft above sea level.
Measuring point: Top of recorder shelf, 1.80 ft above land surface.

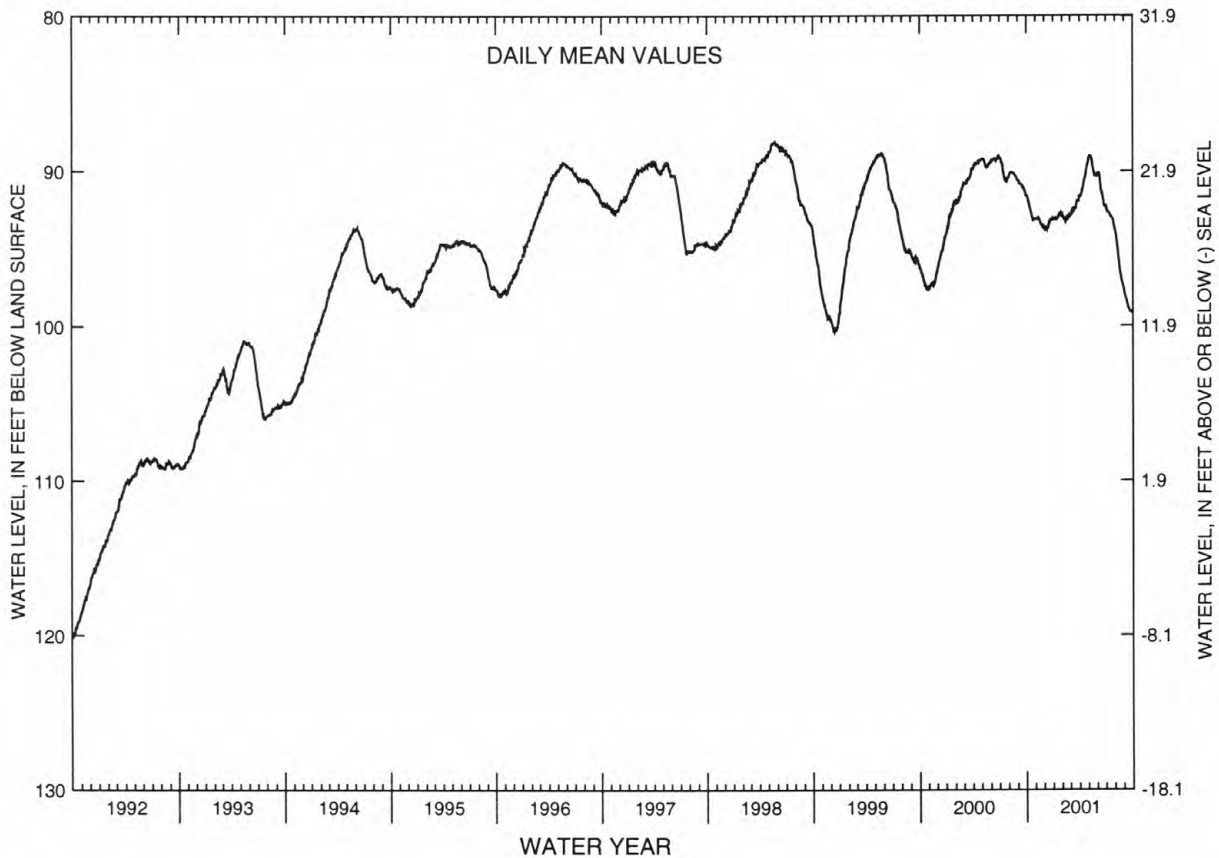
PERIOD OF RECORD.--Dec. 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 88.08 ft below land surface, May 21, 1998; lowest, 140.65 ft below land surface, Oct. 6-7, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	91.76	93.07	93.73	93.10	93.01	92.63	91.65	88.99	90.13	92.46	94.19	98.03
10	92.16	92.97	93.80	93.15	93.09	92.62	91.26	89.08	90.40	92.68	94.98	98.37
15	92.55	93.19	93.64	93.04	93.09	92.46	90.82	89.42	91.29	92.85	95.85	98.77
20	92.97	93.45	93.21	92.83	92.97	92.42	90.39	90.09	91.65	93.02	96.59	99.02
25	93.15	93.68	93.20	92.80	92.94	91.97	89.82	90.35	92.21	93.15	97.17	99.08
EOM	93.12	93.61	93.04	92.74	92.89	91.63	89.37	90.34	92.30	93.75	97.58	99.15
MEAN	92.54	93.31	93.46	92.99	93.04	92.35	90.70	89.66	91.18	92.92	95.86	98.64
WTR YR 2001 MEAN 93.05 HIGH 88.99 MAY 5 LOW 99.15 SEP 29												

NJ-WRD WELL NO. 25-0637



GROUND-WATER LEVELS

MONMOUTH COUNTY--Continued

NJ-WRD Well Number, 25-0638. Site I.D., 401105074120204. Local I.D., Howell Twp 4 Obs. NJ Permit Number, 29-18401-1.

LOCATION.--Lat 40°11'05", long 74°12'02", Hydrologic Unit 02040301, on the south side of Peskin Rd., about 5,000 ft east of the intersection of Georgia Tavern Rd. and Peskin Rd., Howell Township.
Owner: U.S. Geological Survey.

AQUIFER.--Englishtown aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 499 ft, screened 483 to 493 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 112.1 ft above sea level.
Measuring point: Top of recorder shelf, 1.80 ft above land surface.

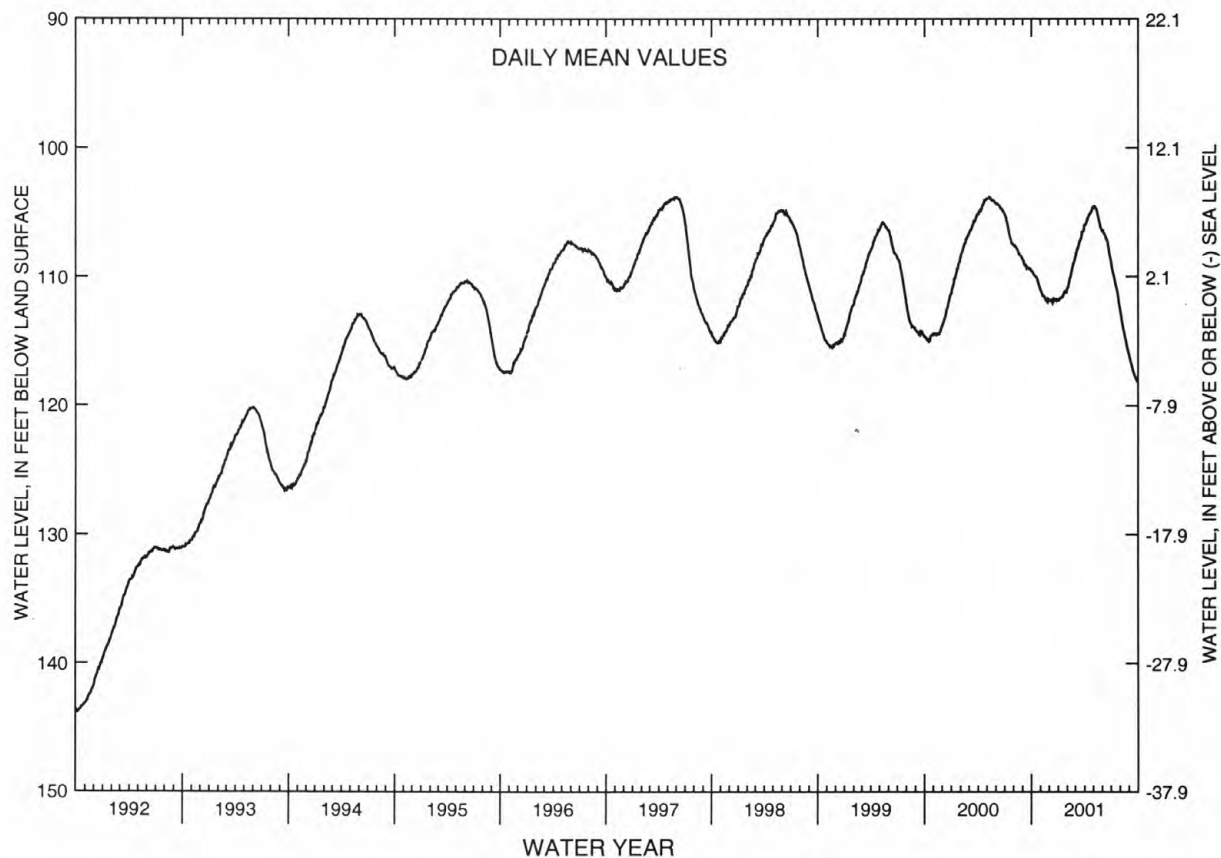
PERIOD OF RECORD.--Dec. 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 103.74 ft below land surface, May 26-27, 1997; lowest, 165.02 ft below land surface, Oct. 21, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	109.64	111.22	111.82	111.73	110.63	108.02	105.94	104.49	106.55	109.33	113.06	116.38
10	109.81	111.44	111.98	111.63	110.04	107.68	105.55	104.66	106.76	109.87	113.76	116.83
15	109.95	111.56	111.93	111.53	109.58	107.29	105.28	105.04	107.11	110.40	114.31	117.27
20	110.10	111.83	111.69	111.31	109.10	107.07	105.11	105.59	107.40	110.89	114.81	117.64
25	110.47	111.98	111.80	111.12	108.76	106.53	104.83	106.09	108.11	111.45	115.43	117.84
EOM	110.92	111.73	111.69	110.89	108.46	106.02	104.66	106.44	108.71	112.39	115.94	118.18
MEAN	110.08	111.58	111.82	111.44	109.68	107.23	105.31	105.29	107.27	110.53	114.37	117.21
WTR YR 2001	MEAN 110.15	HIGH 104.49	MAY 5	LOW 118.18	SEP 30							

NJ-WRD WELL NO. 25-0638



MONMOUTH COUNTY--Continued

NJ-WRD Well Number, 25-0639. Site I.D., 401105074120205. Local I.D., Howell Twp 5 Obs. NJ Permit Number, 29-18403-7.

LOCATION.--Lat 40°11'05", long 74°12'02", Hydrologic Unit 02040301, on the south side of Peskin Rd., about 5,000 ft east of the intersection of Georgia Tavern Rd. and Peskin Rd., Howell Township.
Owner: U.S. Geological Survey.

AQUIFER.--Upper Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 907 ft, screened 891 to 901 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 111.7 ft above sea level.
Measuring point: Top of recorder shelf, 2.40 ft above land surface.

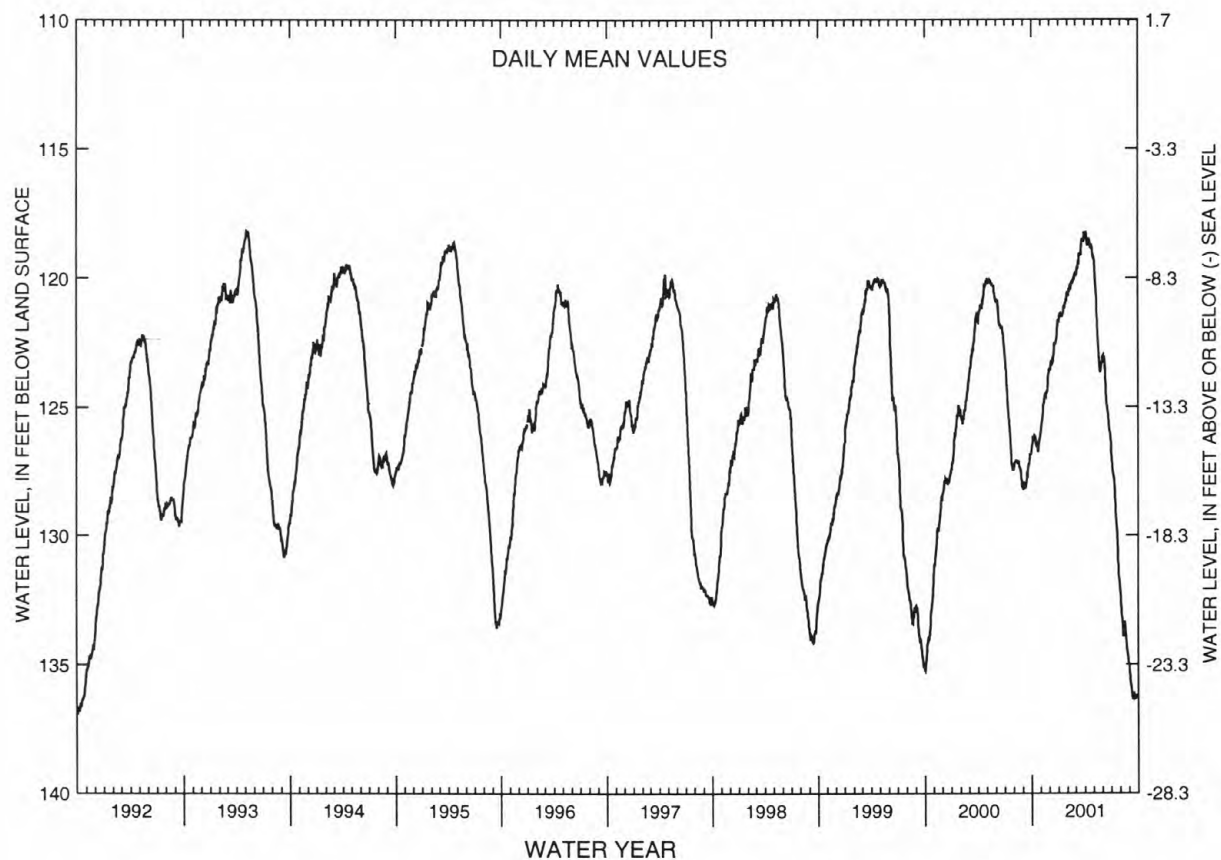
PERIOD OF RECORD.--Mar. 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 118.12 ft below land surface, Mar. 30, 2001; lowest, 149.23 ft below land surface, Oct. 6-7, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	126.34	125.57	123.30	121.39	120.46	119.70	118.33	119.46	123.08	127.16	132.88	135.59
10	126.15	124.88	123.39	121.43	120.23	119.45	118.64	120.55	123.44	127.73	133.55	136.08
15	126.30	124.57	123.07	121.39	120.14	119.15	118.54	121.90	124.72	128.58	133.45	136.35
20	126.54	124.52	122.49	121.08	120.09	119.11	118.81	123.06	125.19	129.65	133.79	136.22
25	126.58	124.28	122.38	120.93	119.92	118.57	118.73	123.67	125.86	130.96	134.49	136.21
EOM	126.11	123.52	121.60	120.54	119.84	118.24	119.21	123.28	126.32	132.00	134.97	136.18
MEAN	126.38	124.74	122.80	121.24	120.26	119.10	118.62	121.77	124.53	129.08	133.69	136.03
WTR YR 2001 MEAN 124.88 HIGH 118.20 APR 6 LOW 136.35 SEP 12												

NJ-WRD WELL NO. 25-0639



MONMOUTH COUNTY--Continued

NJ-WRD Well Number, 25-0715. Site I.D., 402426074001901. Local I.D., AHWD B Obs. NJ Permit Number, 29-25384.

LOCATION.--Lat 40°24'26", long 74°00'19", Hydrologic Unit 02030104, near the intersection of Highland Ave. and Beverot Pl., Atlantic Highlands Borough.
Owner: Atlantic Highlands Water Department.

AQUIFER.--Englishtown aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 360 ft, screened 350 to 360 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 228.8 ft above sea level.

Measuring point: Top of recorder shelf, 2.90 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

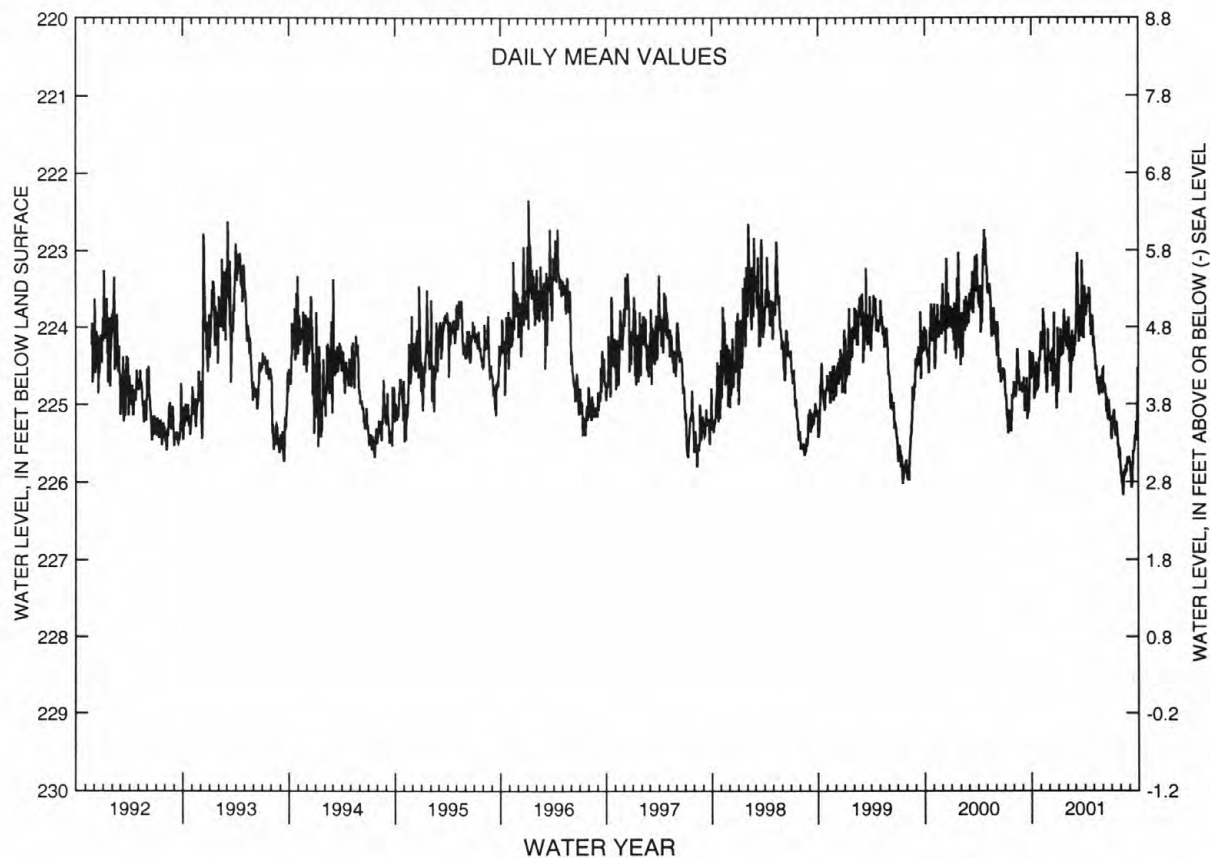
PERIOD OF RECORD.--Aug. 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 221.79 ft below land surface, Mar. 14, 1993; lowest, 226.47 ft below land surface, Aug. 11, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	224.46	224.23	224.32	224.28	223.87	223.16	223.85	224.32	224.77	225.18	225.87	225.79
10	224.51	223.76	224.39	224.38	224.28	223.74	223.62	224.49	224.78	225.09	226.07	226.03
15	224.84	224.19	224.48	224.17	224.12	224.06	223.68	224.74	225.10	225.35	225.87	225.61
20	224.70	224.38	224.41	223.83	224.32	224.11	223.99	224.86	225.19	225.22	225.79	225.47
25	224.78	224.59	224.96	223.96	224.14	223.95	224.03	224.77	225.07	225.53	225.73	225.22
EOM	224.34	224.36	224.50	223.93	224.14	223.59	224.25	224.85	225.17	225.57	225.67	224.53
MEAN	224.61	224.29	224.50	224.19	224.27	223.75	223.78	224.60	224.95	225.36	225.87	225.61
WTR YR 2001	MEAN 224.65 HIGH 223.03 MAR 7 LOW 226.17 AUG 11											

NJ-WRD WELL NO. 25-0715



MONMOUTH COUNTY--Continued

NJ-WRD Well Number, 25-0771. Site I.D., 402350073583901. Local I.D., Sandy Hook 2 Obs. NJ Permit Number, 29-36217.

LOCATION.--Lat 40°23'50", long 73°58'39", Hydrologic Unit 02030104, near the main entrance of Sandy Hook National Park, Sea Bright Boro.

Owner: U.S Dept. of Interior-National Park Service.

AQUIFER.--Englishtown aquifer system of Cretaceous age.

WELL CHARACTERISTICS.-- Drilled artesian observation well, diameter 4 in., depth 278 ft, screened 258 to 278 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval.

DATUM.-- Land surface is 8.4 ft above sea level.

Measuring point: Top of casing, 4.4 ft above land surface

REMARKS.--Water-level affected by tidal fluctuation.

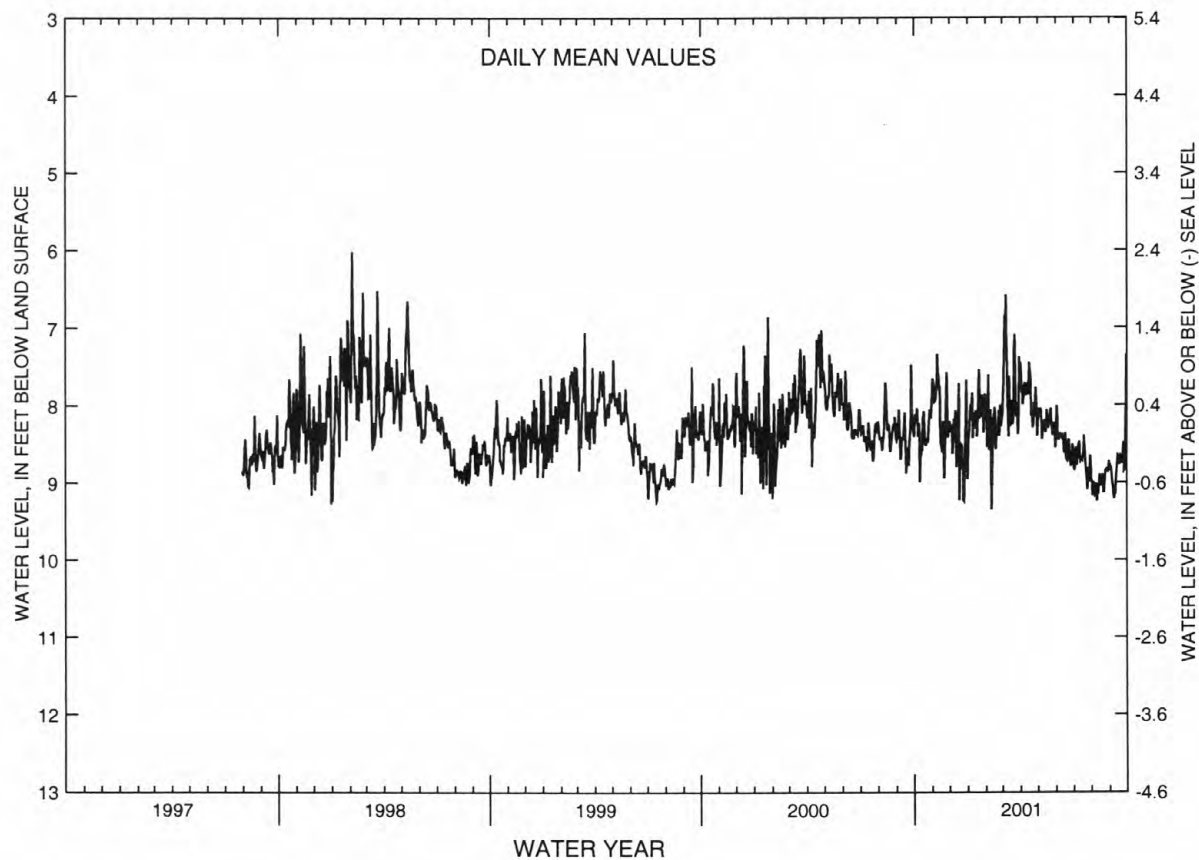
PERIOD OF RECORD.--July 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.63 ft below land surface, Feb. 24, 1998; lowest, 10.93 ft below land surface, Dec. 13, 2000, and Feb. 11, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.19	7.96	8.25	8.10	7.61	6.84	7.99	8.06	8.41	8.54	8.99	8.93
10	8.26	7.34	8.23	8.43	8.55	8.02	7.78	8.21	8.38	8.50	9.15	9.13
15	8.58	8.26	8.48	8.07	8.09	8.28	7.73	8.31	8.62	8.69	8.89	8.63
20	8.47	8.21	8.48	7.54	8.28	8.17	8.14	8.18	8.72	8.52	8.89	8.66
25	8.48	8.34	9.23	7.88	8.00	8.15	8.15	8.28	8.72	9.09	8.84	8.48
EOM	7.94	8.31	8.87	7.94	8.18	7.80	8.40	8.55	8.54	8.76	8.72	7.35
MEAN	8.32	8.09	8.47	8.12	8.31	7.80	7.89	8.23	8.50	8.71	8.99	8.76
WTR YR 2001 MEAN 8.35 HIGH 6.58 MAR 7 LOW 9.35 FEB 11												

NJ-WRD WELL NO. 25-0771



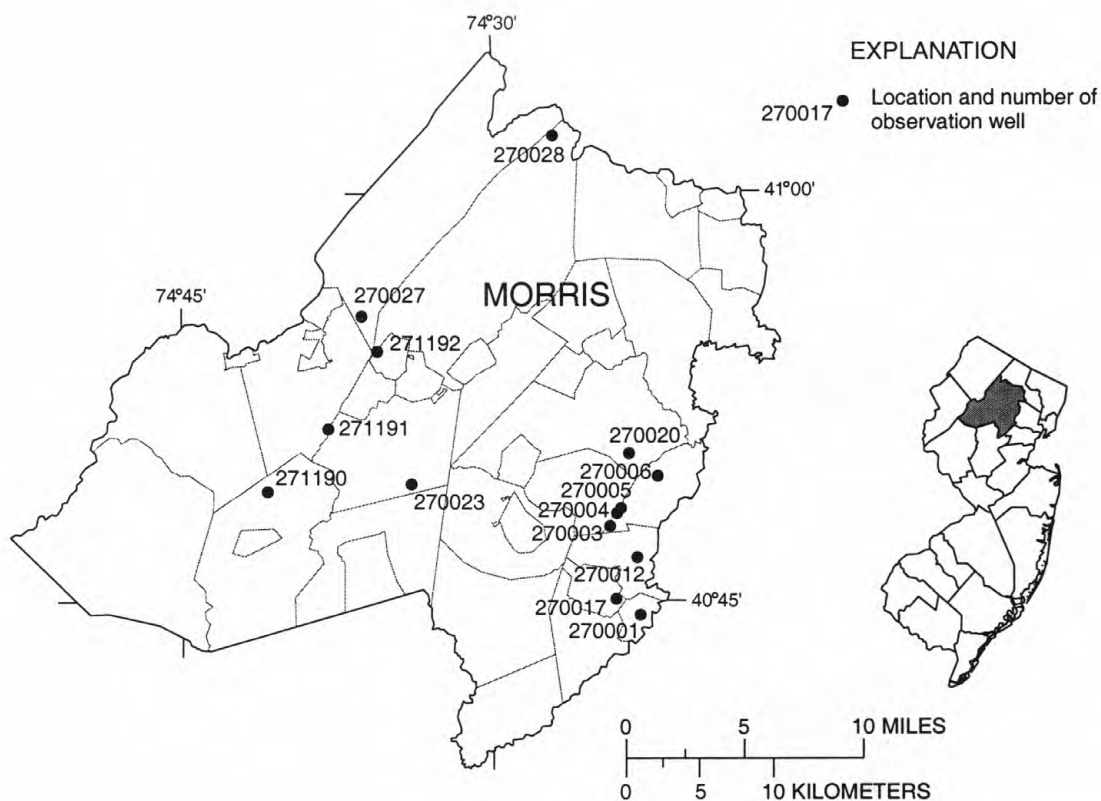
WATER RESOURCES DATA - NEW JERSEY, 2001

MORRIS COUNTY

NJ-WRD well number	Local identifier	Township	Well depth	Aquifer	Type of data
270001	RECREATION FLD OBS	CHATHAM BORO	150	SFDF	MANUAL
270003	W B DRIVER 2 OBS	EAST HANOVER TWP	108	SFDF	MANUAL
270004	CLEMENS OBS	EAST HANOVER TWP	110	SFDF	MANUAL
270005	SANDOZ OBS	EAST HANOVER TWP	123	SFDF	MANUAL
270006	GREEN ACRES OBS	EAST HANOVER TWP	104	SFDF	MANUAL
270012	BRIARWOOD SCHOOL OBS	FLORHAM PARK BORO	110	SFDF	DAILY
270017	MBWD 4 OBS	MADISON BORO	100	SFDF	MANUAL
270020	TROY MEADOWS 1 OBS	PARSIP-TROY HILLS TWP	89	SFDF	MAXMIN
270023	MT FREEDOM 2 OBS	RANDOLPH TWP	218	PCMB	MANUAL
270027	BERKSHIRE VALLEY 9 OBS	JEFFERSON TWP	98	SFDF	DAILY
270028	GREEN POND 5 OBS	ROCKAWAY TWP	120	SFDF	DAILY
271190	BLACK RIVER 10 OBS	CHESTER TWP	200	PCMB	DAILY
271191	ROXBURY 1 OBS	ROXBURY TWP	154	SFDF	DAILY
271192	MORRIS MAINT YD 22 OBS	WHARTON BORO	100	SFDF	DAILY

Aquifer names

PCMB - Precambrian Erathem
SFDF - Stratified drift



GROUND-WATER LEVELS

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MORRIS COUNTY

NJ-WRD Well Number, 27-0001. Site I.D., 404432074225301. Local I.D., Recreation Fld Obs. NJ Permit Number, 25-14164.

LOCATION.--Lat 40°44'32", long 74°22'52", Hydrologic Unit 02030103, at Chatham Recreation Field, about 35 ft east of the intersection of Center Place and North Passaic St., Chatham Borough.
Owner: U.S. Geological Survey.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 150 ft, screened 140 to 150 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Mar. 1967 to Aug. 1970.

DATUM.--Land surface is 218.8 ft above sea level, by altimeter.
Measuring point: Top of well shelter shelf, 3.20 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

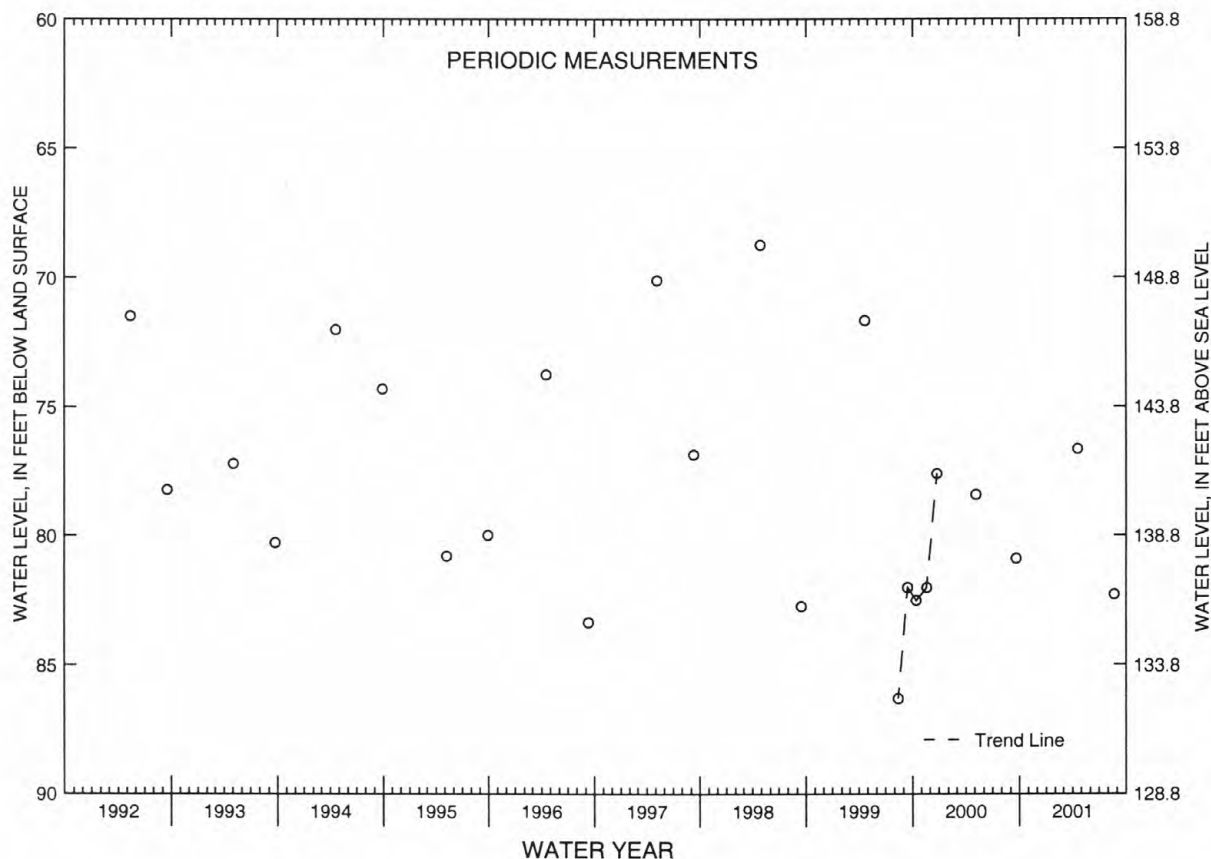
PERIOD OF RECORD.--Mar. 1967 to current year. Records for 1967 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 65.30 ft below land surface, May 23, 1985; lowest, 94.55 ft below land surface, Aug. 16, 1970.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 18	76.65	AUG 22	82.30

NJ-WRD WELL NO. 27-0001



GROUND-WATER LEVELS

MORRIS COUNTY--Continued

NJ-WRD Well Number, 27-0003. Site I.D., 404748074241901. Local I.D., W B Driver 2 Obs. NJ Permit Number, 25-13653.

LOCATION.--Lat 40°47'48", long 74°24'19", Hydrologic Unit 02030103, near the Precision Rolled Products Plant, about 2,500 ft north of Columbia Rd., East Hanover Township.
Owner: U.S. Geological Survey.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 108 ft, screened 99 to 108 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Mar. 1966 to Apr. 1975.

DATUM.--Land surface is 178.26 ft above sea level.

Measuring point: Top of base of aluminum locking cap, 4.21 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

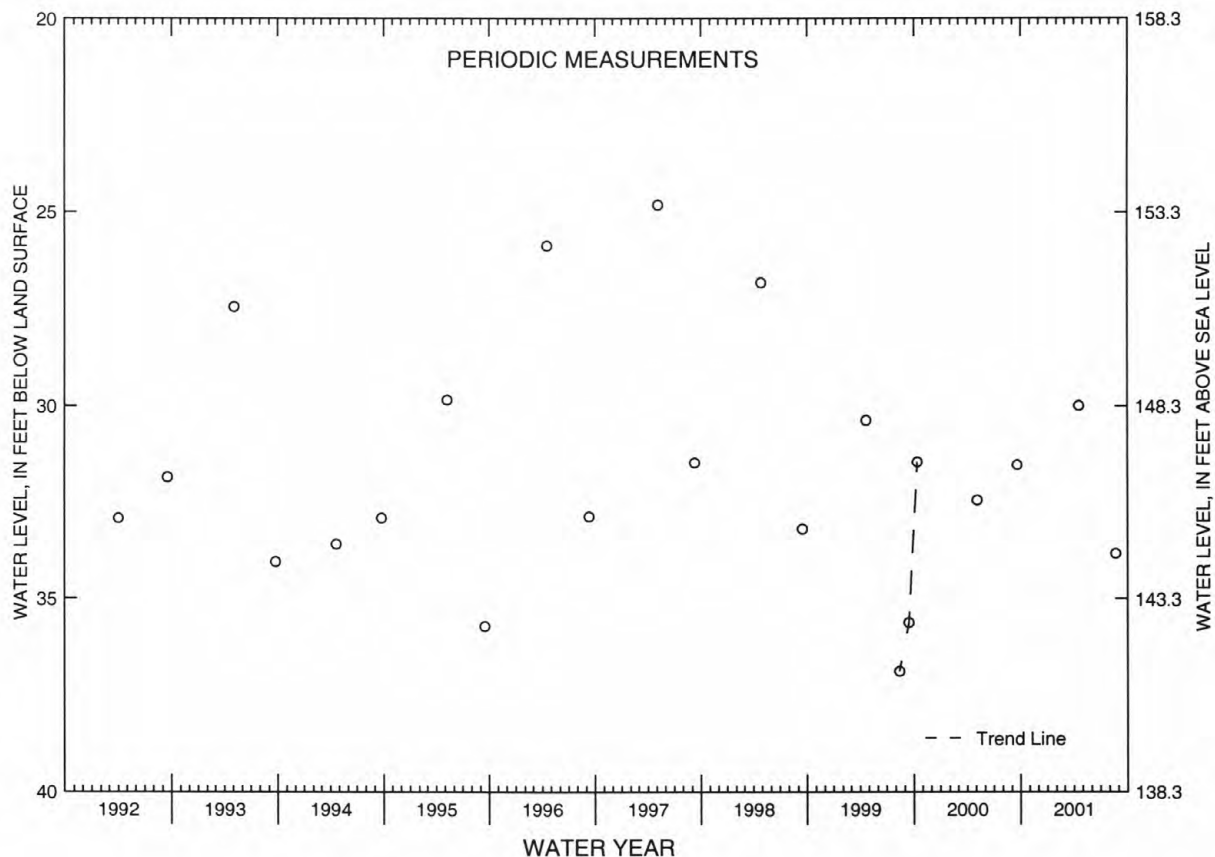
PERIOD OF RECORD.--Mar. 1966 to current year. Records for 1966 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.56 ft below land surface, Apr. 10, 1967; lowest, 36.88 ft below land surface, Aug. 13, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 18	29.99	AUG 22	33.84

NJ-WRD WELL NO. 27-0003



GROUND-WATER LEVELS

173

MORRIS COUNTY--Continued

NJ-WRD Well Number, 27-0004. Site I.D., 404816074235901. Local I.D., Clemens Obs.

LOCATION.--Lat 40°48'16", long 74°23'59", Hydrologic Unit 02030103, about 3,200 ft southwest of the intersection of Rt. 10 and Ridgedale Ave., East Hanover Township.
Owner: U.S. Geological Survey.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 110 ft, screened 100 to 110 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Periodic measurements, Feb. 1975 to Sept. 1984.
Water-level recorder, May 1966 to Feb. 1975.

DATUM.--Land surface is 174.91 ft above sea level.
Measuring point: Top of bushing, 4.60 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

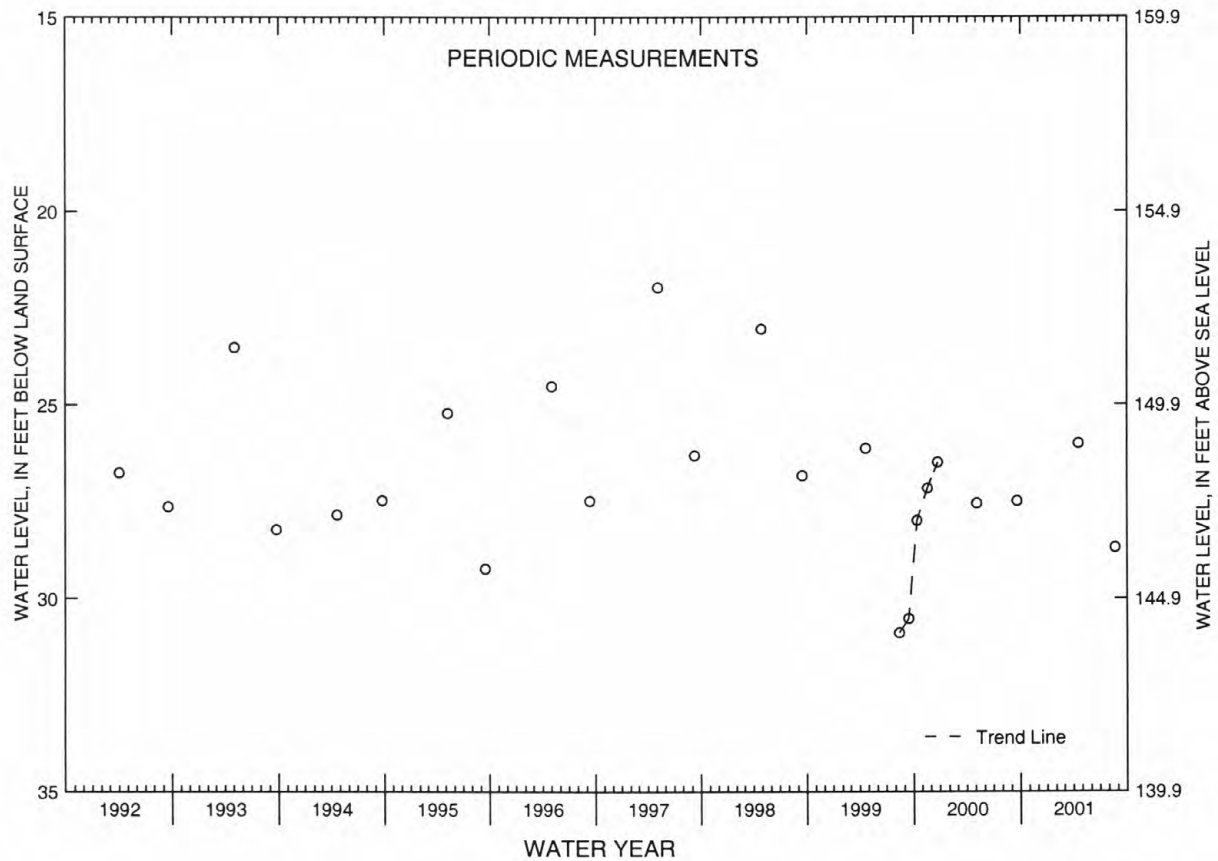
PERIOD OF RECORD.--May 1966 to Sept. 1984, Apr. 1987 to current year. Records for 1966 to 1984 and 1987 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.33 ft below land surface, May 7, 1967; lowest, 30.89 ft below land surface, Aug. 13, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 18	26.00	AUG 22	28.68

NJ-WRD WELL NO. 27-0004



GROUND-WATER LEVELS

MORRIS COUNTY--Continued

NJ-WRD Well Number, 27-0005. Site I.D., 404826074234701. Local I.D., Sandoz Obs. NJ Permit Number, 23-13476.

LOCATION.--Lat 40°48'26", long 74°23'47", Hydrologic Unit 02030103, about 600 ft west of Ridgedale Ave., and about 2,000 ft south of Rt. 10, East Hanover Township.
Owner: U.S. Geological Survey.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 123 ft, screened 113 to 123 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Feb. 1966 to Oct. 1975.

DATUM.--Land surface is 188.25 ft above sea level.
Measuring point: Top of bushing, 3.94 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

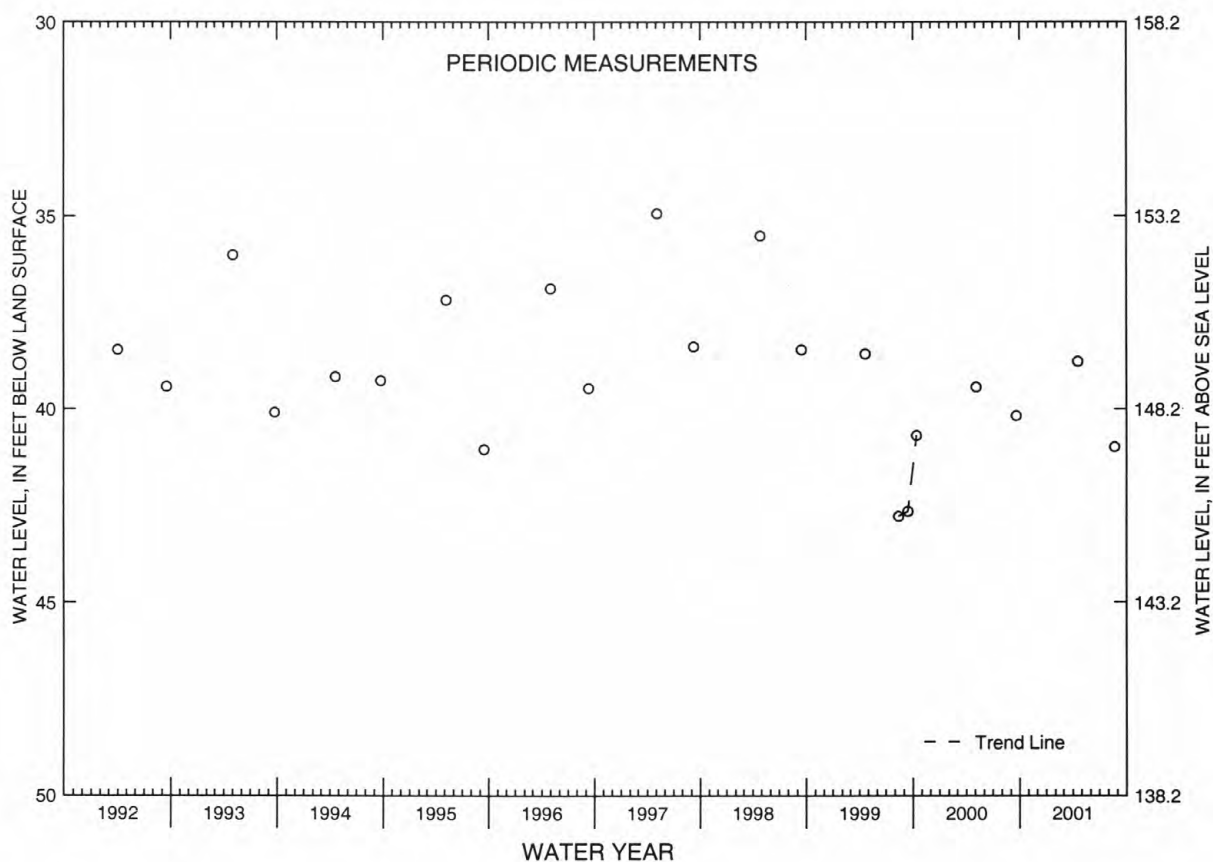
PERIOD OF RECORD.--Feb. 1966 to current year. Records for 1966 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.17 ft below land surface, Jan. 15, 1968; lowest, 42.78 ft below land surface, Aug. 13, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 18	38.77	AUG 22	40.99

NJ-WRD WELL NO. 27-0005



GROUND-WATER LEVELS

175

MORRIS COUNTY--Continued

NJ-WRD Well Number, 27-0006. Site I.D., 404937074220001. Local I.D., Green Acres Obs.

LOCATION.--Lat 40°49'37", long 74°22'00", Hydrologic Unit 02030103, about 65 ft northwest of the end of the paved portion of Weaver Place, East Hanover Township.
Owner: U.S. Geological Survey.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 104 ft, screened 94 to 104 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level extremes recorder, Apr. 1977 to July 1984. Periodic measurements, Apr. 1975 to Apr. 1977. Water-level recorder, Mar. 1967 to Apr. 1975.

DATUM.--Land surface is 181 ft above sea level, by altimeter.
Measuring point: Top of base of aluminum locking cap, 3.86 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

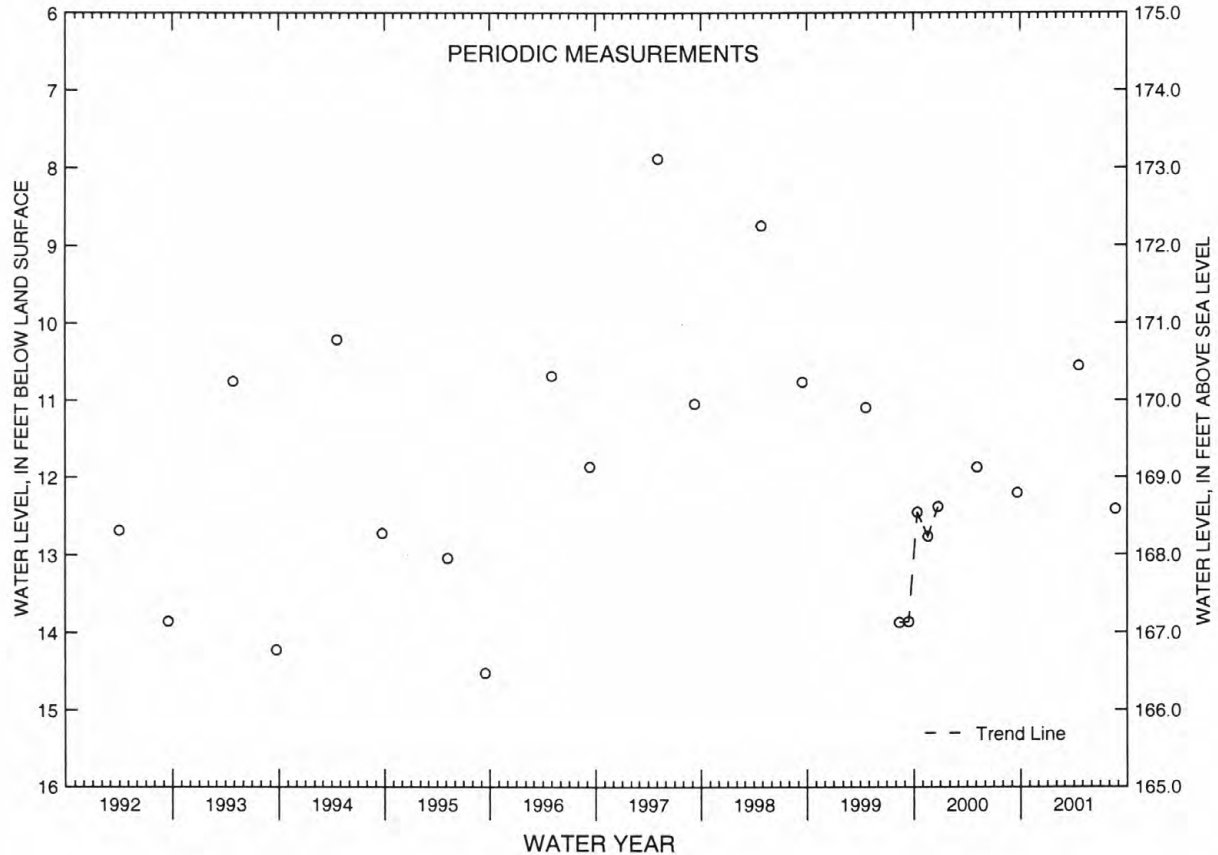
PERIOD OF RECORD.--Mar. 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.15 ft below land surface, Apr. 10, 1973; lowest, 15.21 ft below land surface, between Apr. 3 and July 9, 1984.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 18	10.55	AUG 22	12.41

NJ-WRD WELL NO. 27-0006



GROUND-WATER LEVELS

MORRIS COUNTY--Continued

NJ-WRD Well Number, 27-0012. Site I.D., 404639074230001. Local I.D., Briarwood School Obs. NJ Permit Number, 25-14149.

LOCATION.--Lat 40°46'39", long 74°23'00", Hydrologic Unit 02030103, at Briarwood School, Florham Park Borough.
Owner: U.S. Geological Survey.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 110 ft, screened 100 to 110 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Aug. 1975 to Mar. 1977. Water-level recorder, Mar. 1967 to Aug. 1975.

DATUM.--Land surface is 198 ft above sea level, by altimeter.
Measuring point: Top of recorder shelf, 3.00 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

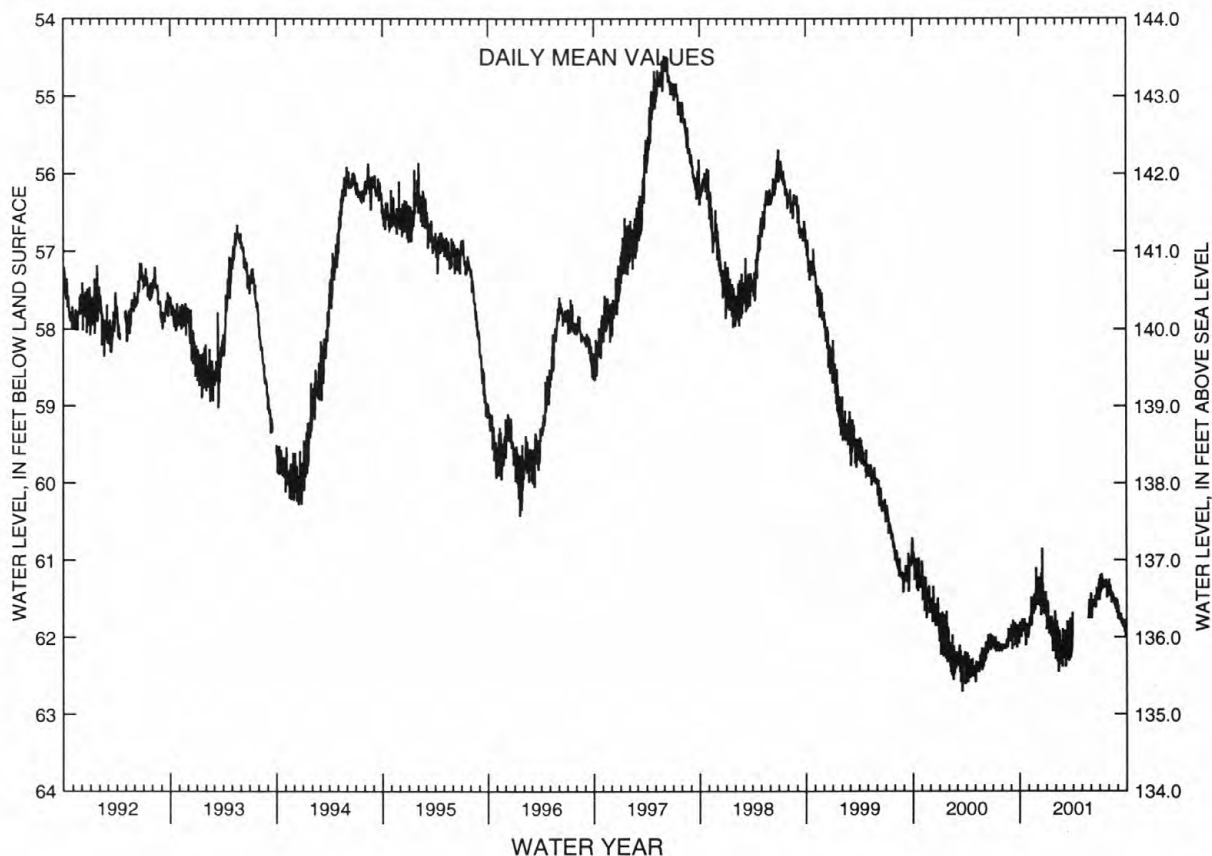
PERIOD OF RECORD.--Mar. 1967 to current year. Records for 1967 to 1976 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.17 ft below land surface, June 3, 1968; lowest, 62.86 ft below land surface, Mar. 17-18, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	61.96	61.82	61.22	61.53	61.79	61.91	---	---	61.68	61.21	61.47	61.77
10	61.76	61.48	61.37	61.96	62.05	62.24	---	---	61.57	61.23	61.43	61.70
15	61.83	61.64	61.55	61.73	62.12	62.27	---	---	61.52	61.33	61.54	61.79
20	61.98	61.44	61.51	61.90	62.05	62.23	---	---	61.44	61.31	61.51	61.80
25	61.91	61.47	61.66	62.04	61.89	62.27	---	61.76	61.51	61.31	61.63	61.83
EOM	61.98	61.43	61.74	62.00	62.12	---	---	61.68	61.26	61.42	61.51	61.90
MEAN	61.90	61.62	61.45	61.87	62.15	62.14	---	---	61.51	61.32	61.48	61.79
WTR YR 2001 MEAN 61.71 HIGH 60.85 DEC 17 LOW 62.45 FEB 11												

NJ-WRD WELL NO. 27-0012



GROUND-WATER LEVELS

177

MORRIS COUNTY--Continued

NJ-WRD Well Number, 27-0017. Site I.D., 404510074240201. Local I.D., MBWD 4 Obs.

LOCATION.--Lat 40°45'08", long 74°24'02", Hydrologic Unit 02030103, at the Madison Borough Public Works facility, John Ave. and Dean St, Madison Borough.
Owner: Madison Borough Water Department.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, depth 100 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Apr. 1955 to June 1970.

DATUM.--Land surface is 194.90 ft above sea level.
Measuring point: Top of well shelter shelf, 1.97 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

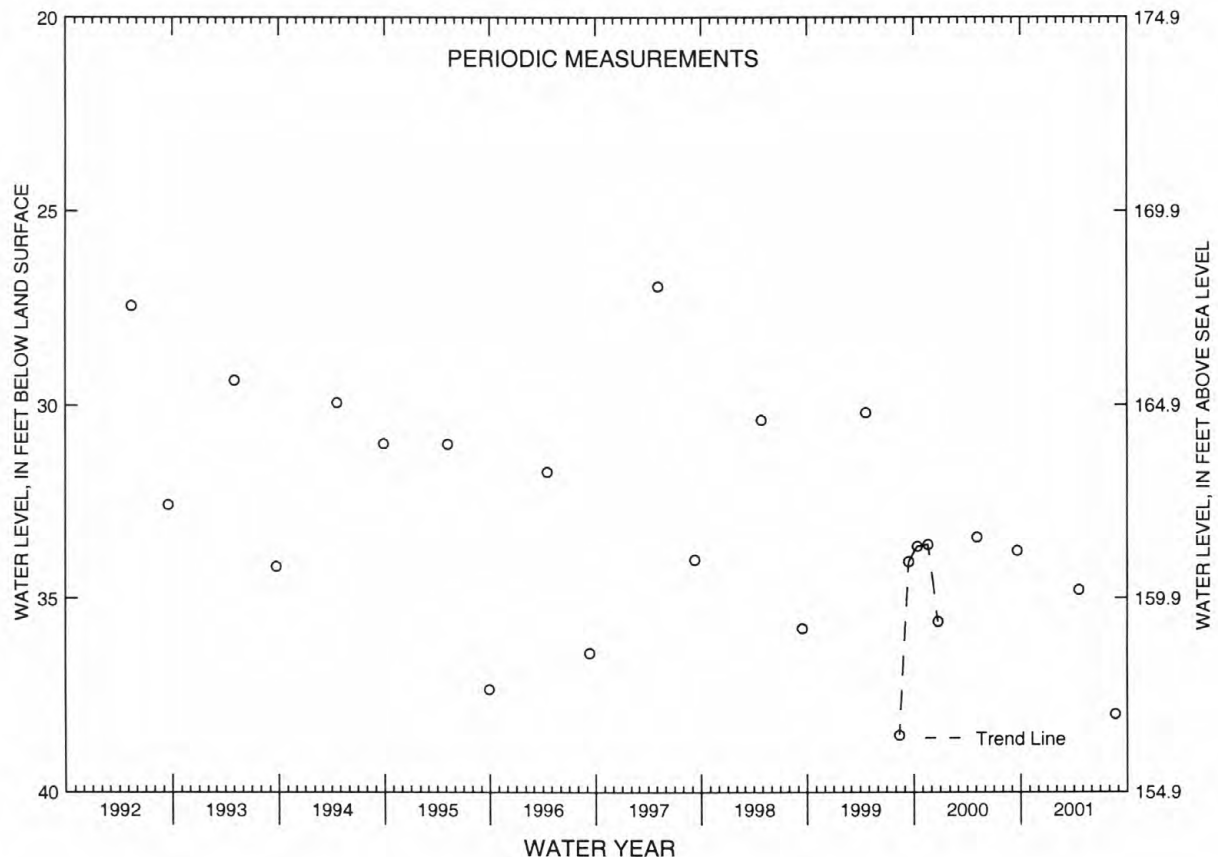
PERIOD OF RECORD.--Apr. 1955 to current year. Records for 1955 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.50 ft below land surface, Apr. 30, 1955; lowest, 38.53 ft below land surface, Aug. 13, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 18	34.79	AUG 22	37.99

NJ-WRD WELL NO. 27-0017



GROUND-WATER LEVELS

MORRIS COUNTY--Continued

NJ-WRD Well Number, 27-0020. Site I.D., 405027074232301. Local I.D., Troy Meadows 1 Obs.

LOCATION.--Lat 40°50'27", long 74°23'23", Hydrologic Unit 02030103, on the east side of Beverwyck Rd., 0.8 mi north of intersection with Troy Rd., Parsippany-Troy Hills Township.
Owner: U.S. Geological Survey.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 89 ft, screened 79 to 89 ft.

INSTRUMENTATION.--Water-level extremes recorder. Periodic measurements, July 1970 to Apr. 1977. Water-level recorder, Dec. 1965 to July 1970.

DATUM.--Land surface is 192.07 ft above sea level.

Measuring point: Front edge of cutout in recorder housing, 3.32 ft above land surface.

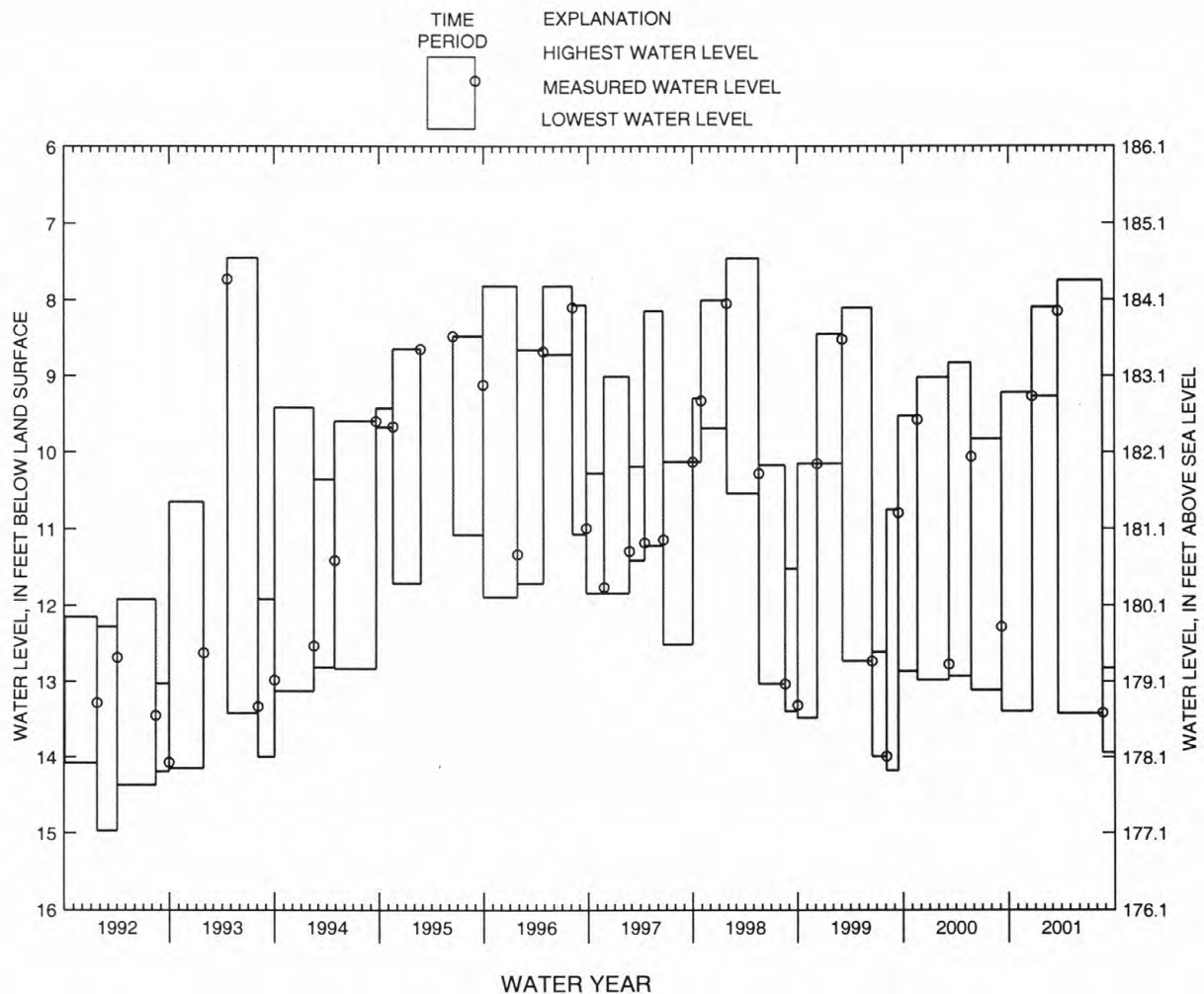
PERIOD OF RECORD.--Dec. 1965 to current year. Records for 1965 to 1981 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.00 ft below land surface, Mar. 15-16, 1967, June 15, 1968; lowest, 15.77 ft below land surface, between Feb. 10 and May 31, 1978.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
WATER-LEVEL EXTREMES MEASURED WATER LEVELS

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 6, 2000 TO DEC. 21, 2000	9.22	13.39	DEC. 21, 2000	9.27
DEC. 21, 2000 TO MAR. 20, 2001	8.10	9.27	MAR. 20, 2001	8.15
MAR. 20, 2001 TO AUG. 22, 2001	7.75	13.42	AUG. 22, 2001	13.41
AUG. 22, 2001 TO OCT. 4, 2001	12.82	13.94	OCT. 4, 2001	13.94

NJ-WRD WELL NO. 27-0020



GROUND-WATER LEVELS

179

MORRIS COUNTY--Continued

NJ-WRD Well Number, 27-0023. Site I.D., 404921074335601. Local I.D., Mt Freedom 2 Obs.

LOCATION.--Lat 40°49'21", long 74°33'56", Hydrologic Unit 02030103, 440 ft north of the intersection of Phyllis Place and Leonard Lane, Randolph Township.
Owner: Randolph Township Water Department.

AQUIFER.--Precambrian Erathem.

WELL CHARACTERISTICS.--Drilled observation well, diameter 8 in., depth 218 ft, open hole 11 to 218 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level extremes recorder, Apr. 1977 to July 1984. Periodic measurements, July 1970 to Apr. 1977. Water-level recorder, Jan. 1964 to July 1970.

DATUM.--Land surface is 800 ft above sea level, by altimeter.
Measuring point: Top of base of aluminum locking cap, 4.61 ft above land surface.

REMARKS.--Water level is occasionally affected by nearby pumping.

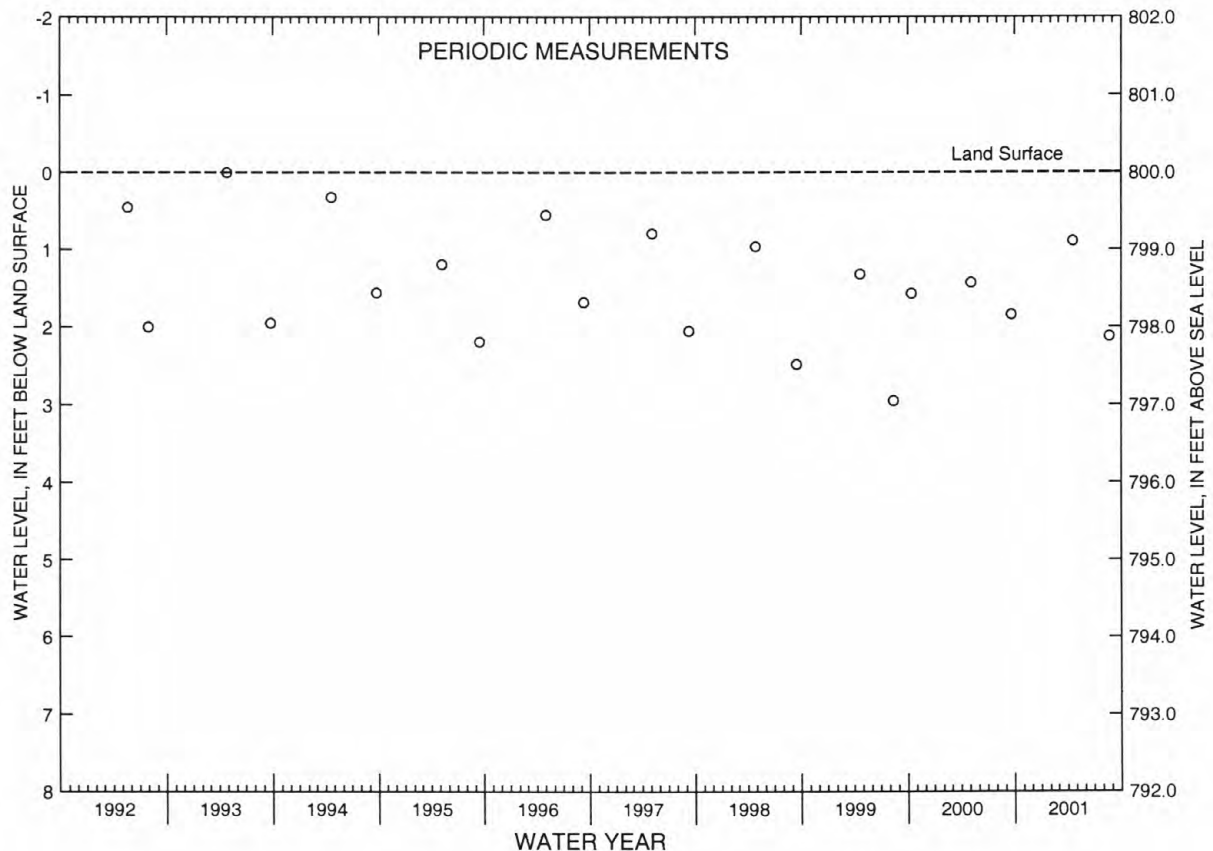
PERIOD OF RECORD.--Jan. 1964 to current year. Records for 1964 to 1975 and 1985 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.02 ft above land surface, between Apr. 3 and July 9, 1984; lowest, 15.29 ft below land surface, between Aug. 26 and Oct. 8, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 18	.89	AUG 22	2.12

NJ-WRD WELL NO. 27-0023



MORRIS COUNTY--Continued

NJ-WRD Well Number, 27-0027. Site I.D., 405531074361901. Local I.D., Berkshire Valley 9 Obs. NJ Permit Number, 25-22024.

LOCATION.--Lat 40°55'31", long 74°36'19", Hydrologic Unit 02030103, about 1,000 ft east of the intersection of Lower Berkshire Valley Rd. and Minnisink Rd., Jefferson Township.
Owner: State of New Jersey-DEP.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 98 ft, screened 78 to 98 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Nov. 1981 to Mar. 1985.

DATUM.--Land surface is 725.64 ft above sea level (levels by Woodward-Clyde Consultants).
Measuring point: Top of casing, 2.25 ft above land surface.

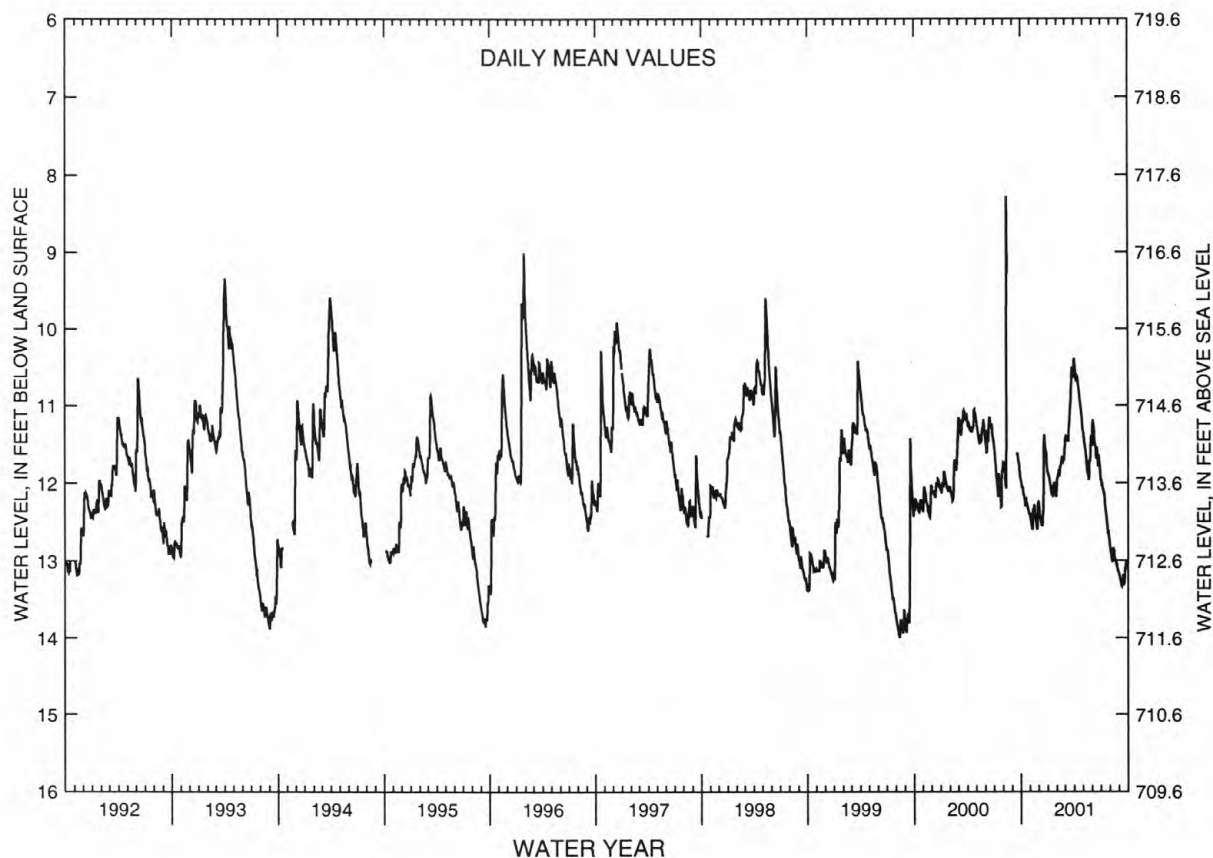
PERIOD OF RECORD.--Nov. 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.89 ft below land surface, Aug. 13, 2000; lowest, 14.01 ft below land surface, Aug. 13, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.06	12.53	12.46	11.93	11.87	11.41	10.57	11.46	11.23	12.03	12.93	13.24
10	12.15	12.38	12.54	12.04	11.85	11.44	10.60	11.62	11.51	12.12	12.98	13.33
15	12.27	12.28	12.36	12.12	11.73	11.23	10.75	11.83	11.67	12.28	12.88	13.18
20	12.28	12.47	11.41	12.03	11.72	10.89	10.95	11.95	11.72	12.46	13.01	13.28
25	12.34	12.60	11.60	12.04	11.67	10.51	11.10	11.71	11.69	12.66	13.06	13.03
EOM	12.40	12.23	11.84	11.99	11.49	10.42	11.33	11.48	11.97	12.80	13.16	13.09
MEAN	12.22	12.43	12.06	12.05	11.77	11.04	10.82	11.64	11.58	12.33	12.98	13.19
WTR YR 2001 MEAN 12.01 HIGH 10.39 APR 1 LOW 13.33 SEP 10												

NJ-WRD WELL NO. 27-0027



MORRIS COUNTY--Continued

NJ-WRD Well Number, 27-0028. Site I.D., 410207074270001. Local I.D., Green Pond 5 Obs.

LOCATION.--Lat 41°02'07", long 74°27'00", Hydrologic Unit 02030103, about 500 ft east of County Rt. 513 and 1.1 mi south of the intersection with Rt. 23, Rockaway Township.
Owner: State of New Jersey-DEP.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 120 ft, screened 80 to 120 ft.

INSTRUMENTATION.--Data collection platform with satellite telemetry--60 minute recording interval. Water-level recorder, Nov. 1981 to June 2001.

DATUM.--Land surface is 758.56 ft above sea level (levels by Woodward-Clyde Consultants).
Measuring point: Top of casing, 0.93 ft above land surface.

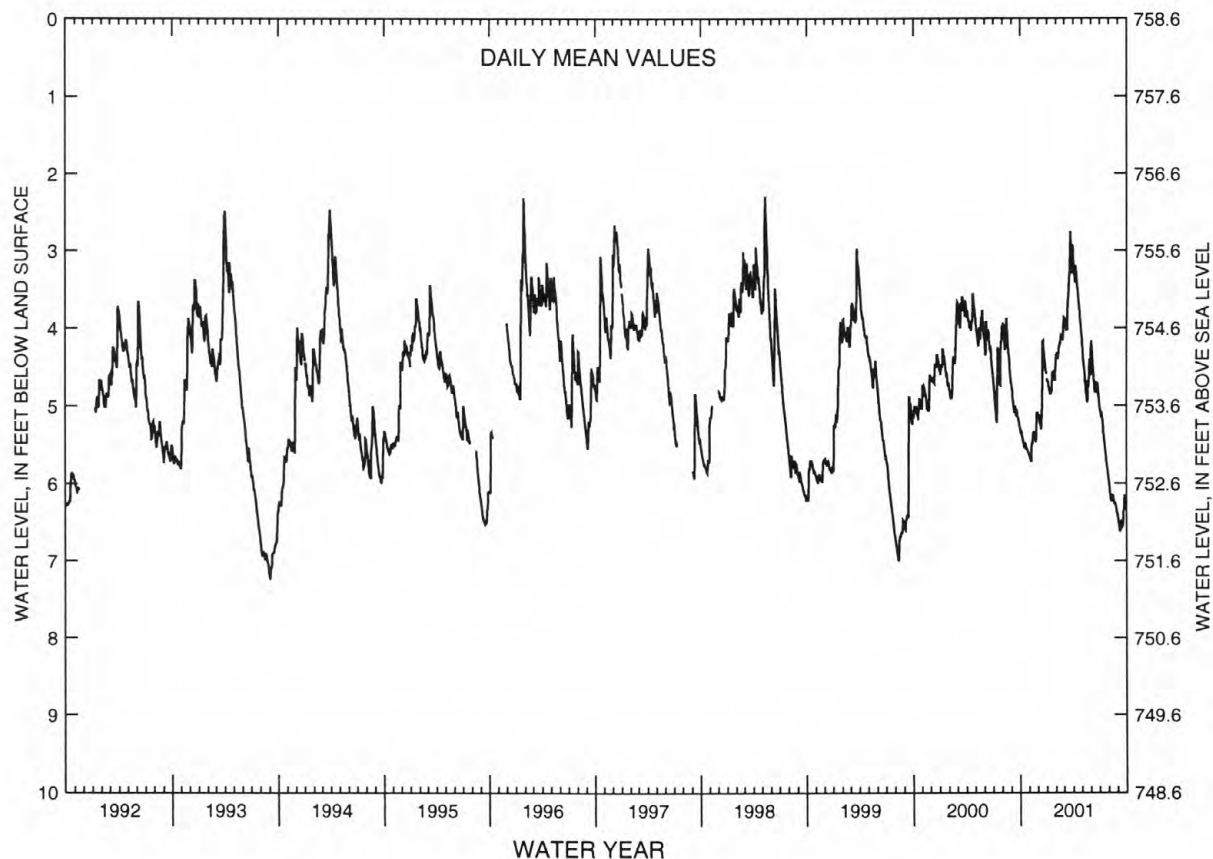
PERIOD OF RECORD.--Nov. 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.35 ft below land surface, Apr. 5, 1984; lowest, 7.24 ft below land surface, Sept. 2-4, 1993.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.35	5.67	5.12	4.69	4.31	3.88	3.30	4.32	4.26	5.07	6.06	6.50
10	5.41	5.53	5.25	4.80	4.30	4.01	3.19	4.54	4.58	5.15	6.22	6.61
15	5.51	5.36	5.07	4.83	4.20	3.62	3.44	4.76	4.80	5.35	6.14	6.48
20	5.50	5.36	4.22	4.58	4.11	3.26	3.66	4.95	4.77	5.53	6.23	6.53
25	5.56	5.47	4.45	4.59	4.09	3.04	3.86	4.76	4.72	5.72	6.27	6.20
EOM	5.62	5.08	4.59	4.42	3.88	2.92	4.08	4.57	4.96	5.90	6.38	6.17
MEAN	5.47	5.45	4.80	4.69	4.20	3.51	3.52	4.59	4.65	5.41	6.19	6.43
WTR YR 2001 MEAN 4.91 HIGH 2.75 MAR 22 LOW 6.61 SEP 9												

NJ-WRD WELL NO. 27-0028



GROUND-WATER LEVELS

MORRIS COUNTY--Continued

NJ-WRD Well Number, 27-1190. Site I.D., 404934074400501. Local I.D., Black River 10 Obs. NJ Permit Number, 25-33678-9.

LOCATION.--Lat 40°49'04", long 74°40'53", Hydrologic Unit 02030105, at the Black River Wildlife Management Area, Pleasant Hill Rd., Chester Township.
Owner: State of New Jersey.

AQUIFER.--Precambrian Erathem.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 200 ft, open hole 87 to 200 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Apr. 1991 to May 1992.

DATUM.--Land surface is 890 ft above sea level, from topographic map.
Measuring point: Top of recorder shelf, 1.90 ft above land surface.

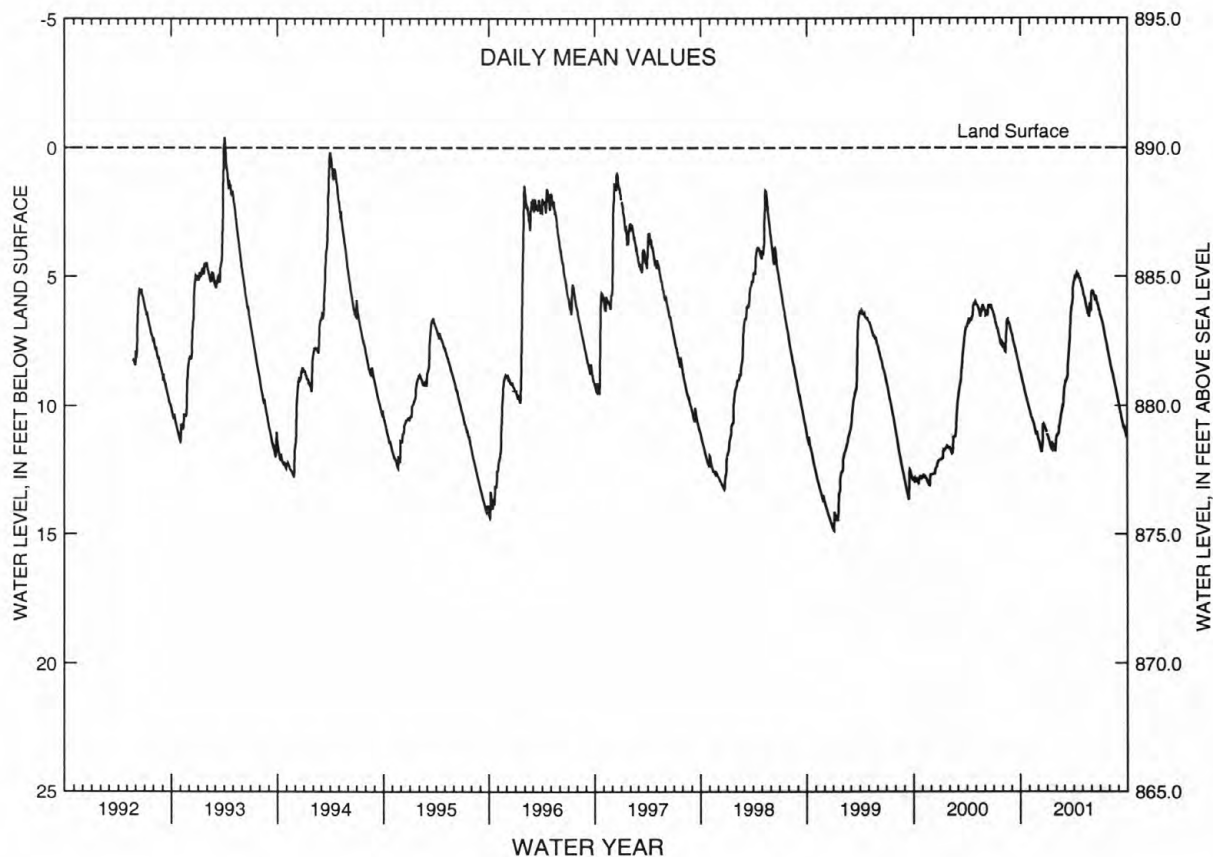
PERIOD OF RECORD.--Apr. 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.46 ft above land surface, Apr. 2, 1993; lowest, 14.93 ft below land surface, Jan. 3, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.83	10.29	11.41	11.23	11.12	9.05	5.12	5.58	5.56	6.51	8.33	10.00
10	9.06	10.47	11.67	11.44	10.98	8.92	4.98	5.83	5.68	6.78	8.62	10.30
15	9.32	10.64	11.55	11.66	10.55	8.12	4.88	6.09	5.89	7.09	8.80	10.59
20	9.55	10.87	10.72	11.47	10.20	7.32	5.04	6.40	5.93	7.39	9.10	10.88
25	9.78	11.14	10.86	11.64	9.96	6.28	5.19	6.55	6.11	7.66	9.35	10.98
EOM	10.06	11.18	11.03	11.32	9.34	5.40	5.39	6.28	6.35	8.04	9.70	11.24
MEAN	9.36	10.69	11.21	11.50	10.54	7.73	5.08	6.03	5.88	7.17	8.90	10.55
WTR YR 2001 MEAN 8.71 HIGH 4.87 APR 13 LOW 11.82 DEC 13												

NJ-WRD WELL NO. 27-1190



MORRIS COUNTY--Continued

NJ-WRD Well Number, 27-1191. Site I.D., 405123074375701. Local I.D., Roxbury 1 Obs. NJ Permit Number, 25-33680-1.

LOCATION.--Lat 40°51'23", long 74°37'57", Hydrologic Unit 02030105, 600 ft south of Horseshoe Lake, between the Roxbury Municipal Building and the Lamington River, Roxbury Township.
Owner: State of New Jersey.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 154 ft, screened 134 to 154 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 704.2 ft above sea level.
Measuring point: Top of recorder shelf, 2.20 ft above land surface.

REMARKS.--Water level is affected by nearby pumping and by the stage of the Lamington River.

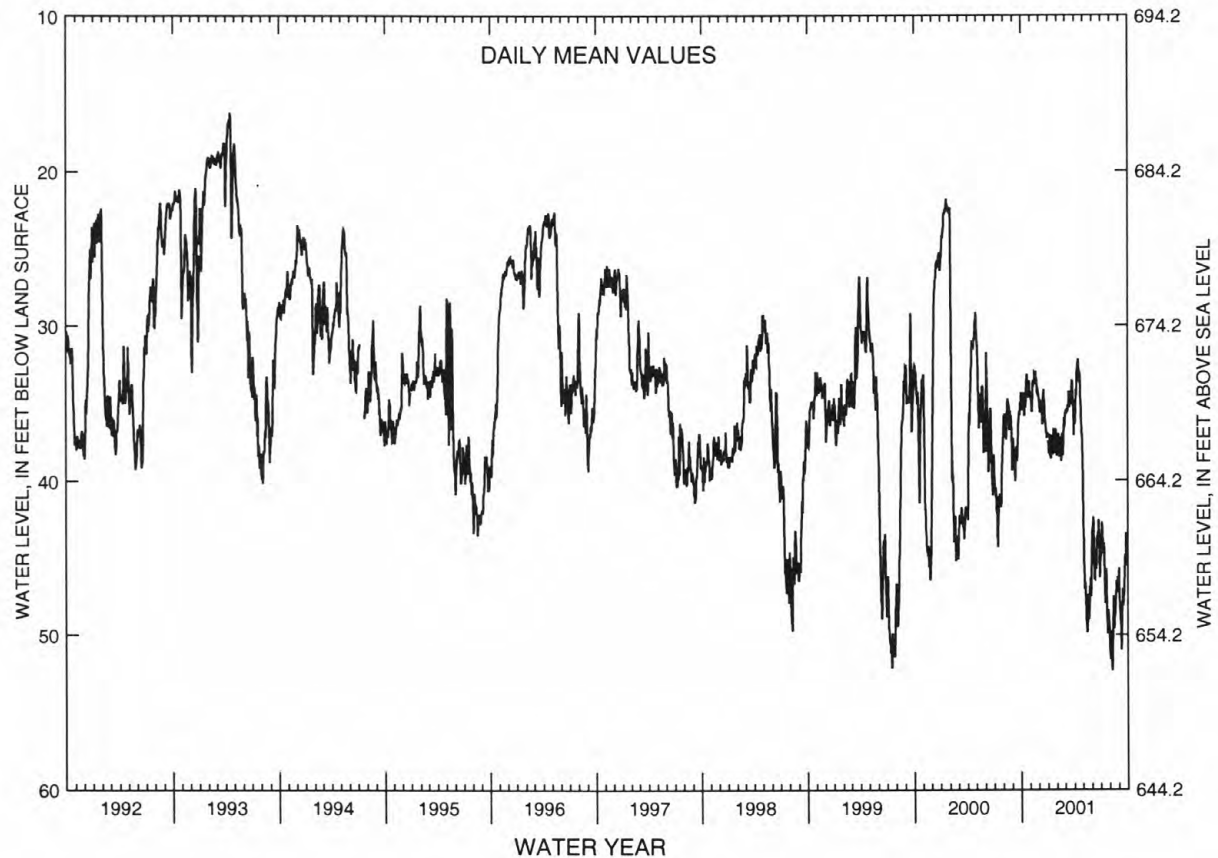
PERIOD OF RECORD.--Nov. 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.14 ft below land surface, Apr. 17, 1993; lowest, 52.34 ft below land surface, Aug. 10-11, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.47	35.16	35.25	38.22	37.64	35.51	35.97	45.29	42.75	44.06	49.75	47.88
10	34.97	33.78	35.15	38.09	37.24	35.18	33.04	47.14	46.37	44.71	52.34	51.00
15	35.20	33.01	34.68	37.24	38.76	35.35	32.19	49.05	45.59	46.50	48.17	46.98
20	33.36	33.44	34.94	36.68	38.27	34.64	33.04	48.24	43.81	45.71	48.08	46.69
25	34.52	34.41	36.82	37.61	35.98	33.68	36.02	46.98	42.90	49.94	46.59	44.65
EOM	34.62	34.60	36.94	38.44	35.70	35.29	38.84	44.23	44.63	49.93	46.66	43.91
MEAN	34.53	34.10	35.66	37.77	37.55	35.03	34.73	46.95	44.31	46.39	48.81	46.82
WTR YR 2001	MEAN 40.25 HIGH 32.19 APR 15 LOW 52.34 AUG 10											

NJ-WRD WELL NO. 27-1191



GROUND-WATER LEVELS

MORRIS COUNTY--Continued

NJ-WRD Well Number, 27-1192. Site I.D., 405414074354201. Local I.D., Morris Maint Yd 22 Obs. NJ Permit Number, 25-34668-7.

LOCATION.--Lat 40°54'13", long 74°35'33", Hydrologic Unit 02030103, about 600 ft north of the Rockaway River, at the Morris County Maintenance Yard, Dewey Ave., Wharton Borough.
Owner: State of New Jersey.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 100 ft, screened 80 to 100 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Apr. 1991 to May 1992.

DATUM.--Land surface is 669.1 ft above sea level.

Measuring point: Top of recorder shelf, 2.10 ft above land surface.

REMARKS.--Water level is affected by nearby pumping and by the stage of the Rockaway River.

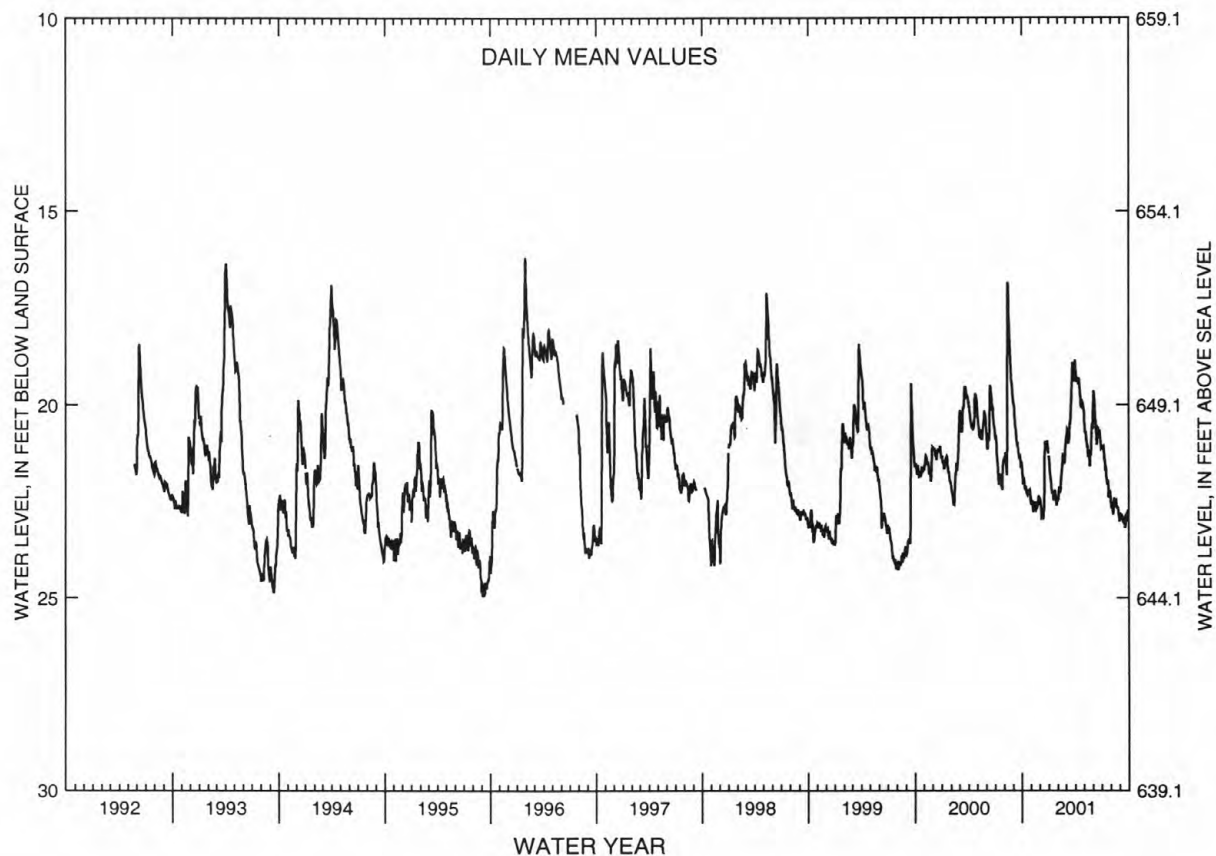
PERIOD OF RECORD.--Apr. 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.13 ft below land surface, Jan. 28-29, 1996; lowest, 25.09 ft below land surface, Sept. 11, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.98	22.48	22.63	21.77	22.13	20.64	19.21	20.71	19.74	21.07	22.53	22.94
10	22.05	22.68	22.77	22.16	22.20	20.95	19.30	20.90	20.41	21.42	22.85	22.94
15	22.11	22.73	22.73	22.29	21.67	20.43	19.30	21.23	21.05	21.58	22.46	22.93
20	22.33	22.52	20.96	22.34	21.37	19.85	19.97	21.34	20.73	22.03	22.50	23.10
25	22.32	22.59	21.00	22.43	21.40	18.95	19.88	21.31	20.68	22.41	22.70	22.90
EOM	22.46	22.44	21.27	22.47	20.95	19.05	20.10	20.54	21.09	22.33	23.04	22.73
MEAN	22.12	22.58	21.97	22.18	21.76	20.10	19.57	20.96	20.55	21.72	22.64	22.93
WTR YR 2001	MEAN 21.59 HIGH 18.83 APR 2 LOW 23.19 SEP 19											

NJ-WRD WELL NO. 27-1192

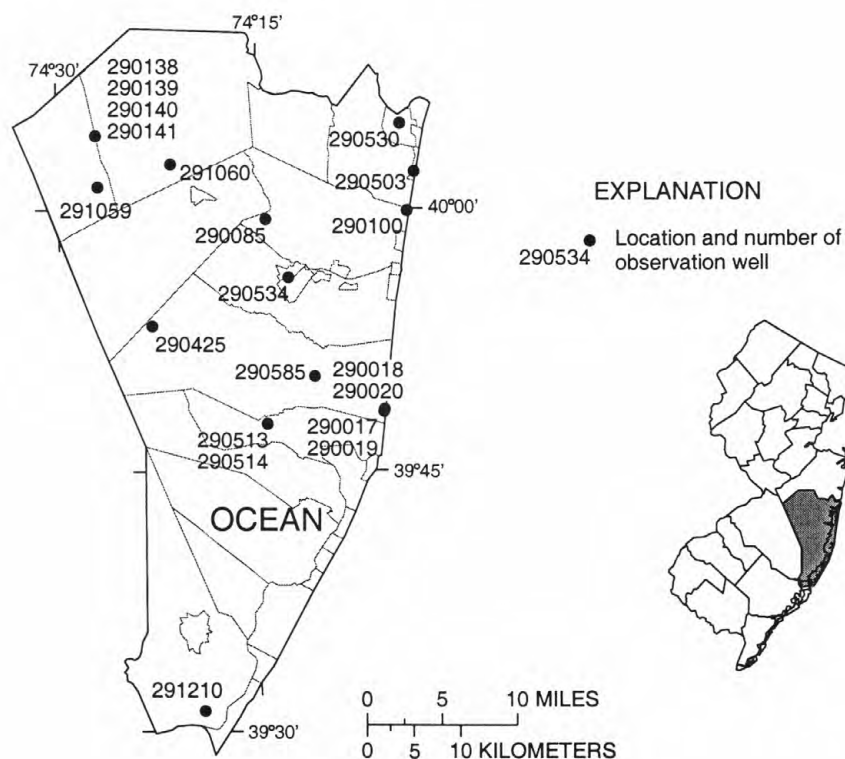


OCEAN COUNTY

NJ-WRD well number	Local identifier	Township	Well depth	Aquifer	Type of data
290017	ISLAND BEACH 1 OBS	LACEY TWP	397	CKKD	MAXMIN
290018	ISLAND BEACH 2 OBS	LACEY TWP	474	PNPN	MANUAL
290019	ISLAND BEACH 3 OBS	LACEY TWP	2760	MRPA	MAXMIN
290020	ISLAND BEACH 4 OBS	LACEY TWP	12	CKKD	MANUAL
290085	TOMS RIVER 84 OBS	DOVER TWP	1480	MRPA	DAILY
290100	NORMANDY 3	DOVER TWP	1480	MRPAU	DAILY
290138	COLLIERS MILLS 1 OBS	JACKSON TWP	427	EGLS	DAILY
290139	COLLIERS MILLS 2 OBS	JACKSON TWP	171	VNCN	MAXMIN
290140	COLLIERS MILLS 3 OBS	JACKSON TWP	267	MLRW	DAILY
290141	COLLIERS MILLS 4 OBS	JACKSON TWP	71	CKKD	MAXMIN
290425	WEBBS MILLS 2 OBS	LACEY TWP	348	PNPN	MANUAL
290503	MANTOLOKING 6 OBS	MANTOLOKING BORO	906	EGLS	DAILY
290513	GARDEN ST PKY 1 OBS	OCEAN TWP	21	CKKD	MANUAL
290514	GARDEN ST PKY 2 OBS	OCEAN TWP	316	CKKD	DAILY
290530	PPWD 6 OBS	PT PLEASANT BORO	790	EGLS	MANUAL
290534	TOMS RIVER 2 OBS	SOUTH TOMS RIVER BORO	1150	EGLS	DAILY
290585	DOE-FORKED RIVER OBS	LACEY TWP	422	PNPN	DAILY
291059	FORT DIX RLF-30 OBS	PLUMSTED TWP	75	CKKD	DAILY
291060	LNAS-EC OBS	JACKSON TWP	38	CKKD	DAILY
291210	GREAT BAY BLVD 1 OBS	LITTLE EGG HARBOR TWP	880	PNPN	DAILY

Aquifer names

- CKKD - Kirkwood-Cohansey aquifer system
- EGLS - Englishtown aquifer system
- MLRW - Wenonah-Mount Laurel aquifer
- MRPA - Potomac-Raritan-Magothy aquifer
- MRPAU - Upper Potomac-Raritan-Magothy aquifer
- PNPN - Piney Point aquifer
- VNCN - Vincentown aquifer



GROUND-WATER LEVELS

OCEAN COUNTY

NJ-WRD Well Number, 29-0017. Site I.D., 394829074053501. Local I.D., Island Beach 1 Obs.

LOCATION.--Lat 39°48'29", long 74°05'35", Hydrologic Unit 02040301, in Island Beach State Park, about 6.6 mi south of the main entrance, Lacey Township.

Owner: U.S. Geological Survey.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in., depth 397 ft, screened 377 to 397 ft.

INSTRUMENTATION.--Water-level extremes recorder. Periodic measurements, Aug. 1975 to Feb. 1977. Water-level recorder, July 1962 to Aug. 1975.

DATUM.--Land surface is 8.50 ft above sea level.

Measuring point: Front edge of cutout in recorder housing, 3.40 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation.

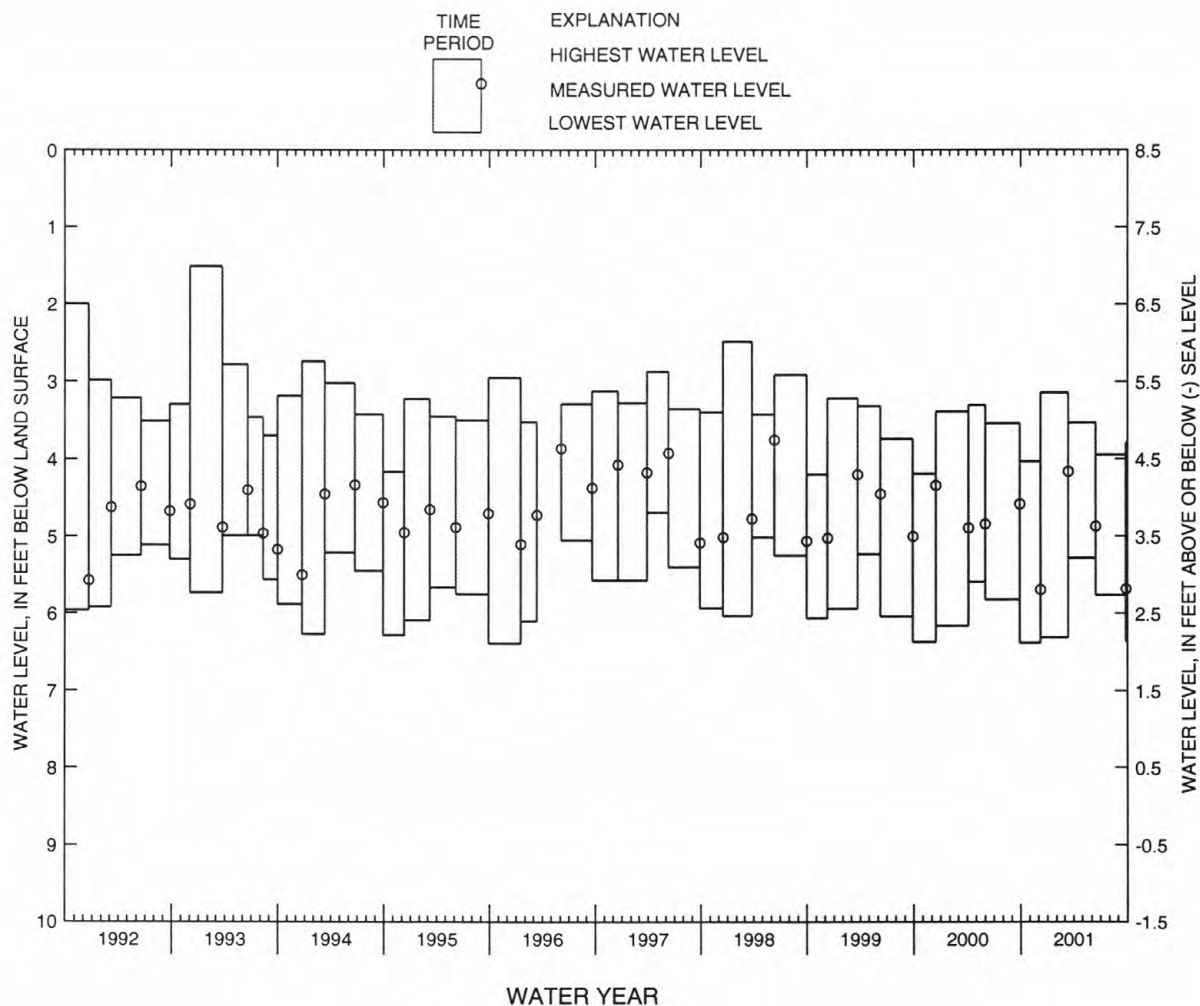
PERIOD OF RECORD.--July 1962 to current year. Records for 1962 to 1976 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.05 ft below land surface, Dec. 6, 1962; lowest, 6.39 ft below land surface, between Sept. 26, 1995 and Jan. 16, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
WATER-LEVEL EXTREMES MEASURED WATER LEVELS

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 28, 2000 TO DEC. 8, 2000	4.03	6.38	DEC. 8, 2000	5.69
DEC. 8, 2000 TO MAR. 13, 2001	3.14	6.31	MAR. 13, 2001	4.16
MAR. 13, 2001 TO JUNE 15, 2001	3.53	5.28	JUNE 15, 2001	4.87
JUNE 15, 2001 TO SEPT. 27, 2001	3.95	5.76	SEPT. 27, 2001	5.68

NJ-WRD WELL NO. 29-0017



GROUND-WATER LEVELS

187

OCEAN COUNTY--Continued

NJ-WRD Well Number, 29-0018. Site I.D., 394829074053502. Local I.D., Island Beach 2 Obs.

LOCATION.--Lat 39°48'29", long 74°05'35", Hydrologic Unit 02040301, in Island Beach State Park, about 6.6 mi. south of the main entrance, Lacey Township.
Owner: U.S. Geological Survey.

AQUIFER.--Piney Point aquifer of Eocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, depth 474 ft, screened 468 to 474 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 8.50 ft above sea level.

Measuring point: Top of coupling, 0.13 ft above land surface.

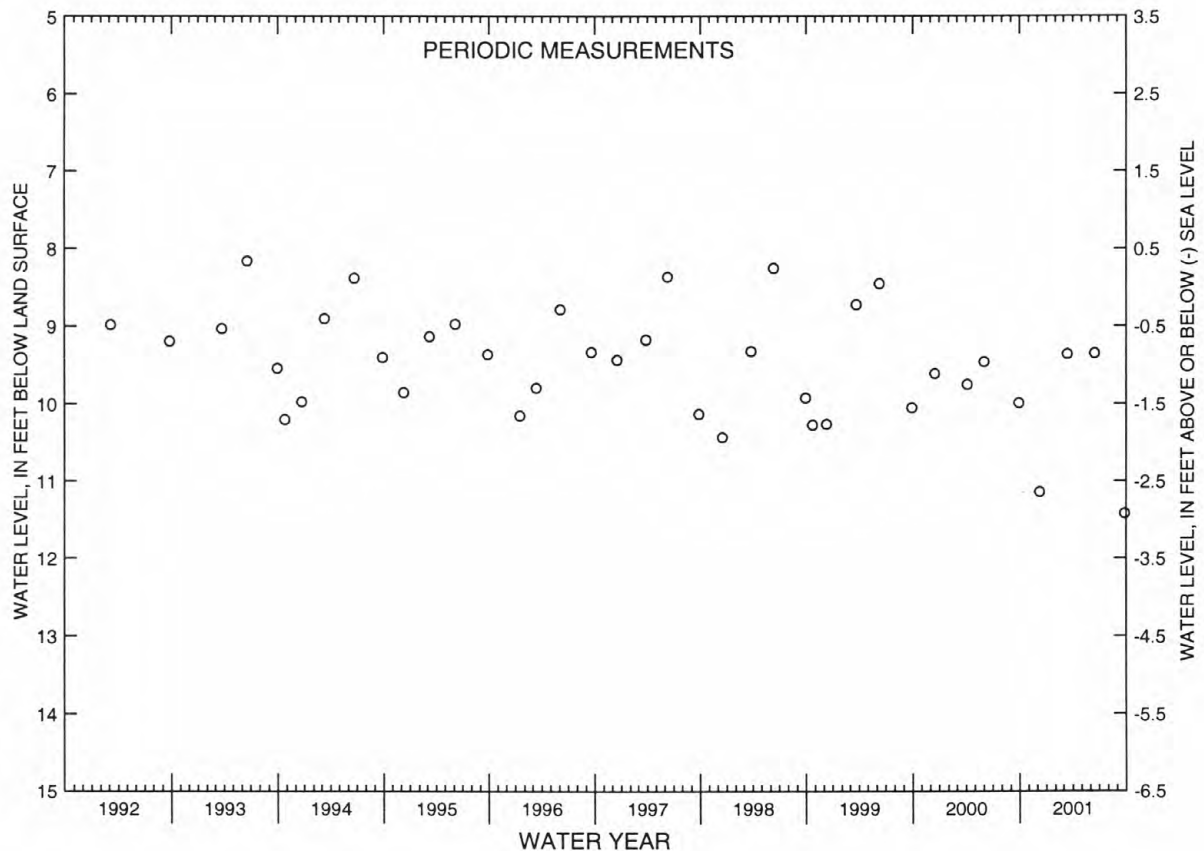
PERIOD OF RECORD.--July 1962 to current year. Records for 1962 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.93 ft below land surface, June 7, 1963; lowest, 11.42 ft below land surface, Sep. 27, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 08	11.14	MAR 13	9.36	JUN 15	9.35	SEP 27	11.42
WATER YEAR 2001	HIGHEST	9.35	JUN 15, 2001	LOWEST	11.42	SEP 27, 2001	

NJ-WRD WELL NO. 29-0018



GROUND-WATER LEVELS

OCEAN COUNTY--Continued

NJ-WRD Well Number, 29-0019. Site I.D., 394829074053503. Local I.D., Island Beach 3 Obs.

LOCATION.--Lat 39°48'29", long 74°05'35", Hydrologic Unit 02040301, in Island Beach State Park, about 6.6 mi south of the main entrance, Lacey Township.
Owner: U.S. Geological Survey.

AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 2,756 ft, screened 2,736 to 2,756 ft.

INSTRUMENTATION.--Water-level extremes recorder. Water-level recorder, Nov. 1968 to Feb. 1977.

DATUM.--Land surface is 9.02 ft above sea level.

Measuring point: Front edge of cutout in recorder housing, 5.11 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation.

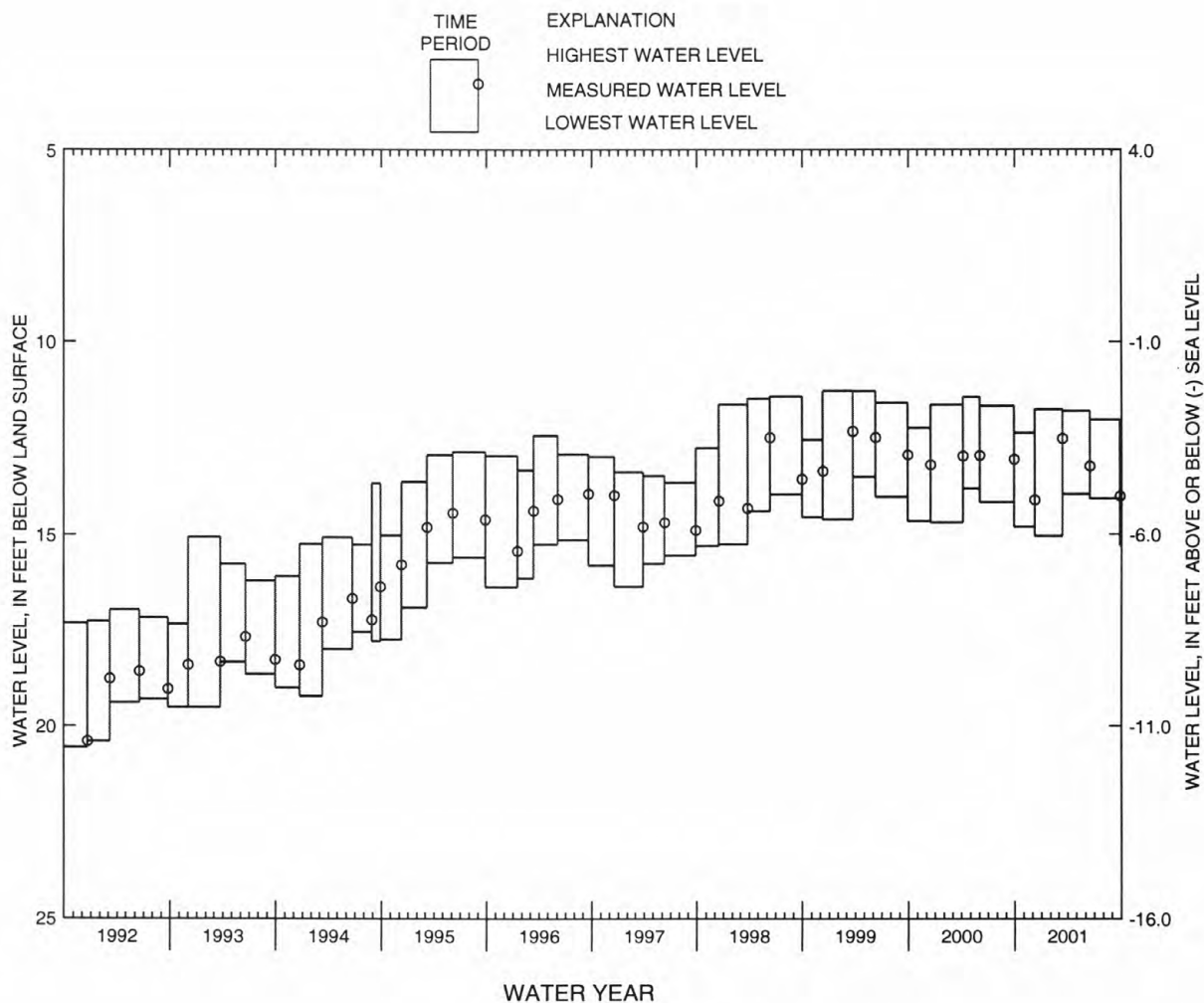
PERIOD OF RECORD.--Nov. 1968 to current year. Records for 1968 to 1976 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.95 ft above land surface, Apr. 23, 1969; lowest, 23.00 ft below land surface, between Dec. 12, 1989 and Mar. 22, 1990.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
WATER-LEVEL EXTREMES MEASURED WATER LEVELS

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 28, 2000 TO DEC. 8, 2000	12.36	14.81	DEC. 8, 2000	14.11
DEC. 8, 2000 TO MAR. 13, 2001	11.75	15.05	MAR. 13, 2001	12.50
MAR. 13, 2001 TO JUNE 15, 2001	11.79	13.96	JUNE 15, 2001	13.23
JUNE 15, 2001 TO SEPT. 27, 2001	12.02	14.08	SEPT. 27, 2001	14.01

NJ-WRD WELL NO. 29-0019



GROUND-WATER LEVELS

189

OCEAN COUNTY--Continued

NJ-WRD Well Number, 29-0020. Site I.D., 394829074053504. Local I.D., Island Beach 4 Obs.

LOCATION.--Lat 39°48'29", long 74°05'35", Hydrologic Unit 02040301, in Island Beach State Park, about 6.6 mi. south of the main entrance, Lacey Township.
Owner: U.S. Geological Survey.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, depth 12 ft, screened 9 to 12 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, May 1962 to Dec. 1972.

DATUM.--Land surface is 8.19 ft above sea level.

Measuring point: Top of base of aluminum locking cap, 2.62 ft above land surface.

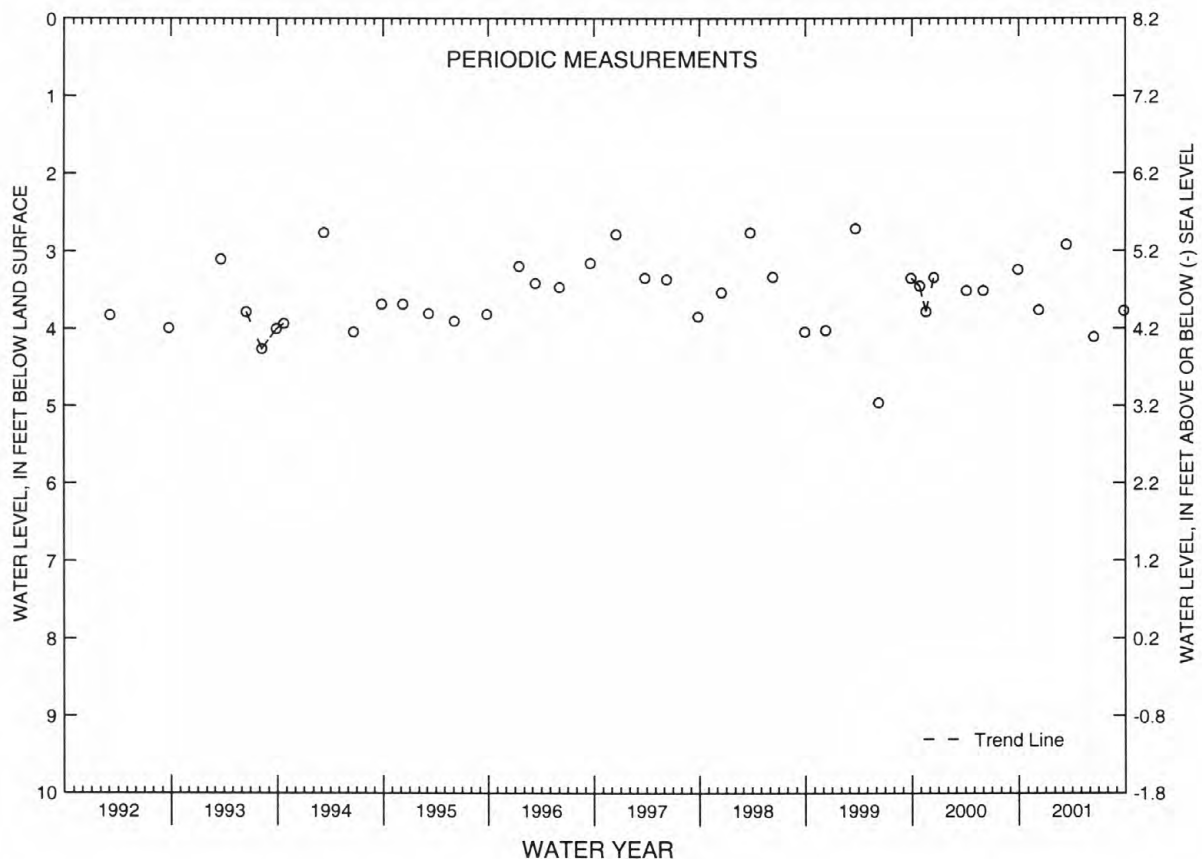
PERIOD OF RECORD.--May 1962 to current year. Records for 1962 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.42 ft below land surface, June 24, 1964; lowest, 4.96 ft below land surface, June 9, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 08	3.76	MAR 13	2.92	JUN 15	4.11	SEP 27	3.77
WATER YEAR 2001		HIGHEST	2.92	MAR 13, 2001		LOWEST	4.11 JUN 15, 2001

NJ-WRD WELL NO. 29-0020



GROUND-WATER LEVELS

OCEAN COUNTY--Continued

NJ-WRD Well Number, 29-0085. Site I.D., 395930074142101. Local I.D., Toms River 84 Obs.

LOCATION.--Lat 39°59'29", long 74°14'20", Hydrologic Unit 02040301, at Toms River Plant, Ciba-Geigy Corporation, Dover Township.
Owner: Ciba-Geigy Corporation.

AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in., depth 1,480 ft, screened 1,460 to 1,480 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, July 1975 to Feb. 1977. Water-level recorder, July 1968 to July 1975.

DATUM.--Land surface is 66.71 ft above sea level.
Measuring point: Top of recorder shelf, 2.70 ft above land surface.

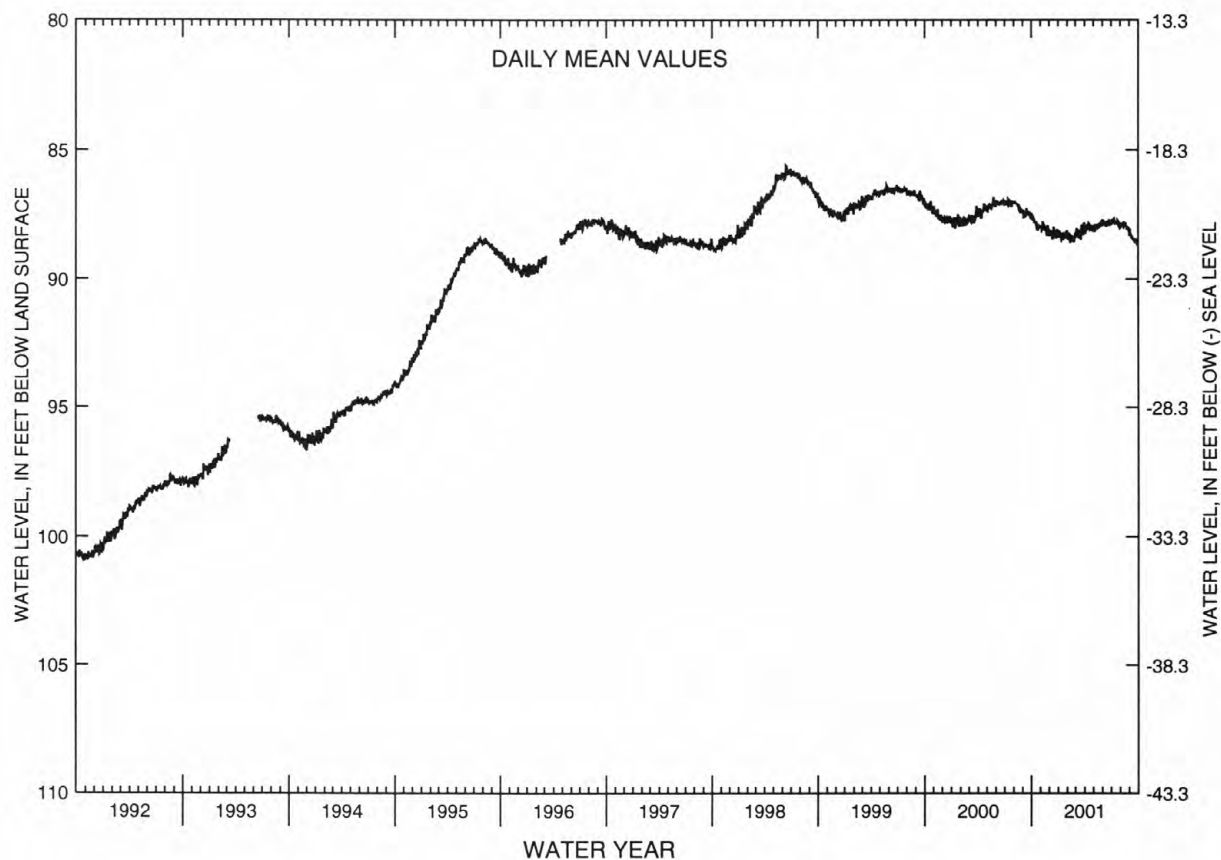
PERIOD OF RECORD.--July 1968 to current year. Records for 1968 to 1976 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 62.32 ft below land surface, July 19, 1968, Feb. 9, 1969; lowest, 107.45 ft below land surface, Jan. 11, 1989.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	87.57	87.96	88.12	88.15	88.22	88.11	88.13	87.95	87.88	87.68	87.88	88.18
10	87.67	87.76	88.32	88.27	88.23	88.26	87.99	87.95	87.85	87.67	87.87	88.33
15	87.75	87.94	88.40	88.32	88.29	88.24	87.87	87.88	87.93	87.79	87.84	88.44
20	87.91	88.04	88.13	88.18	88.38	88.45	88.08	87.96	87.81	87.80	87.86	88.53
25	87.99	88.28	88.38	88.26	88.39	88.11	88.01	87.96	87.85	87.75	88.07	88.44
EOM	87.98	88.03	88.11	88.11	88.35	87.87	88.08	87.90	87.79	87.96	88.04	88.68
MEAN	87.80	88.02	88.23	88.28	88.38	88.18	87.98	87.93	87.83	87.79	87.93	88.40
WTR YR 2001 MEAN 88.06 HIGH 87.49 OCT 3 LOW 88.68 SEP 30												

NJ-WRD WELL NO. 29-0085



OCEAN COUNTY--Continued

NJ-WRD Well Number 29-0100. Site I.D., 395956074034402. Local I.D., Normandy 3 Obs. NJ Permit Number, 33-00360.

LOCATION.--Lat 39°59'56", long 74°03'44", Hydrologic Unit 02040301, near the intersection of Rt. 35 (north) and 2nd Ave., Dover Township.

Owner: New Jersey - American Water Company.

AQUIFER.--Upper Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.-- Drilled artesian unused public-supply well, diameter 4 in., depth 1,479 ft, screened 1,428 to 1,479 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval. Water-level recorder, Aug. 1999 to June 2001. Periodic measurements, June to Aug. 1999.

DATUM.-- Land surface is 8 ft above sea level, from topographic map.
Measuring point: Top of well seal, 3.37 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

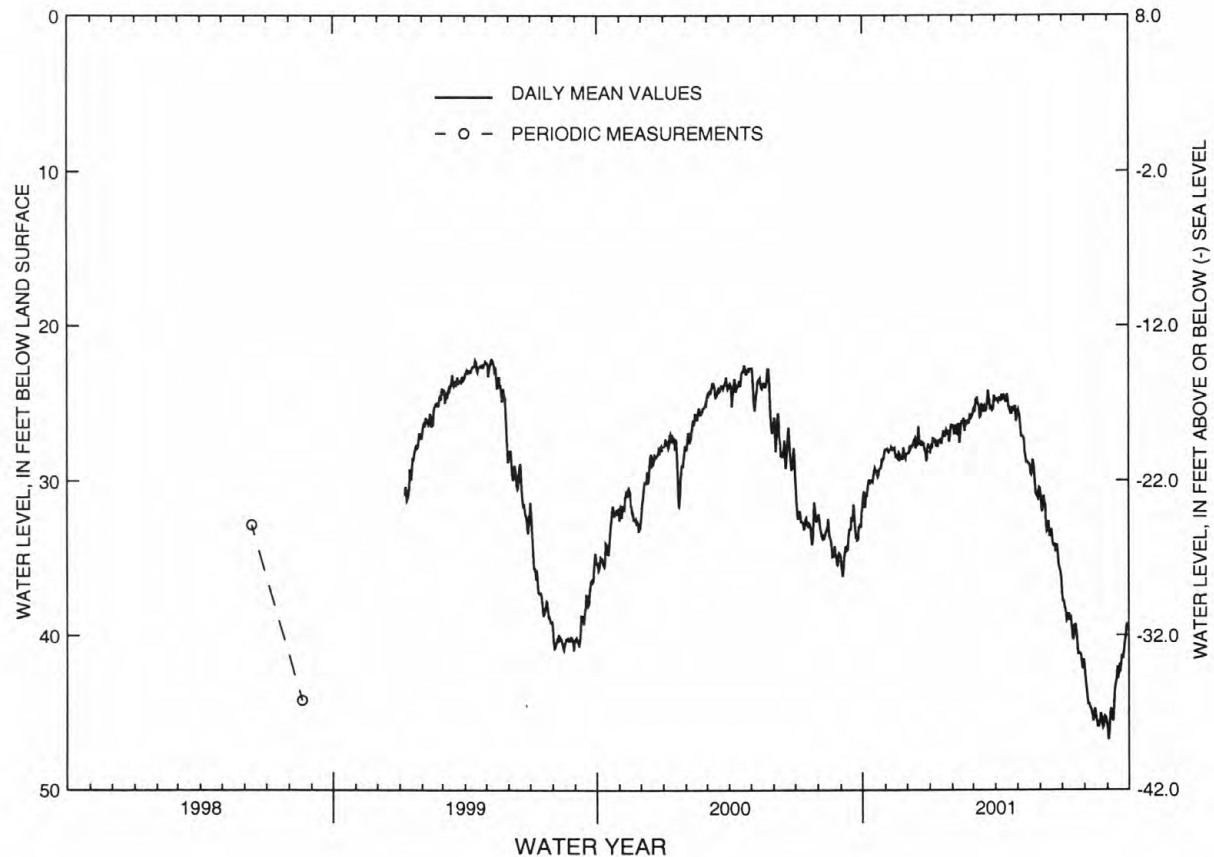
PERIOD OF RECORD.--June 1998 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.51 ft below land surface, Apr. 16, 1999; lowest, 47.29 ft below land surface, Sept. 3, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.66	28.09	27.74	27.75	26.43	24.79	24.92	26.34	31.39	38.19	44.04	45.00
10	29.91	27.86	27.58	27.63	26.35	25.41	24.50	27.33	33.21	38.54	44.84	44.95
15	30.08	28.22	27.77	27.47	26.15	25.59	24.94	28.77	---	40.01	44.74	42.02
20	29.34	28.20	27.54	26.78	26.23	25.40	25.38	29.60	34.20	39.42	45.93	41.88
25	29.21	28.65	28.01	26.89	25.76	25.43	25.46	30.21	34.49	41.15	45.68	40.43
EOM	28.22	28.25	27.91	26.35	25.85	24.72	25.93	30.43	36.33	41.57	45.46	39.28
MEAN	29.88	28.19	27.77	27.31	26.42	25.17	25.01	28.52	33.36	39.71	44.93	42.87
WTR YR 2001 MEAN 31.63 HIGH 24.17 MAR 22 LOW 46.79 SEP 3												

NJ-WRD WELL NO. 29-0100



GROUND-WATER LEVELS

OCEAN COUNTY--Continued

NJ-WRD Well Number, 29-0138. Site I.D., 400416074270101. Local I.D., Colliers Mills 1 Obs.

LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.
 Owner: U.S. Geological Survey.

AQUIFER.--Englishtown aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 427 ft, screened 417 to 427 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60-minute recording interval. Water-level recorder, Mar. 1977 to June 2000. Water-level extremes recorder, Oct. 1976 to Mar. 1977. Periodic measurements, July 1975 to Oct. 1976. Water-level recorder, Feb. 1964 to July 1975.

DATUM.--Land surface is 136.52 ft above sea level.

Measuring point: Top of well seal, 2.22 ft above land surface.

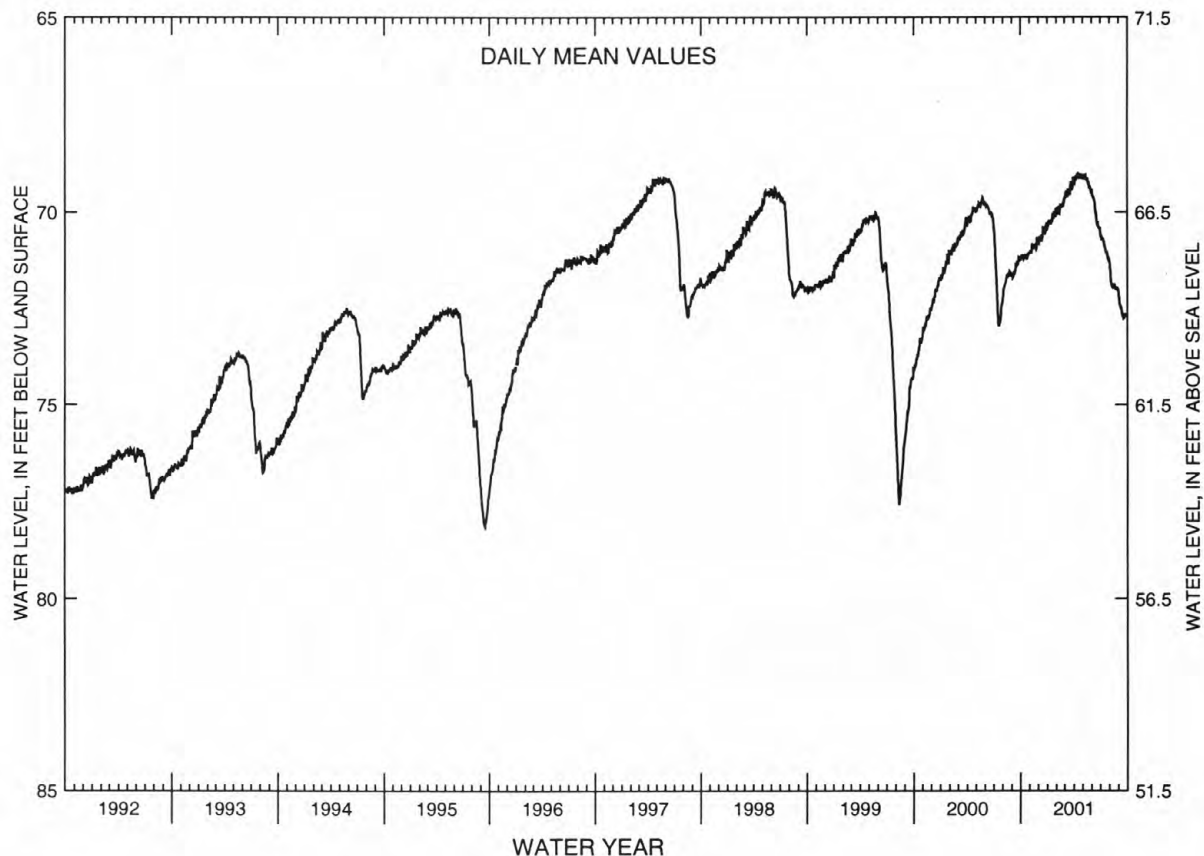
PERIOD OF RECORD.--Feb. 1964 to current year. Records for 1964 to 1976 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.02 ft below land surface, Feb. 19, 1964; lowest, 78.18 ft below land surface, Sept. 16, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	71.15	71.01	70.67	70.24	69.90	69.51	69.25	69.05	69.59	70.58	71.55	72.32
10	71.15	70.82	70.71	70.25	69.85	69.56	69.13	69.07	69.68	70.70	71.91	72.46
15	71.14	70.87	70.68	70.22	69.83	69.48	69.04	69.11	69.98	70.83	71.91	72.68
20	71.16	70.86	70.44	70.07	69.82	69.55	69.13	69.27	70.28	71.02	71.91	72.75
25	71.15	70.93	70.52	70.07	69.75	69.35	69.09	69.38	70.38	71.08	72.01	72.63
EOM	71.07	70.68	70.29	69.92	69.71	69.12	69.11	69.51	70.41	71.22	72.00	72.69
MEAN	71.15	70.90	70.57	70.19	69.88	69.45	69.11	69.20	69.97	70.88	71.84	72.55
WTR YR 2001 MEAN 70.48 HIGH 69.00 APR 16 LOW 72.76 SEP 19												

NJ-WRD WELL NO. 29-0138



GROUND-WATER LEVELS

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OCEAN COUNTY--Continued

NJ-WRD Well Number, 29-0139. Site I.D., 400416074270102. Local I.D., Colliers Mills 2 Obs. NJ Permit Number, 28-04784.

LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.

Owner: U.S. Geological Survey.

AQUIFER.--Vincentown aquifer of Paleocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 171 ft, screened 161 to 171 ft.

INSTRUMENTATION.--Water-level extremes recorder. Periodic measurements, July 1975 to Oct. 1976. Water-level recorder, Jan. 1964 to July 1975.

DATUM.--Land surface is 135.76 ft above sea level.

Measuring point: Front edge of cutout in recorder housing, 3.25 ft above land surface.

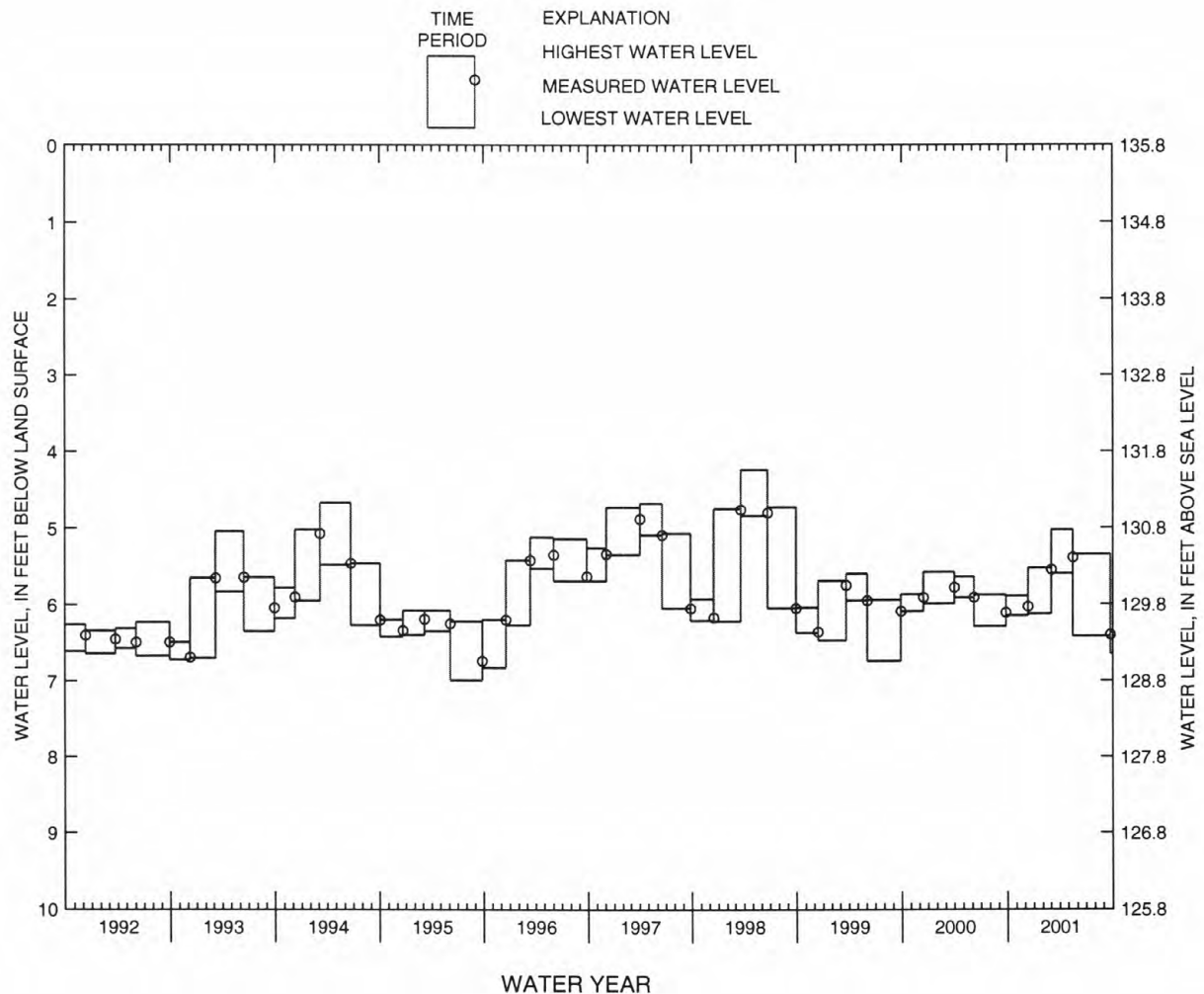
PERIOD OF RECORD.--Jan. 1964 to current year. Records for 1964 to 1981 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.92 ft below land surface, between Apr. 3 and July 11, 1984; lowest, 6.99 ft below land surface, between June 5 and Sept. 26, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
WATER-LEVEL EXTREMES MEASURED WATER LEVELS

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 25, 2000 TO DEC. 11, 2000	5.89	6.15	DEC. 11, 2000	6.03
DEC. 11, 2000 TO MAR. 2, 2001	5.53	6.13	MAR. 2, 2001	5.55
MAR. 2, 2001 TO MAY 16, 2001	5.03	5.60	MAY 16, 2001	5.39
MAY 16, 2001 TO SEPT. 24, 2001	5.35	6.42	SEPT. 24, 2001	6.40

NJ-WRD WELL NO. 29-0139



GROUND-WATER LEVELS

OCEAN COUNTY--Continued

NJ-WRD Well Number, 29-0140. Site I.D., 400416074270103. Local I.D., Colliers Mills 3 Obs. NJ Permit Number, 28-04785

LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.

Owner: U.S. Geological Survey.

AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 267 ft, screened 257 to 267 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60 minute recording interval. Water-level extremes recorder, Oct. 1976 to Mar. 2001. Periodic measurements, July 1975 to Oct. 1976. Water-level recorder, Jan. 1964 to July 1975.

DATUM.--Land surface is 135.15 ft above sea level.

Measuring point: Top of well seal, 3.37 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

PERIOD OF RECORD.--Jan. 1964 to current year. Records for 1964 to 1976 are unpublished and are available in files of the New Jersey District Office.

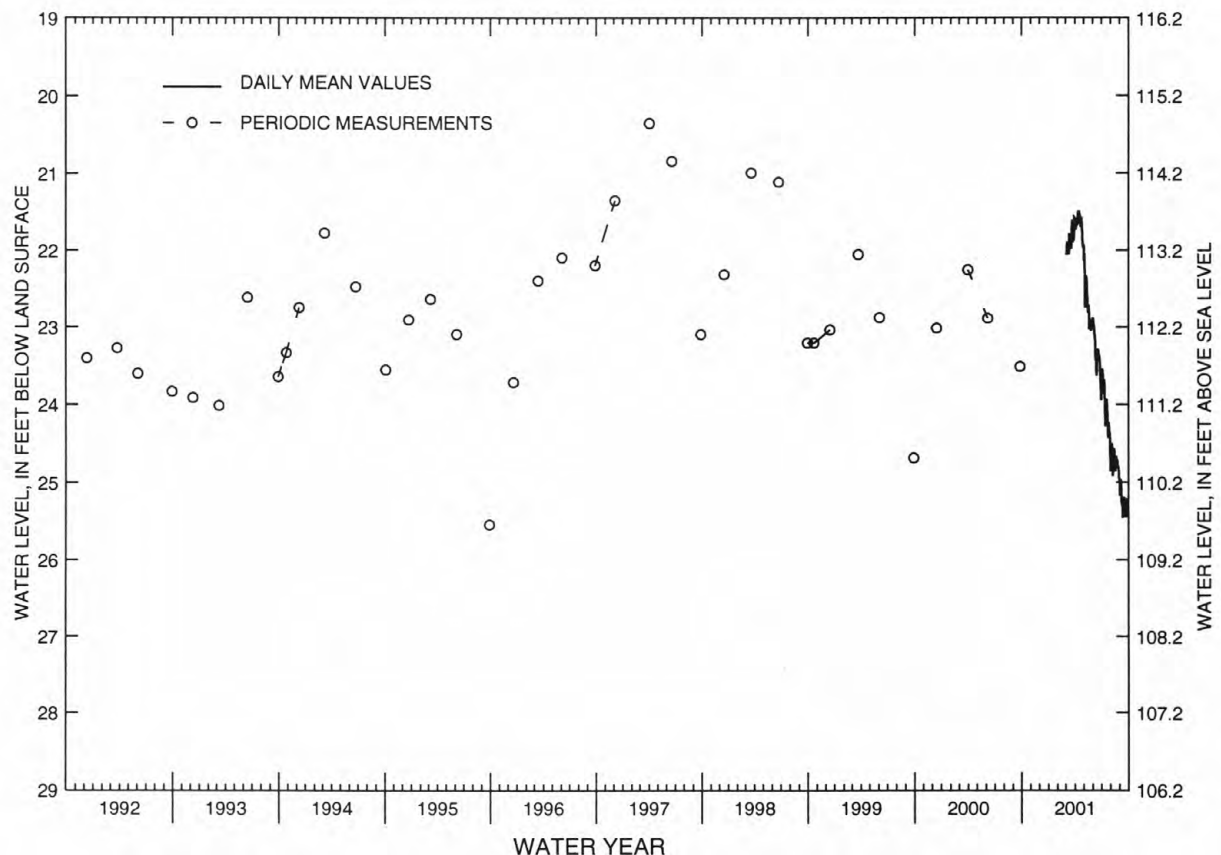
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.72 ft below land surface, May 9, 1964; lowest, 26.76 ft below land surface, between June 3 and Sept. 28, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	21.96	21.72	22.12	22.97	23.54	24.52	24.97
10	---	---	---	---	---	21.98	21.61	22.33	23.37	23.73	24.79	25.31
15	---	---	---	---	---	21.89	21.50	22.72	23.63	24.10	24.60	25.24
20	---	---	---	---	---	21.98	21.65	23.03	23.29	23.99	24.67	25.33
25	---	---	---	---	---	21.80	21.62	22.99	23.40	24.42	24.73	25.30
EOM	---	---	---	---	---	21.58	21.96	23.02	23.92	24.54	24.95	25.41
MEAN	---	---	---	---	---	21.87	21.65	22.65	23.32	24.04	24.72	25.23

WTR YR 2001 HIGH 21.49 APR 13 LOW 25.46 SEP 13

NJ-WRD WELL NO. 29-0140



OCEAN COUNTY--Continued

NJ-WRD Well Number, 29-0141. Site I.D., 400416074270104. Local I.D., Colliers Mills 4 Obs.

LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.

Owner: U.S. Geological Survey.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in., depth 71 ft, gravel-filled hole 46 to 71 ft.

INSTRUMENTATION.--Water-level extremes recorder. Periodic measurements, July 1975 to Oct. 1976. Water-level recorder, Mar. 1964 to July 1975.

DATUM.--Land surface is 135.31 ft above sea level.

Measuring point: Front edge of cutout in recorder housing, 2.86 ft above land surface.

REMARKS.--Water level is affected by the stage of Colliers Mills Pond.

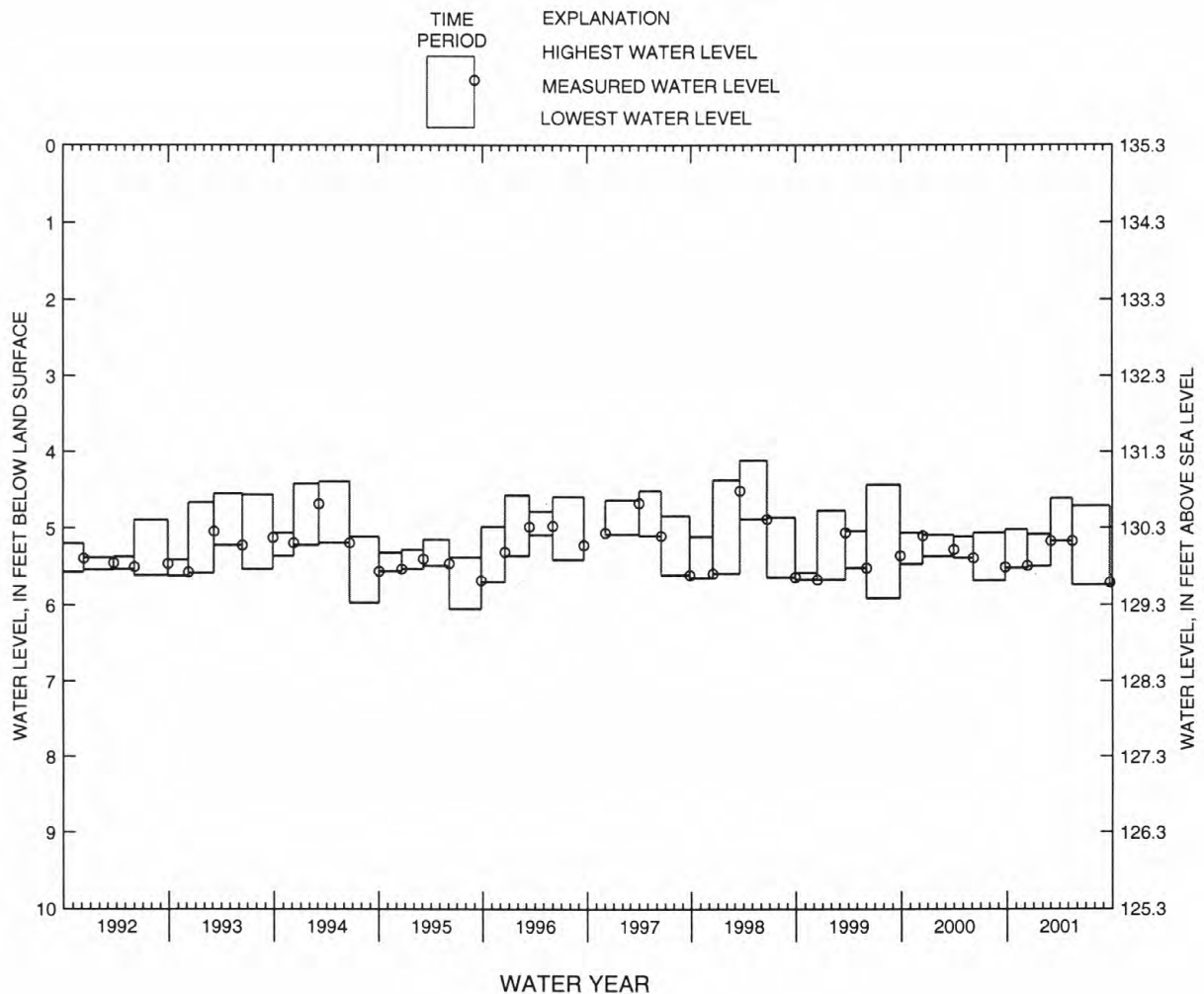
PERIOD OF RECORD.--Mar. 1964 to current year. Records for 1964 to 1981 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.68 ft below land surface, between Apr. 3 and July 11, 1984; lowest, 7.17 ft below land surface, between Dec. 4, 1984 and Mar. 6, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
WATER-LEVEL EXTREMES MEASURED WATER LEVELS

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 25, 2000 TO DEC. 11, 2000	5.02	5.52	DEC. 11, 2000	5.49
DEC. 11, 2000 TO MAR. 2, 2001	5.08	5.50	MAR. 2, 2001	5.17
MAR. 2, 2001 TO MAY 16, 2001	4.61	5.17	MAY 16, 2001	5.17
MAY 16, 2001 TO SEPT. 24, 2001	4.71	5.74	SEPT. 24, 2001	5.71

NJ-WRD WELL NO. 29-0141



GROUND-WATER LEVELS

OCEAN COUNTY--Continued

NJ-WRD Well Number, 29-0425. Site I.D., 395323074225501. Local I.D., Webbs Mills 2 Obs.

LOCATION.--Lat 39°53'22", long 74°22'52", Hydrologic Unit 02040301, about 180 ft west of County Rt. 539, and about 500 ft north of Webbs Mill Branch, Lacey Township.
Owner: U.S. Geological Survey.

AQUIFER.--Piney Point aquifer of Eocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, depth 348 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Feb. 1962 to Jan. 1975.

DATUM.--Land surface is 128.27 ft above sea level.
Measuring point: Top of shelf, 1.90 ft above land surface.

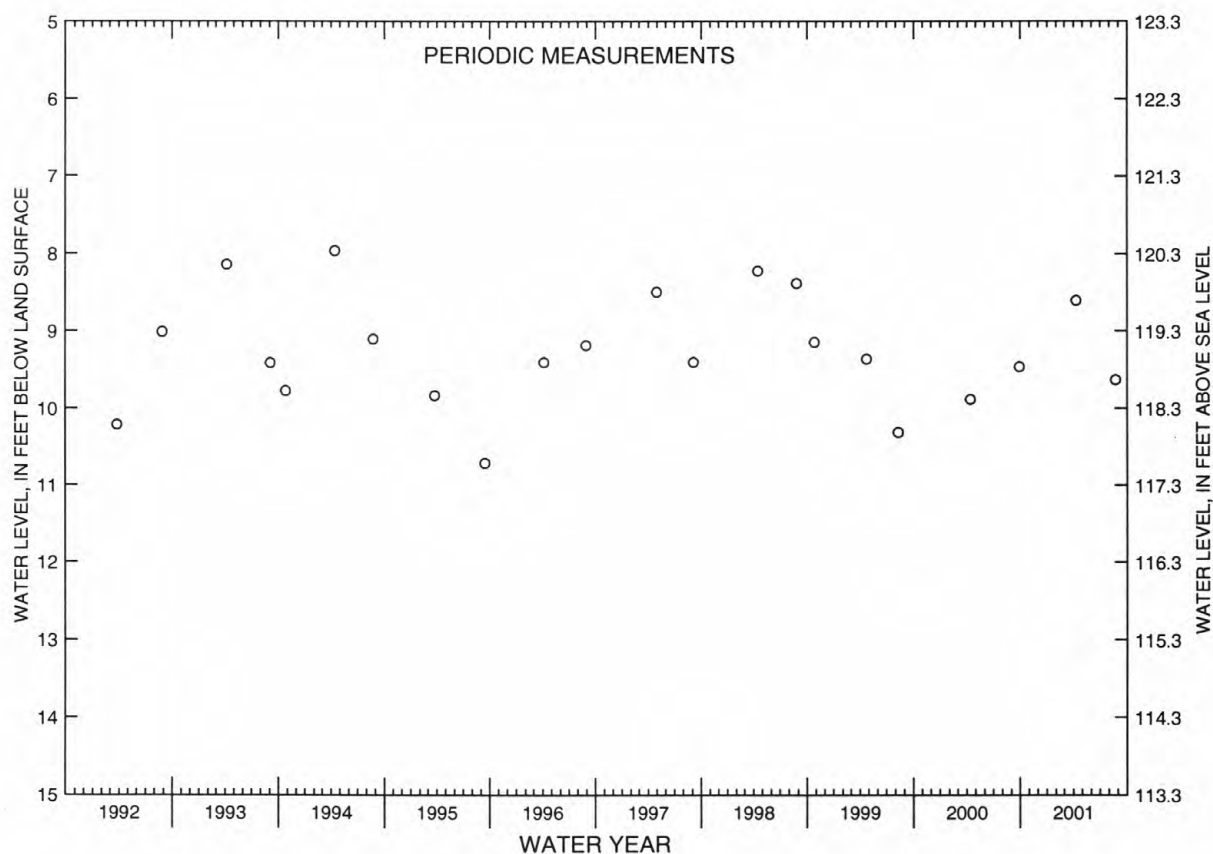
PERIOD OF RECORD.--Feb. 1962 to current year. Records for 1962 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.01 ft below land surface, Apr. 20, 1973; lowest, 11.40 ft below land surface, Sept. 12, 1966.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 10	8.60	AUG 23	9.63

NJ-WRD WELL NO. 29-0425



GROUND-WATER LEVELS

197

OCEAN COUNTY--Continued

NJ-WRD Well Number, 29-0503. Site I.D., 400210074031001. Local I.D., Mantoloking 6 Obs. NJ Permit Number, 29-01325.

LOCATION.--Lat 40°02'10", long 74°03'10", Hydrologic Unit 02040301, at the Bay Ave. water treatment plant, Mantoloking Borough.
Owner: New Jersey - American Water Company.

AQUIFER.--Englishtown aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian unused public-supply well, diameter 8 in., depth 906 ft, screened 845 to 906 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Oct. 1983 to May 1984.

DATUM.--Land surface is 5 ft above sea level, from topographic map.
Measuring point: Top of recorder shelf, 2.40 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

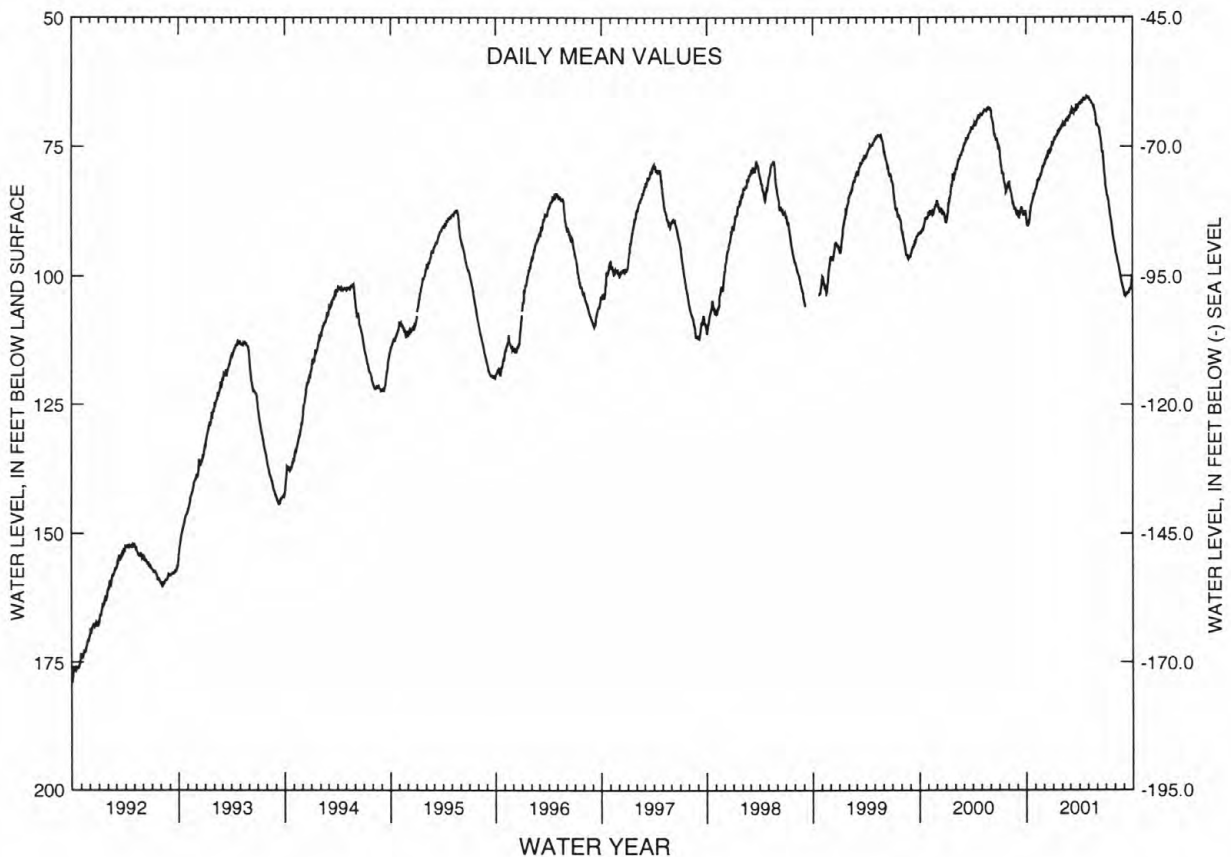
PERIOD OF RECORD.--Oct. 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 64.79 ft below land surface, Apr. 28, 2001; lowest, 207.49 ft below land surface, Oct. 31, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	90.31	82.99	77.92	73.70	70.51	67.99	66.88	65.60	71.09	83.42	95.04	103.58
10	89.83	81.44	77.32	73.34	70.38	68.27	66.31	66.11	71.61	84.89	96.37	103.44
15	88.13	81.14	76.81	72.72	69.85	68.23	65.99	66.68	73.29	86.93	97.67	103.21
20	86.22	80.32	75.91	71.94	69.75	68.09	66.05	67.19	76.00	88.86	99.30	102.83
25	85.05	79.75	75.83	71.61	69.24	67.57	65.72	68.11	77.70	91.11	101.01	102.32
EOM	84.08	78.73	74.48	70.90	69.13	66.83	65.54	70.80	81.03	93.32	102.23	99.75
MEAN	87.43	81.13	76.59	72.65	70.19	67.87	66.08	67.06	74.38	87.53	98.21	102.86
WTR YR 2001	MEAN 79.39 HIGH 65.30 APR 27 LOW 103.89 SEP 7											

NJ-WRD WELL NO. 29-0503



GROUND-WATER LEVELS

OCEAN COUNTY--Continued

NJ-WRD Well Number, 29-0513. Site I.D., 394742074142001. Local I.D., Garden St Pky 1 Obs.

LOCATION.--Lat 39°47'44", long 74°14'18", Hydrologic Unit 02040301, near the intersection of the Garden State Parkway and Rt. 532 (Waretown-Brookville Rd), Ocean Township.
Owner: U.S. Geological Survey.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, depth 21 ft, screened 18 to 21 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 44.25 ft above sea level.

Measuring point: Top of coupling, 1.00 ft above land surface.

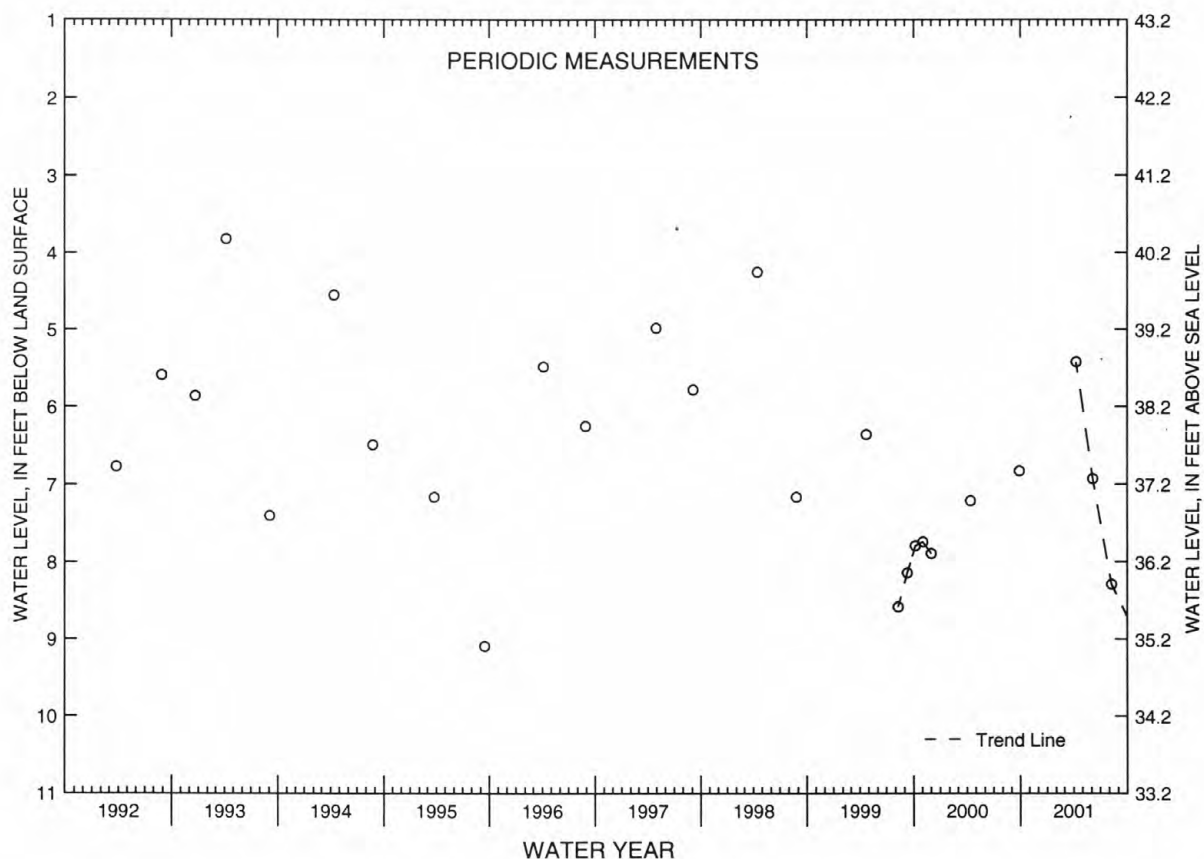
PERIOD OF RECORD.--May 1962 to current year. Records for 1962 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.99 ft below land surface, Apr. 3, 1984; lowest, 9.60 ft below land surface, Oct. 8, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL		
APR 10	5.42	JUN 06	6.93	AUG 09	8.29		
WATER YEAR 2001		HIGHEST	5.42	APR 10, 2001	LOWEST	8.29	AUG 09, 2001

NJ-WRD WELL NO. 29-0513



GROUND-WATER LEVELS

199

OCEAN COUNTY--Continued

NJ-WRD Well Number, 29-0514. Site I.D., 394742074142002. Local I.D., Garden St Pky 2 Obs.

LOCATION.--Lat 39°47'44", long 74°14'18", Hydrologic Unit 02040301, near the intersection of the Garden State Parkway and Rt. 532 (Waretown-Brookville Rd), Ocean Township.
Owner: U.S. Geological Survey.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, depth 316 ft, screened 306 to 316 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60-minute recording interval. Periodic measurements, Mar. 1975 to Apr., 2001. Water-level recorder, May 1962 to Mar. 1975.

DATUM.--Land surface is 43.82 ft above sea level.
Measuring point: Top of base of aluminum locking cap, 1.92 ft above land surface.

PERIOD OF RECORD.--Feb. 1962 to current year. Records for 1962 to 1989 are unpublished and are available in files of the New Jersey District Office.

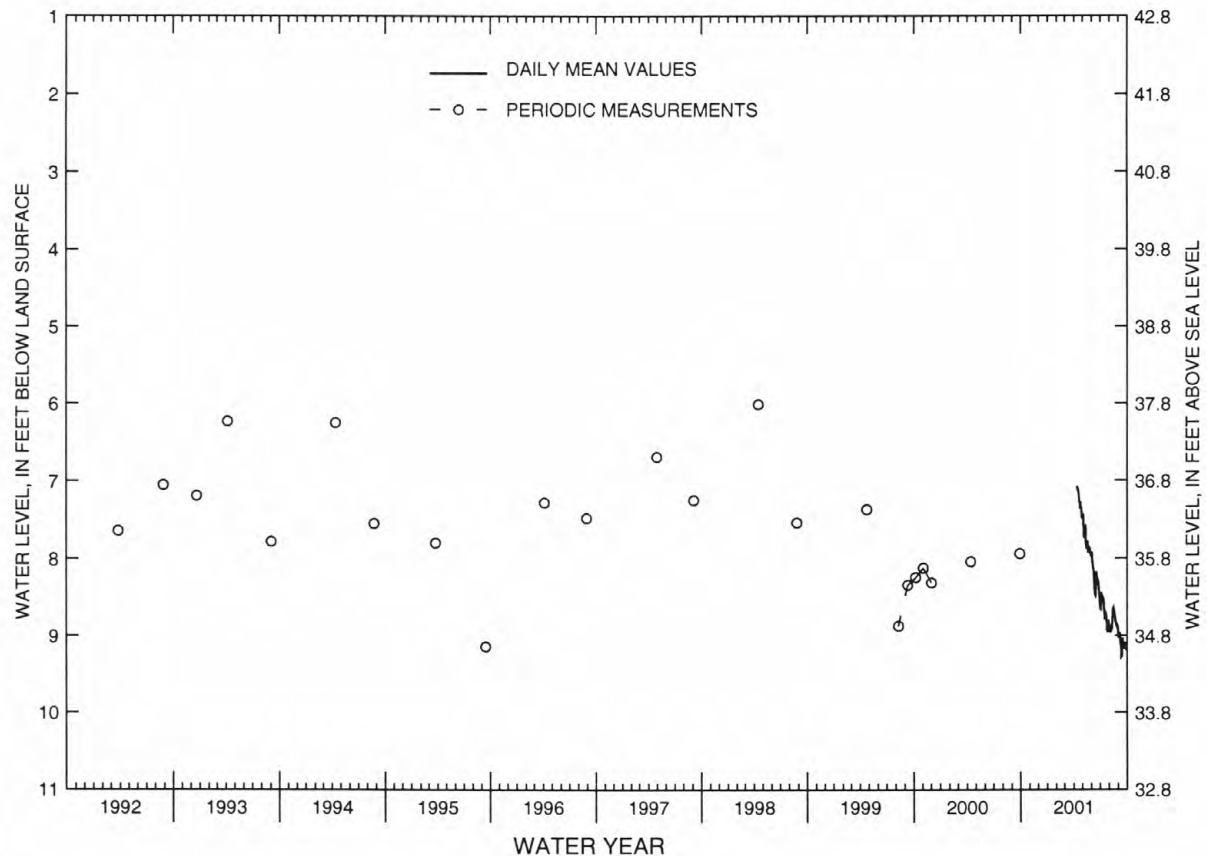
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.23 ft below land surface, Apr. 10-11, 1973; lowest, 10.50 ft below land surface, Sept. 20, 1978.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	7.55	8.05	8.45	8.94	9.02
10	---	---	---	---	---	---	---	7.61	8.29	8.50	8.92	9.11
15	---	---	---	---	---	---	7.13	7.86	8.48	8.66	8.63	9.12
20	---	---	---	---	---	---	7.28	7.91	8.23	8.70	8.73	9.14
25	---	---	---	---	---	---	7.36	7.88	8.29	8.92	8.86	9.16
EOB	---	---	---	---	---	---	7.49	7.97	8.58	8.85	8.91	9.18
MEAN	---	---	---	---	---	---	7.26	7.76	8.26	8.69	8.82	9.11

WTR YR 2001 HIGH 7.08 APR 13 LOW 9.27 SEP 13

NJ-WRD WELL NO. 29-0514



GROUND-WATER LEVELS

OCEAN COUNTY--Continued

NJ-WRD Well Number, 29-0530. Site I.D., 400454074041301. Local I.D., PFWD 6 Obs. NJ Permit Number, 29-04530.

LOCATION.--Lat 40°04'54", long 74°04'13", Hydrologic Unit 02040301, at the Point Pleasant Borough public works facility, Albert E. Clifton Ave., Point Pleasant Borough.
 Owner: Point Pleasant Borough Water Department.

AQUIFER.--Englishtown aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian unused public-supply well, diameter 8 in., depth 790 ft, screened 730 to 790 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 20 ft above sea level, from topographic map.
 Measuring point: Top of pump base, 2.90 ft above land surface.

REMARKS.--Water level is affected by tidal fluctuation and nearby pumping.

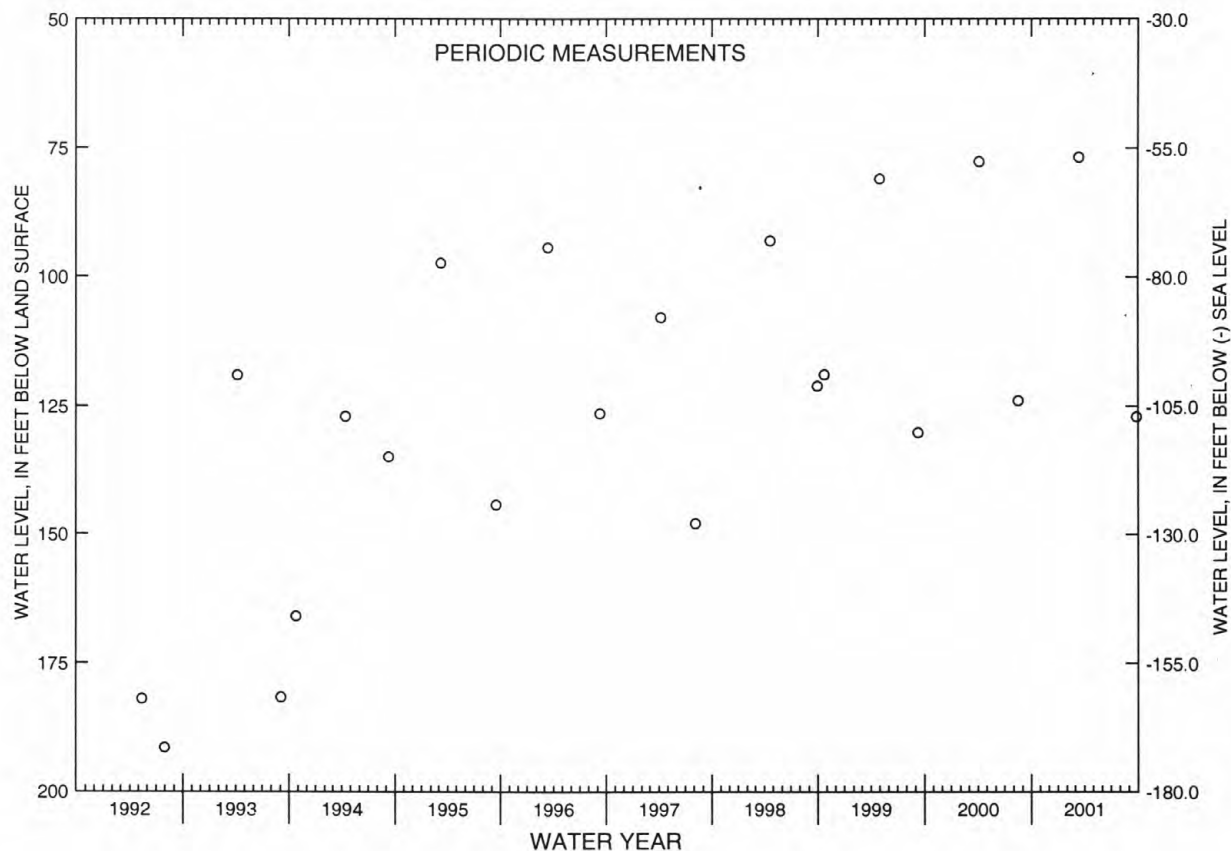
PERIOD OF RECORD.--Sept. 1988 to current year. Records for 1988 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 76.75 ft below land surface, Mar. 13, 2001; lowest, 250.66 ft below land surface, Aug 17, 1989.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 13	76.75	SEP 27	127.01

NJ-WRD WELL NO. 29-0530



OCEAN COUNTY--Continued

NJ-WRD Well Number, 29-0534. Site I.D., 395609074124001. Local I.D., Toms River 2 Obs. NJ Permit Number, 33-01117.

LOCATION.--Lat 39°56'09", long 74°12'40", Hydrologic Unit 02040301, about 200 ft east of Double Trouble Rd. on the north side of Jakes Branch, South Toms River Borough.
Owner: U.S. Geological Survey.

AQUIFER.--Englishtown aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 1,146 ft, screened 1,080 to 1,146 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Water-level extremes recorder, Feb. 1977 to Oct. 1990. Periodic measurements, July 1975 to Feb. 1977. Water-level recorder, Dec. 1965 to July 1975.

DATUM.--Land surface is 18.34 ft above sea level.
Measuring point: Top of coupling, 2.44 ft above land surface.

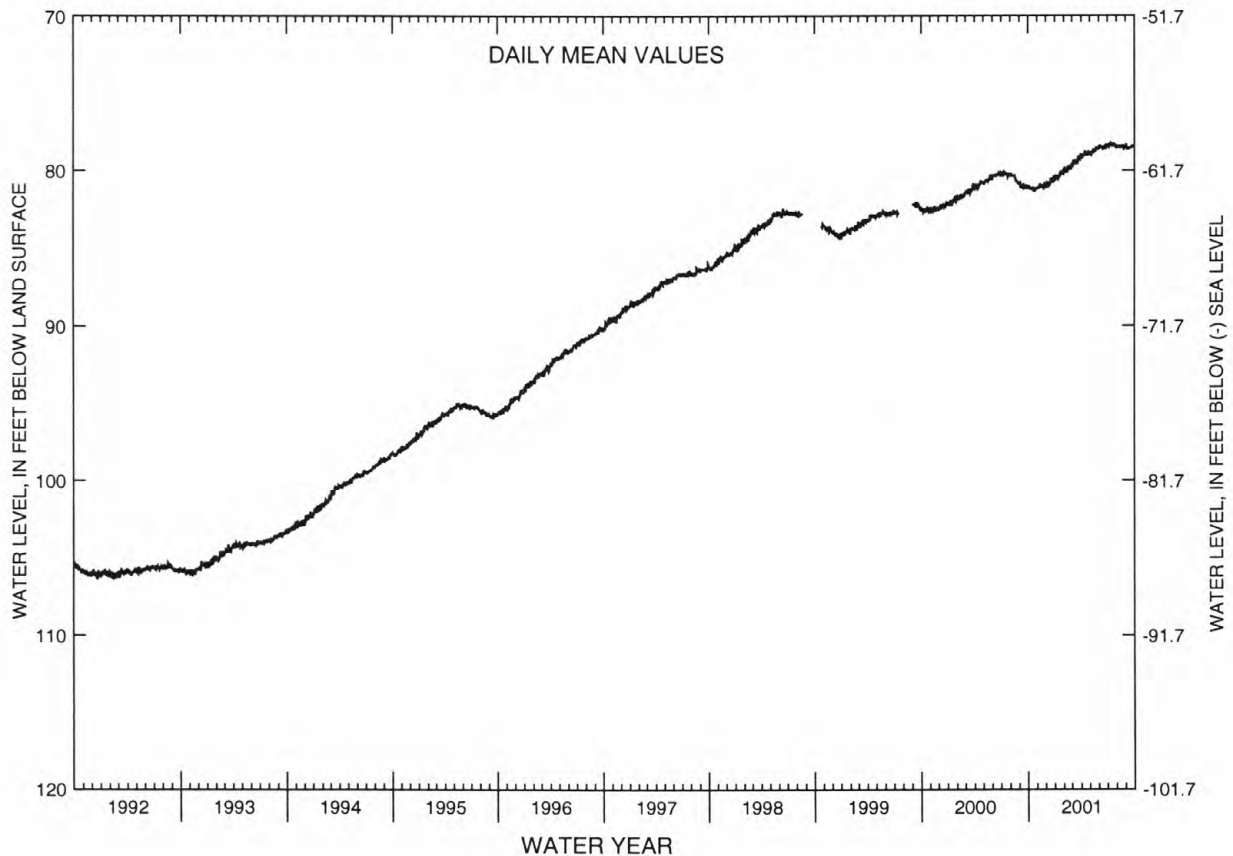
PERIOD OF RECORD.--Dec. 1965 to current year. Records for 1965 to 1976 and 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 48.37 ft below land surface, May 28, 1966; lowest, 106.41 ft below land surface, Dec. 19-20, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	81.07	81.07	80.84	80.36	79.91	79.39	79.17	78.79	78.53	78.26	78.47	78.46
10	81.12	80.85	80.94	80.40	79.84	79.48	78.98	78.77	78.48	78.26	78.43	78.54
15	81.14	80.96	80.92	80.35	79.81	79.42	78.86	78.69	78.57	78.38	78.45	78.56
20	81.23	81.00	80.61	80.13	79.84	79.58	79.02	78.70	78.48	78.38	78.42	78.54
25	81.25	81.14	80.75	80.14	79.77	79.23	78.92	78.68	78.47	78.30	78.59	78.36
EOM	81.15	80.82	80.38	79.89	79.70	78.96	78.95	78.59	78.38	78.51	78.39	78.47
MEAN	81.16	81.01	80.76	80.30	79.92	79.37	78.96	78.71	78.47	78.37	78.46	78.49
WTR YR 2001	MEAN 79.50 HIGH 78.24 JUL 11 LOW 81.38 OCT 23											

NJ-WRD WELL NO. 29-0534



GROUND-WATER LEVELS

OCEAN COUNTY--Continued

NJ-WRD Well Number, 29-0585. Site I.D., 395028074104401. Local I.D., DOE-Forked River Obs.

LOCATION.--Lat 39°50'28", long 74°10'44", Hydrologic Unit 02040301, at the Forked River Game Farm, Forked River, Lacey Township.
Owner: State of New Jersey.

AQUIFER.--Piney Point aquifer of Eocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 422 ft, perforated casing 412 to 422 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 15 ft above sea level, from topographic map.
Measuring point: Top of recorder shelf, 3.80 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

PERIOD OF RECORD.--Apr. 1984 to current year.

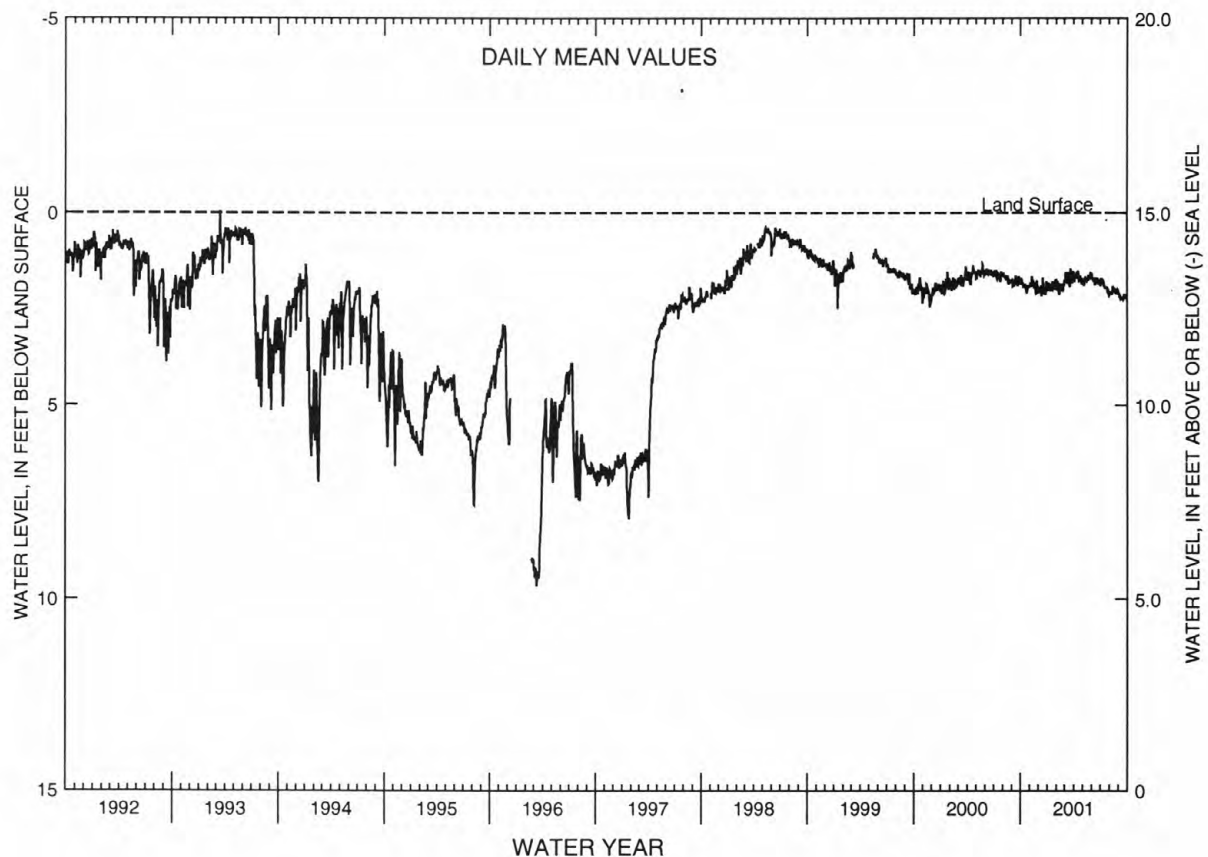
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.83 ft above land surface, June 1, 1984; lowest, 9.70 ft below land surface, Mar. 10, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.75	1.84	1.91	1.82	1.75	1.57	1.75	1.72	1.70	1.68	2.08	2.08
10	1.80	1.64	2.04	1.90	1.81	1.67	1.62	1.69	1.74	1.71	2.05	2.18
15	1.86	1.79	2.07	1.89	1.84	1.73	1.55	1.69	1.84	1.87	1.95	2.22
20	1.94	1.88	1.91	1.76	1.90	1.91	1.75	1.75	1.75	1.94	1.94	2.20
25	1.97	2.07	2.10	1.85	1.86	1.71	1.74	1.71	1.77	1.91	2.10	2.09
EOM	1.91	1.86	1.83	1.72	1.84	1.55	1.79	1.70	1.76	2.07	2.00	2.16
MEAN	1.87	1.87	1.97	1.89	1.91	1.69	1.66	1.70	1.73	1.87	2.02	2.16

WTR YR 2001 MEAN 1.86 HIGH 1.44 MAR 22 LOW 2.23 SEP 12

NJ-WRD WELL NO. 29-0585



GROUND-WATER LEVELS

203

OCEAN COUNTY--Continued

NJ-WRD Well Number, 29-1059. Site I.D., 400120074265401. Local I.D., Fort Dix RLF-30 Obs. NJ Permit Number, 28-16707-4.

LOCATION.--Lat 40°01'20", long 74°26'54", Hydrologic Unit 02040301, at the Fort Dix Military Reservation, Plumsted Township.
Owner: US Army - Fort Dix.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in., depth 75 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60-minute recording interval. Water-level recorder, May 1992 to Apr. 2000.

DATUM.--Land surface is 180 ft above sea level, from topographic map.
Measuring point: Top of recorder shelf, 2.15 ft above land surface.

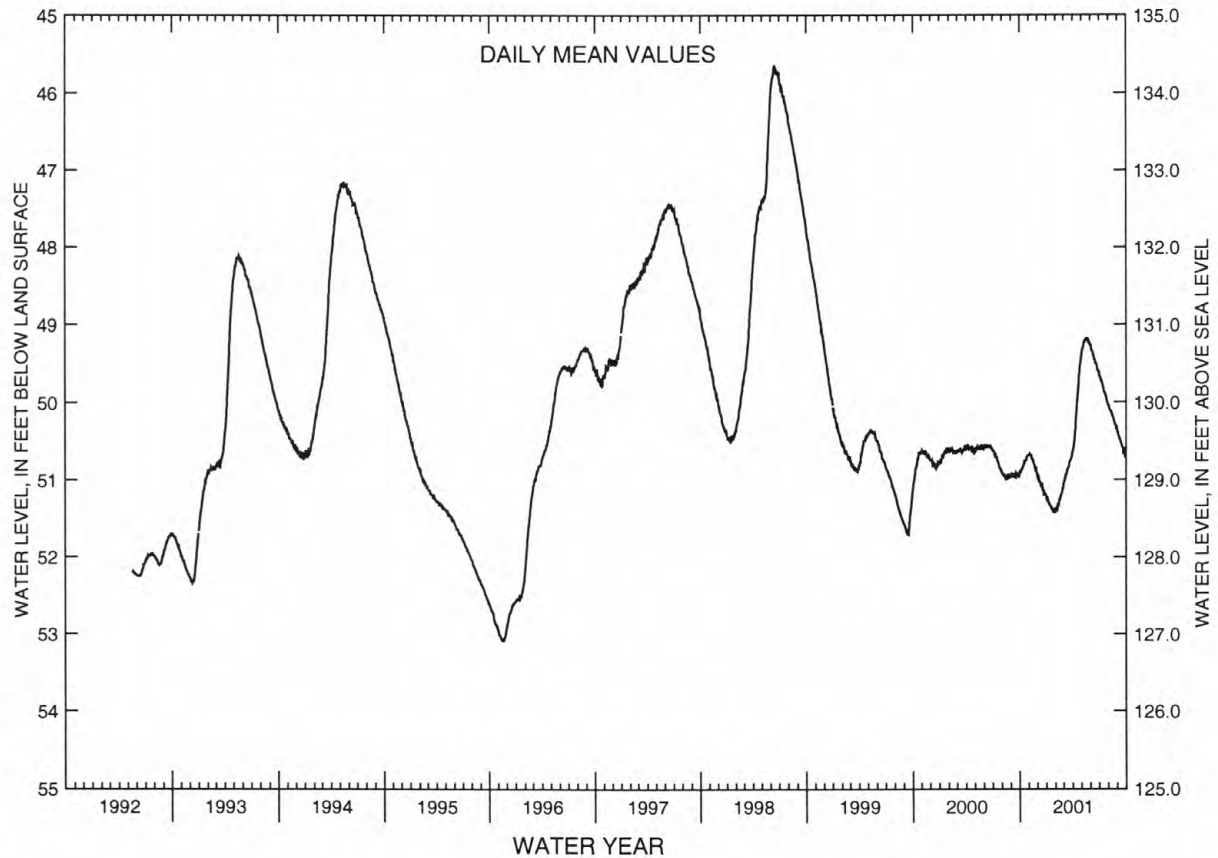
PERIOD OF RECORD.--May 1992 to current year. Records for 1992 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 45.63 ft below land surface, June 15, 1998; lowest, 53.09 ft below land surface, Nov. 11-12, 15-18, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	50.89	50.68	50.96	51.24	51.35	50.98	50.57	49.30	49.33	49.67	50.08	50.42
10	50.85	50.67	51.03	51.31	51.32	50.92	50.38	49.22	49.38	49.73	---	50.47
15	50.79	50.75	51.10	51.34	51.26	50.86	50.08	49.18	49.45	49.81	50.17	50.53
20	50.76	50.80	51.13	51.37	51.19	50.81	49.83	49.21	49.50	49.88	50.22	50.59
25	50.72	50.88	51.18	51.41	51.11	50.74	49.59	49.24	49.57	49.93	50.30	50.63
EOM	50.68	50.92	51.22	51.39	51.07	50.66	49.42	49.27	49.61	50.03	50.33	50.71
MEAN	50.79	50.77	51.08	51.34	51.27	50.85	50.06	49.24	49.45	49.82	50.19	50.54
WTR YR 2001	MEAN 50.45 HIGH 49.17 MAY 19 LOW 51.43 JAN 28											

NJ-WRD WELL NO. 29-1059



GROUND-WATER LEVELS

OCEAN COUNTY--Continued

NJ-WRD Well Number, 29-1060. Site I.D., 400232074213201. Local I.D., LNAS-EC Obs.

LOCATION.--Lat 40°02'37", long 74°21'28", Hydrologic Unit 02040301, at Lakehurst Naval Air Station, Jackson Township.
Owner: Lakehurst Naval Air Station.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in., depth 38 ft, screened 23 to 38 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60-minute recording interval. Water-level recorder, May 1992 to Feb. 1999.

DATUM.--Land surface is 110 ft above sea level, from topographic map.
Measuring point: Top of protective casing, 2.95 ft above land surface.

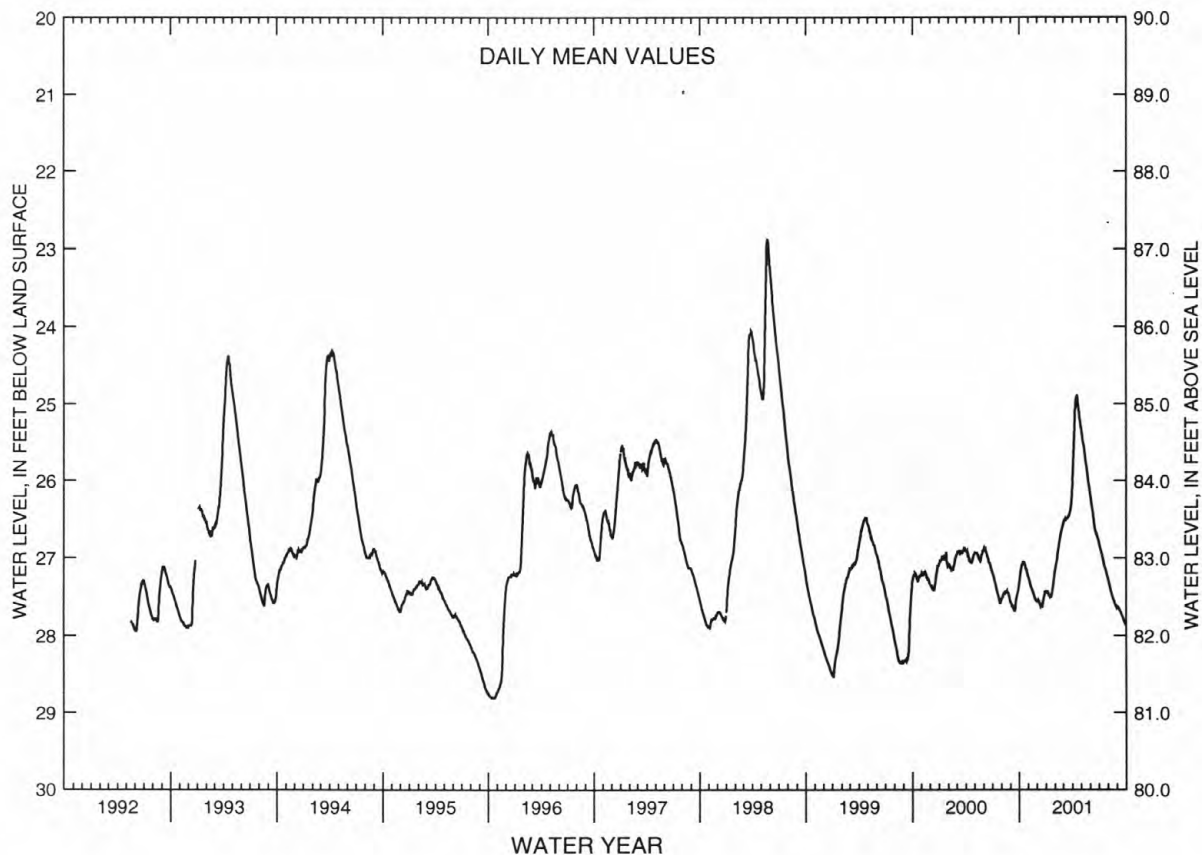
PERIOD OF RECORD.--May 1992 to current year. Records for 1992 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 22.86 ft below land surface, May. 23, 1998; lowest 28.81 ft below land surface, Oct. 13-21, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.20	27.30	27.55	27.43	27.05	26.50	25.61	25.43	26.29	26.86	27.34	27.64
10	27.09	27.36	27.59	27.47	26.92	26.49	25.09	25.55	26.42	26.94	27.41	27.67
15	27.05	27.42	27.63	27.49	26.79	26.48	24.90	25.69	26.57	27.02	27.48	27.71
20	27.08	27.47	27.60	27.48	26.68	26.45	25.01	25.85	26.67	27.11	27.54	27.76
25	27.14	27.53	27.49	27.34	26.59	26.38	25.17	26.00	26.72	27.17	27.59	27.81
EOM	27.23	27.55	27.43	27.16	26.56	26.12	25.31	26.16	26.78	27.26	27.62	27.86
MEAN	27.14	27.42	27.55	27.41	26.82	26.43	25.22	25.73	26.53	27.03	27.48	27.73
WTR YR 2001 MEAN 26.88 HIGH 24.89 APR 16 LOW 27.86 SEP 30												

NJ-WRD WELL NO. 29-1060



OCEAN COUNTY--Continued

NJ-WRD Well Number 29-1210. Site I.D., 393115074191001. Local I.D., Great Bay Blvd. 1 Obs. NJ Permit Number, 36-20855.

LOCATION.--Lat 39°31'15", long 74°19'10", Hydrologic Unit 02040301, on the west side of Great Bay Boulevard, about 200 ft north of Little Sheephead Creek, Little Egg Harbor Township.
Owner: State of New Jersey-DEP/Fish, Game & Wildlife.

AQUIFER.--Piney Point aquifer of Eocene age.

WELL CHARACTERISTICS.-- Drilled artesian observation well, diameter 4 in., depth 880 ft, screened 860 to 880 ft.

INSTRUMENTATION.--Submersible logger pressure transducer--60-minute recording interval. Water-level recorder, May to July 1997.

DATUM.-- Land surface is 5.6 ft above sea level.

Measuring point: Top of base of locking cap, 4.70 ft above land surface

REMARKS.--Water level affected by tidal fluctuation.

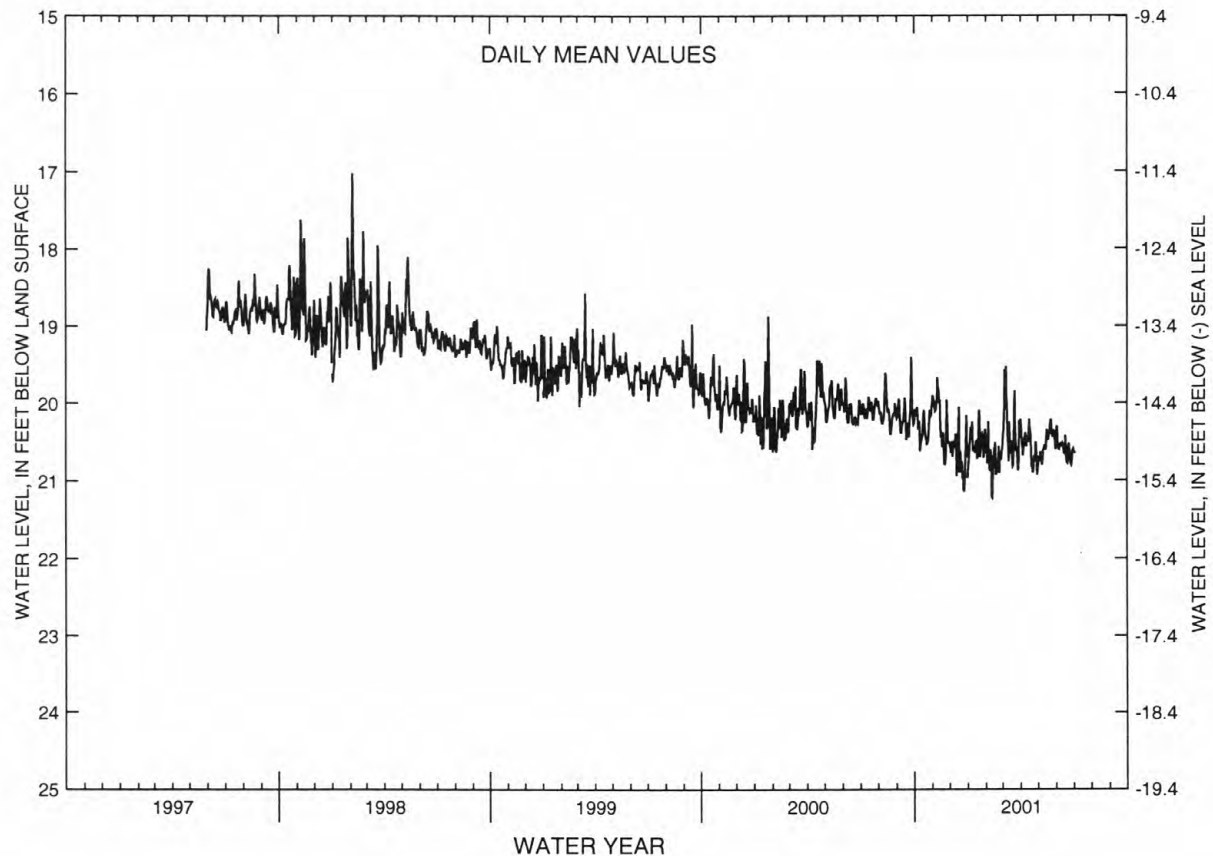
PERIOD OF RECORD.--May 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.05 ft below land surface, Feb. 5, 1998; lowest, 21.65 ft below land surface, Feb. 12, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.15	20.04	20.49	20.46	20.24	19.57	20.68	20.64	20.59	---	---	---
10	20.24	19.67	20.55	20.62	20.73	20.42	20.45	20.61	20.53	---	---	---
15	20.43	20.21	20.77	20.50	20.59	20.66	20.43	20.54	20.66	---	---	---
20	20.39	20.38	20.62	20.09	20.81	20.79	20.83	20.41	20.78	---	---	---
25	20.49	20.62	21.11	20.39	20.63	20.63	20.76	20.40	20.70	---	---	---
EOM	20.06	20.49	20.71	20.35	20.63	20.41	20.93	20.60	20.59	---	---	---
MEAN	20.29	20.23	20.66	20.51	20.73	20.37	20.57	20.52	20.60	---	---	---
WTR YR 2001	HIGH 19.53 MAR 7 LOW 21.22 FEB 12											

NJ-WRD WELL NO. 29-1210



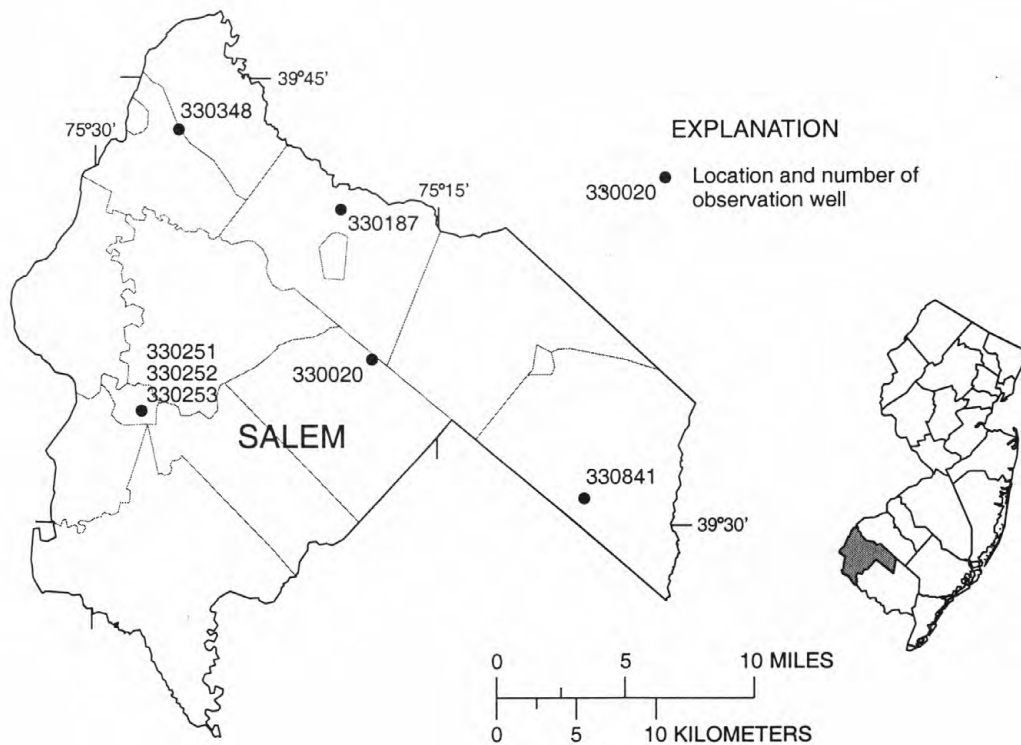
WATER RESOURCES DATA - NEW JERSEY, 2001

SALEM COUNTY

NJ-WRD well number	Local identifier	Township	Well depth	Aquifer	Type of data
330020	HORNER OBS	ALLOWAY TWP	283	MLRW	MANUAL
330187	POINT AIRY OBS	PILESGROVE TWP	672	MRPAL	DAILY
330251	SALEM 1 OBS	SALEM CITY	709	MRPAM	MAXMIN
330252	SALEM 2 OBS	SALEM CITY	96	MLRW	MAXMIN
330253	SALEM 3 OBS	SALEM CITY	340	MRPAU	MAXMIN
330348	PENNS GROVE 14 OBS	CARNEYS POINT TWP	18	MRPAU	MANUAL
330841	PARVIN SP 1 OBS (OW A)	PITTSBURGH TWP	1020	MRPAU	DAILY

Aquifer names

- MLRW - Wenonah-Mount Laurel aquifer
- MRPAL - Lower Potomac-Raritan-Magothy aquifer
- MRPAM - Middle Potomac-Raritan-Magothy aquifer
- MRPAU - Upper Potomac-Raritan-Magothy aquifer



GROUND-WATER LEVELS

207

SALEM COUNTY

NJ-WRD Well Number, 33-0020. Site I.D., 393534075175201. Local I.D., Horner Obs.

LOCATION.--Lat 39°35'34", long 75°17'52", Hydrologic Unit 02040206, near the intersection of Rt. 581 (Commissioners Pike) and Rt. 672 (Yorketown Rd), Alloway Township.
Owner: Ephraim Horner.

AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, depth 283 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 76.75 ft above sea level.

Measuring point: Top of base of aluminum locking cap, 1.81 ft above land surface.

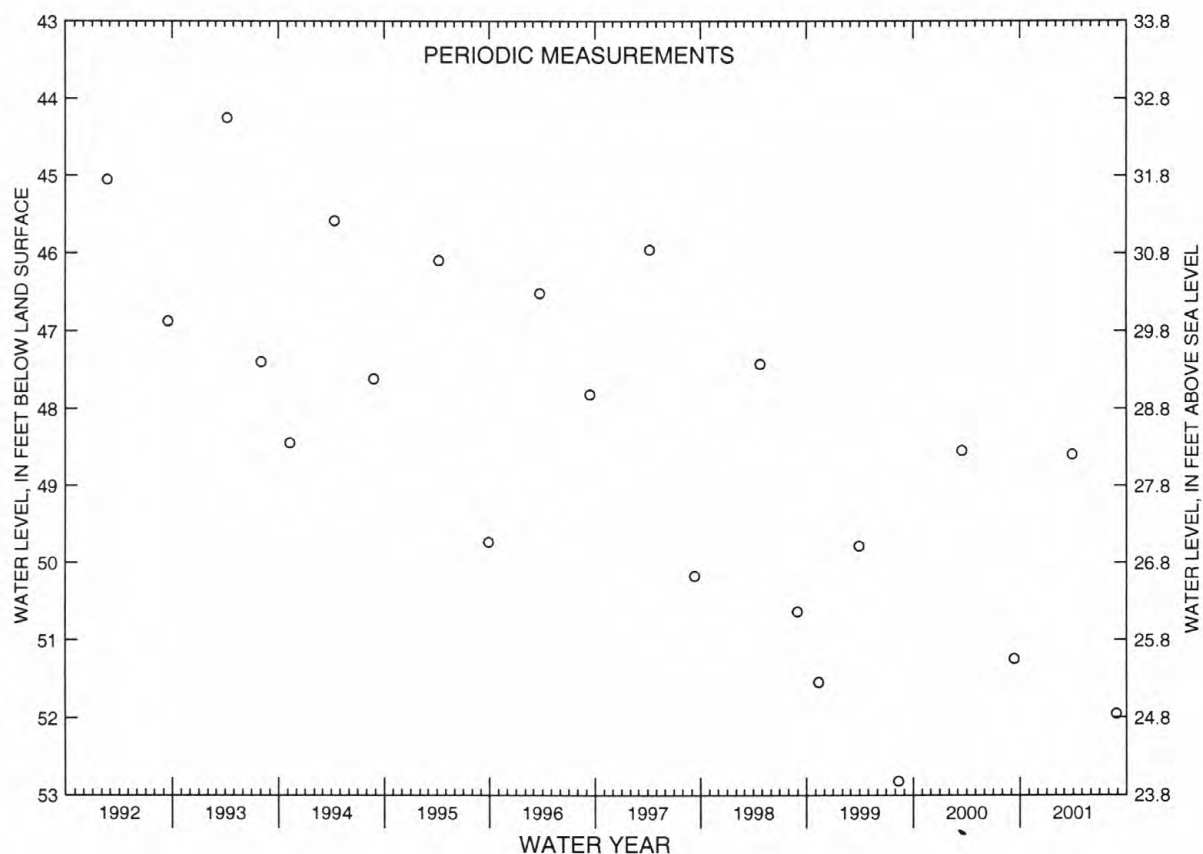
PERIOD OF RECORD.--June 1959 to current year. Records for 1959 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 38.32 ft below land surface, Apr. 25, 1961; lowest, 52.82 ft below land surface, Aug. 12, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 29	48.59	AUG 28	51.95

NJ-WRD WELL NO. 33-0020



GROUND-WATER LEVELS

SALEM COUNTY--Continued

NJ-WRD Well Number, 33-0187. Site I.D., 394037075191501. Local I.D., Point Airy Obs.

LOCATION.--Lat 39°40'37", long 75°19'14", Hydrologic Unit 02040206, near the intersection of Point Airy Rd. and Woodstown-Swedesboro Rd., 1 mi north of Woodstown Borough boundary, Pilesgrove Township.
Owner: U.S. Geological Survey.

AQUIFER.--Lower Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 672 ft, screened 664 to 672 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Aug. 1975 to Mar. 1977. Water-level recorder, Feb. 1959 to Aug. 1975.

DATUM.--Land surface is 72.97 ft above sea level.

Measuring point: Top of casing, 1.80 ft above land surface.

PERIOD OF RECORD.--Feb. 1959 to current year.

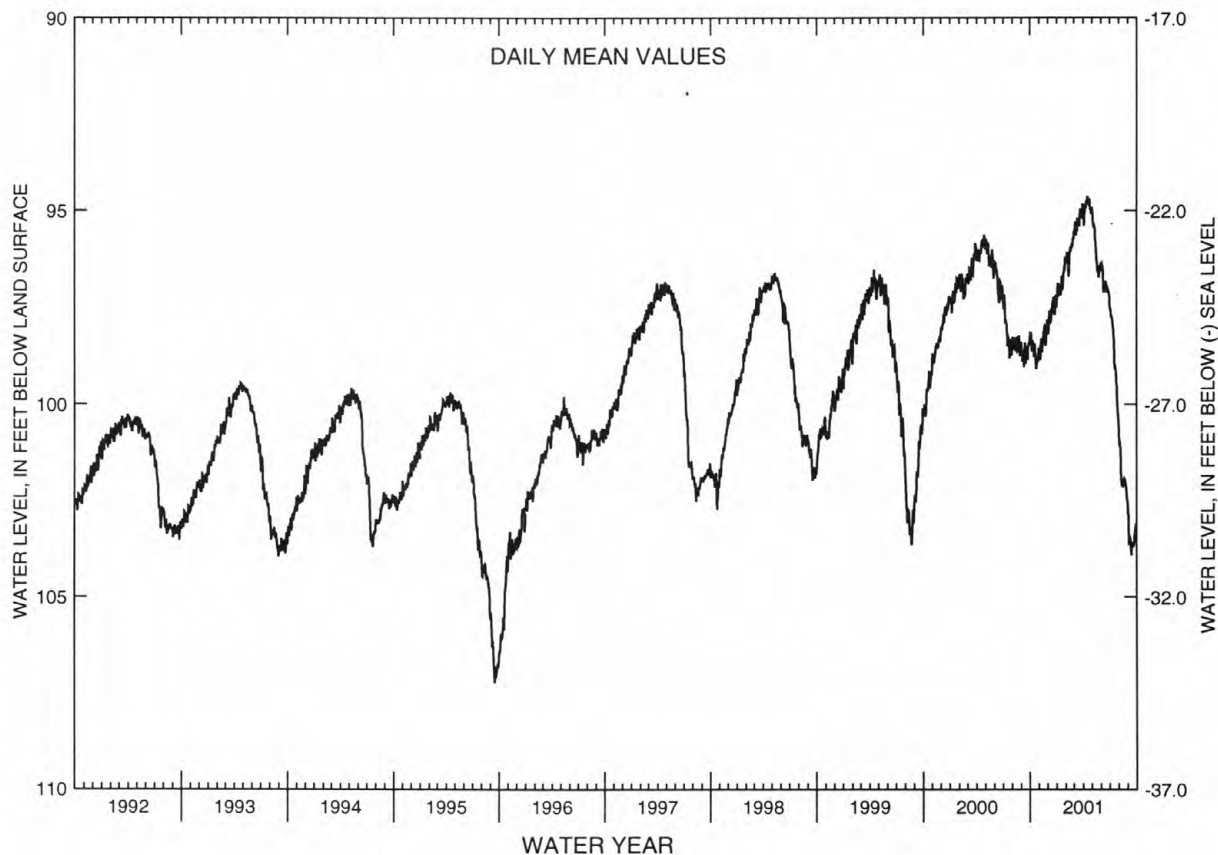
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 78.55 ft below land surface, Mar. 6, 1959; lowest, 107.26 ft below land surface, Sept. 15, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	98.16	98.70	97.87	96.86	96.10	95.34	95.39	95.27	96.46	97.55	101.00	103.27
10	98.45	98.29	97.92	96.99	96.25	95.48	94.88	95.41	97.01	97.79	101.95	103.49
15	98.70	98.34	97.61	97.17	96.04	95.30	94.71	95.90	96.94	98.22	102.12	103.79
20	98.60	98.02	97.30	96.73	95.90	95.38	94.83	96.51	96.91	99.04	101.95	103.68
25	98.95	98.42	97.64	96.58	95.74	95.11	94.86	96.72	96.99	99.42	102.08	103.39
EOM	98.72	97.81	97.27	96.20	95.67	94.85	95.02	96.56	97.18	100.39	102.48	103.10
MEAN	98.58	98.35	97.61	96.88	96.09	95.28	94.89	95.95	96.84	98.59	101.80	103.42

WTR YR 2001 MEAN 97.87 HIGH 94.65 APR 16 LOW 103.91 SEP 14

NJ-WRD WELL NO. 33-0187



SALEM COUNTY--Continued

NJ-WRD Well Number, 33-0251. Site I.D., 393348075275701. Local I.D., Salem 1 Obs.

LOCATION.--Lat 39°33'48", long 75°27'55", Hydrologic Unit 02040206, about 300 ft south of the intersection of Elm and Magnolia Streets, Salem City.
Owner: U.S. Geological Survey.

AQUIFER.--Middle Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 709 ft, screened 699 to 709 ft.

INSTRUMENTATION.--Water-level extremes recorder. Periodic measurements, Oct. 1976 to May 1977. No record, Aug. 1975 to Oct. 1976. Water-level recorder, Oct. 1972 to Aug. 1975. No record, July 1970 to Oct. 1972. Water-level recorder, Nov. 1965 to July 1970.

DATUM.--Land surface is 3.00 ft above sea level.

Measuring point: Front edge of cutout in recorder housing, 2.87 ft above land surface.

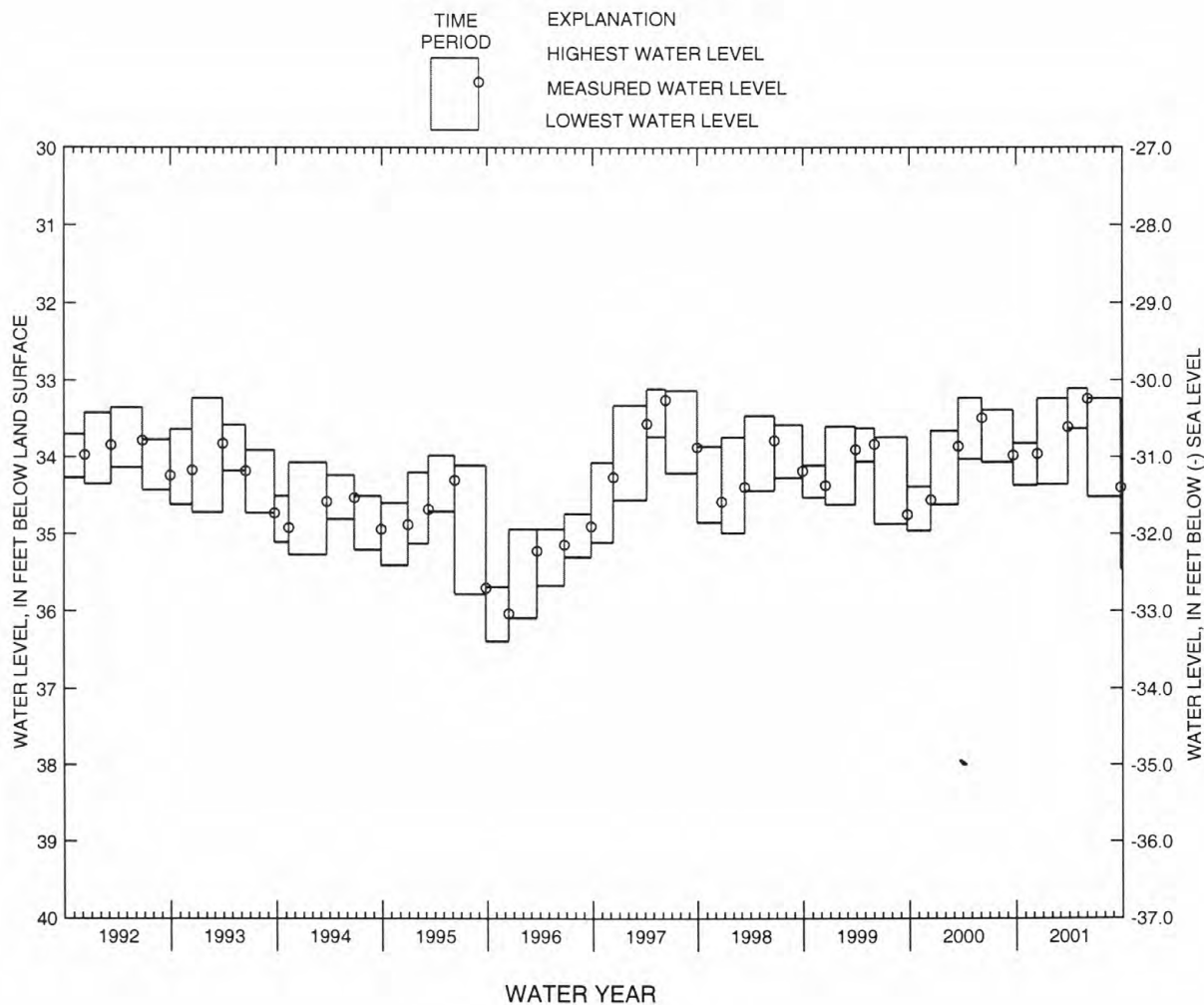
PERIOD OF RECORD.--Nov. 1965 to July 1970, Oct. 1972 to Aug. 1975, Oct. 1976 to current year. Records for 1965 to 1970 and for 1972 to 1980 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.97 ft below land surface, Dec. 13, 1965; lowest, 36.39 ft below land surface, between Sept. 27 and Dec. 15, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
WATER-LEVEL EXTREMES MEASURED WATER LEVELS

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 20, 2000 TO DEC. 12, 2000	33.82	34.37	DEC. 12, 2000	33.96
DEC. 12, 2000 TO MAR. 27, 2001	33.24	34.36	MAR. 27, 2001	33.61
MAR. 27, 2001 TO JUNE 4, 2001	33.11	33.63	JUNE 4, 2001	33.24
JUNE 4, 2001 TO SEPT. 25, 2001	33.24	34.52	SEPT. 25, 2001	34.40

NJ-WRD WELL NO. 33-0251



GROUND-WATER LEVELS

SALEM COUNTY--Continued

NJ-WRD Well Number, 33-0252. Site I.D., 393348075275702. Local I.D., Salem 2 Obs.

LOCATION.--Lat 39°33'48", long 75°27'55", Hydrologic Unit 02040206, about 300 ft south of the intersection of Elm and Magnolia Streets, Salem City.
Owner: U.S. Geological Survey.

AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 96 ft, screened 91 to 96 ft.

INSTRUMENTATION.--Water-level extremes recorder. Periodic measurements, Aug. 1975 to May 1977. Water-level recorder, Nov. 1965 to Aug. 1975.

DATUM.--Land surface is 3.25 ft above sea level.

Measuring point: Front edge of cutout in recorder housing, 2.77 ft above land surface.

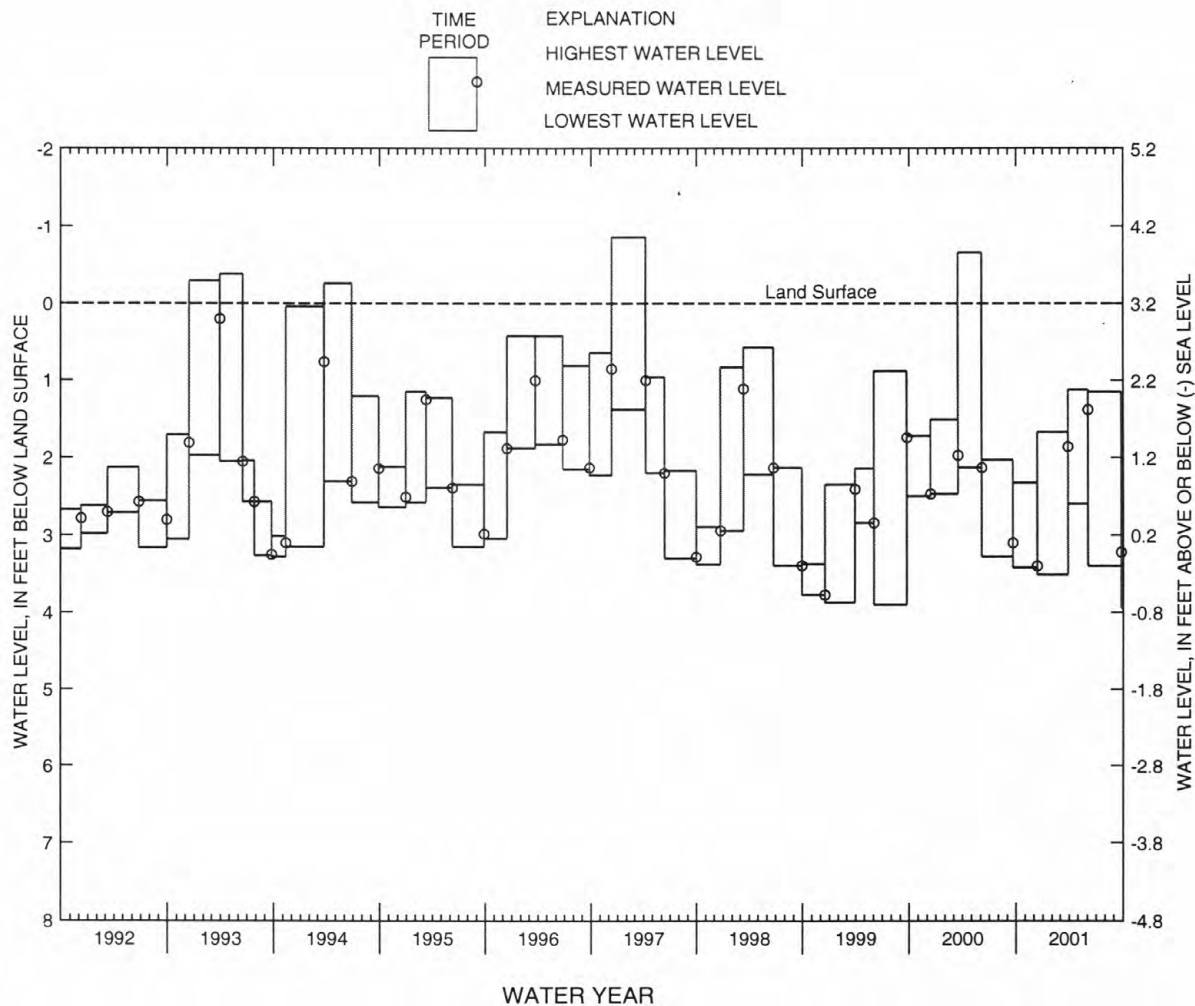
PERIOD OF RECORD.--Nov. 1965 to current year. Records for 1965 to 1981 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.86 ft above land surface, between Dec. 11, 1996 and Apr. 8, 1997; lowest, 6.45 ft below land surface, Sept. 9, 1966.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
WATER-LEVEL EXTREMES MEASURED WATER LEVELS

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 20, 2000 TO DEC. 12, 2000	2.33	3.42	DEC. 12, 2000	3.40
DEC. 12, 2000 TO MAR. 27, 2001	1.67	3.51	MAR. 27, 2001	1.86
MAR. 27, 2001 TO JUNE 4, 2001	1.12	2.60	JUNE 4, 2001	1.38
JUNE 4, 2001 TO SEPT. 25, 2001	1.15	3.40	SEPT. 25, 2001	3.22

NJ-WRD WELL NO. 33-0252



SALEM COUNTY--Continued

NJ-WRD Well Number, 33-0253. Site I.D., 393348075275703. Local I.D., Salem 3 Obs.

LOCATION.--Lat 39°33'48", long 75°27'55", Hydrologic Unit 02040206, about 300 ft south of the intersection of Elm and Magnolia Streets, Salem City.
Owner: U.S. Geological Survey.

AQUIFER.--Upper Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 340 ft, screened 335 to 340 ft.

INSTRUMENTATION.--Water-level extremes recorder. Periodic measurements, Aug. 1975 to May 1977. Water-level recorder, Nov. 1965 to Aug. 1975.

DATUM.--Land surface is 3.00 ft above sea level.

Measuring point: Front edge of cutout in recorder housing, 2.30 ft above land surface.

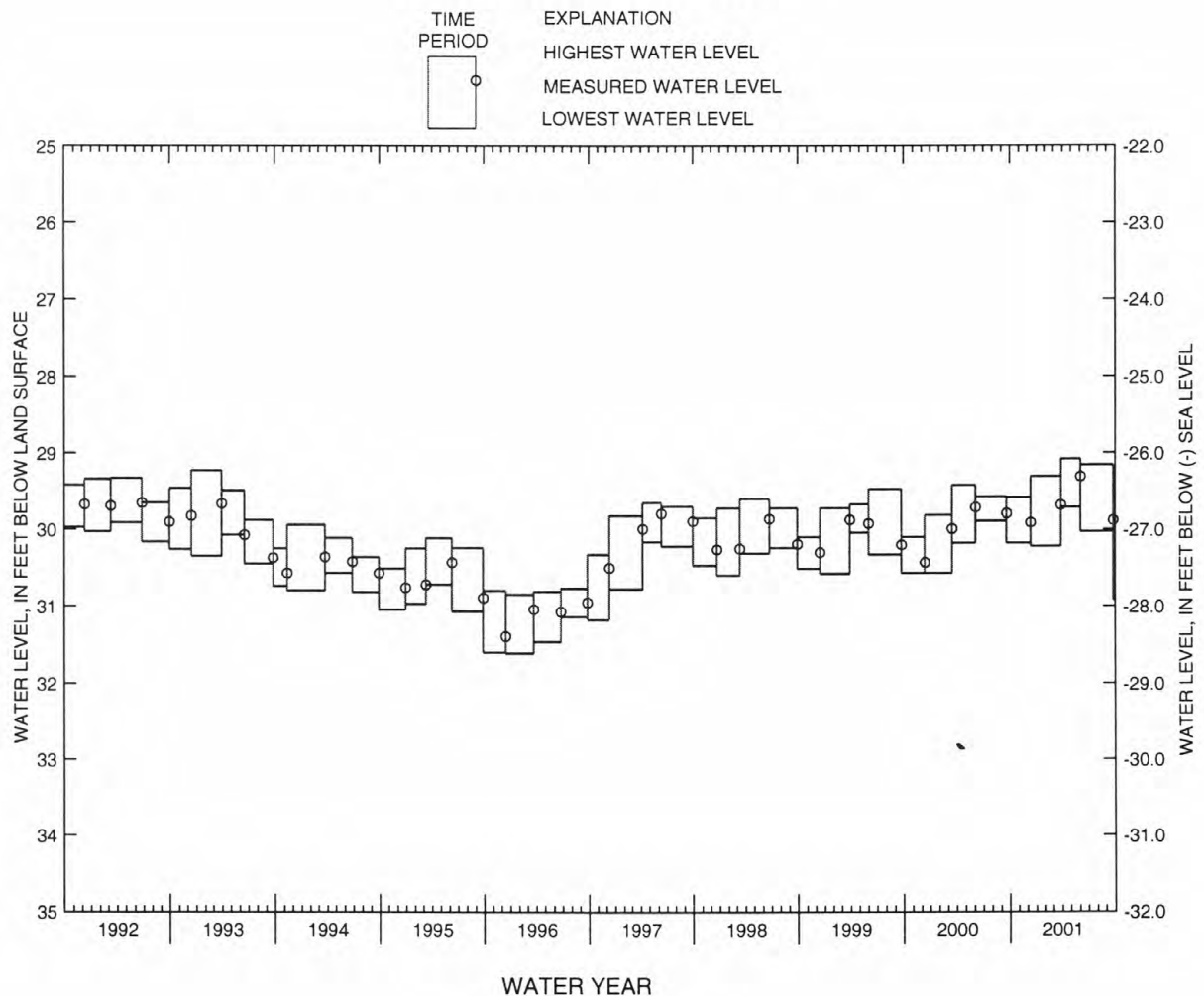
PERIOD OF RECORD.--Nov. 1965 to current year. Records for 1965 to 1981 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.28 ft below land surface, Feb. 13, 1966; lowest, 31.61 ft below land surface, between Dec. 15, 1995 and Mar. 22, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
WATER-LEVEL EXTREMES MEASURED WATER LEVELS

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 20, 2000 TO DEC. 12, 2000	29.58	30.18	DEC. 12, 2000	29.91
DEC. 12, 2000 TO MAR. 27, 2001	29.31	30.22	MAR. 27, 2001	29.68
MAR. 27, 2001 TO JUNE 4, 2001	29.08	29.71	JUNE 4, 2001	29.31
JUNE 4, 2001 TO SEPT. 25, 2001	29.16	30.03	SEPT. 25, 2001	29.88

NJ-WRD WELL NO. 33-0253



GROUND-WATER LEVELS

SALEM COUNTY--Continued

NJ-WRD Well Number, 33-0348. Site I.D., 394317075261901. Local I.D., Penns Grove 14 Obs.

LOCATION.--Lat 39°43'17", long 75°26'19", Hydrologic Unit 02040206, about 110 ft south of the intersection of Pedricktown Rd. and Penns Grove-Auburn Rd., Carneys Point Township.

Owner: State of New Jersey - New Jersey Division of Water Policy.

AQUIFER.--Upper Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Driven water-table observation well, diameter 1.25 in., depth 18 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape.

DATUM.--Land surface is 25.40 ft above sea level.

Measuring point: Top of casing, 0.20 ft above land surface.

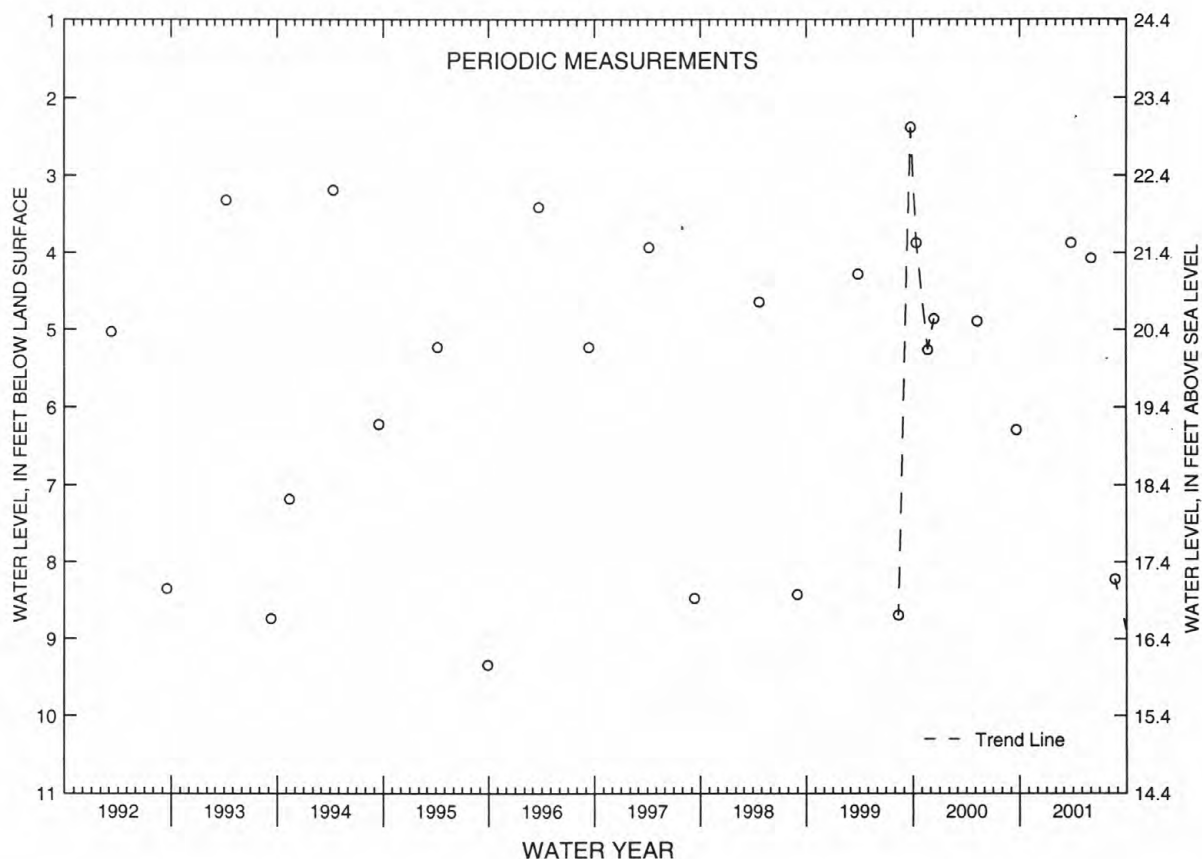
PERIOD OF RECORD.--June 1959 to Mar. 1975, Feb. 1977 to current year. Records for 1959 to 1975 and 1977 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.00 ft below land surface, Feb. 23, 1961; lowest, 9.34 ft below land surface, Sept. 27, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 27	3.87	JUN 04	4.07	AUG 23	8.22
WATER YEAR 2001	HIGHEST	3.87	MAR 27, 2001	LOWEST	8.22
					AUG 23, 2001

NJ-WRD WELL NO. 33-0348



GROUND-WATER LEVELS

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SALEM COUNTY--Continued

NJ-WRD Well Number 33-0841. Site I.D., 393055075083501. Local I.D., Parvin SP 1 Obs (OW A). NJ Permit Number, 35-17766.

LOCATION.--Lat 39°30'55", long 75°08'35", Hydrologic Unit 02040206, Parvin State Park, Almond Rd (Rt. 540), Pittsgrove Township.
Owner: State of New Jersey-DEP/Div of Parks and Forestry.

AQUIFER.--Upper Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.-- Drilled artesian observation well, diameter 4 in., depth 1,025 ft, screened 1,005 to 1,025 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.-- Land surface is 76.6 ft above sea level.
Measuring point: Top of recorder shelf, 3.20 ft above land surface.

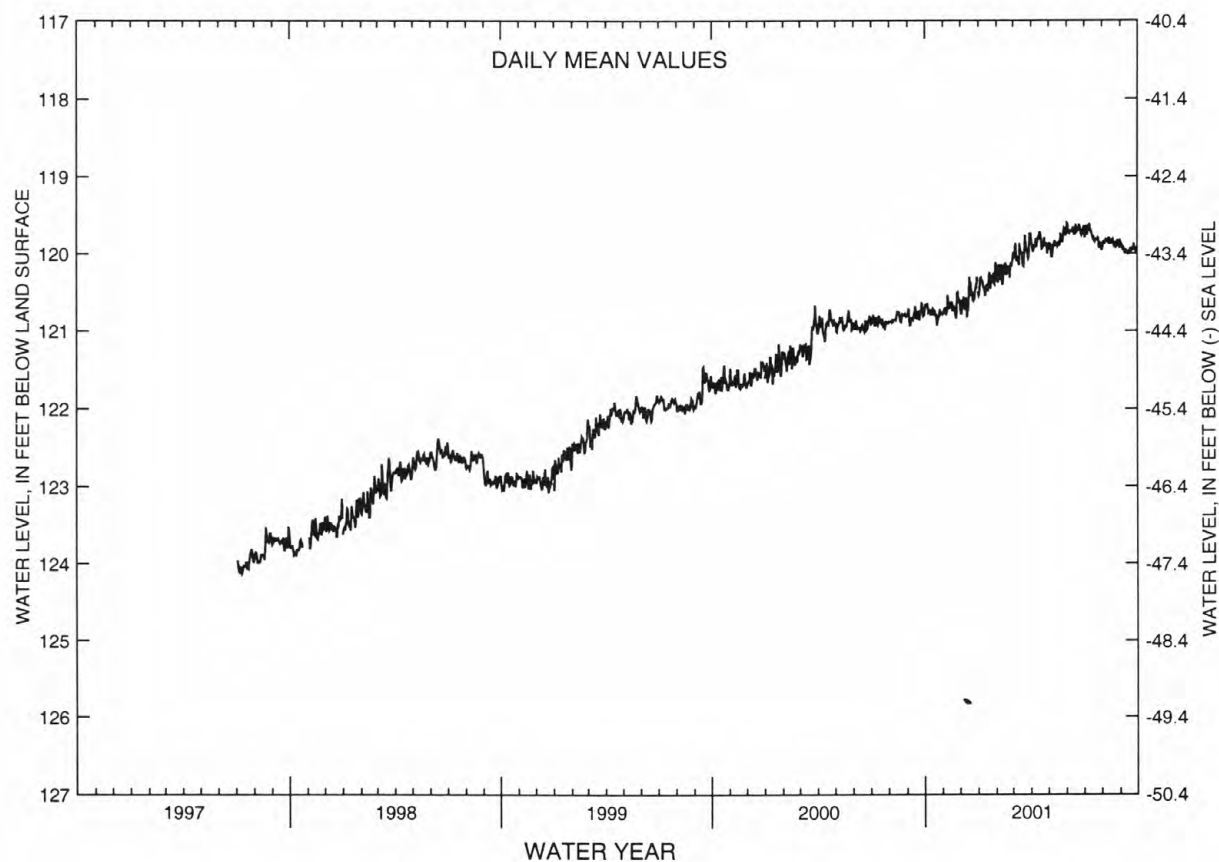
PERIOD OF RECORD.--July 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 119.56 ft below land surface, June 3, 2001; lowest, 124.14 ft below land surface, July 6-8, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	120.69	120.71	120.60	120.32	120.15	119.90	119.98	119.87	119.73	119.63	119.88	119.90
10	120.72	120.54	120.72	120.44	120.14	120.08	119.85	119.89	119.72	119.64	119.82	119.95
15	120.73	120.66	120.75	120.42	120.13	120.01	119.78	119.86	119.75	119.75	119.84	119.99
20	120.81	120.68	120.45	120.24	120.17	120.17	119.94	119.90	119.71	119.84	119.81	119.98
25	120.83	120.81	120.60	120.31	120.14	119.97	119.89	119.86	119.69	119.79	119.92	119.87
EOM	120.77	120.59	120.36	120.12	120.12	119.76	119.97	119.77	119.67	119.92	119.84	120.00
MEAN	120.76	120.69	120.57	120.38	120.23	119.99	119.87	119.85	119.70	119.77	119.86	119.94
WTR YR 2001	MEAN 120.13 HIGH 119.60 JUN 2 LOW 120.93 OCT 23											

NJ-WRD WELL NO. 33-0841



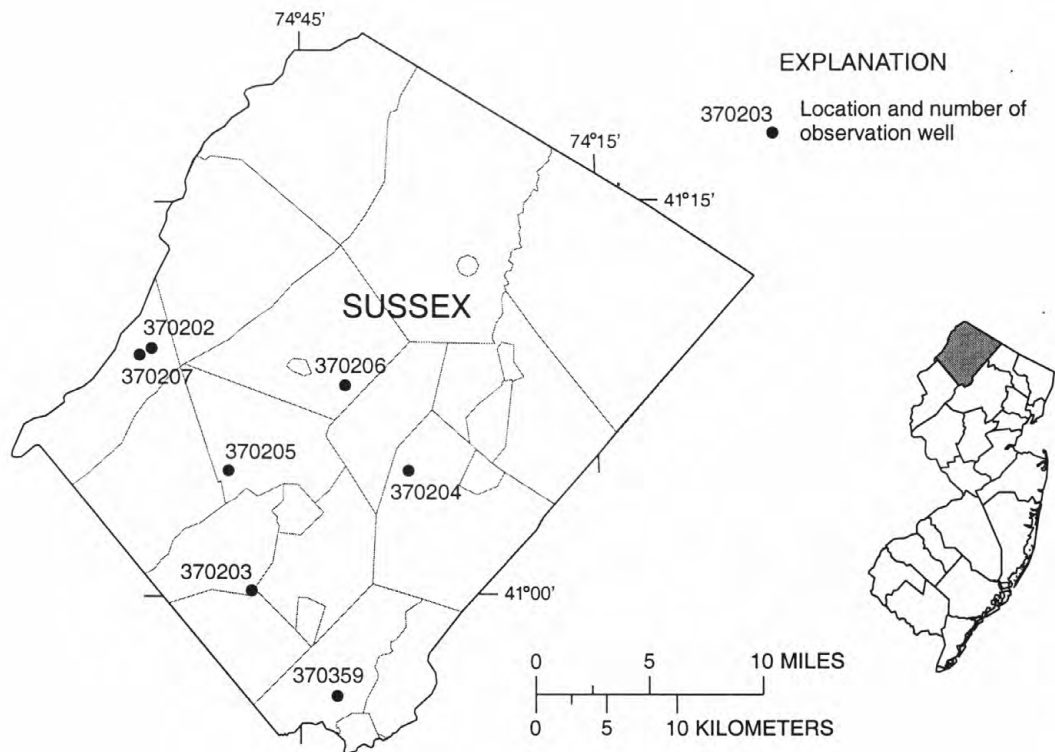
WATER RESOURCES DATA - NEW JERSEY, 2001

SUSSEX COUNTY

NJ-WRD well number	Local identifier	Township	Well depth	Aquifer	Type of data
370202	TAYLOR OBS	WALPACK TWP	95	BDVL	DAILY
370203	WHITTINGHAM 19 OBS	FREDON TWP	500	ALNN	DAILY
370204	SPARTA TWP 6 OBS	SPARTA TWP	143	SFDF	DAILY
370205	SWARTSWOOD PARK 5 OBS	HAMPTON TWP	148	ALNN	DAILY
370206	FAIRGROUNDS 7 OBS	FRANKFORD TWP	80	SFDF	DAILY
370207	WALPACK TWP 4 OBS	WALPACK TWP	55	SFDF	DAILY
370359	BYRAM TWP PW-1 OBS	BYRAM TWP	100	PCMB	DAILY

Aquifer names

ALNN	- Allentown Dolomite
BDVL	- Bossardville Limestone
PCMB	- Precambrian Eratthem
SFDF	- Stratified drift



SUSSEX COUNTY

NJ-WRD Well Number, 37-0202. Site I.D., 410914074540401. Local I.D., Taylor Obs.

LOCATION.--Lat 41°09'14", long 74°53'04", Hydrologic Unit 02040104, near Walpack Center, Delaware Water Gap National Recreation Area, Walpack Township.
Owner: National Park Service.

AQUIFER.--Bossardville Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 95 ft, open hole 42 to 95 ft.

INSTRUMENTATION.--Data collection platform with satellite telemetry--60 minute recording interval. Water-level recorder, June 1988 to May 2001.

DATUM.--Land surface is 480 ft above sea level, from topographic map.
Measuring point: Top of casing, 2.73 ft above land surface.

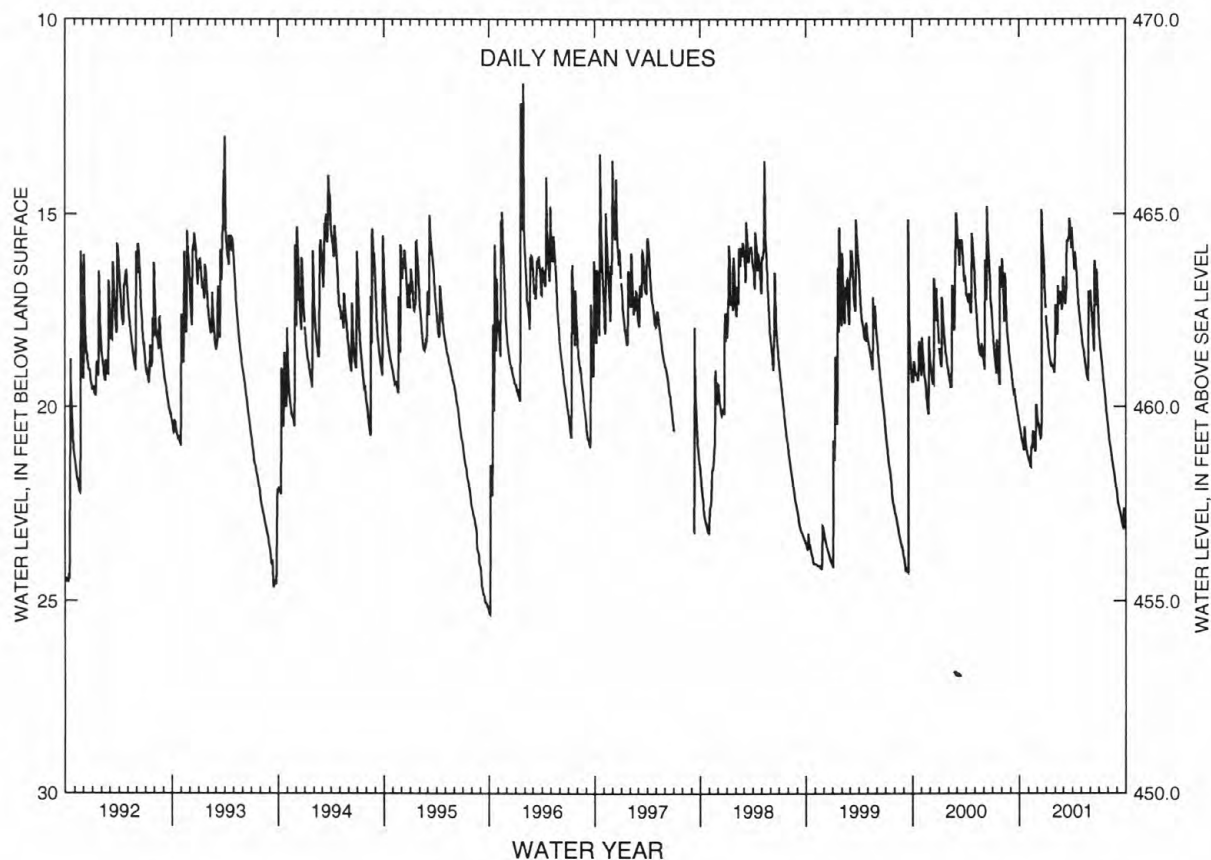
PERIOD OF RECORD.--June 1988 to current year. Records for 1988 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.78 ft below land surface, Jan. 27, 1996; lowest, 25.36 ft below land surface, Oct. 3-5, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.64	21.44	20.43	18.03	17.59	17.08	15.89	18.22	17.22	18.25	20.76	22.46
10	20.86	21.29	20.69	18.48	17.63	17.08	16.01	18.52	17.93	18.71	21.04	22.64
15	21.05	20.73	20.63	18.79	17.34	15.70	16.34	18.82	18.48	19.10	21.32	22.81
20	20.59	20.85	15.51	18.94	17.10	15.61	17.06	19.14	16.72	19.49	21.59	23.03
25	21.08	21.16	16.25	18.97	17.48	15.38	17.50	19.29	16.44	19.92	21.83	22.65
EOM	21.29	20.05	17.43	18.56	16.66	15.34	17.90	---	17.58	20.39	22.13	22.89
MEAN	20.89	20.96	18.44	18.62	17.35	16.14	16.63	18.57	17.33	19.17	21.35	22.73
WTR YR 2001	MEAN 19.03 HIGH 14.88 DEC 18 LOW 23.15 SEP 24											

NJ-WRD WELL NO. 37-0202



GLOUCESTER COUNTY--Continued

NJ-WRD Well Number, 15-0742. Site I.D., 394652075100402. Local I.D., Mantua Deep Obs. NJ Permit Number 31-25266-4.

LOCATION.--Lat 39°46'52", long 75°10'04", Hydrologic Unit 02040202, at the Township of Mantua Road Department, Main Street (County Rt. 553), Mantua Township.
Owner: U.S. Geological Survey.

AQUIFER.--Lower Potomac-Raritan-Magothy aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 777 ft, screened 757 to 777 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 84 ft above sea level, from topographic map.
Measuring point: Top of recorder shelf, 4.20 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

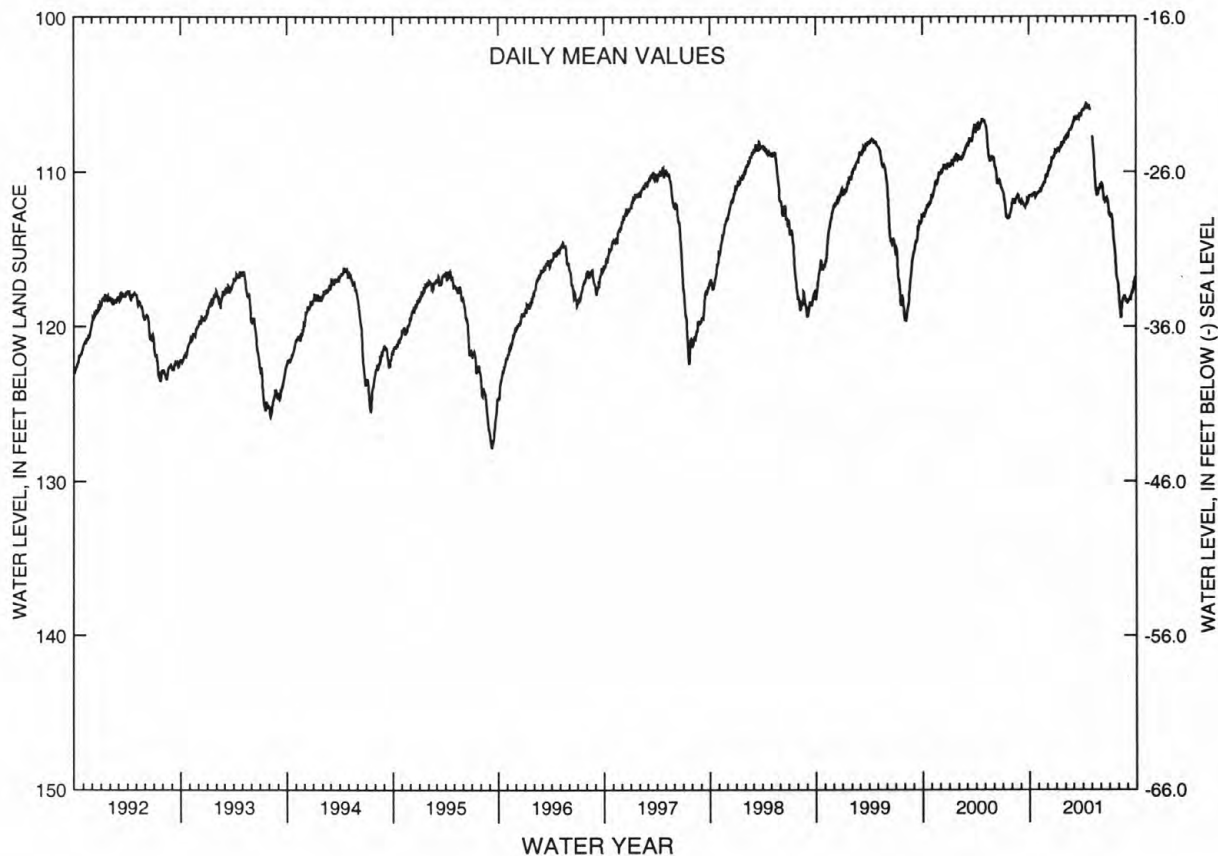
PERIOD OF RECORD.--Nov. 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 105.55 ft below land surface, Apr. 16, 2001; lowest, 127.89 ft below land surface, Sept. 8-9, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	111.55	111.25	109.99	108.51	107.65	106.48	106.05	---	110.84	112.72	117.99	118.41
10	111.48	111.03	109.85	108.51	107.50	106.56	105.81	108.78	110.98	112.73	119.18	118.26
15	111.42	110.93	109.61	108.42	107.32	106.49	105.65	110.34	111.79	113.57	118.66	118.15
20	111.46	110.71	109.10	108.16	107.17	106.62	105.85	111.44	111.75	114.73	118.14	117.82
25	111.52	110.64	109.05	108.11	106.98	106.37	105.88	111.45	111.69	115.91	118.07	117.17
EOM	111.38	110.26	108.63	107.75	106.90	106.04	---	111.04	112.24	117.02	118.40	116.80
MEAN	111.49	110.90	109.44	108.35	107.43	106.46	105.84	110.36	111.43	114.25	118.32	117.87
WTR YR 2001	MEAN	111.07	HIGH	105.59	APR 16	LOW	119.43	AUG 12				

NJ-WRD WELL NO. 15-0742



GROUND-WATER LEVELS

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SUSSEX COUNTY--Continued

NJ-WRD Well Number, 37-0204. Site I.D., 410431074395801. Local I.D., Sparta Twp 6 Obs. NJ Permit Number, 22-28915-1.

LOCATION.--Lat 41°04'49", long 74°39'32", Hydrologic Unit 02040105, on the north side of the soccer fields off White Lake Rd., Germany Flats, Sparta Township.
Owner: State of New Jersey.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 143 ft, screened 123 to 143 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Aug. 1991 to May 1998.

DATUM.--Land surface is 621.7 ft above sea level.

Measuring point: Top of shelf, 2.80 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

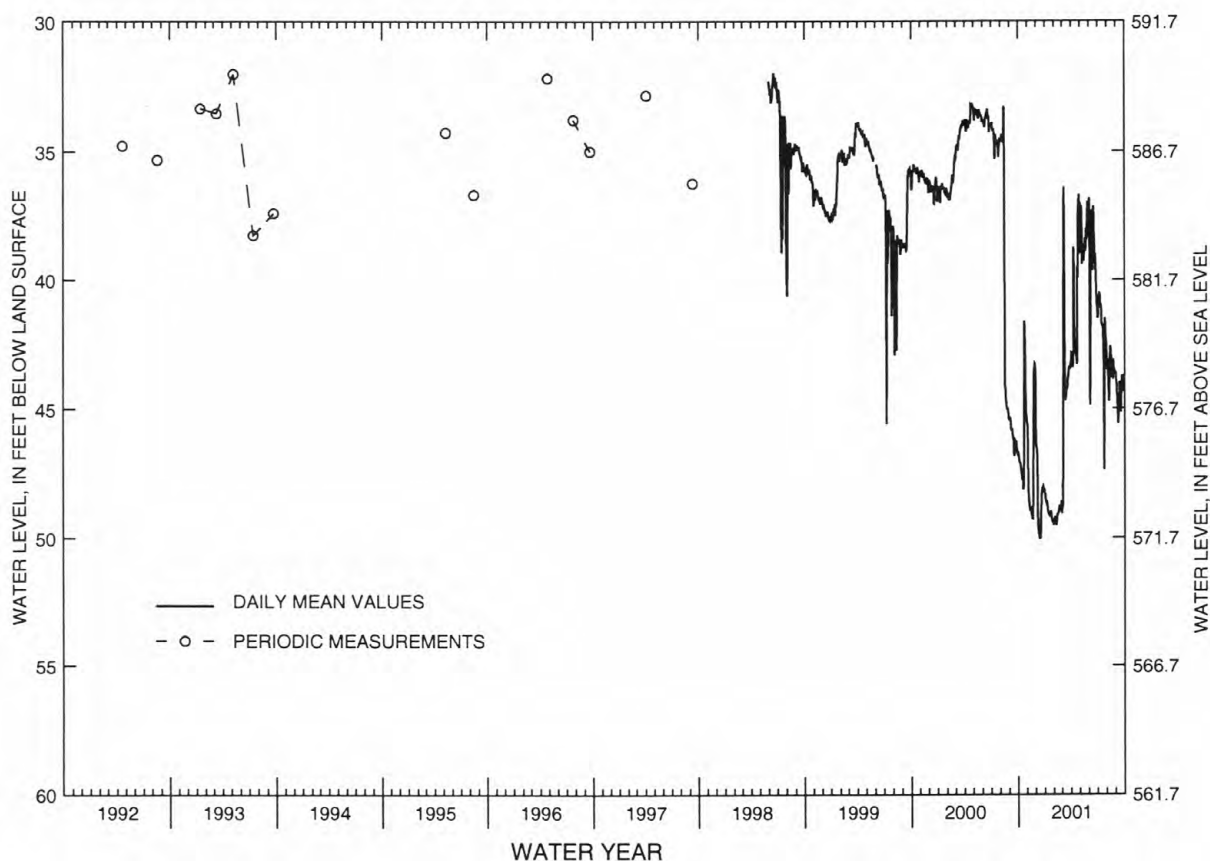
PERIOD OF RECORD.--Aug. 1991 to Sept. 1993, May 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 31.84 ft below land surface, June 19, 1998; lowest, 50.21 ft below land surface, Dec. 13, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	47.10	48.37	47.04	48.59	49.24	38.07	42.90	37.22	44.60	40.88	43.07	44.37
10	47.34	48.89	49.84	48.95	49.24	44.02	38.73	38.69	37.30	40.89	44.31	45.56
15	47.61	49.10	50.03	49.06	49.02	44.45	42.52	39.29	39.65	41.70	42.76	43.95
20	47.98	48.69	48.32	49.03	48.77	44.02	43.11	38.88	38.81	42.07	43.81	44.68
25	43.77	43.39	48.01	49.37	48.58	43.39	37.46	38.47	39.62	43.25	43.31	44.35
EOM	45.57	45.67	48.17	49.39	48.58	43.42	39.00	37.31	41.26	42.58	43.69	43.84
MEAN	46.31	46.97	48.56	49.02	49.04	43.42	41.26	38.07	39.23	41.96	43.47	44.35
WTR YR 2001 MEAN 44.28 HIGH 36.40 MAR 7 LOW 50.06 DEC 13												

NJ-WRD WELL NO. 37-0204



GROUND-WATER LEVELS

SUSSEX COUNTY--Continued

NJ-WRD Well Number, 37-0205. Site I.D., 410449074483301. Local I.D., Swartswood Park 5 Obs. NJ Permit Number, 21-07722-3.

LOCATION.--Lat 41°04'49", long 74°48'37", Hydrologic Unit 02040105, in Swartswood State Park, about 700 ft south of the intersection of County Rt. 622 (Swartswood Rd.) and Chandler Rd., Hampton Township.
Owner: State of New Jersey.

AQUIFER.--Allentown Dolomite of Cambrian-Ordovician age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 148 ft, open hole 50 to 148 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Apr. 1991 to July 1992.

DATUM.--Land surface is 514.1 ft above sea level.

Measuring point: Top of recorder shelf, 2.55 ft above land surface.

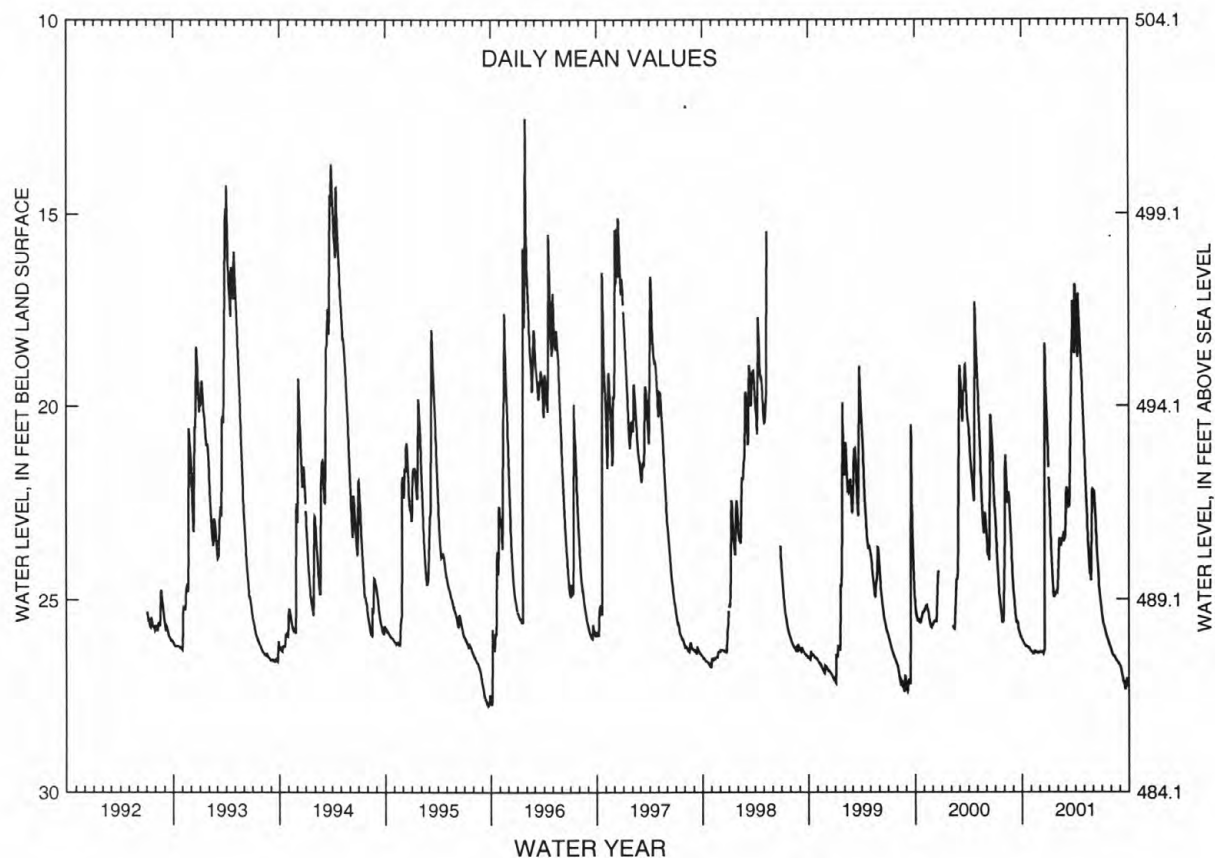
PERIOD OF RECORD.--Apr. 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.20 ft below land surface, Jan. 28, 1996; lowest, 27.79 ft below land surface, Sept. 22, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.09	26.37	26.35	22.85	23.47	22.21	18.07	21.61	22.22	25.53	26.37	26.78
10	26.16	26.36	26.38	23.87	23.59	22.59	17.34	22.58	22.94	25.72	26.46	27.01
15	26.21	26.34	26.32	24.65	23.44	20.05	18.01	23.49	23.75	25.88	26.50	27.14
20	26.22	26.37	19.28	24.91	23.28	18.43	18.87	24.22	24.42	26.00	26.57	27.34
25	26.25	26.39	20.37	24.81	23.41	17.56	19.63	24.46	24.89	26.12	26.62	27.07
EOM	26.33	26.36	21.60	24.68	22.53	16.83	20.67	22.20	25.28	26.25	26.69	27.19
MEAN	26.19	26.37	23.45	24.15	23.48	20.08	18.57	22.97	23.71	25.86	26.51	27.05
WTR YR 2001 MEAN 24.04 HIGH 16.83 MAR 31 LOW 27.34 SEP 20												

NJ-WRD WELL NO. 37-0205



SUSSEX COUNTY--Continued

NJ-WRD Well Number, 37-0206. Site I.D., 410804074424401. Local I.D., Fairgrounds 7 Obs. NJ Permit Number, 22-28916-0.

LOCATION.--Lat 41°08'04", long 74°42'44", Hydrologic Unit 02020007, at Sussex County Fairgrounds, Frankford Township.
Owner: State of New Jersey.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 80 ft, screened 59 to 80 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements Apr. 1991 to July 1992.

DATUM.--Land surface is 528.5 ft above sea level.
Measuring point: Top of recorder shelf, 2.70 ft above land surface.

REMARKS.--Removal of land in the area surrounding the well during the fall of 1998 resulted in the lowering of land surface at this site by 5 feet. The removal of a section of casing resulted in a new measuring point 6.2 feet lower than the previous one. Water-level data prior to the change, including extremes, and well and screen depths, have to correspond to the new land surface.

PERIOD OF RECORD.--Apr. 1991 to current year.

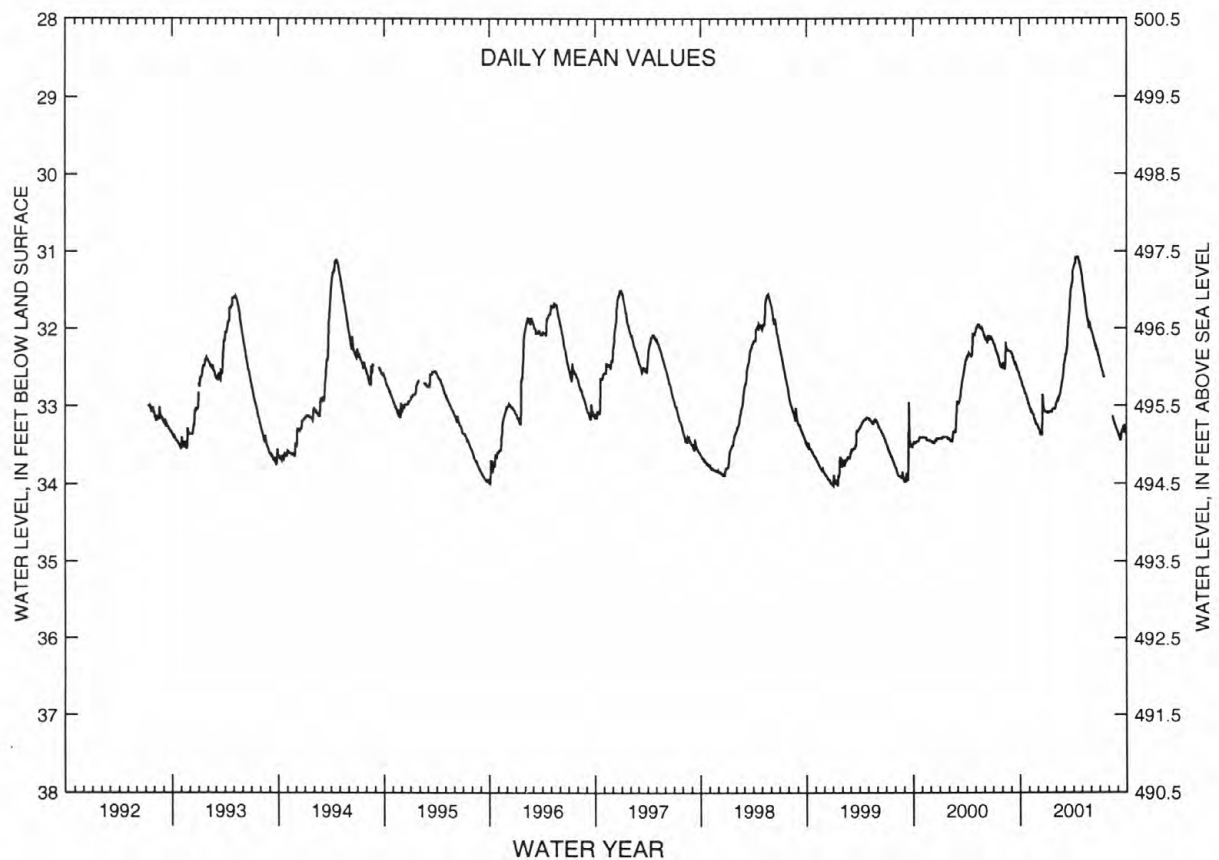
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 31.07 ft below land surface, Apr. 13-18, 2001; lowest, 34.04 ft below land surface, Jan. 3, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.68	33.04	33.30	33.09	32.94	32.38	31.18	31.43	32.05	32.46	---	33.37
10	32.73	33.06	33.35	33.08	32.91	32.26	31.08	31.56	32.12	32.53	---	33.43
15	32.79	33.11	33.37	33.08	32.85	31.99	31.07	31.72	32.19	32.61	33.13	33.35
20	32.84	33.17	32.98	33.05	32.74	31.72	31.11	31.87	32.26	---	33.20	33.29
25	32.90	33.23	33.07	33.04	32.63	31.47	31.18	31.97	32.30	---	33.26	33.24
EOM	32.97	33.24	33.08	33.02	32.49	31.24	31.28	32.00	32.38	---	33.32	33.36
MEAN	32.80	33.13	33.19	33.07	32.81	31.92	31.15	31.71	32.19	32.52	33.23	33.35

WTR YR 2001 MEAN 32.56 HIGH 31.07 APR 14 LOW 33.44 SEP 11

NJ-WRD WELL NO. 37-0206



GROUND-WATER LEVELS

SUSSEX COUNTY--Continued

NJ-WRD Well Number, 37-0207. Site I.D., 410928074522801. Local I.D., Walpack Twp. 4 Obs. NJ Permit Number, 21-07721-5.

LOCATION.--Lat 41°09'28", long 74°52'28", Hydrologic Unit 02040104, off Main St., about 800 ft east of Flat Brook, Walpack Center, Walpack Township.
Owner: State of New Jersey.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 55 ft, screened 46 to 55 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Apr. 1991 to July 1992.

DATUM.--Land surface is 425.3 ft above sea level.

Measuring point: Top of recorder shelf, 3.40 ft above land surface.

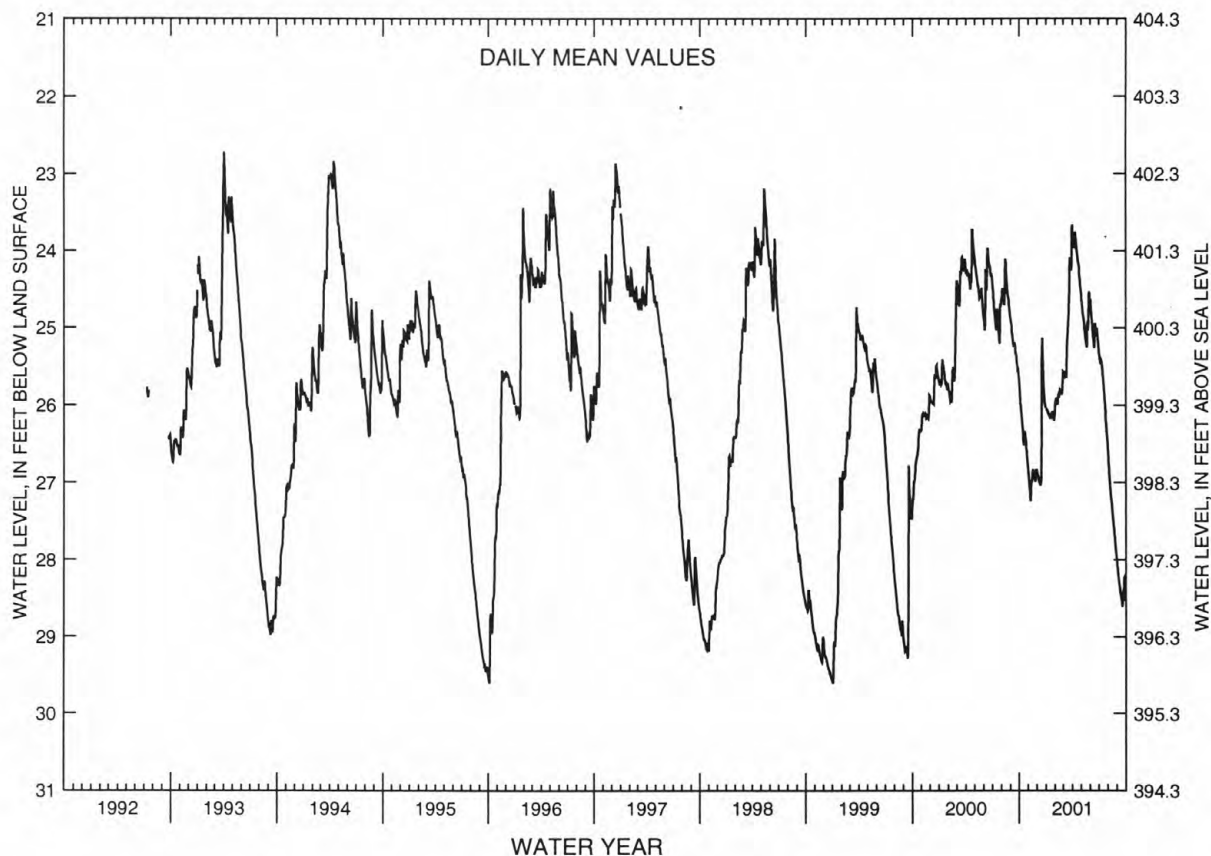
PERIOD OF RECORD.--Apr. 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 22.69 ft below land surface, Apr. 2, 1993; lowest, 29.63 ft below land surface, Oct. 5, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.94	27.04	26.92	26.06	25.94	25.57	23.90	24.70	24.78	25.39	26.82	28.16
10	26.14	27.21	27.01	26.12	25.97	25.59	23.81	24.88	25.05	25.42	27.10	28.34
15	26.40	26.89	26.97	26.15	25.86	25.15	23.94	25.07	25.23	25.61	27.29	28.45
20	26.35	26.86	25.23	26.11	25.81	24.80	24.13	25.23	25.01	25.85	27.52	28.61
25	26.51	26.99	25.84	26.12	25.83	24.09	24.30	24.97	25.00	26.18	27.71	28.42
EOB	26.79	26.84	26.03	26.08	25.57	23.70	24.51	24.69	25.25	26.49	27.97	28.41
MEAN	26.29	26.96	26.37	26.12	25.86	24.96	24.04	24.89	25.01	25.76	27.33	28.35
WTR YR 2001 MEAN 26.00 HIGH 23.66 APR 1 LOW 28.61 SEP 20												

NJ-WRD WELL NO. 37-0207



SUSSEX COUNTY--Continued

NJ-WRD Well Number, 37-0359. Site I.D., 405613074430901. Local I.D., Byram Twp PW-1 Obs.

LOCATION.--Lat 40°56'13", long 74°43'09", Hydrologic Unit 02040105, about 1,500 ft north of the intersection of U. S. Route 206 and County Route 607 (Lackawanna Dr.), Byram Township.
Owner: McGovern, W. M. - Byram Plaza.

AQUIFER.--Precambrian Erathem.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 100 ft, open hole 16 to 100 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 732 ft above sea level, from topographic map.
Measuring point: Top of recorder shelf, 1.50 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

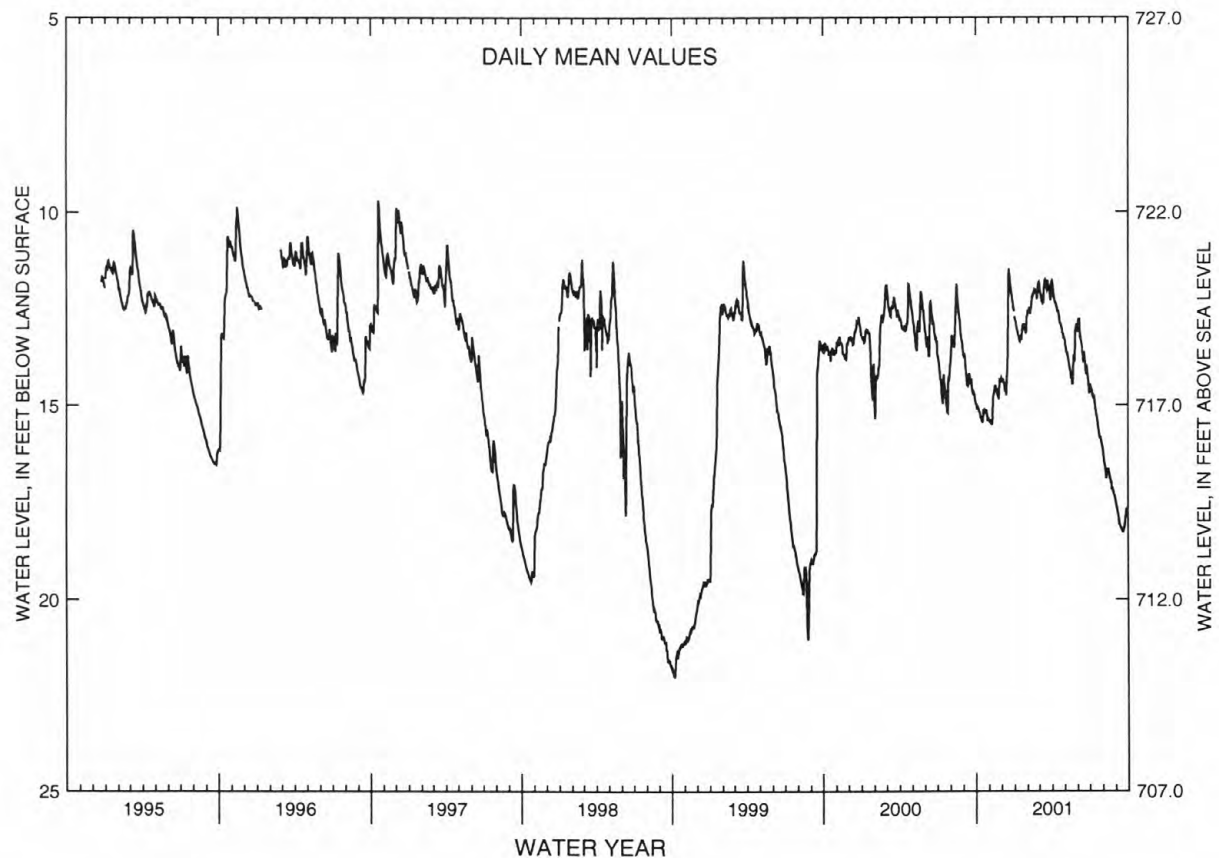
PERIOD OF RECORD.--Dec. 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.64 ft below land surface, Oct. 20, 1996; lowest, 22.22 ft below land surface, Oct. 8, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.08	15.43	14.34	12.88	12.46	12.10	12.08	13.57	12.80	14.64	16.41	17.66
10	15.18	15.10	14.61	13.17	12.44	12.36	12.35	13.79	13.32	14.82	16.89	17.97
15	15.38	14.48	14.05	13.28	12.08	11.75	12.56	14.10	13.80	15.09	16.72	18.21
20	15.14	14.57	11.57	12.94	12.00	12.01	12.86	14.47	13.92	15.41	16.89	18.25
25	15.14	14.85	12.11	12.97	12.13	11.98	13.02	13.88	14.11	15.86	17.15	17.93
EOM	15.35	14.29	12.56	12.71	11.81	11.78	13.26	12.92	14.69	16.01	17.37	17.67
MEAN	15.19	14.87	13.28	13.03	12.24	12.02	12.59	13.72	13.66	15.20	16.82	17.93
WTR YR 2001	MEAN 14.22 HIGH 11.46 DEC 19 LOW 18.28 SEP 19											

NJ-WRD WELL NO. 37-0359

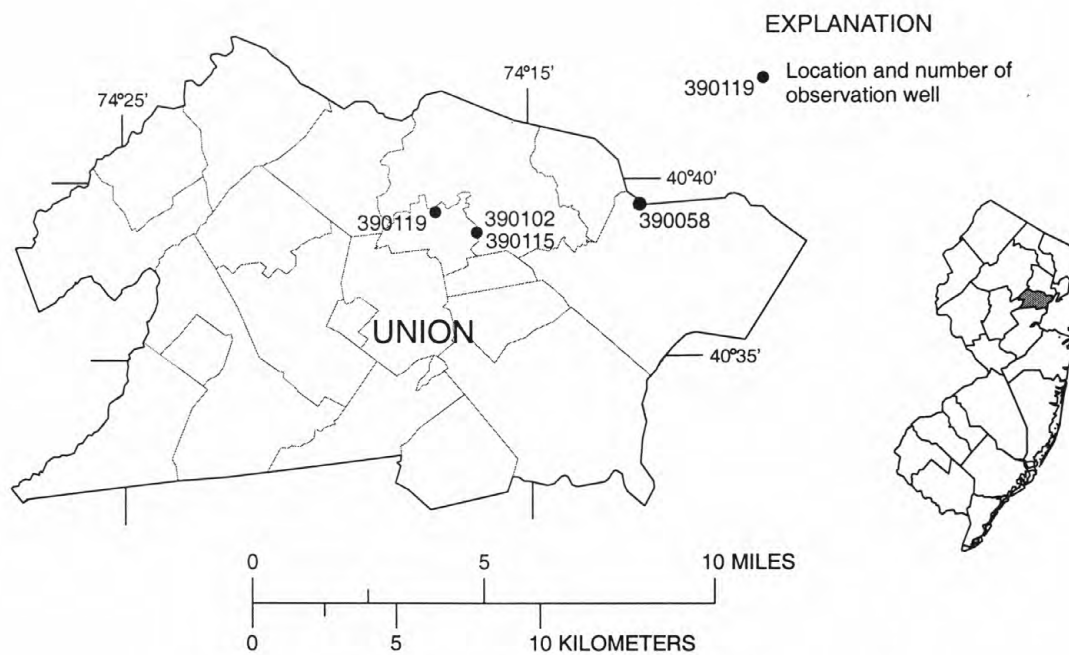


WATER RESOURCES DATA - NEW JERSEY, 2001

UNION COUNTY

NJ-WRD well number	Local identifier	Township	Well depth	Aquifer	Type of data
390058	SCHWEITZER OBS	ELIZABETH CITY	660	PSSC	MANUAL
390102	WHITE LAB 3 OBS	KENILWORTH BORO	251	PSSC	MANUAL
390115	WHITE LAB 4 OBS	KENILWORTH BORO	251	PSSC	MANUAL
390119	UNION COUNTY PARK OBS	KENILWORTH BORO	290	PSSC	DAILY

Aquifer names
PSSC - Passaic Formation



UNION COUNTY

NJ-WRD Well Number, 39-0058. Site I.D., 404111074121701. Local I.D., Schweitzer Obs.

LOCATION.--Lat 40°41'13", long 74°12'16", Hydrologic Unit 02030104, on the east side of Newark Ave., about 0.5 mi north of the intersection with North Ave., Elizabeth City.
Owner: Magruder Color Company.

AQUIFER.--Passaic Formation of Triassic-Jurassic age.

WELL CHARACTERISTICS.--Drilled observation well, depth 660 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level extremes recorder, Apr. 1977 to July 1984. Periodic measurements, July 1970 to Apr. 1977. Water-level recorder, Apr. 1956 to July 1970.

DATUM.--Land surface is 28.23 ft above sea level.
Measuring point: Top of base of aluminum locking cap, 1.94 ft above land surface.

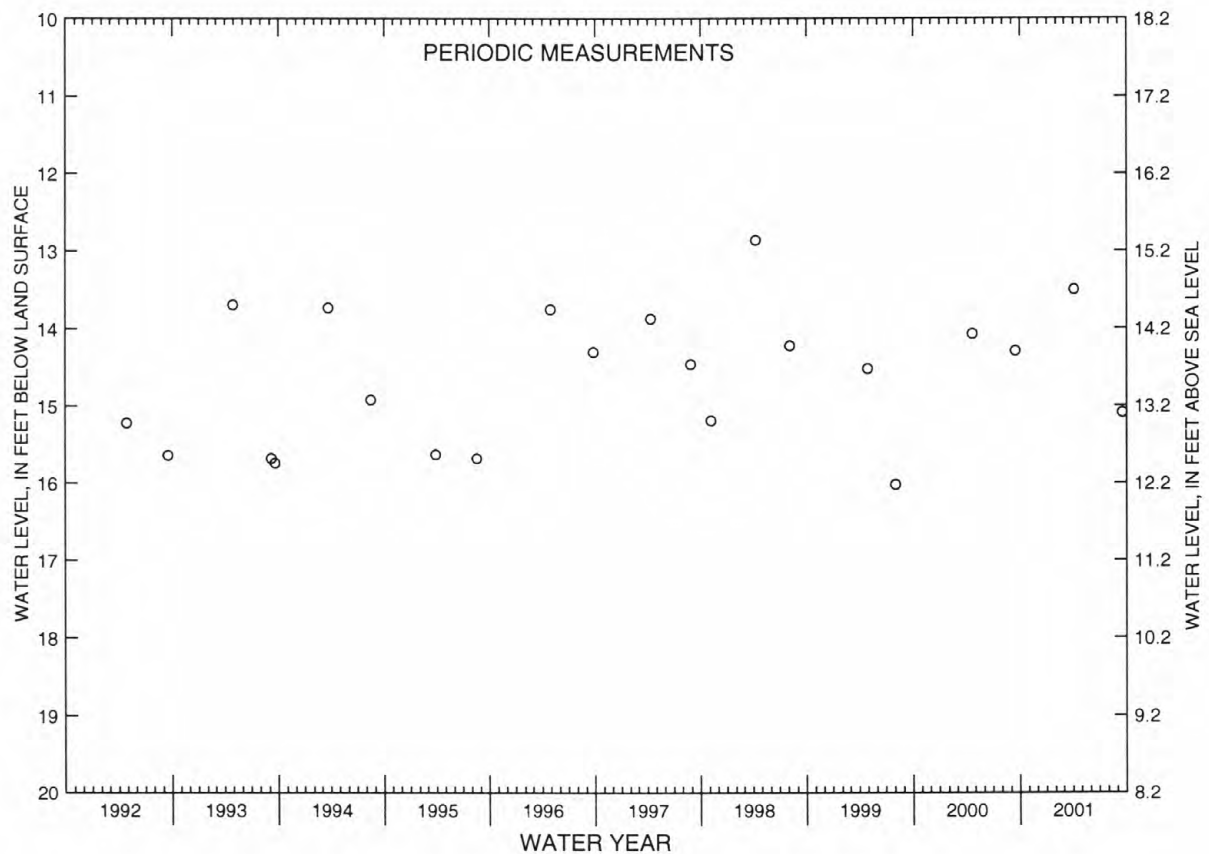
PERIOD OF RECORD.--Apr. 1956 to current year. Records for 1956 to 1982 and 1985 to 1989 are unpublished and are available if files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.07 ft below land surface, between Apr. 2 and July 13, 1984; lowest, 26.83 ft below land surface, Oct. 31, 1963.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 03	13.50	SEP 17	15.09

NJ-WRD WELL NO. 39-0058



GROUND-WATER LEVELS

UNION COUNTY--Continued

NJ-WRD Well Number, 39-0102. Site I.D., 404027074164401. Local I.D., White Lab 3 Obs.

LOCATION.--Lat 40°40'27", long 74°16'44", Hydrologic Unit 02030104, at the Schering facility, about 0.3 mi east of the intersection of Galloping Hill Rd. and the Garden State Parkway, Kenilworth Borough.
Owner: Schering Corporation.

AQUIFER.--Passaic Formation of Triassic-Jurassic age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 8 in., depth 251 ft, open hole 49 to 251 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Sept. 1952 to July 1984.

DATUM.--Land surface is 85.22 ft above sea level.

Measuring point: Top of well shelter shelf, 0.00 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

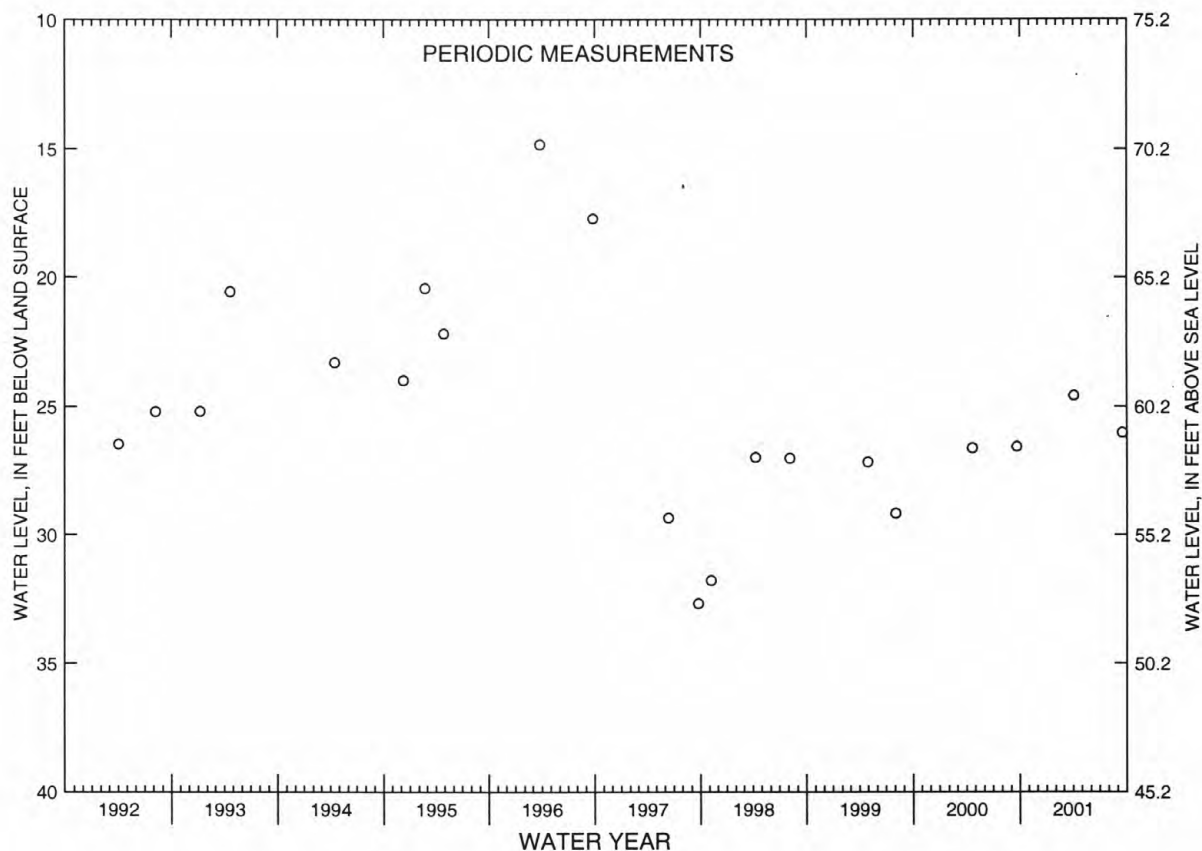
PERIOD OF RECORD.--Sept. 1952 to current year. Records for 1985 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.51 ft below land surface, Apr. 17, 1961; lowest, 32.68 ft below land surface, Sept. 22, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 03	24.57	SEP 17	26.02

NJ-WRD WELL NO. 39-0102



GROUND-WATER LEVELS

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UNION COUNTY--Continued

NJ-WRD Well Number, 39-0115. Site I.D., 404044074162101. Local I.D., White Lab 4 Obs.

LOCATION.--Lat 40°40'43", long 74°16'18", Hydrologic Unit 02030104, at the Schering facility, about 0.3 mi east of the intersection of Galloping Hill Rd. and the Garden State Parkway, Kenilworth Borough.
Owner: Schering Corporation.

AQUIFER.--Passaic Formation of Triassic-Jurassic age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 251 ft, open hole 47 to 251 ft.

INSTRUMENTATION.--None: periodic measurements with chalked steel tape. Water-level recorder, Apr. 1952 to July 1970.

DATUM.--Land surface is 96.20 ft above sea level.

Measuring point: Top of well shelter shelf, 0.40 ft above land surface.

REMARKS.--Water level is affected by nearby pumping.

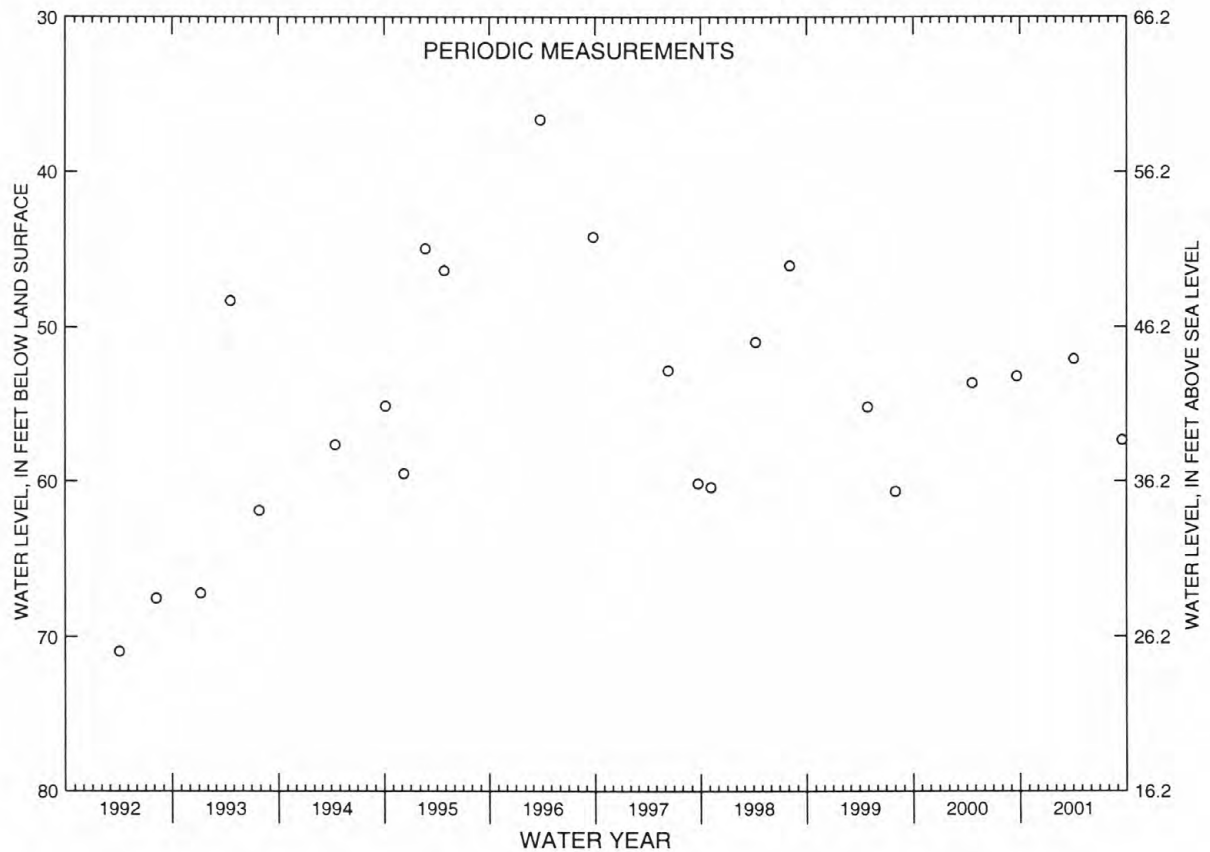
PERIOD OF RECORD.--Apr. 1952 to current year. Records for 1952 to 1989 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 32.96 ft below land surface, Mar. 28, 1960; lowest, 88.25 ft below land surface, Mar. 14, 1977.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 03	52.07	SEP 17	57.32

NJ-WRD WELL NO. 39-0115



GROUND-WATER LEVELS

UNION COUNTY--Continued

NJ-WRD Well Number, 39-0119. Site I.D., 404106074171901. Local I.D., Union County Park Obs.

LOCATION.--Lat 40°41'06", long 74°17'19", Hydrologic Unit 02030104, at Galloping Hill Golf Course, Kenilworth Borough.
Owner: Union County Park Commission.

AQUIFER.--Passaic Formation of Triassic-Jurassic age.

WELL CHARACTERISTICS.--Drilled observation well, depth 290 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch. Periodic measurements, Aug. 1975 to July 1984. Water-level recorder, June 1943 to Aug. 1975.

DATUM.--Land surface is 69.00 ft above sea level.
Measuring point: Top of recorder shelf, 2.30 ft above land surface.

REMARKS.--Water level is affected by nearby pumping of irrigation well.

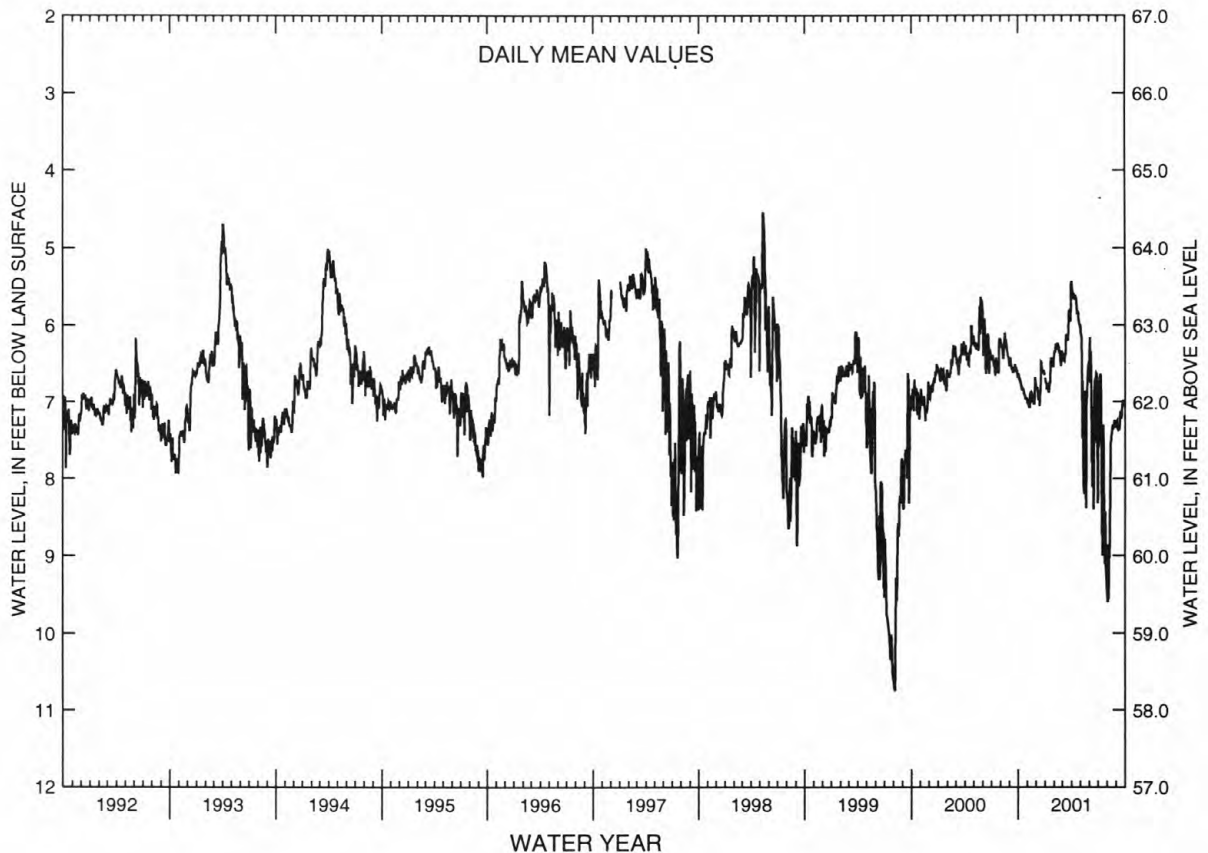
PERIOD OF RECORD.--June 1943 to current year. Records for 1975 to 1983 are unpublished and are available in files of the New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.06 ft below land surface, June 2, 1952; lowest, 16.05 ft below land surface, June 29, 1966.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.71	7.01	6.82	6.76	6.28	6.38	5.59	6.14	6.76	6.91	8.86	7.29
10	6.75	6.90	6.97	6.81	6.23	6.37	5.65	7.20	7.30	6.65	9.03	7.33
15	6.83	6.88	6.88	6.81	6.28	6.14	5.63	7.89	7.81	7.94	7.49	7.18
20	6.89	6.94	6.52	6.48	6.35	6.20	5.85	8.24	6.70	7.30	7.30	7.21
25	6.94	7.02	6.61	6.49	6.45	5.82	5.92	6.82	6.63	9.11	7.30	6.99
EOM	6.98	6.75	6.64	6.35	6.36	5.47	6.00	6.50	8.32	9.40	7.33	7.02
MEAN	6.83	6.93	6.75	6.66	6.34	6.14	5.72	7.04	7.11	8.00	8.01	7.19
WTR YR 2001 MEAN 6.90 HIGH 5.43 APR 1 LOW 9.60 AUG 4												

NJ-WRD WELL NO. 39-0119



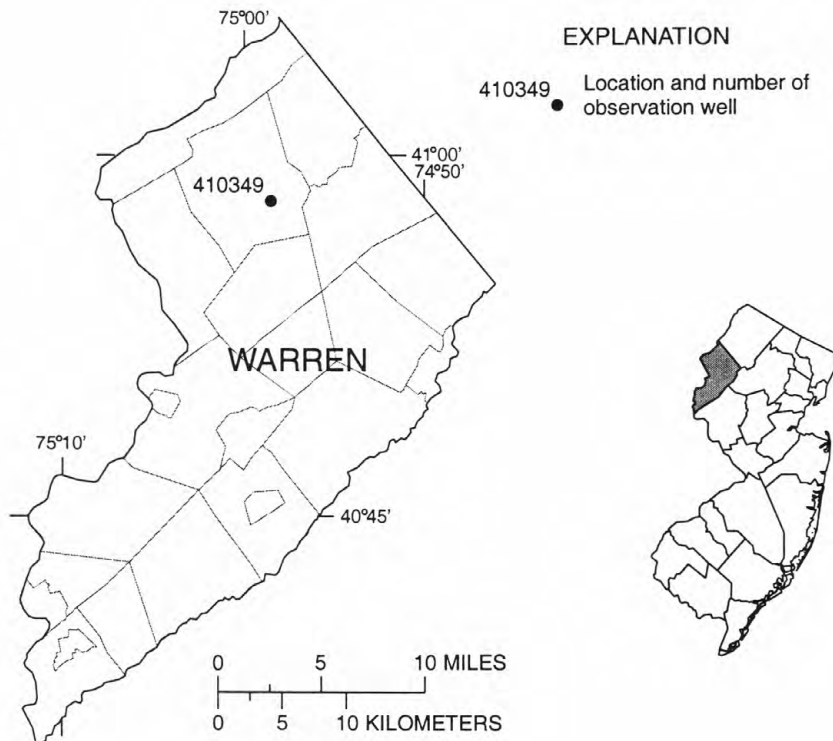
WATER RESOURCES DATA - NEW JERSEY, 2001

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WARREN COUNTY

NJ-WRD well number	Local identifier	Township	Well depth	Aquifer	Type of data
410349	BLAIRSTOWN 1 OBS	BLAIRSTOWN TWP	294	MRBG	DAILY

Aquifer names
MRBG - Martinsburg Shale



GROUND-WATER LEVELS

WARREN COUNTY

NJ-WRD Well Number, 41-0349. Site I.D., 405808074583001. Local I.D., Blairstown 1 Obs.

LOCATION.--Lat 40°58'08", long 74°58'30", Hydrologic Unit 02040105, in the Limestone Ridge and Marsh Preserve, Cedar Lake Rd., Blairstown Township.

Owner: State of New Jersey - DEP.

AQUIFER.--Martinsburg Shale of Ordovician age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 294 ft, open hole 41 to 294 ft.

INSTRUMENTATION.--Water-level recorder--60-minute punch.

DATUM.--Land surface is 460 ft above sea level from topographic map.

Measuring point: Top of recorder shelf, 3.00 ft above land surface.

PERIOD OF RECORD.--July 1999 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.78 ft below land surface, Sept. 16, 1999; lowest, 6.09 ft below land surface, Aug. 7, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.68	5.64	5.58	5.38	5.19	5.04	5.05	5.43	5.32	5.66	5.84	5.92
10	5.69	5.47	5.61	5.46	5.18	5.13	4.90	5.55	5.48	5.68	5.86	5.94
15	5.70	5.53	5.44	5.48	5.18	4.69	5.06	5.60	5.56	5.72	5.84	5.91
20	5.62	5.58	4.89	5.31	5.13	4.74	5.20	5.64	5.56	5.75	5.88	5.92
25	5.65	5.62	5.19	5.37	5.10	4.89	5.31	5.51	5.56	5.79	5.89	5.74
EOM	5.63	5.55	5.29	5.26	4.92	4.60	5.41	5.30	5.66	5.81	5.88	5.87
MEAN	5.66	5.59	5.32	5.40	5.15	4.89	5.12	5.47	5.48	5.72	5.86	5.90
WTR YR 2001 MEAN 5.47 HIGH 4.54 DEC 18 LOW 5.96 SEP 13												

NJ-WRD WELL NO. 41-0349

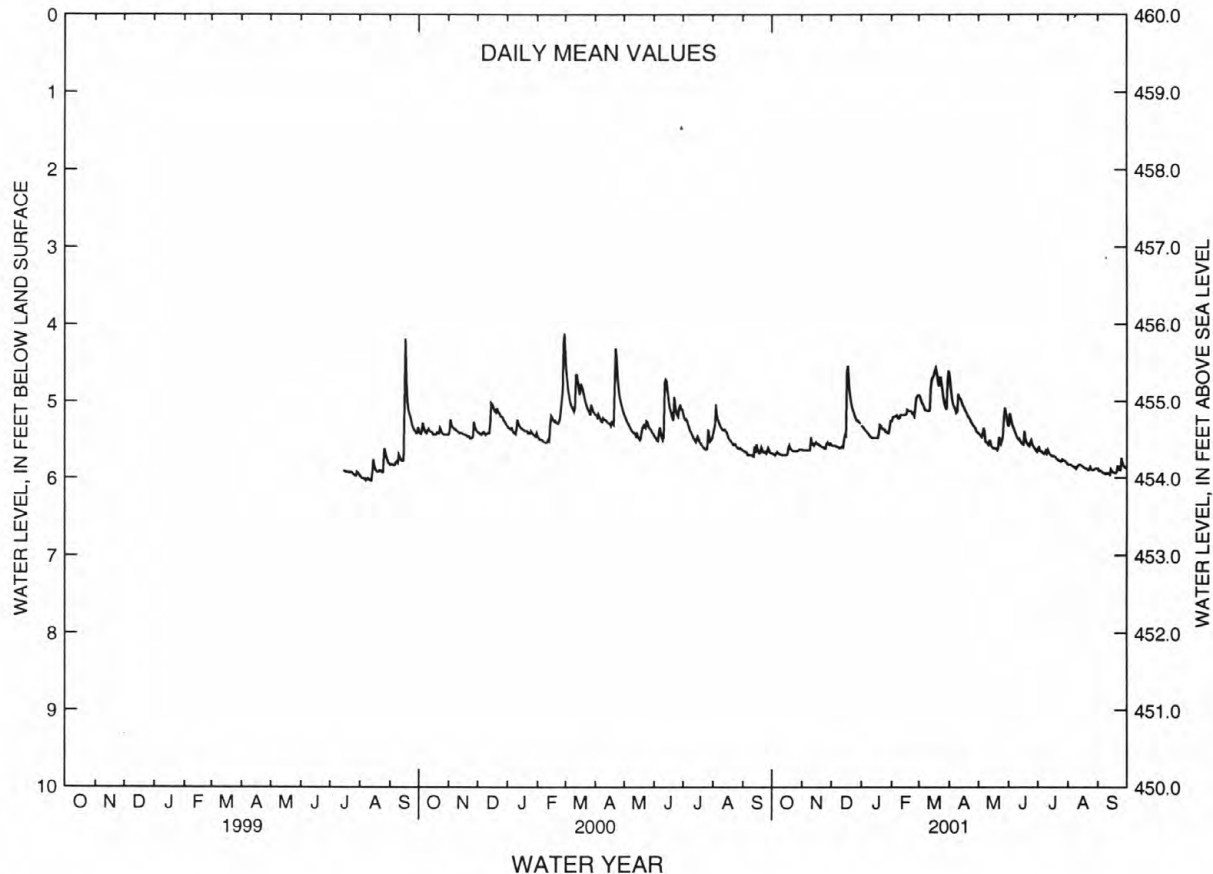


Table 2. Discontinued observation wells for which ground-water-level data are available

[Data available in the files of the New Jersey District Office]

NJ-WRD well number	Site owner	Local identifier	Latitude	Longitude	Period of record	Aquifer unit ¹
01-366	LONGPORT WD	LONGPORT OBS/SEALED	391821	743208	1924-84	122KRKDL
01-387	RALPH RAMBERG - AMATOL	AMATOL 6 OBS	393557	744114	1961-91	121CKKD
01-496	US GEOLOGICAL SURVEY	USGS 4 H 2	394029	743957	1963-86	121CKKD
01-542	US GEOLOGICAL SURVEY	WHARTON 2G	394028	744000	1960-86	121CKKD
01-545	US GEOLOGICAL SURVEY	WHARTON 11	394058	744022	1957-86	121CKKD
01-704	US GEOLOGICAL SURVEY	EGG HARBOR HS	392343	743733	1985-85	122KRKDL
01-706	US GEOLOGICAL SURVEY	STKTN ST COLL	392933	743130	1985-88	122KRKDL
01-710	US GEOLOGICAL SURVEY	ACOW2 OBS	391726	742221	1993-96	122KRKDL
01-711	US GEOLOGICAL SURVEY	ACOW1 OBS	391955	742507	1987-91	122KRKDL
01-713	US GEOLOGICAL SURVEY	MIZPAH DEEP	392902	745051	1985-86	124PNPN
03-286	US GEOLOGICAL SURVEY	WALLINGTON 2 OBS	405053	740604	1989-92	227PSSC
03-287	US GEOLOGICAL SURVEY	WALLINGTON 1 OBS	405106	740557	1989-92	227PSSC
03-288	US GEOLOGICAL SURVEY	WALLINGTON 3 OBS	405107	740609	1989-92	227PSSC
05-029	US GEOLOGICAL SURVEY	OSWEGO LAKE 1	394208	742645	1962-86	121CKKD
05-030	US GEOLOGICAL SURVEY	OSWEGO LAKE 2	394208	742645	1962-86	121CKKD
05-648	WILLINGBORO MUA	WMUA 3-OBS	400103	745409	1966-86	211MRPAL
05-690	US GEOLOGICAL SURVEY	LEBANON SF 2	395211	743103	1964-86	121CKKD
05-836	US GEOLOGICAL SURVEY	QWO-3B	395245	742952	1984-89	121CKKD
05-841	US GEOLOGICAL SURVEY	QWC-3A	395301	742953	1984-87	121CKKD
05-842	US GEOLOGICAL SURVEY	QWC-3B	395301	742953	1985-88	121CKKD
05-851	US GEOLOGICAL SURVEY	QWH-3B	395217	742937	1985-88	121CKKD
07-030	SO JRSY PORT CM	NY SHIP 5A/SEALED	395447	750711	1950-86	211MRPAU
07-201	AMSPEC CHEMICAL	AMSPEC 1/SEALED	395318	750755	1984-88	211MRPAL
07-204	AMSPEC CHEMICAL	AMSPEC 4/SEALED	395322	750757	1984-88	211MRPAL
07-221	US GEOLOGICAL SURVEY	COAST GUARD 1	395356	750738	1983-88	211MRPAL
07-322	NJ/AMERICAN WATER CO	OAKLYN TEST	395359	750445	1963-86	211MRPAU
07-354	GENERAL FOODS	PETTY IS OBS/SEALED	395811	750556	1950-92	211MRPAL
07-485	WINSLOW WC	OBS 2-1971	394235	745728	1972-79	121CKKD
07-493	WINSLOW WC	OBS 3-1971	394311	745707	1972-79	121CKKD
07-498	WINSLOW WC	OBS 4-1971	394332	750003	1972-79	121CKKD
07-573	US GEOLOGICAL SURVEY	COAST GUARD 2	395355	750738	1983-88	211MRPAU
07-574	US GEOLOGICAL SURVEY	COAST GUARD 3	395355	750738	1984-88	111HPPM
09-011	CAPE MAY CITY WD	CMCWD 1 OBS	385612	745457	1967-86	121CNSY
09-071	WILDWOOD WATER DEPARTMENT	RIO GRANDE 23 OBS	390138	745348	1990-92	122KRKDU
09-079	HALLER, LEE	NUMMY ISLAND 2 OBS	390210	744730	1990-92	122KRKDL
09-095	US GEOLOGICAL SURVEY	BDWLL DCH 30ES	390527	745028	1972-75	112ESRNS
09-097	US GEOLOGICAL SURVEY	BDWLL DCH 31ES	390527	745024	1968-84	112ESRNS
09-098	US GEOLOGICAL SURVEY	BDWLL DCH 31HB	390527	745024	1968-84	112HLBC
09-185	US GEOLOGICAL SURVEY	MACNAMARA W A	391621	744355	1985-86	122KRKDL
09-292	US GEOLOGICAL SURVEY	WETLANDS 1 OBS	390337	744623	1988-92	121CNSY
09-293	US GEOLOGICAL SURVEY	WETLANDS 2 OBS	390337	744623	1988-92	112ESRNS
09-294	US GEOLOGICAL SURVEY	WETLANDS 3 OBS	390337	744623	1988-92	112ESRNS
09-295	US GEOLOGICAL SURVEY	WETLANDS 4 OBS	390337	744623	1988-92	112HLBC
09-304	US GEOLOGICAL SURVEY	AIRPORT RIO GRANDE OBS	390002	745410	1990-92	122KRKDU
11-141	MILLVILLE WD	ORANGE ST	392219	750113	1962-86	121CKKD
11-161	CUMBERLAND COUNTY	FAIR GROUNDS 1	392526	750643	1972-86	121CKKD
11-162	CUMBERLAND COUNTY	FAIR GROUNDS 2	392526	750643	1972-86	121CKKD
11-188	CUMBERLAND COUNTY	BOSTWICK LK 1	393141	751601	1972-86	121CKKD
11-692	US GEOLOGICAL SURVEY	RUTGERS R&D 1 SHALLOW OBS	393104	751222	1991-92	121CKKD
11-693	US GEOLOGICAL SURVEY	RUTGERS R&D 2 MED OBS	393104	751222	1991-92	121CKKD
11-694	US GEOLOGICAL SURVEY	RUTGERS R&D 3 DEEP OBS	393104	751222	1991-92	121CKKD
13-017	WALSH BROS INC	BALLENTINE 8 OBS	404401	740834	1949-93	227PSSC
13-094	STATE OF NJ - NJGS	EAST ORANGE 28 OBS	404455	742032	1991-98	227TOWC
15-097	HERCULES CHEMICAL	GIBBSTOWN TH 8/TW8 (NEW)	395000	751636	1953-89	211MRPAM
15-139	PURELAND WATER CO	TEST WELL 3	394608	752135	1985-86	211MRPAL

Table 2. Discontinued observation wells for which ground-water-level data are available (Continued)

[Data available in the files of the New Jersey District Office]

NJ-WRD well number	Site owner	Local identifier	Latitude	Longitude	Period of record	Aquifer unit ¹
15-140	PURELAND WATER CO	TEST WELL 4	394608	752135	1985-86	211MRPAM
15-279	HUNTSMAN POLYPROPYLENE CORP	SHELL OBS 7	394857	751250	1962-86	211MRPAM
15-296	HUNTSMAN POLYPROPYLENE CORP	SHELL 5 OBS/SEALED	394942	751317	1962-96	211MRPAL
15-297	HUNTSMAN POLYPROPYLENE CORP	SHELL 6 OBS/SEALED	394942	751317	1962-96	211MRPAU
15-323	COASTAL EAGLEPOINT OIL COMPANY	EAGLE POINT 3 OBS	395235	750950	1949-2000	211MRPAL
15-379	MANTUA TWP MUA	EWC 6/MANTUA OBS/SEALED	394601	751005	1988	211MRPAU
15-540	US EPA	EPA 108	394800	751936	1985-88	211MRPAM
15-564	US EPA-GAVENTA	S-9	394802	751933	1985-88	211MRPAU
15-615	US GEOLOGICAL SURVEY	SHIVELER LOWER	394637	751916	1985-88	211MRPAL
15-616	US GEOLOGICAL SURVEY	SHIVELER MIDDLE	394637	751916	1985-88	211MRPAM
15-617	US GEOLOGICAL SURVEY	SHIVELER UPPER	394637	751916	1985-88	211MRPAU
15-618	US GEOLOGICAL SURVEY	GAVENTA DEEP	394804	751933	1985-88	211MRPAL
15-620	US GEOLOGICAL SURVEY	GAVENTA MIDDLE 1	394804	751933	1985-88	211MRPAM
15-770	US GEOLOGICAL SURVEY	NATIONAL PARK #1-PW-L	395202	751115	1987-88	211MRPAL
15-771	US GEOLOGICAL SURVEY	NATIONAL PARK #2-PW-M	395202	751115	1987-88	211MRPAM
15-1052	US GEOLOGICAL SURVEY	USGS WTMUA OBS-2 MED	394314	750145	1991-92	121CKKD
15-1053	US GEOLOGICAL SURVEY	USGS WTMUA OBS-3 DEEP	394314	750145	1991-92	121CKKD
15-1055	US GEOLOGICAL SURVEY	USGS GSC OBS-2 MED	394221	750722	1991-92	121CKKD
15-1056	US GEOLOGICAL SURVEY	USGS GSC OBS-3 DEEP	394221	750722	1991-92	121CKKD
15-1058	US GEOLOGICAL SURVEY	USGS TPE OBS-2 MED-DEEP	394242	750330	1991-92	121CKKD
15-1059	US GEOLOGICAL SURVEY	USGS TPE OBS-3 DEEP	394242	750330	1991-92	121CKKD
15-1063	US GEOLOGICAL SURVEY	USGS TPE OBS-4 MED-SHAL	394242	750330	1991-92	121CKKD
19-249	US GEOLOGICAL SURVEY	HUNTER RD TB 3 OBS	402141	745358	1989-92	227PSSC
19-250	US GEOLOGICAL SURVEY	W AMWELL FIRE TB 2 OBS	402146	745351	1989-92	227PSSC
21-358	US GEOLOGICAL SURVEY	PRINCETON 1-BRICK RD OBS	402023	743919	1989-90	231SCKN
21-359	US GEOLOGICAL SURVEY	PRINCETON 2-CHILL PL OBS	402032	743925	1989-92	231SCKN
21-395	WEST WINDSOR TOWNSHIP	WW MW-2 OBS	401806	743533	1993-94	211FRNG
23-159	DUHERNAL WC	DUHERNAL OBS 5	402353	742152	1939-86	211ODBG
23-180	DUHERNAL WC	DUHERNAL OBS 1	402438	742129	1938-86	211ODBG
23-181	PERTH AMBOY WD	RUNYON 123	402442	742136	1955-86	211ODBG
23-182	BOWNE, CLYDE	BROWNTOWN	402449	741819	1932-87	211ODBG
23-189	PERTH AMBOY WD	RUNYON R50	402525	741954	1972-75	211ODBG
23-265	CHEVRON OIL CO	11	403211	741612	1950-86	211FRNG
23-270	AMERICAN CYANAMID CO	TEST 2	403231	741616	1950-86	211FRNG
23-306	PHELPS DODGE CO	PHELPS DODGE 3	402147	742847	1969-87	211FRNG
23-343	STATE OF NJ - NJ WATER POLICY	SUN BISCUIT 5/SEALED	402553	742033	1972-75	211ODBG
23-404	SAYREVILLE WD	MORGAN OBS 1	402745	741645	1973-80	211FRNG
23-433	STATE OF NJ - NJ WATER POLICY	SO RIVER 4	402555	742133	1968-86	211ODBG
23-516	NOVAK	HULSART/SEALED	402123	741849	1936-84	211EGLS
23-796	PRINCETON UNIVERSITY	TEST WELL 5 OBS	402058	743559	1986-92	231SCKN
23-800	PRINCETON UNIVERSITY	TEST WELL 9 OBS	402058	743559	1986-92	231SCKN
23-1056	MIDDLESEX CO. UTIL. AUTHORITY	MONITORING #3	402743	742216	1987	211FRNG
23-1058	US GEOLOGICAL SURVEY	HESS BROS #1	402704	742139	1987-88	211FRNG
23-1077	US GEOLOGICAL SURVEY	JCP&L-SAY	402831	742120	1987-88	211FRNG
25-216	MANALAPAN TWP WD	MANALAPAN 1	401518	742230	1971-84	211EGLS
25-350	NJ/AMERICAN WATER CO	WHITESVILLE 2/SEALED	401323	740156	1973-75	211ODBG
25-716	HERBERT SAND COMPANY	HERBERT SAND MW-3 OBS	401044	741418	1992-93	121CKKD
25-717	US GEOLOGICAL SURVEY	TURKEY SWAMP 1 OBS	401046	742002	1992-93	125VNCN
27-014	US GEOLOGICAL SURVEY	EXXON OBS	404705	742452	1967-99	112SFDF
27-015	MORRISTOWN AIRPORT	MORRISTOWN ARPT. 2 OBS	404743	742522	1960-75, 77-97	112SFDF
27-022	INTERNATIONAL PIPE & CERAMIC CORP	INT PIPE OBS	405209	742638	1963-95	112SFDF
27-095	US ARMY - PICATINNY ARSENAL	PICATINNY 9C OBS	405628	743418	1987-93	112SFDF
27-150	US GEOLOGICAL SURVEY	GREAT SWAMP 4 OBS	404349	742516	1989-90	112SFDF
27-152	US GEOLOGICAL SURVEY	NILES PARK 1 OBS	404450	742459	1990-91	112SFDF
27-242	US ARMY - PICATINNY ARSENAL	PICATINNY CAF 1 OBS	405623	743413	1983-84, 87-93	377HRDS

Table 2. Discontinued observation wells for which ground-water-level data are available (Continued)

[Data available in the files of the New Jersey District Office]

NJ-WRD well number	Site owner	Local identifier	Latitude	Longitude	Period of record	Aquifer unit ¹
27-245	US ARMY - PICATINNY ARSENAL	PICATINNY CAF 4 OBS	405623	743413	1983-84,87-93	112SFDF
27-250	US ARMY - PICATINNY ARSENAL	PICATINNY LF 1 OBS	405509	743504	1983-84,89-91	374LSVL
27-251	US ARMY - PICATINNY ARSENAL	PICATINNY LF 2 OBS	405509	743504	1983-91	112SFDF
27-304	US ARMY - PICATINNY ARSENAL	PICATINNY CAF 5 OBS	405629	743409	1984,87-93	112SFDF
27-321	ROCKAWAY RIVER C C	GEONICS 2	405344	742740	1985-90	112SFDF
27-322	DOVER TOWN WD	DTWD TW 2	405314	743250	1985-89	112SFDF
27-323	MOUNTAIN LAKES WD	CRANE RD (GEONICS 1)	405253	742708	1985-89,1997-98	112SFDF
27-324	ST CLAIRE'S HOSPITAL	POCONO RD (GEONICS 2)	405334	742828	1985-89,1997-98	112SFDF
27-325	BOONTON TOWNSHIP WD	VALLEY RD (GEONICS 3)	405542	742617	1985-89	400PCMB
27-709	KEUFFEL & ESSER CO	KEUFFEL 2	405441	742948	1985-89	112SFDF
27-1083	MORRIS COUNTY MUA	MCMUA TEST WELL 1 OBS	405005	744101	1988-90	374LSVL
27-1084	MORRIS COUNTY MUA	MCMUA TEST WELL 2 OBS	404954	744122	1988-90	374LSVL
27-1085	WASHINGTON TWP MUA	WASHINGTON TWP TW OBS	404705	744638	1988-91	374LSVL
27-1110	ST ELIZABETH SISTERS OF CHARITY	CONVENT 2	404709	742544	1988-89	227BNTN
27-1111	ST ELIZABETH SISTERS OF CHARITY	CONVENT 3	404709	742544	1988-89	112SFDF
27-1123	US GEOLOGICAL SURVEY	KENVIL NEWCRETE 1 OBS	405330	743638	1989-91	374LSVL
27-1124	US GEOLOGICAL SURVEY	KENVIL NEWCRETE 2 OBS	405330	743638	1989-90	112SFDF
27-1125	US GEOLOGICAL SURVEY	BLACK RIVER 3 OBS	404934	743859	1989-91	374LSVL
27-1126	US GEOLOGICAL SURVEY	BLACK RIVER 4 OBS	404809	744155	1989-91	374LSVL
27-1127	US ARMY - PICATINNY ARSENAL	PICATINNY SB1-1 OBS	405458	743455	1989-91	400PCMB
27-1128	US ARMY - PICATINNY ARSENAL	PICATINNY SB1-2 OBS	405458	743455	1989-91	112SFDF
27-1129	US ARMY - PICATINNY ARSENAL	PICATINNY SB1-3 OBS	405458	743455	1989-91	112SFDF
27-1130	US ARMY - PICATINNY ARSENAL	PICATINNY SB2-1 OBS	405509	743509	1989-91	112SFDF
27-1131	US ARMY - PICATINNY ARSENAL	PICATINNY SB2-2 OBS	405509	743509	1989-91	112SFDF
27-1132	US ARMY - PICATINNY ARSENAL	PICATINNY SB3-1 OBS	405517	743515	1989-91	374LSVL
27-1133	US ARMY - PICATINNY ARSENAL	PICATINNY SB2-3 OBS	405509	743509	1989-91	374LSVL
27-1134	US ARMY - PICATINNY ARSENAL	PICATINNY SB3-2 OBS	405517	743515	1989-91	112SFDF
27-1135	US ARMY - PICATINNY ARSENAL	PICATINNY SB3-3 OBS	405517	743515	1989-91	112SFDF
27-1164	US GEOLOGICAL SURVEY	BLACK RIVER 5 OBS	404809	744155	1989-91	112SFDF
27-1183	US GEOLOGICAL SURVEY	KENVIL NEWCRETE 7 OBS	405330	743638	1989-90	112SFDF
27-1197	STATE OF NJ - GEOLOGICAL SURVEY	MADISON 8 OBS	404513	743454	1991-96	112SFDF
27-1302	STATE OF NJ - GEOLOGICAL SURVEY	JENKINSON FARM 1 OBS	404452	744931	1989-91	374LSVL
27-1303	STATE OF NJ - GEOLOGICAL SURVEY	DREW UNIVERSITY FARM OBS	404712	744547	1990-2000	374LSVL
27-1866	DOVER WATER COMMISSION	MOOSE LODGE 1S OBS	405308	743232	1997-98	112SFDF
27-1867	STATE OF NJ - DEP	ROC MW 18-S OBS	405434	743011	1997-98	112SFDF
29-486	WHITING BIBLE CHURCH	CRAMMER OBS	395714	742234	1952-90	121CKKD
29-532	PT PLEASANT WD	PPWD 3	400459	740359	1986-88	211EGLS
29-624	NJ/AMERICAN WATER CO	OCEAN CO DEEP	394755	741509	1975-76	121CKKD
29-625	NJ/AMERICAN WATER CO	OCEAN CO SHALL	394755	741509	1975-76	111ALVM
29-1056	DENZER AND SCHAFER	D AND S-18D OBS	395433	741014	1992-93	121CKKD
31-011	WANAQUE WD	HASKELL OBS	410209	741708	1965-82	112SFDF
33-002	CUMBERLAND COUNTY	BOSTWICK NO 3	393202	751630	1973-87	211MLRW
33-279	DARETOWN FIRE CO	GARRISON	393622	751531	1959-86	211MLRW
33-342	STATE OF NJ	PENNS GROVE 24	394236	752724	1942-87	211MRPAU
33-680	US GEOLOGICAL SURVEY	USGS COLES FARM OBS-1	393849	751328	1991-92	121CKKD
33-681	US GEOLOGICAL SURVEY	USGS COLES FARM OBS-2	393849	751328	1991-92	121CKKD
39-133	HATFIELD WIRE	HATFIELD OBS	403726	741623	1959-87	227BRCKS
41-013	HOFFMAN-LAROCHE	HOF LAR 4	405050	750332	1960-85	112SFDF

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
Length		
inch (in.)	2.54×10^1	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^0	kilometer
Area		
acre	4.047×10^3	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi ²)	2.590×10^0	square kilometer
Volume		
gallon (gal)	3.785×10^0	liter
	3.785×10^0	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^3	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft ³)	2.832×10^1	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft ³ /s) d]	2.447×10^3	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^3	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
Flow		
cubic foot per second (ft ³ /s)	2.832×10^1	liter per second
	2.832×10^1	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^1	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
Mass		
ton (short)	9.072×10^{-1}	megagram or metric ton

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.



U.S. DEPARTMENT OF THE INTERIOR
U.S. Geological Survey
810 Bear Tavern Road, Suite 206
West Trenton, NJ 08628-1099

