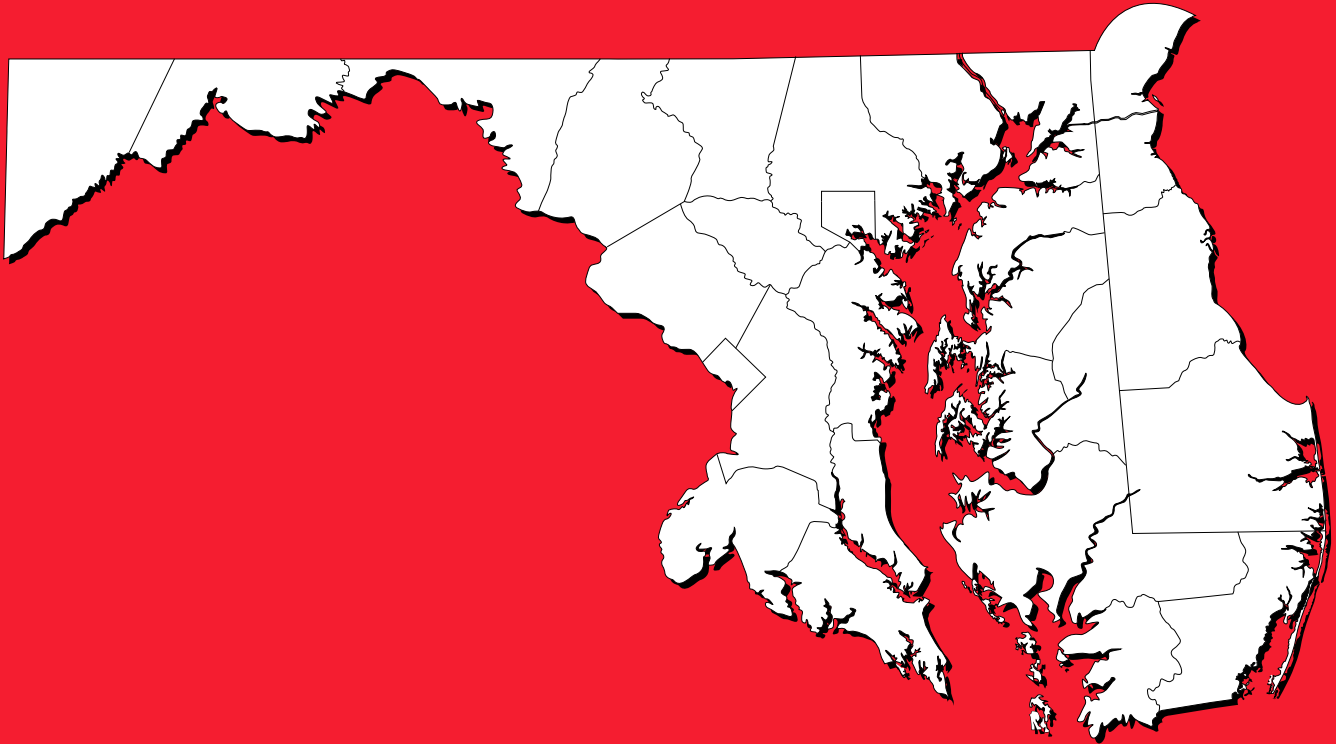


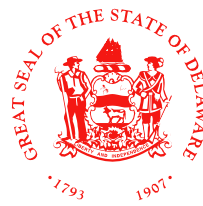
# Water Resources Data Maryland, Delaware, and Washington, D.C. Water Year 2002

## Volume 2. Ground-Water Data

Water-Data Report MD-DE-DC-02-2



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



Prepared in cooperation with the  
States of Maryland and Delaware,  
Washington, D.C. and with other agencies

# CALENDAR FOR WATER YEAR 2002

## 2001

---

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					1	2	3							1
7	8	9	10	11	12	13	4	5	6	7	8	9	10	2	3	4	5	6	7	8
14	15	16	17	18	19	20	11	12	13	14	15	16	17	9	10	11	12	13	14	15
21	22	23	24	25	26	27	18	19	20	21	22	23	24	16	17	18	19	20	21	22
28	29	30	31				25	26	27	28	29	30		23	24	25	26	27	28	29
														30	31					

---

## 2002

---

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						1	2						1	2
6	7	8	9	10	11	12	3	4	5	6	7	8	9	3	4	5	6	7	8	9
13	14	15	16	17	18	19	10	11	12	13	14	15	16	10	11	12	13	14	15	16
20	21	22	23	24	25	26	17	18	19	20	21	22	23	17	18	19	20	21	22	23
27	28	29	30	31			24	25	26	27	28			24	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				1	2	3	4							1
7	8	9	10	11	12	13	5	6	7	8	9	10	11	2	3	4	5	6	7	8
14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15
21	22	23	24	25	26	27	19	20	21	22	23	24	25	16	17	18	19	20	21	22
28	29	30					26	27	28	29	30	31		23	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					1	2	3	1	2	3	4	5	6	7
7	8	9	10	11	12	13	4	5	6	7	8	9	10	8	9	10	11	12	13	14
14	15	16	17	18	19	20	11	12	13	14	15	16	17	15	16	17	18	19	20	21
21	22	23	24	25	26	27	18	19	20	21	22	23	24	22	23	24	25	26	27	28
28	29	30	31				25	26	27	28	29	30	31	29	30					

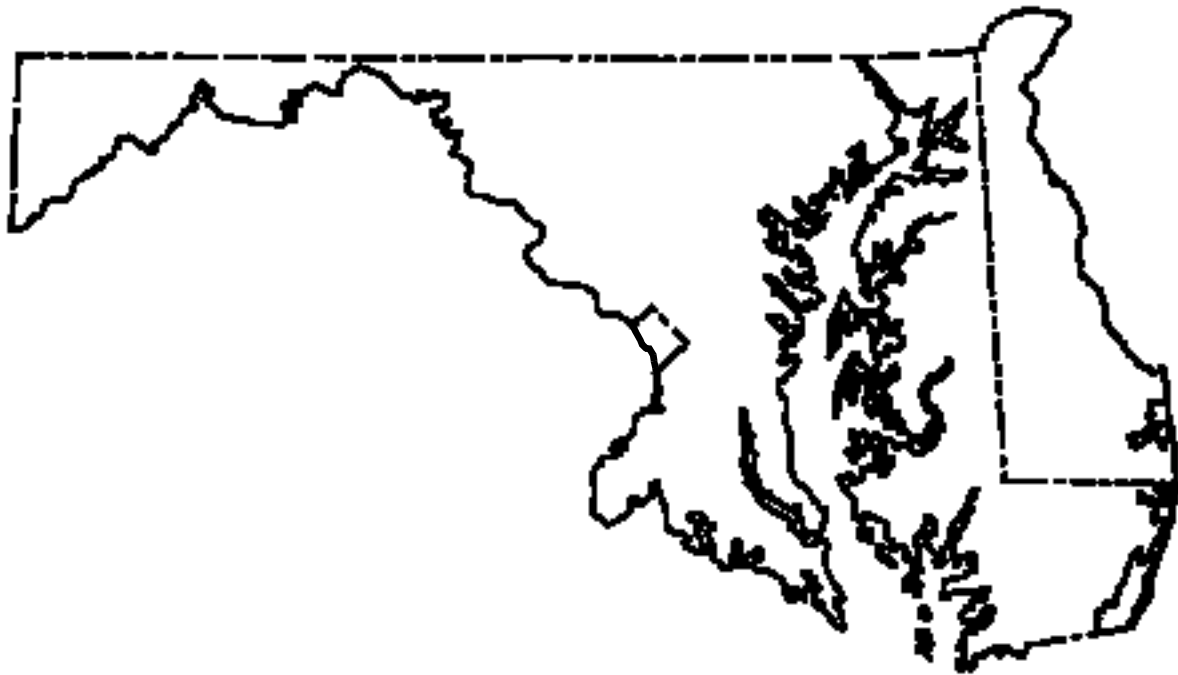
U.S. Department of the Interior  
U.S. Geological Survey

# Water Resources Data Maryland, Delaware, and Washington, D.C. Water Year 2002

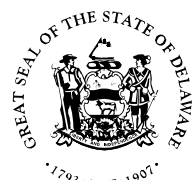
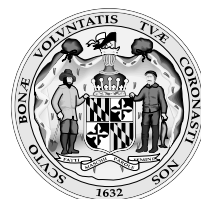
## Volume 2. Ground-Water Data

By Michael J. Smigaj, Richard W. Saffer, and Robert H. Pentz

Water-Data Report MD-DE-DC-02-2



Prepared in cooperation with  
the States of Maryland, Delaware, Washington, D.C.  
and with other agencies



**UNITED STATES DEPARTMENT OF THE INTERIOR**

**GALE A. NORTON, Secretary**

**U.S. GEOLOGICAL SURVEY**

**Charles G. Groat, Director**

**Robert M. Hirsch, Chief Hydrologist**

\*\*\*\*\*  
\* This report is dedicated to Roland E. Bounds and Barbara F. Cooper \*  
\* \* \* \* \*  
\* In Memory of Roland E. Bounds (1953-2002) \*  
\* A ground-water colleague with the Delaware Geological Survey (1980-2002) \*  
\* who worked on numerous cooperative projects with the U.S. Geological Survey. \*  
\* As a licensed driller, Roland installed many test and monitoring wells that \*  
\* will be of geologic and hydrologic importance for years to come. \*  
\* He also collected ground-water levels for the Delaware Ground-Water-Level \*  
\* Monitoring Network, which are published in this series of U.S. Geological \*  
\* Survey Water Data reports. Roland's exuberant personality will be an \*  
\* inspiration to those who had the pleasure to know and work with him. \*  
\* \* \* \* \*  
\* In Memory of Barbara F. Cooper (1963-2003) \*  
\* A ground-water colleague with the Maryland Geological Survey (1992-2003) \*  
\* who collected ground-water data for the Kent Island Ground-Water Monitoring \*  
\* Network, the Glen Burnie Water-Level Monitoring Network, and portions of the \*  
\* Maryland Water-Level Monitoring Network. Barbara also collected ground- \*  
\* water data for other cooperative studies and Maryland Geological Survey \*  
\* ground-water investigations. Barbara was always willing to assist in any \*  
\* way possible, and had an enthusiastic and cheerful demeanor. Barb will be \*  
\* especially missed by those who worked with her. \*  
\* \* \* \* \*  
\*\*\*\*\*

For additional information, write to  
District Chief, Water Resources Division  
U.S. Geological Survey  
8987 Yellow Brick Road  
Baltimore, Maryland 21237



## PREFACE

This volume of the annual hydrologic data report for Maryland, Delaware, and Washington, D.C. 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 quality of water 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 Maryland, Delaware, and Washington, D.C. are contained in two volumes:

### *Volume 1. Surface-Water Data*

### *Volume 2. Ground-Water Data*

This report (Volume 2) is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey, Maryland Geological Survey, and Delaware Geological Survey, who collected, compiled, analyzed, and verified, the data for this report. In addition to the authors, who 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 to the collection, and data processing on the GWSI, ADAPS, and QWDATA data bases are listed below by office, and project.

#### Maryland Observation Well Monitoring Networks -- Michael J. Smigaj, Project Chief

##### *Baltimore Office*

Anita L. Anderson and Jonathan J.A. Dillow      Maryland Water-Level Monitoring Network  
Elizabeth H. Marchand and Lillian B. Maclin      Water Quality Data Base Manager (QWDATA)

##### *LaVale Field Office*

Jeffrey L. Griffith      Hydrologic Effects of Mining, Phase III, Water-Level Monitoring Network  
Charles J. Strain      Maryland Water-Level Monitoring Network

##### *Dover sub-District Office*

Anthony J. Tallman      Delaware Ground-Water-Level Monitoring Network  
Frank A. Danner, III      Maryland Ground-Water-Level Monitoring Network  
Allan J. Ruddy      Ocean City Ground-Water Monitoring Network

##### *Maryland Geological Survey*

##### *Baltimore Office*

Harry J. Hansen, Chief, Hydrogeology and Hydrology Program  
Barbara F. Cooper      Anne Arundel County and Maryland Ground-Water-Level Monitoring, and  
Kent Island Ground-Water Monitoring Networks  
David W. Bolton      Maryland Ground-Water Quality Networks  
*Annapolis Office*  
David C. Andreasen      Anne Arundel County Ground-Water-Level Monitoring Network  
T. Brandon Fewster      Charles County Water-Level Monitoring Network

##### *Delaware Geological Survey*

##### *Newark Office*

John H. Talley, Associate Director  
Roland E. Bounds      Delaware Ground-Water-Level Monitoring Network

#### Other U.S. Geological Survey Ground-Water Projects

##### *Annapolis Field Office*

##### *Baltimore Office*

Southern Maryland Power Plant Project      Naval Air Station Patuxent River Ground-Water Hydrogeology Project  
Stephen E. Curtin      Cheryl A. Klohe      Stephen E. Curtin

##### Mine Bank Run Riparian Restoration Study

Edward J. Doheny      Roger J. Starsoneck

##### *Dover sub-District Office*

Dover Air Force Base Long-term Monitoring Project      Redden State Forest Wetlands Project  
William Guertal      William Stearns      Joseph E. Beman

##### Potomac-Delmarva Peninsula NAWQA Study Unit

##### Judith M. Denver

Matthew J. Ferrari      Deborah A. Bringman

Douglas J. Yeskis, Earl A. Greene, and Valerie M. Gainé provided technical and editorial reviews for the Introduction section of this report. Andrew E. LaMotte produced figures 5 through 7, using a Geographic Information System mapping program. Robert W. James Jr., Chief, Surface Water Analysis Section, provided invaluable assistance and editing support for this volume. William S. Banks assisted with checking the data as part of the quality control and quality assurance process, by editing the well and water-level data.

This report was prepared under the general supervision of James M. Gerhart, District, Chief, MD-DE-DC District, Cathrine A. Hill, Northeastern Regional Hydrologist, and in cooperation with the States of Maryland and Delaware, Washington, D.C. and with other Federal, State, and local agencies.

# REPORT DOCUMENTATION PAGE

Form Approved  
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE July 2003	3. REPORT TYPE AND DATES COVERED Annual - Oct. 1, 2001 to Sept. 30, 2002	
4. TITLE AND SUBTITLE Water Resources Data - Maryland, Delaware, and Washington, D.C. Water Year 2002 Volume 2. Ground-Water Data			5. FUNDING NUMBERS	
6. AUTHOR(S) Michael J. Smigaj, Richard W. Saffer, and Robert H. Pentz				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Geological Survey, Water Resources Division 8987 Yellow Brick Road Baltimore, MD 21237			8. PERFORMING ORGANIZATION REPORT NUMBER USGS-WDR-MD-DE-DC-02-2	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Geological Survey, Water Resources Division 8987 Yellow Brick Road Baltimore, MD 21237			10. SPONSORING / MONITORING AGENCY REPORT NUMBER USGS-WDR-MD-DE-DC-02-2	
11. SUPPLEMENTARY NOTES Prepared in cooperation with the states of Maryland, Delaware, Washington, D.C. and with other agencies.				
12a. DISTRIBUTION / AVAILABILITY STATEMENT  No restriction on distribution. This report may be purchased from the National Technical Information Service, Springfield, VA 22161			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) Water resources data for the 2002 water year for Maryland, Delaware, and Washington, D.C. consist of records of water levels and water quality of ground-water wells. This report (Volume 2. Ground-Water Data) contains water levels at 379 observation wells, discharge records for 4 springs, and water quality at 122 wells. Locations of ground-water level wells are shown on figures 5 and 6. Locations of ground-water-quality sites are shown on figure 7. The data in this report represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Maryland, Delaware, and Washington, D.C.				
14. SUBJECT TERMS *Maryland, *Delaware, *Washington, D.C., *District of Columbia, *Hydrologic data, *Ground water, *Water quality, Water levels, Water analyses, Chemical analyses, Water temperatures, Sampling sites.			15. NUMBER OF PAGES 573	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT Unclassified	

CONTENTS

---

	Page
Preface.....	iii
List of ground-water wells, and springs by county or independent city, for which records.. of ground-water levels published in this volume.....	vi
List of ground-water wells, and springs by county or independent city, for which records.. of ground-water quality published in this volume.....	xii
Introduction.....	1
Cooperation.....	1
Summary of Ground-Water hydrologic conditions.....	2
Ground-Water Levels and Spring Discharge.....	2
Water Quality -- Salt-Water Intrusion Monitoring Projects.....	4
Special Networks and Programs.....	6
National Water-Quality Assessment (NAWQA) Program.....	6
NAWQA study programs in the MD-DE-DC , district.....	6
The Potomac-Delmarva Peninsula study unit (PODL).....	6
Explanation of the records.....	6
Station identification numbers.....	6
Latitude-longitude system.....	8
Well numbering system.....	8
Records of ground-water levels.....	10
Data collection and computation.....	10
Data presentation.....	10
Spring discharge tables.....	10
Water-level tables.....	10
Hydrographs.....	11
Records of ground-water quality.....	11
Data collection and computation.....	11
Data presentation.....	11
Remarks codes.....	12
Water-quality control data.....	12
Blank Samples.....	12
Reference Samples.....	12
Replicate Samples.....	13
Spike Samples.....	13
Access to USGS data.....	13
Definition of terms.....	14
Publications on Techniques of Water-Resources Investigations.....	20
Selected U.S. Geological Survey Reports on ground-water resources in Maryland, Delaware,.. and Washington, D.C. ....	24
Water Resources Investigations Reports.....	24
Water Data Reports.....	24
Open-File Reports.....	24
Selected Delaware Geological Survey Reports on ground-water resources in Delaware.....	25
Report of Investigations.....	25
Selected Maryland Geological Survey Reports on ground-water resources in Maryland.....	25
Report of Investigations.....	25
Station records, ground water.....	26
Ground-water spring discharge.....	32
Ground-water levels.....	36
Ground-water quality records.....	482
Remarks codes.....	482
Dissolved trace-elements concentrations.....	482
Change in national trends network procedures.....	482
Quality of ground water.....	483
Index.....	571

ILLUSTRATIONS

---

Figure 1. Monthly ground-water levels at key observation wells.....	3
2. Ground-water levels in selected observation wells in confined Coastal Plain aquifers in Maryland.....	5
3. Ground-water levels for Collection of Basic Records (CBR) network wells in Maryland and Delaware.....	7
4. System for numbering wells and miscellaneous sites (latitude and longitude)....	8
5. Well numbering systems used in Maryland, Delaware, and the District of Columbia	9
6. Map of Maryland, Delaware, and Washington, D.C. showing location of ground-water network observation wells and springs.....	26-27
7. Map of Maryland, Delaware, and Washington, D.C. showing location of ground-water project observation wells and springs.....	28-29
8. Map of Maryland, Delaware, and Washington, D.C. showing location of ground-water-quality project sample wells and springs.....	30-31

GROUND-WATER SPRING DISCHARGE		Page
<b>MARYLAND:</b>		
<u>CECIL COUNTY</u>		
Spring 393459076045001	Local number CE Cc 40	32
<u>FREDRICK COUNTY</u>		
Spring 392552077262201	Local number FR Dd 178	33
Spring 391846077370501	Local number FR Fb 12	34
<u>WASHINGTON COUNTY</u>		
Spring 392836077442701	Local number WA Di 103	35

## GROUND-WATER LEVELS

**DELAWARE:**KENT COUNTY

Well 390607075331501	Local number Jd42-03	36
Well 390224075391601	Local number Kc31-01	37
Well 385041075395601	Local number Mc51-01	38
Well 385041075395601	Local number Mc51-01a	39-40
Well 385310075331301	Local number Md22-01	41
Well 390733075264801	Local number DM102F	42-43
Well 390723075270901	Local number DM103D	44
Well 390734075271402	Local number DM106D	45-46
Well 390734075271401	Local number DM106S	47-48
Well 390801075272302	Local number DM108D	49
Well 390801075272301	Local number DM108S	50
Well 390744075270402	Local number DM110D	51
Well 390744075270401	Local number DM110S	52
Well 390833075273601	Local number DM202D	53
Well 390827075290401	Local number DM204D	54
Well 390729075283701	Local number DM310SB	55
Well 390819075292902	Local number DM347D	56
Well 390819075292901	Local number DM347S	57
Well 390815075293402	Local number DM348D	58
Well 390815075293401	Local number DM348S	59
Well 390811075293802	Local number DM349D	60
Well 390811075293801	Local number DM349S	61
Well 390707075293401	Local number DM358D	62
Well 390747075292601	Local number DM378F	63
Well 390629075272701	Local number DM412D	64-65
Well 390655075273701	Local number DM421F	66-67
Well 390742075300102	Local number GS4D	68
Well 390742075300101	Local number GS4S	69
Well 390654075282202	Local number MW29D	70
Well 390647075283301	Local number MW33D	71-72
Well 390703075272601	Local number MW48D	73-74

NEW CASTLE COUNTY

Well 393917075401601	Local number Db15-05	75
Well 393856075415602	Local number Db24-17	76
Well 393734075371103	Local number Db33-17	77
Well 393734075371102	Local number Db33-18	78
Well 393734075371101	Local number Db33-19	79
Well 393755075364801	Local number Dc34-05	80
Well 393755075364802	Local number Dc34-06	81
Well 393316075421601	Local number Eb23-22	82
Well 393316075421602	Local number Eb23-23	83
Well 393316075421603	Local number Eb23-24	84
Well 393316075421604	Local number Eb23-25	85
Well 391949075410701	Local number Hb14-01	86

SUSSEX COUNTY

Well 384639075353101	Local number Nc45-01	87
Well 384955075192801	Local number Ng11-01	88
Well 384558075083501	Local number Ni52-11	89
Well 384558075083502	Local number Ni52-12	90
Well 384438075234801	Local number Of12-13	91-92
Well 384401075224901	Local number Of13-03	93-94
Well 384406075224601	Local number Of13-08	95-96
Well 384343075230401	Local number Of22-04	97-98
Well 384333075222901	Local number Of23-03	99-100
Well 384341075223801	Local number Of23-05	101-102
Well 384345075225101	Local number Of23-11	103-104
Well 384038075110001	Local number Oh54-01	105
Well 384038075110002	Local number Oh54-02	106
Well 384258075063101	Local number Oi24-06	107
Well 383730075213501	Local number Pf24-02	108

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

vii

## GROUND-WATER LEVELS-Continued

Page

**DELAWARE-Continued:**SUSSEX COUNTY-Continued

Well 383730075213502	Local number	Pf24-03	109
Well 383138075260201	Local number	Qe44-01	110
Well 383050075105201	Local number	Qh54-04	111
Well 383050075105202	Local number	Qh54-05	112
Well 383050075105203	Local number	Qh54-06	113
Well 383050075105204	Local number	Qh54-07	114
Well 383210075035802	Local number	Qj32-17	115
Well 382808075030501	Local number	Rj22-05	116
Well 382808075030502	Local number	Rj22-06	117
Well 382808075030503	Local number	Rj22-07	118
Well 382808075030504	Local number	Rj22-08	119

**MARYLAND:**ALLEGANY COUNTY

Well 394024078273401	Local number	AL Ah	120
Well 393009079025201	Local number	AL Ca	121
Well 393148079010601	Local number	AL Ca	122

ANNE ARUNDEL COUNTY

Well 391101076404001	Local number	AA Ac	123
Well 391015076373501	Local number	AA Ad	124
Well 391032076385902	Local number	AA Ad	125-126
Well 391032076385904	Local number	AA Ad	127
Well 391032076385906	Local number	AA Ad	128
Well 391006076380101	Local number	AA Ad	129-130
Well 391032076385907	Local number	AA Ad	131
Well 390950076391101	Local number	AA Bd	132
Well 390821076365401	Local number	AA Bd	133-134
Well 390938076383701	Local number	AA Bd	135-136
Well 390922076371001	Local number	AA Bd	137-138
Well 390737076374401	Local number	AA Bd	139-140
Well 390744076390001	Local number	AA Bd	141
Well 390737076374402	Local number	AA Bd	142
Well 390908076394402	Local number	AA Bd	143-144
Well 390945076285601	Local number	AA Bf	145
Well 390629076273601	Local number	AA Bf	146
Well 390303076463201	Local number	AA Cb	147-148
Well 390423076432001	Local number	AA Cc	149
Well 390126076403001	Local number	AA Cc	150-151
Well 390126076402901	Local number	AA Cc	152-153
Well 390450076343402	Local number	AA Ce	154-155
Well 390150076283003	Local number	AA Cf	156
Well 390150076283002	Local number	AA Cf	157
Well 390123076241601	Local number	AA Cg	158
Well 390123076241602	Local number	AA Cg	159
Well 390123076241603	Local number	AA Cg	160
Well 390127076240301	Local number	AA Cg	161
Well 385808076373502	Local number	AA Dd	162
Well 385915076340401	Local number	AA De	163
Well 385921076270701	Local number	AA Df	164
Well 385916076270702	Local number	AA Df	165-166
Well 385905076293601	Local number	AA Df	167-168
Well 385623076274401	Local number	AA Df	169
Well 385406076383901	Local number	AA Ed	170
Well 385406076383902	Local number	AA Ed	171
Well 384833076415601	Local number	AA Fc	172-173
Well 384833076415602	Local number	AA Fc	174-175
Well 384646076352401	Local number	AA Fd	176
Well 384917076305801	Local number	AA Fe	177-178
Well 384731076325501	Local number	AA Fe	179-180
Well 384917076305802	Local number	AA Fe	181-182
Well 384644076331201	Local number	AA Fe	183-184
Well 384644076331202	Local number	AA Fe	185-186

BALTIMORE CITY

Well 391617076322001	Local number	2S5E-	187
Well 391600076353301	Local number	3S2E-	188
Well 391556076315301	Local number	3S5E-	189
Well 391349076354501	Local number	5S2E-	190

BALTIMORE COUNTY

Well 393129076384201	Local number	BA Cd	191
Well 393102076341801	Local number	BA Ce	192
Well 392931076410301	Local number	BA Dc	193-194
Well 392045076512501	Local number	BA Ea	195-196
Well 392305076432001	Local number	BA Ec	197
Well 392436076332201	Local number	BA Ee	198
Well 392437076332301	Local number	BA Ee	199
Well 392438076332201	Local number	BA Ee	200
Well 392440076332002	Local number	BA Ee	201
Well 392436076331901	Local number	Ba Ee	202

		GROUND-WATER LEVELS--Continued	Page
<u>BALTIMORE COUNTY--Continued</u>			
Well	392438076331803	Local number BA Ee 192	203
Well	391607076312901	Local number BA Fe 19	204
Well	391356076293501	Local number BA Gf 11	205
<u>CALVERT COUNTY</u>			
Well	384333076394701	Local number CA Bb 27	206
Well	384333076394702	Local number CA Bb 28	207
Well	384114076320301	Local Number CA Bc 25	208
Well	383940076314801	Local number CA Cc 18	209
Well	383605076344601	Local number CA Cc 57	210
Well	383239076354201	Local number CA Db 47	211
Well	383216076351401	Local number CA Db 65	212
Well	383050076305501	Local number CA Dc 35	213
Well	382549076260101	Local number CA Ed 52	214-215
Well	382343076302901	Local number CA Fc 13	216
Well	382408076260401	Local number CA Fd 51	217
Well	382407076260301	Local number CA Fd 54	218
Well	382236076255401	Local number CA Fd 85	219-220
Well	382318076242401	Local number CA Fe 22	221
Well	381952076270901	Local number CA Gd 6	222
<u>CAROLINE COUNTY</u>			
Well	390333075504501	Local number CO Bc 1	223
Well	390227075470201	Local number CO Bd 53	224
<u>CARROLL COUNTY</u>			
Well	394008077005601	Local number CL Ad 47	225
Well	393638076510001	Local number CL Bf 1	226
Well	393754076512401	Local number CL Bf 184	227
Well	392259077052401	Local number CL Ec 75	228
<u>CECIL COUNTY</u>			
Well	393637075535001	Local number CE Be 73	229
Well	393637075535002	Local number CE Be 74	230
Well	393615075475901	Local number CE Bf 81	231
Well	393537075492001	Local number CE Bf 82	232
Well	393432075593601	Local number CE Cd 51	233
Well	393432075593602	Local number CE Cd 52	234
Well	393216075564201	Local number CE Cd 53	235
Well	393433075544901	Local number CE Ce 54	236
Well	393241075500201	Local number CE Ce 55	237
Well	393026075523101	Local number CE Ce 56	238
Well	393209075541301	Local number CE Ce 82	239
Well	392536075593201	Local number CE Dd 81	240
Well	392403075521801	Local number CE Ee 29	241
<u>CHARLES COUNTY</u>			
Well	383633077083001	Local number CH Bc 24	242
Well	383645077062401	Local number CH Bc 75	243
Well	383644077055501	Local number CH Bc 77	244
Well	383645077062402	Local number CH Bc 80	245
Well	383709077061002	Local number CH Bc 81	246
Well	383553077032401	Local number CH Bd 52	247
Well	383819076555501	Local number CH Be 43	248
Well	383706076575601	Local number CH Be 57	249
Well	383706076575604	Local number CH Be 60	250
Well	383853076532601	Local number CH Bf 101	251
Well	383640076545901	Local number CH Bf 133	252
Well	383728076531701	local number CH Bf 134	253
Well	383508076540701	Local number CH Bf 146	254
Well	383508076540703	Local number CH Bf 151	255-256
Well	383637076545803	Local number CH Bf 157	257
Well	383732076531902	Local number CH Bf 158	258
Well	383746076482901	Local number CH Bg 12	259
Well	383422077114601	Local number CH Cb 7	260
Well	383455077074401	Local number CH Cc 31	261
Well	383441077063901	Local number CH Cc 34	262
Well	383236076563901	Local number CH Ce 37	263
Well	383251076583901	Local number CH Ce 56	264-265
Well	383250076584001	Local number CH Ce 57	266
Well	383254076481401	Local number CH Cg 24	267-268
Well	382654077152501	Local number CH Da 18	269
Well	382654077152701	Local number CH Da 20	270
Well	382607077002601	Local number CH Dd 33	271
Well	382925077010101	Local number CH Dd 38	272
Well	382927076552301	Local number CH De 45	273
Well	382103076560201	Local number CH Ee 16	274
Well	382154076574801	Local number CH Ee 70	275
Well	382240076582801	Local number CH Ee 78	276-277

## GROUND-WATER LEVELS-Continued

Page

**MARYLAND-Continued:**DORCHESTER COUNTY

Well 383708075503801	Local number DO Bg	59.....	278
Well 383151076080801	Local number DO Cd	1.....	279
Well 383340076041601	Local number DO Ce	5.....	280
Well 383408076042402	Local number DO Ce	15.....	281
Well 383256076035301	Local number DO Ce	85.....	282
Well 382800076180701	Local number DO Db	17.....	283
Well 382847076190901	Local number DO Db	19.....	284
Well 382916075491702	Local number DO Dh	27.....	285-286

FREDERICK COUNTY

Well 394200077190701	Local number FR Af	27.....	287
Well 393733077274801	Local number FR Bd	96.....	288
Well 393156077135701	Local number FR Cg	1.....	289
Well 392517077190401	Local number FR Df	35.....	290

GARRETT COUNTY

Well 394017078581701	Local number GA Ag	1.....	291
Well 393749079190301	Local number GA Bc	1.....	292
Well 392439079231801	Local number GA Eb	78.....	293
Well 391512079270901	Local number GA Fa	28.....	294
Well 391512079270902	Local number GA Fa	29.....	295
Well 391539079254601	Local number GA Fa	31.....	296
Well 391539079254602	Local number GA Fa	32.....	297
Well 391539079254603	Local number GA Fa	33.....	298
Well 391539079254604	Local number GA Fa	34.....	299
Well 391501079260001	Local number GA Fa	38.....	300
Well 391530079244401	Local number GA Fb	22.....	301
Well 391530079244403	Local number GA Fb	24.....	302
Well 391530079244404	Local number GA Fb	25.....	303
Well 391513079243602	Local number GA Fb	27.....	304
Well 391513079243605	Local number GA Fb	30.....	305
Well 391602079240301	Local number GA Fb	31.....	306
Well 391602079240302	Local number GA Fb	32.....	307
Well 391602079240304	Local number GA Fb	34.....	308
Well 391420079264901	Local number GA Ga	16.....	309

HARFORD COUNTY

Well 393902076160001	Local number HA Bd	31.....	310
Well 393158076302601	Local number HA Ca	23.....	311
Well 392529076180901	Local number HA Dd	89.....	312
Well 392721076150301	Local number HA Dd	91.....	313
Well 392721076150302	Local number HA Dd	92.....	314
Well 392921076100401	Local number HA De	66.....	315
Well 392606076145801	Local number HA De	181.....	316
Well 392606076145802	Local number HA De	182.....	317
Well 392606076145803	Local number HA De	183.....	318
Well 392914076110301	Local number HA De	195.....	319
Well 392819076130902	Local number HA De	198.....	320-321
Well 392435076203301	Local number HA Ec	11.....	322
Well 392408076210101	Local number HA Ec	46.....	323
Well 392343076161901	Local number HA Ed	24.....	324
Well 392455076192101	Local number HA Ed	47.....	325
Well 392455076192102	Local number HA Ed	48.....	326
Well 392455076192103	Local number HA Ed	49.....	327

HOWARD COUNTY

Well 391910076565701	Local number HO Bd	1.....	328
Well 391445076555101	Local number HO Cd	79.....	329
Well 391001076540001	Local number HO Ce	38.....	330

KENT COUNTY

Well 392007076075501	Local number KE Ac	20.....	331
Well 391650076050402	Local number KE Bc	185.....	332
Well 391650076050403	Local number KE Bc	186.....	333
Well 391823075594701	Local number KE Be	43.....	334
Well 391643075550901	Local number KE Be	171.....	335
Well 391815075472101	Local number KE Bg	33.....	336
Well 391815075472102	Local number KE Bg	34.....	337
Well 391400076101401	Local number KE Cb	36.....	338
Well 391124076101001	Local number KE Cb	97.....	339
Well 391124076101002	Local number KE Cb	98.....	340
Well 391124076101003	Local number KE Cb	99.....	341
Well 391124076101004	Local number KE Cb	100.....	342
Well 391251076142201	Local number KE Cb	101.....	343
Well 391124076101005	Local number KE Cb	103.....	344

GROUND-WATER LEVELS-Continued

**MARYLAND-Continued:**

KENT COUNTY-Continued

Well 391432076015501	Local number KE Cd	44.....	345
Well 390837076140401	Local number KE Db	40.....	346
Well 390626076083301	Local number KE Dc	89.....	347
Well 390626076083302	Local number KE Dc	91.....	348

MONTGOMERY COUNTY

Well 391142077280601	Local number MO Cb	26.....	349
Well 391314077224201	Local number MO Cc	14.....	350
Well 390802077283801	Local number MO Db	68.....	351-352
Well 390917077244401	Local number MO Dc	59.....	353
Well 390451077245901	Local number MO Ec	10.....	354
Well 390434076573002	Local number MO Eh	20.....	355

PRINCE GEORGES COUNTY

Well 390151076561501	Local number PG Bc	16.....	356
Well 385130076465501	Local number PG De	21.....	357
Well 385152076431301	Local number PG Df	2.....	358
Well 384423077004501	Local number PG Fb	36.....	359
Well 384230076555501	Local number PG Fc	17.....	360
Well 384131076533301	Local number PG Fd	41.....	361
Well 383957076520601	Local number PG Gd	5.....	362-363
Well 383228076410601	Local number PG Hf	35.....	364
Well 383348076411301	Local number PG Hf	40.....	365-366
Well 383348076411302	Local number PG Hf	41.....	367-368
Well 383348076411303	Local number PG Hf	42.....	369
Well 383250076405304	Local number PG Hf	44.....	370-371

QUEEN ANNES COUNTY

Well 391203076024301	Local number QA Be	15.....	372
Well 391203076024302	Local number QA Be	16.....	373
Well 391203076024303	Local number QA Be	17.....	374
Well 390841075515201	Local number QA Cg	1.....	375
Well 390201076182701	Local number QA Db	30.....	376
Well 390201076182703	Local number QA Db	32.....	377
Well 390023076174301	Local number QA Db	34.....	378
Well 390119076191001	Local number QA Db	35.....	379
Well 390023076174302	Local number QA Db	37.....	380
Well 390251076034401	Local number QA De	27.....	381
Well 385718076211501	Local number QA Ea	77.....	382
Well 385718076211502	Local number QA Ea	78.....	383
Well 385757076200101	Local number QA Ea	79.....	384
Well 385757076200102	Local number QA Ea	80.....	385
Well 385718076211503	Local number QA Ea	81.....	386
Well 385751076171603	Local number QA Eb	110.....	387
Well 385751076171601	Local number QA Eb	111.....	388
Well 385751076171602	Local number QA Eb	112.....	389
Well 385748076172001	Local number QA Eb	113.....	390
Well 385843076155302	Local number QA Eb	155.....	391
Well 385852076195201	Local number QA Eb	156.....	392
Well 385852076195202	Local number QA Eb	157.....	393
Well 385756076105301	Local number QA Ec	1.....	394
Well 385534075573601	Local number QA Ef	29.....	395
Well 385429076120201	Local number QA Fc	7.....	396

ST. MARYS COUNTY

Well 382838076470101	Local number SM Bb	15.....	397
Well 382838076470102	Local number SM Bb	22.....	398
Well 382605076430201	Local number SM Bc	39.....	399-400
Well 381616076364701	Local number SM Dd	46.....	401
Well 381616076364702	Local number SM Dd	49.....	402
Well 381807076380001	Local number SM Dd	50.....	403
Well 381616076364703	Local number SM Dd	62.....	404
Well 381615076364701	Local number SM Dd	63.....	405
Well 381626076393401	Local number SM Dd	72.....	406
Well 381719076264801	Local number SM Df	14.....	407-408
Well 381604076271701	Local number SM Df	61.....	409-410
Well 381841076284401	Local number SM Df	66.....	411
Well 381527076283101	Local number SM Df	71.....	412
Well 381548076272102	Local number SM Df	84.....	413-414
Well 381721076264801	Local number SM Df	100.....	415-416
Well 381813076232501	Local number SM Dg	14.....	417-418
Well 381810076244601	Local number SM Dg	21.....	419-420
Well 381213076222801	Local number SM Eg	27.....	421
Well 380834076303401	Local number SM Fe	30.....	422
Well 380834076303402	Local number SM Fe	31.....	423
Well 380724076251901	Local number SM Ff	36.....	424
Well 380821076255501	Local number SM Ff	64.....	425-426
Well 380711076222201	Local number SM Fg	45.....	427



		GROUND-WATER LEVELS-Continued	Page
<b>MARYLAND-Continued</b>			
<u>SOMERSET COUNTY</u>			
Well 381156075412501	Local number SO Be	42.....	428
Well 380927075423701	Local number SO Ce	42.....	429-430
Well 380616075380701	Local number SO Cf	2.....	431
<u>TALBOT COUNTY</u>			
Well 385242075593101	Local number TA Bf	73.....	432
Well 385242075593102	Local number TA Bf	74.....	433
Well 384923076100601	Local number TA Cc	35.....	434
Well 384514076103701	Local number TA Cc	36.....	435
Well 384709076050301	Local number TA Cd	57.....	436
Well 384643076043801	Local number TA Ce	7.....	437
<u>WASHINGTON COUNTY</u>			
Well 394154078103501	Local number WA Ac	1.....	438
Well 393638078001301	Local number WA Be	2.....	439
Well 393851077343001	Local number WA Bk	25.....	440
Well 393414077461801	Local number WA Ch	106.....	441
Well 393402077434201	Local number WA Ci	82.....	442
Well 392904077371501	Local number WA Dj	2.....	443
<u>WICOMICO COUNTY</u>			
Well 382150075352101	Local number WI Ce	13.....	444
Well 382404075355401	Local number WI Ce	204.....	445
Well 382037075310801	Local number WI Cf	3.....	446
Well 382429075344501	Local number WI Cf	147.....	447
Well 382329075263701	Local number WI Cg	20.....	448
<u>WORCESTER COUNTY</u>			
Well 382621075174201	Local number WO Ae	23.....	449
Well 382621075174202	Local number WO Ae	24.....	450
Well 382621075174203	Local number WO Ae	25.....	451
Well 382632075031801	Local number WO Ah	6.....	452
Well 382635075030601	Local number WO Ah	35.....	453
Well 382635075030602	Local number WO Ah	36.....	454
Well 382635075030603	Local number WO Ah	37.....	455-456
Well 382022075072401	Local number WO Bg	1.....	457
Well 382359075094501	Local number WO Bg	15.....	458
Well 382358075094501	Local number WO Bg	45.....	459
Well 382358075094502	Local number WO Bg	46.....	460
Well 382325075063301	Local number WO Bg	47.....	461-462
Well 382325075063302	Local number WO Bg	48.....	463-464
Well 382038075065901	Local number WO Bg	49.....	465-466
Well 382215075041801	Local number WO Bh	31.....	467-468
Well 382443075033501	Local number WO Bh	34.....	469-470
Well 382215075041901	Local number WO Bh	84.....	471
Well 382215075041902	Local number WO Bh	85.....	472
Well 382215075041903	Local number WO Bh	89.....	473-474
Well 382127075043802	Local number WO Bh	98.....	475-476
Well 381939075052101	Local number WO Cg	72.....	477
Well 381037075234301	Local number WO Dd	7.....	478
Well 381457075174101	Local number WO De	36.....	479
Well 381427075081102	Local number WO Dg	21.....	480
Well 380408075335701	Local number WO Fb	2.....	481

## QUALITY OF GROUND WATER

Page

## WATER-QUALITY DATA, WATER YEAR 2002

**DELAWARE:**KENT COUNTY

Well 391233075433102 Local well number Ib32-05.....483-484

SUSSEX COUNTY

Well 383231075383101 Local well name Beard Domestic well.....485-492

Well 384606075115801 Local well name Denver Domestic well.....485-492

Well 382927075211701 Local well number Rf14-02.....485-492

**MARYLAND:**ANNE ARUNDEL COUNTY

Well 390622076272601 Local well number AA Bf 64.....493-494

BALTIMORE COUNTY

Well 392436076332201 Local well number BA Ee 145.....495-498

Well 392437076332201 Local well number BA Ee 146.....495-498

Well 392437076332202 Local well number BA Ee 147.....495-498

Well 392437076332203 Local well number BA Ee 148.....495-498

Well 392438076332101 Local well number BA Ee 149.....495-498

Well 392438076332102 Local well number BA Ee 150.....495-498

Well 392438076332103 Local well number BA Ee 151.....495-498

Well 392436076332202 Local well number BA Ee 152.....495-498

Well 392439076331901 Local well number BA Ee 153.....495-498

Well 392439076331902 Local well number BA Ee 154.....495-498

Well 392439076331903 Local well number BA Ee 155.....495-498

Well 392436076332203 Local well number BA Ee 156.....495-498

Well 392437076332204 Local well number BA Ee 157.....495-498

Well 392437076332205 Local well number BA Ee 158.....495-498

Well 392437076332206 Local well number BA Ee 159.....499-502

Well 392438076332301 Local well number BA Ee 160.....499-502

Well 392437076332301 Local well number BA Ee 161.....499-502

Well 392437076332207 Local well number BA Ee 162.....499-502

Well 392437076332208 Local well number BA Ee 163.....499-502

Well 392437076332209 Local well number BA Ee 164.....499-502

Well 392437076332302 Local well number BA Ee 165.....499-502

Well 392438076332104 Local well number BA Ee 167.....499-502

Well 392438076332105 Local well number BA Ee 168.....499-502

Well 392438076332106 Local well number BA Ee 169.....499-502

Well 392438076332201 Local well number BA Ee 170.....499-502

Well 392437076332101 Local well number BA Ee 171.....499-502

Well 392437076332102 Local well number BA Ee 172.....499-502

Well 392437076332103 Local well number BA Ee 173.....499-502

Well 392438076332107 Local well number BA Ee 174.....503-506

Well 392438076332108 Local well number BA Ee 175.....503-506

Well 392439076331904 Local well number BA Ee 176.....503-506

Well 392439076331905 Local well number BA Ee 177.....503-506

Well 392439076331906 Local well number BA Ee 178.....503-506

Well 392439076331907 Local well number BA Ee 179.....503-506

Well 392434076331908 Local well number BA Ee 180.....503-506

Well 392434076331909 Local well number BA Ee 181.....503-506

Well 392440076332002 Local well number BA Ee 183.....503-506

Well 392439076331801 Local well number BA Ee 184.....503-506

Well 392439076331802 Local well number BA Ee 185.....503-506

Well 392439076331803 Local well number BA Ee 186.....503-506

Well 392436076332001 Local well number BA Ee 187.....503-506

Well 392436076332002 Local well number BA Ee 188.....503-506

Well 392436076331901 Local well number BA Ee 189.....507-510

Well 392438076331801 Local well number BA Ee 190.....507-510

Well 392438076331802 Local well number BA Ee 191.....507-510

Well 392438076331803 Local well number BA Ee 192.....507-510

Well 392437076332104 Local well number BA Ee 193.....507-510

Well 392437076332105 Local well number BA Ee 194.....507-510

Well 392437076332106 Local well number BA Ee 195.....507-510

Well 392432076332201 Local well number BA Ee 197.....507-510

Well 392458076330301 Local well number BA Ee 198.....507-510

Well 392450076331201 Local well number BA Ee 199.....507-510

Well 392502076332601 Local well number BA Ee 200.....507-510

Well 3924380763322501 Local well number BA Ee 201.....507-510

CALVERT COUNTY

Well 382236076255401 Local well number CA Fd 85.....511

CAROLINE COUNTY

Well 385208075460801 Local well number CO Dd 74.....512-516

CARROLL COUNTY

Well 394030077383101 Local well number CL Ac 68.....517-518

Well 393444077021201 Local well number CL Cd 181.....517-518

Well 392345077082701 Local well number CL Ec 106.....517-518

		QUALITY OF GROUND WATER--Continued		Page
<b>MARYLAND--Continued</b>				
<u>CECIL COUNTY</u>				
Well 394130075570501	Local well number	CE Ad	69	519-520
<u>DORCHESTER COUNTY</u>				
Well 383225075565002	Local well number	DO Cf	36	521-527
Well 383051075495601	Local well number	DO Ch	1	521-527
<u>FREDERICK COUNTY</u>				
Well 393728077214701	Local well number	FR Be	113	528-529
Well 392650077343001	Local well number	FR Dc	68	528-529
<u>HARFORD COUNTY</u>				
Well 394130076312501	Local well number	HA Aa	30	530-531
<u>MONTGOMERY COUNTY</u>				
Well 391254077244201	Local well number	MO Cb	36	532-534
Well 391403077114001	Local well number	MO Ce	18	532-534
<u>QUEEN ANNES COUNTY</u>				
Well 390839075515601	Local well number	QA Cg	68	535-537
Well 390856075474201	Local well number	QA Ch	37	535-537
Well 390055076184501	Local well number	QA Db	14	535-537
Well 390022076191801	Local well number	QA Db	15	535-537
Well 390033076184501	Local well number	QA Db	23	535-537
Well 390117076191301	Local well number	QA Db	27	535-537
Well 390156076184001	Local well number	QA Db	45	535-540
Well 385505076215001	Local well number	QA Ea	59	535-537
Well 385701076212501	Local well number	QA Ea	60	535-537
Well 385812076202801	Local well number	QA Ea	61	535-537
Well 385718076211501	Local well number	QA Ea	77	535-537
Well 385718076211502	Local well number	QA Ea	78	535-537
Well 385705076212002	Local well number	QA Ea	82	535-537
Well 385705076212001	Local well number	QA Ea	83	535-537
Well 385847076184801	Local well number	QA Eb	144	535-537
Well 385024076222501	Local well number	QA Fa	54	535-537
Well 385254076201901	Local well number	QA Fa	60	535-537
Well 385023076222201	Local well number	QA Fa	67	535-537
Well 385254076201301	Local well number	QA Fa	72	535-537
Well 385155076200401	Local well number	QA Fa	75	535-537
<u>ST MARYS COUNTY</u>				
Well 382605076430201	Local well number	SM Bc	39	541
<u>SOMERSET COUNTY</u>				
Well 381245075404001	Local well name	UMES well		542-546
<u>TALBOT COUNTY</u>				
Well 385023076012601	Local well number	TA Be	83	547-551
<u>WASHINGTON COUNTY</u>				
Well 394032077322801	Local well name	Leach Ref. Well		552-555
Well 393815077353001	Local well number	WA Bj	51	552-555
Well 393419077405901	Local well number	WA Ci	168	552-555
Well 393210077392901	Local well number	WA Cj	132	552-555
<u>WICOMICO COUNTY</u>				
Well 382519075241901	Local well number	WI Bh	15	556
<u>WORCESTER COUNTY</u>				
Well 382635075030602	Local well number	WO Ah	36	557-560
Well 382638075033001	Local well number	WO Ah	38	557-560
Well 382649075033701	Local well number	WO Ah	39	557-560
Well 382322075173001	Local well number	WO Be	34	557-560
Well 382342075114501	Local well number	WO Bf	89	557-560
Well 382148075113801	Local well number	WO Bf	90	557-560
Well 382216075041201	Local well number	WO Bh	29	557-560
Well 382215075041901	Local well number	WO Bh	84	557-560
Well 382215075041902	Local well number	WO Bh	85	557-560
Well 382215075041903	Local well number	WO Bh	89	557-560
Well 382127075043802	Local well number	WO Bh	98	557-560
Well 382127075043804	Local well number	WO Bh	101	557-560
Well 381713075135801	Local well number	WO Cf	60	557-560
Well 381938075052001	Local well number	WO Cg	33	557-560
Well 381953075051401	Local well number	WO Cg	87	557-560
Well 380338075241301	Local well number	WO Fd	34	557-560

## QUALITY OF GROUND WATER--Continued

Page

WASHINGTON, D.C.

Well 385504076563801	Local well number WE-Bb	3.....	561-570
Well 385504076563802	Local well number WE-Bb	4.....	561-570
Well 385238076581501	Local well number WE-Ca	29.....	561-570
Well 385406076573401	Local well number WE-Ca	30.....	561-570
Well 385443076562801	Local well number WE-Cb	5.....	561-570
Well 385443076562802	Local well number WE-Cb	6.....	561-570

## VOLUME 2. GROUND-WATER DATA

## INTRODUCTION

The Water Resources Discipline of the U.S. Geological Survey, in cooperation with State agencies, collects a large amount of data pertaining to the water resources of Maryland, Delaware, and Washington, D.C. each water year. These data, accumulated during many water years, constitute a valuable data base that can be used to develop an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the U.S. Geological Survey, the data are published annually in this report series entitled **"Water Resources Data - Maryland and Delaware."**

This series of Water Resources Data reports for Maryland and Delaware began with the 1961 water year report that only contained data relating to the quantity of surface water. For the 1964 water year, a similar report was published, and it contained data relating to surface-water, and ground-water quality. Beginning with the 1975 water year, the report was changed to its present format, in one volume, including data on surface-water quantity, surface- and ground-water quality, and ground-water levels. For the 1989 water year, the report format was changed to two volumes. Both volumes contained data on quantities of surface water, surface-water and ground-water quality, and ground-water levels. Volume 1 contained data on the Atlantic Slope Basins (Delaware River through Patuxent River Basins) and Volume 2 contained data on the Monongahela and Potomac River Basins. Since the 1991 water year, Volume 1 has contained information on quantity of surface water and surface-water quality data and Volume 2 contains ground-water levels and ground-water quality data.

This report is Volume 2 in the 2002 water year Water Resources Data report series and includes records of water levels and water quality of ground-water wells and springs. It contains discharge data records for 4 springs, water levels at 373 observation wells, and water-quality analyses for 122 wells. The locations of ground-water level wells are shown in figures 6 and 7. The locations of ground-water quality sites are shown in figure 8. These data represent the part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Maryland and Delaware.

Prior to the introduction of this series and for several water years concurrent with it, water resources data for Maryland and Delaware were published in U.S. Geological Survey Water-Supply Papers. Data on water levels for the 1935 through 1974 water years were published under the title **"Ground-Water Levels in the United States."** These 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, Federal Center, Denver, CO 80225.

Water Resources Data report are published annually by the U.S. 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 Resources Data Report MD-DE-DC-02-2."** For archiving and general distribution, the reports for the 1971-74 water years also are identified as water resources data reports. These water resources 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 bottom of the title page or by telephone at (410)238-4200.

## COOPERATION

The U.S. Geological Survey and Maryland State agencies have had cooperative agreements for the collection of water-resource records from 1896 to 1909 and since 1924. Similar cooperative agreements have existed between the Survey and agencies of the State of Delaware since 1943. Organizations that assisted in the funding or services for the preparation of this report through cooperative agreements with the Survey or through the Maryland Geological Survey and Delaware Geological Survey are:

**Maryland Geological Survey**, Emery T. Cleaves, Director

**Delaware Geological Survey**, Robert R. Jordan, State Geologist and Director

**Delaware Department of Transportation**, Nathan Hayward III, Secretary

**Delaware Department of Natural Resources and Environmental Control**, John A. Hughes,  
Secretary of Natural Resources and Environmental Control

**Maryland Department of the Environment**, Public Drinking Water Program, John Grace

**Maryland Department of Natural Resources, Research Assessment Service, Power Plant Research Program**,  
Peter Dunbar, Director

**Anne Arundel County Department of Public Works, Water Operations**, Matthew Mirenzi, Regional Manager

**Anne Arundel County Land Use and Environmental Office**, Betty Dixon, Land Use Officer

**Maryland-National Capital Park and Planning Commission**, Nazin Baig, Environmental Planning Coordinator

**Charles County Department of Planning and Growth Management**, Roy E. Hancock, Director

**Queen Anne's County Department of Public Works**, D. Steven Walls, Director

**Town of Ocean City, Maryland Water Department**, Ronald Ellis, Superintendent

**U.S. Air Force, Dover Air Force Base, 436th Civil Engineer Squadron, Environmental Flight**,  
Jo Anne Deramo, Restoration Program Manager

**U.S. Army Garrison, Aberdeen Proving Ground, Directorate of Safety and Health**,  
Kenneth P. Stachiw, Division Chief

**U.S. Environmental Protection Agency, National Risk Management Laboratory, Subsurface Protection and Remediation Division**, Stephen G. Schmelling, Acting Director

**U.S. Navy, Naval Air Station Patuxent River, Civil Engineer Corps**, Captain Charles C. Miller, Public Works Officer.

Organizations and projects that provided data included in this report are acknowledged in the Site Instrumentation and Remarks description in the Ground-Water Levels section.

## SUMMARY OF GROUND-WATER HYDROLOGIC CONDITIONS

This report presents spring discharges, well water levels and water-quality analyses from 15 ground-water studies in Maryland and Delaware. The following ground-water hydrologic summary for the 2002 water year includes data collected from the Maryland and Delaware cooperative water-level monitoring networks.

Ground-water use in Maryland and Delaware continues to increase with population growth, especially with more people living in rural areas. Growth areas in Southern Maryland, and the northern parts of the Delmarva Peninsula of both Maryland and Delaware are causing water users to withdraw ground water from deeper aquifers. As ground-water users' demands increase, water-level data can provide critical information on how to properly evaluate, plan and manage this natural resource. Water-table monitoring wells can alert users during periods of drought and the information they provide can assist with implementing water-use conservation measures. Confined and semi-confined aquifers, mostly used in the Coastal Plain, provide large quantities of water for municipalities, industry, irrigation, and individual dwellings. Water-level monitoring wells provide the means to track ground-water withdrawal effects on Coastal Plain aquifers, and data on how best to manage water use.

The 2002 water year was a year of lower than normal precipitation across Maryland, Delaware, and Washington, D.C., as was the previous water year. Precipitation totals reported by the National Oceanic and Atmospheric Administration (NOAA) ranged from approximately 26 to 45 inches for the water year. The average annual precipitation amount in the Maryland, Delaware, and Washington, D.C. area as observed by NOAA during the period 1961 through 1990 ranges from under 36 to over 52 inches. The six water-table index wells shown in figure 1 give an overview of how ground-water levels responded to precipitation across the region during the 2002 water year. These graphs show the average, minimum, maximum and 2002 water year water levels. In general, the 2002 water year water-level trends on figure 1 were below the long-term average range. Many of these wells continued downward trends that began in water year 2001. Most of these water-table wells reached yearly lows in September 2002, and well MO Eh 20, recorded a record low water level. The exception was well WI Cf 3, which recorded a yearly low in August due to a heavy storm moving northeasterly up the Atlantic Coast and dropping 8.0 inches of rain at Salisbury, Maryland and 14.3 inches at Snow Hill, Maryland on September 1, 2002.

In Southern Maryland and the northern area of the Delmarva Peninsula, where the confined Coastal Plain aquifers are the main source for municipal water supplies, water levels continued to decline. Additional ground-water withdrawal from irrigation wells may compound the amount of drawdown on the Delmarva Peninsula.

## Ground-Water Levels and Spring Discharge

The Maryland, Delaware, and Washington, D.C. area is divided into several physiographic provinces that control ground-water movement through geologic processes related to geomorphology, lithology, and structure. Depending on the amount of ground-water movement through fracture and joint systems and sediments, wells can supply small individual households or larger water users, such as communities, towns, industry, and agriculture. Moving from west to east, the five physiographic provinces in the region are the Appalachian Plateau, the Valley and Ridge, the Blue Ridge, the Piedmont, and the Coastal Plain. Ground-water level conditions are summarized below by physiographic province.

**Appalachian Plateau.** -- Ground-water level trends closely paralleled precipitation events in both water-table and confined aquifers. These trends can be compared with water-table well GA Bc 1 and confined aquifer well GA Eb 78, in Garrett County, Maryland. The ground-water levels for both wells began the 2002 water year at or slightly below normal levels and rose to a high in May to above normal levels. The water levels then dropped to below normal for the remainder of the water year. These two wells are basically on higher elevations, and received more recharge due to higher precipitation amounts. The two water-table wells in the Georges Creek Basin were around normal throughout the water year, reaching a seasonal high level in May. No record high or low water levels were recorded in the five Maryland Water-Level Monitoring Network wells in this physiographic province.

**Hydrologic Effects of Mining, Phase III Project.** -- The Mettiki underground coal mining operation in Garrett County, Maryland, in the Upper Freeport coal seam, began in the late 1970s, and expanded to four separate mines. These mines are monitored for changes in ground-water levels through a network of 24 water-level observation wells. Ground-water level monitoring wells in the area of "B," and "C" mines that are completely excavated and sealed, show that water levels are recovering in the monitoring wells drilled above the excavated coal seam. The "A" mine is being used as an access route to the "D" mine, which is still being excavated. Monitoring wells positioned around these mines exhibit continued ground-water dewatering.

**Valley and Ridge.** -- Water-table levels were below normal throughout the 2002 water year. The long-term Climatic Response Network well WA Be 2 (see fig. 1) did not set a record low water level, but two other wells in Washington County, WA Bk 25 and WA Ch 106, did set record low water levels. Both of these wells are farther east of the Appalachian Physiographic Province and receive less precipitation, because of their leeward and low topographic position. Spring WA Di 103 maintained below normal flow throughout the 2002 water year.

**Blue Ridge.** -- The water level trend as recorded by water-table well FR Bd 96 showed levels were below normal throughout the water year, except in early spring when they reached normal levels. The record low water level in well WA Dj 2 on South Mountain may be partially or totally due to a nearby production well. Spring FR Fb 12 responded to rain storms in March and April after a minor trace of rain in February, with an increase in discharge due to heavy rain events in August.

**Piedmont.** -- Ground-water table levels were below normal at the start of the 2002 water year in the Piedmont Physiographic Province and remained below normal throughout the water year, setting record low water levels in 11 of the 17 water-table wells and a record low in the 1 confined aquifer water-level monitoring well (CL Ad 47). Only one well did not record a record low in August or September 2002. Well CL Bf 1 in Hampstead, Maryland recorded a low water level in March. This may be due to the effects of nearby ground-water withdrawal. Well MO Eh 20 (shown in fig. 1), reflects the general trend in water levels throughout the Piedmont Physiographic Province in water year 2002.

**Triassic - Jurassic Gettysburg and Culpeper Basins.** -- Monitoring wells in the Triassic Basins include one well in the Gettysburg Basin in northeastern Frederick County, Maryland (FR Af 27), and four wells in the Culpeper Basin in northwestern Montgomery County, Maryland. These wells are in confined sediments that yield large amounts of water, and are used as a municipal water source. The Poolsville area's monitoring wells did not reach record low water levels due to careful management and water conservation. The Dickerson well (MO Cb 26) is far away from any ground-water withdrawal, and responded to the natural climatic conditions with a record low water level on August 28, 2002. Water levels in well MO Cb 26 remained below the normal trend throughout the entire 2002 water year.

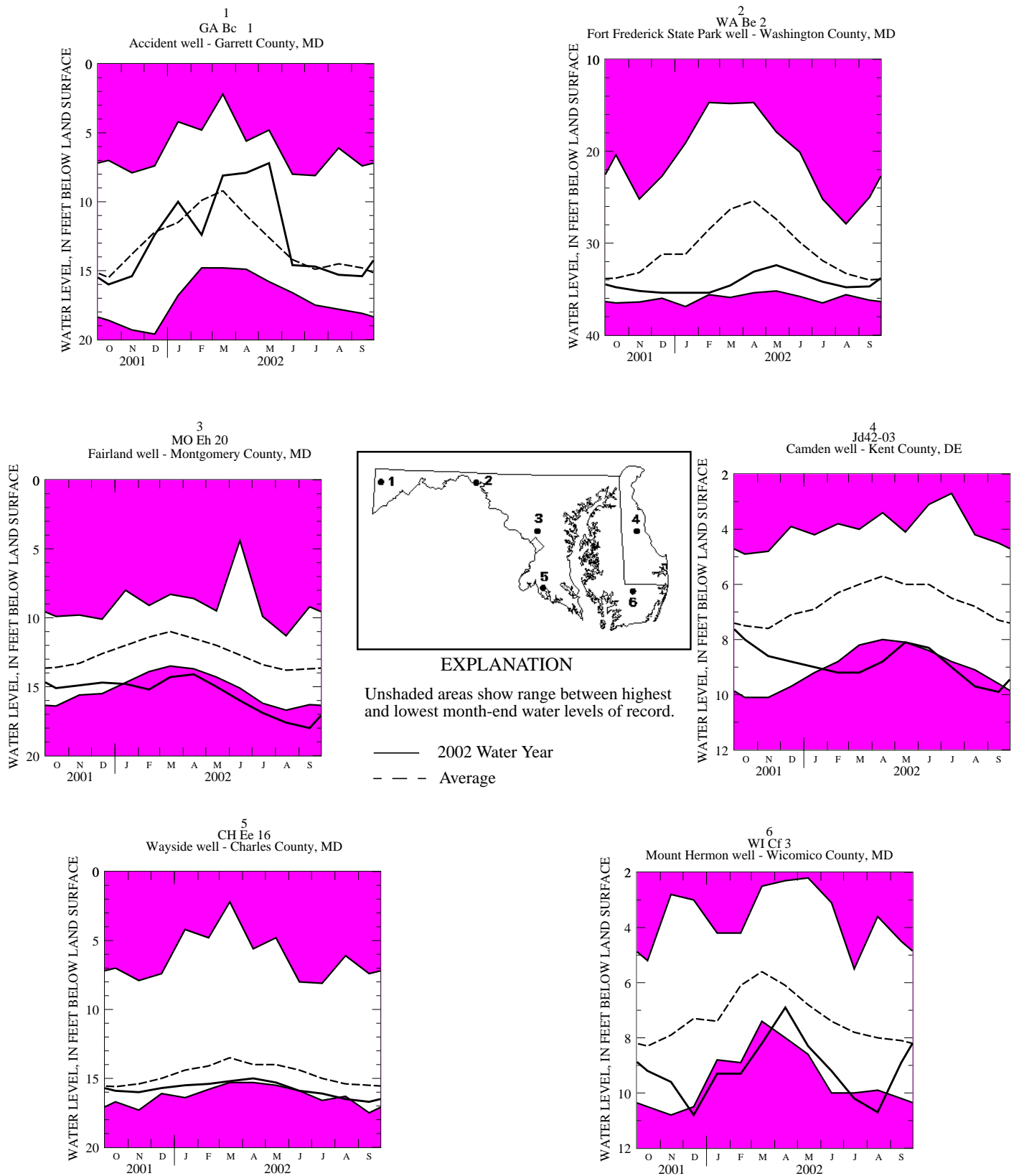


Figure 1.--Monthly ground-water levels at key observation wells.

**Coastal Plain.** -- Record low water levels were recorded in 8 water-table monitoring wells during the 2002 water year, out of a total of 24 water-table climatic response wells in Maryland and Delaware. These record low water levels occurred during August and September 2002. The other water-table monitoring wells on the Maryland and Delaware water-level networks are affected by ground-water withdrawal from irrigation, municipal supply, leakage, and tidal response. Water-table levels on the western shore of the Chesapeake Bay were normal at the start of the 2002 water year and declined to below normal where they remained, only recovering to normal levels by the end of the water year. On the Eastern Shore of Maryland, water levels were similar to those on the western shore, but they rose to normal in the spring, as the Eastern Shore received more precipitation than other parts of Maryland, Delaware, and Washington, D.C., especially the lower Eastern Shore of Maryland.

Artesian aquifers on the western shore of the Chesapeake Bay lie close to their surface-recharge zones in the area near the contact with the Piedmont Physiographic Province. These aquifers receive most of their ground-water recharge from this outcrop belt. This area is heavily populated because of its close proximity to the Baltimore-Washington and Annapolis metropolitan areas. These areas rely exclusively on ground-water supplies, except for the Greater Baltimore area, which is supplied by surface-water reservoirs, and the northwestern part of Prince Georges County, where the Washington Suburban Sanitary Commission supplies surface water from the Potomac and Patuxent Rivers. In Harford County, Maryland, a water-level monitoring well in the confined Patapsco aquifer (HA Dd 89) recorded a record low water level as did several wells in the semi-confined Talbot Formation. Water-level monitoring wells in Anne Arundel County, Maryland recorded continued ground-water level declines in the Patuxent aquifer throughout the County. Record ground-water level declines occurred in the Magothy aquifer near Annapolis, and the Aquia aquifer in southern Anne Arundel County. Calvert County ground-water withdrawal accounted for record low levels in the Aquia and Piney Point aquifers throughout the County. A major cone of depression exists in the Aquia aquifer centered around southern Calvert County (fig. 2., well CA Gd 6), and southeastern St. Marys County, Maryland. The Magothy, Upper Patapsco, and Lower Patapsco ground-water levels declined to record low levels in the southeastern part of Prince Georges County. In the Patuxent River area of Prince Georges County, record low water-levels were recorded in the Aquia and Upper Patapsco aquifers. Record low ground-water levels occurred in the Magothy, Upper Patapsco, Lower Patapsco, and Patuxent aquifers in the Waldorf-St. Charles area of Charles County, Maryland. In St. Marys County, Maryland water level declines continued in the Piney Point, Aquia, and Upper Patapsco aquifers. The Upper Patapsco aquifer has only recently been tapped for a water supply and the declines in this aquifer can be attributed to up-dip ground-water withdrawal in the La Plata-Waldorf-St. Charles area.

Water levels in monitoring wells in artesian aquifers along the US Route 40 corridor in Cecil County, Maryland and New Castle County, Delaware continue to decline as ground-water withdrawal increases due to population growth. Record low ground-water levels were recorded throughout Cecil County, Maryland in the Lower Patapsco aquifer and in the Upper Patapsco aquifer south of the Chesapeake and Delaware Canal. In New Castle County, Delaware, record low water levels were recorded in the Upper Potomac aquifer (equivalent to the Upper Patapsco aquifer in Maryland), near New Castle. The middle Potomac aquifer (equivalent to the Lower Patapsco aquifer in Maryland) and Lower Potomac aquifer (equivalent to the Patuxent aquifer in Maryland) at Lums Pond State Park, Delaware, also declined to record low water levels. Kent County, Maryland experienced record low water levels in the Aquia and Magothy aquifers attributed to local ground-water withdrawal. The record low ground-water level declines in the Upper Patapsco aquifer in Kent County and Queen Annes County, Maryland are the result of ground-water withdrawal occurring in the up-dip region of this aquifer.

The major ground-water supply for Queen Annes County, Maryland is the Aquia aquifer, where record low water levels were recorded at several monitoring wells on Kent Island, and well QA Fc 7 at Prospect Plantation. In Talbot and Dorchester Counties, Maryland record low water-levels were recorded in the Piney Point aquifer at Newcomb, and Tunis Mills, Talbot County, Maryland, and Hurllock, Dorchester County, Maryland as a result of local ground-water withdrawal. While the Taylors Island monitoring wells in Dorchester County, Maryland recorded record low water levels in the Piney Point and Aquia aquifers. This water-level decline in the Piney Point and Aquia aquifers is the result of the extensive ground-water withdrawal from these aquifers across the Chesapeake Bay in Calvert and St. Marys Counties, Maryland. Well SO Be 42 in Princess Anne, Somerset County, Maryland recorded a record low water level in the Manokin aquifer caused by the result of local ground-water withdrawal. Worcester County, Maryland witnessed record low ground-water levels in the Pocomoke and Manokin aquifers at Ocean Pines, the Ocean City aquifer throughout northeastern Worcester County, and the Manokin aquifer along the eastern edge of Worcester County.

#### Water Quality -- Saltwater Intrusion Monitoring Projects

*Kent Island Ground-Water Monitoring Project.* -- This project is a continuation of ground-water level and chloride monitoring that was started in 1983, to observe chloride changes through ground-water use in the Aquia aquifer on Kent Island, Queen Annes County, Maryland due to saltwater intrusion from Chesapeake Bay. A total of 14 Aquia aquifer monitoring wells are currently in operation along with 3 monitoring wells in the deeper confining aquifers. Chloride and bromide water-quality analyses are collected yearly from 13 of the water-level monitoring wells and approximately 25 domestic wells.

Chloride concentrations in drinking water are a health concern, especially when they begin to exceed 250 mg/L. In the mid-80's, chloride concentrations ranged from 1.5 to 7,400 mg/L, with the higher concentrations along the northwestern edge of Kent Island adjacent to Chesapeake Bay. The 2002 water-year analysis ranged from 4.4 to 5,780 mg/L.

*Ocean City Ground-Water Monitoring Project.* -- Saltwater intrusion in ground-water supplies for Ocean City is a water-quality concern. Ocean City is a major Atlantic Coast summer beach resort where populations can increase to over 300,000 on any given day during the summer months, in contrast to the 10,000 permanent residents year round. Ocean City exclusively dominates the southern part of the barrier island of Fenwick Island in Maryland. The main water-producing aquifers in this region are the Ocean City and Manokin aquifers, with the Pocomoke aquifer limited to individual domestic wells mostly on the mainland. There are 21 water-level monitoring wells, with 8 of these wells equipped with digital water-level recorders. Chloride and bromide samples are collected at the end of the summer tourist season so that the highest possible concentrations from six monitoring wells and six water supply wells can be collected. The saltwater/freshwater interface is expected to have migrated its farthest distance east due to the increased summer ground-water use. Chloride concentrations for the 2002 water year range from 22.5 to 104 mg/L in the Ocean City aquifer, and from 64 to 508 mg/L in the Manokin aquifer.



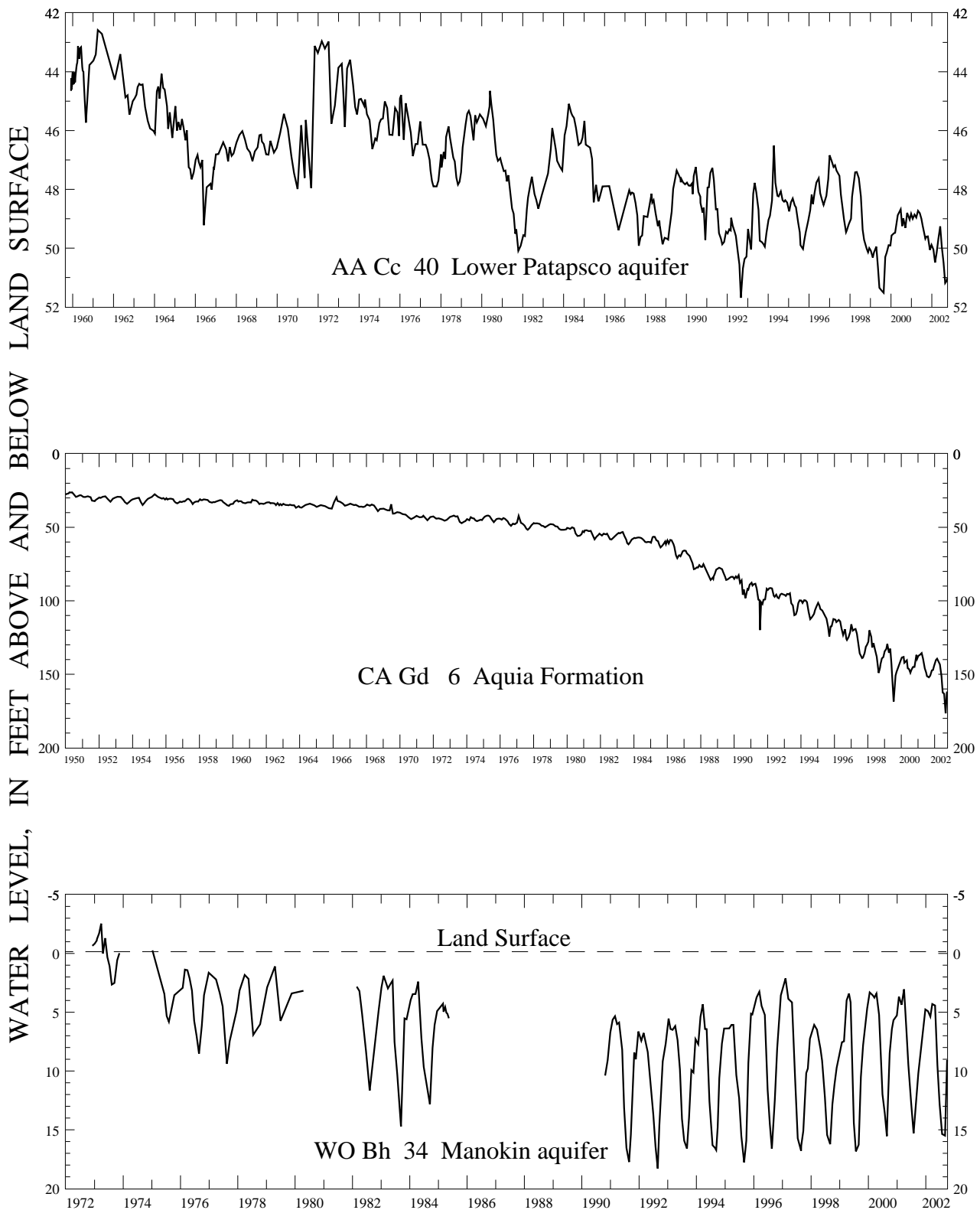


Figure 2.--Ground-water levels in selected observation wells in confined Coastal Plain aquifers in Maryland.

## SPECIAL NETWORKS AND PROGRAMS

The ground-water **Climatic Response Network (CRN)** is a National network that provides a framework for collecting and disseminating ground-water level data characterizing climatic variability. The network fills a unique National need and can be used for local, regional, and National investigations of ground-water response to droughts and other climatic effects. The five Maryland and Delaware CRN water-table observation wells period-of-record hydrographs are shown in figure 3.

**The National Water-Quality Assessment (NAWQA) Program** of the U.S. Geological Survey is a long-term program designed to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 59 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and account for a large percentage of the Nation's water use. A wide array of chemical constituents are being measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision-making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and National interest.

Communication and coordination between USGS personnel and other local, State, and Federal agencies are critical components of the NAWQA program. Each study unit has a local liaison committee consisting of representatives from key federal, State, and local water-resources agencies, Indian Nations, and universities. Liaison committees typically meet semi-annually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to coordinate efforts among the agencies. Additional information about the NAWQA program is available on the world wide web at:

<http://water.usgs.gov/nawqa>

### NAWQA Programs in the Maryland, Delaware, and Washington, D.C. District

#### The Potomac-Delmarva Peninsula Study Unit (PODL)

The Potomac River Basin and Delmarva Peninsula study units of the U.S. Geological Survey National Water-Quality Assessment (NAWQA) program have been combined for cycle II into a single project known as the Potomac-Delmarva Peninsula study (PODL). The NAWQA program emphasis of study components is shifting from documentation of the occurrence and distribution of selected constituents, which was the primary focus in the first round of projects, to enhanced efforts toward understanding the processes controlling water quality, trends in water quality, and the relation of these trends to ecological conditions. The goals will be achieved through integrated assessments of hydrology, geology, and biology. The new project began in 2001 and will complete its current cycle in 2007. During the study period, and afterwards, specific surface-water and ground-water sites will be monitored continuously for analysis of water-quality trends.

In 2002, a sub-project the "Piedmont Urban Land-Use Study near Washington, D.C." began with the purpose of comparing water-table quality changes over time in an urban setting. A network of 30 ground-water-table monitoring wells were drilled in the urban areas around Washington, D.C, in Northern Virginia, and Montgomery County, Maryland. In addition, 2 wells were located in undeveloped parklands as reference wells. Water samples from these reference wells will be used as background water-quality data for comparison to samples collected from the 30 urban monitoring wells. The results of this study will help to understand the effects of recent urbanization on water quality in the water-table aquifer.

## EXPLANATION OF THE RECORDS

The ground-water-levels and quality-of-ground-water records published in this report are for the 2002 water year that began October 1, 2001, and ended September 30, 2002. A calendar of the water year is provided on the inside of the front cover. The records contain ground-water-level data and water-quality data for ground-water. The locations of the ground-water sites where the data were collected are shown in figures 5, 6, and 7. The following sections of 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.

### 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 or spring and to no other. The number usually is assigned when a well is first established and is retained for that well or spring indefinitely. The system used by the U.S. Geological Survey to assign identification numbers for ground-water well sites is based on geographic location. The "latitude-longitude" system is used for wells.

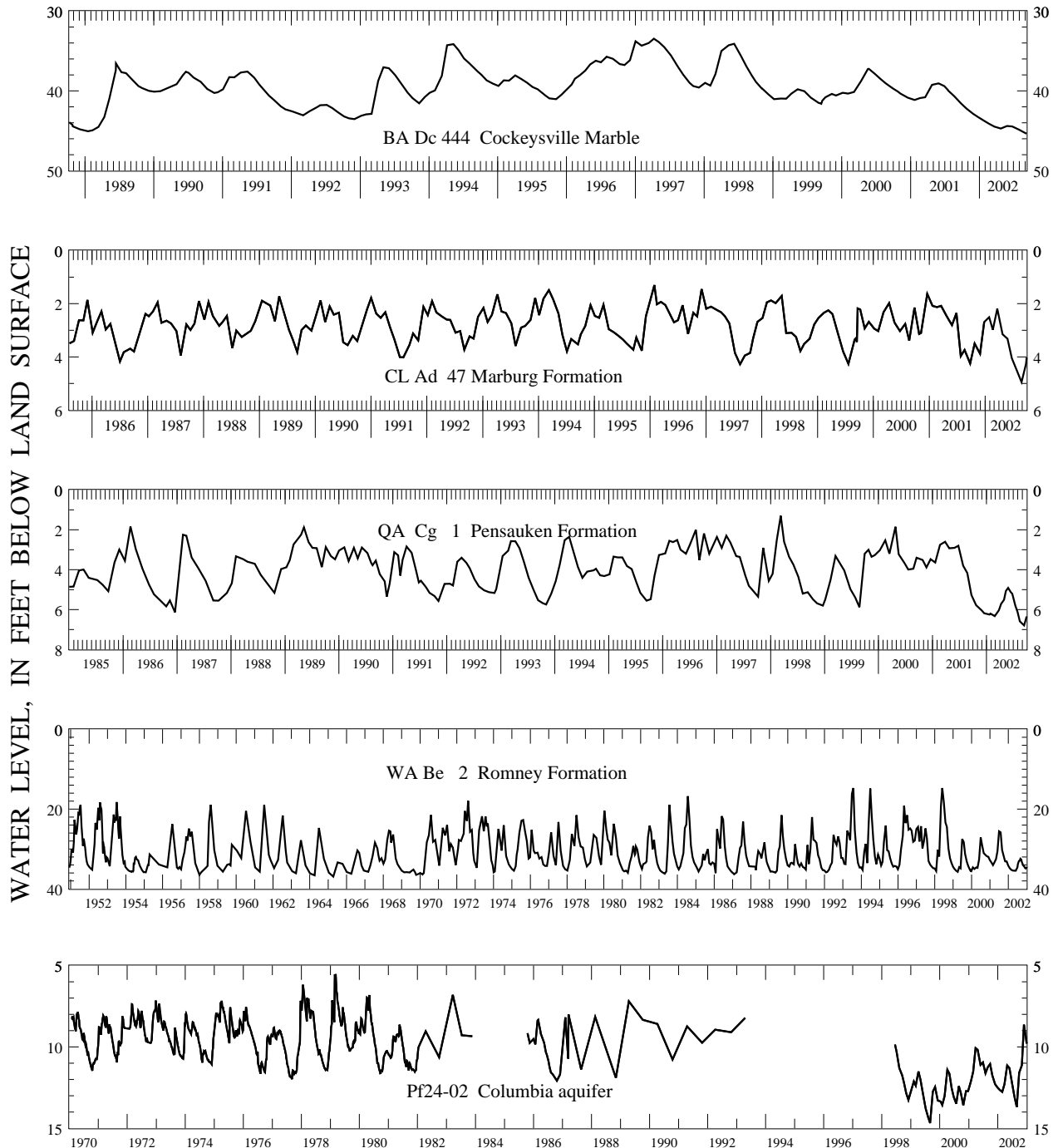


Figure 3. --Ground-water levels for Collection of Basic Records (CBR) network wells in Maryland and Delaware.

### 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 (or springs) or other sites 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 station will retain its initial identification number; however, its true latitude and longitude will be listed in the **LOCATION** paragraph of the station description as the correct latitude and longitude coordinates. (See fig. 4 below.)

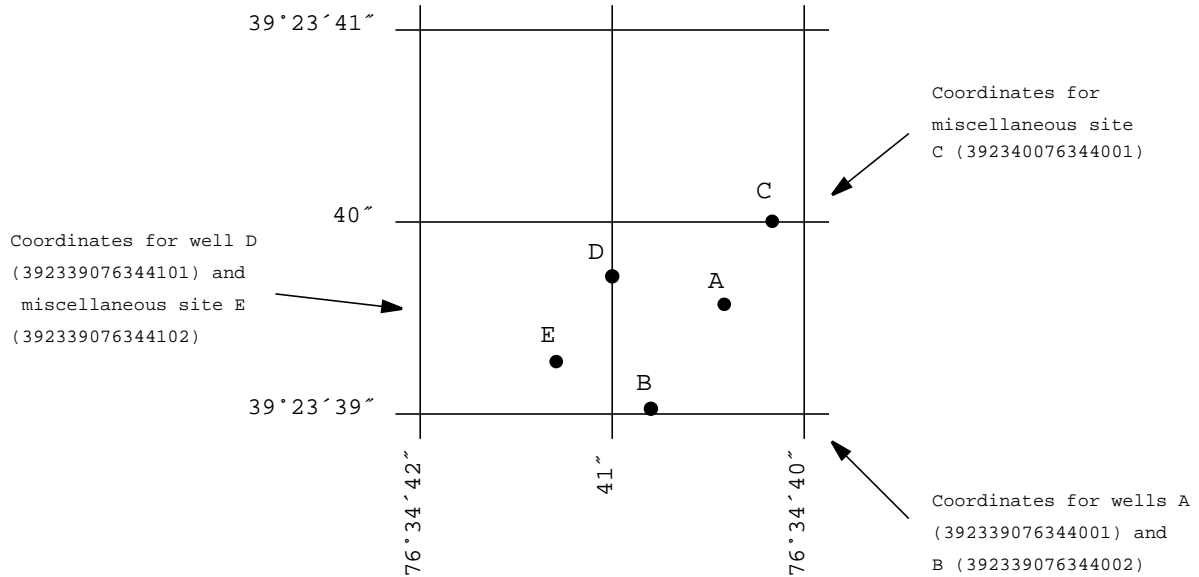


Figure 4.--System for numbering wells and miscellaneous sites (latitude and longitude).

### Well-Numbering System

#### Maryland

Wells in Maryland are also identified on the basis of a second numbering system established by the Maryland Geological Survey. The first two letters of the well number are the county prefix (for example, AL for Allegany). The second part of the well number consists of two letters that designate a 5-minute quadrangle within the county; the first letter (a capital letter) denotes a 5-minute segment of latitude from north to south, and the second letter (lower case) denotes a 5-minute segment of longitude from west to east. The wells are numbered sequentially within each 5-minute quadrangle. For example, well AL Ah 1 is the first well inventoried within the Ah 5-minute quadrangle in Allegany County. Baltimore City well numbers are based on 1-mile grids, with reference to the Washington Monument as the center. Thus, well 7S4E-1 is in the grid cell 7 miles south and 4 miles east of the Washington Monument, and is the first well inventoried in that grid cell.

#### Delaware

Delaware wells are identified by a numbering system instituted by the Delaware Geological Survey. The State is divided into 5-minute quadrangles of latitude and longitude. The quadrangles are lettered north to south with capital letters. Each 5-minute quadrangle is further subdivided into 25 1-minute blocks, which are numbered from north to south from 1 to 5, and are numbered in the sequence in which they are inventoried. The identity of a well is established by prefixing the sequence number with an upper and lower case letter followed by two numbers to designate the 5-minute and 1-minute blocks, respectively, in which the well is located. For example, well number Cb41-03 is the third well to be scheduled in the 1-minute block 41 that has coordinate "Cb41".

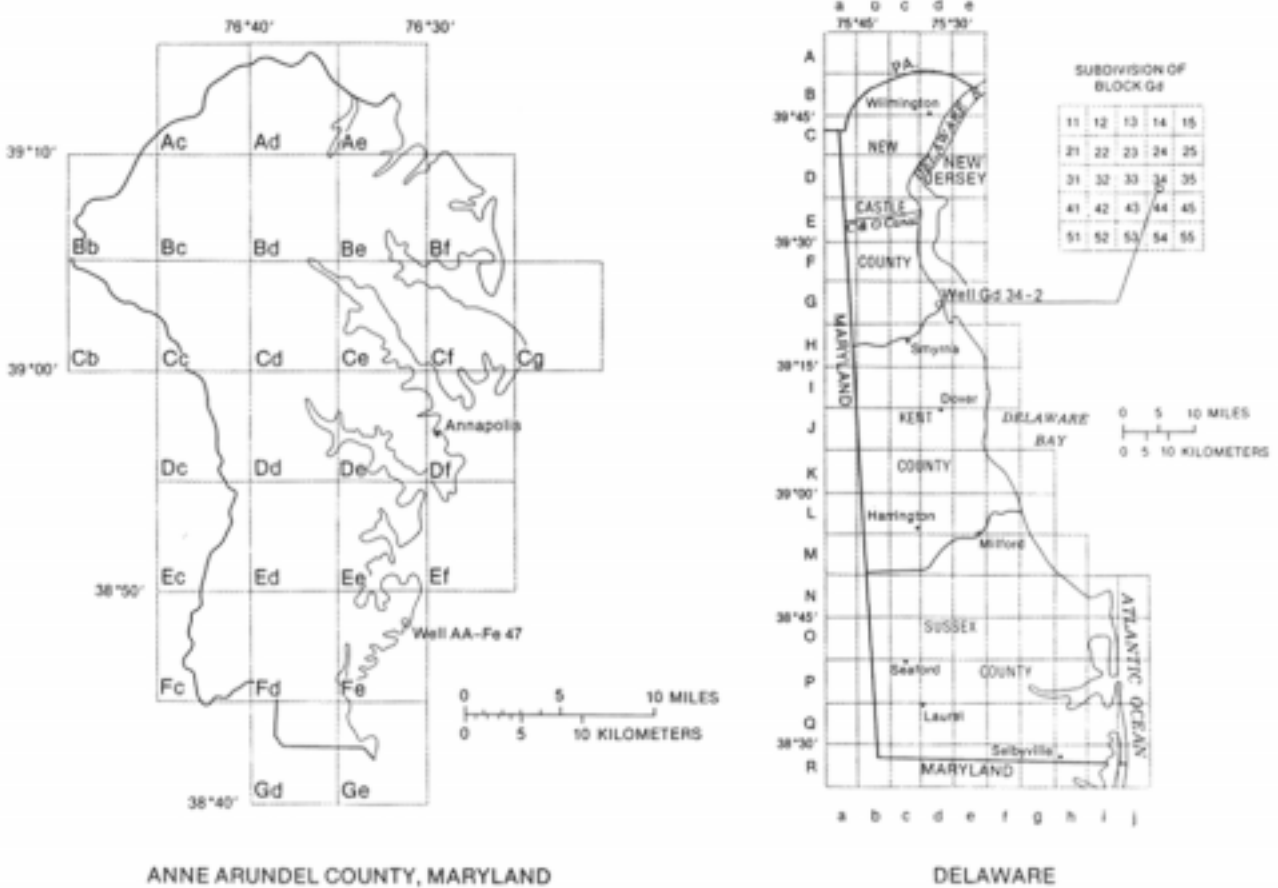
#### Washington, D.C.

Ground-water studies by the U.S. Geological Survey apply a numbering system using the nine 7 1/2-minute quadrangle maps that cover parts of Washington, D.C., and the three bordering quadrangles to the north. Each quadrangle is divided into nine rectangles by lines drawn at the 2 1/2-minute intervals. The rectangles are lettered A, B, and C from top to bottom, and a, b, and c from west to east. An upper case single or double letter is designated for the quadrangle name as follows:

R -----	Rockville	FC -----	Falls Church	AN -----	Annandale
K -----	Kensington	WW -----	Washington West	AX -----	Alexandria
BT -----	Beltsville	WE -----	Washington East	AC -----	Anacostia

The wells and springs are numbered sequentially in each quadrangle. Well WW-Cc 12 is the twelfth well inventoried in the southeasternmost rectangle, in the Washington West quadrangle. The upper Aa, Ab, or Ac rectangles are not used for the Rockville, Kensington, and Beltsville quadrangles.

WATER RESOURCE DATA - MARYLAND, DELAWARE, AND WASHINGTON, D.C., WATER YEAR 2002



Well prefixes of Maryland Coastal Plain counties

Alegany	AL	Howard	HO
Anne Arundel	AA	Kent	KE
Baltimore	BA	Montgomery	MO
Calvert	CA	Prince Georges	PG
Caroline	CL	Queen Annes	QA
Carroll	CO	St. Marys	SM
Cecil	CE	Somerset	SO
Charles	CH	Talbot	TA
Dorchester	DO	Washington	WA
Frederick	FR	Wicomico	WI
Harford	HA	Worcester	WO
Garrett	GA		

WASHINGTON, D.C.

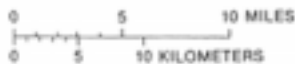


FIGURE 5. -- Well-numbering systems used in Maryland, Delaware, and Washington, D.C.

### Records of Ground-Water Levels

Water-level data and spring discharges from the Maryland and Delaware Ground-Water-Level Monitoring Networks, and observation wells from 17 ground-water projects are reported. These data are intended to provide historical water-level information for ground-water management, and identify ground-water conditions in project areas. The observation-well networks were established to observe ground-water level fluctuations through time and to identify areas of man-induced stress on the ground-water-flow system. The locations of the State network spring and observation wells in Maryland and Delaware are shown on Figure 5. The locations of project wells are shown on Figure 6.

#### Data Collection and Computation

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

The water-level data tables and hydrographs are presented in alphabetical order by counties. The primary identification number is the State well number that appears in the upper left hand corner. The secondary identification number is the 15-digit site identification number (see Latitude-Longitude System section on page 7).

Water levels are measured manually by steel tape or by an electric tape (meter) approximately every 4 to 6 weeks; some wells are equipped with continuous graph or digital water-level recorders to observe daily fluctuations. The water levels are reported to the nearest hundredth of a foot above or below land-surface datum (**lsd**) or sea level. Land-surface datum is a datum plane that is approximately at land surface at each well. The elevation of the land-surface datum and the height of the measuring point (**MP**) above or below land-surface datum is given in each well description. Water levels for wells equipped with graphic or digital recorders report the daily maximum and minimum values.

#### Data Presentation

A description of each observation well precedes the water-level tables and hydrographs. The following information is given in the description:

**SPRING or WELL NUMBER.**--(See **Well-Numbering System** section on page 7.)

**SITE ID.**--A 15-digit number: the first 6 digits are the latitude, the next 7 digits are the longitude, and the last 2 digits refer to the sequence number for identifying one or more wells at a particular latitude and longitude. The site ID is the best location at the time of inventory. The actual latitude and longitude may be slightly different as a result of more up-to-date knowledge of location. The site ID is basically used as an identification number and not an exact location. (See **Latitude-Longitude System** section on page 7.)

**PERMIT NUMBER.**--The permit number is the State permit number required for drilling wells in Maryland and Delaware. Upon completion of the well, the driller must submit a completion report which documents specific data on the construction of the well. This document also reports the pumpage results in terms of pumping period, yield as gallons per minute, and drawdown.

**LOCATION.**--The location is the latitude and longitude in the appropriate designation of degrees, minutes, and seconds. The hydrologic unit is a code for the river basin where the well is located (U.S. Geological Survey, Hydrologic Unit Map-1974 States of Maryland and Delaware). A brief local description of the location is also given along with the well-owner's name.

**AQUIFER.**--The aquifer is the geologic formation from which the well receives its water supply. Each aquifer is identified by its geologic age and the U.S. Geological Survey Ground Water Site Inventory (GWSI) data base aquifer code.

**WELL CHARACTERISTICS.**--This describes the type of well, the physical characteristics of the well, and a summary of the known construction information.

**INSTRUMENTATION.**--This provides information on the frequency of measurement of well water levels and water-level equipment or spring discharge equipment used.

**DATUM.**--This lists the altitude of land surface above sea level at the well to the nearest 10 feet as determined from a 7-1/2-minute quadrangle topographic map, or to the nearest hundredth or tenth of a foot as determined from surveying. The measuring point (**MP**) is the distance above or below the land surface at the point at which the water-level measurements are made.

**REMARKS.**--This section gives important miscellaneous data relevant to the spring or well site.

**PERIOD OF RECORD.**--The period of record lists the beginning and ending month and year of water-level record or "current year" if the records are to be continued into the following year.

**EXTREMES FOR PERIOD OF RECORD.**--This entry identifies the highest and lowest water levels during the period of record, either as land-surface datum or sea level, and the dates of their occurrence.

#### Spring Discharge Tables

A table of discharge in gallons per minute follows the station description for each spring. The data appears in a table format showing date and discharge. The discharge measurements are measured volumetrically or by use of a flow meter as indicated in the **INSTRUMENTATION** section.

#### Water-Level Tables

A table of water levels follows the station description for each well. Water levels are reported in either of the following table formats:

**Hand-held measurements.**--If the data are collected by hand held measurements, the data appears in a table format of date and water level with the datum in reference to land surface or sea level. These values are reported to the nearest hundredth of a foot.

**Recorder.**--Water levels are presented in a two-page 6-month format by water year with columns for daily maximums and minimums. These data are reported in reference to either land surface or sea level datum. The daily maximum column referenced to land-surface data represents the lowest daily water level recorded. The daily minimum column referenced to land surface data represents the highest water level recorded. For data referenced to sea level, the daily maximum column represents highest daily water level recorded. The daily minimum column represents the lowest daily water level recorded. Missing data are represented by dashes in the table.

#### Hydrographs

The hydrographs are a graphic display of water-level fluctuations over a period of time. In this report, a 5-year hydrograph is shown starting October 1, 1997 through September 30, 2002. Hydrographs are either referenced to land surface or sea level datum. Each measurement is indicated by a circle and connected with a dashed line to indicate the trend from one measurement to the next. The trend line should be interpreted as a general direction of water-level movement. Actual water levels may deviate from this line. The trend line is not drawn if the measurements are greater than 60 days apart. Recorder data are graphed as a continuous line using the lowest water level recorded for each day. Missing data are indicated by a blank space. Missing data result from recorder malfunctions, battery or clock failures, and mechanical problems related to the response of water-level movement in a well. Spring hydrographs are a graphic display of total volumetric flow at the time of measurement in gallons per minute.

#### Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that, for most sampling sites, they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes slowly; therefore, for most purposes, one annual sampling, or only a few samples taken at infrequent intervals during the year, are sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate or chloride concentrations. In special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes. The locations of water-quality wells in Maryland and Delaware are shown in Figure 7.

#### Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as part of ground-water studies in specific areas. Consequently, a number of chemical analyses are presented for some counties, but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality District-wide. This can be attained only by considering records for this year in context with similar records obtained for these and other springs and wells in earlier years.

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations (**TWRI's**) publications referred to in the "On-site Measurements and Sample Collection" and the "Laboratory Measurements" sections in this data report. In addition, the **TWRI** Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. These methods are consistent with the American Society for Testing and Materials (**ASTM**) standards and generally follow the standards of the International Organization for Standards (**ISO**).

#### Data Presentation

The records of ground-water quality are published in a section titled **QUALITY OF GROUND WATER** immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by County, and are identified by a well or spring number (**Well Number**). The prime identification number for wells or springs sampled is the 15-digit (**Site ID**) number derived from the latitude-longitude locations. The site ID includes a two-digit sequence number for use at locations having multiple sites. Under the heading **Station Type** wells are identified by the abbreviation GW for ground-water and SP for springs. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water.

**Remark Codes**

The following remark codes may appear with the water-quality data in this report:

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
E	Estimated value.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.
V	Analyte was detected in both the environmental sample and the associated blank.
M	Presence of material verified but not quantified.

**WATER-QUALITY CONTROL DATA**

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by this District are described in the following section. Procedures have been established for the storage of water-quality-control data within the U.S. Geological Survey. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples.

**Blank Samples**

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated by the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analyses of interest. Any measured value for an analyte (a specific component measured in a chemical analysis) found in a blank sample that was absent in the blank solution, is believed to be due to contamination. There are many types of blank samples possible, each designed to segregate a different part of the overall data-collection process. The types of blank samples collected in this District are:

**Field Blank** - a blank solution that is subjected to all aspects of sample collection, field-processing preservation, transportation, and laboratory handling as an environmental sample.

**Trip blank** - a blank solution that is processed through the same type of bottle used for an environmental sample and kept with the set of sample bottles before and after sample collection.

**Equipment blank** - a blank solution that is processed through all equipment used for collecting and processing an environmental sample (similar to a field blank but normally done in the more controlled conditions of the office).

**Sampler blank** - a blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

**Filter blank** - a blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

**Splitter blank** - a blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

**Preservation blank** - a blank solution that is treated with the sampler preservatives used for an environmental sample.

**Reference Samples**

A Reference sample is a solution or material prepared by a laboratory whose composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to insure that an analytical method is accurate for the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.



### Replicate Samples

Replicate samples are a set of environmental samples collected in a manner so that the samples are considered to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. There are many types of replicate samples possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in this District are:

**Concurrent sample** - a type of replicate sample in which the samples are collected simultaneously with two or more samplers or by using one sampler and alternating collection of samples into two or more compositing containers.

**Sequential sample** - a type of replicate sample in which the samples are collected one after the other, typically over a short time.

**Split sample** - a type of replicate sample in which a sample is split into subsamples contemporaneous in time and space.

### Spike Samples

Spike samples are samples to which known quantities of a solution with one or more well-established analyte concentrations have been added. These samples are analyzed to determine the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.

**Concurrent sample** - a type of spike sample that is collected at the same time with the same sampling and compositing devices then spiked with the same spike solution containing laboratory-certified concentrations of selected analytes.

**Split sample** - a type of spike sample in which a sample is split into subsamples contemporaneous in time and space then spiked with the same spike solution containing laboratory-certified concentrations of selected analytes.

### ACCESS TO USGS DATA

The U.S. Geological Survey (USGS) is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the Geological Survey's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National Water Information System (NWIS) an updated version of the former National Water Data Storage and Retrieval System (WATSTORE) provides an effective and efficient means for the processing and maintenance of water data collected through the activities of the U.S. Geological Survey and for release of the data to the public. The District computer network system in Baltimore is the main data storage facility for Maryland, Delaware, and Washington, D.C. water data. The following data bases can be accessed for ground-water data:

**Ground-Water Site Inventory data base (GWSI)** - Contains inventory data for 30,557 ground-water wells, 810 springs, and 2,382 surface water sites. The ground-water data includes site location, geohydrologic characteristics, well construction and manually measured water-level data or spring improvements and discharges, along with other pertinent ground-water information.

**Automated Data Processing System (ADAPS)** - Contains daily values for 299 observation well water-levels and 726 streamflow stages, along with water temperature, specific conductance, and dissolved oxygen for surface water stations equipped with water-quality monitors.

**Quality Water Data base (QWDATA)** - Contains analyses of water samples which include environmental and quality control samples that describe the chemical, physical, biological, and radio-chemical characteristics of both ground-water sites (4,718 sites, 11,109 analyses), and surface-water stations (958 sites, 39,770 analyses).

**State Water Use Data System (SWUDS)** - Contains water user consumption information for 2,248 Maryland, and 519 Delaware ground-water use appropriations, and 773 Maryland surface water use appropriations with monthly and daily water use totals.

Some water-quality and ground-water data also are available through the world wide web (WWW). These data may be accessed at:

<http://md.water.usgs.gov/>

Specific ground-water real-time and near real-time water-level observation well data and hydrographs can be accessed on the Maryland, Delaware and Washington, D.C., Water Resources Division district world wide web (WWW) page at:

[http://md.water.usgs.gov/groundwater/web\\_wells/current/water\\_table/counties/index.htm](http://md.water.usgs.gov/groundwater/web_wells/current/water_table/counties/index.htm)

[http://md.water.usgs.gov/groundwater/web\\_wells/current/confined/counties/index.htm](http://md.water.usgs.gov/groundwater/web_wells/current/confined/counties/index.htm)

In addition, data can be provided in various machine-readable formats on 3-1/2 inch floppy disk and CD. Information about the availability of specific types of data or products, and user charges, can be obtained from the District Office (See address on bottom of the title page).

## DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as 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.

**Acid neutralizing capacity (ANC)** is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an "unfiltered" sample (formerly reported as alkalinity).

**Adenosine triphosphate (ATP)** is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes ATP an excellent indicator of the presence of living material in water. A measurement of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter.

**Algal growth potential (AGP)** is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

**Alkalinity** is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a "filtered" sample.

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

**Aroclor** is the registered trademark for a group of polychlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type and the last two digits represent the weight percent of the hydrogen substituted chlorine.

**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.

**Bacteria** are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

**Biochemical oxygen demand (BOD)** is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

**Biomass** is the amount of living matter present at any given time, expressed as mass per unit area or volume of habitat.

**Cells/volume** refers to the number of cells of any organism that is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample volume, and are generally reported as cells or units per milliliter (mL) or liter (L).

**Chemical oxygen demand (COD)** is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with BOD or with carbonaceous organic pollution from sewage or industrial wastes. [See also "Biochemical oxygen demand (BOD)"]

**Clostridium perfringens (C. perfringens)** is a spore-forming bacterium that is common in the feces of human and other warm-blooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination and presence of microorganisms that are resistant to disinfection and environmental stresses. (See also "Bacteria")

**Coliphages** are viruses that infect and replicate in coliform bacteria. They are indicative of sewage contamination of waters and of the survival and transport of viruses in the environment.

**Color unit** is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

**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 logger** is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data are usually downloaded from on site 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 "Gage datum," "Land-surface datum," "National Geodetic Vertical Datum of 1929," and "North American Vertical Datum of 1988")

**Dissolved** refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal and State agencies that collect water-quality data. Determinations of "dissolved" constituent concentrations are made on sample water that has been filtered.

**Dissolved oxygen (DO)** is the molecular oxygen (**oxygen gas**) dissolved in water. The concentration in water is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved-solids concentration. Photosynthesis and respiration by plants commonly cause diurnal variations in dissolved-oxygen concentration in water from some streams.

**Dissolved-solids concentration** in water is the quantity of dissolved material in a sample of water. It is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4926 to convert it to carbonate. Alternatively, alkalinity concentration (as mg/L CaCO<sub>3</sub>) can be converted to carbonate concentration by multiplying by 0.60.

**Enterococcus bacteria** are commonly found in the feces of humans and other warm-blooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41 °C on mE/EIA method and subsequent transfer to EIA medium. Enterococci include *Streptococcus faecalis*, *Streptococcus faecium*, *Streptococcus avium*, and their variants. (See also "Bacteria")

**Escherichia coli (E. coli)** are bacteria present in the intestine and feces of warm-blooded animals. *E. coli* are a member species of the fecal coliform group of indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5 °C on mTEC medium. Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

**Estimated (E) value** of a concentration is reported when an analyte is detected and all criteria for a positive result are met. If the concentration is less than the method detection limit (MDL), an 'E' code will be reported with the value. If the analyte is qualitatively identified as present, but the quantitative determination is substantially more uncertain, the National Water Quality Laboratory will identify the result with an 'E' code even though the measured value is greater than the MDL. A value reported with an 'E' code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL preceded by a less than sign (<).

**Extractable organic halides (EOX)** are organic compounds that contain halogen atoms such as chlorine. These organic compounds are semi-volatile and extractable by ethyl acetate from air-dried streambed sediments. The ethyl acetate extract is combusted, and the concentration is determined by microcoulometric determination of the halides formed. The concentration is reported as micrograms of chlorine per gram of the dry weight of the streambed sediments.

**Fecal coliform bacteria** are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 °C plus or minus 0.2 °C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

**Fecal streptococcal bacteria** are present in the intestine of warm-blooded animals and are ubiquitous in the environment. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35 °C plus or minus 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

**Gas chromatography/flame ionization detector (GC/FID)** is a laboratory analytical method used as a screening technique for semi-volatile organic compounds that are extractable from water in methylene chloride.

**Hardness** of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations (primarily calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate (CaCO<sub>3</sub>).

**Hydrologic benchmark station** is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a benchmark station may be used to separate effects of natural from human-induced changes in other basins that have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped benchmark basin.

**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.

**Laboratory Reporting Level (LRL)** is generally equal to twice the yearly determined long-term method detection level (LT-MDL). The LRL controls false negative error. The probability of falsely reporting a non-detection for a sample that contained an analyte at a concentration equal to or greater than the LRL is predicted to be less than or equal to 1 percent. The value of the LRL will be reported with a "less than" (<) remark code for samples in which the analyte was not detected. The National Water Quality Laboratory collects quality-control data from selected analytical methods on a continuing basis to determine LT-MDLs and to establish LRLs. These values are reevaluated annually based on the most current quality-control data and may, therefore, change. [Note: In several previous NWQL documents (Connor and others, 1998; NWQL Technical Memorandum 98.07, 1998), the LRL was called the non-detection value or NDV—a term that is no longer used.]

**Land-surface datum (lsd)** is a datum plane that is approximately at land surface at each ground-water monitoring spring or well.

**Lipid** is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many environmental contaminants such as organochlorine pesticides are lipophilic.

**Long-Term Method Detection Level (LT-MDL)** is a detection level derived by determining the standard deviation of a minimum of 24 method detection limit (MDL) spike sample measurements over an extended period of time. LT-MDL data are collected on a continuous basis to assess year-to-year variations in the LT-MDL. The LT-MDL controls false positive error. The chance of falsely reporting a concentration at or greater than the LT-MDL for a sample that did not contain the analyte is predicted to be less than or equal to 1 percent.

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

**Membrane filter** is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

**Metamorphic stage** refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

**Method Detection Limit (MDL)** is the minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero. It is determined from the analysis of a sample in a given matrix containing the analyte. At the MDL concentration, the risk of a false positive is predicted to be less than or equal to 1 percent.

**Methylene blue active substances (MBAS)** are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

**Micrograms per gram (UG/G,  $\mu\text{g/g}$ )** is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

**Micrograms per kilogram (UG/KG,  $\mu\text{g/kg}$ )** is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

**Micrograms per liter (UG/L,  $\mu\text{g/L}$ )** is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter. One microgram per liter is equivalent to 1 part per billion.

**Microsiemens per centimeter (US/CM,  $\mu\text{S/cm}$ )** is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

**Milligrams per liter (MG/L,  $\text{mg/L}$ )** is a unit for expressing the concentration of chemical constituents in water as the mass (milligrams) of constituent per unit volume (liter) of water. Concentration of suspended sediment also is expressed in  $\text{mg/L}$  and is based on the mass of dry sediment per liter of water-sediment mixture.

**Minimum Reporting Level (MRL)** is the smallest measured concentration of a constituent that may be reliably reported by using a given analytical method (Timme, 1995).

**Most probable number (MPN)** is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. MPN is determined from the distribution of gas-positive cultures among multiple inoculated tubes.

**Nanograms per liter (NG/L,  $\text{ng/L}$ )** is a unit expressing the concentration of chemical constituents in solution as mass (nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

**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> (See "North American Vertical Datum of 1988")

**The National Water-Quality Assessment (NAWQA) Program** of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

**North American Vertical Datum of 1988 (NAVD 1988)** is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the U.S. This datum was established in 1991 by minimum-constraint adjustment of the Canadian, Mexican, and U.S. first-order terrestrial leveling networks.

**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.

**Organic carbon (OC)** is a measure of organic matter present in aqueous solution, suspension, or bottom sediments. May be reported as dissolved organic carbon (DOC), particulate organic carbon (POC), or total organic carbon (TOC).

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter ( $m^2$ ), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Organochlorine compounds are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

Parameter Code is a 5-digit number used in the USGS computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

Partial-record station is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine the fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification, as used in this report, agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay	0.00024- 0.004	Sedimentation
Silt	0.004 - 0.062	Sedimentation
Sand	0.062 - 2.0	Sedimentation/sieve
Gravel	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Percent composition or percent of total is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, weight, mass, or volume.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions at 25 °C with pH less than 7 are termed "acidic," and solutions with a pH greater than 7 are termed "basic." Solutions with a pH of 7 are neutral. The presence and concentration of many dissolved chemical constituents found in water are, in part, influenced by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms are also influenced, in part, by the hydrogen-ion activity of water.

Picocurie (PC, pCi) is one trillionth ( $1 \times 10^{-12}$ ) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields  $3.7 \times 10^{10}$  radioactive disintegrations per second (dps). A picocurie yields 0.037 dps, or 2.22 dpm (**disintegrations per minute**).

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Polychlorinated naphthalenes (PCNs) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCBs) and have been identified in commercial PCB preparations.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (**chiefly, green plants**). The rate of primary production is estimated by measuring the amount of oxygen released (**oxygen method**) or the amount of carbon assimilated (**carbon method**) by the plants.

Radioisotopes are isotopic forms of elements that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

Replicate samples are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

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 front cover) for identification of the datum used in this report.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Sodium hazard in water is an index that can be used to evaluate the suitability of water for irrigating crops.

**Specific electrical conductance (conductivity)** is a measure of the capacity of water (or other media) to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific electrical conductance is a function of the types and quantity of dissolved substances in water and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (**in milligrams per liter**) is from 55 to 75 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

**Stable isotope ratio (part per MIL)** is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific waters, to evaluate mixing of different waters, as an aid in determining reaction rates, and other chemical or hydrologic processes.

**Suspended (as used in tables of chemical analyses)** refers to the amount (**concentration**) of undissolved material in a water-sediment mixture. It is operationally defined as the material retained on a 0.45-micrometer filter.

**Suspended, recoverable** is the amount of a given constituent that is in solution after the part of a representative suspended water-sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results. Determinations of "suspended, recoverable" constituents are made either by directly analyzing the suspended material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent. (See also "Suspended")

**Suspended, total** is the total amount of a given constituent in the part of a water-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. Knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total." Determinations of "suspended, total" constituents are made either by directly analyzing portions of the suspended material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent. (See also "Suspended")

**Synoptic studies** are short-term investigations of specific water-quality conditions during selected seasonal or hydrologic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

**Taxonomy** is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata*, is the following:

Kingdom:	Animal
Phylum:	Arthropoda
Class:	Insecta
Order:	Ephemeroptera
Family:	Ephemeridae
Genus:	<i>Hexagenia</i>
Species:	<i>Hexagenia limbata</i>

**Time-weighted average** is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water resulting from the mixing of flow proportionally to the duration of the concentration.

**Total** is the amount of a given constituent in a representative whole-water (**unfiltered**) sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined at least 95 percent of the constituent in the sample.)

**Total coliform bacteria** are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warm-blooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35 °C. In the laboratory, these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C plus or minus 1.0 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

**Total recoverable** is the amount of a given constituent in a whole-water sample after a sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data for whole-water samples, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures may produce different analytical results.

**Vertical datum (See "Datum")**

Volatile organic compounds (VOCs) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and subsequently analyzed by gas chromatography. Many VOCs are human-made chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They are often components of fuels, solvents, hydraulic fluids, paint thinners, and dry cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human health concern because many are toxic and are known or suspected human carcinogens (U.S. Environmental Protection Agency, 1996).

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 Water Resources Discipline reports is the 12-month period starting October 1, and ending September 30 of the following year. Thus, the "2002" water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. "water year" begins October 1, 2001 and ends September 30, 2002.

WDR is used as an abbreviation for "Water-Data Report" in the "REVISED RECORDS" paragraph to refer to State annual hydrologic-data reports. (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976.)

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

## PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The USGS publishes a series of manuals titled the "Techniques of Water-Resources Investigations" that describe procedures for planning and conducting specialized work in water-resources investigations. The material in these manuals 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. Each chapter then is limited to a narrow field of the section subject matter. This publication format permits flexibility when revision or printing is required.

Manuals in the Techniques of Water-Resources Investigations series, which are listed below, are available online at <http://water.usgs.gov/pubs/twri/>. Printed copies are available for sale from the USGS, Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (an authorized agent of the Superintendent of Documents, Government Printing Office). Please telephone "1-888-ASK-USGS" for current prices, and refer to the title, book number, section number, chapter number, and mention the "U.S. Geological Survey Techniques of Water-Resources Investigations." Other products can be viewed online at <http://www.usgs.gov/sales.html>, or ordered by telephone or by FAX to (303)236-4693. Order forms for FAX requests are available online at <http://mac.usgs.gov/isb/pubs/forms/>. Prepayment by major credit card or by a check or money order payable to the "U.S. Geological Survey" is required.

**Book 1. Collection of Water Data by Direct Measurement****Section D. Water Quality**

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

**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, Chapter D1. 1974. 116 pages.
- 2-D2. **Application of seismic-refraction techniques to hydrologic studies**, by F. P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 pages.

**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, Chapter E1. 1971. 126 pages.
- 2-E2. **Borehole geophysics applied to ground-water investigations**, by W. S. Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 pages.

**Section F. Drilling and Sample 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, Chapter F1. 1989. 97 pages.

**Book 3. Application 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, Chapter A1. 1967. 30 pages.
- 3-A2. **Measurement of peak discharge by the slope-area method**, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. **Measurement of peak discharge at culverts by indirect methods**, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. **Measurement of peak discharge at width contractions by indirect methods**, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. **Measurement of peak discharge at dams by indirect methods**, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. **General procedure for gaging streams**, by R. W. Carter and Jacob Dividian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. **Stage measurements at gaging stations**, T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. **Discharge measurements at gaging stations**, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A9. **Measurement of time of travel and dispersion in streams by dye tracing**, by F. A. Kilpatrick, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.
- 3-A10. **Discharge ratings at gaging stations**, E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. **Measurement of discharge by moving-boat method**, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3,



## PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

## Book 3. Application of Hydraulics--Continued

## Section A. Surface-Water Techniques--Continued

- 3-A11. Measurement of discharge by moving-boat method, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A12. Fluorometric procedures for dye tracing, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A12. 1986. 34 pages.
- 3-A13. Computation of continuous records of streamflow, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. Use of flumes in measuring discharge, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. Computation of water-surface profiles in open channels, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-A16. Measurement of discharge using tracers, by F. A. Kilpatrick and E. D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.
- 3-A17. Acoustic velocity meter systems, by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.
- 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, Chapter 18. 1989. 52 pages.
- 3-A19. Levels of streamflow gaging stations, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 31 pages.
- 3-A20. Simulation of soluble waste transport and buildup in surface waters using tracers, by F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A20. 1993. 38 pages.
- 3-A21. Stream-gaging cableways, by C. Russell Wagner: USGS--TWRI Book 3, Chapter A21. 1995. 56 pages.

## Section B. Ground-Water Techniques

- 3-B1. Aquifer-test design, observation, and data analysis, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. Introduction to ground-water hydraulics, a programmed text for self-instruction, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. Type curves for selected problems of flow to wells in confined aquifers, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.
- 3-B4. Regression modeling of ground-water flow, by R. L. Cooley and Richard L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.
- 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, Chapter B4. 1993. 8 pages.
- 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, Chapter B5. 1987. 15 pages.
- 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, Chapter B6. 1987. 28 pages.
- 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, Chapter B7. 1992. 190 pages.
- 3-B8. System and boundary conceptualization in ground-water flow simulation, by T.E. Reilly: USGS--TWRI Book 3, Chapter B8. 2001. 29 pages.

## Section C. Sedimentation and Erosion Techniques

- 3-C1. Fluvial sediment concepts, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. Field methods of measurement of fluvial sediment, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. Computation of fluvial-sediment discharge, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

## 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, Chapter A1. 1968. 39 pages.
- 4-A2. Frequency curves, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

## PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

## Book 4. Hydrologic Analysis and Interpretation--Continued

## Section B. Surface Water

- 4-A3. **Statistical methods in water resources**, by D.R. Helsel and R.M. Hirsch: USGS-TWRI book 4, chap. A3. 1991. Available only online at <http://water.usgs.gov/pubs/twri/twri4a3/>. (Accessed August 30, 2002.)
- 4-B1. **Low-flow investigations**, by H.C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. **Storage analyses for water supply**, by H.C. Riggs and C.H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. **Regional analyses of streamflow characteristics**, by H.C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

## 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, Chapter D1. 1970. 17 pages.

## 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: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.
- 5-A2. **Determination of minor elements in water by emission spectroscopy**, by P.R. Barnett and E.C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. **Methods for determination of organic substances in water and fluvial sediments**, by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.
- 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, Chapter A4. 1989. 363 pages.
- 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, Chapter A5. 1977. 95 pages.
- 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, Chapter A6. 1982. 181 pages.

## Section C. Sediment Analysis

- 5-C1. **Laboratory theory and methods for sediment analysis**, by H.P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

## 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, Chapter A1. 1988. 586 pages.
- 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, Chapter A2. 1991. 68 pages.
- 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, Chapter A3. 1993. 136 pages.
- 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, Chapter A4. 1992. 108 pages.
- 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, Chapter A5. 1993. 243 pages.
- 6-A6. **A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction**, by E.D. Swain and E.J. Wexler: USGS--TWRI Book 6, Chapter A6. 1995. 125 pages.
- 6-A7. **User's guide to SEAWAT: A computer program for simulation of three-dimensional variable-density ground-water flow**, by Weixing Guo and C. D. Langevin: USGS--TWRI book 6, Chapter A7, 2002. 77 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, Chapter C1. 1976. 116 pages.
- 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, Chapter C2. 1978. 90 pages.

## PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

**Book 8. Instrumentation****Section A. Instruments for Measurement of Water Level**

- 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, Chapter C3. 1981. 110 pages.
- 8-A1. Methods of measuring water levels in deep wells, by M.S. Garber and F.C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-A2. Installation and service manual for U. S. Geological Survey manometers, by J.D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.

**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, Chapter B2. 1968. 15 pages.

**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 Gibs, and R.T. Iwatsubo: USGS--TWRI Book 9, Chapter A1. 1998. Variously paginated.
- 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 Gibs, and R.T. Iwatsubo: USGS--TWRI Book 9, Chapter A2. 1998. Variously paginated.
- 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 Gibs, and R.T. Iwatsubo: USGS--TWRI Book 9, Chapter A3. 1998. Variously paginated.
- 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 Gibs, and R.T. Iwatsubo: USGS--TWRI Book 9, Chapter A4. 1999. Variously paginated.
- 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 Gibs, and R.T. Iwatsubo: USGS--TWRI Book 9, Chapter A5. 1999. Variously paginated.
- 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, Chapter A6. 1998. Variously 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, Chapter A7. 1997 and 1999. Variously paginated.
- 9-A8. National Field Manual for the Collection of Water-Quality Data: Bottom-material samples, edited by D.B. Radtke: USGS--TWRI Book 9, Chapter A8. 1998. Variously paginated.
- 9-A9. National Field Manual for the Collection of Water-Quality Data: Safety in Field Activities, edited by S.L. Lane and R.G. Fay: USGS--TWRI Book 9, Chapter A9. 1998. Variously paginated.

**SELECTED U.S. GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN MARYLAND, DELAWARE AND WASHINGTON, D.C.  
PUBLISHED DURING THE 2002 WATER YEAR**

Listed below is a selection of reports on ground-water resources in Maryland, Delaware, and Washington, D.C. which were published in 2002, and are available through the U.S. Geological Survey, Branch of Information Services, Federal Center, Building 41, Box 25286, Denver, Colorado 80225 or through E-mail at [http://mapping.usgs.gov/esic/prices/other\\_publications.html](http://mapping.usgs.gov/esic/prices/other_publications.html).

A list of all the published reports by the U.S. Geological Survey for Maryland, Delaware, and Washington, D.C. can be found on the WEB at <http://vs03mdtws.er.usgs.gov/usgs/bibscollects.html>

**Water-Resources Investigations Reports**

**Occurrence and distribution of microbiological contamination and enteric viruses in shallow ground water in Baltimore and Harford Counties, Maryland**, by Banks, W.S.L., and Battigelli, D.A.: U.S. Geological Survey Water-Resources Investigations Report 01-4216. 2002. 39 pages.

**Assessment of natural attenuation of ground-water contamination at sites FT03, LF13, and WP14/LF15, Dover Air Force Base, Delaware**, by Barbaro, Jeffrey, R.: U.S. Geological Survey Water-Resources Investigations Report 01-4150, 2002. 45 pages.

**Distribution and Mass Loss of volatile organic compounds in the surficial aquifer at Sites FT03, LF13, and Dover Air Force Base, Delaware, November 2000 - February 2001**, by Jeffrey R. Barbaro: U.S. Geological Survey Water-Resources Investigations Report WRIR 02-4121. 2002. 63 pages

**Changes in Ground-Water Quality in the Canal Creek aquifer between 1995 and 2000-2001, West Branch Canal Creek Area, Aberdeen Proving Ground, Maryland**, by Daniel J. Phelan, William B. Fleck, Michelle M. Lorah, and Lisa D. Olsen: U.S. Geological Survey Water-Resources Investigations Report WRIR 02-4076. 2002. 42 pages

**Ground-Water Quality and Discharge to Chincoteague and Sinepuxent Bays adjacent to Assateague Island National Seashore, Maryland**, by Jonathan J.A. Dillow, William S.L. Banks, and Michael J. Smigaj: U.S. Geological Survey Water-Resources Investigations Report WRIR 02-4029. 2002. 42 pages

**Ground-water and surface-water quality data for the West Branch Canal Creek Area, Aberdeen Proving Ground, Maryland, November 1999--May 2001**, by Tracey A. Spencer, Daniel J. Phelan, Lisa D. Olsen, and Michelle M. Lorah: U.S. Geological Survey Open-File Report 01-420. 2002. 295 pages.

**Occurrence and distribution of selected contaminants in public drinking-water supplies in the surficial aquifer in Delaware**, by Matthew J. Ferrari: U.S. Geological Survey Open-File Report 01-327. 2002. 62 pages.

**Water Data Reports**

**Water Resources Data Maryland and Delaware Water Year 2001, Volume 2. Ground-Water Data**, by Michael J. Smigaj, Richard W. Saffer, Robert H. Pentz, and Elizabeth H. Marchand: U.S. Geological Survey Water Data Report WDR-MD-DE-01-2. 2002. 692 pages.

**Open-File Reports**

**The difference between potentiometric surfaces of the Lower Patapsco aquifer, September 1990 and September 2001 in southern Maryland**, by Stephen E. Curtin, David C. Andreasen, and Judith C. Wheeler: U.S. Geological Survey Open-File Report 02-449. 2002. 1 page.

**Potentiometric surface of the Lower Patapsco aquifer in southern Maryland, September 2001**, by Stephen E. Curtin, David C. Andreasen, and Judith C. Wheeler: U.S. Geological Survey Open-File Report 02-448. 2002. 1 page.

**The difference between the potentiometric surfaces of the Upper Patapsco aquifer, September 1990 and September 2001**, by Stephen E. Curtin, David C. Andreasen, and Judith C. Wheeler: U.S. Geological Survey Open-File Report 02-447. 2002. 1 page.

**Potentiometric surface of the Upper Patapsco aquifer in southern Maryland, September 2001**, by Stephen E. Curtin, David C. Andreasen, and Judith C. Wheeler: U.S. Geological Survey Open-File Report 02-446. 2002. 1 page.

**The difference between the potentiometric surfaces of the Magothy aquifer, September 1975 and September 2001**, by Stephen E. Curtin, David C. Andreasen, and Judith C. Wheeler: U.S. Geological Survey Open-File Report 02-445. 2002. 1 page.

**Potentiometric surface of the Magothy aquifer in southern Maryland, September 2001**, by Stephen E. Curtin, David C. Andreasen, and Judith C. Wheeler: U.S. Geological Survey Open-File Report 02-444. 2002. 1 page.

**The difference between the potentiometric surfaces of the Aquia aquifer, September 1982 and September 2001 in southern Maryland**, by Stephen E. Curtin, David C. Andreasen, and Judith C. Wheeler: U.S. Geological Survey Open-File Report 02-443. 2002. 1 page.

**Potentiometric surface of the Aquia aquifer in southern Maryland, September 2001**, by Stephen E. Curtin, David C. Andreasen, and Judith C. Wheeler: U.S. Geological Survey Open-File Report 02-442. 2002. 1 page.

**Potentiometric surface of the Lower Patapsco aquifer in southern Maryland, September 2000**, by Stephen E. Curtin, David C. Andreasen, and Judith C. Wheeler: U.S. Geological Survey Open-File Report 02-247. 2002. 1 page.

**Potentiometric surface of the Upper Patapsco aquifer in southern Maryland, September 2000**, by Stephen E. Curtin, David C. Andreasen, and Judith C. Wheeler: U.S. Geological Survey Open-File Report 02-246. 2002. 1 page.

**Potentiometric surface of the Magothy aquifer in southern Maryland, September 2000**, by Stephen E. Curtin, David C. Andreasen, and Judith C. Wheeler: U.S. Geological Survey Open-File Report 02-245. 2002. 1 page.

**Potentiometric surface of the Aquia aquifer in southern Maryland, September 2000**, by Stephen E. Curtin, David C. Andreasen, and Judith C. Wheeler: U.S. Geological Survey Open-File Report 02-244. 2002. 1 page.

## SELECTED DELAWARE GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN DELAWARE

Listed below is a selection of reports on ground-water resources in Delaware which were published in 2002, and are available through the Delaware Geological Survey, by writing: Publications, Delaware Geological Survey, University of Delaware, Newark, DE 19716-7501 or through E-mail at <http://www.udel.edu/dgs/pubform.html>.

## Report of Investigations

**Results of Hydrologic Studies of the Cypress Swamp Formation, Delaware**, by A. Scott Andres and C. Scott Howard: Delaware Geological Survey Report of Investigations No. 64. 2002. 16 pages.

## SELECTED MARYLAND GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN MARYLAND

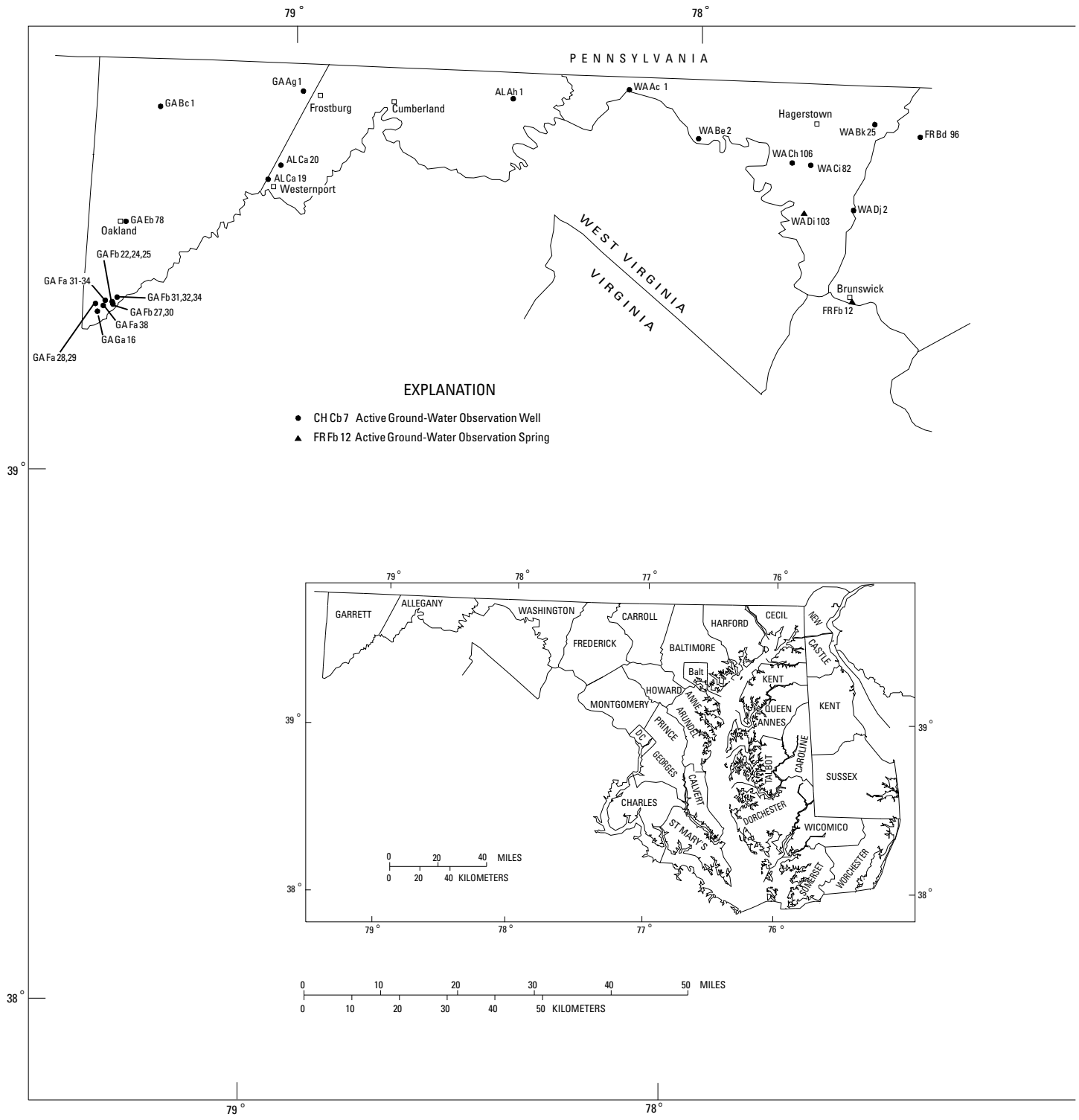
Listed below is a selection of reports on ground-water resources in Maryland which were published in 2002, and are available through the Maryland Geological Survey, 2300 St. Paul Street, Baltimore, Maryland 21218 or through E-mail at <http://mgs.dnr.gov/esic/publications/pubindex.html>.

## Reports of Investigations

**Karst Hydrogeology of the Hagerstown Valley, Maryland**, by Mark T. Duigon: Maryland Geological Survey Report of Investigations No. 73. 2002. 128 pages. 15 plates on CD-ROM.

**Supplemental Report S1/RI64: Simulated Changes in Water Levels of the Aquia aquifer using revised Water-use Projections to 2025 for Calvert and St. Mary's Counties, Maryland**, by Grufron Achmad and Harry Hansen: Maryland Geological Survey Report of Investigations/Supplemental No. S1/64. 2001. 58 pages

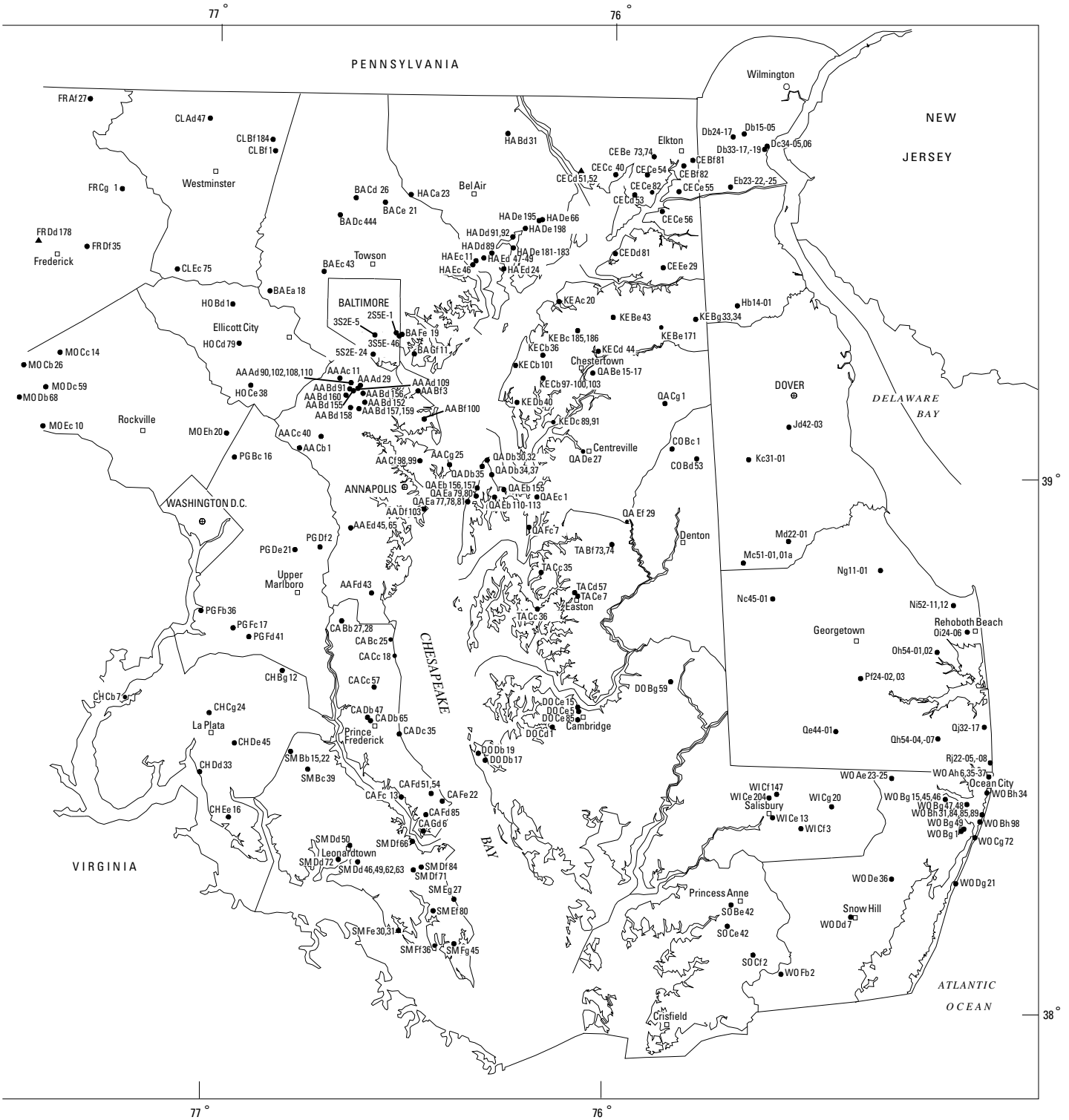
# WATER RESOURCES DATA - MARYLAND, DELAWARE, AND WASHINGTON, D.C., 2002



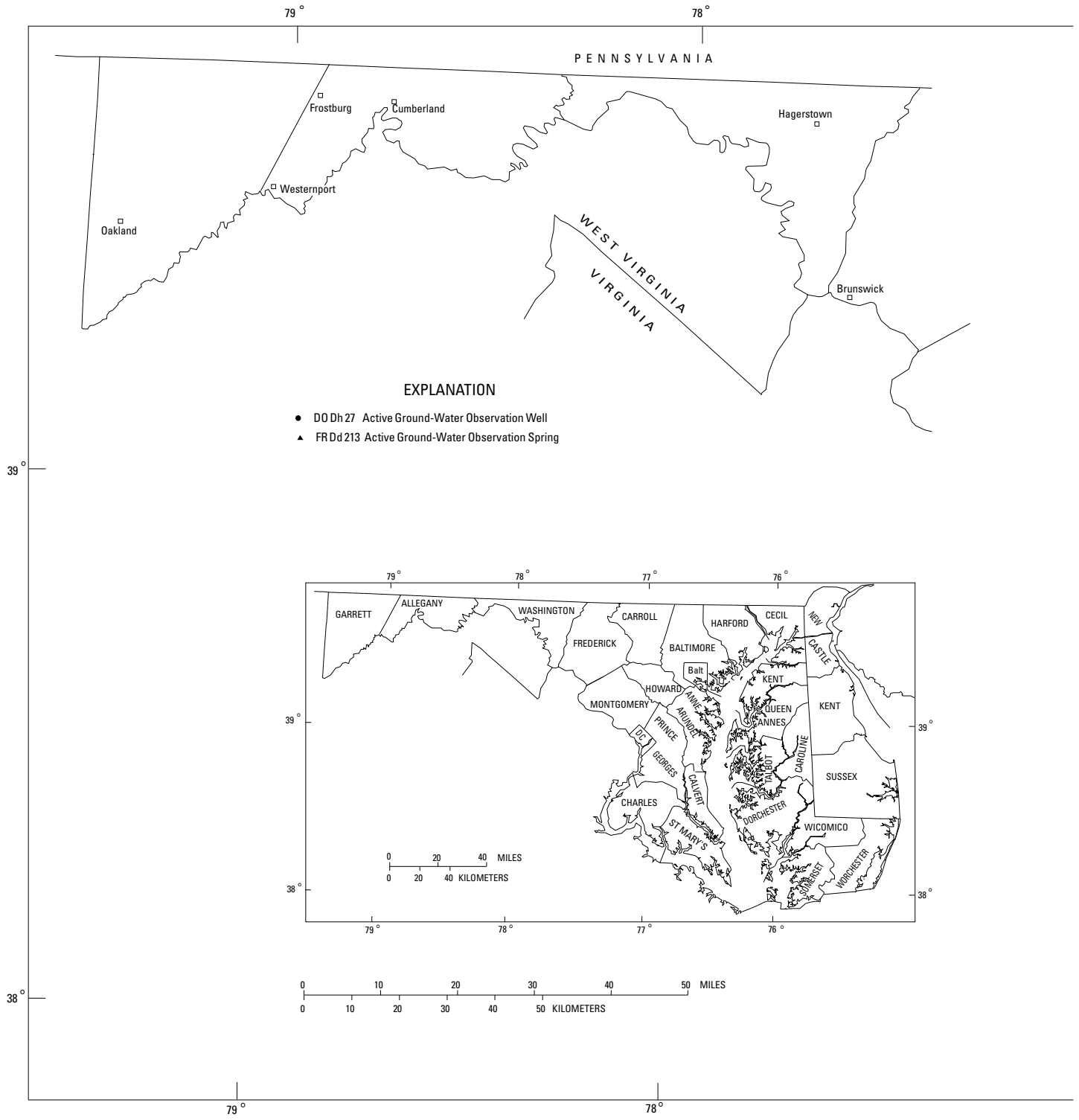
Base map modified from U.S. Geological Survey 1:100,000 DLG

Figure 6. Map of Maryland, Delaware, and Washington, D.C. showing location of ground-water network observation wells and springs.

# WATER RESOURCES DATA - MARYLAND, DELAWARE, AND WASHINGTON, D.C., 2002



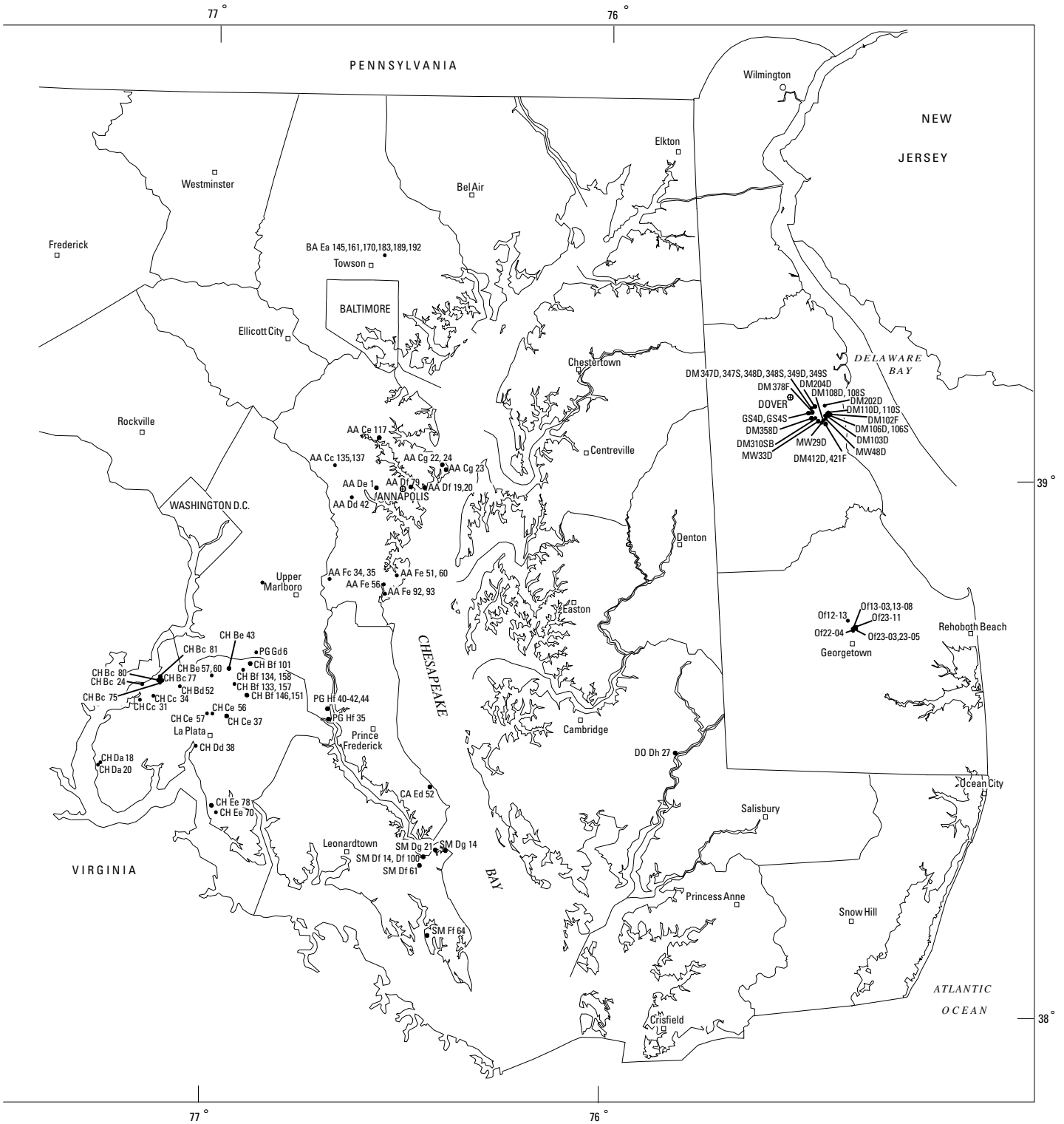
WATER RESOURCES DATA - MARYLAND, DELAWARE, AND WASHINGTON, D.C., 2002



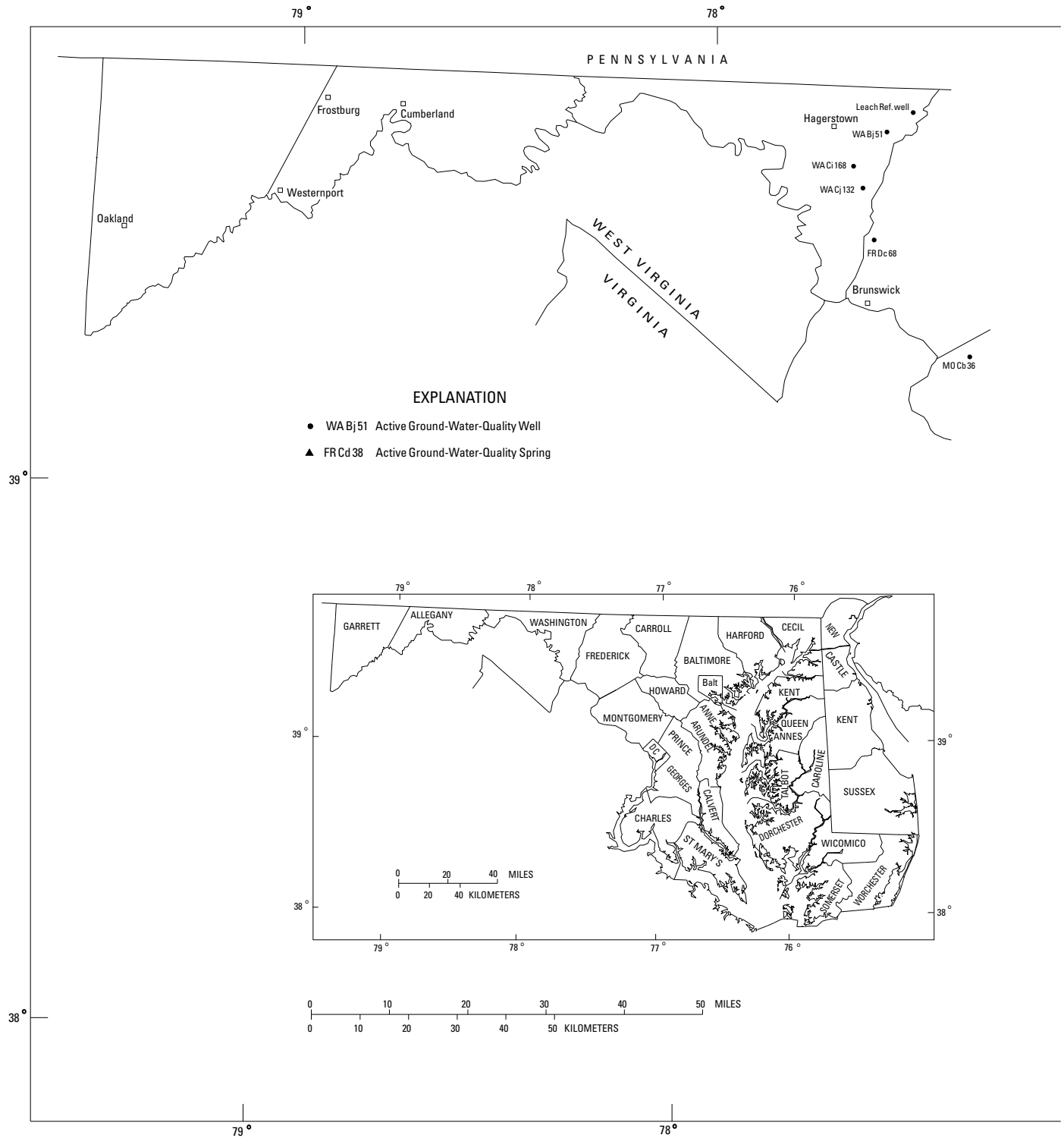
Base map modified from U.S. Geological Survey 1:100,000 DLG

Figure 7. Map of Maryland, Delaware, and Washington, D.C. showing location of ground-water project observation wells and springs.





# WATER RESOURCES DATA - MARYLAND, DELAWARE, AND WASHINGTON, D.C., 2002



Base map modified from U.S. Geological Survey 1:100,000 DLG

Figure 8. Map of Maryland, Delaware, and Washington, D.C. showing the location of ground-water-quality project wells and springs.

WATER RESOURCES DATA - MARYLAND, DELAWARE, AND WASHINGTON, D.C., 2002



GROUND-WATER HYDROLOGIC DATA SITE RECORDS

GROUND-WATER SPRING DISCHARGE IN MARYLAND

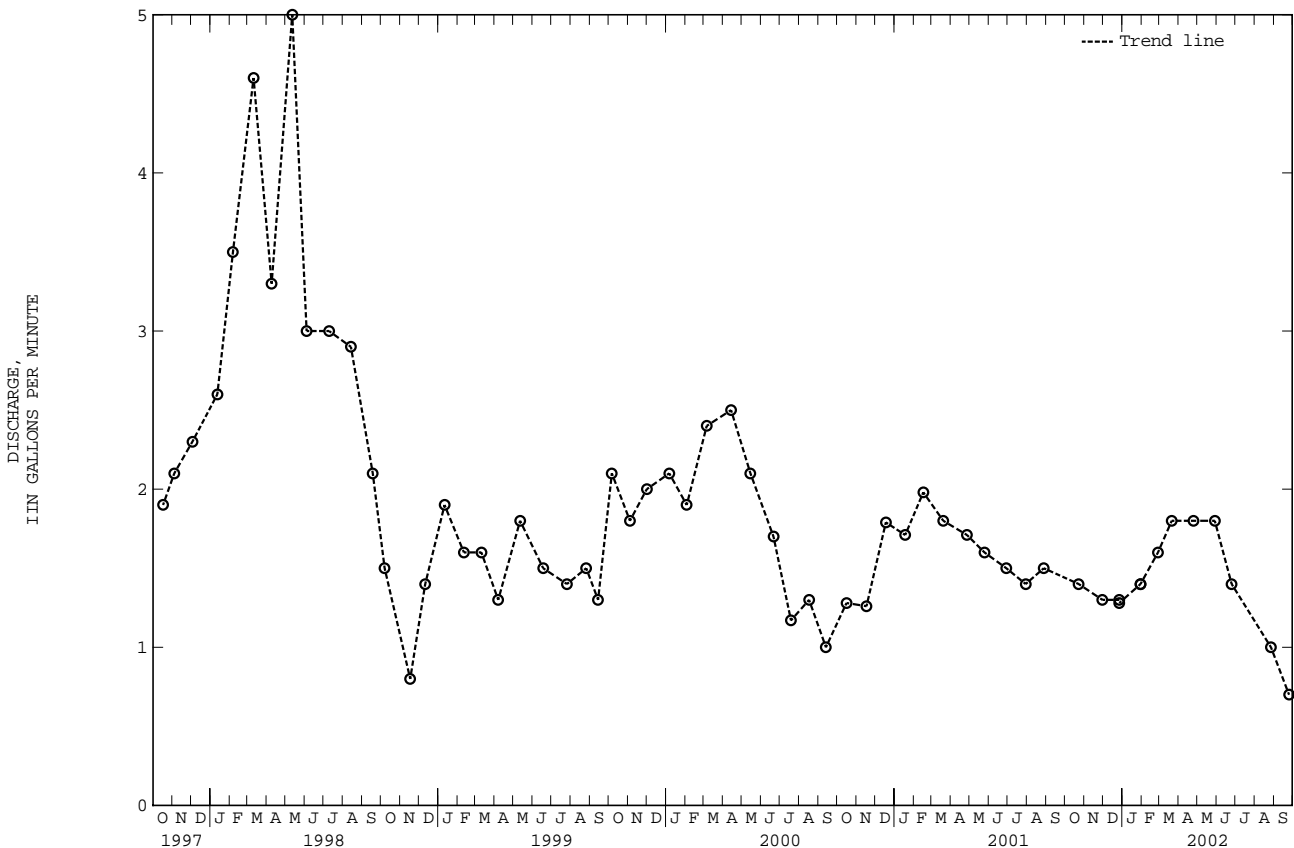
CECIL COUNTY

SPRING NUMBER.--CE Cc 40. SITE ID.--393459076045001.  
 LOCATION.--Lat 39°34'59", long 76°04'50", Hydrologic Unit 02050306, 0.1 mi north of intersection of Cokesbury, and St. Marks Church Roads, 0.8 mi northeast of Perryman.  
 Owner: John McMullen.  
 AQUIFER.--James Run Formation, Frenchtown Member of Paleozoic age. Aquifer code: 300JMSR.  
 SPRING IMPROVEMENTS.--2 in. outflow pipe.  
 INSTRUMENTATION.--Monthly volumetric discharge measurements by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 180 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 REMARKS.--Maryland Water-Level and Water Quality Network observation spring. Temperature readings are available.  
 PERIOD OF RECORD.--April 1981, August 1989 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 5.9 gal/min, June 7, 1990;  
 minimum discharge measured, 0.7 gal/min, Sept. 25, 2002.

DISCHARGE, IN GALLONS PER MINUTE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE
OCT 23, 2001	1.4	JAN 30, 2002	1.4	APR 25, 2002	1.8	JUL 31, 2002	1.2
NOV 30,	1.3	FEB 27,	1.6	MAY 29,	1.8	AUG 27,	1.0
DEC 27,	1.3	MAR 21,	1.8	JUN 25,	1.4	SEP 25	0.7

WATER YEAR 2002    MAXIMUM    1.8    MAR 21, APR 25, AND MAY 29, 2002    MINIMUM    0.7    SEP 25, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

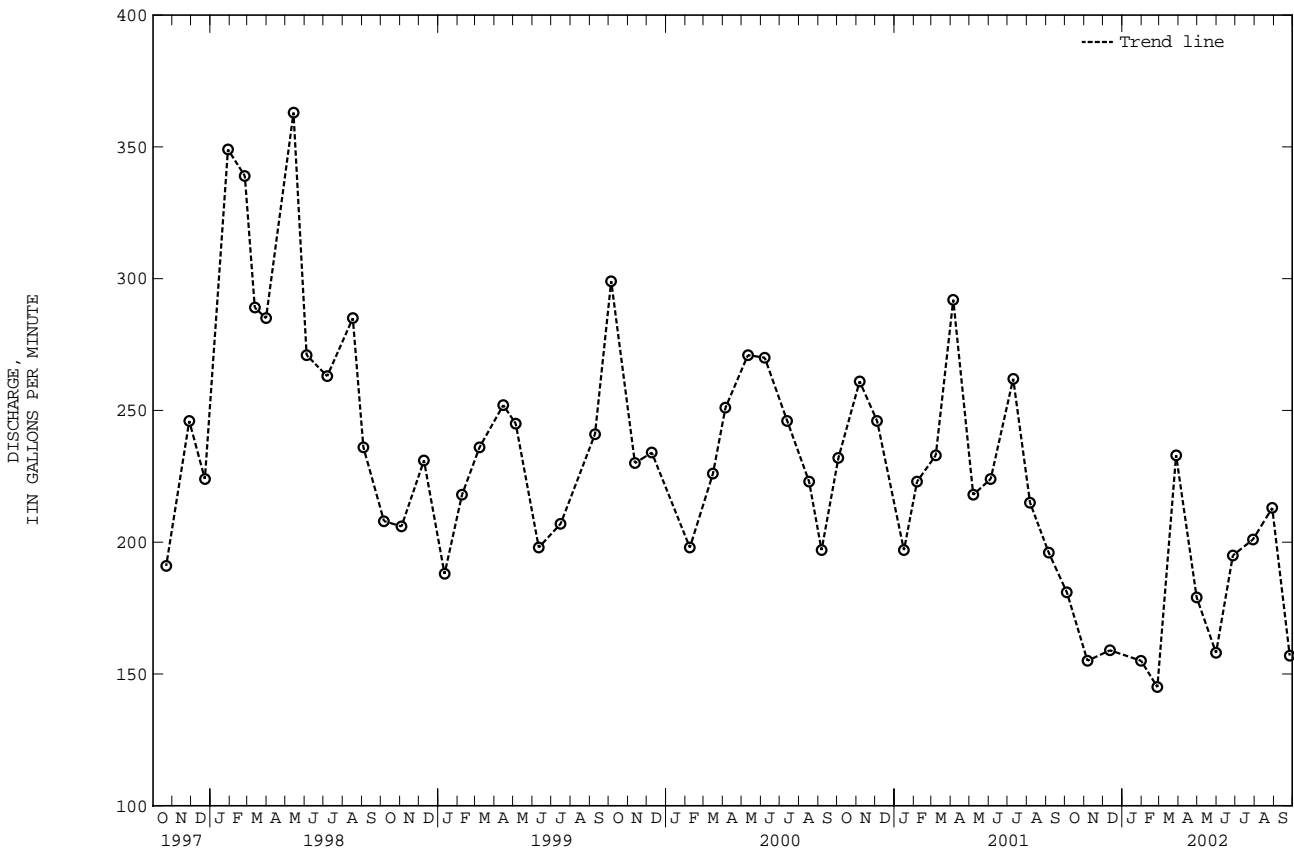
GROUND-WATER SPRING DISCHARGE IN MARYLAND--Continued

FREDERICK COUNTY

SPRING NUMBER.--FR Dd 178. SITE ID.--392552077262201.  
 LOCATION.--Lat 39°25'52", long 77°26'22", Hydrologic Unit 02070009, at Frederick County Agricultural Extension Service (formerly Montview State Hospital).  
 Owner: Frederick County.  
 AQUIFER.--Frederick Limestone of Lower Cambrian age. Aquifer code: 377FDCK.  
 SPRING IMPROVEMENTS.--Springhouse with discharge pipe.  
 INSTRUMENTATION.--Monthly current meter discharge measurements by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 315 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 REMARKS.--Maryland Water-Level and Water Quality Network observation spring. Temperature readings are available.  
 PERIOD OF RECORD.--April 1981, February 1989, September 1989, April 1991 and March 1992 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 904 gal/min, May 6, 1993;  
 minimum discharge measured, 145 gal/min, Feb. 26, 2002.

DISCHARGE, IN GALLONS PER MINUTE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE
OCT 4, 2001	181	JAN 31, 2002	155	APR 30, 2002	179	JUL 29, 2002	201
NOV 6,	155	FEB 26,	145	MAY 31,	158	AUG 29,	213
DEC 12,	159	MAR 28,	233	JUN 27,	195	SEP 26,	157
WATER YEAR 2002		MAXIMUM	233	MAR 28, 2002	MINIMUM	145	FEB 26, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER HYDROLOGIC DATA SITE RECORDS

GROUND-WATER SPRING DISCHARGE IN MARYLAND--Continued

FREDERICK COUNTY--Continued

SPRING NUMBER.--FR Fb 12. SITE ID.--391846077370501.

LOCATION.--Lat 39°18'46", long 77°37'05", Hydrologic Unit 02070008, at Brunswick, off Park Ave., 300 ft north of intersection with Potomac St.

Owner: Town of Brunswick.

AQUIFER.--Precambrian Erathem of Precambrian age. Aquifer code: 400PCMB.

SPRING IMPROVEMENTS.--2 in. outflow pipe.

INSTRUMENTATION.--Monthly volumetric discharge measurements by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 300 ft above National Geodetic Vertical Datum of 1929, from topographic map.

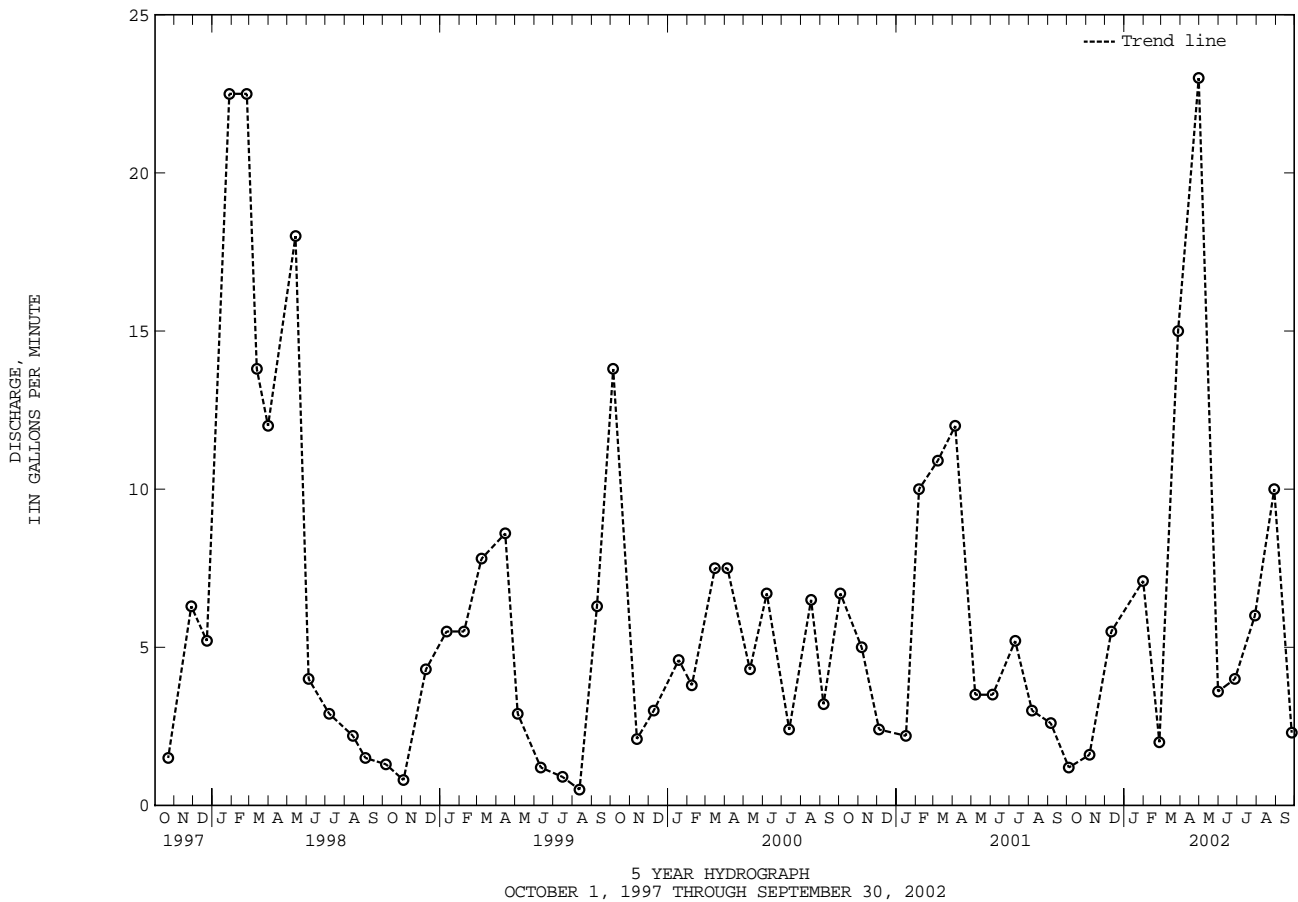
REMARKS.--Maryland Water-Level and Water Quality Network observation spring. Temperature readings are available.

PERIOD OF RECORD.--January 1960 to April 1964, March 1965, August 1967, December 1968, July 1972, April 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 36.0 gal/min, April 30, 1964; minimum discharge measured, 0.5 gal/min, Aug. 12, 1999.

DISCHARGE, IN GALLONS PER MINUTE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE
OCT 4, 2001	1.2	JAN 31, 2002	7.1	APR 30, 2002	23.0	JUL 29, 2002	6.0
NOV 6,	1.6	FEB 26,	2.0	MAY 31,	3.6	AUG 29,	10.0
DEC 11,	5.5	MAR 28,	15.0	JUN 27,	4.0	SEP 26,	2.3
WATER YEAR 2002		MAXIMUM	23.0	APR 30, 2002	MINIMUM	1.2	OCT 4, 2001



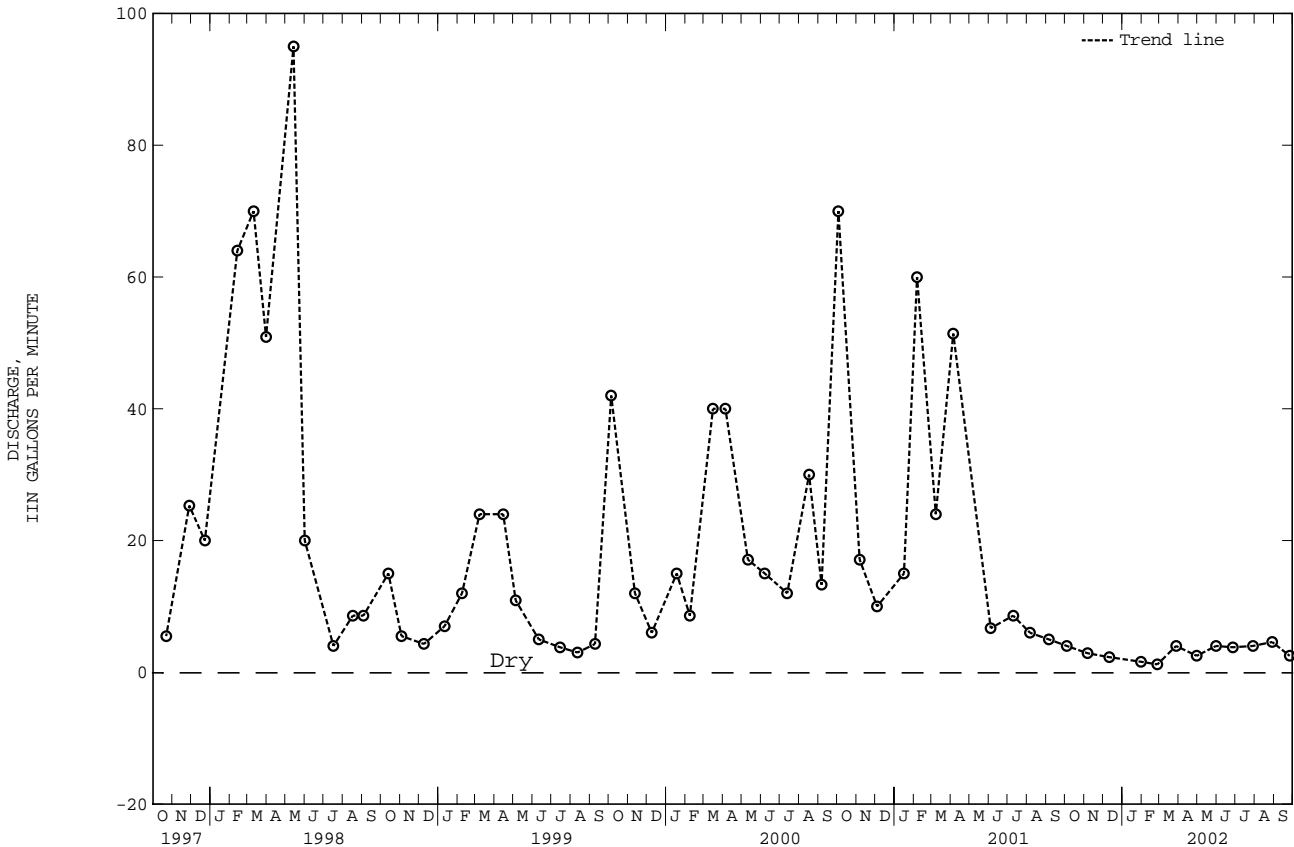
GROUND-WATER SPRING DISCHARGE IN MARYLAND--Continued

WASHINGTON COUNTY

SPRING NUMBER.--WA Di 103. SITE ID.--392836077442701.  
 LOCATION.--Lat 39°28'36", long 77°44'27", Hydrologic Unit 02070004, 0.2 mi southeast of Smoketown Road and Mummas Lane, 1.0 mi north of Sharpsburg.  
 Owner: National Park Service, Antietam National Battlefield.  
 AQUIFER.--Conococheague Limestone of Upper Cambrian age. Aquifer code: 371CCCG.  
 SPRING IMPROVEMENTS.--Springhouse with cement trough.  
 INSTRUMENTATION.--Monthly volumetric discharge measurements by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 475 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 REMARKS.--Maryland Water-Level and Water Quality Network observation spring. Temperature readings are available.  
 PERIOD OF RECORD.--May 1969, April 1987, and January 1991 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 95.0 gal/min, May 14, 1998;  
 minimum discharge measured, 0.3 gal/min, Oct. 4, 1991 and Nov. 7, 1991.

DISCHARGE, IN GALLONS PER MINUTE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE
OCT 4, 2001	4.0	JAN 31, 2002	1.6	APR 30, 2002	2.5	JUL 29	4.0
NOV 6,	2.8	FEB 26,	1.2	MAY 31	4.0	AUG 29	4.6
DEC 11,	2.3	MAR 28,	4.0	JUN 27	3.8	SEP 26	2.5
WATER YEAR 2002 MAXIMUM		4.6	AUG 29, 2002		MINIMUM		1.2 FEB 26, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN DELAWARE

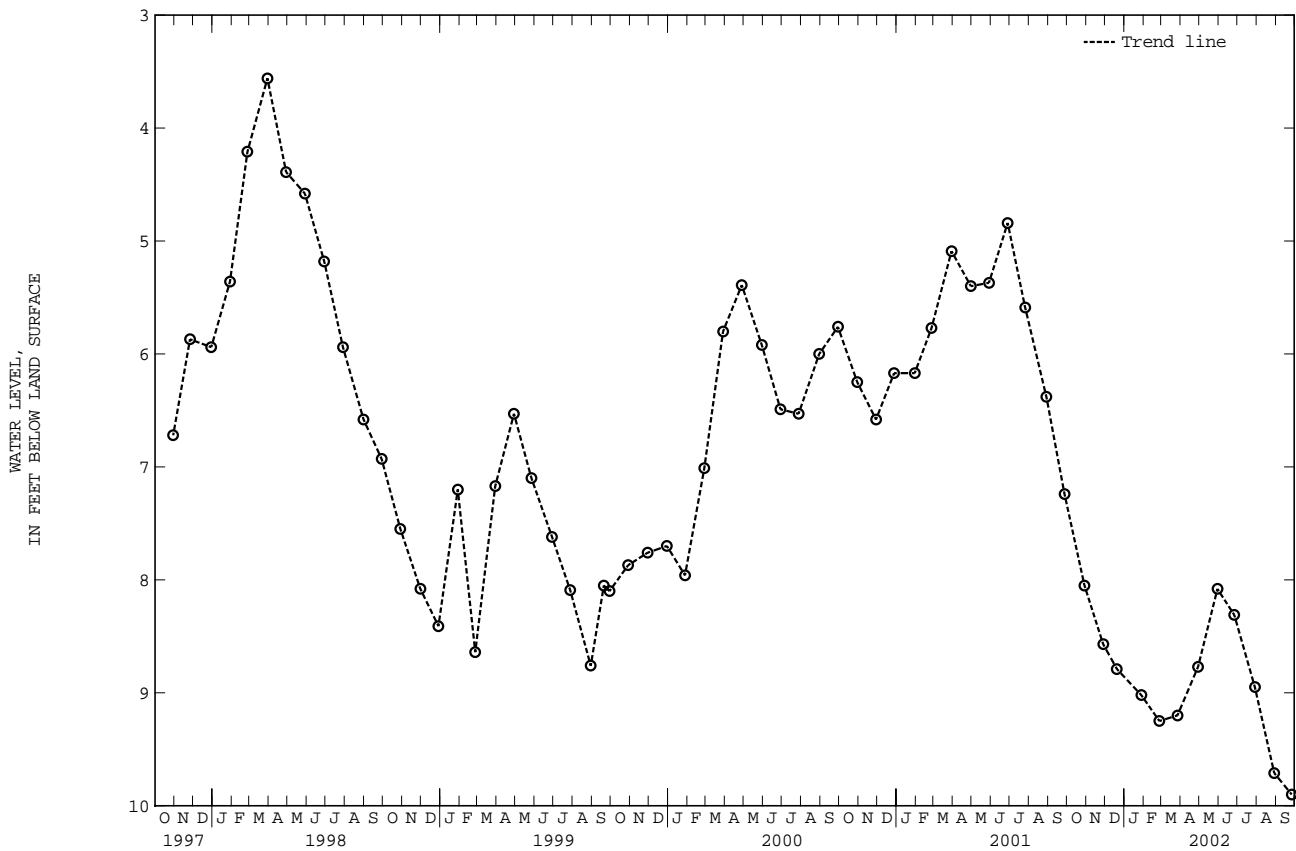
KENT COUNTY

WELL NUMBER.--Jd42-03. SITE ID.--390607075331501. PERMIT NUMBER.--10230.  
 LOCATION.--Lat 39°06'07", long 75°33'15", Hydrologic Unit 02040207, 1 mi south of Camden.  
 Owner: Delaware Department of Transportation.  
 AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 11 ft; casing diameter 1.25 in., to 8.5 ft; well point from 8.5 to 11 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric or chalked steel tape by Delaware Geological Survey or U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 44 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing at land surface.  
 REMARKS.--Delaware Water-Level Monitoring Network observation well (See Figure 1.).  
 PERIOD OF RECORD.--October 1950 to December 1961, August 1971 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.69 ft below land surface, July 18, 1975; lowest measured, 10.10 ft below land surface, Nov. 28, 1986.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 2001	8.05	JAN 28, 2002	9.02	APR 29, 2002	8.77	JUL 29, 2002	8.95
NOV 28	8.57	FEB 26	9.25	MAY 30	8.08	AUG 29	9.71
DEC 20	8.79	MAR 27	9.20	JUN 26	8.31	SEP 26	9.90

WATER YEAR 2002    HIGHEST    8.05    OCT 29, 2001    LOWEST    9.90    SEP 26, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

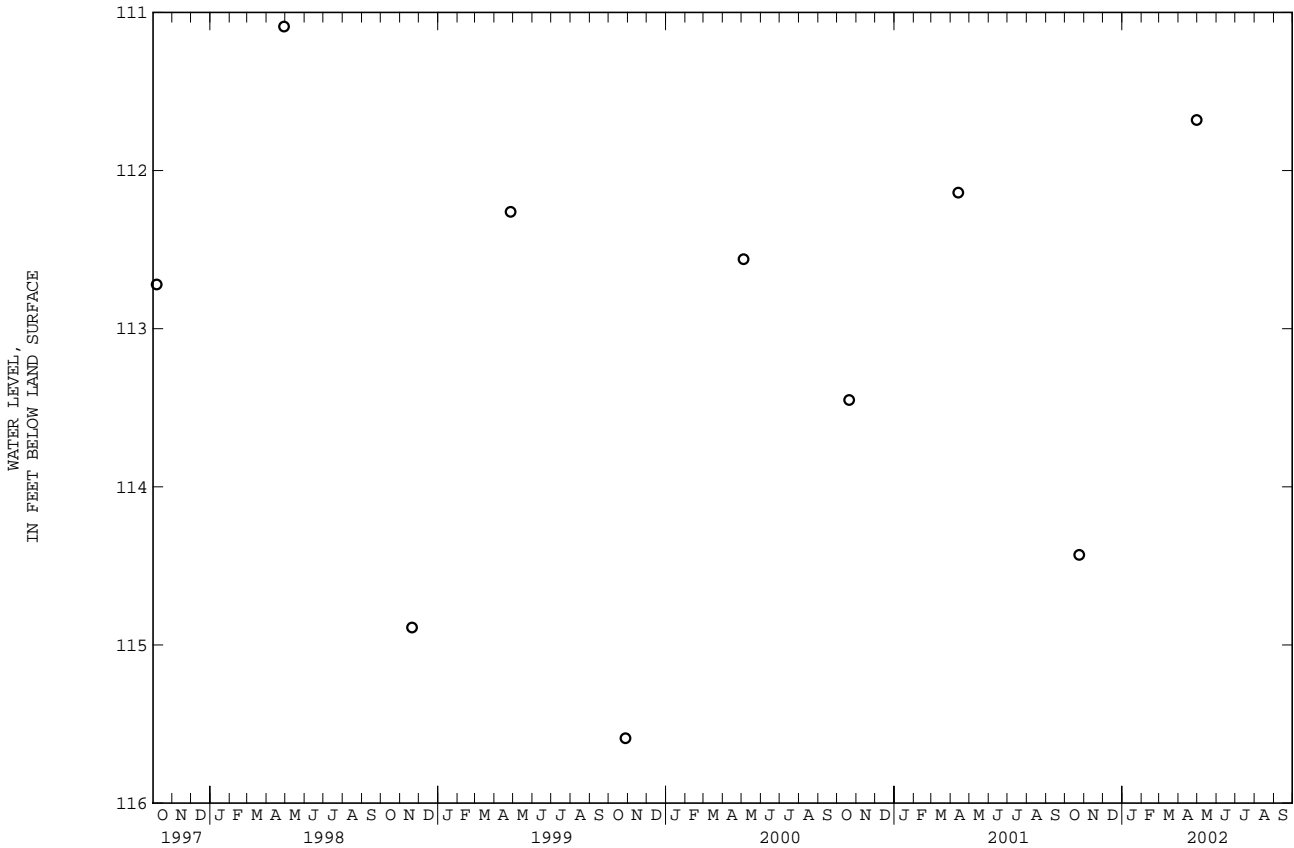


KENT COUNTY--Continued

WELL NUMBER.--Kc31-01. SITE ID.--390224075391601. PERMIT NUMBER.--33610.  
 LOCATION.--Lat 39°02'24", long 75°39'16", Hydrologic Unit 02060005, 1.1 mi southwest of Petersburg, off Ironmine Rd.,  
 at Norman G. Wilder State Wildlife Area.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 380 ft; casing diameter 2 in., to 370 ft;  
 screen diameter 2 in. from 370 to 380 ft.  
 INSTRUMENTATION.--Twice yearly water level measurements with chalked steel tape by Delaware Geological Survey or  
 U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 55 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, .20 ft above land surface.  
 REMARKS.--Delaware Water-Level Monitoring Network observation well. No Spring 1997, water-level measurement.  
 PERIOD OF RECORD.--February 1975 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 92.99 ft below land surface, Feb. 20, 1975;  
 lowest measured, 116.77 ft below land surface, Oct. 29, 1991.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	114.43	APR 30, 2002	111.68
WATER YEAR 2002 HIGHEST 111.68 APR 30, 2002		LOWEST 114.43 OCT 24, 2001	



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN DELAWARE

KENT COUNTY--Continued

WELL NUMBER.--Mc51-01. SITE ID.--385041075395601.

LOCATION.--Lat 38°50'41", long 75°39'56", Hydrologic Unit 02060008, 1.3 mi northeast of Adamsville.

Owner: Delaware Department of Transportation.

AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 19 ft; casing diameter 2 in., to 15 ft; well point from 15 to 19 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by Delaware and U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60 minute recorder interval from October 22, 1999 to July 10, 2001.

DATUM.--Elevation of land surface is 55 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing at land surface.

REMARKS.--Climatic Response Network (CRN) observation well (See Figure 3.).

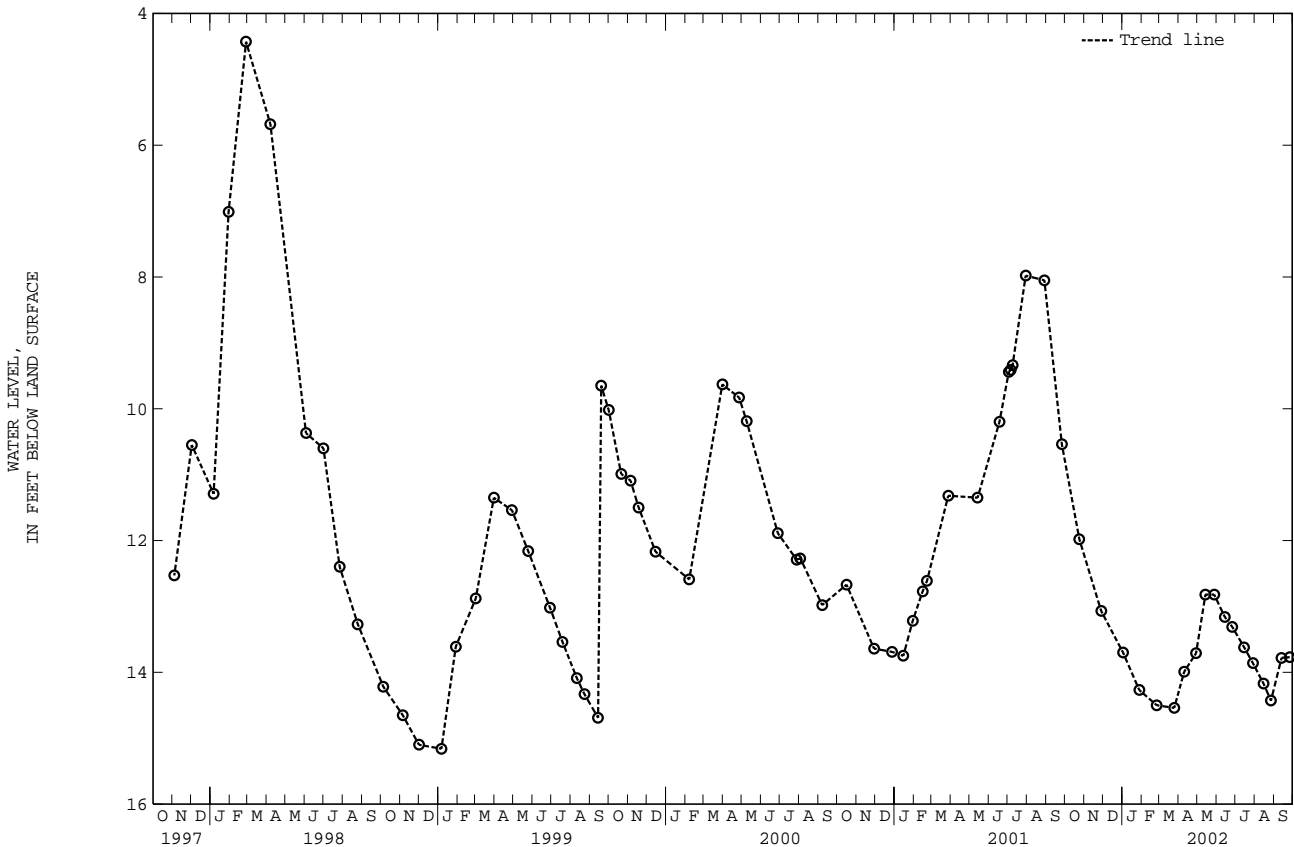
PERIOD OF RECORD.--September 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.28 ft below land surface, May 31, 1984; lowest measured, 16.29 ft below land surface, Jan. 19, 1988.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	11.98	MAR 25, 2002	14.54	JUN 14, 2002	13.16	AUG 27, 2002	14.43
NOV 28	13.07	APR 10	13.99	26	13.31	SEP 13	13.78
JAN 02, 2002	13.70	29	13.71	JUL 15	13.62	26	13.77
28	14.27	MAY 14	12.82	29	13.86		
FEB 25	14.50	28	12.82	AUG 15	14.17		

WATER YEAR 2002      HIGHEST    11.98    OCT 24, 2001      LOWEST    14.54    MAR 25, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## GROUND-WATER LEVELS IN DELAWARE

39

## KENT COUNTY--Continued

WELL NUMBER.--Mc51-01a. SITE ID.--385041075395602.

LOCATION.--Lat 38°50'41", long 75°39'56", Hydrologic Unit 02060008, 1.3 mi northeast of Adamsville.

Owner: Delaware Department of Transportation.

AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 19 ft; casing diameter 2 in., to 15 ft; well point from 15 to 19 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by Delaware and U.S. Geological Survey personnel.

Well equipped with water-level telemetry recorder from July 10, 2001 to current year.

DATUM.--Elevation of land surface is 55 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of recorder platform, 4.09 ft above land surface.

REMARKS.--Delaware Water-Level Monitoring Network observation well.

PERIOD OF RECORD.--July 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.97 ft below land surface, Aug. 17, 2001; lowest measured, 15.57 ft below land surface, March 18-21, 2002.

## WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.75	11.70	13.14	13.11	14.02	13.98	14.71	14.68	15.21	15.19	15.45	15.44
2	11.83	11.75	13.17	13.14	14.05	14.02	14.77	14.71	15.22	15.21	15.45	15.43
3	11.87	11.83	13.20	13.17	14.06	14.05	14.73	14.72	15.22	15.22	15.46	15.43
4	11.93	11.87	13.22	13.20	14.10	14.06	14.75	14.73	15.23	15.22	15.46	15.46
5	11.96	11.93	13.26	13.22	14.11	14.10	14.78	14.75	15.24	15.23	15.47	15.46
6	12.03	11.96	13.29	13.26	14.13	14.11	14.80	14.74	15.25	15.24	15.48	15.47
7	12.11	12.03	13.33	13.29	14.17	14.13	14.81	14.78	15.26	15.25	15.49	15.48
8	12.18	12.11	13.34	13.33	14.19	14.17	14.83	14.81	15.27	15.26	15.50	15.49
9	12.21	12.18	13.39	13.34	14.23	14.18	14.84	14.83	15.29	15.27	15.50	15.50
10	12.25	12.21	13.41	13.38	14.24	14.23	14.87	14.84	15.29	15.27	15.51	15.50
11	12.28	12.25	13.46	13.41	14.27	14.24	14.89	14.87	15.30	15.28	15.52	15.51
12	12.32	12.28	13.49	13.46	14.28	14.27	14.90	14.89	15.31	15.30	15.52	15.52
13	12.37	12.32	13.51	13.49	14.30	14.28	14.93	14.90	15.32	15.31	15.52	15.52
14	12.40	12.37	13.53	13.51	14.32	14.30	14.94	14.93	15.33	15.32	15.54	15.52
15	12.47	12.40	13.56	13.53	14.36	14.32	14.97	14.94	15.33	15.33	15.54	15.54
16	12.49	12.45	13.60	13.56	14.38	14.36	14.98	14.97	15.34	15.33	15.55	15.54
17	12.56	12.49	13.64	13.60	14.38	14.35	15.00	14.98	15.35	15.34	15.56	15.55
18	12.60	12.56	13.66	13.64	14.40	14.33	15.02	15.00	15.36	15.35	15.57	15.56
19	12.62	12.60	13.67	13.66	14.41	14.40	15.03	15.01	15.37	15.36	15.57	15.57
20	12.68	12.62	13.70	13.67	14.44	14.41	15.05	15.02	15.37	15.37	15.57	15.56
21	12.71	12.68	13.73	13.70	14.47	14.44	15.06	15.05	15.38	15.37	15.57	15.55
22	12.74	12.71	13.78	13.73	14.49	14.47	15.08	15.06	15.39	15.38	15.55	15.54
23	12.77	12.74	13.81	13.78	14.50	14.49	15.09	15.08	15.40	15.39	15.54	15.51
24	12.81	12.77	13.83	13.81	14.54	14.50	15.10	15.09	15.41	15.40	15.51	15.49
25	12.86	12.81	13.86	13.83	14.56	14.54	15.12	15.10	15.42	15.41	15.49	15.47
26	12.90	12.86	13.88	13.86	14.57	14.56	15.14	15.12	15.42	15.42	15.47	15.42
27	12.97	12.90	13.91	13.88	14.59	14.57	15.15	15.14	15.42	15.42	15.42	15.41
28	13.01	12.97	13.94	13.91	14.62	14.59	15.16	15.15	15.44	15.42	15.41	15.37
29	13.03	13.01	13.96	13.94	14.64	14.62	15.17	15.16	---	---	15.37	15.33
30	13.09	13.03	13.98	13.96	14.66	14.64	15.19	15.17	---	---	15.33	15.30
31	13.11	13.09	---	---	14.68	14.66	15.20	15.19	---	---	15.30	15.26
MONTH	13.11	11.70	13.98	13.11	14.68	13.98	15.20	14.68	15.44	15.19	15.57	15.26

GROUND-WATER LEVELS IN DELAWARE

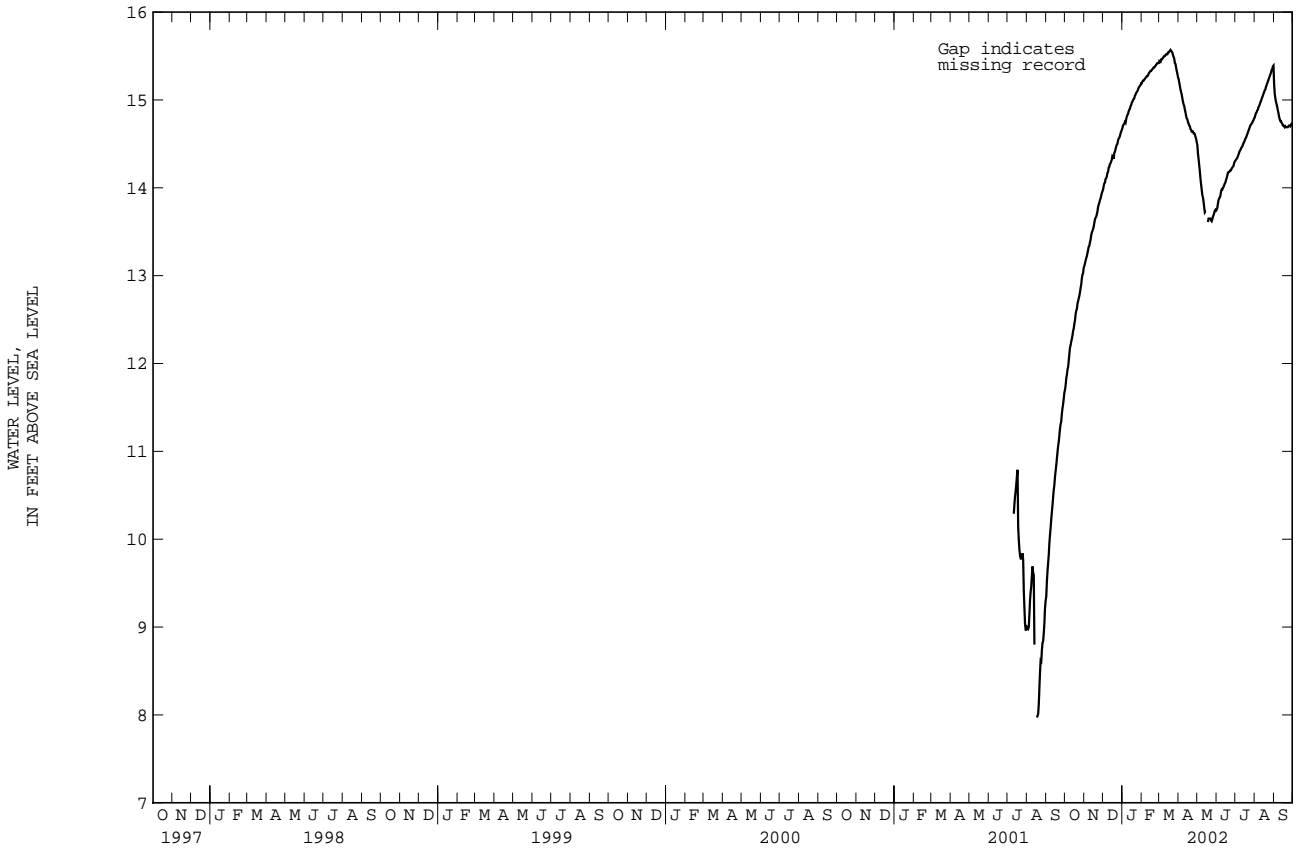
KENT COUNTY--Continued

Mc51-01a--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX		MIN		MAX		MIN		MAX		MIN													
	APRIL				MAY				JUNE				JULY				AUGUST				SEPTEMBER			
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN		
1	15.26	15.24	14.52	14.49	13.77	13.75	14.32	14.31	14.83	14.80	15.41	15.19												
2	15.24	15.20	14.49	14.39	13.82	13.77	14.33	14.32	14.86	14.83	15.19	15.07												
3	15.20	15.16	14.39	14.33	13.86	13.82	14.34	14.33	14.86	14.85	15.07	15.02												
4	15.16	15.12	14.33	14.26	13.88	13.86	14.36	14.34	14.88	14.86	15.02	14.98												
5	15.12	15.09	14.26	14.19	13.90	13.88	14.38	14.36	14.89	14.88	14.98	14.95												
6	15.09	15.06	14.19	14.11	13.92	13.89	14.40	14.38	14.92	14.89	14.95	14.92												
7	15.06	15.02	14.11	14.04	13.96	13.91	14.42	14.40	14.93	14.92	14.92	14.88												
8	15.02	14.98	14.04	13.98	13.98	13.96	14.43	14.42	14.95	14.93	14.88	14.85												
9	14.98	14.95	13.98	13.92	13.98	13.98	14.45	14.43	14.97	14.95	14.85	14.81												
10	14.95	14.93	13.92	13.89	14.00	13.98	14.46	14.45	14.99	14.97	14.81	14.78												
11	14.93	14.89	13.89	13.84	14.01	14.00	14.47	14.46	15.01	14.99	14.78	14.76												
12	14.89	14.86	13.84	13.78	14.03	14.01	14.49	14.47	15.03	15.01	14.76	14.76												
13	14.86	14.82	13.78	13.72	14.05	14.03	14.51	14.49	15.05	15.03	14.76	14.74												
14	14.82	14.79	13.75	13.73	14.06	14.05	14.52	14.51	15.07	15.05	14.74	14.73												
15	14.79	14.78	13.74	13.73	14.09	14.06	14.54	14.52	15.09	15.07	14.73	14.71												
16	14.78	14.75	---	---	14.11	14.09	14.56	14.54	15.11	15.09	14.71	14.71												
17	14.75	14.73	---	---	14.14	14.11	14.57	14.56	15.12	15.11	14.71	14.70												
18	14.73	14.71	13.65	13.61	14.17	14.14	14.59	14.57	15.15	15.12	14.70	14.69												
19	14.71	14.70	13.66	13.65	14.20	14.17	14.61	14.59	15.17	15.15	14.70	14.70												
20	14.70	14.67	13.65	13.65	14.19	14.18	14.63	14.61	15.19	15.17	14.70	14.69												
21	14.67	14.66	13.65	13.65	14.19	14.18	14.65	14.63	15.21	15.19	14.70	14.69												
22	14.66	14.64	13.65	13.65	14.20	14.19	14.67	14.65	15.23	15.21	14.69	14.69												
23	14.65	14.64	13.65	13.63	14.21	14.20	14.69	14.67	15.25	15.23	14.70	14.69												
24	14.64	14.64	13.64	13.62	14.22	14.20	14.71	14.69	15.27	15.25	14.71	14.70												
25	14.64	14.62	13.67	13.64	14.23	14.22	14.72	14.71	15.29	15.27	14.71	14.71												
26	14.62	14.62	13.69	13.67	14.24	14.23	14.73	14.72	15.31	15.29	14.72	14.71												
27	14.62	14.61	13.71	13.69	14.25	14.24	14.74	14.73	15.34	15.31	14.71	14.70												
28	14.61	14.58	13.76	13.71	14.28	14.25	14.76	14.74	15.35	15.34	14.73	14.71												
29	14.58	14.56	13.75	13.74	14.30	14.28	14.77	14.76	15.38	15.35	14.75	14.73												
30	14.56	14.52	13.75	13.75	14.31	14.30	14.79	14.77	15.39	15.38	14.75	14.74												
31	---	---	13.75	13.74	---	---	14.80	14.79	15.41	15.39	---	---												
MONTH	15.26	14.52	---	---	14.31	13.75	14.80	14.31	15.41	14.80	15.41	14.69												

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

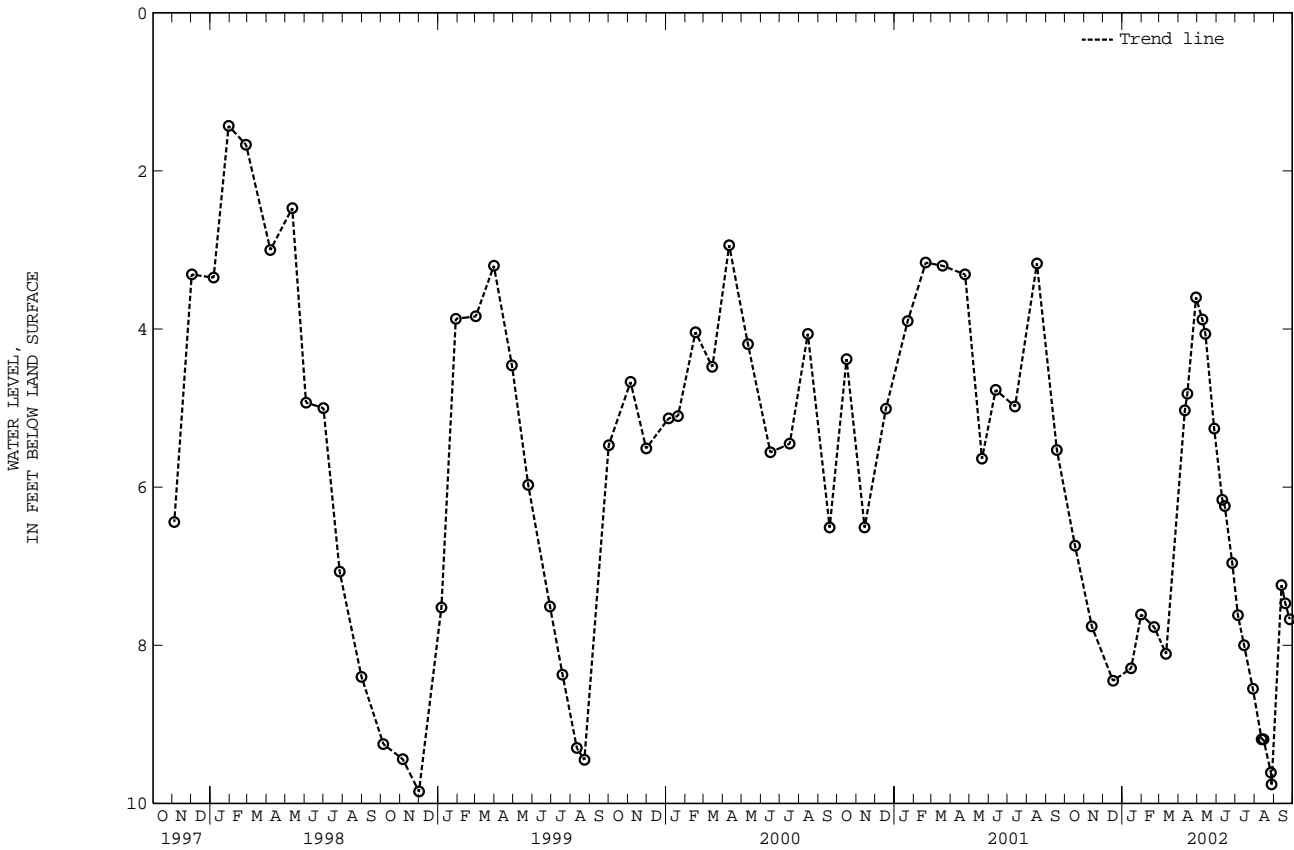
GROUND-WATER LEVELS IN DELAWARE

KENT COUNTY--Continued

WELL NUMBER.--Mg22-01. SITE ID.--385310075331301. PERMIT NUMBER.--10221.  
 LOCATION.--Lat 38°53'10", long 75°33'13", Hydrologic Unit 02040207, 2.4 mi west of Williamsville.  
 Owner: Delaware Department of Transportation.  
 AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 17 ft; casing diameter 1 in., to 14 ft;  
 well point from 14 to 17 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric or chalked steel tape by Delaware Geological Survey  
 personnel.  
 DATUM.--Elevation of land surface is 58 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing at land surface.  
 REMARKS.--Delaware Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--September 1958 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.07 ft below land surface, July 14, 1975;  
 lowest measured, 11.14 ft below land surface, Jan. 6, 1966.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 2001	6.74	APR 11, 2002	5.03	JUN 14, 2002	6.24	AUG 27, 2002	9.61
NOV 13	7.76	15	4.82	26	6.96	28	9.76
DEC 17	8.45	29	3.60	JUL 05	7.62	SEP 13	7.24
JAN 15, 2002	8.29	MAY 09	3.88	15	8.00	19	7.47
31	7.61	14	4.06	29	8.55	26	7.67
FEB 21	7.77	28	5.26	AUG 12	9.19		
MAR 12	8.11	JUN 10	6.16	15	9.19		
WATER YEAR 2002		HIGHEST	3.60	APR 29, 2002	LOWEST	9.76	AUG 28, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## GROUND-WATER LEVELS IN DELAWARE

## KENT COUNTY--Continued

WELL NUMBER.--DM102F. SITE ID.--390733075264801. PERMIT NUMBER.--96950.

LOCATION.--Lat 39°07'33", long 75°26'48", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.

Owner: U.S. Air Force.

AQUIFER.--Frederica aquifer in the Calvert Formation of Lower middle Miocene age. Aquifer code: 122FRDC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 112.5 ft; casing diameter 3 in., to 102.5 ft; screen diameter 2 in. from 102.5 to 112.5 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval from Oct. 1, 1995, to current year.

DATUM.--Elevation of land surface is 18.54 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform 2.32 ft above land surface.

REMARKS.--Dover Air Force Base Project observation well. Water levels may be affected by agricultural irrigation.

Periods of equal maximum and minimum daily values may be questionable due to the float hanging-up in small diameter wells or other well construction factors.

PERIOD OF RECORD.--September 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.24 ft above sea level, June 28 and 29, 2001; lowest measured, 5.49 ft below sea level, July 29, 1999.

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
(READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN	
	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH										
1	5.30	5.25	5.15	5.15	5.04	5.04	5.11	5.10	5.21	5.17	5.13	5.09				
2	5.30	5.30	5.15	5.15	5.04	5.03	5.10	5.08	5.21	5.18	5.19	5.09				
3	5.30	5.30	5.15	5.15	5.03	5.03	5.10	5.08	5.19	5.18	5.22	5.19				
4	5.31	5.30	5.15	5.15	5.03	5.03	5.10	5.08	5.22	5.19	5.21	5.16				
5	5.33	5.31	5.15	5.15	5.03	5.03	5.08	5.08	5.21	5.19	5.16	5.14				
6	5.35	5.33	5.15	5.15	5.05	5.03	5.21	5.08	5.19	5.19	5.14	5.14				
7	5.35	5.33	5.15	5.13	5.05	5.05	5.21	5.17	5.22	5.19	5.14	5.13				
8	5.33	5.30	5.13	5.12	5.10	5.05	5.17	5.14	5.22	5.22	5.13	5.11				
9	5.30	5.30	5.12	5.10	5.10	5.07	5.14	5.14	5.22	5.20	5.12	5.11				
10	5.30	5.30	5.11	5.10	5.07	5.07	5.14	5.14	5.22	5.19	5.13	5.10				
11	5.31	5.30	5.11	5.07	5.08	5.07	5.16	5.14	5.25	5.22	5.10	5.09				
12	5.33	5.31	5.07	5.06	5.08	5.08	5.15	5.15	5.23	5.23	5.09	5.09				
13	5.33	5.33	5.06	5.05	5.12	5.08	5.18	5.13	5.23	5.22	5.16	5.09				
14	5.36	5.33	5.05	5.05	5.14	5.12	5.13	5.13	5.22	5.20	5.16	5.13				
15	5.36	5.34	5.05	5.05	5.14	5.08	5.13	5.13	5.20	5.20	5.13	5.13				
16	5.36	5.34	5.05	5.05	5.08	5.08	5.13	5.11	5.22	5.20	5.13	5.09				
17	5.36	5.33	5.05	5.03	5.18	5.08	5.13	5.11	5.22	5.22	5.09	5.06				
18	5.33	5.32	5.03	5.02	5.22	5.17	5.12	5.10	5.22	5.19	5.12	5.07				
19	5.32	5.32	5.04	5.02	5.17	5.15	5.17	5.10	5.19	5.19	5.12	5.11				
20	5.32	5.31	5.04	5.04	5.15	5.15	5.18	5.16	5.19	5.19	5.21	5.11				
21	5.31	5.30	5.04	5.03	5.15	5.11	5.17	5.16	5.19	5.19	5.21	5.21				
22	5.30	5.30	5.03	5.02	5.11	5.10	5.17	5.14	5.19	5.18	5.21	5.18				
23	5.30	5.30	5.02	5.01	5.14	5.10	5.15	5.14	5.18	5.16	5.19	5.18				
24	5.30	5.30	5.01	5.00	5.17	5.14	5.19	5.15	5.16	5.16	5.19	5.19				
25	5.30	5.29	5.03	5.00	5.16	5.15	5.19	5.16	5.16	5.16	5.19	5.19				
26	5.29	5.27	5.03	5.03	5.15	5.15	5.16	5.16	5.19	5.16	5.26	5.19				
27	5.27	5.23	5.03	5.03	5.15	5.15	5.16	5.16	5.19	5.17	5.29	5.26				
28	5.23	5.18	5.03	5.03	5.15	5.15	5.16	5.16	5.17	5.13	5.29	5.28				
29	5.18	5.18	5.03	5.03	5.15	5.13	5.17	5.16	---	---	5.31	5.29				
30	5.18	5.16	5.04	5.03	5.13	5.11	5.17	5.17	---	---	5.32	5.31				
31	5.16	5.15	---	---	5.11	5.11	5.17	5.17	---	---	5.40	5.32				
MONTH	5.36	5.15	5.15	5.00	5.22	5.03	5.21	5.08	5.25	5.13	5.40	5.06				

GROUND-WATER LEVELS IN DELAWARE

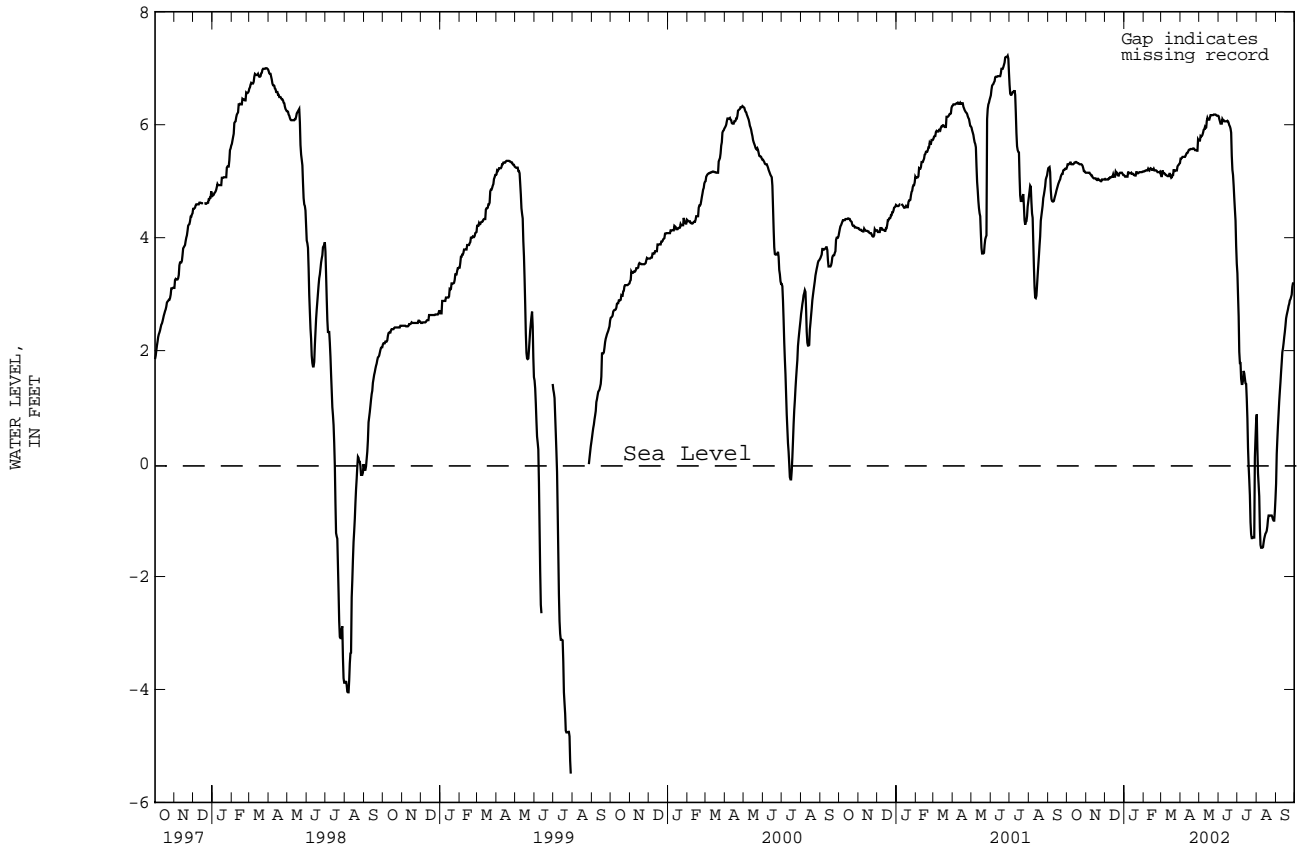
KENT COUNTY--Continued

DM102F--Continued

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
(READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	1	5.42	5.40	5.72	5.72	6.16	6.15	3.54	3.37	0.93	0.87	0.17
2	5.41	5.40	5.84	5.72	6.15	6.10	3.37	2.99	0.87	0.28	0.43	0.17
3	5.43	5.41	5.84	5.80	6.10	6.06	2.99	2.61	0.28	-0.17	0.67	0.43
4	5.43	5.43	5.80	5.79	6.06	6.02	2.61	1.98	-0.17	-0.37	0.89	0.67
5	5.43	5.43	5.82	5.80	6.02	6.02	1.98	1.78	-0.37	-0.58	1.10	0.89
6	5.43	5.43	5.86	5.82	6.15	6.02	1.78	1.78	-0.58	-1.14	1.28	1.10
7	5.43	5.43	5.91	5.86	6.14	6.10	1.78	1.50	-1.14	-1.44	1.44	1.28
8	5.45	5.43	5.92	5.91	6.10	6.08	1.50	1.41	-1.44	-1.49	1.62	1.44
9	5.48	5.45	5.96	5.92	6.08	6.08	1.47	1.41	-1.49	-1.49	1.79	1.62
10	5.50	5.48	5.96	5.96	6.08	6.06	1.64	1.47	-1.48	-1.49	1.97	1.79
11	5.50	5.50	5.96	5.94	6.06	6.06	1.79	1.64	-1.40	-1.48	2.04	1.97
12	5.52	5.50	6.07	5.95	6.06	6.06	1.79	1.60	-1.33	-1.40	2.13	2.04
13	5.55	5.52	6.15	6.07	6.06	6.06	1.60	1.51	-1.28	-1.33	2.24	2.13
14	5.56	5.55	6.15	6.12	6.07	6.06	1.51	1.42	-1.24	-1.28	2.33	2.24
15	5.57	5.56	6.12	6.09	6.08	6.07	1.42	1.41	-1.22	-1.24	2.44	2.33
16	5.57	5.56	6.09	6.09	6.08	6.06	1.41	1.15	-1.19	-1.22	2.57	2.44
17	5.57	5.57	6.13	6.09	6.06	6.03	1.15	0.80	-1.11	-1.19	2.63	2.57
18	5.57	5.57	6.21	6.13	6.03	5.99	0.80	0.28	-0.99	-1.11	2.68	2.63
19	5.57	5.57	6.18	6.17	5.99	5.97	0.28	-0.04	-0.92	-0.99	2.73	2.68
20	5.58	5.57	6.17	6.17	5.97	5.93	-0.04	-0.29	-0.92	-0.92	2.79	2.73
21	5.58	5.58	6.17	6.17	5.93	5.86	-0.29	-0.56	-0.92	-0.92	2.83	2.79
22	5.60	5.58	6.17	6.17	5.86	5.45	-0.56	-1.04	-0.92	-0.92	2.89	2.83
23	5.59	5.57	6.18	6.17	5.45	5.20	-1.04	-1.25	-0.92	-0.92	2.91	2.89
24	5.57	5.55	6.20	6.18	5.20	5.11	-1.25	-1.32	-0.92	-0.92	2.95	2.91
25	5.58	5.55	6.20	6.18	5.11	4.92	-1.31	-1.32	-0.92	-0.92	2.99	2.95
26	5.58	5.55	6.18	6.18	4.92	4.70	-1.31	-1.31	-0.92	-0.95	3.13	2.99
27	5.55	5.54	6.18	6.18	4.70	4.50	-1.31	-1.31	-0.95	-0.99	3.19	3.13
28	5.77	5.54	6.18	6.17	4.50	4.30	0.11	-1.31	-0.99	-1.01	3.19	3.19
29	5.77	5.74	6.17	6.16	4.30	3.86	0.45	0.11	-0.85	-1.01	3.19	3.19
30	5.74	5.72	6.16	6.16	3.86	3.54	0.74	0.45	-0.62	-0.85	3.20	3.19
31	---	---	6.16	6.16	---	---	0.87	0.74	-0.36	-0.62	---	---
MONTH	5.77	5.40	6.21	5.72	6.16	3.54	3.54	-1.32	0.93	-1.49	3.20	-0.36
YEAR	6.21	-1.49										

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN DELAWARE

KENT COUNTY--Continued

WELL NUMBER.--DM103D. SITE ID.--390723075270901. PERMIT NUMBER.--95533.

LOCATION.--Lat 39°07'23", long 75°27'09", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.

Owner: U.S. Air Force.

AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 75 ft; protective casing diameter 6 in. from +2.5 to 6 ft, casing diameter 2 in., to 66 ft; screen diameter 2.5 in. from 66 to 75 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 23.82 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of PVC casing at land surface. Prior to July 2000, 2.98 ft above land surface.

REMARKS.--Dover Air Force Base Project observation well. Water levels may be affected by agricultural irrigation.

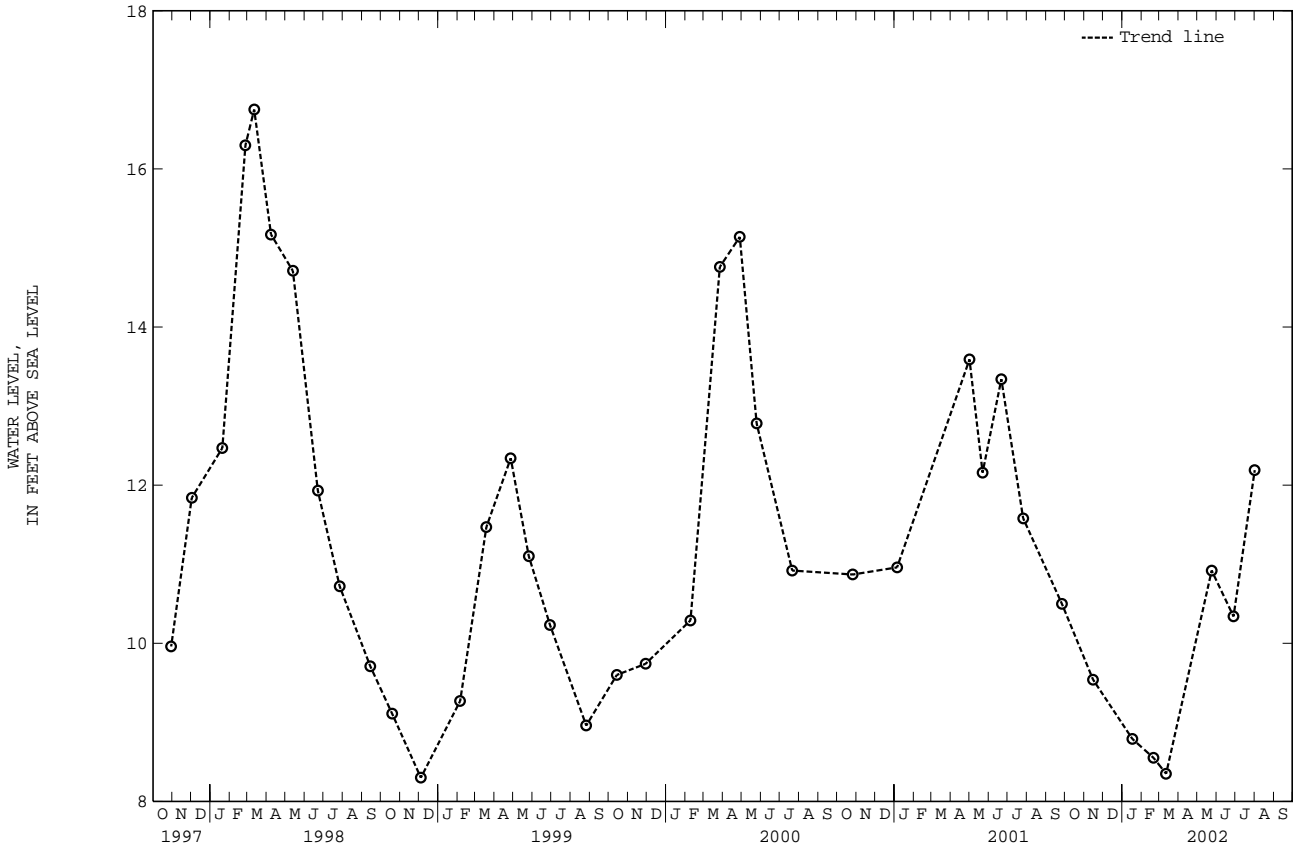
PERIOD OF RECORD.--January 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.75 ft above sea level, March 12, 1998;

lowest measured, 8.30 ft above sea level, Dec. 4, 1998.

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15, 2001	9.54	FEB 20, 2002	8.55	MAY 24, 2002	10.92	AUG 01, 2002	12.19
JAN 17, 2002	8.79	MAR 12	8.35	JUN 28	10.34		
WATER YEAR 2002		HIGHEST	12.19	AUG 01, 2002	LOWEST	8.35	MAR 12, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



## GROUND-WATER LEVELS IN DELAWARE

45

## KENT COUNTY--Continued

WELL NUMBER.--DM106D. SITE ID.--390734075271402. PERMIT NUMBER.--96636.

LOCATION.--Lat 39°07'34", long 75°27'14", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.

Owner: U.S. Air Force.

AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 82.4 ft; casing diameter 2 in., to 72.4 ft; screen diameter 2 in. from 72.4 to 82.4 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval from Oct. 25, 1996, to current year.

DATUM.--Elevation of land surface is 23.51 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform 3.60 ft above land surface.

REMARKS.--Dover Air Force Base Project observation well.

Periods of equal maximum and minimum daily values may be questionable due to the float hanging-up in small diameter wells or other well construction factors.

PERIOD OF RECORD.--December 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.42 ft above sea level, March 22, 1998;

lowest measured, 7.97 ft above sea level, Jan. 1, 2, 1999.

## WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10.17	10.14	9.53	9.53	9.06	9.04	8.68	8.67	9.05	8.94	9.37	9.37
2	10.14	10.07	9.53	9.53	9.04	9.02	8.67	8.66	8.95	8.93	9.51	9.37
3	10.08	10.06	9.53	9.52	9.02	9.02	8.66	8.66	9.05	8.95	9.54	9.45
4	10.07	10.06	9.52	9.52	9.02	9.01	8.66	8.62	9.09	9.03	9.45	9.39
5	10.08	10.05	9.52	9.51	9.01	9.00	8.62	8.61	9.04	9.00	9.39	9.39
6	10.12	10.00	9.51	9.51	9.00	9.00	8.73	8.61	9.07	9.04	9.39	9.39
7	10.00	9.93	9.51	9.44	9.00	8.96	8.72	8.64	9.17	9.07	9.39	9.38
8	9.93	9.88	9.44	9.44	8.96	8.96	8.64	8.62	9.17	9.08	9.38	9.37
9	9.94	9.88	9.44	9.38	8.96	8.90	8.62	8.62	9.13	9.11	9.40	9.37
10	9.97	9.93	9.44	9.38	8.90	8.90	8.62	8.62	9.31	9.13	9.41	9.36
11	9.97	9.94	9.44	9.34	8.90	8.90	8.62	8.62	9.31	9.20	9.36	9.34
12	9.96	9.94	9.34	9.34	8.90	8.90	8.62	8.62	9.31	9.21	9.34	9.34
13	9.94	9.90	9.34	9.34	8.90	8.90	8.64	8.61	9.28	9.25	9.40	9.34
14	9.97	9.90	9.34	9.33	8.90	8.90	8.61	8.60	9.27	9.25	9.37	9.32
15	9.96	9.82	9.33	9.29	8.90	8.80	8.60	8.59	9.36	9.27	9.35	9.32
16	9.96	9.82	9.29	9.27	8.80	8.80	8.59	8.59	9.39	9.36	9.35	9.26
17	9.90	9.79	9.27	9.23	8.93	8.80	8.59	8.52	9.40	9.35	9.32	9.26
18	9.79	9.78	9.23	9.23	8.98	8.83	8.54	8.51	9.37	9.35	9.35	9.31
19	9.81	9.78	9.26	9.23	8.83	8.82	8.66	8.51	9.40	9.37	9.34	9.32
20	9.81	9.78	9.27	9.22	8.82	8.79	8.64	8.55	9.49	9.40	9.54	9.34
21	9.78	9.78	9.22	9.22	8.79	8.75	8.69	8.59	9.49	9.46	9.55	9.44
22	9.78	9.78	9.22	9.21	8.75	8.74	8.64	8.61	9.46	9.42	9.51	9.44
23	9.78	9.78	9.21	9.17	8.79	8.74	8.74	8.64	9.42	9.42	9.59	9.49
24	9.78	9.78	9.17	9.16	8.80	8.78	8.83	8.74	9.42	9.41	9.61	9.55
25	9.78	9.70	9.16	9.16	8.78	8.74	8.79	8.72	9.41	9.41	9.60	9.55
26	9.70	9.67	9.16	9.16	8.75	8.74	8.79	8.73	9.46	9.41	9.71	9.57
27	9.67	9.61	9.16	9.15	8.75	8.74	8.83	8.79	9.46	9.40	9.70	9.67
28	9.61	9.55	9.15	9.06	8.74	8.72	8.88	8.83	9.40	9.37	9.75	9.68
29	9.58	9.55	9.06	9.06	8.73	8.70	8.91	8.88	---	---	9.83	9.73
30	9.58	9.55	9.06	9.06	8.70	8.70	8.92	8.90	---	---	9.86	9.79
31	9.55	9.53	---	---	8.70	8.68	8.94	8.90	---	---	9.93	9.80
MONTH	10.17	9.53	9.53	9.06	9.06	8.68	8.94	8.51	9.49	8.93	9.93	9.26

GROUND-WATER LEVELS IN DELAWARE

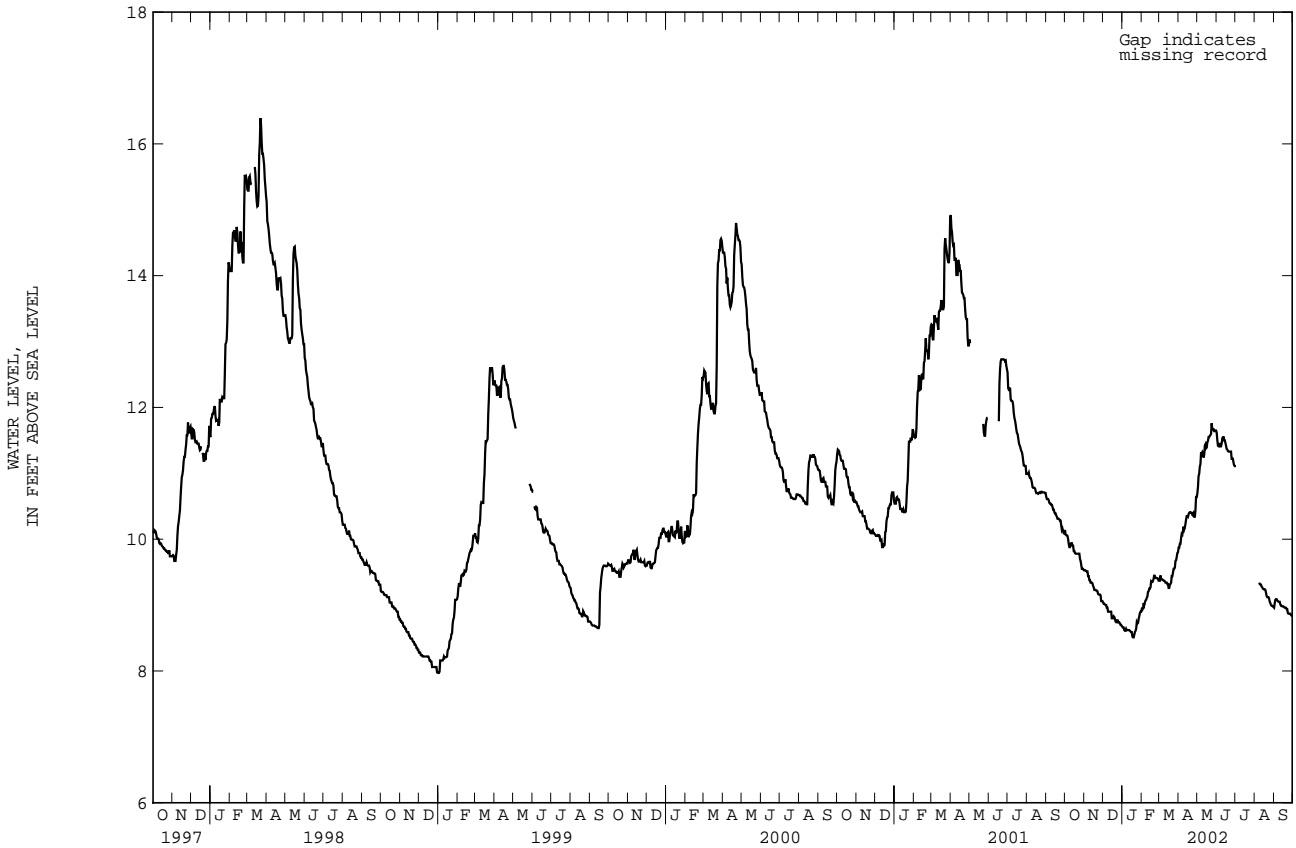
KENT COUNTY--Continued

DM106D--Continued

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.95	9.87	10.79	10.69	11.68	11.62	11.12	11.11	---	---	9.03	8.96
2	9.99	9.87	11.04	10.79	11.62	11.51	11.12	11.11	---	---	9.08	9.03
3	10.04	9.93	11.04	10.96	11.51	11.42	---	---	---	---	9.09	9.08
4	10.03	9.93	11.10	10.99	11.42	11.41	---	---	---	---	9.09	9.09
5	10.10	10.02	11.14	11.10	11.47	11.41	---	---	---	---	9.09	9.09
6	10.10	10.08	11.32	11.14	11.51	11.46	---	---	---	---	9.09	9.07
7	10.13	10.07	11.38	11.32	11.50	11.41	---	---	---	---	9.07	9.06
8	10.20	10.13	11.37	11.30	11.45	11.41	---	---	9.37	9.34	9.06	9.05
9	10.21	10.19	11.39	11.32	11.57	11.45	---	---	9.34	9.32	9.05	9.05
10	10.21	10.15	11.39	11.29	11.56	11.51	---	---	9.32	9.31	9.08	9.05
11	10.23	10.18	11.29	11.24	11.59	11.53	---	---	9.31	9.31	9.09	9.01
12	10.30	10.23	11.42	11.28	11.61	11.56	---	---	9.31	9.28	9.01	8.99
13	10.36	10.30	11.54	11.42	11.56	11.50	---	---	9.28	9.27	8.99	8.99
14	10.40	10.35	11.54	11.44	11.56	11.50	---	---	9.27	9.25	8.99	8.98
15	10.39	10.35	11.44	11.38	11.55	11.46	---	---	9.25	9.24	8.98	8.98
16	10.38	10.34	11.47	11.39	11.46	11.42	---	---	9.24	9.24	8.98	8.98
17	10.42	10.38	11.49	11.47	11.42	11.37	---	---	9.24	9.24	8.98	8.97
18	10.42	10.40	11.60	11.49	11.37	11.36	---	---	9.24	9.23	8.97	8.96
19	10.45	10.41	11.56	11.55	11.36	11.34	---	---	9.23	9.19	8.96	8.96
20	10.45	10.41	11.57	11.55	11.34	11.33	---	---	9.19	9.14	8.96	8.96
21	10.42	10.40	11.58	11.57	11.33	11.33	---	---	9.14	9.12	8.96	8.94
22	10.50	10.40	11.60	11.58	11.33	11.33	---	---	9.12	9.12	8.94	8.94
23	10.40	10.37	11.76	11.60	11.33	11.33	---	---	9.12	9.12	8.94	8.88
24	10.40	10.36	11.79	11.76	11.33	11.33	---	---	9.12	9.10	8.88	8.87
25	10.51	10.39	11.79	11.67	11.33	11.22	---	---	9.10	9.05	8.87	8.87
26	10.41	10.36	11.68	11.67	11.22	11.22	---	---	9.05	9.03	8.87	8.87
27	10.44	10.33	11.68	11.67	11.23	11.22	---	---	9.03	9.00	8.90	8.87
28	10.70	10.44	11.67	11.64	11.23	11.16	---	---	9.00	8.99	8.90	8.85
29	10.69	10.64	11.65	11.64	11.16	11.12	---	---	8.99	8.99	8.85	8.84
30	10.69	10.64	11.66	11.65	11.12	11.11	---	---	8.99	8.98	8.84	8.83
31	---	---	11.73	11.65	---	---	---	---	8.98	8.97	---	---
MONTH	10.70	9.87	11.79	10.69	11.68	11.11	---	---	---	---	9.09	8.83

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## GROUND-WATER LEVELS IN DELAWARE

47

## KENT COUNTY--Continued

WELL NUMBER.--DM106S. SITE ID.--390734075271401. PERMIT NUMBER.--95513.

LOCATION.--Lat 39°07'34", long 75°27'14", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.

Owner: U.S. Air Force.

AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 17.4 ft; casing diameter 2 in., to 7.4 ft; screen diameter 2 in. from 7.4 to 17.4 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from Dec. 8, 1995, to current year.

DATUM.--Elevation of land surface is 23.31 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform 2.73 ft above land surface.

REMARKS.--Dover Air Force Base Project observation well. Water levels may be affected by agricultural irrigation.

Periods of equal maximum and minimum daily values may be questionable due to the float hanging-up in small diameter wells or other well construction factors.

PERIOD OF RECORD.--December 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.40 ft above sea level, March 22, 2001; lowest measured, 13.30 ft above sea level, Jan. 2, 2000.

## WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN	
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH					
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.36	16.34	15.42	15.39	14.97	14.86	14.54	14.52	15.16	14.93	15.06	14.98				
2	16.36	16.34	15.41	15.39	14.86	14.83	14.52	14.47	14.94	14.80	15.42	14.98				
3	16.34	16.28	15.40	15.35	14.83	14.83	14.69	14.51	15.10	14.80	15.47	15.28				
4	16.28	16.27	15.37	15.35	14.83	14.83	14.68	14.53	15.18	14.99	15.28	15.07				
5	16.27	16.27	15.37	15.34	14.86	14.83	14.53	14.53	14.99	14.86	15.07	15.06				
6	16.31	16.15	15.34	15.34	14.92	14.85	14.90	14.53	15.02	14.92	15.14	15.06				
7	16.15	16.02	15.34	15.22	14.95	14.87	14.83	14.54	15.19	15.02	15.14	15.14				
8	16.02	15.94	15.27	15.20	14.95	14.84	14.54	14.43	15.18	15.01	15.14	15.12				
9	15.99	15.94	15.27	15.15	14.95	14.75	14.63	14.44	15.02	14.90	15.36	15.12				
10	16.06	15.99	15.30	15.15	14.75	14.74	14.63	14.54	15.34	14.90	15.38	15.14				
11	16.06	16.05	15.29	15.01	14.78	14.74	14.60	14.51	15.34	15.03	15.14	15.08				
12	16.06	16.05	15.01	14.98	14.78	14.75	14.67	14.51	15.23	15.03	15.22	15.13				
13	16.05	15.97	15.02	14.97	14.92	14.78	14.75	14.46	15.22	15.04	15.39	15.22				
14	16.05	15.97	15.13	15.02	14.94	14.89	14.55	14.43	15.04	15.04	15.35	15.23				
15	16.05	15.86	15.13	15.12	14.92	14.59	14.56	14.49	15.23	15.04	15.29	15.23				
16	16.03	15.86	15.12	15.04	14.71	14.59	14.49	14.42	15.31	15.23	15.30	15.06				
17	15.95	15.74	15.04	14.92	15.10	14.71	14.63	14.47	15.32	15.13	15.14	15.02				
18	15.74	15.72	14.97	14.92	15.19	14.76	14.53	14.44	15.13	15.01	15.25	15.14				
19	15.78	15.72	15.16	14.97	14.80	14.70	14.75	14.44	15.12	15.01	15.28	15.24				
20	15.78	15.74	15.19	14.99	14.80	14.71	14.73	14.49	15.31	15.12	15.70	15.28				
21	15.74	15.68	14.99	14.97	14.71	14.57	14.70	14.49	15.31	15.30	16.15	15.70				
22	15.72	15.70	14.98	14.96	14.57	14.53	14.60	14.50	15.30	15.18	16.12	15.98				
23	15.72	15.70	14.96	14.94	14.85	14.57	14.72	14.50	15.18	15.18	16.35	16.11				
24	15.72	15.71	14.94	14.93	14.88	14.71	14.91	14.72	15.18	15.10	16.33	16.27				
25	15.71	15.59	14.98	14.93	14.71	14.65	14.83	14.62	15.23	15.10	16.33	16.28				
26	15.59	15.51	14.97	14.95	14.78	14.65	14.70	14.62	15.39	15.23	16.55	16.28				
27	15.51	15.42	14.95	14.95	14.78	14.70	14.80	14.70	15.34	15.29	16.87	16.54				
28	15.42	15.34	14.95	14.89	14.75	14.69	14.89	14.80	15.29	15.06	17.19	16.87				
29	15.40	15.34	14.93	14.89	14.70	14.58	14.90	14.88	---	---	17.45	17.19				
30	15.40	15.39	14.97	14.93	14.58	14.54	14.91	14.82	---	---	17.53	17.41				
31	15.40	15.33	---	---	14.55	14.54	14.93	14.80	---	---	17.56	17.38				
MONTH	16.36	15.33	15.42	14.89	15.19	14.53	14.93	14.42	15.39	14.80	17.56	14.98				

GROUND-WATER LEVELS IN DELAWARE

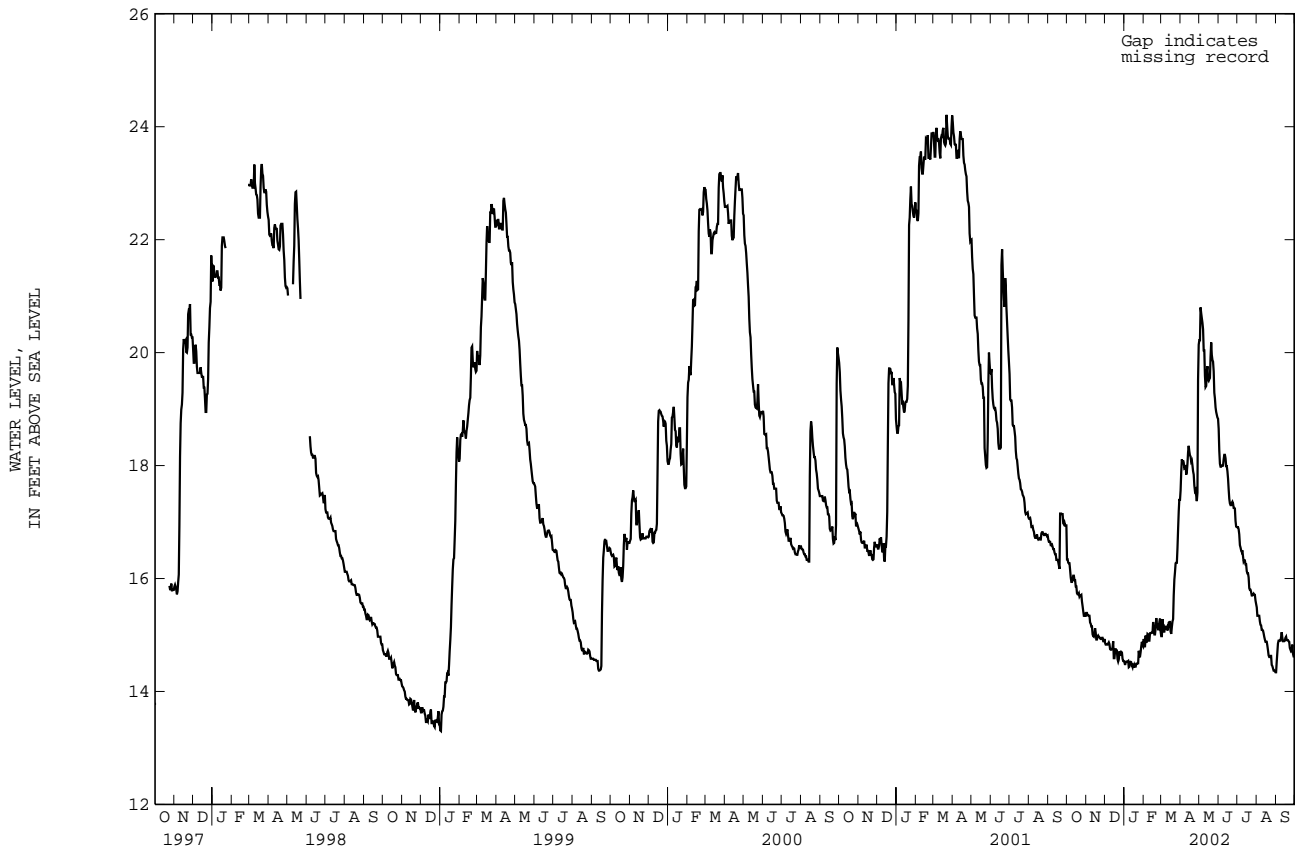
KENT COUNTY--Continued

DML106S--Continued

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX		MIN		MAX		MIN		MAX		MIN													
	APRIL				MAY				JUNE				JULY				AUGUST				SEPTEMBER			
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN		
1	17.88	17.56	20.39	20.22	18.83	18.65	16.91	16.91	15.55	15.49	14.53	14.34												
2	18.27	17.88	21.05	20.22	18.65	18.26	16.92	16.91	15.49	15.34	14.69	14.53												
3	18.38	18.11	21.04	20.80	18.26	18.03	16.92	16.87	15.34	15.34	14.85	14.69												
4	18.11	18.04	20.80	20.70	18.03	17.98	16.87	16.78	15.35	15.34	14.91	14.85												
5	18.17	18.09	20.75	20.61	18.03	17.98	16.78	16.59	15.39	15.34	14.91	14.90												
6	18.17	18.05	20.61	20.53	18.05	18.00	16.59	16.55	15.38	15.24	14.90	14.90												
7	18.05	17.95	20.57	20.41	18.05	18.00	16.55	16.50	15.24	15.18	14.90	14.90												
8	18.05	17.96	20.41	20.04	18.11	18.00	16.50	16.47	15.18	15.17	14.96	14.90												
9	18.05	18.01	20.09	20.04	18.26	18.11	16.56	16.50	15.17	15.09	15.05	14.96												
10	18.01	17.84	20.06	19.59	18.26	18.19	16.53	16.39	15.09	15.09	15.19	15.05												
11	18.03	17.89	19.59	19.39	18.21	18.19	16.39	16.30	15.09	15.08	15.23	14.95												
12	18.24	18.03	19.67	19.41	18.21	18.13	16.33	16.32	15.08	15.03	14.95	14.89												
13	18.37	18.24	20.18	19.67	18.13	17.99	16.32	16.32	15.03	14.97	14.91	14.89												
14	18.42	18.35	20.08	19.76	18.03	17.99	16.32	16.25	14.97	14.92	14.90	14.89												
15	18.41	18.25	19.76	19.52	18.02	17.90	16.26	16.25	14.92	14.88	14.95	14.90												
16	18.25	18.18	19.57	19.50	17.90	17.77	16.25	16.13	14.88	14.88	15.00	14.95												
17	18.19	18.16	19.57	19.53	17.77	17.58	16.13	16.09	14.88	14.88	14.99	14.97												
18	18.17	18.07	19.93	19.55	17.58	17.41	16.10	16.09	14.88	14.81	14.97	14.91												
19	18.15	18.09	20.21	19.93	17.41	17.33	16.09	16.02	14.81	14.73	14.91	14.91												
20	18.14	18.00	20.23	20.18	17.33	17.30	16.02	15.83	14.73	14.64	14.91	14.91												
21	18.00	17.90	20.18	19.96	17.34	17.30	15.83	15.80	14.64	14.61	14.91	14.89												
22	18.04	17.84	19.96	19.87	17.38	17.34	15.83	15.80	14.65	14.61	14.89	14.88												
23	17.84	17.65	19.87	19.84	17.39	17.36	15.81	15.76	14.65	14.63	14.88	14.77												
24	17.65	17.55	19.85	19.67	17.39	17.33	15.76	15.70	14.63	14.63	14.77	14.74												
25	17.82	17.57	19.67	19.29	17.33	17.25	15.71	15.70	14.63	14.47	14.74	14.71												
26	17.65	17.47	19.30	19.19	17.26	17.25	15.73	15.71	14.47	14.45	14.83	14.72												
27	17.52	17.37	19.19	19.03	17.26	17.24	15.75	15.73	14.45	14.41	14.93	14.83												
28	19.52	17.52	19.03	18.95	17.24	17.02	15.75	15.71	14.41	14.37	14.92	14.67												
29	20.14	19.52	18.95	18.90	17.02	16.92	15.74	15.71	14.41	14.37	14.67	14.62												
30	20.39	20.14	18.90	18.85	16.92	16.91	15.71	15.61	14.37	14.36	14.63	14.62												
31	---	---	18.86	18.83	---	---	15.61	15.55	14.36	14.34	---	---												
MONTH	20.39	17.37	21.05	18.83	18.83	16.91	16.92	15.55	15.55	14.34	15.23	14.34												
YEAR	21.05	14.34																						

Daily Low Water Levels



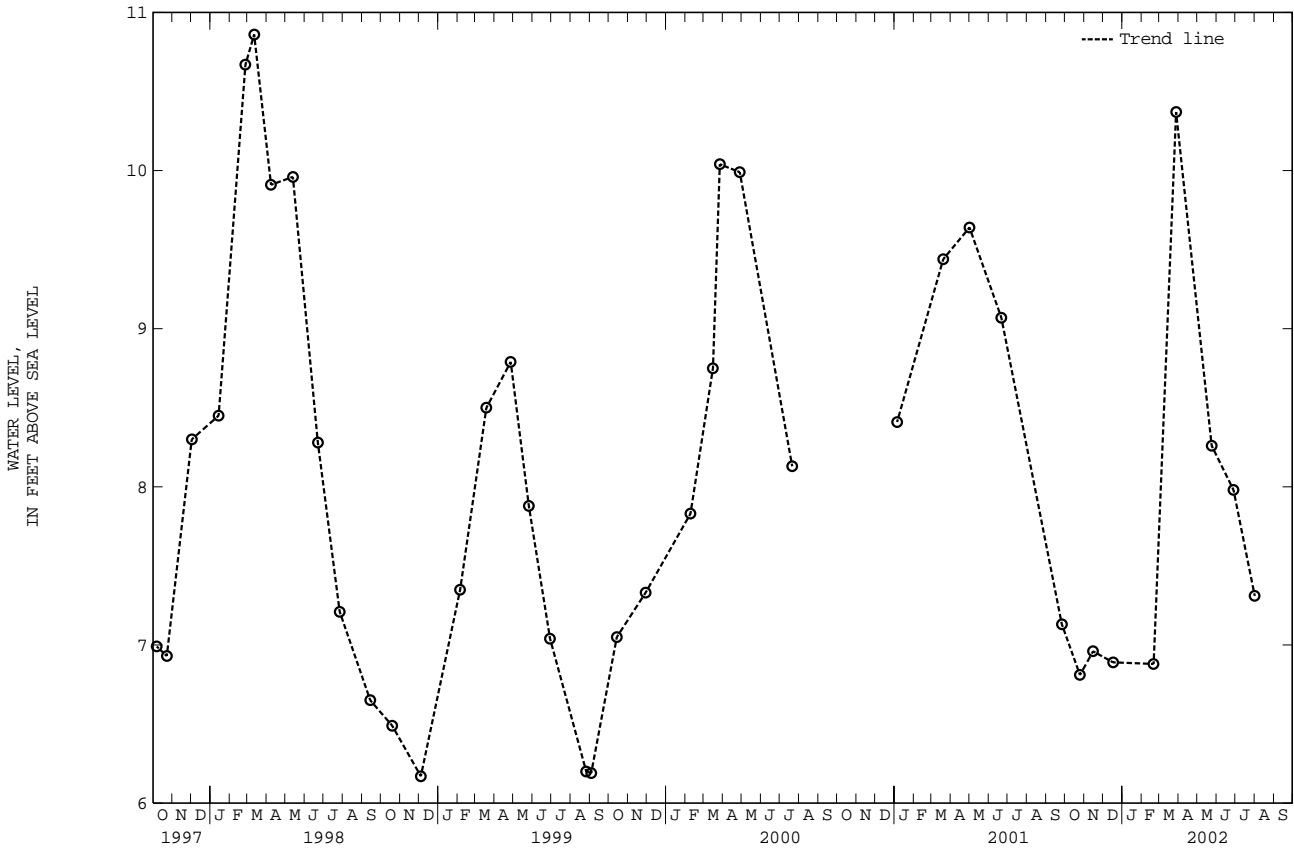
5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

KENT COUNTY--Continued

WELL NUMBER.--DM108D. SITE ID.--390801075272302. PERMIT NUMBER.--95551.  
 LOCATION.--Lat 39°08'01", long 75°27'23", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.  
 Owner: U.S. Air Force.  
 AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 32.8 ft; protective casing from +2 to 2.5 ft, casing diameter 2 in., to 22.8 ft; screen diameter 2 in. from 22.8 to 32.8 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.  
 Equipped with digital water-level recorder--60-minute recorder interval from July 10, 1997, to March 16, 2000.  
 DATUM.--Elevation of land surface is 11.46 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of PVC casing 2.85 ft above land surface.  
 REMARKS.--Dover Air Force Base Project observation well. Water levels may be affected by agricultural irrigation.  
 PERIOD OF RECORD.--October 1995 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.86 ft above sea level, March 12, 1998;  
 lowest measured, 6.17 ft above sea level, Dec. 4, 1998.

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	6.81	DEC 17, 2001	6.89	MAR 28, 2002	10.37	JUN 28, 2002	7.98
NOV 15	6.96	FEB 20, 2002	6.88	MAY 24	8.26	AUG 01	7.31
WATER YEAR 2002		HIGHEST	10.37	MAR 28, 2002	LOWEST	6.81	OCT 25, 2001



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

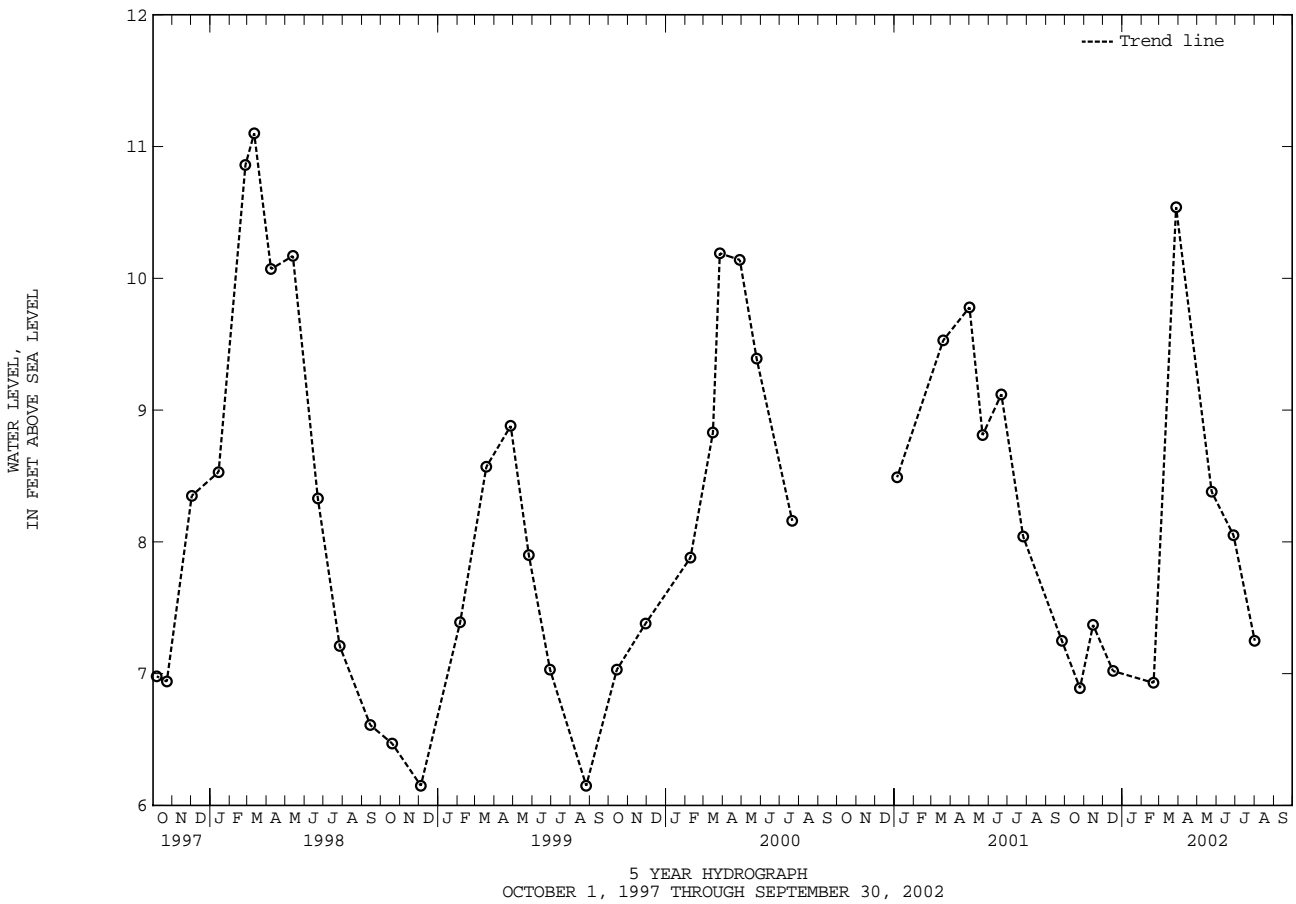
GROUND-WATER LEVELS IN DELAWARE

KENT COUNTY--Continued

WELL NUMBER.--DM108S. SITE ID.--390801075272301. PERMIT NUMBER.--95525.  
 LOCATION.--Lat 39°08'01", long 75°27'23", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.  
 Owner: U.S. Air Force.  
 AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 16.9 ft; protective casing diameter 6 in. from +2.5 to 2.5 ft, casing diameter 2 in., to 6.9 ft; screen diameter 2 in. from 6.9 to 16.9 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.  
 Equipped with digital water-level recorder--60-minute recorder interval from July 10, 1997, to current year.  
 DATUM.--Elevation of land surface is 11.66 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of recorder platform 2.84 ft above land surface.  
 REMARKS.--Dover Air Force Base Project observation well. Water levels may be affected by agricultural irrigation. Periods of equal maximum and minimum daily values may be questionable due to the float hanging-up in small diameter wells or other well construction factors.  
 PERIOD OF RECORD.--July 1997 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.10 ft above sea level, March 12, 1998;  
 lowest measured, 6.15 ft above sea level, Dec. 4, 1998, and Aug. 26, 1999.

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	6.89	DEC 17, 2001	7.02	MAR 28, 2002	10.54	JUN 28, 2002	8.05
NOV 15	7.37	FEB 20, 2002	6.93	MAY 24	8.38	AUG 01	7.25
WATER YEAR 2002		HIGHEST	10.54	MAR 28, 2002	LOWEST	6.89	OCT 25, 2001

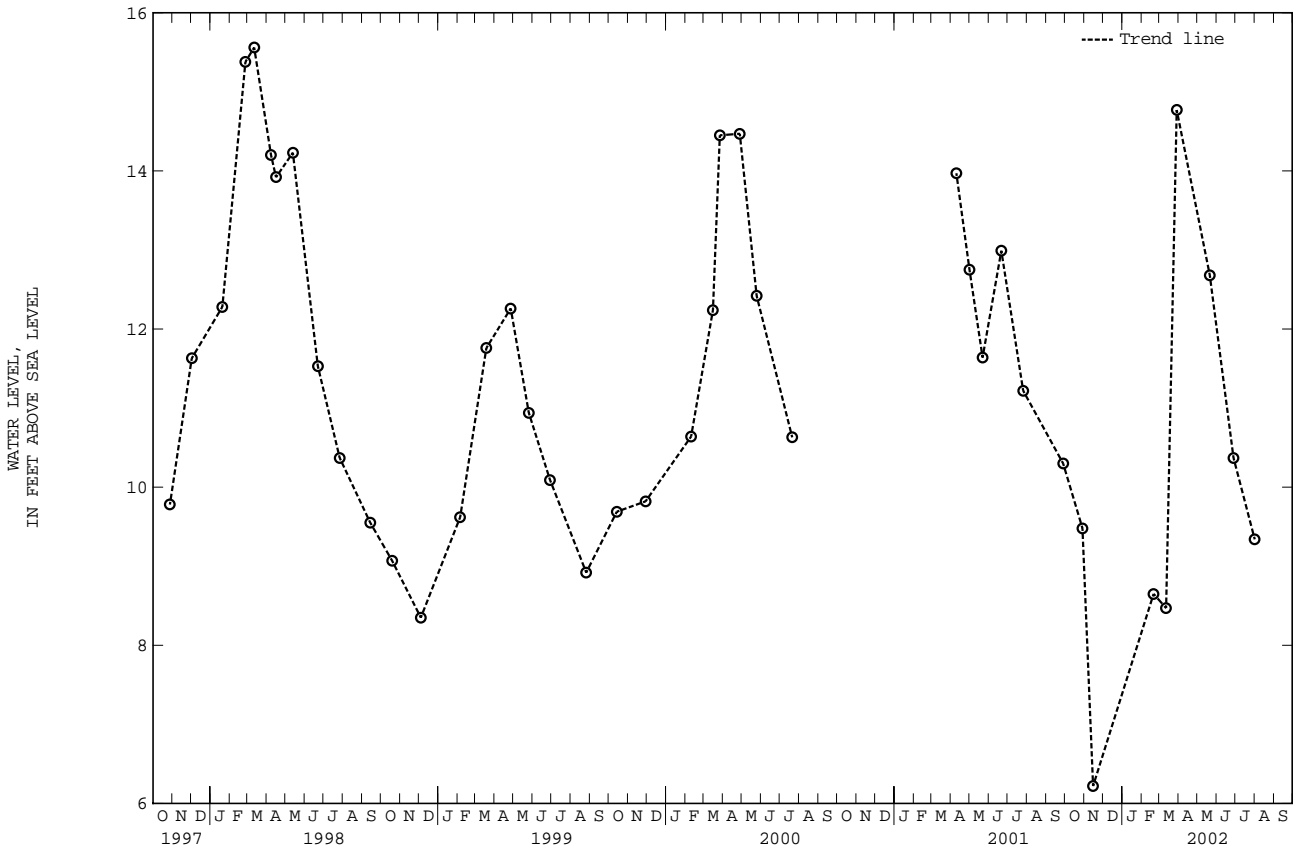


KENT COUNTY--Continued

WELL NUMBER.--DM110D. SITE ID.--390744075270402. PERMIT NUMBER.--95553.  
 LOCATION.--Lat 39°07'44", long 75°27'04", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.  
 Owner: U.S. Air Force.  
 AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 73.4 ft; casing diameter 2 in., to 63.4 ft; screen diameter 2 in. from 63.4 to 73.4 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from Oct. 25, 1995, to March 15, 2000.  
 DATUM.--Elevation of land surface is 25.66 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing 4.06 ft above land surface.  
 REMARKS.--Dover Air Force Base Project observation well.  
 Periods of equal maximum and minimum daily values may be questionable due to the float hanging-up in small diameter wells or other well construction factors.  
 PERIOD OF RECORD.--October 1995 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.12 ft above sea level, March 9, 1998;  
 lowest measured, 7.84 ft above sea level, Jan. 2, 1999.

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 2001	9.48	FEB 20, 2002	8.65	MAR 29, 2002	14.77	JUN 28, 2002	10.37
NOV 15	6.22	MAR 12	8.47	MAY 21	12.68	AUG 01	9.34
WATER YEAR 2002		HIGHEST	14.77	MAR 29, 2002	LOWEST	6.22	NOV 15, 2001



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

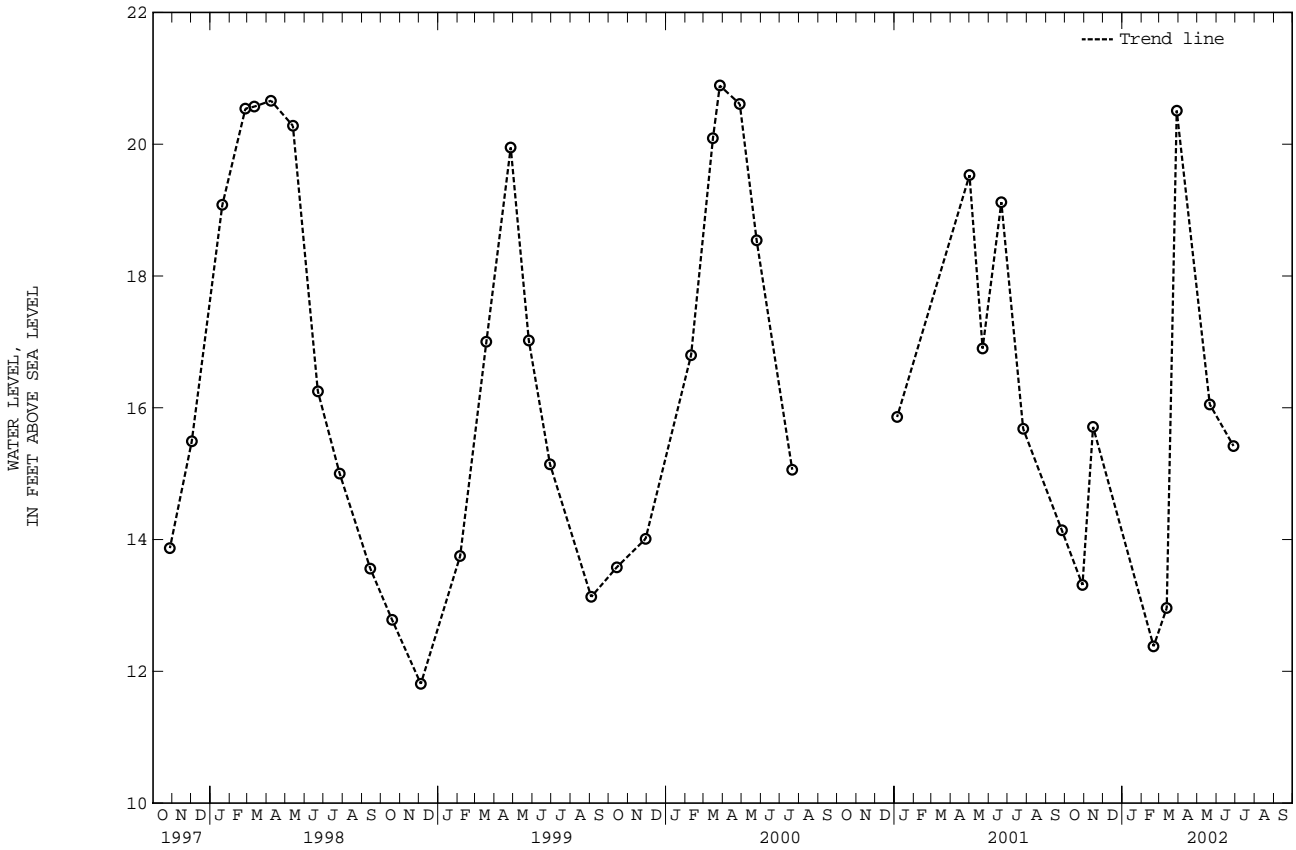
GROUND-WATER LEVELS IN DELAWARE

KENT COUNTY--Continued

WELL NUMBER.--DM110S. SITE ID.--390744075270401. PERMIT NUMBER.--95528.  
 LOCATION.--Lat 39°07'44", long 75°27'04", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.  
 Owner: U.S. Air Force.  
 AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 20.3 ft; casing diameter 2 in., to 10.3 ft; screen diameter 2 in. from 10.3 to 20.3 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.  
 Equipped with digital water-level recorder--60-minute recorder interval from Oct. 25, 1995, to March 16, 2000.  
 DATUM.--Elevation of land surface is 25.66 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of recorder platform 3.70 ft above land surface.  
 REMARKS.--Dover Air Force Base Project observation well. Water levels may be affected by agricultural irrigation.  
 PERIOD OF RECORD.--October 1995 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.32 ft above sea level, March 17, 2000;  
 lowest measured, 11.81 ft above sea level, Dec. 1-2, and 4, 1998.

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 2001	13.31	FEB 20, 2002	12.38	MAR 29, 2002	20.51	JUN 28, 2002	15.42
NOV 15	15.71	MAR 13	12.96	MAY 21	16.05		
WATER YEAR 2002		HIGHEST	20.51	MAR 29, 2002	LOWEST	12.38	FEB 20, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

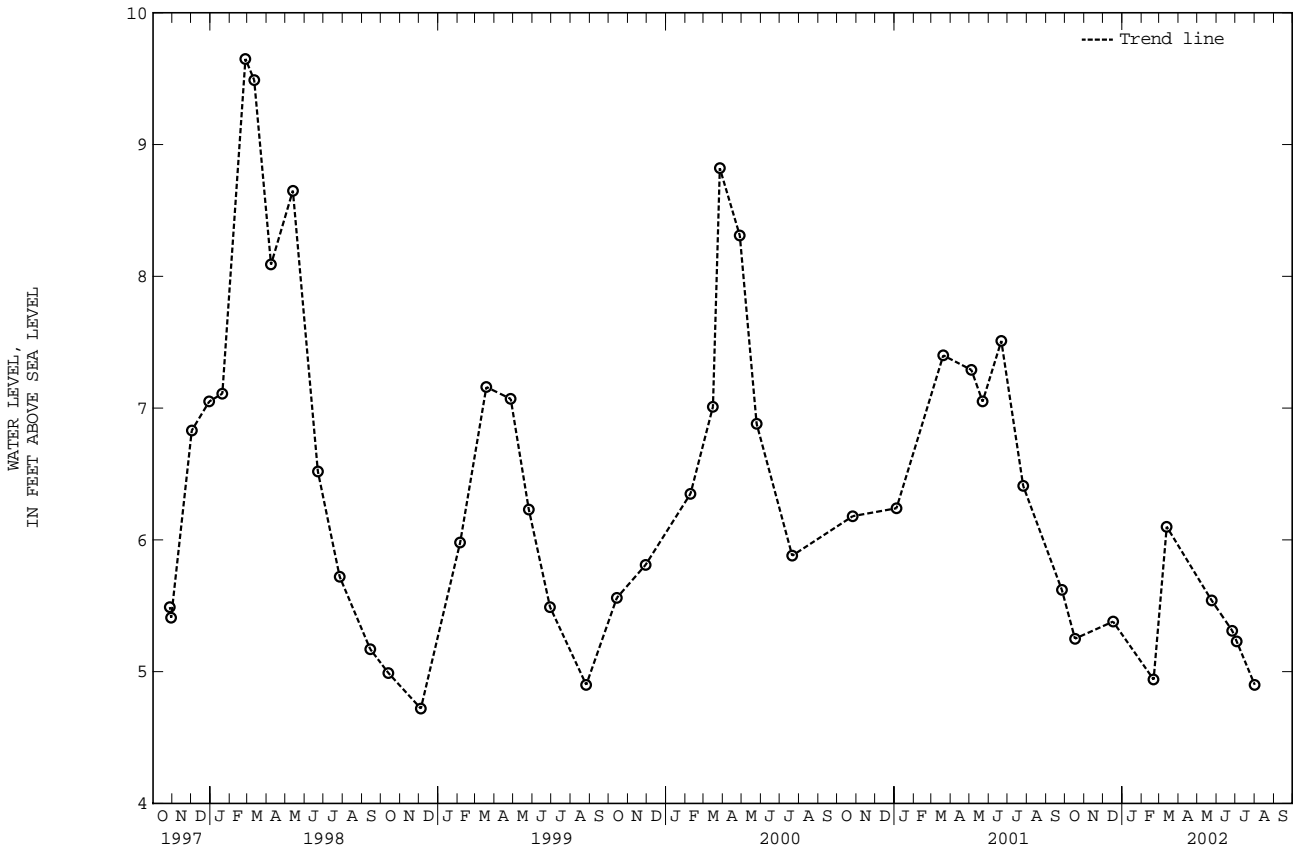


KENT COUNTY--Continued

WELL NUMBER.--DM202D. SITE ID.--390833075273601. PERMIT NUMBER.--95544.  
 LOCATION.--Lat 39°08'33", long 75°27'36", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.  
 Owner: U.S. Air Force.  
 AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 27.6ft; casing diameter 2 in., to 17.6 ft; screen diameter 2 in. from 17.6 to 27.6 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.  
 Equipped with digital water-level recorder--60-minute recorder interval from Oct. 25, 1995, to March 15, 2000.  
 DATUM.--Elevation of land surface is 13.74 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of PVC casing at land surface. Prior to July 2000, 2.23 ft above land surface.  
 REMARKS.--Dover Air Force Base Project observation well.  
 Periods of equal maximum and minimum daily values may be questionable due to the float hanging-up in small diameter wells or other well construction factors.  
 PERIOD OF RECORD.--October 1995 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.00 ft above sea level, March 9, 1998;  
 lowest measured, 4.71 ft above sea level, Dec. 4, 1998.

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 2001	5.25	FEB 20, 2002	4.94	MAY 24, 2002	5.54	JUL 03, 2002	5.23
DEC 17	5.38	MAR 13	6.10	JUN 26	5.31	AUG 01	4.90
WATER YEAR 2002		HIGHEST	6.10	MAR 13, 2002	LOWEST	4.90	AUG 01, 2002



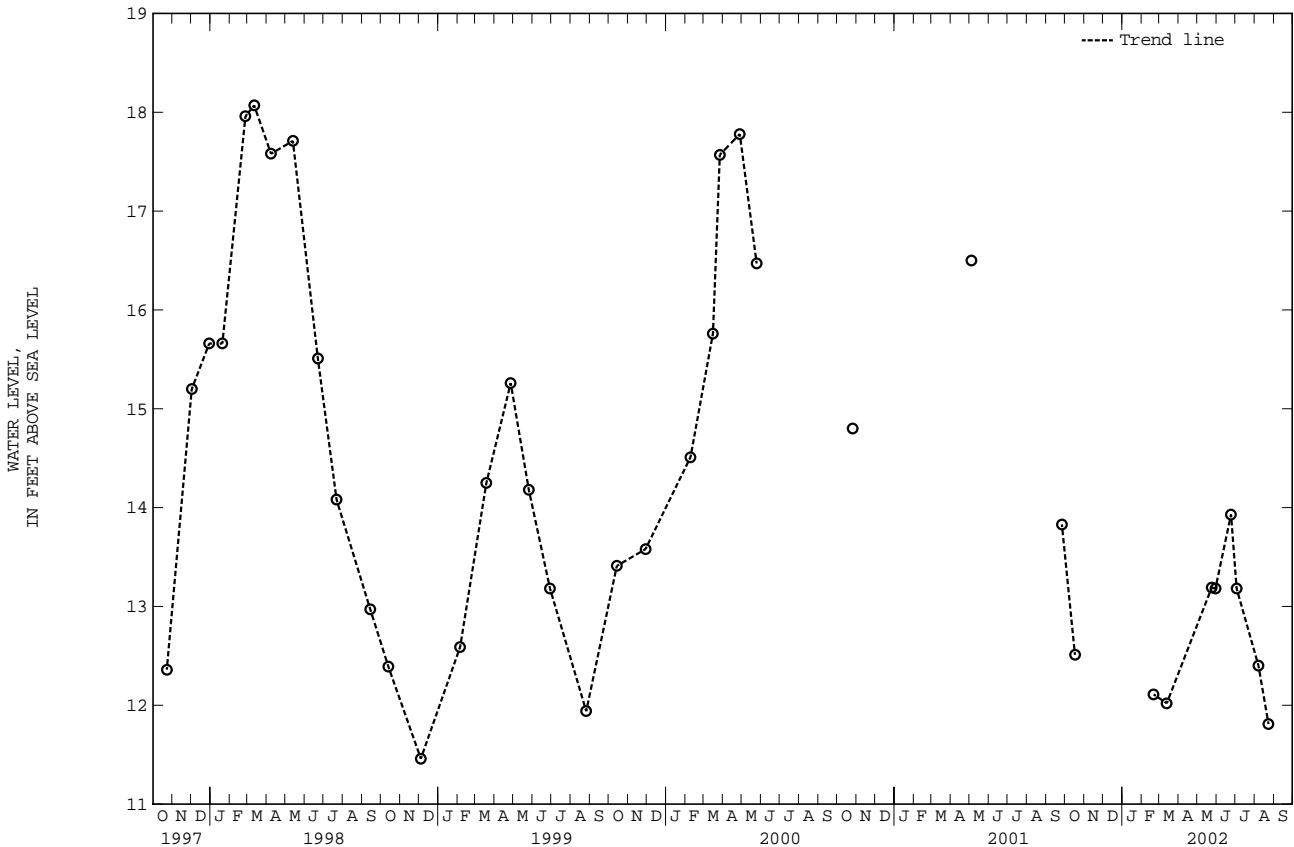
5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

KENT COUNTY--Continued

WELL NUMBER.--DM204D. SITE ID.--390827075290401. PERMIT NUMBER.--95546.  
 LOCATION.--Lat 39°08'27", long 75°29'04", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.  
 Owner: U.S. Air Force.  
 AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 34.7 ft; casing diameter 2 in., to 24.7 ft; screen diameter 2 in. from 24.7 to 34.7 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from Oct. 25, 1995, to March 16, 2000.  
 DATUM.--Elevation of land surface is 22.28 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of PVC casing at land surface. Prior to October 2000, 2.48 ft above land surface.  
 REMARKS.--Dover Air Force Base Project observation well.  
 Periods of equal maximum and minimum daily values may be questionable due to the float hanging-up in small diameter wells or other well construction factors.  
 PERIOD OF RECORD.--October 1995 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.07 ft above sea level, March 12, 1998; lowest measured, 11.46 ft above sea level, Dec. 4, 1998.

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 2001	12.51	MAY 24, 2002	13.19	JUL 03, 2002	13.18
FEB 20, 2002	12.11	30	13.18	AUG 07	12.40
MAR 13	12.02	JUN 24	13.93	23	11.81
WATER YEAR 2002		HIGHEST	13.93 JUN 24, 2002	LOWEST	11.81 AUG 23, 2002



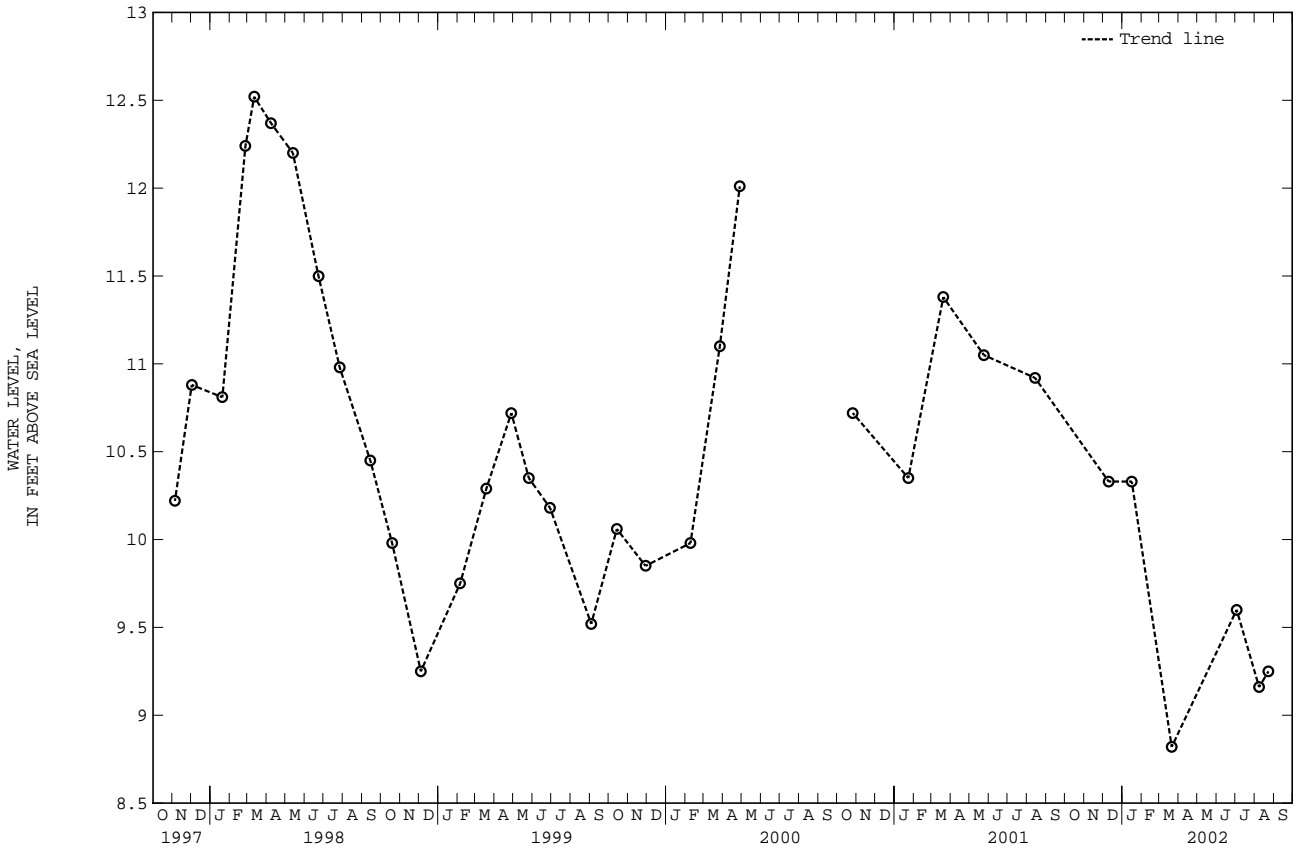
5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

KENT COUNTY--Continued

WELL NUMBER.--DM310SB. SITE ID.--390729075283701. PERMIT NUMBER.--96051.  
 LOCATION.--Lat 39°07'29", long 75°28'37", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.  
 Owner: U.S. Air Force.  
 AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 20 ft; protective casing diameter 4 in. from +2.5 to 2.5 ft, casing diameter 2 in., to 10 ft; screen diameter 2 in. from 10 to 20 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.  
 Equipped with digital water-level recorder--60-minute recorder interval from Feb 26, 1998, to Oct. 26, 2000.  
 DATUM.--Elevation of land surface is 20.38 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of PVC 0.28 ft below land surface.  
 REMARKS.--Dover Air Force Base Project observation well. Water levels may be affected by agricultural irrigation.  
 PERIOD OF RECORD.--July 1997 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.52 ft above sea level, March 12, 1998;  
 lowest measured, 9.13 ft above sea level, Sept. 4, 1997.

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL			
DEC 10, 2001	10.33	MAR 21, 2002	8.82	AUG 08, 2002	9.16			
JAN 16, 2002	10.33	JUL 03	9.60		9.25			
WATER YEAR 2002		HIGHEST	10.33	DEC 10, 2001	JAN 16, 2002	LOWEST	8.82	MAR 21, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN DELAWARE

KENT COUNTY--Continued

WELL NUMBER.--DM347D. SITE ID.--390819075292902. PERMIT NUMBER.--96044.

LOCATION.--Lat 39°08'19", long 75°29'29", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.

Owner: U.S. Air Force.

AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 41.1 ft; protective casing diameter 4 in. from +2.5 to 2.5 ft, casing diameter 2 in., to 31.1 ft; screen diameter 2 in. from 31.1 to 41.1 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 25.90 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of PVC casing 2.84 ft above land surface.

REMARKS.--Dover Air Force Base Project observation well. Water levels may be affected by agricultural irrigation.

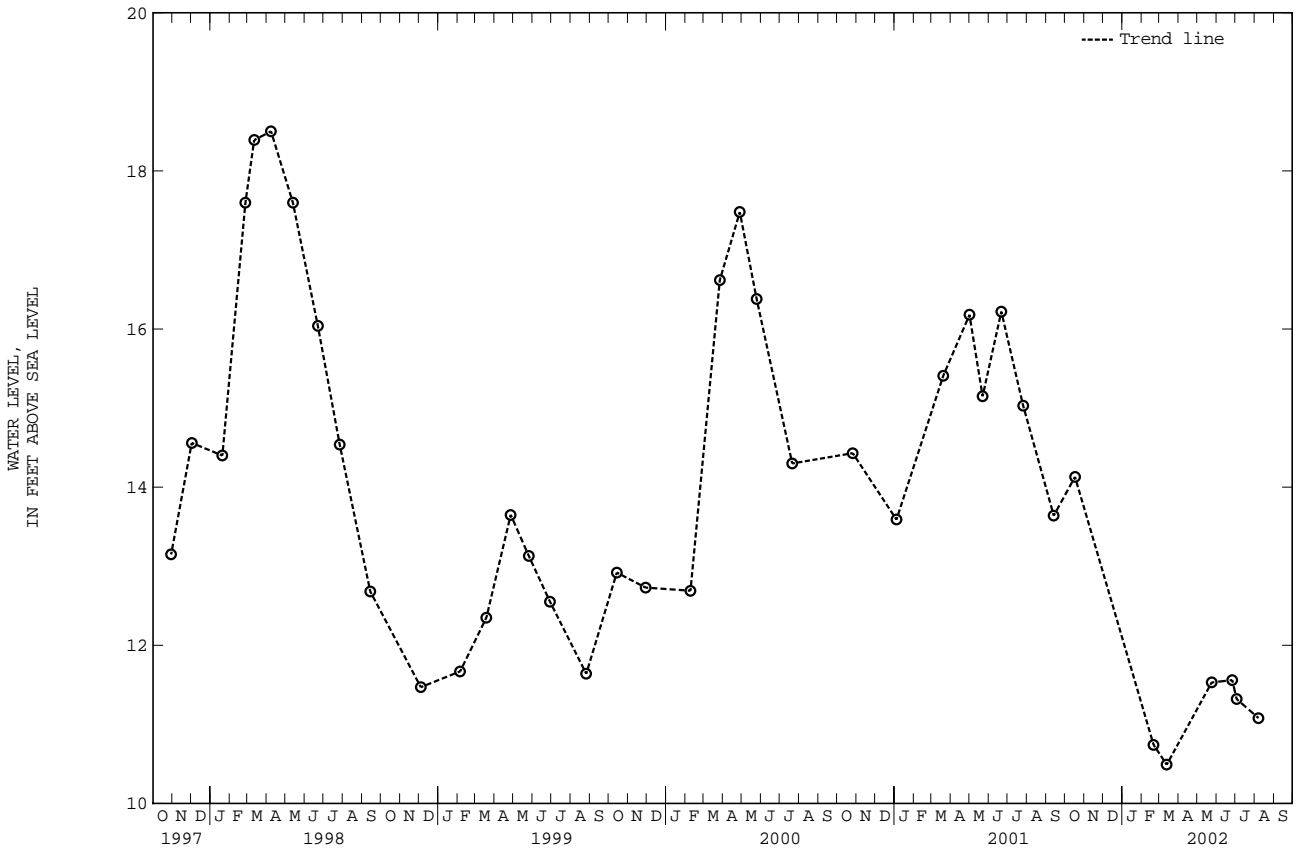
PERIOD OF RECORD.--October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.50 ft above sea level, April 8, 1998;

lowest measured, 11.47 ft below sea level, Dec. 4, 1998.

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 2001	14.13	MAR 13, 2002	10.49	JUN 26, 2002	11.56	AUG 07, 2002	11.08
FEB 20, 2002	10.74	MAY 24	11.53	JUL 03	11.32		
WATER YEAR 2002		HIGHEST	14.13	OCT 17, 2001	LOWEST	10.49	MAR 13, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

KENT COUNTY--Continued

WELL NUMBER.--DM347S. SITE ID.--390819075292901. PERMIT NUMBER.--95919.

LOCATION.--Lat 39°08'19", long 75°29'29", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.

Owner: U.S. Air Force.

AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 20.3 ft; protective casing diameter 4 in. from +2.5 to 2.5 ft, casing diameter 2 in., to 10.3 ft; screen diameter 2 in. from 10.3 to 20.3 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 25.89 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of PVC casing 2.84 ft above land surface.

REMARKS.--Dover Air Force Base Project observation well. Water levels may be affected by agricultural irrigation.

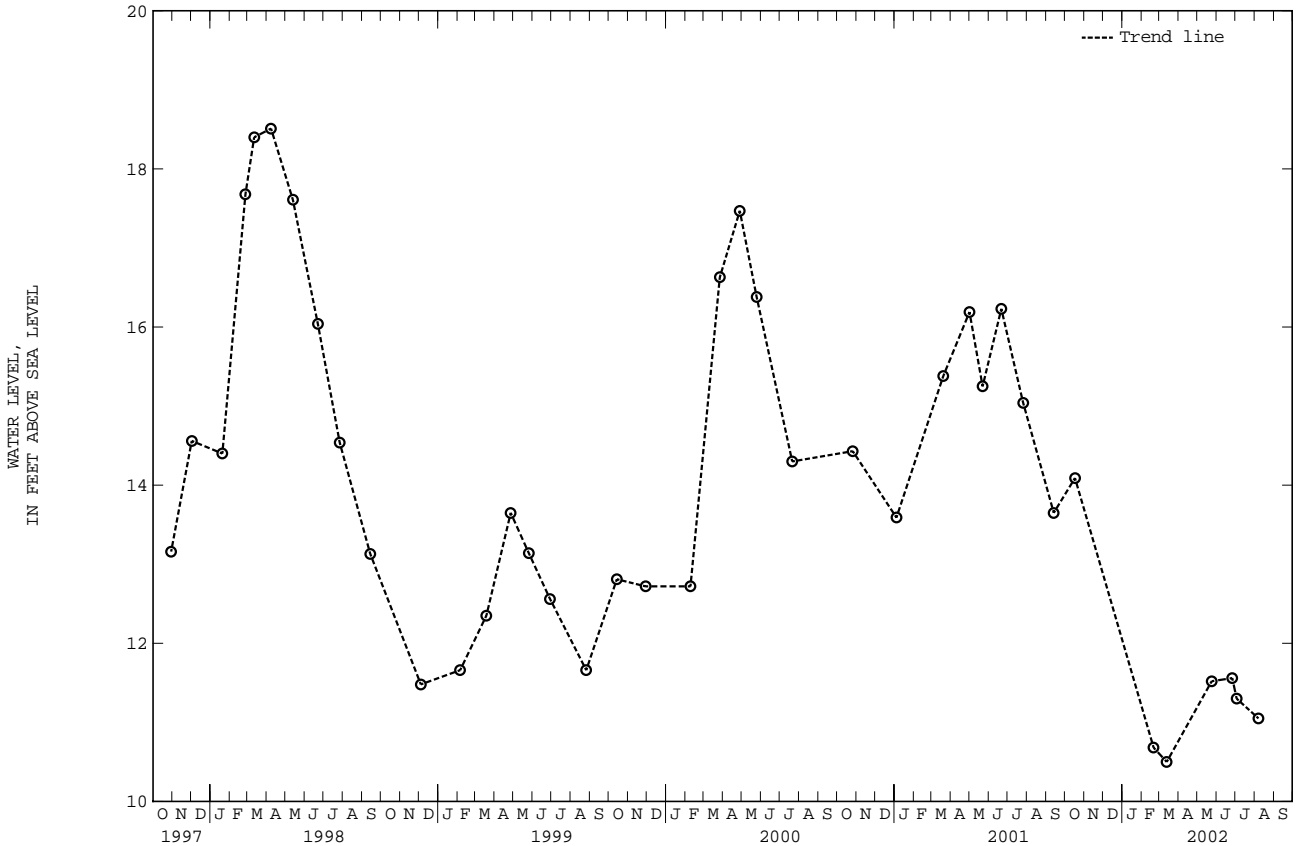
PERIOD OF RECORD.--October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.51 ft above sea level, April 8, 1998;

lowest measured, 10.50 ft above sea level, March 13, 2002.

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 2001	14.09	MAR 13, 2002	10.50	JUN 26, 2002	11.56	AUG 07, 2002	11.05
FEB 20, 2002	10.68	MAY 24	11.52	JUL 03	11.30		
WATER YEAR 2002		HIGHEST	14.09	OCT 17, 2001	LOWEST	10.50	MAR 13, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

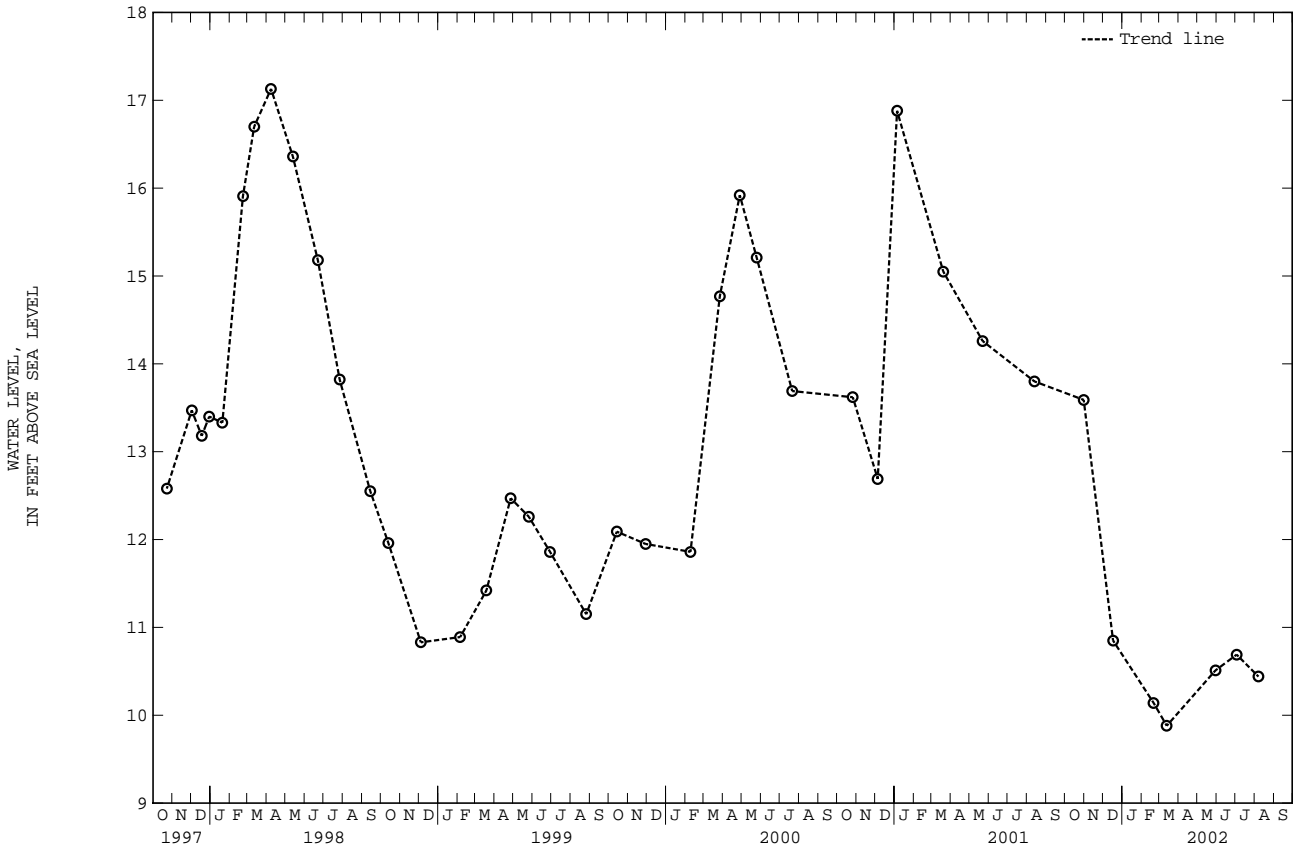
GROUND-WATER LEVELS IN DELAWARE

KENT COUNTY--Continued

WELL NUMBER.--DM348D. SITE ID.--390815075293402. PERMIT NUMBER.--96041.  
 LOCATION.--Lat 39°08'15", long 75°29'34", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.  
 Owner: U.S. Air Force.  
 AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 34 ft; protective casing diameter 4 in. from +2.5 to 2.5 ft, casing diameter 2 in., to 24 ft; screen diameter 2 in. from 24 to 34 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from Jan. 7, 1997, to Nov. 27, 2000.  
 DATUM.--Elevation of land surface is 26.09 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of PVC casing 3.04 ft above land surface.  
 REMARKS.--Dover Air Force Base Project observation well. Water levels may be affected by agricultural irrigation.  
 PERIOD OF RECORD.--October 1996 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.43 ft above sea level, April 9, 1998;  
 lowest measured, 9.88 ft below sea level, March 13, 2002.

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 2001	13.59	FEB 20, 2002	10.14	MAY 30, 2002	10.51	AUG 07, 2002	10.44
DEC 17	10.85	MAR 13	9.88	JUL 03	10.69		
WATER YEAR 2002		HIGHEST	13.59	OCT 31, 2001	LOWEST	9.88	MAR 13, 2002



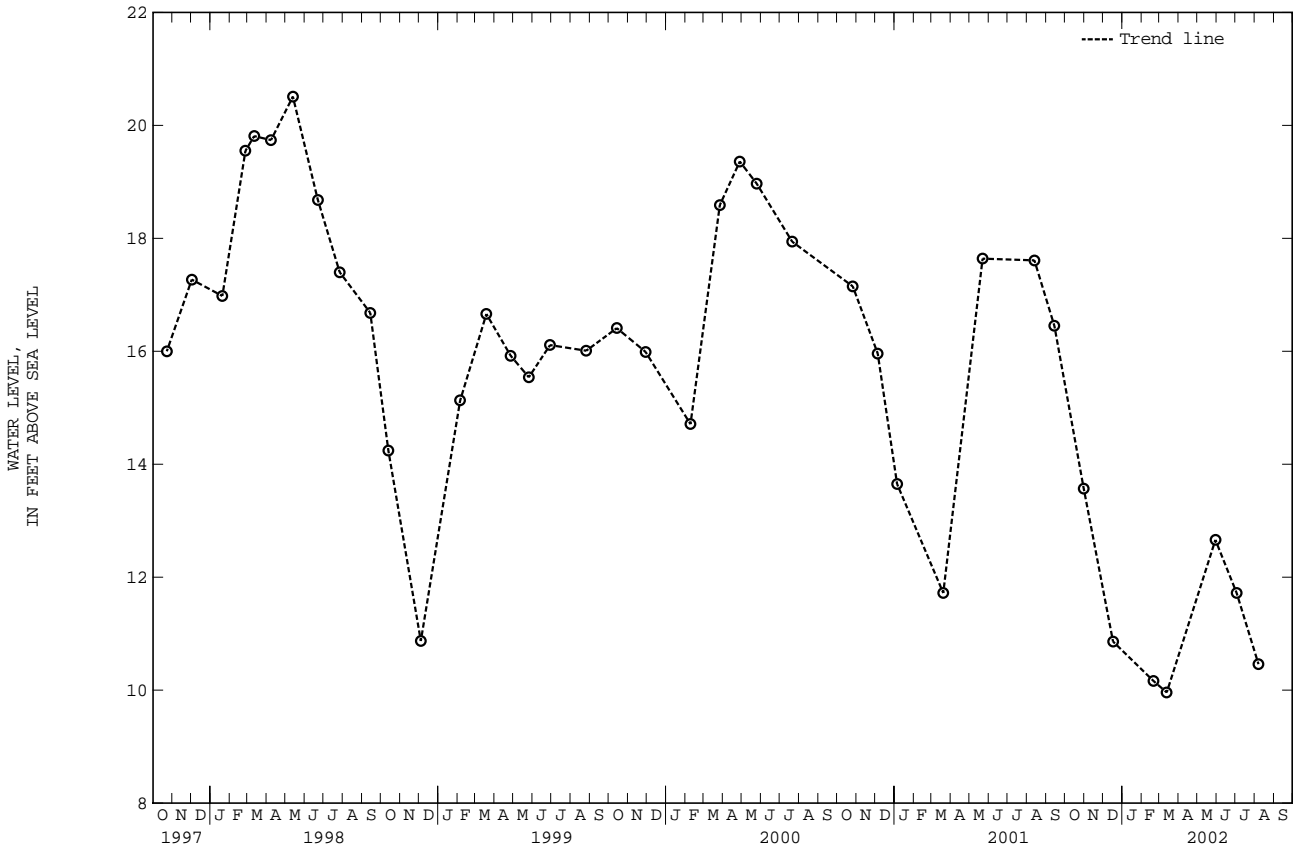
5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

KENT COUNTY--Continued

WELL NUMBER.--DM348S. SITE ID.--390815075293401. PERMIT NUMBER.--95916.  
 LOCATION.--Lat 39°08'15", long 75°29'34", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.  
 Owner: U.S. Air Force.  
 AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 21.2 ft; protective casing diameter 4 in. from +2.5 to 2.5 ft, casing diameter 2 in., to 11.2 ft; screen diameter 2 in. from 11.2 to 21.2 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.  
 Equipped with digital water-level recorder--60-minute recorder interval from Dec 20, 1996, to Nov. 27, 2000.  
 DATUM.--Elevation of land surface is 26.09 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of PVC casing 3.12 ft above land surface.  
 REMARKS.--Dover Air Force Base Project observation well. Water levels may be affected by agricultural irrigation.  
 PERIOD OF RECORD.--October 1996 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.57 ft above sea level, May 13, 1998;  
 lowest measured, 9.96 ft above sea level, March 13, 2002.

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 2001	13.57	FEB 20, 2002	10.16	MAY 30, 2002	12.66	AUG 07, 2002	10.46
DEC 17	10.86	MAR 13	9.96	JUL 03	11.72		
WATER YEAR 2002		HIGHEST	13.57	OCT 31, 2001	LOWEST	9.96	MAR 13, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN DELAWARE

KENT COUNTY--Continued

WELL NUMBER.--DM349D. SITE ID.--390811075293802. PERMIT NUMBER.--96042.

LOCATION.--Lat 39°08'11", long 75°29'38", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.

Owner: U.S. Air Force.

AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 34.4 ft; protective casing diameter 4 in. from +2.5 ft to 2.5 ft, casing diameter 2 in., to 24.4 ft; screen diameter 2 in. from 24.4 to 34.4 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 29.40 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of PVC casing 2.60 ft above land surface.

REMARKS.--Dover Air Force Base Project observation well. Water levels may be affected by agricultural irrigation.

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

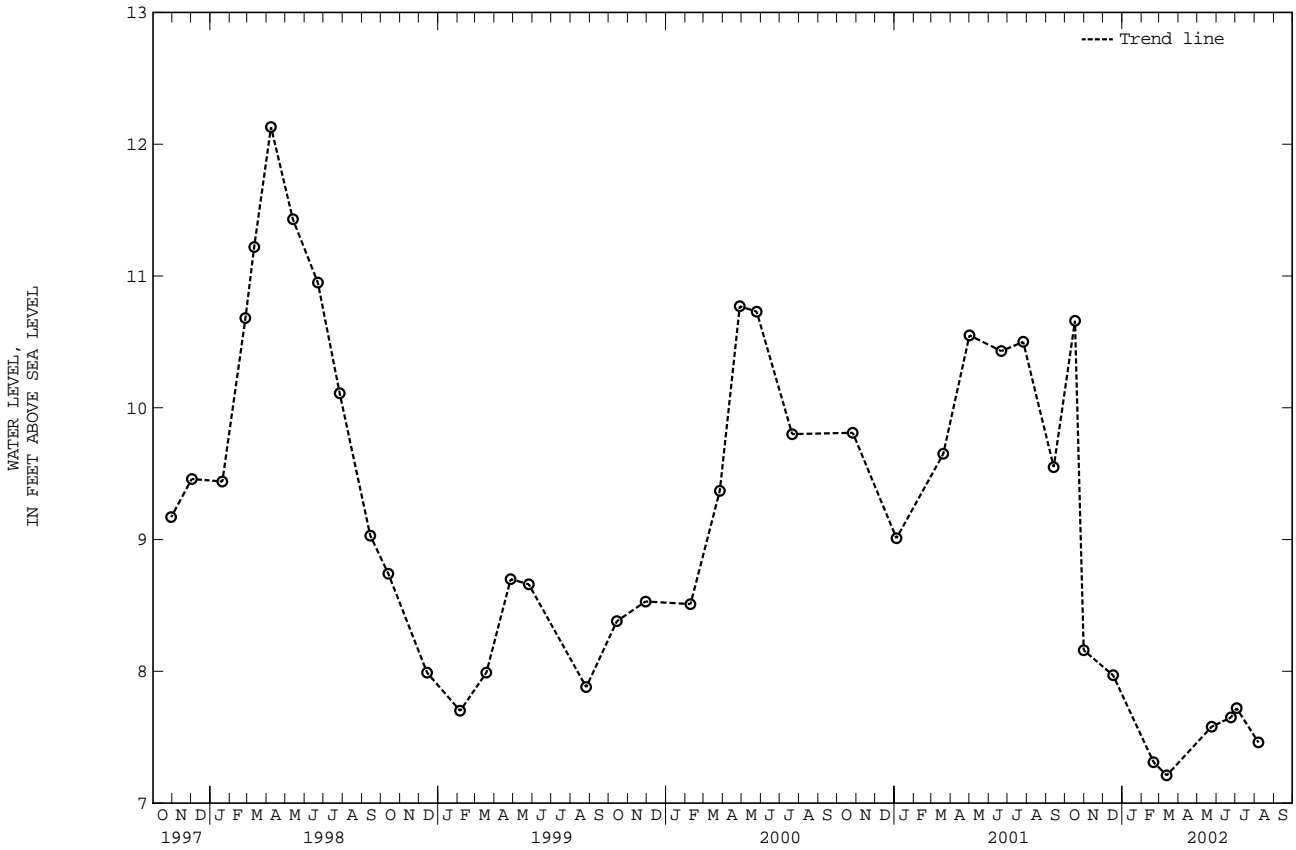
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.13 ft above sea level, April 8, 1998;

lowest measured, 7.21 ft above sea level, March 13, 2002.

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 2001	10.66	FEB 20, 2002	7.31	JUN 24, 2002	7.65
31	8.16	MAR 13	7.21	JUL 03	7.72
DEC 17	7.97	MAY 24	7.58	AUG 07	7.46

WATER YEAR 2002 HIGHEST 10.66 OCT 17, 2001 LOWEST 7.21 MAR 13, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



KENT COUNTY--Continued

WELL NUMBER.--DM349S. SITE ID.--390811075293801. PERMIT NUMBER.--95917.

LOCATION.--Lat 39°08'11", long 75°29'38", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.

Owner: U.S. Air Force.

AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 27.9 ft; protective casing diameter 4 in. from +2.5 to 2.5 ft, casing diameter 2 in., to 17.9 ft; screen diameter 2 in. from 17.9 to 27.9 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 29.72 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of PVC casing 2.71 ft above land surface.

REMARKS.--Dover Air Force Base Project observation well. Water levels may be affected by agricultural irrigation.

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

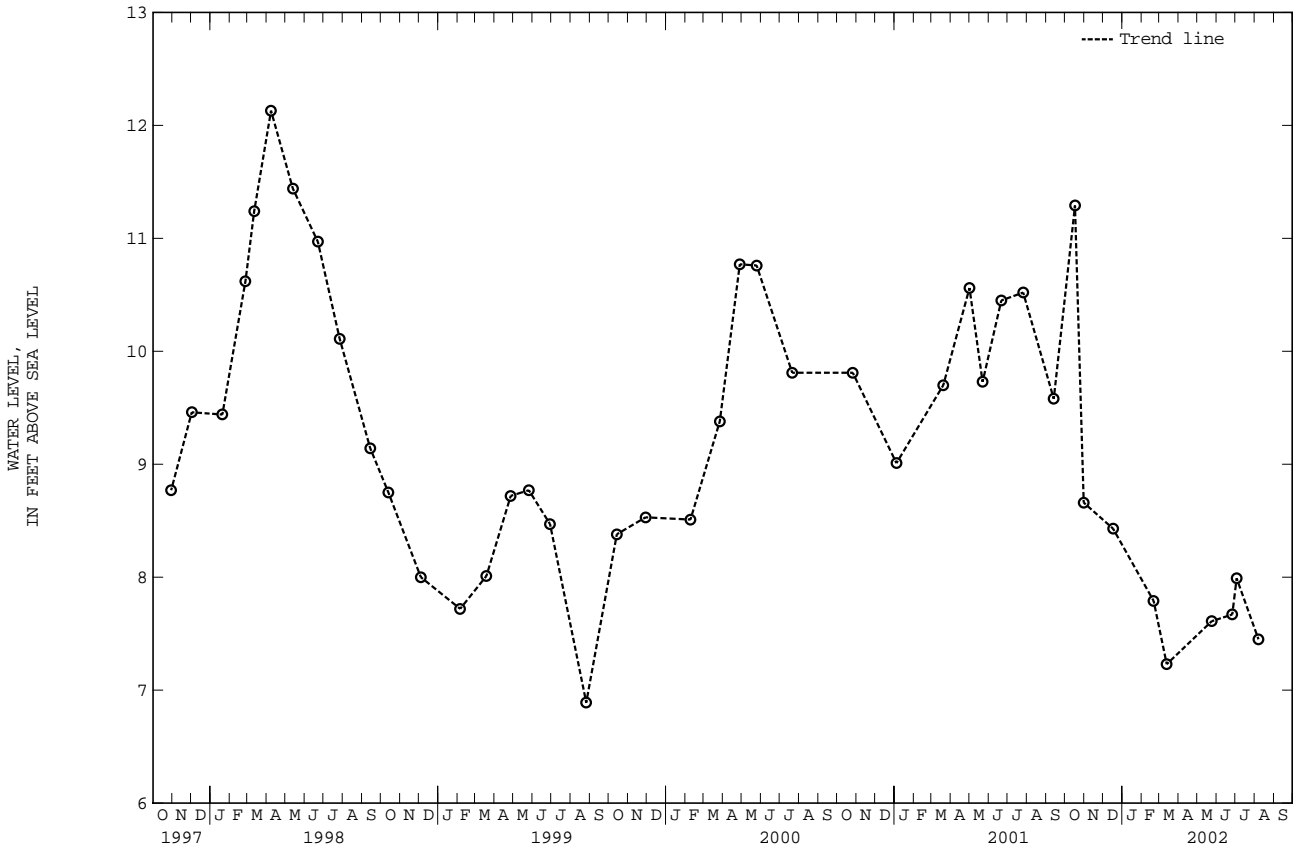
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.13 ft above sea level, April 8, 1998;

lowest measured, 6.89 ft above sea level, Aug. 26, 1999.

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 2001	11.29	FEB 20, 2002	7.79	JUN 26, 2002	7.67
31	8.66	MAR 13	7.23	JUL 03	7.99
DEC 17	8.43	MAY 24	7.61	AUG 07	7.45

WATER YEAR 2002 HIGHEST 11.29 OCT 17, 2001 LOWEST 7.23 MAR 13, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

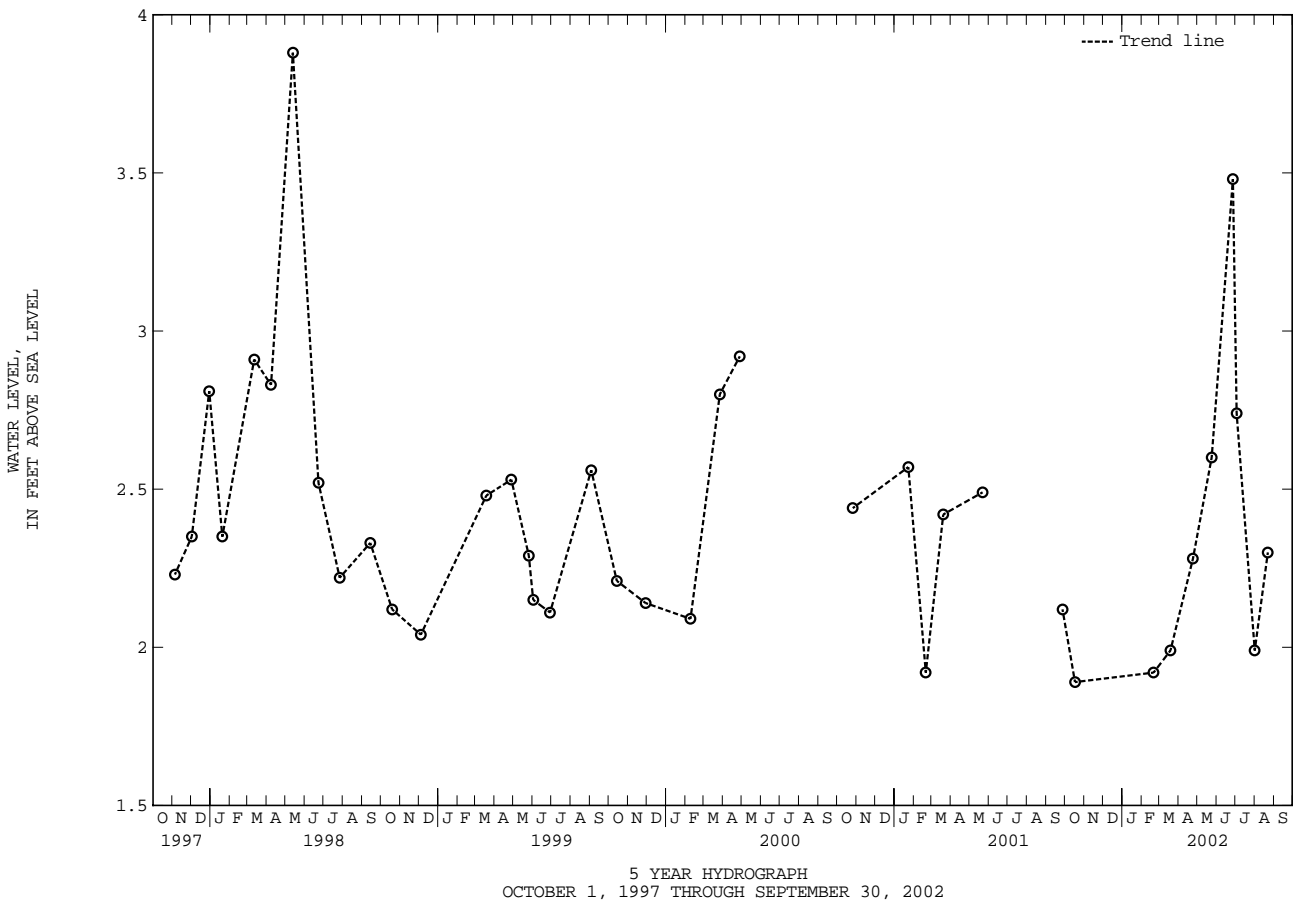
GROUND-WATER LEVELS IN DELAWARE

KENT COUNTY--Continued

WELL NUMBER.--DM358D. SITE ID.--390707075293401. PERMIT NUMBER.--96066.  
 LOCATION.--Lat 39°07'07", long 75°29'34", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.  
 Owner: U.S. Air Force.  
 AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 21.7 ft; casing diameter 2 in., to 6.7 ft; screen diameter 2 in. from 6.7 to 21.7 ft.  
 INSTRUMENTATION.--Periodic water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with pressure transducer water-level recorder--60-minute recorder interval from Oct. 30, 1995, to December 3, 1998.  
 DATUM.--Elevation of land surface is 12.32 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing 2.85 ft above land surface.  
 REMARKS.--Dover Air Force Base Project observation well.  
 PERIOD OF RECORD.--October 1995 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.88 ft above sea level, May 13, 1998; lowest measured, 1.83 ft above sea level, Nov. 28, 29, 1998 (recorder).

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 2001	1.89	APR 24, 2002	2.28	JUL 03, 2002	2.74
FEB 20, 2002	1.92	MAY 24	2.60	AUG 01	1.99
MAR 19	1.99	JUN 27	3.48	AUG 22	2.30
WATER YEAR 2002 HIGHEST 3.48 JUN 27, 2002		LOWEST 1.89		OCT 17, 2001	



KENT COUNTY--Continued

WELL NUMBER.--DM378F. SITE ID.--390747075292601. PERMIT NUMBER.--96947.

LOCATION.--Lat 39°07'47", long 75°29'26", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.

Owner: U.S. Air Force.

AQUIFER.--Frederica aquifer in the Calvert Formation of Lower middle Miocene age. Aquifer code: 122FRDC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 79.2 ft; casing diameter 8 in. to 50 ft, and casing diameter 3 in. from +1.49 to 69.2 ft; screen diameter 3 in. from 69.2 to 79.2 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with pressure transducer water-level recorder--60-minute recorder interval from Oct. 30, 1995, to May 24, 2001.

DATUM.--Elevation of land surface is 32.40 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of PVC casing 1.49 ft above land surface.

REMARKS.--Dover Air Force Base Project observation well.

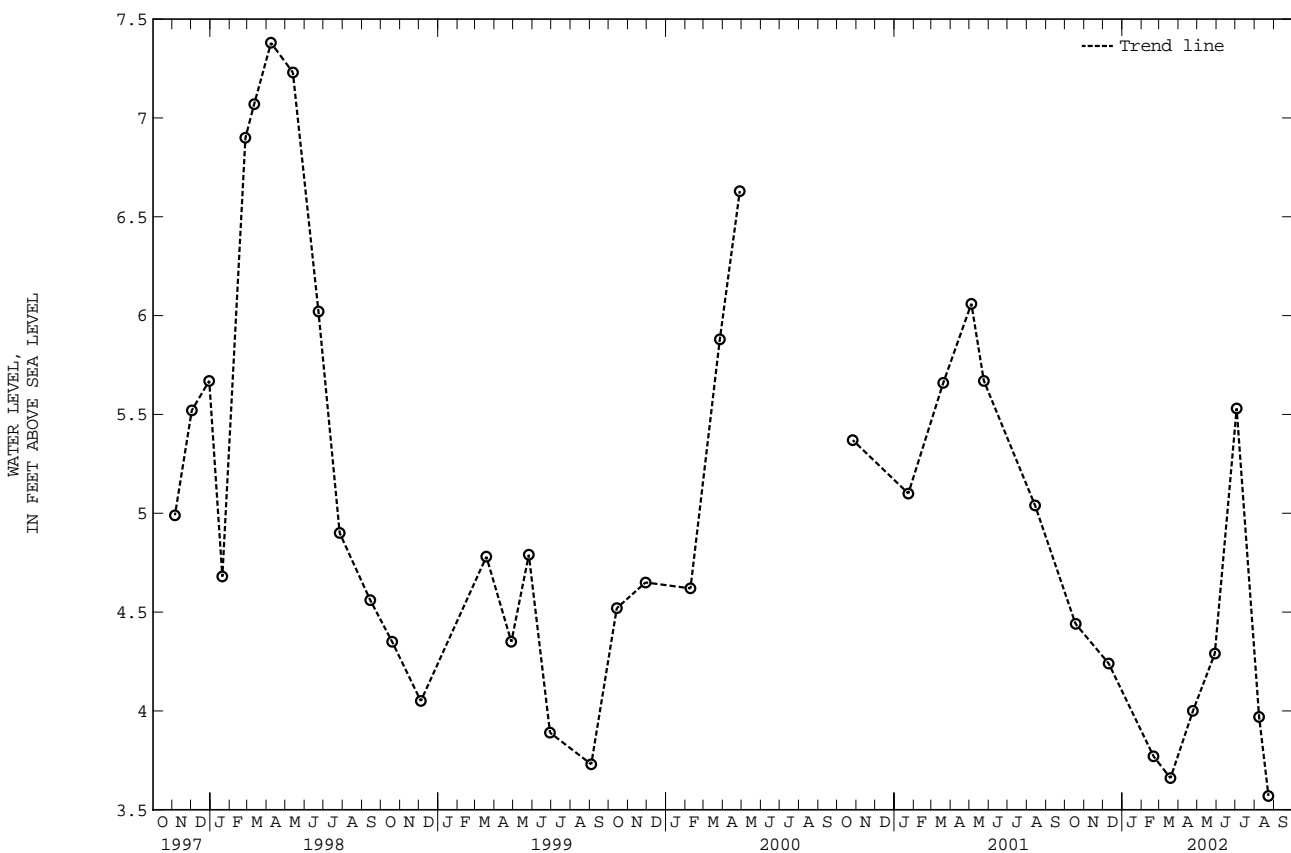
PERIOD OF RECORD.--October 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.59 ft above sea level, March 22, 1998;  
lowest measured, 3.07 ft above sea level, Aug. 16, 1999 (recorder).

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	4.44	MAR 19, 2002	3.66	JUL 03, 2002	5.53
DEC 10	4.24	APR 24	4.00	AUG 08	3.97
FEB 20, 2002	3.77	MAY 29	4.29	23	3.57

WATER YEAR 2002 HIGHEST 5.53 JUL 03, 2002 LOWEST 3.57 AUG 23, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## GROUND-WATER LEVELS IN DELAWARE

## KENT COUNTY--Continued

WELL NUMBER.--DM412D. SITE ID.--390629075272701. PERMIT NUMBER.--95941.

LOCATION.--Lat 39°06'29", long 75°27'27", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.

Owner: U.S. Air Force.

AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 69.6 ft; casing diameter 2 in., to 59.6 ft; screen diameter 2 in. from 59.6 to 69.6 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval from Oct. 25, 1995, to current year.

DATUM.--Elevation of land surface is 21.19 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing 2.86 ft above land surface.

REMARKS.--Dover Air Force Base Project observation well.

Periods of equal maximum and minimum daily values may be questionable due to the float hanging-up in small diameter wells or other construction factors.

PERIOD OF RECORD.--October 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.77 ft above sea level, Feb. 21, 1997;

lowest measured, 1.31 ft below sea level, Sept. 27, 2002 (recorder).

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
(READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	4.54	4.53	4.62	4.60	4.05	4.00	3.32	3.30	3.28	3.20	2.63	2.56
2	4.55	4.53	4.62	4.60	4.00	3.97	3.35	3.31	3.20	3.13	2.56	2.53
3	4.53	4.51	4.60	4.58	3.97	3.95	3.37	3.34	3.13	3.11	2.54	2.48
4	4.51	4.50	4.59	4.58	3.95	3.93	3.38	3.36	3.11	3.07	2.48	2.41
5	4.51	4.50	4.60	4.59	3.94	3.89	3.39	3.37	3.07	3.04	2.41	2.37
6	4.51	4.48	4.60	4.59	3.89	3.84	3.47	3.39	3.04	3.01	2.37	2.32
7	4.50	4.48	4.59	4.57	3.85	3.79	3.45	3.43	3.01	2.96	2.32	2.29
8	4.51	4.50	4.57	4.55	3.79	3.74	3.49	3.45	2.96	2.90	2.29	2.28
9	4.54	4.51	4.56	4.52	3.75	3.71	3.52	3.49	2.90	2.81	2.34	2.28
10	4.60	4.54	4.53	4.52	3.72	3.69	3.53	3.51	2.81	2.76	2.36	2.33
11	4.63	4.60	4.53	4.51	3.69	3.65	3.55	3.52	2.76	2.73	2.40	2.35
12	4.65	4.63	4.53	4.52	3.66	3.62	3.57	3.54	2.73	2.67	---	---
13	4.66	4.65	4.52	4.49	3.63	3.60	3.60	3.57	2.67	2.61	---	---
14	4.72	4.66	4.50	4.48	3.60	3.58	3.63	3.59	2.61	2.56	---	---
15	4.73	4.72	4.48	4.45	3.59	3.56	3.64	3.62	2.56	2.52	2.72	2.67
16	4.77	4.73	4.45	4.39	3.56	3.55	3.66	3.64	2.52	2.50	2.67	2.64
17	4.78	4.75	4.39	4.33	3.57	3.55	3.69	3.66	2.50	2.48	2.71	2.65
18	4.75	4.72	4.33	4.31	3.55	3.52	3.71	3.68	2.50	2.48	2.73	2.71
19	4.72	4.71	4.31	4.29	3.52	3.47	3.74	3.70	2.51	2.49	2.72	2.71
20	4.71	4.69	4.30	4.24	3.47	3.41	3.73	3.72	2.54	2.51	2.75	2.71
21	4.71	4.70	4.24	4.20	3.41	3.34	3.75	3.72	2.55	2.54	2.82	2.74
22	4.73	4.71	4.21	4.16	3.34	3.30	3.74	3.73	2.54	2.53	2.86	2.82
23	4.73	4.71	4.16	4.14	3.30	3.29	3.74	3.73	2.55	2.54	2.92	2.86
24	4.71	4.69	4.14	4.13	3.29	3.26	3.73	3.69	2.56	2.55	2.98	2.92
25	4.70	4.66	4.15	4.14	3.26	3.24	3.69	3.63	2.58	2.56	3.01	2.98
26	4.66	4.62	4.15	4.14	3.26	3.25	3.63	3.55	2.62	2.58	3.01	2.99
27	4.62	4.58	4.15	4.14	3.27	3.26	3.55	3.49	2.64	2.61	3.02	3.00
28	4.58	4.56	4.14	4.11	3.28	3.26	3.49	3.45	2.64	2.63	3.04	3.02
29	4.58	4.56	4.12	4.08	3.28	3.27	3.45	3.40	---	---	3.05	3.03
30	4.59	4.57	4.09	4.05	3.29	3.27	3.40	3.33	---	---	3.04	3.00
31	4.60	4.57	---	---	3.31	3.29	3.33	3.28	---	---	3.01	2.98
MONTH	4.78	4.48	4.62	4.05	4.05	3.24	3.75	3.28	3.28	2.48	---	---

GROUND-WATER LEVELS IN DELAWARE

KENT COUNTY--Continued

DM412D--Continued

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
(READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX		MIN		MAX		MIN		MAX		MIN	
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.01	2.98	3.64	3.60	4.88	4.87	4.06	4.06	2.92	2.80	0.55	0.48
2	2.98	2.94	3.72	3.64	4.91	4.88	4.09	4.05	2.81	2.78	0.65	0.55
3	2.94	2.86	3.74	3.70	4.92	4.91	4.09	4.01	2.81	2.78	0.72	0.65
4	2.86	2.83	3.81	3.74	4.93	4.92	4.01	3.95	2.83	2.80	0.75	0.71
5	2.83	2.78	3.90	3.81	4.92	4.92	3.95	3.91	2.85	2.83	0.75	0.72
6	2.78	2.73	3.99	3.90	4.94	4.89	3.91	3.90	2.84	2.81	0.72	0.67
7	2.73	2.71	4.04	3.99	4.92	4.89	3.90	3.90	2.81	2.69	0.67	0.61
8	2.74	2.72	4.06	4.04	4.89	4.86	3.91	3.90	2.69	2.58	0.61	0.54
9	2.75	2.73	4.08	4.06	4.89	4.86	3.92	3.88	2.58	2.50	0.54	0.48
10	2.74	2.72	4.08	4.07	4.88	4.85	3.89	3.87	2.50	2.43	0.48	0.39
11	2.72	2.69	4.11	4.08	4.85	4.79	3.87	3.81	2.43	2.38	0.39	0.25
12	2.69	2.67	4.22	4.11	4.79	4.71	3.81	3.73	2.38	2.32	0.25	0.11
13	2.67	2.66	4.33	4.22	4.71	4.61	3.73	3.67	2.32	2.23	0.11	-0.04
14	2.71	2.67	4.36	4.30	4.61	4.57	3.67	3.65	2.23	2.10	-0.04	-0.19
15	2.74	2.71	4.37	4.35	4.57	4.56	3.65	3.65	2.10	1.96	-0.19	-0.29
16	2.75	2.73	4.39	4.37	4.56	4.55	3.65	3.62	1.96	1.82	-0.29	-0.36
17	2.77	2.74	4.41	4.39	4.55	4.54	3.62	3.55	1.82	1.72	-0.36	-0.47
18	2.82	2.77	4.43	4.39	4.54	4.51	3.55	3.46	1.72	1.65	-0.47	-0.56
19	2.90	2.82	4.51	4.42	4.51	4.44	3.46	3.37	1.65	1.56	-0.56	-0.67
20	2.98	2.90	4.55	4.51	4.44	4.36	3.37	3.30	1.56	1.47	-0.67	-0.75
21	3.08	2.98	4.58	4.55	4.36	4.31	3.30	3.27	1.47	1.34	-0.75	-0.87
22	3.15	3.08	4.60	4.58	4.31	4.28	3.27	3.25	1.34	1.21	-0.87	-0.93
23	3.23	3.15	4.61	4.60	4.28	4.28	3.25	3.20	1.21	1.05	-0.93	-0.99
24	3.29	3.23	4.66	4.61	4.30	4.28	3.20	3.18	1.05	0.93	-0.99	-1.07
25	3.32	3.29	4.70	4.66	4.29	4.28	3.18	3.13	0.93	0.84	-1.07	-1.16
26	3.33	3.32	4.78	4.70	4.28	4.25	3.13	3.07	0.84	0.77	-1.16	-1.28
27	3.34	3.32	4.85	4.78	4.25	4.19	3.07	3.03	0.77	0.67	0.13	-1.31
28	3.48	3.34	4.89	4.85	4.19	4.12	3.03	3.02	0.67	0.58	0.35	0.12
29	3.54	3.47	4.89	4.89	4.12	4.07	3.02	3.02	0.58	0.51	0.62	0.35
30	3.60	3.54	4.89	4.88	4.07	4.06	3.02	2.97	0.51	0.49	0.90	0.62
31	---	---	4.89	4.86	---	---	2.97	2.92	0.50	0.48	---	---
MONTH	3.60	2.66	4.89	3.60	4.94	4.06	4.09	2.92	2.92	0.48	0.90	-1.31

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## GROUND-WATER LEVELS IN DELAWARE

## KENT COUNTY--Continued

WELL NUMBER.--DM421F. SITE ID.--390655075273701. PERMIT NUMBER.--96951.

LOCATION.--Lat 39°06'55", long 75°27'37", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.

Owner: U.S. Air Force.

AQUIFER.--Frederica aquifer in the Calvert Formation of Lower middle Miocene age. Aquifer code: 122FRDC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 98.7 ft; protective casing diameter 8 in.

from +2.5 to 57 ft; casing diameter 3 in. from +2.76 to 88.7 ft, screen diameter 3 in. from 88.7 to 98.7 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval from July 30, 1997, to current year.

DATUM.--Elevation of land surface is 23.46 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform 2.76 ft above land surface.

REMARKS.--Dover Air Force Base Project observation well. Water levels may be affected by agricultural irrigation.

Periods of equal maximum and minimum daily values may be questionable due to the float hanging-up in small

diameter wells or other well construction factors.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.20 ft above sea level, April 3, 1998;

lowest measured, 7.32 ft below sea level, July 23, 2002 (recorder).

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
(READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	2.41	2.39	2.51	2.49	2.69	2.67	2.88	2.85	2.53	2.52
2	---	---	2.41	2.39	2.50	2.49	2.67	2.66	2.85	2.78	2.64	2.52
3	---	---	2.42	2.39	2.51	2.48	2.66	2.66	2.80	2.78	2.69	2.64
4	---	---	2.39	2.36	2.53	2.50	2.66	2.66	2.81	2.77	2.67	2.56
5	---	---	2.38	2.34	2.52	2.51	2.66	2.65	2.77	2.74	2.56	2.54
6	---	---	2.34	2.33	2.56	2.52	2.81	2.65	2.78	2.74	2.58	2.54
7	---	---	2.34	2.33	2.59	2.56	2.81	2.80	2.85	2.78	2.59	2.57
8	---	---	2.37	2.34	2.65	2.58	2.80	2.75	2.85	2.83	2.60	2.58
9	---	---	2.37	2.32	2.65	2.61	2.77	2.75	2.85	2.82	2.63	2.59
10	---	---	2.33	2.31	2.62	2.60	2.77	2.76	2.90	2.83	2.64	2.56
11	---	---	2.32	2.30	2.64	2.62	2.79	2.77	2.90	2.79	2.56	2.52
12	---	---	2.30	2.25	2.66	2.64	2.78	2.75	2.85	2.79	2.59	2.53
13	---	---	2.26	2.23	2.70	2.66	2.79	2.75	2.85	2.79	2.64	2.59
14	---	---	2.28	2.24	2.75	2.70	2.75	2.74	2.79	2.75	2.64	2.59
15	---	---	2.30	2.26	2.75	2.68	2.77	2.74	2.83	2.77	2.60	2.58
16	---	---	2.29	2.26	2.69	2.66	2.74	2.71	2.85	2.83	2.59	2.53
17	---	---	2.29	2.28	2.76	2.67	2.76	2.71	2.85	2.80	2.53	2.50
18	---	---	2.29	2.26	2.81	2.76	2.72	2.69	2.80	2.76	2.54	2.51
19	2.69	2.66	2.30	2.28	2.79	2.75	2.77	2.69	2.82	2.75	2.54	2.51
20	2.71	2.67	2.32	2.26	2.79	2.73	2.77	2.74	2.82	2.64	2.63	2.52
21	2.68	2.63	2.27	2.24	2.73	2.68	2.79	2.75	2.67	2.65	2.63	2.61
22	2.65	2.63	2.26	2.24	2.68	2.66	2.79	2.74	2.67	2.65	2.61	2.51
23	2.64	2.63	2.26	2.24	2.71	2.66	2.79	2.74	2.65	2.59	2.53	2.51
24	2.64	2.62	2.26	2.25	2.75	2.71	2.83	2.79	2.59	2.57	2.56	2.52
25	2.65	2.59	2.31	2.25	2.73	2.70	2.83	2.77	2.61	2.57	2.59	2.56
26	2.59	2.52	2.35	2.31	2.71	2.70	2.77	2.76	2.65	2.61	2.67	2.58
27	2.52	2.47	2.38	2.35	2.71	2.70	2.81	2.76	2.65	2.55	2.70	2.67
28	2.47	2.41	2.41	2.38	2.72	2.71	2.83	2.80	2.55	2.53	2.69	2.67
29	2.41	2.39	2.45	2.41	2.74	2.71	2.83	2.81	---	---	2.69	2.67
30	2.39	2.38	2.49	2.45	2.71	2.69	2.84	2.81	---	---	2.74	2.69
31	2.39	2.38	---	---	2.70	2.68	2.85	2.84	---	---	2.81	2.74
MONTH	---	---	2.49	2.23	2.81	2.48	2.85	2.65	2.90	2.53	2.81	2.50

GROUND-WATER LEVELS IN DELAWARE

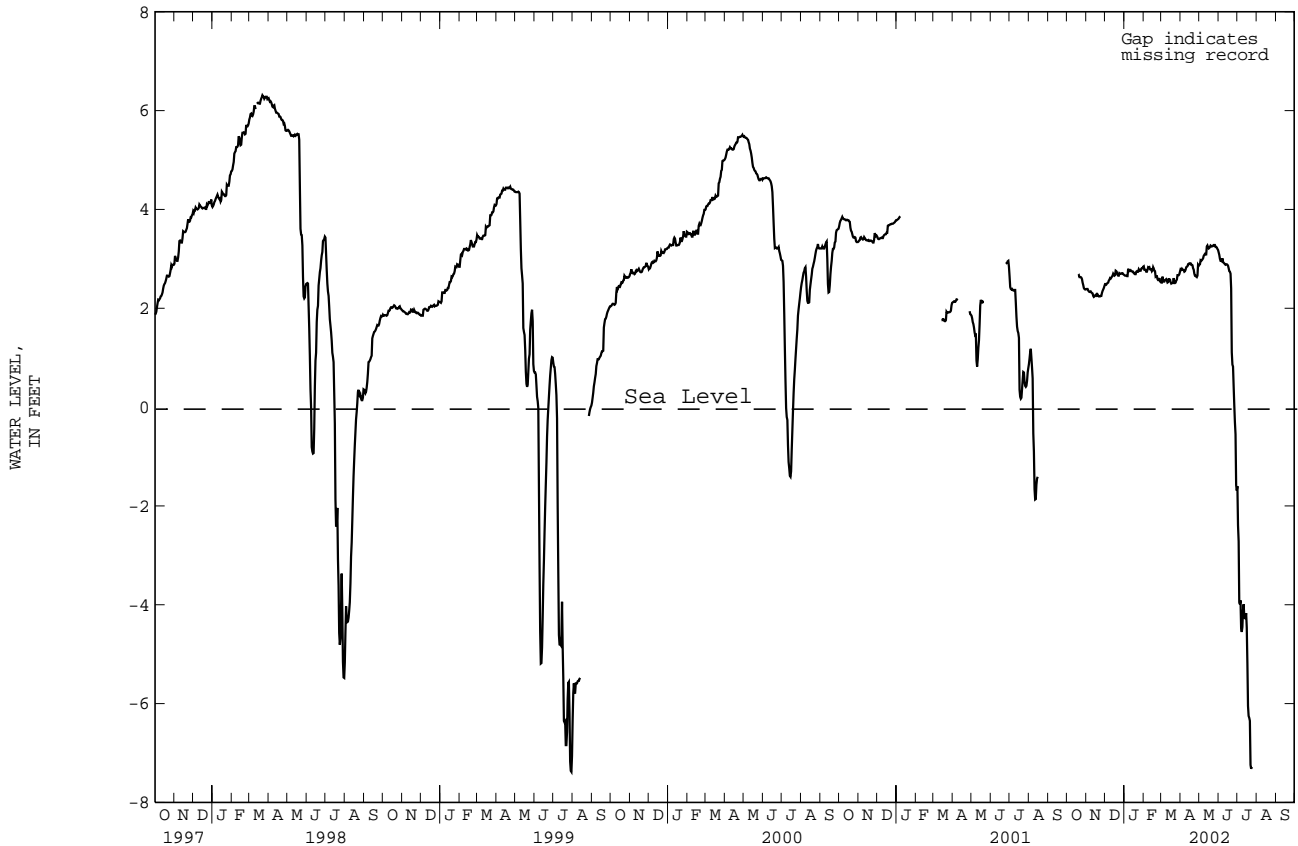
KENT COUNTY--Continued

DM421F--Continued

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
(READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.82	2.79	2.90	2.88	3.18	3.13	-1.42	-1.60	---	---	---	---
2	2.80	2.78	3.01	2.89	3.14	3.08	-1.52	-2.39	---	---	---	---
3	2.82	2.80	3.01	2.97	3.08	3.00	-2.39	-2.72	---	---	---	---
4	2.81	2.78	2.97	2.96	3.00	2.96	-2.72	-3.95	---	---	---	---
5	2.78	2.78	2.99	2.97	2.97	2.96	-3.91	-3.99	---	---	---	---
6	2.79	2.77	3.01	2.99	3.03	2.95	-3.91	-3.91	---	---	---	---
7	2.78	2.74	3.06	3.01	3.03	3.01	-3.91	-4.48	---	---	---	---
8	2.78	2.75	3.08	3.06	3.01	2.94	-4.45	-4.55	---	---	---	---
9	2.83	2.78	3.12	3.08	2.95	2.92	-4.10	-4.45	---	---	---	---
10	2.86	2.83	3.12	3.10	2.93	2.91	-3.99	-4.10	---	---	---	---
11	2.86	2.84	3.10	3.09	2.92	2.89	-3.98	-3.99	---	---	---	---
12	2.89	2.85	3.25	3.09	2.90	2.88	-3.98	-4.22	---	---	---	---
13	2.89	2.89	3.31	3.25	2.89	2.89	-4.22	-4.27	---	---	---	---
14	2.92	2.89	3.31	3.27	2.89	2.89	-4.17	-4.27	---	---	---	---
15	2.93	2.91	3.28	3.23	2.89	2.88	-4.01	-4.17	---	---	---	---
16	2.93	2.91	3.24	3.21	2.88	2.86	-4.01	-4.46	---	---	---	---
17	2.93	2.91	3.24	3.22	2.86	2.81	-4.46	-5.19	---	---	---	---
18	2.92	2.88	3.32	3.24	2.82	2.75	-5.19	-6.05	---	---	---	---
19	2.89	2.88	3.31	3.27	2.76	2.74	-6.05	-6.25	---	---	---	---
20	2.89	2.87	3.28	3.26	2.74	2.70	-6.25	-6.29	---	---	---	---
21	2.87	2.81	3.27	3.25	2.71	2.40	-6.25	-6.35	---	---	---	---
22	2.82	2.78	3.27	3.26	2.40	1.11	-6.35	-7.24	---	---	---	---
23	2.78	2.70	3.28	3.26	1.11	0.86	-7.24	-7.32	---	---	---	---
24	2.70	2.66	3.30	3.28	0.88	0.82	-7.27	-7.28	---	---	---	---
25	2.68	2.66	3.30	3.28	0.82	0.41	---	---	---	---	---	---
26	2.68	2.64	3.30	3.28	0.41	0.04	---	---	---	---	---	---
27	2.66	2.63	3.30	3.24	0.04	-0.30	---	---	---	---	---	---
28	2.90	2.66	3.26	3.24	-0.30	-0.55	---	---	---	---	---	---
29	2.90	2.88	3.25	3.23	-0.55	-1.58	---	---	---	---	---	---
30	2.89	2.86	3.24	3.20	-1.58	-1.69	---	---	---	---	---	---
31	---	---	3.20	3.18	---	---	---	---	---	---	---	---
MONTH	2.93	2.63	3.32	2.88	3.18	-1.69	---	---	---	---	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN DELAWARE

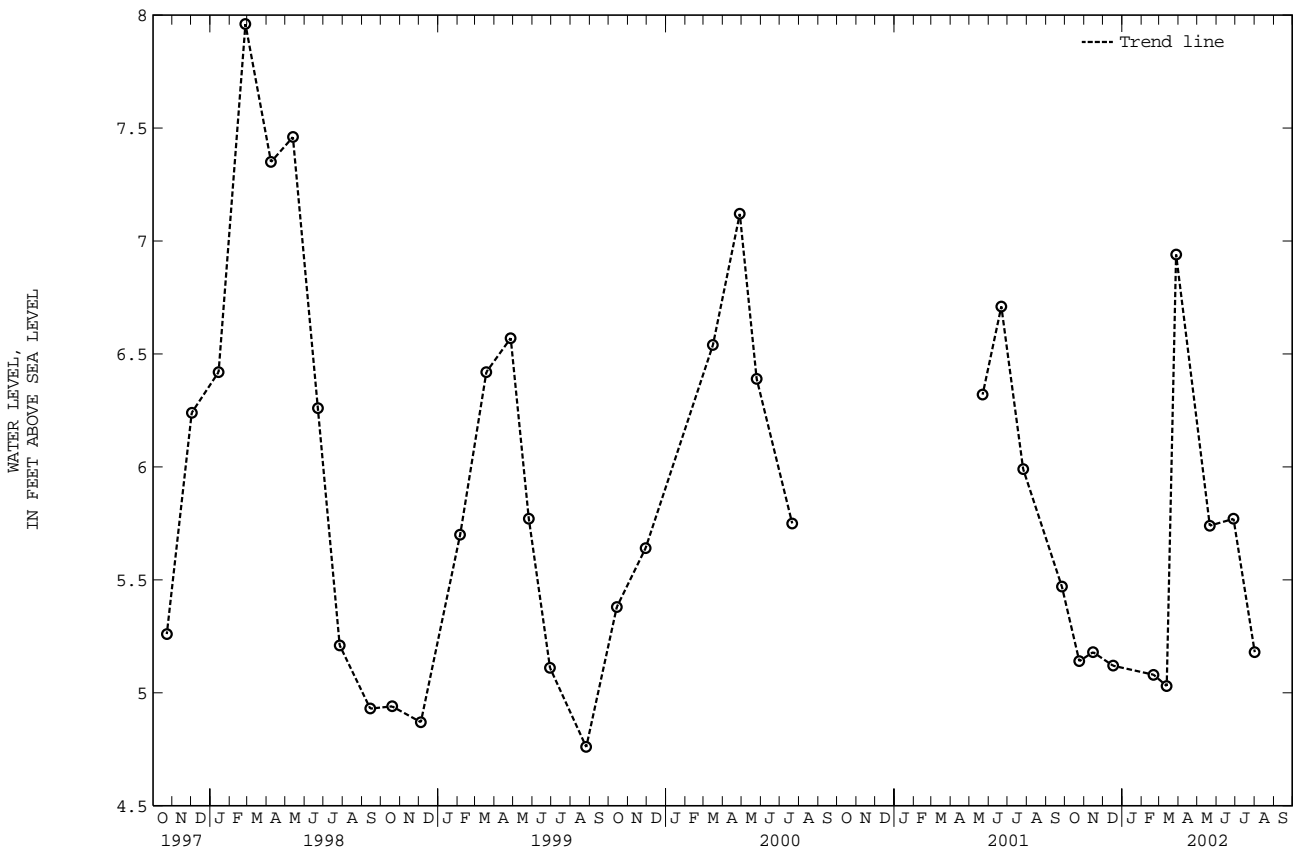
KENT COUNTY--Continued

WELL NUMBER.--GS4D. SITE ID.--390742075300102. PERMIT NUMBER.--104544.  
 LOCATION.--Lat 39°07'42", long 75°30'01", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.  
 Owner: U.S. Air Force.  
 AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 21.2 ft; casing diameter 2 in., to 18.2 ft; screen diameter 2 in. from 18.2 to 21.2 ft.  
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from Oct. 1, 1995, to March 16, 2000.  
 DATUM.--Elevation of land surface is 4.50 ft above sea level.  
 Measuring Point: Top of casing 5.00 ft above land surface.  
 REMARKS.--Dover Air Force Base Project observation well.  
 PERIOD OF RECORD.--September 1995 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.96 ft above sea level, March 8, 9, and 21, 1998 (recorder); lowest measured, 4.35 ft above sea level, Aug. 13, 1999 (recorder).

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	5.14	FEB 20, 2002	5.08	MAY 21, 2002	5.74
NOV 15	5.18	MAR 13	5.03	JUN 28	5.77
DEC 17	5.12	28	6.94	AUG 01	5.18

WATER YEAR 2002 HIGHEST 6.94 MAR 28, 2002 LOWEST 5.03 MAR 13, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



KENT COUNTY--Continued

WELL NUMBER.--GS4S. SITE ID.--390742075300101. PERMIT NUMBER.--104542.

LOCATION.--Lat 39°07'42", long 75°30'01", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.

Owner: U.S. Air Force.

AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 5.8 ft; casing diameter 2 in., to 5.3 ft; screen diameter 2 in. from 5.3 to 5.8 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from Oct. 1, 1995, to Feb. 9, 2000.

DATUM.--Elevation of land surface is 3.27 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing 7.20 ft above land surface.

REMARKS.--Dover Air Force Base Project observation well. Water levels may be affected by agricultural irrigation.

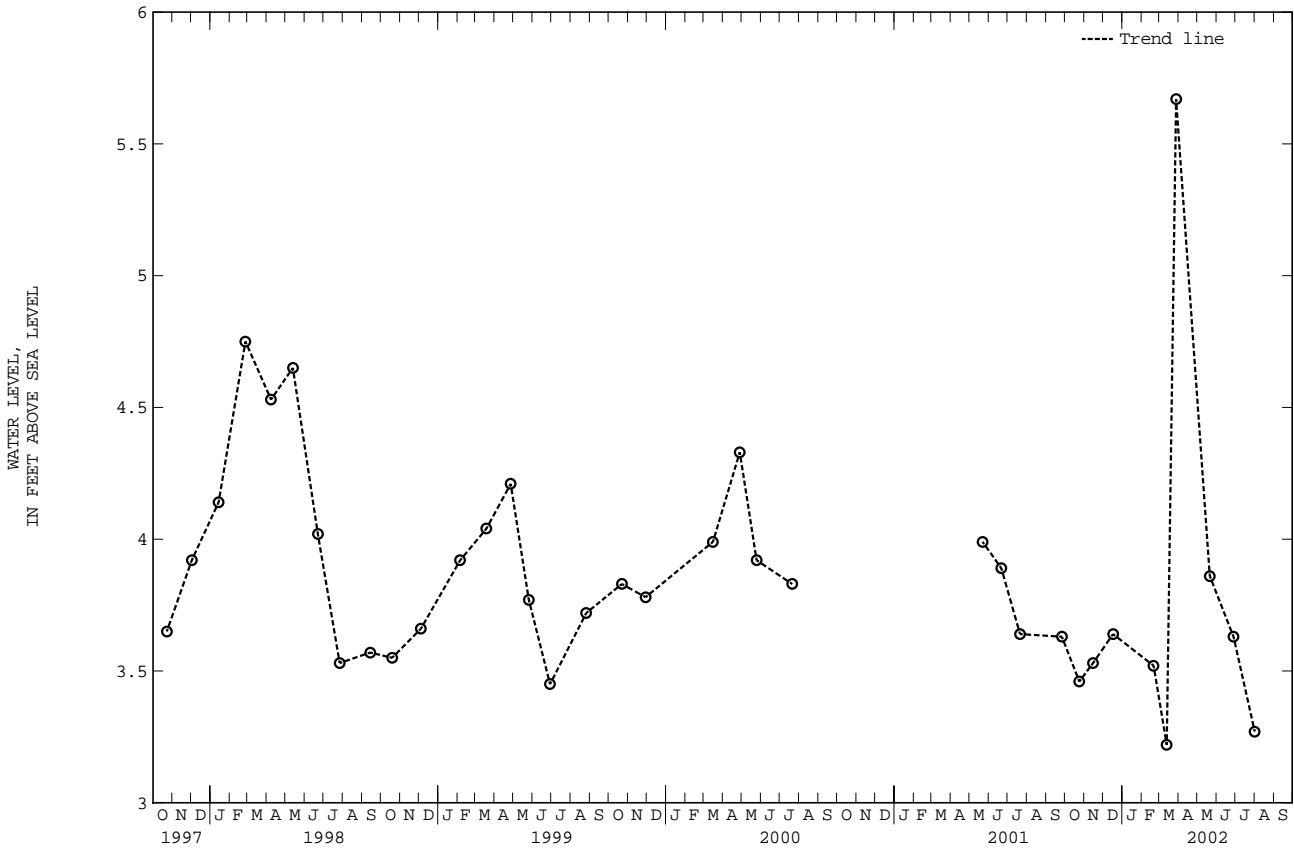
PERIOD OF RECORD.--September 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.87 ft above sea level, Sept. 16, 1999 (recorder); lowest measured, 3.16 ft above sea level, Aug. 6, 1999 (recorder).

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	3.46	FEB 20, 2002	3.52	MAY 21, 2002	3.86
NOV 15	3.53	MAR 13	3.22	JUN 28	3.63
DEC 17	3.64	28	5.67	AUG 01	3.27

WATER YEAR 2002 HIGHEST 5.67 MAR 28, 2002 LOWEST 3.22 MAR 13, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN DELAWARE

KENT COUNTY--Continued

WELL NUMBER.--MW29D. SITE ID.--390654075282202. PERMIT NUMBER.--73705.

LOCATION.--Lat 39°06'54", long 75°28'22", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.

Owner: U.S. Air Force.

AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 55.4 ft; casing diameter 2 in., to 50.4 ft; screen diameter 2 in. from 50.4 to 55.4 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. DATUM.--Elevation of land surface is 17.60 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of PVC casing, 2.60 ft above land surface.

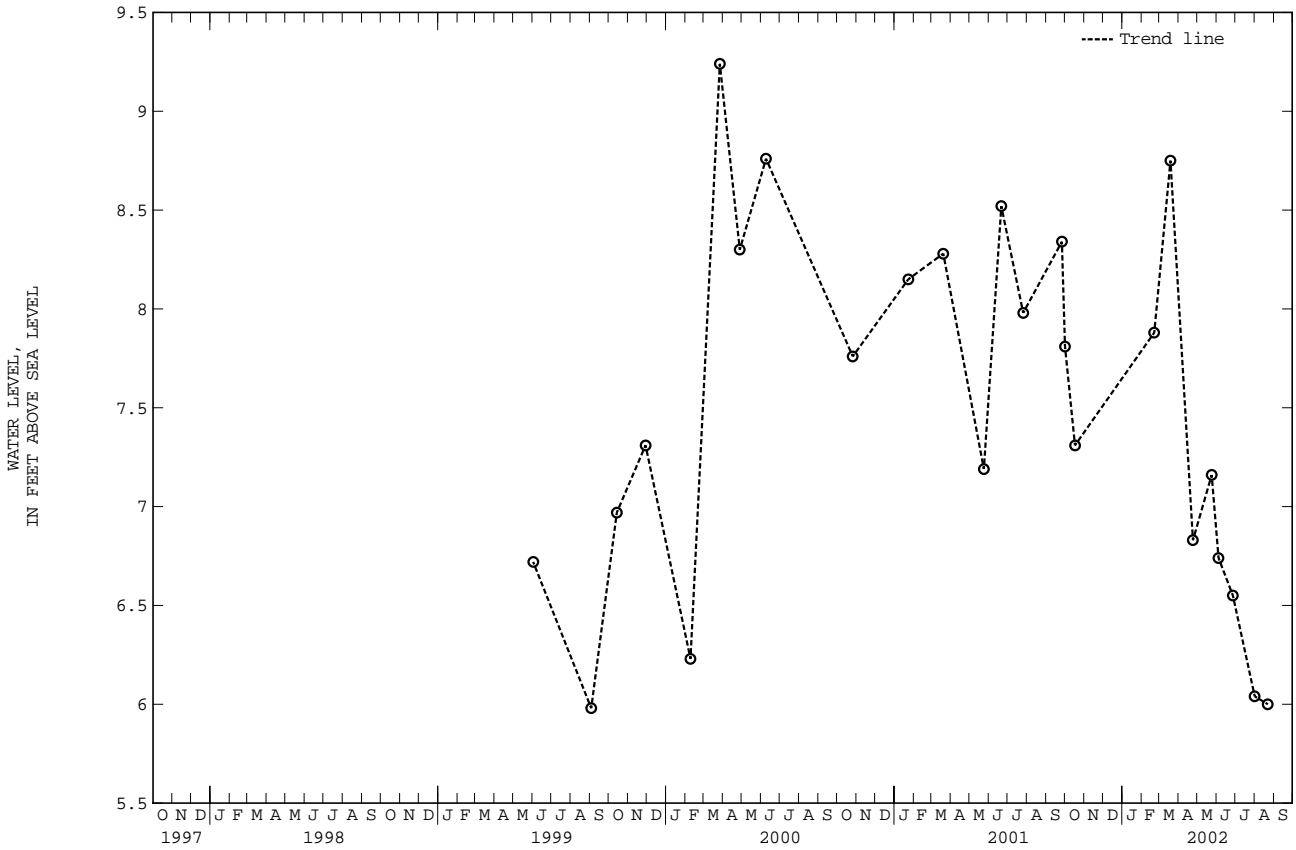
REMARKS.--Dover Air Force Base Project observation well. Water levels may be affected by agricultural irrigation.

PERIOD OF RECORD.--June 1999 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.24 ft above sea level, March 27, 2000; lowest measured, 5.98 ft above sea level, Sept. 3, 1999.

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 2001	7.81	MAR 19, 2002	8.75	JUN 04, 2002	6.74	AUG 22, 2002	6.00
17	7.31	APR 24	6.83	27	6.55		
FEB 21, 2002	7.88	MAY 24	7.16	AUG 01	6.04		
WATER YEAR 2002		HIGHEST	8.75	MAR 19, 2002	LOWEST	6.00	AUG 22, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN DELAWARE

KENT COUNTY--Continued

WELL NUMBER.--MW33D. SITE ID.--390647075283301. PERMIT NUMBER.--73713.  
 LOCATION.--Lat 39°06'47", long 75°28'33", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.  
 Owner: U.S. Air Force.  
 AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 55.1 ft; casing diameter 2 in., to 50.1 ft;  
 screen diameter 2 in. from 50.1 to 55.1 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.  
 Equipped with pressure transducer water-level recorder--60-minute recorder interval from June 19, 1996, to current year.  
 DATUM.--Elevation of land surface is 8.92 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of PVC casing 1.77 ft above land surface.  
 REMARKS.--Dover Air Force Base Project observation well.  
 PERIOD OF RECORD.--June 1996 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.96 ft above sea level, March 8, 9, and 21, 1998;  
 lowest measured, 1.60 ft above sea level, May 25, 1997.

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4.55	4.48	4.07	4.02	4.42	4.38	4.47	4.42	4.63	4.51	---	---
2	4.54	4.43	4.08	4.04	4.42	4.38	4.45	4.40	4.55	4.49	---	---
3	---	---	4.08	4.05	4.44	4.38	4.46	4.40	4.62	4.55	---	---
4	4.65	4.59	4.11	4.04	4.45	4.42	4.41	4.35	4.61	4.50	---	---
5	4.64	4.59	4.07	4.04	4.50	4.44	4.37	4.33	4.55	4.48	---	---
6	4.65	4.54	4.06	4.03	4.56	4.50	4.56	4.34	4.55	4.51	---	---
7	4.55	4.48	4.07	4.03	4.56	4.51	4.50	4.37	4.64	4.55	---	---
8	4.48	4.44	4.10	4.03	4.63	4.51	4.37	4.34	4.63	4.58	---	---
9	4.46	4.42	4.10	4.00	4.62	4.54	4.40	4.34	4.64	4.58	---	---
10	4.45	4.42	4.09	4.02	4.62	4.55	4.34	4.31	4.74	4.64	---	---
11	4.42	4.39	4.05	3.98	4.64	4.61	4.40	4.33	4.72	4.61	---	---
12	4.39	4.35	4.03	3.98	4.70	4.63	4.42	4.35	4.75	4.64	---	---
13	4.37	4.31	4.08	4.02	4.75	4.70	4.43	4.28	4.66	4.59	---	---
14	4.38	4.32	4.08	4.04	4.77	4.70	4.34	4.27	4.62	4.58	---	---
15	4.37	4.26	4.08	4.04	4.72	4.64	4.33	4.24	4.64	4.59	---	---
16	4.36	4.25	4.12	4.07	4.72	4.65	4.27	4.23	4.62	4.58	---	---
17	4.30	4.19	4.13	4.07	4.80	4.70	4.30	4.22	4.60	4.49	---	---
18	4.24	4.19	4.18	4.13	4.84	4.69	4.24	4.19	4.49	4.46	---	---
19	4.27	4.22	4.21	4.15	4.79	4.69	4.32	4.19	4.51	4.47	---	---
20	4.24	4.16	4.22	4.16	4.79	4.71	4.33	4.23	4.53	4.49	---	---
21	4.17	4.14	4.22	4.18	4.76	4.70	4.36	4.31	4.50	4.42	---	---
22	4.15	4.13	4.24	4.21	4.73	4.69	4.33	4.26	---	---	---	---
23	4.18	4.13	4.23	4.21	4.78	4.72	4.37	4.31	---	---	---	---
24	4.18	4.15	4.22	4.17	4.78	4.70	4.41	4.34	---	---	---	---
25	4.18	4.10	4.22	4.18	4.71	4.66	4.37	4.33	---	---	---	---
26	4.13	4.09	4.26	4.22	4.73	4.67	4.41	4.37	---	---	---	---
27	4.12	4.07	4.28	4.25	4.68	4.61	4.44	4.40	---	---	---	---
28	4.08	4.05	4.30	4.26	4.66	4.57	4.46	4.42	---	---	---	---
29	4.12	4.06	4.36	4.30	4.61	4.52	4.48	4.43	---	---	---	---
30	4.10	4.03	4.41	4.36	4.55	4.49	4.49	4.44	---	---	---	---
31	4.07	4.02	---	---	4.52	4.47	4.56	4.46	---	---	---	---
MONTH	---	---	4.41	3.98	4.84	4.38	4.56	4.19	---	---	---	---

GROUND-WATER LEVELS IN DELAWARE

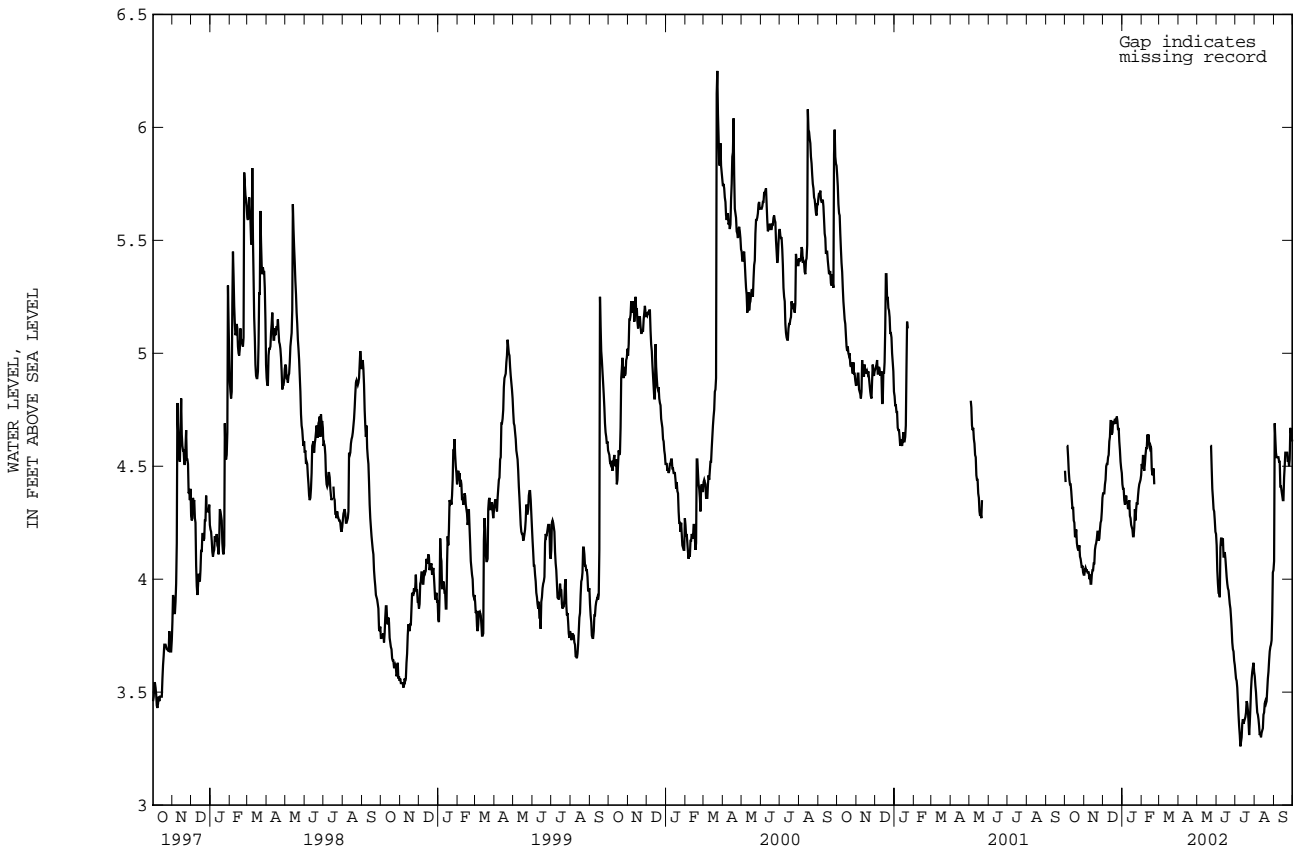
KENT COUNTY--Continued

MW33D--Continued

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	4.20	4.15	3.63	3.59	3.60	3.57	4.91	4.08
2	---	---	---	---	4.16	4.04	3.60	3.56	3.59	3.53	4.89	4.69
3	---	---	---	---	4.04	3.98	3.57	3.55	3.55	3.50	4.69	4.62
4	---	---	---	---	3.99	3.94	3.56	3.52	3.50	3.45	4.63	4.56
5	---	---	---	---	3.98	3.94	3.52	3.46	3.46	3.41	4.58	4.54
6	---	---	---	---	4.19	3.92	3.46	3.40	3.44	3.40	4.58	4.54
7	---	---	---	---	4.20	4.14	3.40	3.35	3.44	3.38	4.58	4.54
8	---	---	---	---	4.21	4.18	3.35	3.31	3.42	3.35	4.58	4.54
9	---	---	---	---	4.21	4.18	3.32	3.26	3.38	3.31	4.58	4.52
10	---	---	---	---	4.18	4.15	3.31	3.28	3.35	3.32	4.58	4.52
11	---	---	---	---	4.19	4.18	3.36	3.30	3.36	3.30	4.59	4.41
12	---	---	---	---	4.20	4.10	3.41	3.36	3.35	3.32	4.43	4.41
13	---	---	---	---	4.14	4.10	3.42	3.38	3.36	3.33	4.42	4.39
14	---	---	---	---	4.19	4.12	3.41	3.36	3.40	3.34	4.40	4.37
15	---	---	---	---	4.17	4.09	3.40	3.37	3.41	3.40	4.38	4.35
16	---	---	---	---	4.13	4.05	3.40	3.38	3.47	3.41	4.47	4.35
17	---	---	---	---	4.07	4.01	3.42	3.39	3.48	3.45	4.51	4.45
18	---	---	---	---	4.02	3.98	3.46	3.41	3.50	3.46	4.57	4.50
19	---	---	---	---	3.99	3.96	3.50	3.46	3.50	3.45	4.60	4.56
20	---	---	---	---	3.98	3.95	3.49	3.45	3.51	3.46	4.60	4.56
21	---	---	---	---	3.98	3.92	3.47	3.42	3.57	3.51	4.60	4.56
22	---	---	4.63	4.59	3.95	3.89	3.44	3.37	3.59	3.56	4.60	4.56
23	---	---	4.63	4.59	3.91	3.87	3.39	3.31	3.64	3.59	4.59	4.52
24	---	---	4.62	4.49	3.90	3.83	3.43	3.36	3.69	3.64	4.57	4.53
25	---	---	4.50	4.40	3.86	3.78	3.51	3.43	3.70	3.68	4.56	4.50
26	---	---	4.45	4.36	3.80	3.72	3.56	3.51	3.72	3.70	4.67	4.53
27	---	---	4.39	4.31	3.74	3.69	3.60	3.56	3.73	3.71	4.75	4.67
28	---	---	4.35	4.30	3.72	3.68	3.62	3.59	3.84	3.73	4.71	4.65
29	---	---	4.33	4.26	3.70	3.64	3.63	3.61	4.06	3.84	4.65	4.63
30	---	---	4.29	4.21	3.65	3.62	3.64	3.63	4.05	4.03	4.64	4.61
31	---	---	4.25	4.20	---	---	3.64	3.59	4.08	4.04	---	---
MONTH	---	---	---	---	4.21	3.62	3.64	3.26	4.08	3.30	4.91	4.08

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## GROUND-WATER LEVELS IN DELAWARE

73

## KENT COUNTY--Continued

WELL NUMBER.--MW48D. SITE ID.--390703075272601. PERMIT NUMBER.--73749.

LOCATION.--Lat 39°07'03", long 75°27'26", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.

Owner: U.S. Air Force.

AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 78.4 ft; casing diameter 2 in., to 73.4 ft; screen diameter 2 in. from 73.4 to 78.4 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval from September 1995 to current year.

DATUM.--Elevation of land surface is 27.54 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of PVC casing, 1.57 ft above land surface.

REMARKS.--Dover Air Force Base Project.

Periods of equal maximum and minimum daily values may be questionable due to the float hanging-up in small diameter wells or other well construction factors.

PERIOD OF RECORD.--September 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.61 ft above sea level, March 23, 1998;

lowest measured, 7.26 ft above sea level, Jan. 13, 14, 1999.

## WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.96	9.93	9.34	9.32	8.81	8.76	8.14	8.10	7.92	7.77	7.65	7.62
2	9.93	9.88	9.32	9.31	8.76	8.74	8.13	8.09	7.81	7.77	7.80	7.63
3	9.90	9.87	9.31	9.28	8.74	8.72	8.15	8.10	7.88	7.80	7.81	7.62
4	9.88	9.86	9.30	9.27	8.73	8.71	8.11	8.06	7.87	7.76	7.64	7.59
5	9.89	9.85	9.29	9.24	8.72	8.71	8.09	8.06	7.83	7.75	7.64	7.59
6	9.91	9.80	9.25	9.23	8.72	8.70	8.22	8.07	7.82	7.78	7.65	7.62
7	9.80	9.75	9.23	9.18	8.72	8.67	8.09	8.03	7.85	7.80	7.63	7.59
8	9.75	9.72	9.22	9.17	8.71	8.66	8.03	8.00	7.82	7.75	7.62	7.58
9	9.74	9.71	9.22	9.13	8.71	8.61	8.06	8.02	7.76	7.73	7.67	7.59
10	9.77	9.73	9.22	9.15	8.63	8.61	8.02	8.00	7.88	7.75	7.68	7.55
11	9.76	9.73	9.18	9.08	8.63	8.59	8.03	7.96	7.87	7.73	7.61	7.55
12	9.74	9.72	9.09	9.07	8.62	8.60	8.03	7.97	7.84	7.73	7.69	7.60
13	9.72	9.69	9.09	9.07	8.64	8.61	8.04	7.93	7.77	7.72	7.73	7.67
14	9.75	9.70	9.10	9.07	8.64	8.58	7.98	7.93	7.76	7.73	7.67	7.64
15	9.73	9.62	9.07	9.06	8.58	8.52	7.98	7.90	7.80	7.75	7.69	7.66
16	9.73	9.62	9.07	9.02	8.58	8.54	7.94	7.90	7.80	7.77	7.68	7.60
17	9.66	9.57	9.02	8.99	8.58	8.39	7.97	7.90	7.78	7.71	7.67	7.60
18	9.59	9.56	9.00	8.99	8.49	8.30	7.93	7.88	7.72	7.69	7.67	7.64
19	9.60	9.58	9.04	8.99	8.35	8.30	8.00	7.88	7.75	7.71	7.64	7.61
20	9.59	9.53	9.04	8.95	8.35	8.26	7.94	7.85	7.78	7.73	7.77	7.63
21	9.55	9.53	8.96	8.94	8.28	8.25	7.95	7.86	7.76	7.71	7.73	7.63
22	9.55	9.53	8.95	8.92	8.26	8.25	7.87	7.83	7.72	7.67	7.69	7.61
23	9.55	9.52	8.92	8.90	8.33	8.25	7.92	7.87	7.70	7.68	7.73	7.65
24	9.53	9.50	8.90	8.89	8.33	8.22	7.95	7.87	7.69	7.67	7.73	7.67
25	9.52	9.46	8.91	8.86	8.23	8.21	7.87	7.79	7.71	7.67	7.71	7.67
26	9.47	9.42	8.86	8.85	8.25	8.22	7.86	7.83	7.75	7.67	7.80	7.70
27	9.42	9.38	8.86	8.84	8.23	8.19	7.86	7.83	7.71	7.63	7.77	7.72
28	9.38	9.33	8.84	8.81	8.23	8.16	7.86	7.85	7.66	7.63	7.79	7.74
29	9.38	9.34	8.82	8.81	8.19	8.14	7.85	7.83	---	---	7.84	7.77
30	9.37	9.32	8.83	8.81	8.17	8.14	7.84	7.79	---	---	7.86	7.80
31	9.34	9.31	---	---	8.17	8.12	7.85	7.79	---	---	7.90	7.81
MONTH	9.96	9.31	9.34	8.81	8.81	8.12	8.22	7.79	7.92	7.63	7.90	7.55

GROUND-WATER LEVELS IN DELAWARE

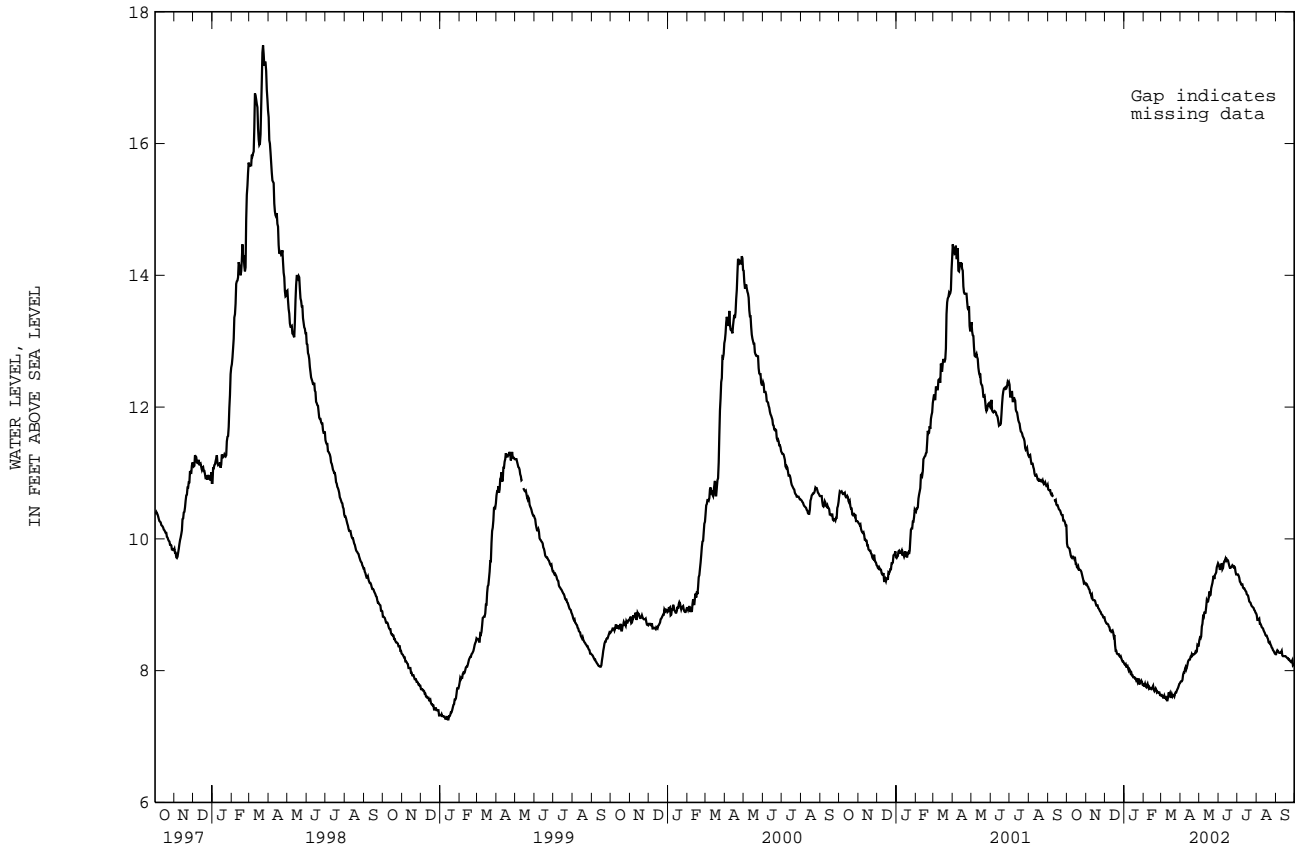
KENT COUNTY--Continued

MW48D--Continued

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.91	7.83	8.50	8.46	9.67	9.61	9.48	9.46	8.87	8.84	8.29	8.25
2	7.94	7.84	8.64	8.50	9.66	9.58	9.48	9.46	8.84	8.77	8.32	8.29
3	7.97	7.84	8.59	8.49	9.59	9.53	9.46	9.44	8.81	8.77	8.33	8.31
4	7.95	7.86	8.68	8.52	9.60	9.56	9.44	9.41	8.79	8.78	8.33	8.30
5	8.01	7.94	8.71	8.67	9.66	9.60	9.42	9.35	8.81	8.79	8.32	8.28
6	7.99	7.97	8.82	8.71	9.67	9.63	9.37	9.34	8.79	8.71	8.28	8.27
7	8.02	7.97	8.86	8.82	9.63	9.54	9.34	9.31	8.75	8.71	8.27	8.27
8	8.09	8.02	8.88	8.81	9.63	9.56	9.34	9.31	8.71	8.69	8.29	8.27
9	8.09	8.05	8.96	8.88	9.69	9.63	9.35	9.31	8.69	8.66	8.30	8.28
10	8.07	8.02	8.93	8.88	9.68	9.66	9.32	9.26	8.67	8.65	8.33	8.30
11	8.10	8.05	8.97	8.88	9.72	9.67	9.27	9.25	8.65	8.64	8.34	8.23
12	8.14	8.09	9.09	8.97	9.74	9.70	9.26	9.25	8.64	8.61	8.24	8.22
13	8.18	8.14	9.18	9.07	9.70	9.67	9.25	9.23	8.61	8.59	8.26	8.22
14	8.21	8.16	9.12	9.05	9.73	9.69	9.23	9.21	8.59	8.57	8.23	8.22
15	8.20	8.17	9.10	9.05	9.73	9.67	9.22	9.20	8.57	8.54	8.23	8.22
16	8.21	8.17	9.21	9.10	9.69	9.67	9.20	9.16	8.56	8.53	8.24	8.22
17	8.24	8.21	9.25	9.20	9.67	9.63	9.17	9.15	8.55	8.53	8.23	8.21
18	8.26	8.21	9.34	9.14	9.63	9.59	9.17	9.14	8.53	8.50	8.21	8.20
19	8.29	8.25	9.25	9.15	9.59	9.56	9.14	9.10	8.51	8.48	8.21	8.19
20	8.29	8.23	9.31	9.25	9.58	9.56	9.10	9.05	8.48	8.43	8.21	8.19
21	8.31	8.24	9.35	9.29	9.60	9.57	9.06	9.04	8.43	8.42	8.20	8.17
22	8.38	8.25	9.39	9.33	9.63	9.58	9.06	9.03	8.46	8.43	8.20	8.17
23	8.30	8.25	9.46	9.39	9.64	9.60	9.05	9.00	8.45	8.40	8.18	8.15
24	8.33	8.26	9.50	9.44	9.63	9.59	9.01	8.98	8.42	8.38	8.15	8.14
25	8.39	8.29	9.45	9.39	9.60	9.57	8.99	8.97	8.38	8.35	8.15	8.13
26	8.33	8.28	9.49	9.45	9.61	9.58	8.98	8.96	8.35	8.34	8.16	8.14
27	8.39	8.29	9.51	9.47	9.61	9.57	8.97	8.95	8.34	8.31	8.19	8.16
28	8.51	8.39	9.59	9.49	9.58	9.50	8.96	8.92	8.32	8.30	8.16	8.08
29	8.43	8.38	9.61	9.57	9.50	9.46	8.94	8.91	8.35	8.28	8.10	8.09
30	8.50	8.38	9.64	9.60	9.47	9.46	8.91	8.88	8.28	8.26	8.11	8.09
31	---	---	9.69	9.63	---	---	8.89	8.87	8.26	8.25	---	---
MONTH	8.51	7.83	9.69	8.46	9.74	9.46	9.48	8.87	8.87	8.25	8.34	8.08
YEAR	9.96	7.55										

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

NEW CASTLE COUNTY

WELL NUMBER.--Db15-05. SITE ID.--393917075401601.

LOCATION.--Lat 39°39'17", long 75°40'16", Hydrologic Unit 02040205, Smalley's Dam, at the Wilmington Suburban Water Co. plant.

Owner: United Water of Delaware.

AQUIFER.--Lower Potomac aquifer in the Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 306 ft; casing diameter 12 in., to 215.5 ft, and 238.5 to 273.5 ft, screen diameter 12 in., from 215.5 to 238.5 ft and 273.5 to 306 ft.

INSTRUMENTATION.--Twice yearly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with graphic water-level recorder from March 1979 to November 1981.

DATUM.--Elevation of land surface is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of 12 in. casing, 2.27 ft above land surface.

REMARKS.--Delaware Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.

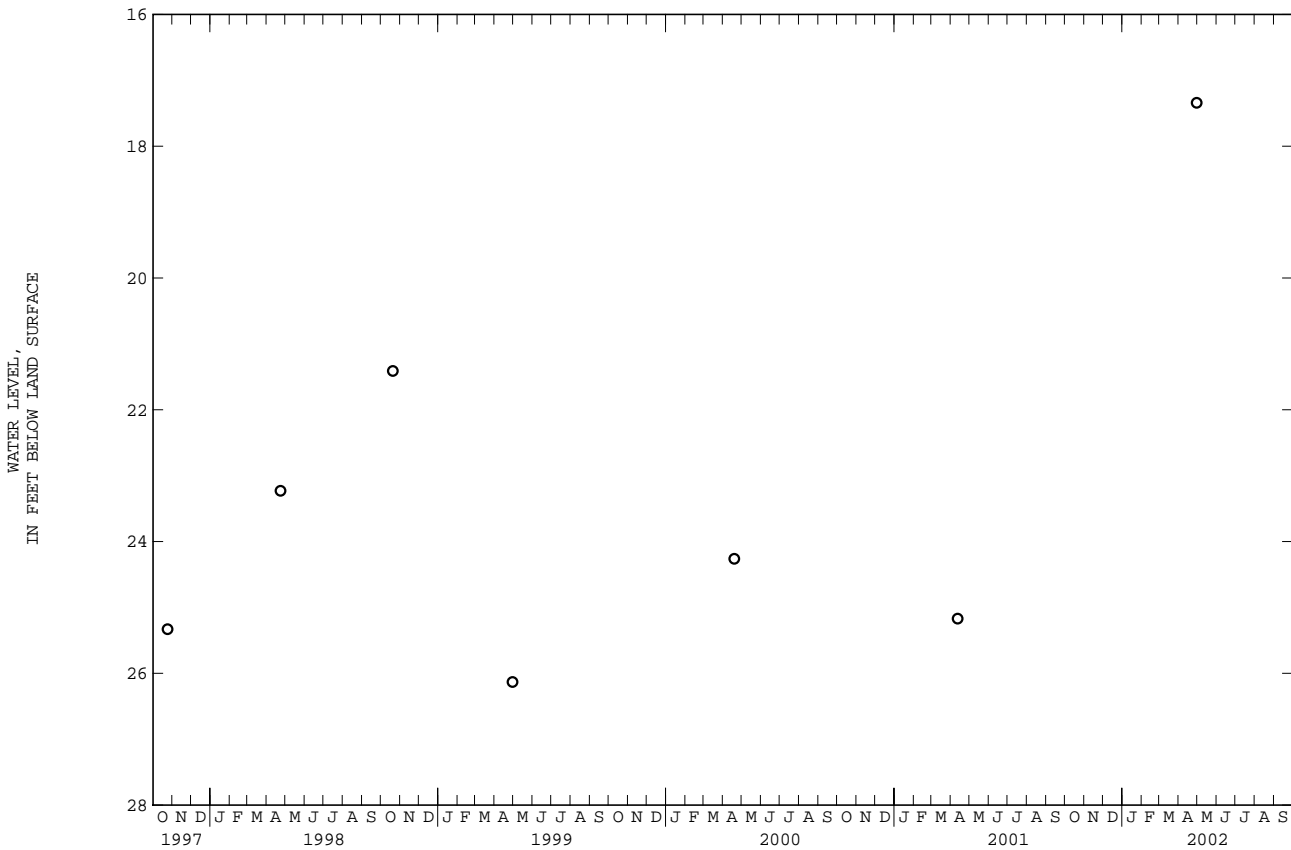
PERIOD OF RECORD.--March 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.34 ft below land surface, April 30, 2002;

lowest measured, 39.31 ft below land surface, Sept. 30, 1981.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL
APR 30, 2002	17.34



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN DELAWARE--Continued

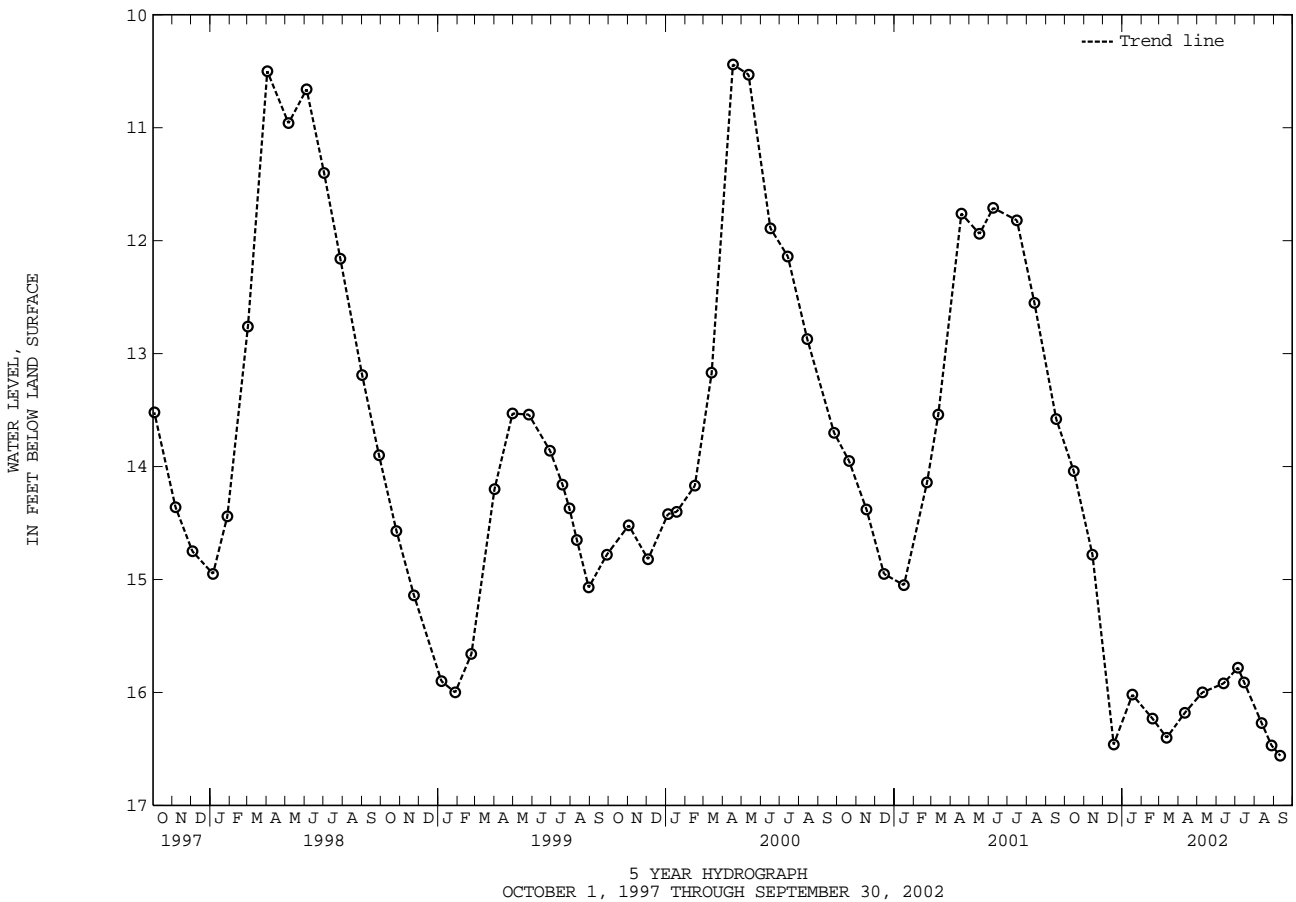
NEW CASTLE COUNTY--Continued

WELL NUMBER.--Db24-17. SITE ID.--393856075415602. PERMIT NUMBER.--65430.  
 LOCATION.--Lat 39°38'55", long 75°41'54", Hydrologic Unit 02040205, 2 mi south of Ogetown.  
 Owner: Delaware Department of Transportation.  
 AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 22 ft; casing diameter 2 in., to 17 ft; screen diameter 2 in., from 17 to 22 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by Delaware Geological Survey personnel.  
 DATUM.--Elevation of land surface is 77 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 0.55 ft above land surface.  
 REMARKS.--Delaware Water-Level Monitoring Network observation well. Water-level measurements furnished by Delaware Geological Survey.  
 PERIOD OF RECORD.--June 1986 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.42 ft below land surface, April 29, 1993; lowest measured, 16.56 ft below land surface, Sept. 11, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15, 2001	14.04	FEB 18, 2002	16.23	JUN 12, 2002	15.92	AUG 28, 2002	16.47
NOV 14	14.78	MAR 13	16.40	JUL 05	15.78	SEP 11	16.56
DEC 18	16.46	APR 11	16.18	15	15.91		
JAN 17, 2002	16.02	MAY 09	16.00	AUG 12	16.27		

WATER YEAR 2002    HIGHEST    14.04    OCT 15, 2001    LOWEST    16.56    SEP 11, 2002





NEW CASTLE COUNTY--Continued

WELL NUMBER.--Db33-17. SITE ID.--393734075371103. PERMIT NUMBER--44612.

LOCATION.--Lat 39°37'34", long 75°37'11", Hydrologic Unit 02040205, off Salem Church Road, near Beck's Pond.

Owner: U.S. Geological Survey.

AQUIFER.--Lower Potomac aquifer in the Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 189 ft; casing diameter 2 in., to 185 ft; screen diameter 2 in., from 185 to 189 ft. Installed in a 8 in. borehole with Db33-18, and Db33-19.

INSTRUMENTATION.--Twice yearly water level measurements with electric tape by U.S. Geological Survey personnel. Monthly water level measurements from October 1980 to November 1981.

DATUM.--Elevation of land surface is 48 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring Point: Top of coupling, 3.26 ft above land surface.

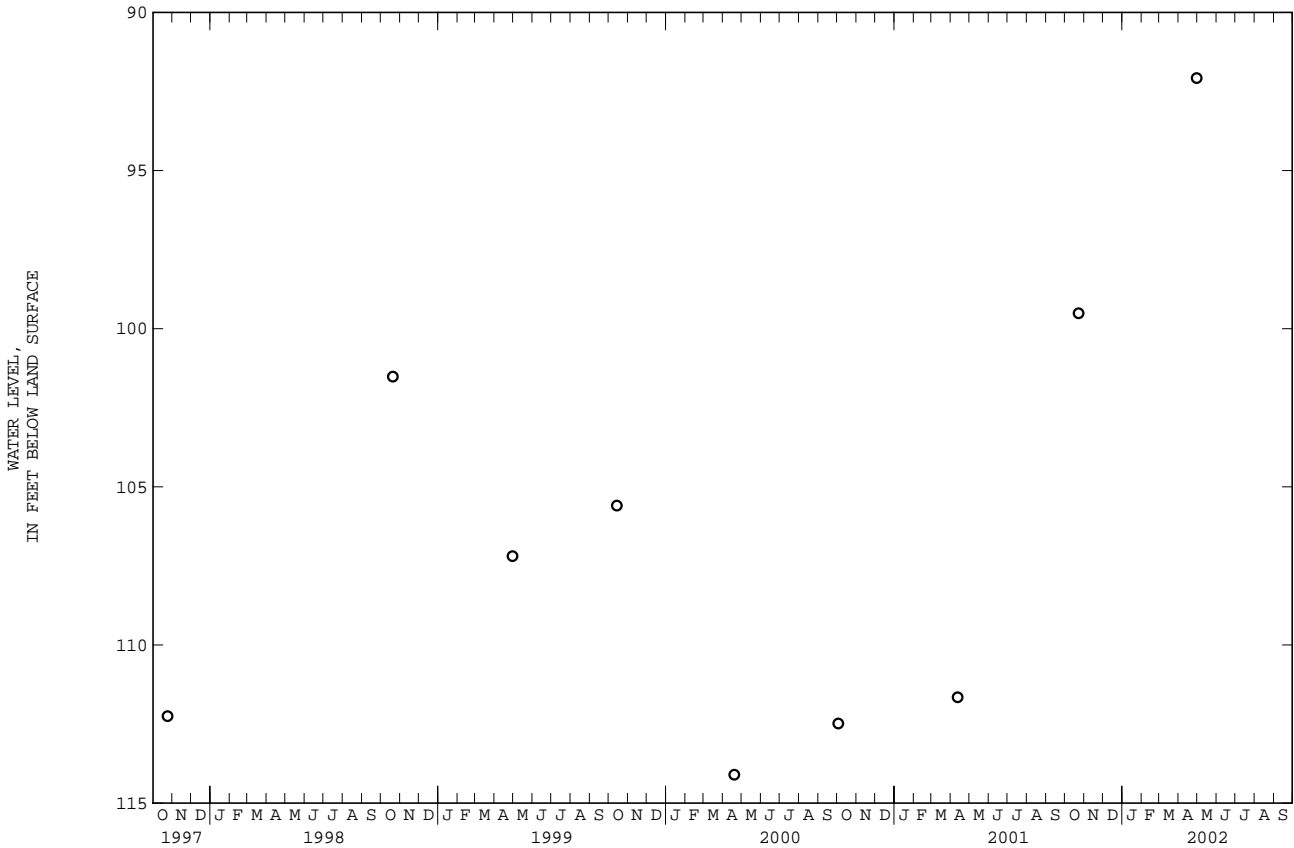
REMARKS.--Delaware Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal.

PERIOD OF RECORD.--October 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 90.30 ft below land surface, Oct. 12, 1995; lowest measured, 115.82 ft below land surface, Oct. 15, 1990.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	99.51	APR 30, 2002	92.08
WATER YEAR 2002 HIGHEST		92.08 APR 30, 2002	LOWEST 99.51 OCT 23, 2001



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

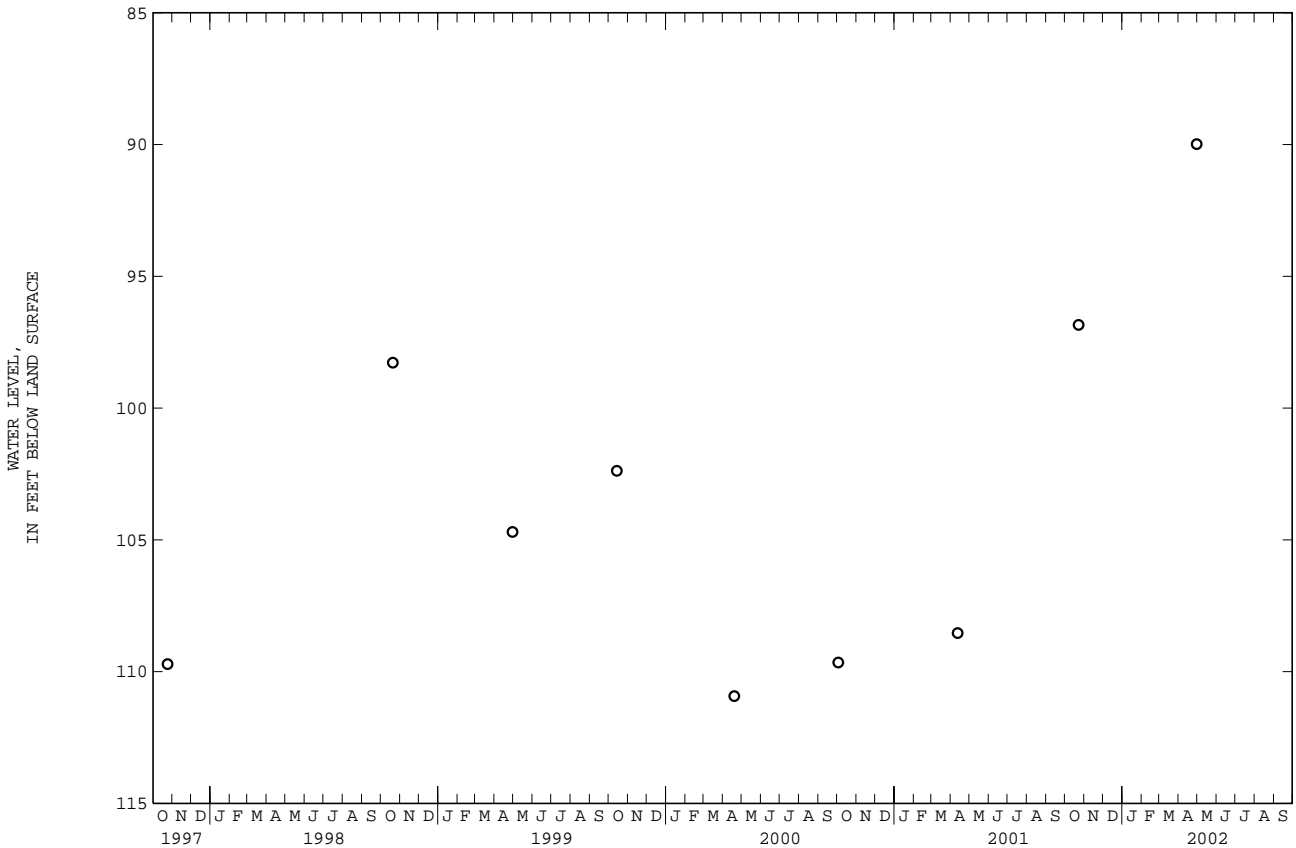
GROUND-WATER LEVELS IN DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Db33-18. SITE ID.--393734075371102. PERMIT NUMBER--44612.  
 LOCATION.--Lat 39°37'34", long 75°37'11", Hydrologic Unit 02040205, off Salem Church Road, near Beck's Pond.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Lower Potomac aquifer in the Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 143 ft; casing diameter 2 in., to 139 ft; screen diameter 2 in., from 139 to 143 ft. Installed in a 8 in. borehole with Db33-17, and Db33-19.  
 INSTRUMENTATION.--Twice yearly water level measurements with electric tape by U.S. Geological Survey personnel.  
 Monthly water level measurements from October 1980 to November 1981.  
 DATUM.--Elevation of land surface is 48 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring Point: Top of coupling, 3.24 ft above land surface.  
 REMARKS.--Delaware Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--October 1980 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.31 ft below land surface, Oct. 12, 1995; lowest measured, 113.44 ft below land surface, Oct. 15, 1990.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	96.84	APR 30, 2002	89.98
WATER YEAR 2002 HIGHEST		89.98	APR 30, 2002
LOWEST		96.84	OCT 23, 2001



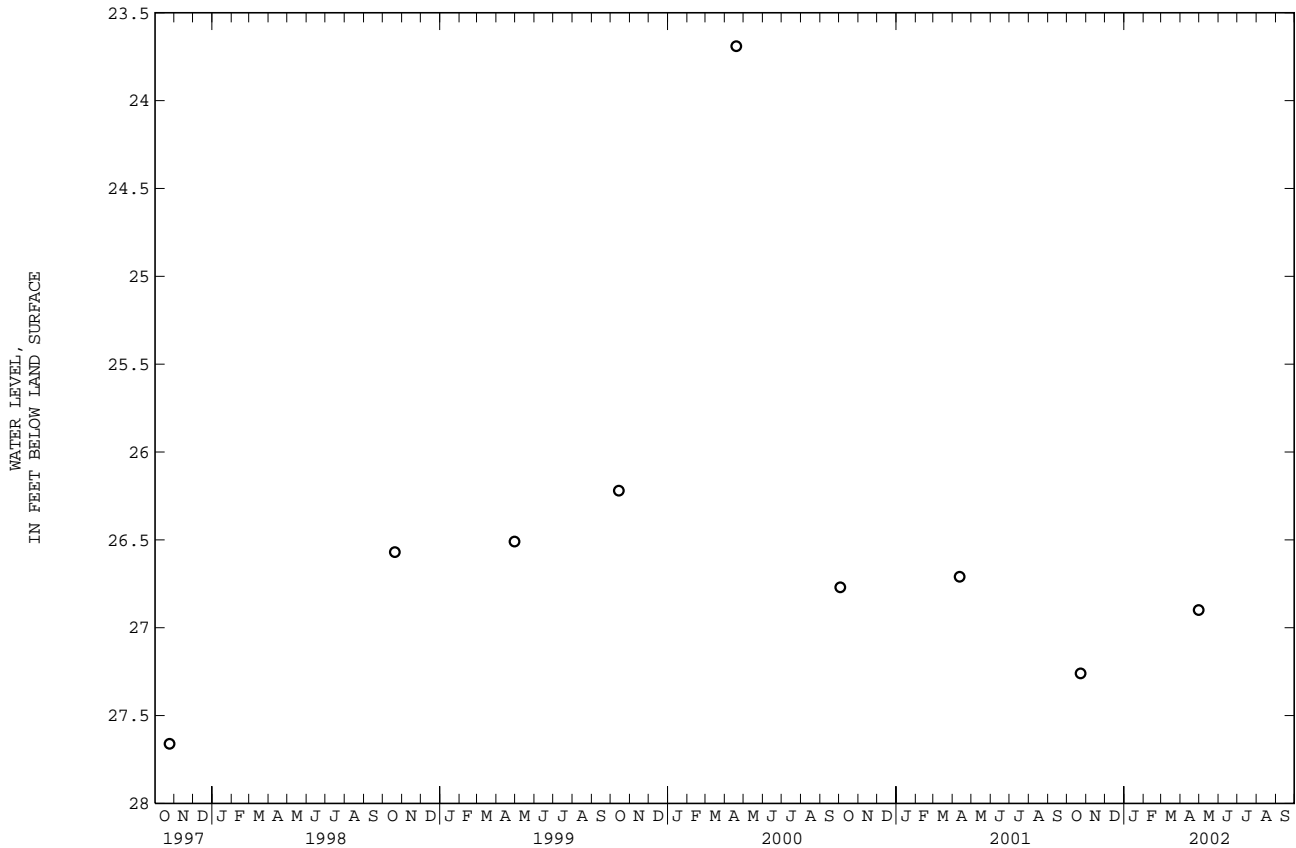
5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Db33-19. SITE ID.--393734075371101. PERMIT NUMBER--44612.  
 LOCATION.--Lat 39°37'34", long 75°37'11", Hydrologic Unit 02040205, off Salem Church Road, near Beck's Pond.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 39 ft; casing diameter 2 in; to 35 ft; screen diameter 2 in., from 35 to 39 ft. Installed in a 8 in. borehole with Db33-17, and Db33-18.  
 INSTRUMENTATION.--Twice yearly water level measurements with electric tape by U.S. Geological Survey personnel.  
 Monthly water level measurements from October 1980 to November 1981.  
 DATUM.--Elevation of land surface is 48 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring Point: Top of coupling, 3.29 ft above land surface.  
 REMARKS.--Delaware Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--October 1980 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.69 ft below land surface, April 19, 2000;  
 lowest measured 28.23 ft below land surface, April 3, 1981.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	27.26	APR 30, 2002	26.90
WATER YEAR 2002	HIGHEST	26.90	APR 30, 2002
	LOWEST	27.26	OCT 23, 2001



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Dc34-05. SITE ID.--393755075364801.

LOCATION.--Lat 39°37'55", long 75°36'48", Hydrologic Unit 02040205, east side of Rt. 9, at National Guard Rifle Range.

Owner: U.S. Geological Survey.

AQUIFER.--Lower Potomac aquifer in the Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 579 ft; casing diameter 2 in., to 574 ft; screen diameter 2 in., from 574 to 579 ft.

INSTRUMENTATION.--Twice yearly water level measurements with electric tape by U.S. Geological Survey personnel.

Monthly water level measurements from November 1975 to November 1981.

DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of coupling, 2.10 ft above land surface.

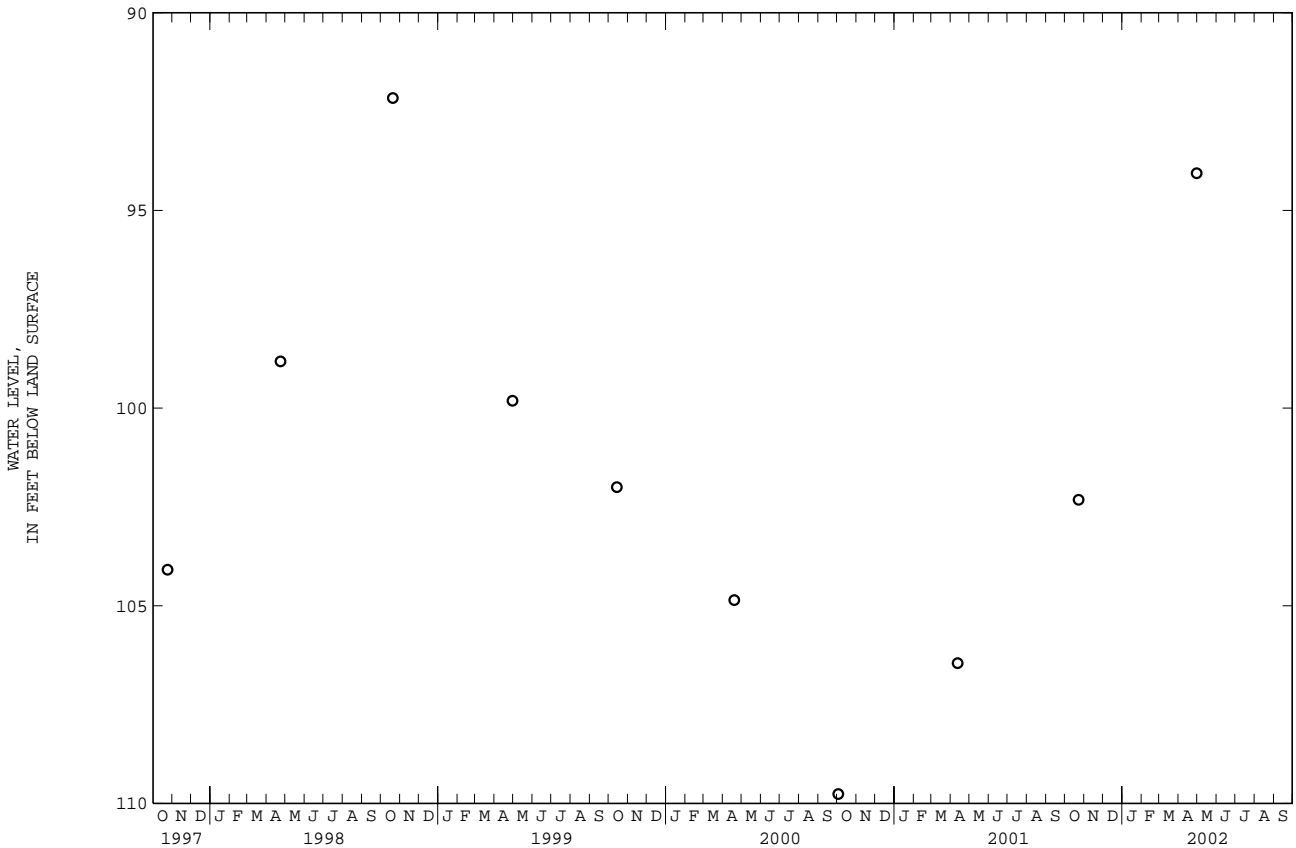
REMARKS.--Delaware Water-Level Monitoring Network observation well.

PERIOD OF RECORD.--November 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.38 ft below land surface, Oct. 10, 1984; lowest measured, 130.62 ft below land surface, May 5, 1978.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	102.32	APR 30, 2002	94.06
WATER YEAR 2002	HIGHEST	94.06	APR 30, 2002
	LOWEST	102.32	OCT 23, 2001



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Dc34-06. SITE ID.--393755075364802.

LOCATION.--Lat 39°37'55", long 75°36'48", Hydrologic Unit 02040205, east side of Rt. 9, at National Guard Rifle Range.

Owner: U.S. Geological Survey

AQUIFER.--Upper Potomac aquifer in the Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 188 ft; casing diameter 2 in., to 183 ft; screened from 183 to 188 ft.

INSTRUMENTATION.--Twice yearly water level measurements with electric tape by U.S. Geological Survey personnel.

Equipped with graphic water-level recorder from November 1975 to October 1982.

DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of 6 in. casing, 2.00 ft above land surface.

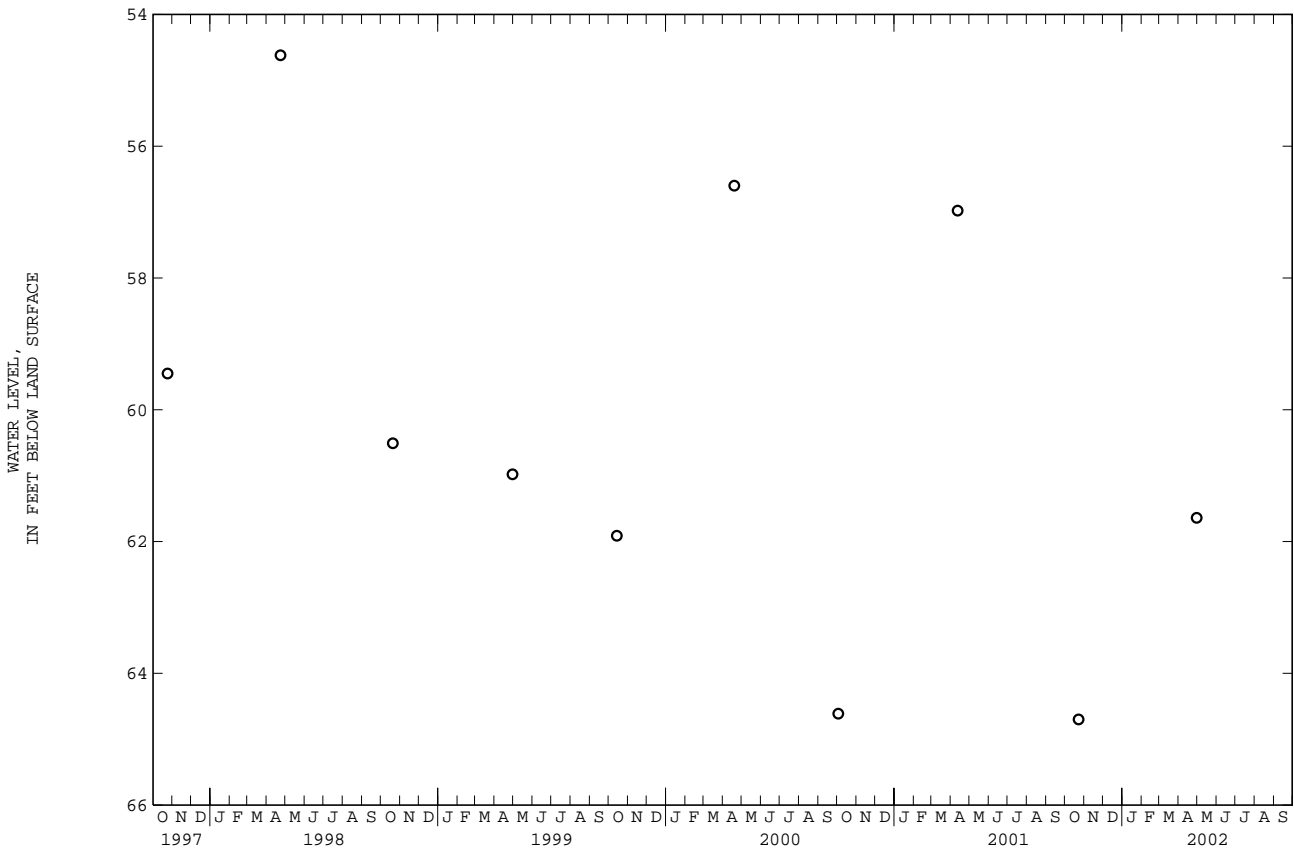
REMARKS.--Delaware Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--November 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.94 ft below land surface, Feb. 15, 1976; lowest measured, 64.70 ft below land surface, Oct. 23, 2001.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	64.70	APR 30, 2002	61.64
WATER YEAR 2002 HIGHEST		61.64 APR 30, 2002	LOWEST 64.70 OCT 23, 2001



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Eb23-22. SITE ID.--393316075421601.

LOCATION.--Lat 39°33'16", long 75°42'16", Hydrologic Unit 02040205, at Lums Pond State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code : 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 105 ft; casing diameter 2 in., to 101 ft, screened 2 in., from 101 to 105 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 2.50 ft above land surface.

REMARKS.--Delaware Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

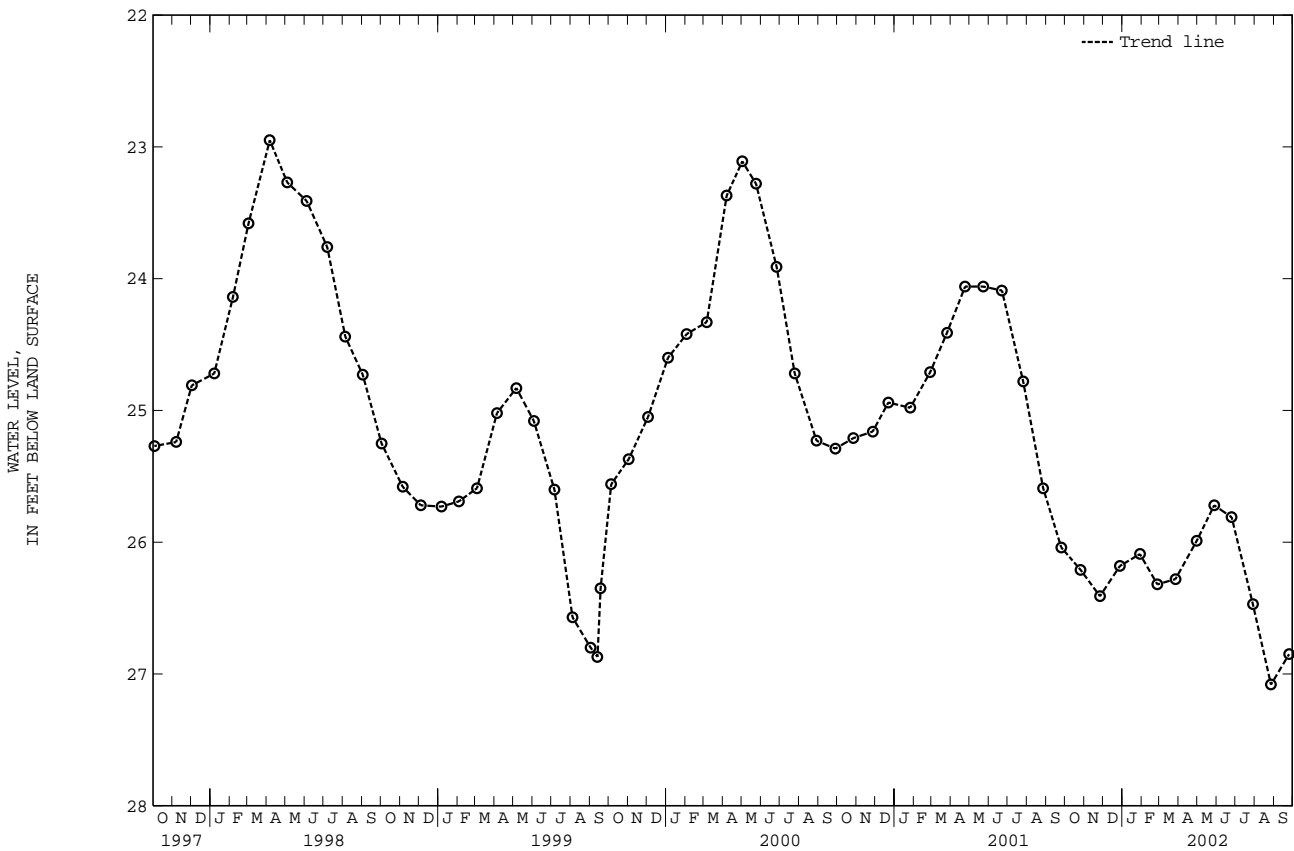
PERIOD OF RECORD.--November 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.19 ft below land surface, April 4, 1997; lowest measured, 27.42 ft below land surface, Oct. 2, 1992.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	26.21	JAN 29, 2002	26.09	APR 30, 2002	25.99	JUL 29, 2002	26.47
NOV 26	26.41	FEB 26	26.32	MAY 28	25.72	AUG 27	27.08
DEC 28	26.18	MAR 27	26.28	JUN 25	25.81	SEP 25	26.85

WATER YEAR 2002      HIGHEST    25.72    MAY 28, 2002      LOWEST    27.08    AUG 27, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Eb23-23. SITE ID.--393316075421602.

LOCATION.--Lat 39°33'16", long 75°42'16", Hydrologic Unit 02040205, at Lums Pond State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Upper Potomac aquifer in the Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 292 ft; casing diameter 2 in., to 288 ft, screened 2 in., from 288 to 292 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 2.35 ft above land surface.

REMARKS.--Delaware Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.

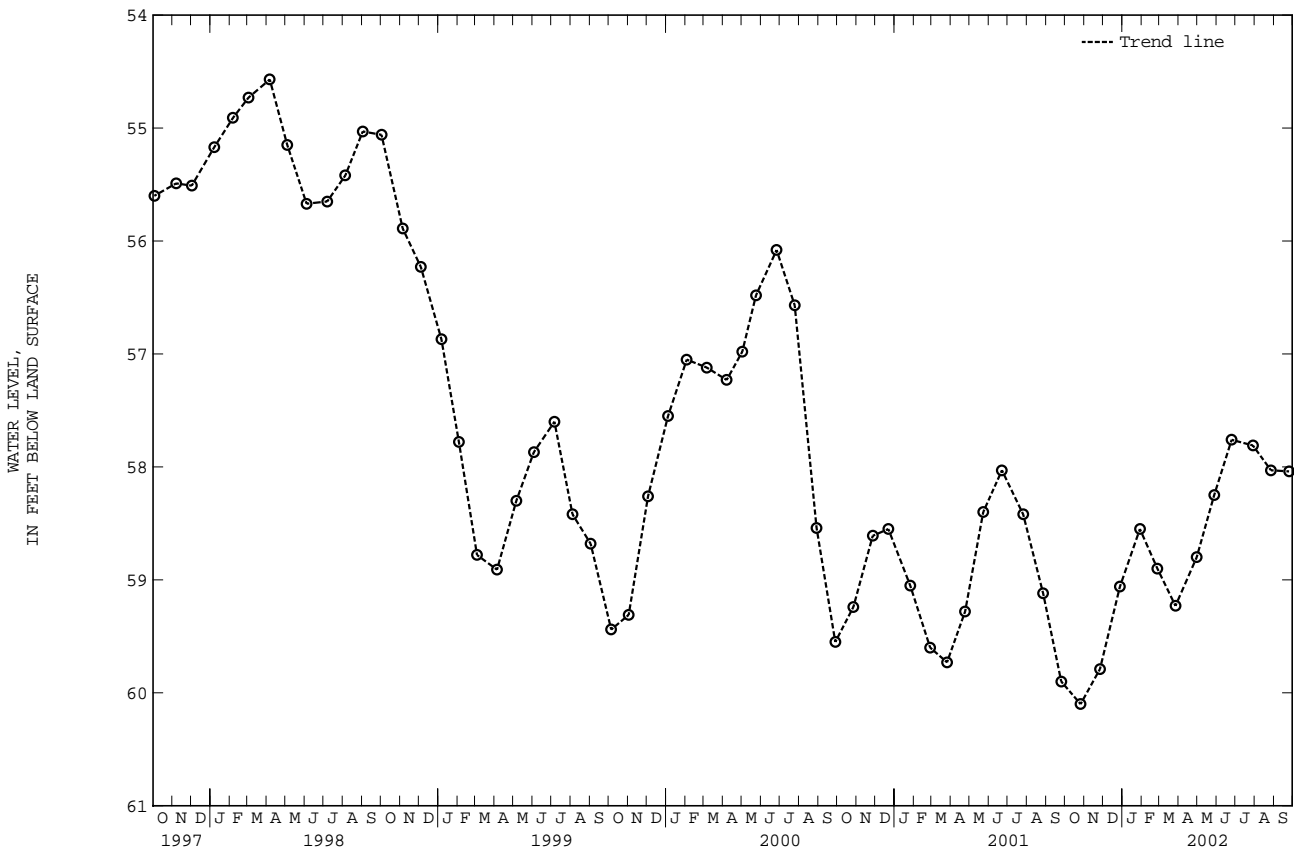
PERIOD OF RECORD.--November 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 52.38 ft below land surface, Oct. 12, 1982; lowest measured, 60.60 ft below land surface, June 3, 1992.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	60.10	JAN 29, 2002	58.55	APR 30, 2002	58.80	JUL 29, 2002	57.81
NOV 26	59.79	FEB 26	58.90	MAY 28	58.25	AUG 27	58.03
DEC 28	59.06	MAR 27	59.23	JUN 25	57.76	SEP 25	58.04

WATER YEAR 2002      HIGHEST    57.76    JUN 25, 2002      LOWEST    60.10    OCT 26, 2001



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Eb23-24. SITE ID.--393316075421603.

LOCATION.--Lat 39°33'16", long 75°42'16", Hydrologic Unit 02040205, at Lums Pond State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Middle Potomac aquifer in the Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 436 ft; casing diameter 2 in., to 432 ft, screened 2 in., from 432 to 436 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 2.38 ft above land surface.

REMARKS.--Delaware Water-Level Monitoring Network observation well. Water-levels are affected by local and regional ground-water withdrawal.

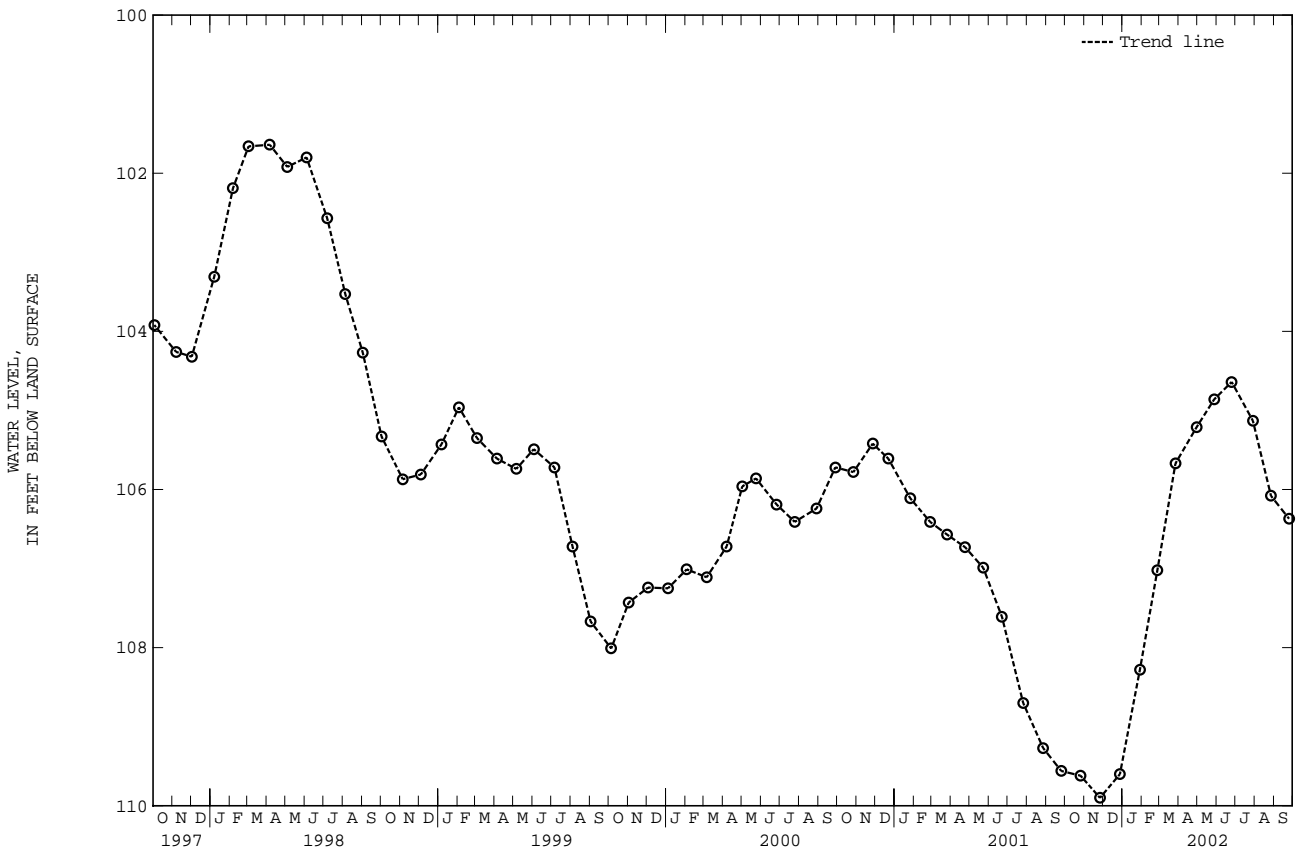
PERIOD OF RECORD.--November 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.17 ft below land surface, Nov. 13, 1980; lowest measured, 109.90 ft below land surface, Nov. 26, 2001.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	109.62	JAN 29, 2002	108.28	APR 30, 2002	105.21	JUL 29, 2002	105.13
NOV 26	109.90	FEB 26	107.02	MAY 28	104.86	AUG 27	106.08
DEC 28	109.60	MAR 27	105.67	JUN 25	104.64	SEP 25	106.37

WATER YEAR 2002 HIGHEST 104.64 JUN 25, 2002 LOWEST 109.90 NOV 26, 2001



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



NEW CASTLE COUNTY--Continued

WELL NUMBER.--Eb23-25. SITE ID.--393316075421604.

LOCATION.--Lat 39°33'16", long 75°42'16", Hydrologic Unit 02040205, at Lums Pond State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Lower Potomac aquifer in the Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 604 ft; casing diameter 2 in., to 600 ft, screened 2 in., from 600 to 604 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

REMARKS.--Delaware Water-Level Monitoring Network observation well. Water-levels are affected by regional ground-water withdrawal.

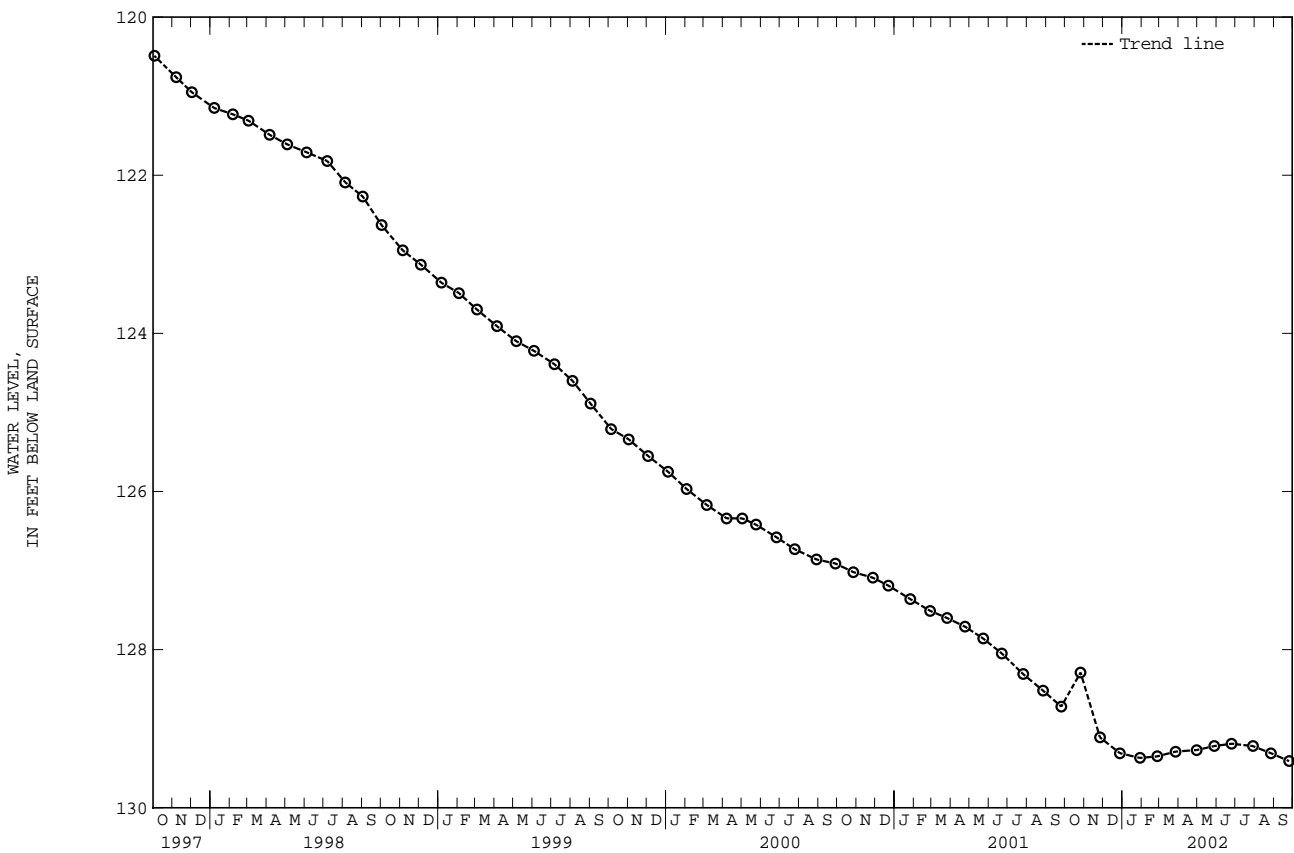
PERIOD OF RECORD.--November 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 105.07 ft below land surface, April 20, 1982; lowest measured, 129.41 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	128.29	JAN 29, 2002	129.37	APR 30, 2002	129.27	JUL 29, 2002	129.22
NOV 26	129.11	FEB 26	129.35	MAY 28	129.22	AUG 27	129.31
DEC 28	129.31	MAR 27	129.29	JUN 25	129.19	SEP 25	129.41

WATER YEAR 2002 HIGHEST 128.29 OCT 26, 2001 LOWEST 129.41 SEP 25, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

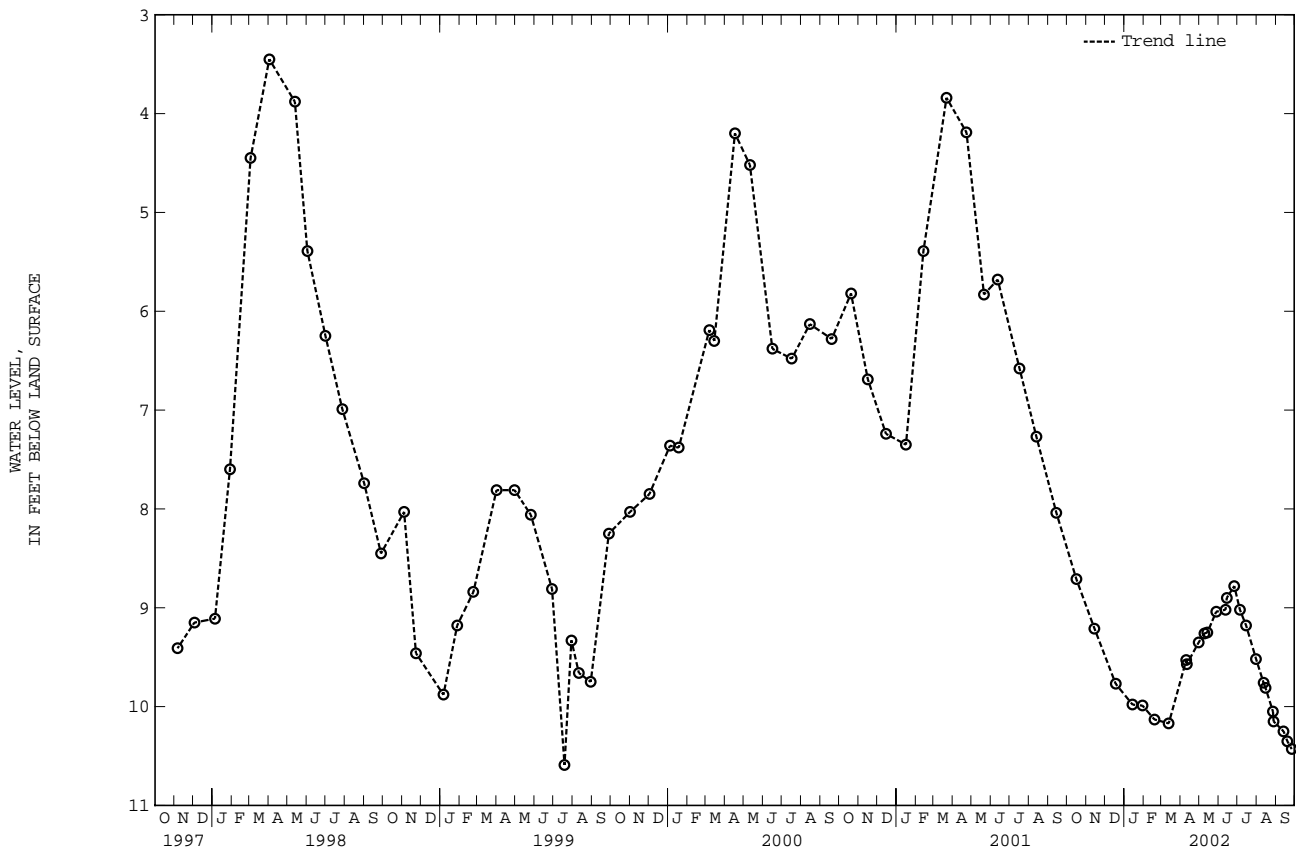
GROUND-WATER LEVELS IN DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Hb14-01. SITE ID.--391949075410701.  
 LOCATION.--Lat 39°19'49", long 75°41'07", Hydrologic Unit 02040205, at Prices Corners.  
 Owner: Delaware Department of Transportation.  
 AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 19 ft; casing diameter 1 in., to 16 ft;  
 well point from 16 to 19 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric or chalked steel tape by Delaware Geological Survey  
 personnel.  
 DATUM.--Elevation of land surface is 72 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing at land surface.  
 REMARKS.--Delaware Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--October year 1957 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.49 ft below land surface, April 7, 1958;  
 lowest measured, 11.95 ft below land surface, Aug. 31, 1966.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 2001	8.71	APR 10, 2002	9.53	JUN 14, 2002	8.90	AUG 27, 2002	10.05
NOV 14	9.21	11	9.57	26	8.78	28	10.15
DEC 18	9.77	30	9.35	JUL 05	9.02	SEP 13	10.25
JAN 14, 2002	9.98	MAY 09	9.26	15	9.18	19	10.35
30	9.99	14	9.25	31	9.52	26	10.43
FEB 18	10.13	28	9.04	AUG 12	9.76		
MAR 13	10.17	JUN 12	9.02	15	9.81		
WATER YEAR 2002		HIGHEST	8.71	OCT 16, 2001	LOWEST	10.43	SEP 26, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

SUSSEX COUNTY

WELL NUMBER.--Nc45-01. SITE ID.--384639075353101. PERMIT NUMBER.--10226.

LOCATION.--Lat 38°46'39", long 75°35'31", Hydrologic Unit 02060008, 2.0 mi south of Greenwood.

Owner: P. H. Cannon.

AQUIFER.--Columbia Formation (Staytonville unit) of Pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Driven, observation, water-table well, depth 15.45 ft; casing diameter 1 in., to 12.95 ft; screened from 12.95 to 15.45 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by Delaware Geological Survey personnel.

DATUM.--Elevation of land surface is 43 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.00 ft above land surface.

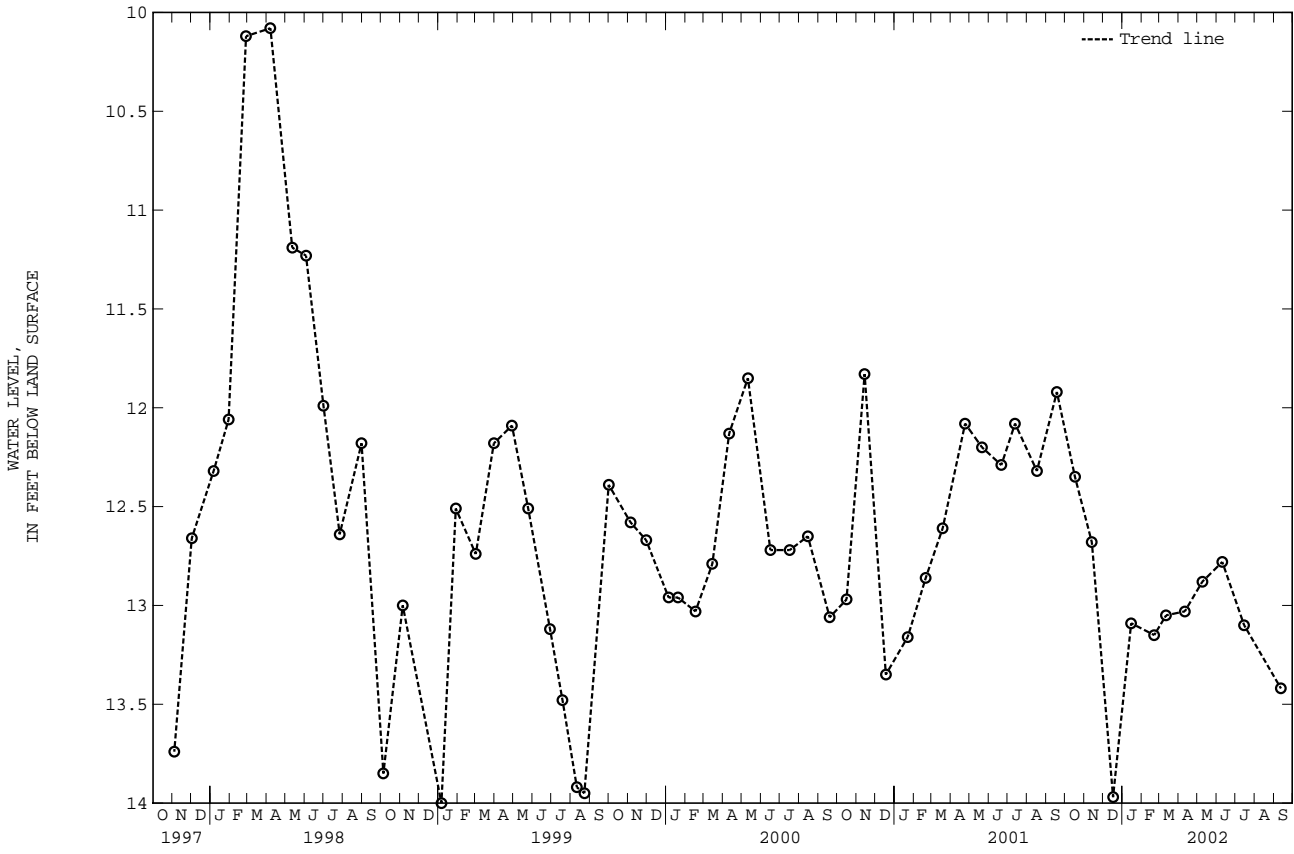
REMARKS.--Delaware Water-Level Monitoring Network observation well.

PERIOD OF RECORD.--January 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.82 ft below land surface, April 9, 1958; lowest measured, 14.66 ft below land surface, Dec. 11, 1978.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 2001	12.35	JAN 15, 2002	13.09	APR 11, 2002	13.03	JUL 15, 2002	13.10
NOV 13	12.68	FEB 21	13.15	MAY 09	12.88	SEP 12	13.42
DEC 17	13.97	MAR 12	13.05	JUN 10	12.78		
WATER YEAR 2002		HIGHEST 12.35	OCT 17, 2001	LOWEST 13.97	DEC 17, 2001		



GROUND-WATER LEVELS IN DELAWARE--Continued

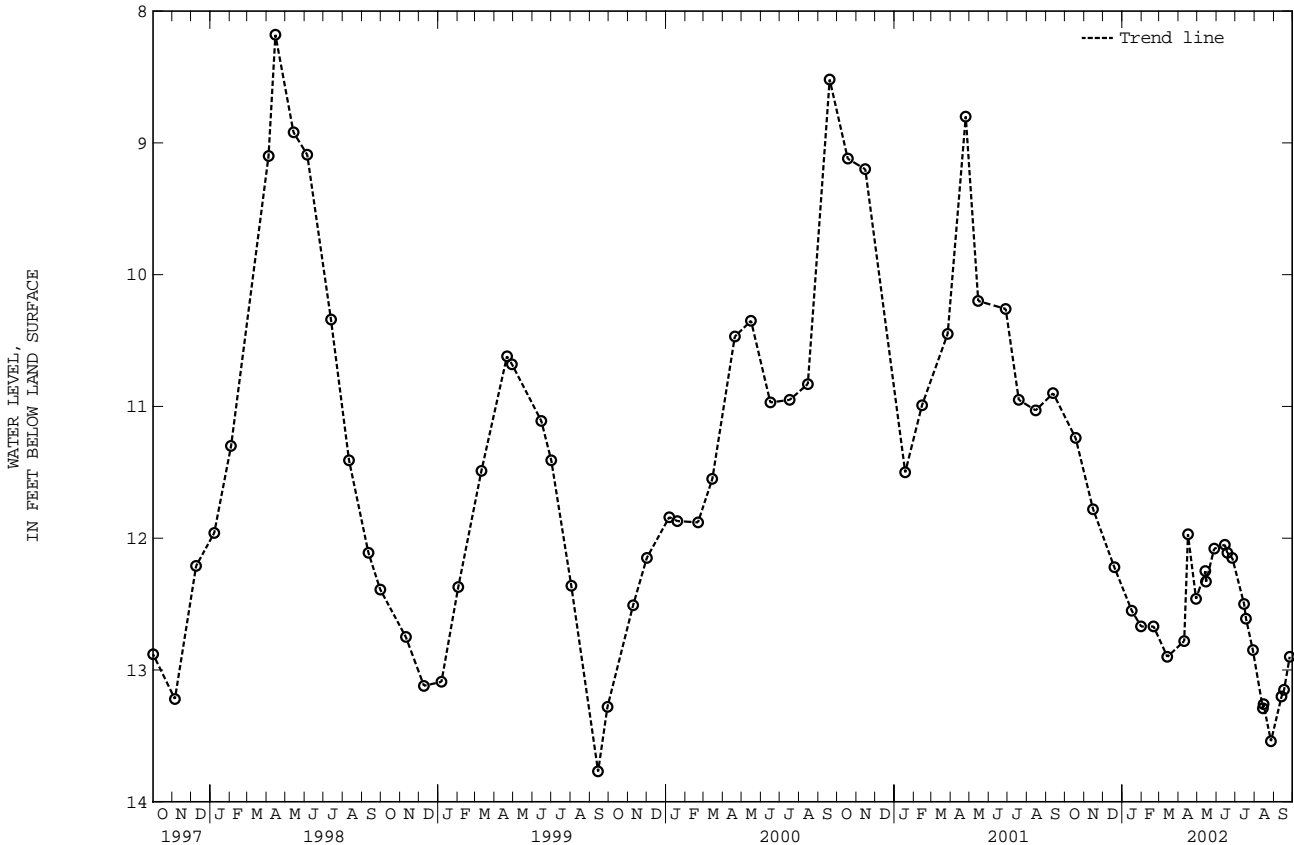
SUSSEX COUNTY--Continued

WELL NUMBER.--Ngll-01. SITE ID.--384955075192801. PERMIT NUMBER.--10227.  
 LOCATION.--Lat 38°49'55", long 75°19'28", Hydrologic Unit 02040207, 1.2 mi east of Jefferson Crossroads.  
 Owner: Delaware Department of Transportation.  
 AQUIFER.--Omar Formation of Pleistocene age. Aquifer code: 112OMAR.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 19 ft; casing diameter 1 in., to 16 ft; well point from 16 to 19 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by Delaware Geological Survey personnel.  
 DATUM.--Elevation of land surface is 24 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing at land surface.  
 REMARKS.--Delaware Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--September 1959 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.91 ft below land surface, April 10, 1984; lowest measured, 14.64 ft below land surface, Jan. 7, 1966.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	11.24	APR 10, 2002	12.78	JUN 18, 2002	12.11	AUG 27, 2002	13.54
NOV 15	11.78	16	11.97	26	12.15	SEP 13	13.20
DEC 19	12.22	29	12.46	JUL 15	12.50	17	13.15
JAN 16, 2002	12.55	MAY 14	12.25	18	12.61	26	12.90
31	12.67	15	12.33	29	12.85		
FEB 20	12.67	28	12.08	AUG 14	13.29		
MAR 14	12.90	JUN 14	12.05	15	13.26		

WATER YEAR 2002 HIGHEST 11.24 OCT 18, 2001 LOWEST 13.54 AUG 27, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

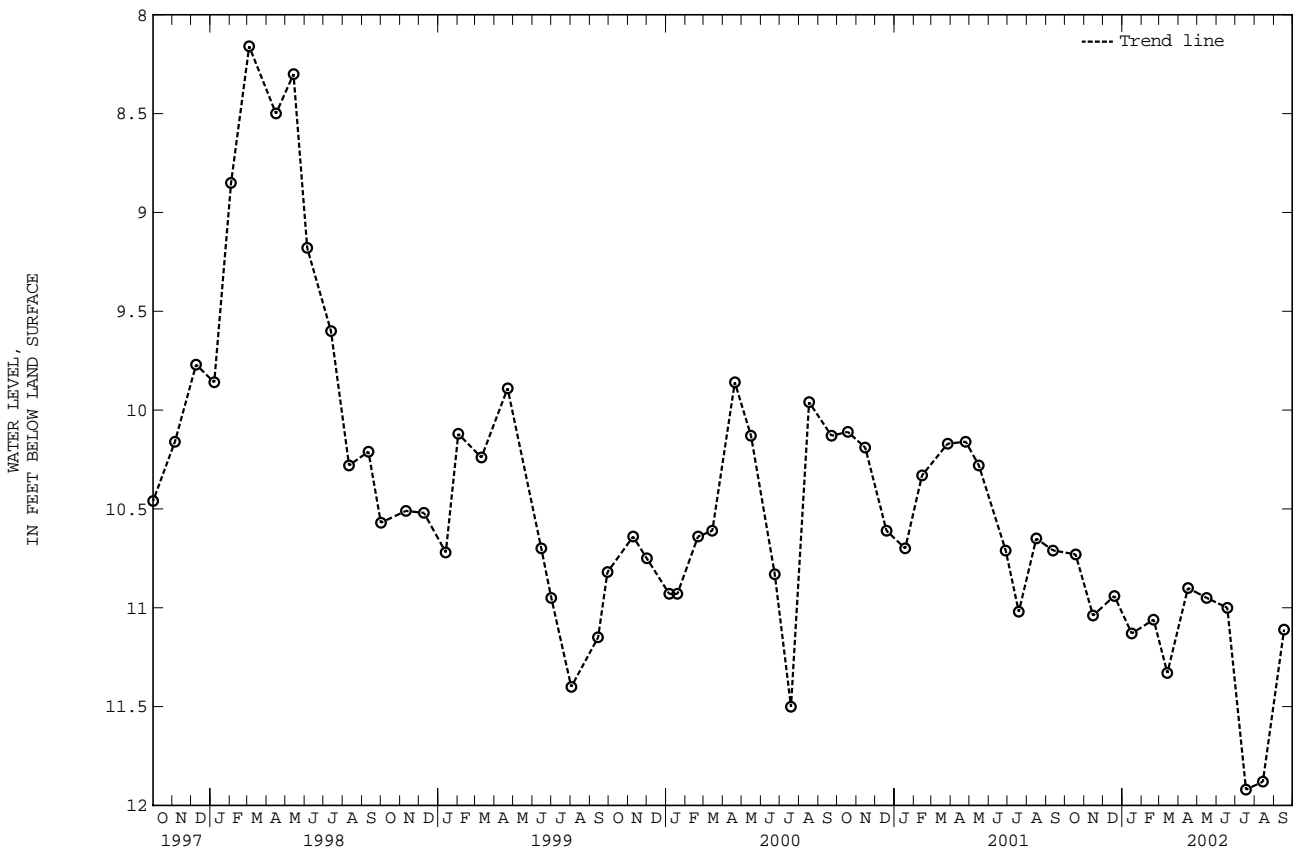
SUSSEX COUNTY--Continued

WELL NUMBER.--Ni52-11. SITE ID.--384558075083501. PERMIT NUMBER.--057363.  
 LOCATION.--Lat 38°45'58", long 75°08'35", Hydrologic Unit 02040207, in Lewes Library Park, nr railroad tracks.  
 Owner: Town of Lewes.  
 AQUIFER.--Pocomoke aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122PCMK.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 155 ft; casing diameter 4 in., to 145 ft; screened from 145 to 155 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by Delaware Geological Survey personnel. Intermittent water level measurements from May 1985 to July 1987. Twice yearly water level measurements from February 1988 to January 1992.  
 DATUM.--Elevation of land surface is 16 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of recorder platform, 0.5 ft above land surface.  
 REMARKS.--Delaware Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.-- May 1985 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.16 ft below land surface, March 4, 1998;  
 lowest measured, 11.92 ft below land surface, July. 18, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	10.73	JAN 16, 2002	11.13	APR 16, 2002	10.90	JUL 18, 2002	11.92
NOV 15	11.04	FEB 20	11.06	MAY 16	10.95	AUG 14	11.88
DEC 19	10.94	MAR 14	11.33	JUN 18	11.00	SEP 17	11.11

WATER YEAR 2002 HIGHEST 10.73 OCT 18, 2001 LOWEST 11.92 JUL 18, 2002



SUSSEX COUNTY--Continued

WELL NUMBER.--Ni52-12. SITE ID.--384558075083502. PERMIT NUMBER.--057365.

LOCATION.--Lat 38°45'58", long 75°08'35", Hydrologic Unit 02040207, in Lewes Library Park, nr railroad tracks.

Owner: Town of Lewes.

AQUIFER.--Columbia Formation (Delaware Bay deposits) of Pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 80 ft; casing diameter 2 in., to 70 ft; screened from 70 to 80 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by Delaware Geological Survey personnel.

Intermittent water level measurements from July 1986 to July 1987. Twice yearly water level measurements from

February 1988 to January 1992. Water level measurements from 1986 to 1992, measured by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 16 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of 6 in. casing.

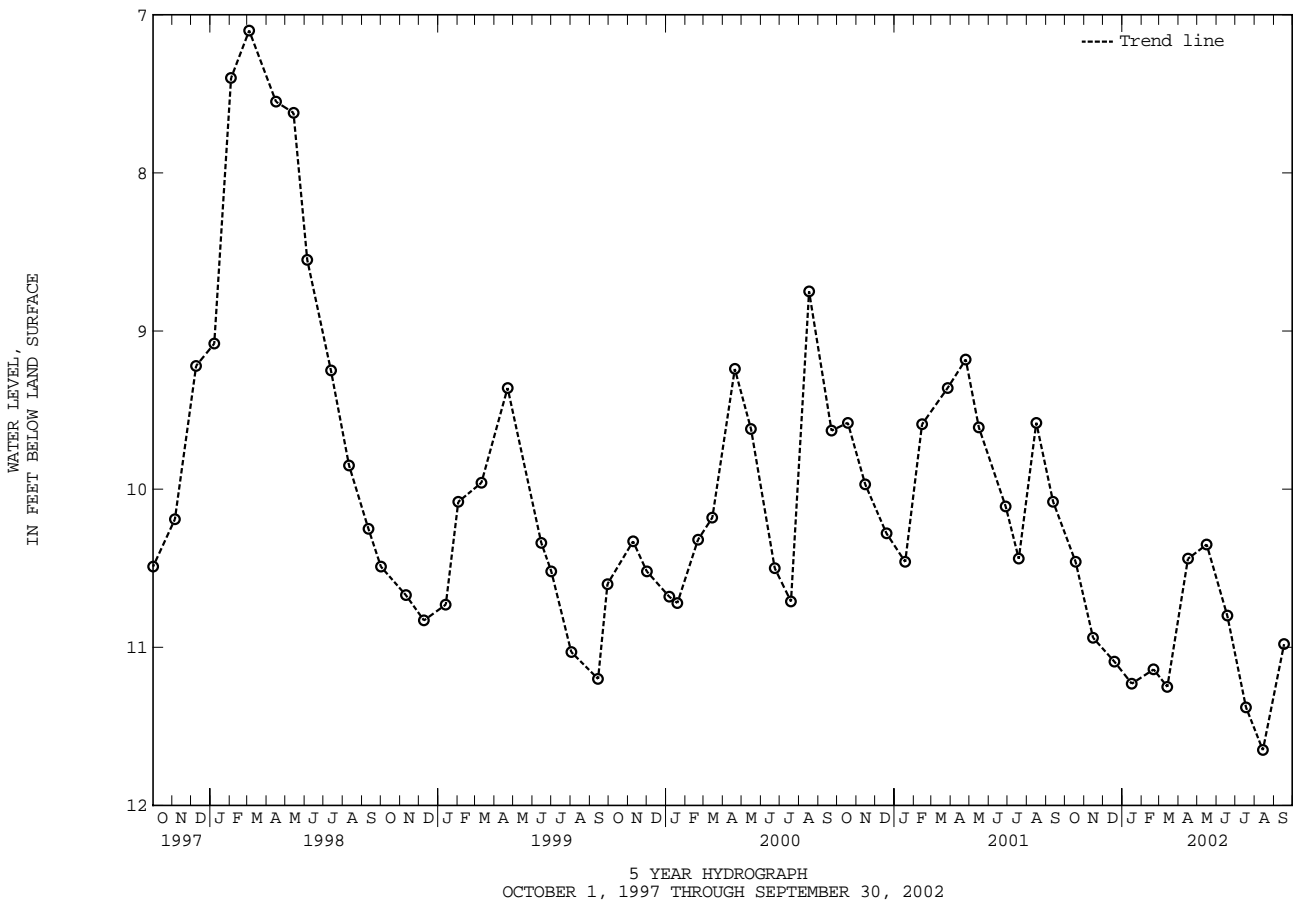
REMARKS.--Delaware Water-Level Monitoring Network observation well.

PERIOD OF RECORD.--July 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.57 ft below land surface, March 31, 1994; lowest measured, 11.70 ft below land surface, Nov. 20, 1986.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	10.46	JAN 16, 2002	11.23	APR 16, 2002	10.44	JUL 18, 2002	11.38
NOV 15	10.94	FEB 20	11.14	MAY 16	10.35	AUG 14	11.65
DEC 19	11.09	MAR 14	11.25	JUN 18	10.80	SEP 17	10.98
WATER YEAR 2002		HIGHEST	10.35	MAY 16, 2002	LOWEST	11.65	AUG 14, 2002



## SUSSEX COUNTY--Continued

WELL NUMBER.--Of12-13. SITE ID.--384438075234801. PERMIT NUMBER.--07473.

LOCATION.--Lat 38°44'38", long 75°23'48", Hydrologic Unit 02060008, near Redden State Forest.

Owner: Delaware Department of Transportation.

AQUIFER.--Beaverdam Sand of Pliocene age. Aquifer code: 121BVDM.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 17 ft; casing diameter 2 in., to 14 ft; screen diameter 2 in. from 14 to 17 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval from Dec. 7, 1993, to current year.

DATUM.--Altitude of land surface is 46.36 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 2.58 ft above land surface.

REMARKS.--Delaware Department of Transportation Wetlands Project observation well.

Periods of equal maximum and minimum daily values may be questionable due to the float hanging up in small diameter wells or other well construction factors. Missing data due to recorder malfunction.

PERIOD OF RECORD.--September 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.06 ft below land surface, March 3, 1994 (recorder);

lowest measured, 7.38 ft below land surface, Aug. 31, Sept. 1, 2002 (recorder).

## WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	3.90	3.88	4.89	4.87	5.51	5.48	5.44	5.40	4.70	4.61	5.06	5.02
2	3.95	3.88	4.91	4.89	5.53	5.51	5.47	5.44	4.73	4.70	5.06	4.96
3	3.98	3.95	4.94	4.91	5.54	5.53	5.46	5.44	4.73	4.70	4.96	4.92
4	4.05	3.98	4.94	4.94	5.56	5.54	5.51	5.45	4.76	4.68	4.95	4.94
5	4.08	4.05	4.97	4.94	5.57	5.56	5.52	5.50	4.78	4.76	4.94	4.90
6	4.13	4.08	4.99	4.97	5.58	5.57	5.52	5.41	4.77	4.76	4.90	4.86
7	4.14	4.12	5.03	4.99	5.61	5.58	5.44	5.31	4.77	4.74	4.87	4.86
8	4.18	4.14	5.05	5.03	5.62	5.61	5.31	5.20	4.74	4.70	4.90	4.87
9	4.20	4.18	5.09	5.04	5.65	5.61	5.20	5.12	4.70	4.69	4.90	4.86
10	4.22	4.19	5.09	5.09	5.65	5.64	5.12	5.10	4.69	4.57	4.96	4.86
11	4.27	4.22	5.14	5.09	5.64	5.63	5.10	5.08	4.64	4.57	4.98	4.96
12	4.31	4.27	5.15	5.14	5.64	5.62	5.08	4.98	4.64	4.57	4.98	4.97
13	4.35	4.31	5.17	5.15	5.62	5.58	5.00	4.97	4.64	4.59	4.98	4.94
14	4.36	4.35	5.18	5.17	5.59	5.57	5.00	4.94	4.65	4.64	4.99	4.96
15	4.41	4.36	5.20	5.18	5.65	5.58	4.96	4.93	4.65	4.62	4.99	4.93
16	4.47	4.41	5.25	5.20	5.65	5.63	4.96	4.94	4.62	4.62	5.00	4.94
17	4.50	4.46	5.27	5.25	5.63	5.55	4.94	4.91	4.70	4.62	5.01	4.99
18	4.51	4.50	5.27	5.27	5.60	5.51	4.93	4.93	4.74	4.70	4.99	4.68
19	4.52	4.51	5.27	5.27	5.60	5.49	4.93	4.89	4.74	4.73	4.68	4.47
20	4.58	4.52	5.32	5.27	5.52	5.49	4.93	4.86	4.74	4.73	4.47	4.18
21	4.59	4.58	5.34	5.32	5.50	5.50	4.86	4.78	4.78	4.73	4.18	3.89
22	4.62	4.59	5.35	5.34	5.51	5.50	4.78	4.77	4.83	4.78	3.90	3.85
23	4.64	4.62	5.38	5.35	5.50	5.45	4.77	4.69	4.86	4.83	3.85	3.79
24	4.67	4.64	5.40	5.38	5.46	5.44	4.69	4.65	4.90	4.86	3.81	3.80
25	4.70	4.66	5.42	5.40	5.46	5.40	4.71	4.66	4.91	4.90	3.84	3.80
26	4.74	4.70	5.43	5.42	5.40	5.36	4.70	4.65	4.91	4.88	3.84	3.79
27	4.79	4.74	5.44	5.43	5.36	5.34	4.65	4.62	4.98	4.91	3.79	3.37
28	4.82	4.79	5.46	5.44	5.34	5.32	4.63	4.62	5.02	4.98	3.37	3.31
29	4.82	4.82	5.47	5.46	5.38	5.33	4.63	4.62	---	---	3.31	3.30
30	4.86	4.82	5.48	5.47	5.39	5.38	4.66	4.63	---	---	3.34	3.28
31	4.87	4.86	---	---	5.40	5.39	4.66	4.65	---	---	3.34	2.78
MONTH	4.87	3.88	5.48	4.87	5.65	5.32	5.52	4.62	5.02	4.57	5.06	2.78

GROUND-WATER LEVELS IN DELAWARE--Continued

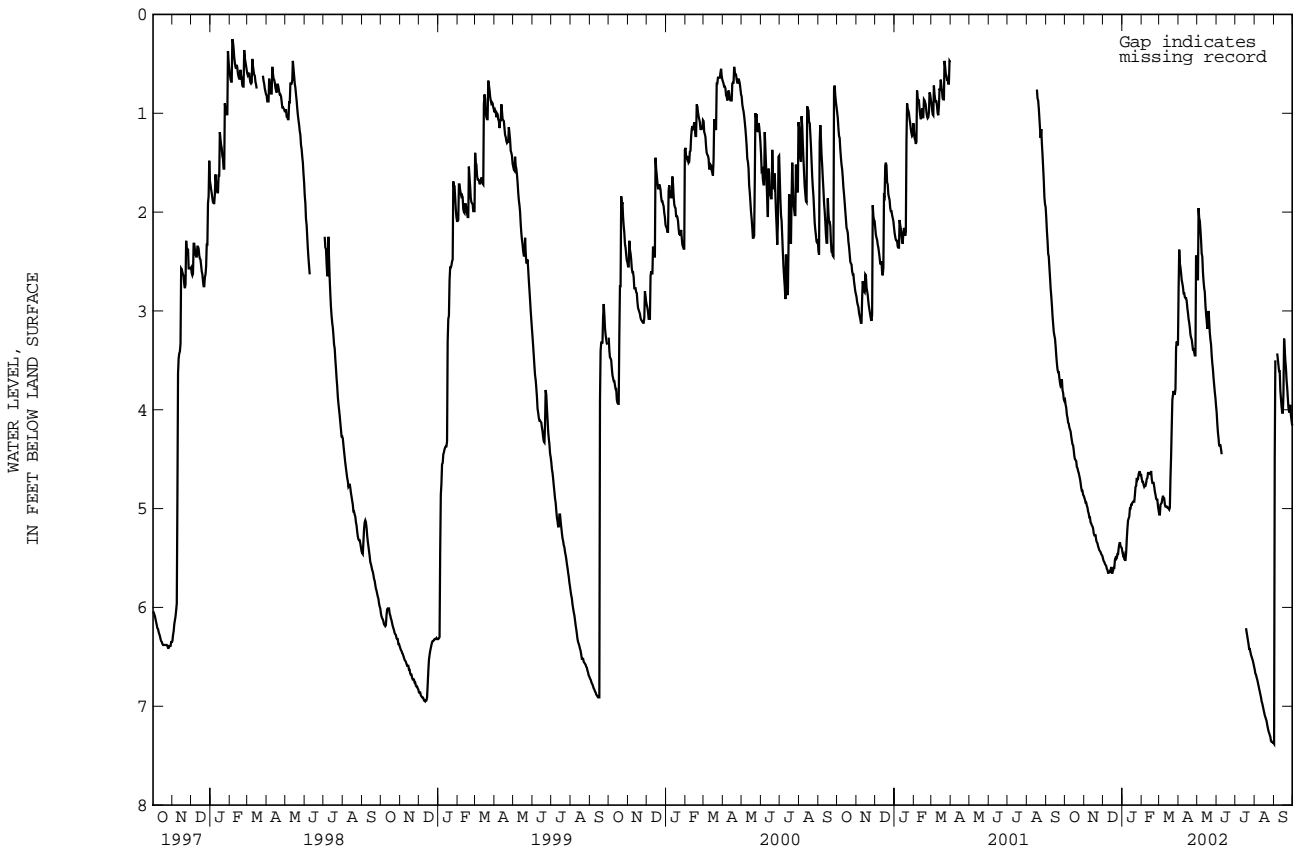
SUSSEX COUNTY--Continued

Of12-13--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	2.78	2.36	2.68	2.53	4.03	3.96	---	---	6.63	6.60	7.38	4.48
2	2.38	2.37	2.68	1.69	4.14	4.03	---	---	6.67	6.63	4.48	3.50
3	2.52	2.38	1.96	1.70	4.23	4.14	---	---	6.68	6.67	3.50	3.30
4	2.56	2.52	2.06	1.96	4.29	4.23	---	---	6.71	6.68	---	---
5	2.62	2.56	2.09	2.01	4.36	4.29	---	---	6.73	6.71	---	---
6	2.69	2.62	2.18	2.09	4.36	4.32	---	---	6.76	6.73	3.43	3.36
7	2.72	2.69	2.29	2.18	4.36	4.36	---	---	6.79	6.76	3.49	3.43
8	2.76	2.72	2.42	2.29	4.40	4.36	---	---	6.82	6.79	3.55	3.49
9	2.82	2.76	2.45	2.42	4.45	4.40	---	---	6.85	6.82	3.61	3.55
10	2.82	2.82	2.61	2.45	---	---	---	---	6.88	6.85	3.61	3.60
11	2.86	2.82	2.70	2.61	---	---	---	---	6.91	6.88	3.80	3.61
12	2.87	2.83	2.77	2.70	---	---	---	---	6.95	6.91	3.89	3.80
13	2.87	2.83	2.81	2.76	---	---	---	---	6.97	6.95	3.97	3.89
14	2.90	2.87	2.94	2.81	---	---	---	---	7.00	6.97	4.03	3.97
15	2.97	2.90	3.03	2.94	---	---	---	---	7.03	7.00	4.03	3.83
16	3.02	2.97	3.10	3.03	---	---	---	---	7.06	7.03	3.83	3.22
17	3.08	3.02	3.18	3.10	---	---	---	---	7.09	7.06	3.28	3.22
18	3.12	3.08	3.12	2.92	---	---	6.21	6.17	7.11	7.09	3.39	3.28
19	3.17	3.12	3.00	2.92	---	---	6.25	6.21	7.13	7.11	3.50	3.39
20	3.24	3.17	3.10	3.00	---	---	6.29	6.25	7.15	7.13	3.58	3.50
21	3.27	3.24	3.22	3.10	---	---	6.33	6.29	7.19	7.15	3.70	3.58
22	3.29	3.22	3.29	3.22	---	---	6.37	6.33	7.22	7.19	3.78	3.70
23	3.34	3.29	3.34	3.29	---	---	6.42	6.37	7.25	7.22	3.88	3.78
24	3.39	3.34	3.45	3.34	---	---	6.42	6.42	7.27	7.25	3.98	3.88
25	3.39	3.32	3.53	3.45	---	---	6.45	6.42	7.29	7.27	4.02	3.98
26	3.42	3.36	3.59	3.53	---	---	6.48	6.45	7.31	7.29	4.02	3.95
27	3.45	3.42	3.68	3.59	---	---	6.50	6.48	7.35	7.31	3.95	3.85
28	3.45	2.33	3.75	3.68	---	---	6.52	6.50	7.36	7.35	4.06	3.90
29	2.44	2.34	3.82	3.75	---	---	6.54	6.52	7.36	7.35	4.11	4.06
30	2.53	2.44	3.88	3.82	---	---	6.57	6.54	7.37	7.36	4.16	4.11
31	---	---	3.96	3.88	---	---	6.60	6.57	7.37	7.37	---	---
MONTH	3.45	2.33	3.96	1.69	---	---	---	---	7.37	6.60	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



## SUSSEX COUNTY--Continued

WELL NUMBER.--Of13-03. SITE ID.--384401075224901. PERMIT NUMBER.--95801.

LOCATION.--Lat 38°44'01", long 75°22'49", Hydrologic Unit 02060008, near Redden State Forest.

Owner: Delaware Department of Transportation.

AQUIFER.--Beaverdam Sand of Pliocene age. Aquifer code:121BVDM.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 20 ft; casing diameter 2 in., to 17 ft; screen diameter 2 in. from 17 to 20 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from Dec. 7, 1993 to current year.

DATUM.--Altitude of land surface is 48.37 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 3.28 ft above land surface.

REMARKS.--Delaware Department of Transportation Wetlands Project observation well. Missing data due to recorder malfunction.

Periods of equal maximum and minimum daily values may be questionable due to the float hanging up in small diameter wells or other well construction factors.

PERIOD OF RECORD.--September 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.06 ft above land surface, March 3, 1994 (recorder);

lowest measured, 9.28 ft below land surface, Sept. 1, 2001 (recorder).

## WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	5.43	5.40	6.48	6.44	7.31	7.27	7.77	7.75	7.78	7.25	7.50	7.46
2	5.49	5.43	6.50	6.48	7.34	7.31	7.78	7.77	7.31	7.29	7.51	7.41
3	5.52	5.49	6.54	6.50	7.35	7.34	7.78	7.77	7.31	7.27	7.46	7.41
4	5.56	5.52	6.55	6.54	7.38	7.35	7.80	7.77	7.29	7.26	7.53	7.46
5	5.59	5.56	6.60	6.55	7.39	7.38	7.81	7.80	7.31	7.29	7.54	7.53
6	5.63	5.59	6.63	6.60	7.41	7.39	7.81	7.70	7.31	7.29	7.54	7.53
7	5.68	5.63	6.67	6.63	7.45	7.41	7.82	7.76	7.29	7.26	7.55	7.53
8	5.72	5.68	6.67	6.67	7.45	7.45	7.83	7.81	7.30	7.27	7.56	7.55
9	5.74	5.72	6.72	6.67	7.51	7.45	7.81	7.78	7.34	7.30	7.56	7.56
10	5.77	5.74	6.73	6.72	7.51	7.51	7.82	7.80	7.34	7.25	7.56	7.56
11	5.79	5.77	6.80	6.73	7.54	7.51	7.81	7.81	7.31	7.25	7.58	7.56
12	5.82	5.79	6.82	6.80	7.55	7.54	7.81	7.81	7.31	7.25	7.58	7.56
13	5.86	5.82	6.84	6.82	7.55	7.55	7.81	7.80	7.30	7.26	7.56	7.55
14	5.88	5.86	6.86	6.84	7.56	7.55	7.80	7.80	7.30	7.30	7.58	7.55
15	5.93	5.88	6.88	6.86	7.62	7.56	7.80	7.80	7.30	7.24	7.58	7.57
16	5.96	5.93	6.94	6.88	7.62	7.62	7.80	7.80	7.24	7.24	7.61	7.57
17	6.01	5.96	6.97	6.94	7.62	7.58	7.80	7.80	7.27	7.24	7.63	7.60
18	6.03	6.01	6.98	6.97	7.64	7.54	7.80	7.80	7.30	7.27	7.60	7.57
19	6.05	6.03	6.99	6.98	7.64	7.63	7.80	7.80	7.30	7.29	7.57	7.54
20	6.10	6.05	7.04	6.99	7.65	7.63	7.80	7.80	7.29	7.26	7.54	7.54
21	6.12	6.10	7.06	7.04	7.67	7.65	7.80	7.79	7.28	7.26	7.54	7.54
22	6.15	6.12	7.09	7.06	7.67	7.67	7.79	7.79	7.30	7.28	7.54	7.54
23	6.17	6.15	7.12	7.09	7.67	7.65	7.79	7.79	7.33	7.30	7.54	7.54
24	6.20	6.17	7.14	7.12	7.69	7.64	7.79	7.79	7.36	7.33	7.54	7.52
25	6.25	6.20	7.17	7.14	7.70	7.69	7.79	7.79	7.36	7.36	7.53	7.52
26	6.29	6.25	7.19	7.17	7.70	7.69	7.79	7.79	7.36	7.34	7.53	6.49
27	6.33	6.29	7.22	7.19	7.70	7.69	7.79	7.79	7.41	7.35	6.49	6.48
28	6.37	6.33	7.24	7.22	7.72	7.69	7.79	7.79	7.46	7.41	6.48	6.38
29	6.39	6.37	7.25	7.24	7.73	7.71	7.79	7.78	---	---	6.38	6.26
30	6.43	6.39	7.27	7.25	7.74	7.73	7.78	7.78	---	---	6.26	6.22
31	6.44	6.43	---	---	7.75	7.74	7.78	7.78	---	---	6.22	6.08
MONTH	6.44	5.40	7.27	6.44	7.75	7.27	7.83	7.70	7.78	7.24	7.63	6.08

GROUND-WATER LEVELS IN DELAWARE--Continued

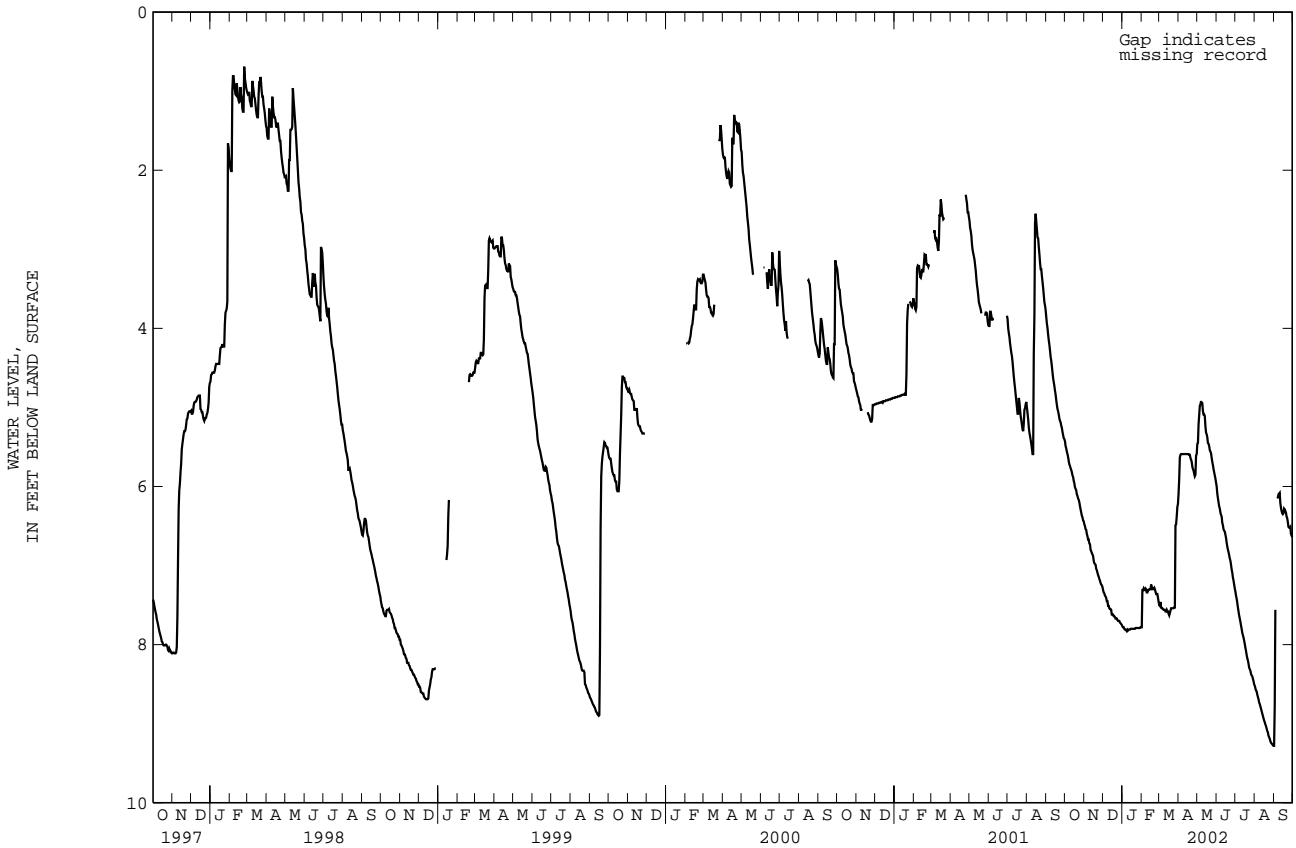
SUSSEX COUNTY--Continued

Of13-03--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	6.08	5.90	5.46	5.45	6.00	5.95	7.33	7.29	8.52	8.50	9.28	8.78
2	5.90	5.63	5.45	5.21	6.09	6.00	7.38	7.33	8.55	8.52	8.78	7.56
3	5.63	5.55	5.21	5.10	6.15	6.09	7.42	7.38	8.58	8.55	7.56	6.53
4	5.60	5.59	5.10	4.98	6.20	6.15	7.47	7.42	8.59	8.58	---	---
5	5.59	5.59	4.98	4.96	6.25	6.20	7.53	7.47	8.63	8.59	---	---
6	5.59	5.59	4.96	4.92	6.28	6.24	7.58	7.53	8.66	8.63	6.15	6.14
7	5.59	5.59	4.92	4.88	6.33	6.28	7.63	7.58	8.69	8.66	6.14	6.10
8	5.59	5.59	4.95	4.89	6.36	6.33	7.67	7.63	8.73	8.69	6.10	6.09
9	5.59	5.59	4.95	4.95	6.38	6.36	7.71	7.67	8.75	8.73	6.09	6.08
10	5.59	5.59	5.05	4.95	6.46	6.38	7.76	7.71	8.78	8.75	6.08	6.08
11	5.59	5.59	5.09	5.05	6.49	6.46	7.80	7.76	8.81	8.78	6.21	6.08
12	5.59	5.59	5.09	5.07	6.54	6.49	7.85	7.80	8.84	8.81	6.27	6.21
13	5.59	5.59	5.11	5.08	6.56	6.53	7.88	7.85	8.87	8.84	6.31	6.27
14	5.59	5.59	5.24	5.11	6.57	6.56	7.91	7.88	8.90	8.87	6.34	6.31
15	5.59	5.59	5.32	5.24	6.61	6.57	7.95	7.91	8.93	8.90	6.35	6.34
16	5.59	5.59	5.34	5.32	6.65	6.61	7.99	7.95	8.96	8.93	6.34	6.28
17	5.59	5.59	5.38	5.34	6.71	6.65	8.04	7.99	8.98	8.96	6.28	6.28
18	5.60	5.59	5.45	5.35	6.76	6.71	8.08	8.04	9.01	8.98	6.29	6.27
19	5.60	5.60	5.46	5.45	6.80	6.76	8.13	8.08	9.03	9.01	6.31	6.29
20	5.64	5.60	5.49	5.46	6.83	6.80	8.17	8.13	9.06	9.03	6.33	6.31
21	5.66	5.64	5.54	5.49	6.87	6.83	8.20	8.17	9.09	9.06	6.38	6.33
22	5.69	5.63	5.56	5.54	6.91	6.87	8.24	8.20	9.11	9.09	6.40	6.38
23	5.75	5.69	5.58	5.56	6.94	6.91	8.29	8.24	9.15	9.11	6.45	6.40
24	5.78	5.75	5.64	5.58	6.99	6.94	8.31	8.29	9.17	9.15	6.51	6.45
25	5.80	5.75	5.69	5.64	7.05	6.99	8.33	8.31	9.19	9.17	6.52	6.51
26	5.84	5.80	5.73	5.69	7.09	7.05	8.37	8.33	9.22	9.19	6.52	6.51
27	5.87	5.84	5.78	5.73	7.15	7.09	8.39	8.37	9.24	9.22	6.51	6.48
28	5.85	5.61	5.82	5.78	7.19	7.15	8.40	8.39	9.25	9.24	6.60	6.50
29	5.61	5.59	5.86	5.82	7.24	7.19	8.43	8.40	9.26	9.25	6.62	6.60
30	5.59	5.46	5.90	5.86	7.29	7.24	8.46	8.43	9.27	9.26	6.64	6.62
31	---	---	5.95	5.90	---	---	8.50	8.46	9.28	9.27	---	---
MONTH	6.08	5.46	5.95	4.88	7.29	5.95	8.50	7.29	9.28	8.50	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## SUSSEX COUNTY---Continued

WELL NUMBER.--Of13-08. SITE ID.--384406075224601. PERMIT NUMBER.--97463.

LOCATION.--Lat 38°44'06", long 75°22'46", Hydrologic Unit 02040207, near Redden State Forest.

Owner: Delaware Department of Transportation.

AQUIFER.--Beaverdam Sand of Pliocene age. Aquifer code: 121BVDM.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 16 ft; casing diameter 2 in; to 13 ft; screen diameter 2 in. from 13 to 16 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with water-level recorder--60-minute recorder interval from Dec. 7, 1993 to current year.

DATUM.--Altitude of land surface is 48.91 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 2.63 ft above land surface.

REMARKS.--Delaware Department of Transportation Wetlands Project observation well. Missing data due to recorder malfunction.

Periods of equal maximum and minimum daily values may be questionable due to the float hanging up in small diameter wells or other well construction factors.

PERIOD OF RECORD.--September 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.40 ft below land surface, March 3, 1994 (recorder);

lowest measured, 10.05 ft below land surface, Aug. 31, 2002 (recorder).

## WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	6.01	5.98	7.13	7.10	7.98	7.94	8.48	8.46	8.05	8.00	8.23	8.18
2	6.08	6.01	7.16	7.13	8.02	7.98	8.49	8.48	8.05	8.03	8.23	8.14
3	6.11	6.08	7.20	7.16	8.04	8.02	8.48	8.46	8.05	8.01	8.20	8.12
4	6.16	6.11	7.21	7.20	---	---	8.51	8.47	8.02	7.99	8.25	8.20
5	6.19	6.16	7.25	7.21	---	---	8.51	8.51	8.04	8.02	8.27	8.25
6	6.22	6.19	7.27	7.25	---	---	8.51	8.44	8.04	8.02	8.27	8.26
7	6.28	6.22	7.32	7.27	---	---	8.53	8.46	8.02	8.00	8.30	8.26
8	6.33	6.28	7.34	7.32	8.16	8.14	8.53	8.53	8.03	8.01	8.31	8.30
9	6.35	6.33	7.38	7.34	8.21	8.14	8.54	8.52	8.07	8.03	8.31	8.31
10	6.37	6.35	7.40	7.38	8.21	8.21	8.56	8.54	8.07	8.00	8.32	8.30
11	6.40	6.37	7.45	7.40	8.25	8.21	8.56	8.56	8.04	8.00	8.33	8.32
12	6.44	6.40	7.49	7.45	8.26	8.25	8.56	8.50	8.04	8.00	8.32	8.30
13	6.48	6.44	7.50	7.49	8.26	8.25	8.50	8.50	8.03	8.01	8.30	8.30
14	6.50	6.48	7.53	7.50	8.27	8.25	8.50	8.49	8.03	8.03	8.33	8.30
15	6.56	6.50	7.54	7.53	8.32	8.27	8.49	8.41	8.03	8.00	8.33	8.31
16	6.58	6.55	7.60	7.54	8.32	8.32	8.41	8.41	8.00	7.98	8.35	8.31
17	6.63	6.58	7.65	7.60	8.32	8.26	8.41	8.37	8.01	7.98	8.36	8.33
18	6.66	6.63	7.66	7.65	8.34	8.22	8.37	8.37	8.03	8.01	8.33	8.31
19	6.68	6.66	7.66	7.66	8.36	8.34	8.37	8.31	8.03	8.01	8.31	8.29
20	6.73	6.68	7.71	7.66	8.37	8.34	8.34	8.32	8.01	7.99	8.29	8.14
21	6.75	6.73	7.74	7.71	8.38	8.37	8.33	8.31	8.01	7.99	8.14	8.13
22	6.79	6.75	7.76	7.74	8.40	8.38	8.32	8.31	8.05	8.01	8.13	8.13
23	6.81	6.79	7.80	7.76	8.39	8.36	8.31	8.31	8.07	8.05	8.13	8.13
24	6.84	6.81	7.82	7.80	8.40	8.35	8.31	8.16	8.08	8.07	8.13	7.39
25	6.90	6.84	7.84	7.82	8.42	8.40	8.20	8.17	8.08	8.07	7.39	7.39
26	6.94	6.90	7.87	7.84	8.42	8.40	8.19	8.17	8.07	8.05	7.39	7.21
27	6.98	6.94	7.89	7.87	8.42	8.40	8.17	8.13	8.13	8.07	7.21	7.21
28	7.02	6.98	7.92	7.89	8.43	8.41	8.13	8.13	8.18	8.13	7.21	7.14
29	7.03	7.02	7.93	7.92	8.45	8.42	8.13	8.13	---	---	7.14	7.00
30	7.08	7.03	7.94	7.93	8.46	8.45	8.13	8.06	---	---	7.00	6.93
31	7.10	7.08	---	---	8.47	8.46	8.06	8.05	---	---	6.93	6.81
MONTH	7.10	5.98	7.94	7.10	---	---	8.56	8.05	8.18	7.98	8.36	6.81

GROUND-WATER LEVELS IN DELAWARE--Continued

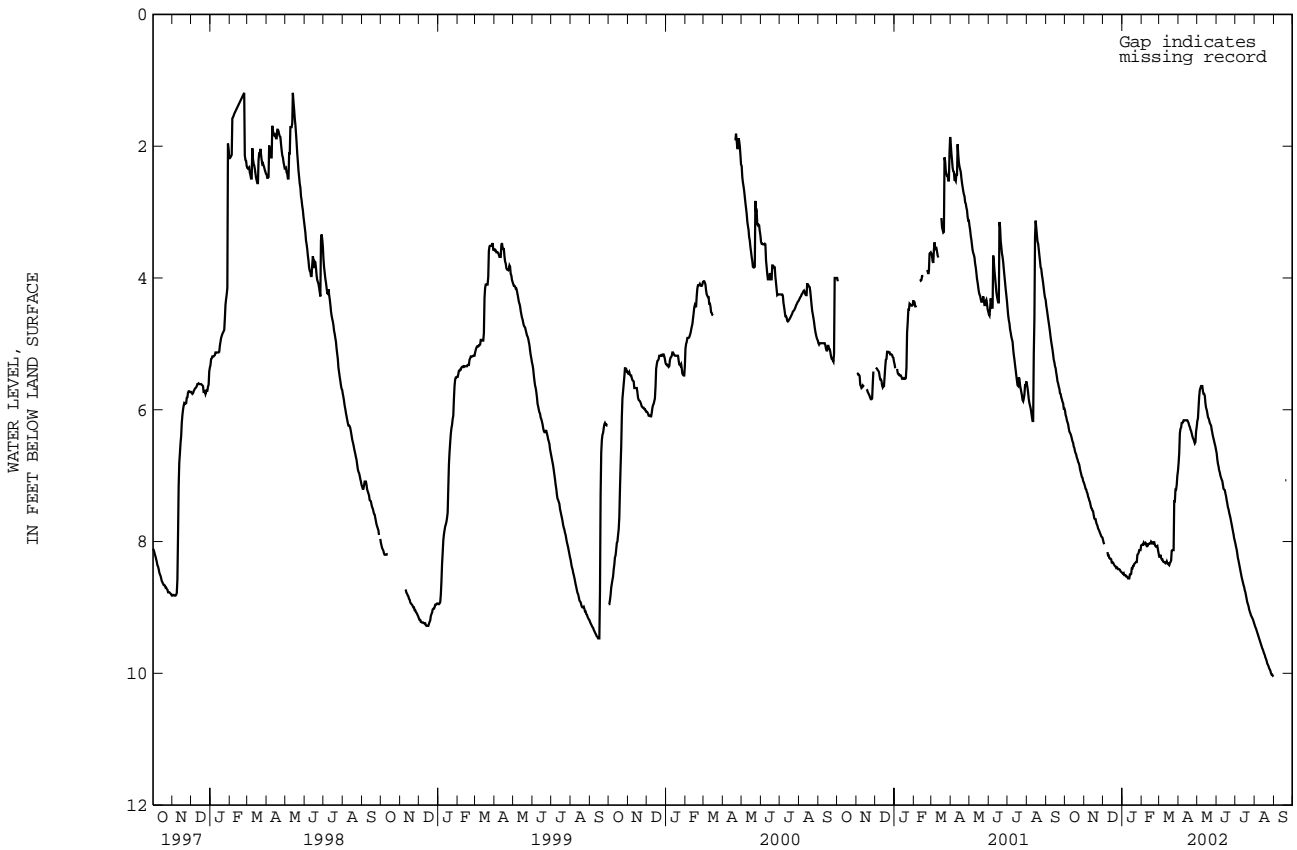
SUSSEX COUNTY---Continued

Of13-08--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	6.81	6.66	6.17	6.13	6.66	6.61	8.03	7.99	9.27	9.24	---	---
2	6.66	6.36	6.13	5.96	6.75	6.66	8.08	8.03	9.30	9.27	---	---
3	6.36	6.25	5.96	5.80	6.82	6.75	8.12	8.08	9.32	9.30	---	---
4	6.29	6.27	5.80	5.70	6.86	6.82	8.18	8.12	9.35	9.32	---	---
5	6.27	6.20	5.70	5.67	6.92	6.86	8.25	8.18	9.38	9.35	---	---
6	6.20	6.20	5.67	5.64	6.95	6.90	8.29	8.25	9.41	9.38	---	---
7	6.20	6.19	5.64	5.60	7.00	6.95	8.34	8.29	9.44	9.41	---	---
8	6.19	6.16	5.64	5.60	7.03	7.00	8.39	8.34	9.47	9.44	---	---
9	6.16	6.16	5.64	5.62	7.06	7.03	8.44	8.39	9.50	9.47	---	---
10	6.16	6.16	5.72	5.62	7.08	7.06	8.49	8.44	9.53	9.50	---	---
11	6.16	6.16	5.76	5.72	7.14	7.08	8.54	8.49	9.56	9.53	---	---
12	6.16	6.16	5.76	5.73	7.20	7.14	8.58	8.54	9.59	9.56	---	---
13	6.16	6.16	5.79	5.74	7.21	7.20	8.62	8.58	9.62	9.59	---	---
14	6.16	6.16	5.90	5.79	7.22	7.21	8.66	8.62	9.64	9.62	---	---
15	6.16	6.16	5.97	5.90	7.27	7.22	8.69	8.66	9.67	9.64	---	---
16	6.18	6.16	6.00	5.97	7.31	7.27	8.74	8.69	9.70	9.67	---	---
17	6.20	6.17	6.05	6.00	7.37	7.31	8.77	8.74	9.72	9.70	---	---
18	6.24	6.20	6.11	6.02	7.42	7.37	8.82	8.77	9.76	9.72	---	---
19	6.26	6.23	6.13	6.11	7.48	7.42	8.87	8.82	9.78	9.76	7.07	7.05
20	6.30	6.25	6.16	6.13	7.51	7.48	8.92	8.87	9.81	9.78	---	---
21	6.32	6.30	6.20	6.16	7.56	7.51	8.95	8.92	9.85	9.81	---	---
22	6.36	6.28	6.22	6.20	7.60	7.56	8.98	8.95	9.87	9.85	---	---
23	6.40	6.36	6.24	6.22	7.64	7.60	9.03	8.98	9.89	9.87	---	---
24	6.43	6.40	6.30	6.24	7.69	7.64	9.06	9.03	9.92	9.89	---	---
25	6.45	6.39	6.35	6.30	7.74	7.69	9.09	9.06	9.94	9.92	---	---
26	6.48	6.45	6.40	6.35	7.79	7.74	9.12	9.09	9.96	9.94	---	---
27	6.51	6.48	6.44	6.40	7.84	7.79	9.14	9.12	10.00	9.96	---	---
28	6.49	6.33	6.48	6.44	7.89	7.84	9.16	9.14	10.02	10.00	---	---
29	6.33	6.26	6.52	6.48	7.95	7.89	9.18	9.16	10.02	10.02	---	---
30	6.26	6.17	6.56	6.52	7.99	7.95	9.21	9.18	10.04	10.02	---	---
31	---	---	6.61	6.56	---	---	9.24	9.21	10.05	10.04	---	---
MONTH	6.81	6.16	6.61	5.60	7.99	6.61	9.24	7.99	10.05	9.24	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## SUSSEX COUNTY---Continued

WELL NUMBER.--Of22-04. SITE ID.--384343075230401. PERMIT NUMBER.--95800.

LOCATION.--Lat 38°43'43", long 75°23'04", Hydrologic Unit 02040207, near Redden State Forest.

Owner: Delaware Department of Transportation.

AQUIFER.--Beaverdam Sand of Pliocene age. Aquifer code: 121BVDM.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 15 ft; casing diameter 2 in., to 12 ft; screen diameter 2 in. from 12 to 15 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from Dec. 7, 1993 to current year.

DATUM.--Altitude of land surface is 47.62 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 2.68 ft above land surface.

REMARKS.--Delaware Department of Transportation Wetlands Project observation well. Missing data due to recorder malfunction.

Periods of equal maximum and minimum daily values may be questionable due to the float hanging up in small diameter wells or other well construction factors.

PERIOD OF RECORD.--September 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.75 ft above land surface, March 3, 1994 (recorder);

lowest measured, 7.71 ft below land surface, Aug. 31, 2002 (recorder).

## WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4.37	4.35	5.28	5.26	5.98	5.95	6.34	6.31	5.83	5.73	5.98	5.94
2	4.40	4.37	5.30	5.28	6.00	5.98	6.34	6.34	5.78	5.76	5.98	5.92
3	4.45	4.40	5.33	5.30	6.02	6.00	6.34	6.34	5.78	5.75	5.96	5.91
4	4.49	4.45	5.35	5.33	6.04	6.02	6.36	6.34	5.76	5.74	6.01	5.96
5	4.51	4.49	5.38	5.35	6.05	6.04	6.37	6.36	5.79	5.76	6.01	6.01
6	4.55	4.51	5.40	5.38	6.07	6.05	6.38	6.33	5.79	5.78	6.01	5.98
7	4.59	4.55	5.43	5.40	6.11	6.07	6.39	6.37	5.79	5.77	5.98	5.95
8	4.62	4.59	5.45	5.43	6.12	6.11	6.39	6.35	5.80	5.77	5.96	5.95
9	4.64	4.62	5.49	5.45	6.16	6.11	6.35	6.30	5.81	5.80	5.95	5.94
10	4.66	4.64	5.50	5.49	6.17	6.16	6.30	6.28	5.81	5.74	5.96	5.94
11	4.70	4.66	5.55	5.50	6.19	6.17	6.28	6.27	5.75	5.74	5.98	5.96
12	4.73	4.70	5.57	5.55	6.20	6.19	6.27	6.19	5.75	5.72	5.97	5.96
13	4.76	4.73	5.59	5.57	6.20	6.19	6.19	6.19	5.73	5.72	5.96	5.93
14	4.77	4.76	5.60	5.59	6.20	6.19	6.19	6.13	5.73	5.73	5.98	5.95
15	4.82	4.77	5.62	5.60	6.24	6.20	6.13	6.12	5.73	5.71	5.97	5.96
16	4.84	4.82	5.65	5.62	6.24	6.24	6.12	6.12	5.71	5.71	5.98	5.95
17	4.88	4.84	5.66	5.65	6.24	6.20	6.12	6.12	5.73	5.71	5.99	5.95
18	4.90	4.88	5.70	5.66	6.26	6.19	6.12	6.11	5.74	5.73	5.95	5.89
19	4.93	4.90	5.70	5.70	6.26	6.24	6.11	6.11	5.74	5.74	5.89	5.87
20	4.96	4.93	5.74	5.70	6.26	6.24	6.11	6.11	5.74	5.73	5.87	5.86
21	4.98	4.96	5.77	5.74	6.26	6.25	6.11	6.11	5.75	5.73	5.86	5.86
22	5.01	4.98	5.79	5.77	6.26	6.26	6.11	6.11	5.78	5.75	5.86	5.86
23	5.02	5.01	5.81	5.79	6.26	6.23	6.11	6.11	5.80	5.78	5.86	5.85
24	5.05	5.02	5.83	5.81	6.27	6.23	6.11	6.11	5.82	5.80	5.85	5.85
25	5.10	5.05	5.86	5.83	6.29	6.27	6.11	6.11	5.84	5.82	5.85	5.85
26	5.12	5.10	5.88	5.86	6.28	6.25	6.11	5.84	5.84	5.83	5.85	5.84
27	5.16	5.12	5.89	5.88	6.26	6.26	5.84	5.84	5.88	5.83	5.84	5.84
28	5.20	5.16	5.92	5.89	6.27	6.25	5.84	5.83	5.94	5.88	5.84	5.84
29	5.21	5.20	5.94	5.92	6.29	6.27	5.83	5.83	---	---	5.84	5.83
30	5.24	5.21	5.95	5.94	6.31	6.29	5.83	5.83	---	---	5.83	4.57
31	5.26	5.24	---	---	6.31	6.31	5.83	5.83	---	---	4.57	4.50
MONTH	5.26	4.35	5.95	5.26	6.31	5.95	6.39	5.83	5.94	5.71	6.01	4.50

GROUND-WATER LEVELS IN DELAWARE--Continued

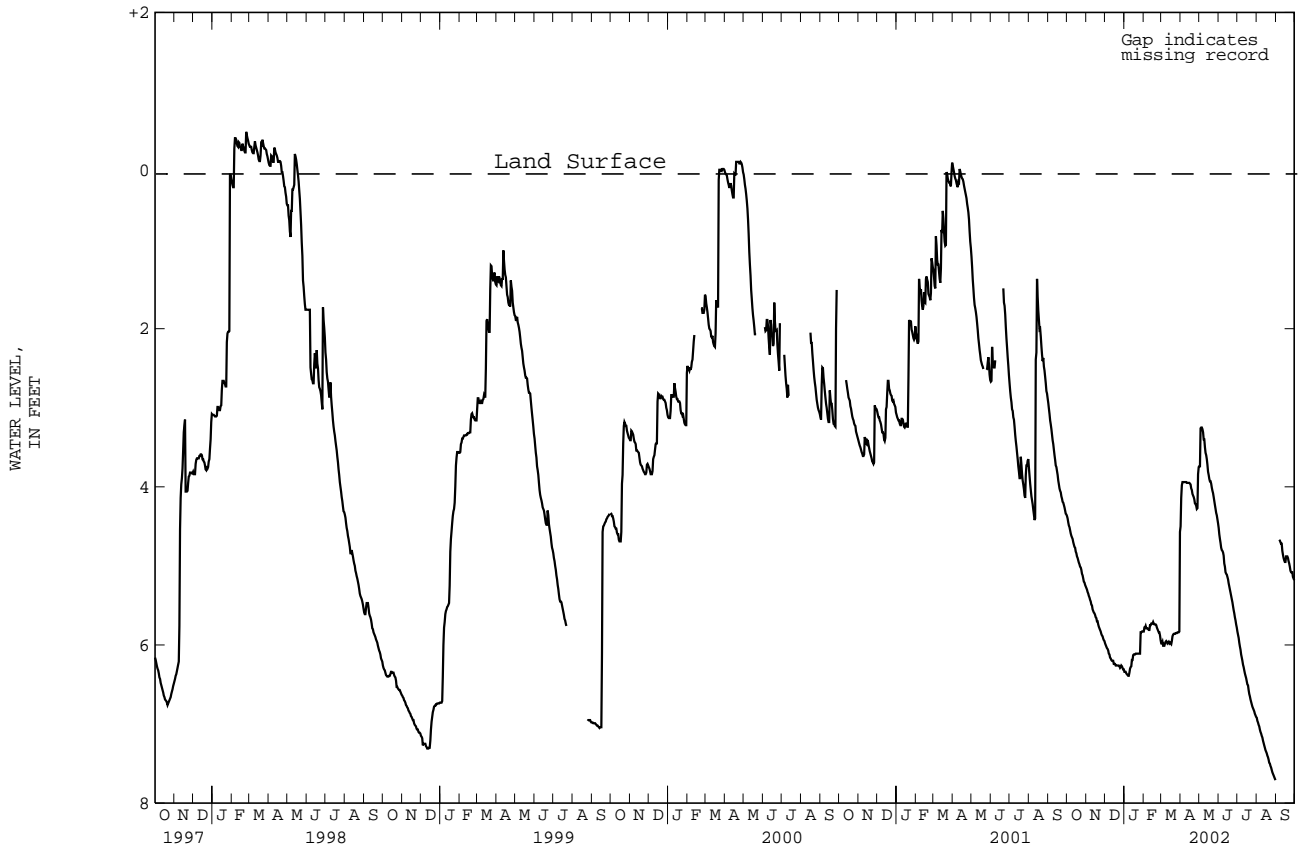
SUSSEX COUNTY---Continued

Of22-04--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4.50	4.14	3.74	3.72	4.52	4.46	5.83	5.78	6.92	6.91	---	---
2	4.14	3.98	3.74	3.26	4.60	4.52	5.87	5.83	6.96	6.92	---	---
3	3.98	3.93	3.26	3.22	4.66	4.60	5.91	5.87	6.98	6.96	---	---
4	3.94	3.94	3.25	3.23	4.71	4.66	5.97	5.91	7.01	6.98	---	---
5	3.94	3.94	3.25	3.24	4.77	4.71	6.02	5.97	7.03	7.01	---	---
6	3.94	3.94	3.27	3.25	4.80	4.77	6.06	6.02	7.07	7.03	4.67	4.66
7	3.94	3.94	3.31	3.26	4.81	4.79	6.12	6.06	7.10	7.07	4.68	4.67
8	3.94	3.94	3.40	3.31	4.83	4.81	6.16	6.12	7.12	7.10	4.70	4.68
9	3.94	3.94	3.40	3.40	4.87	4.83	6.20	6.16	7.15	7.12	4.72	4.70
10	3.94	3.94	3.50	3.40	4.97	4.87	6.25	6.20	7.17	7.15	4.72	4.72
11	3.95	3.94	3.57	3.50	5.01	4.97	6.28	6.25	7.21	7.17	4.81	4.72
12	3.95	3.95	3.60	3.57	5.08	5.01	6.32	6.28	7.24	7.21	4.86	4.81
13	3.95	3.95	3.65	3.59	5.10	5.08	6.36	6.32	7.27	7.24	4.90	4.86
14	3.95	3.95	3.72	3.65	5.11	5.10	6.39	6.36	7.30	7.27	4.93	4.90
15	3.95	3.95	3.81	3.72	5.14	5.11	6.42	6.39	7.33	7.30	4.95	4.93
16	3.96	3.95	3.85	3.81	5.17	5.14	6.46	6.42	7.35	7.33	4.95	4.88
17	3.97	3.96	3.90	3.85	5.22	5.17	6.50	6.46	7.37	7.35	4.88	4.88
18	4.02	3.97	3.93	3.89	5.26	5.22	6.51	6.50	7.40	7.37	4.88	4.88
19	4.04	4.02	3.93	3.92	5.30	5.26	6.57	6.51	7.42	7.40	4.88	4.88
20	4.09	4.04	3.96	3.93	5.34	5.30	6.62	6.57	7.45	7.42	4.90	4.88
21	4.11	4.09	4.01	3.96	5.38	5.34	6.65	6.62	7.49	7.45	4.94	4.90
22	4.13	4.08	4.05	4.01	5.42	5.38	6.69	6.65	7.50	7.49	4.97	4.94
23	4.16	4.13	4.08	4.05	5.46	5.42	6.72	6.69	7.53	7.50	5.01	4.97
24	4.21	4.16	4.13	4.08	5.51	5.46	6.75	6.72	7.55	7.53	5.06	5.01
25	4.22	4.20	4.18	4.13	5.56	5.51	6.78	6.75	7.58	7.55	5.08	5.06
26	4.24	4.22	4.23	4.17	5.60	5.56	6.80	6.78	7.61	7.58	5.08	5.08
27	4.28	4.24	4.28	4.23	5.65	5.60	6.82	6.80	7.63	7.61	5.08	5.07
28	4.27	3.84	4.33	4.28	5.69	5.65	6.84	6.82	7.65	7.63	5.14	5.08
29	3.84	3.75	4.36	4.33	5.74	5.69	6.87	6.84	7.67	7.65	5.16	5.14
30	3.75	3.71	4.41	4.36	5.78	5.74	6.89	6.87	7.69	7.67	5.18	5.16
31	---	---	4.46	4.40	---	---	6.91	6.89	7.71	7.69	---	---
MONTH	4.50	3.71	4.46	3.22	5.78	4.46	6.91	5.78	7.71	6.91	---	---

Daily Low Water Levels



## SUSSEX COUNTY--Continued

WELL NUMBER.--Of23-03. SITE ID.--384333075222901. PERMIT NUMBER.--95793.

LOCATION.--Lat 38°43'33", long 75°22'29", Hydrologic Unit 02040207, near Redden State Forest.

Owner: Delaware Department of Transportation.

AQUIFER.--Beaverdam Sand of Pliocene age. Aquifer code: 121BVDM.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 20 ft; casing diameter 2 in., to 17 ft; screen diameter 2 in. from 17 to 20 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from Dec. 7, 1993 to current year.

DATUM.--Altitude of land surface is 51.40 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 3.20 ft above land surface.

REMARKS.--Delaware Department of Transportation Wetlands Project observation well. Missing data due to recorder malfunction.

Periods of equal maximum and minimum daily values may be questionable due to the float hanging up in small diameter wells or other well construction factors.

PERIOD OF RECORD.--September 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.34 ft below land surface, April 1, 1994 (recorder);

lowest measured, 12.69 ft below land surface, Aug. 27, 2002 (recorder).

## WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.49	9.46	10.52	10.49	11.18	11.15	11.51	11.49	11.14	11.09	11.25	11.22
2	9.57	9.49	10.54	10.52	11.20	11.18	11.53	11.51	11.14	11.13	11.25	11.19
3	9.61	9.57	10.56	10.54	11.22	11.20	11.53	11.52	11.14	11.09	11.23	11.19
4	9.64	9.61	10.57	10.56	11.23	11.22	11.55	11.53	11.12	11.09	11.26	11.23
5	9.66	9.64	10.61	10.57	11.25	11.23	11.56	11.55	11.13	11.12	11.26	11.26
6	9.70	9.66	10.64	10.61	11.26	11.25	11.56	11.49	11.12	11.11	11.26	11.26
7	9.75	9.70	10.66	10.64	11.27	11.26	11.51	11.51	11.11	11.08	11.28	11.26
8	9.80	9.75	10.67	10.66	11.27	11.27	11.53	11.50	11.10	11.08	11.29	11.28
9	9.83	9.80	10.71	10.67	11.30	11.27	11.50	11.48	11.11	11.09	11.29	11.27
10	9.84	9.83	10.72	10.70	11.32	11.30	11.48	11.48	11.11	11.05	11.29	11.26
11	9.87	9.84	10.77	10.72	11.32	11.31	11.48	11.47	11.08	11.05	11.30	11.29
12	9.90	9.87	10.80	10.77	11.32	11.32	11.48	11.43	11.08	11.05	11.30	11.30
13	9.93	9.90	10.81	10.80	11.33	11.32	11.44	11.42	11.08	11.05	11.30	11.29
14	9.94	9.93	10.82	10.81	11.34	11.33	11.44	11.42	11.08	11.08	11.31	11.30
15	10.01	9.94	10.84	10.82	11.38	11.34	11.42	11.41	11.08	11.05	11.31	11.30
16	10.03	10.00	10.87	10.84	11.38	11.38	11.42	11.41	11.05	11.05	11.33	11.30
17	10.08	10.03	10.89	10.87	11.38	11.36	11.41	11.41	11.08	11.05	11.33	11.33
18	10.10	10.08	10.92	10.89	11.39	11.34	11.41	11.39	11.10	11.08	11.33	11.23
19	10.13	10.10	10.93	10.92	11.39	11.39	11.39	11.34	11.10	11.10	11.23	11.14
20	10.18	10.13	10.98	10.93	11.41	11.39	11.36	11.34	11.10	11.08	11.14	10.98
21	10.20	10.18	11.00	10.98	11.41	11.41	11.34	11.29	11.10	11.08	10.98	10.83
22	10.23	10.20	11.02	11.00	11.42	11.41	11.31	11.29	11.12	11.10	10.83	10.75
23	10.24	10.23	11.04	11.02	11.42	11.41	11.29	11.25	11.13	11.12	10.75	10.62
24	10.26	10.24	11.06	11.04	11.42	11.41	11.25	11.21	11.16	11.13	10.62	10.52
25	10.31	10.26	11.08	11.06	11.43	11.42	11.24	11.21	11.16	11.15	10.52	10.45
26	10.35	10.31	11.09	11.08	11.43	11.43	11.24	11.21	11.15	11.14	10.45	10.34
27	10.39	10.35	11.11	11.09	11.45	11.43	11.21	11.19	11.19	11.15	10.34	10.26
28	10.42	10.39	11.13	11.11	11.46	11.45	11.19	11.17	11.22	11.19	10.26	10.18
29	10.44	10.42	11.14	11.13	11.48	11.46	11.17	11.16	---	---	10.18	10.08
30	10.48	10.44	11.15	11.14	11.48	11.48	11.16	11.15	---	---	10.08	10.06
31	10.49	10.48	---	---	11.49	11.48	11.15	11.14	---	---	10.06	9.89
MONTH	10.49	9.46	11.15	10.49	11.49	11.15	11.56	11.14	11.22	11.05	11.33	9.89

GROUND-WATER LEVELS IN DELAWARE--Continued

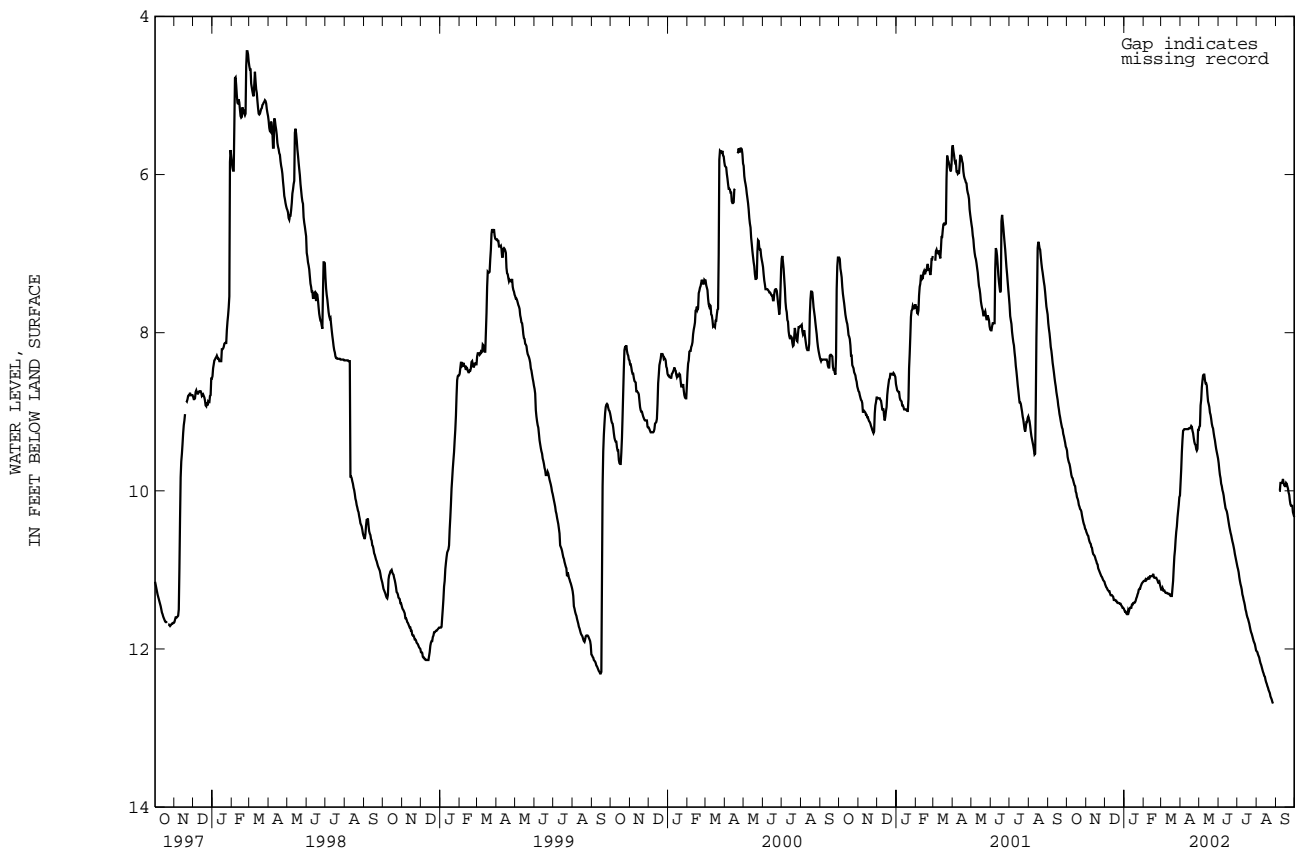
SUSSEX COUNTY--Continued

Of23-03--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.89	9.73	9.19	9.18	9.65	9.59	10.96	10.92	12.03	12.02	---	---
2	9.73	9.51	9.18	8.92	9.73	9.65	10.99	10.96	12.04	12.03	---	---
3	9.51	9.36	8.92	8.85	9.80	9.73	11.03	10.99	12.07	12.04	---	---
4	9.36	9.24	8.85	8.69	9.84	9.80	11.09	11.03	12.09	12.07	---	---
5	9.24	9.23	8.69	8.61	9.91	9.84	11.14	11.09	12.11	12.09	---	---
6	9.23	9.22	8.61	8.54	9.94	9.91	11.18	11.14	12.15	12.11	10.00	10.00
7	9.22	9.22	8.54	8.51	9.99	9.94	11.21	11.18	12.18	12.15	10.00	9.90
8	9.22	9.22	8.53	8.51	10.02	9.99	11.25	11.21	12.20	12.18	9.90	9.90
9	9.22	9.22	8.53	8.53	10.06	10.02	11.31	11.25	12.23	12.20	9.90	9.90
10	9.22	9.22	8.60	8.53	10.12	10.06	11.34	11.31	12.26	12.23	9.90	9.89
11	9.22	9.22	8.64	8.60	10.17	10.12	11.38	11.34	12.29	12.26	9.89	9.83
12	9.22	9.22	8.64	8.64	10.22	10.17	11.41	11.38	12.31	12.29	9.85	9.83
13	9.22	9.21	8.67	8.64	10.24	10.22	11.45	11.41	12.34	12.31	9.90	9.85
14	9.21	9.21	8.78	8.67	10.26	10.24	11.50	11.45	12.35	12.34	9.93	9.90
15	9.21	9.21	8.87	8.78	10.30	10.26	11.53	11.50	12.39	12.35	9.94	9.93
16	9.21	9.20	8.90	8.87	10.35	10.30	11.57	11.53	12.42	12.39	9.94	9.90
17	9.20	9.15	8.94	8.90	10.40	10.35	11.60	11.57	12.44	12.42	9.90	9.88
18	9.18	9.15	9.01	8.94	10.45	10.40	11.62	11.60	12.47	12.44	9.91	9.88
19	9.19	9.18	9.04	9.01	10.49	10.45	11.65	11.62	12.49	12.47	9.94	9.91
20	9.24	9.19	9.09	9.04	10.53	10.49	11.68	11.65	12.52	12.49	9.97	9.94
21	9.27	9.24	9.15	9.09	10.56	10.53	11.72	11.68	12.54	12.52	10.02	9.97
22	9.33	9.24	9.19	9.15	10.60	10.56	11.76	11.72	12.56	12.54	10.05	10.02
23	9.38	9.33	9.21	9.19	10.64	10.60	11.79	11.76	12.60	12.56	10.12	10.05
24	9.41	9.38	9.27	9.21	10.67	10.64	11.81	11.79	12.62	12.60	10.17	10.12
25	9.42	9.38	9.32	9.27	10.71	10.67	11.84	11.81	12.64	12.62	10.19	10.17
26	9.47	9.42	9.36	9.32	10.75	10.71	11.87	11.84	12.67	12.64	10.19	10.19
27	9.49	9.47	9.42	9.36	10.80	10.75	11.90	11.87	12.69	12.67	10.19	10.19
28	9.47	9.22	9.47	9.42	10.84	10.80	11.92	11.90	---	---	10.27	10.19
29	9.23	9.22	9.51	9.47	10.88	10.84	11.94	11.92	---	---	10.30	10.26
30	9.23	9.19	9.55	9.51	10.92	10.88	11.98	11.94	---	---	10.33	10.30
31	---	---	9.59	9.55	---	---	12.02	11.98	---	---	---	---
MONTH	9.89	9.15	9.59	8.51	10.92	9.59	12.02	10.92	---	---	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



## SUSSEX COUNTY--Continued

WELL NUMBER.-- Of23-05. SITE ID.--384341075223801. PERMIT NUMBER.--95794.

LOCATION.--Lat 38°43'41", long 75°22'38", Hydrologic Unit 02060008, near Redden State Forest.

Owner: Delaware Department of Transportation

AQUIFER.--Beaverdam Sand of Pliocene age. Aquifer code: 121BVDM.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 18 ft; casing diameter 2 in., to 15 ft; screen diameter 2 in. from 15 to 18 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from Oct. 1998 to current year.

DATUM.--Elevation of land surface is 46.49 ft above National Geodetic Vertical Datum of 1929. Prior to July 2, 1998, (due to excavation of material during construction of artificial wetland), the elevation of land surface was 50.13 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 3.30 ft above land surface.

REMARKS.--Delaware Department of Transportation Wetlands Project observation well. Missing data due to recorder malfunction.

Periods of equal maximum and minimum daily values may be questionable due to the float hanging up in small diameter wells or other well construction factors.

PERIOD OF RECORD.--September 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.02 ft above land surface, March 28, 2000 (recorder);

lowest measured, 9.95 ft below land surface, Oct. 19, 1995.

## WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4.01	3.93	5.03	5.01	5.61	5.59	6.05	6.04	6.05	5.47	5.71	5.67
2	4.12	4.01	5.04	5.03	5.63	5.61	6.06	6.05	5.65	5.60	5.71	5.59
3	4.13	4.09	5.06	5.04	5.65	5.63	6.06	6.04	5.60	5.50	5.70	5.58
4	4.15	4.09	5.08	5.05	5.67	5.65	6.08	6.06	5.61	5.50	5.75	5.70
5	4.17	4.11	5.10	5.05	5.68	5.67	6.08	6.08	5.65	5.58	5.76	5.75
6	4.24	4.11	5.13	5.10	5.69	5.68	6.08	5.98	5.59	5.57	5.75	5.73
7	4.34	4.24	5.16	5.13	5.76	5.69	6.11	6.05	5.57	5.50	5.79	5.73
8	4.39	4.34	5.18	5.16	5.77	5.76	6.13	6.06	5.61	5.54	5.80	5.79
9	4.41	4.34	5.22	5.16	5.80	5.77	6.09	6.05	5.63	5.58	5.80	5.73
10	4.37	4.34	5.22	5.18	5.81	5.80	6.06	6.05	5.59	5.44	5.82	5.73
11	4.40	4.34	5.27	5.21	5.82	5.80	6.07	6.05	5.59	5.44	5.84	5.82
12	4.40	4.36	5.29	5.27	5.83	5.82	6.07	6.07	5.58	5.46	5.83	5.81
13	4.43	4.40	5.31	5.29	5.85	5.83	6.07	5.99	5.57	5.49	5.81	5.78
14	4.43	4.36	5.32	5.31	5.86	5.85	6.07	6.07	5.57	5.53	5.85	5.81
15	4.54	4.37	5.33	5.32	5.89	5.86	6.07	6.07	5.53	5.45	5.84	5.80
16	4.54	4.39	5.37	5.33	5.89	5.89	6.07	6.07	5.46	5.46	5.88	5.80
17	4.64	4.49	5.40	5.37	5.89	5.88	6.07	6.07	5.55	5.46	5.88	5.83
18	4.66	4.62	5.40	5.39	5.92	5.88	6.07	6.07	5.58	5.55	5.83	5.68
19	4.65	4.60	5.40	5.39	5.92	5.92	6.07	6.07	5.56	5.51	5.72	5.56
20	4.71	4.63	5.43	5.40	5.95	5.92	6.07	6.07	5.53	5.48	5.56	5.09
21	4.72	4.70	5.45	5.43	5.97	5.95	6.07	6.07	5.51	5.47	5.30	4.97
22	4.72	4.69	5.47	5.45	5.98	5.97	6.07	6.07	5.55	5.51	5.32	5.11
23	4.72	4.69	5.49	5.47	5.98	5.97	6.07	6.05	5.56	5.55	5.19	4.88
24	4.74	4.71	5.51	5.49	5.99	5.97	6.05	6.05	5.59	5.56	5.05	4.89
25	4.81	4.73	5.53	5.51	6.00	5.99	6.05	6.05	5.58	5.56	5.08	4.91
26	4.85	4.81	5.54	5.53	6.00	5.98	6.05	6.05	5.57	5.53	5.03	4.75
27	4.92	4.85	5.55	5.53	6.01	6.00	6.05	6.05	5.63	5.57	4.77	4.69
28	4.96	4.92	5.57	5.55	6.03	6.00	6.05	6.05	5.67	5.63	4.73	4.56
29	4.98	4.94	5.58	5.57	6.04	6.02	6.05	6.05	---	---	4.60	4.42
30	5.01	4.95	5.59	5.58	6.05	6.03	6.05	6.05	---	---	4.60	4.38
31	5.01	4.99	---	---	6.04	6.03	6.05	6.05	---	---	4.59	4.16
MONTH	5.01	3.93	5.59	5.01	6.05	5.59	6.13	5.98	6.05	5.44	5.88	4.16

GROUND-WATER LEVELS IN DELAWARE--Continued

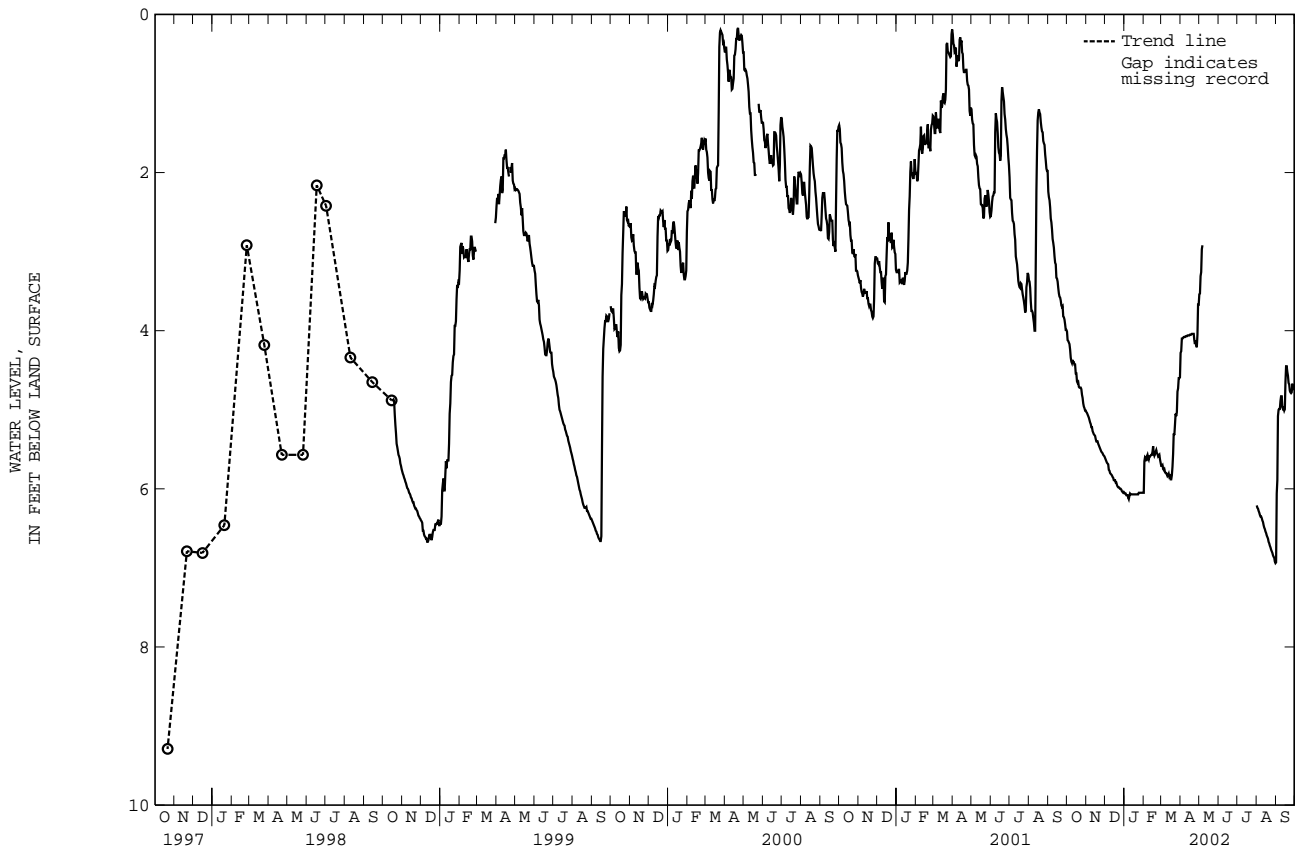
SUSSEX COUNTY--Continued

Of23-05--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4.28	4.12	3.54	3.51	---	---	---	---	6.21	6.18	6.93	6.06
2	4.26	3.88	3.53	3.11	---	---	---	---	6.24	6.21	6.06	5.89
3	4.10	3.80	3.31	3.18	---	---	---	---	6.25	6.24	5.89	5.08
4	4.10	4.09	3.26	2.97	---	---	---	---	6.28	6.25	5.08	4.98
5	4.09	4.08	2.97	2.90	---	---	---	---	6.30	6.28	5.00	4.98
6	4.08	4.08	2.92	2.72	---	---	---	---	6.33	6.30	4.99	4.99
7	4.08	4.08	---	---	---	---	---	---	6.35	6.33	4.99	4.89
8	4.08	4.07	---	---	---	---	---	---	6.35	6.35	4.89	4.83
9	4.07	4.07	---	---	---	---	---	---	6.37	6.35	4.83	4.83
10	4.07	4.07	---	---	---	---	---	---	6.40	6.37	4.83	4.83
11	4.07	4.06	---	---	---	---	---	---	6.42	6.40	4.97	4.83
12	4.06	4.06	---	---	---	---	---	---	6.46	6.42	4.99	4.93
13	4.06	4.06	---	---	---	---	---	---	6.49	6.46	4.98	4.90
14	4.06	4.06	---	---	---	---	---	---	6.51	6.49	5.01	4.98
15	4.06	4.05	---	---	---	---	---	---	6.54	6.51	4.99	4.65
16	4.05	4.05	---	---	---	---	---	---	6.56	6.54	4.65	4.42
17	4.05	4.05	---	---	---	---	---	---	6.59	6.56	4.45	4.37
18	4.05	4.04	---	---	---	---	---	---	6.61	6.59	4.45	4.42
19	4.04	4.04	---	---	---	---	---	---	6.63	6.61	4.52	4.45
20	4.04	4.04	---	---	---	---	---	---	6.67	6.63	4.57	4.52
21	4.04	4.04	---	---	---	---	---	---	6.69	6.67	4.66	4.57
22	4.04	4.03	---	---	---	---	---	---	6.72	6.69	4.68	4.66
23	4.12	4.04	---	---	---	---	---	---	6.74	6.72	4.76	4.68
24	4.17	4.09	---	---	---	---	---	---	6.77	6.74	4.78	4.76
25	4.12	4.02	---	---	---	---	---	---	6.79	6.77	4.79	4.78
26	4.18	4.12	---	---	---	---	---	---	6.81	6.79	4.78	4.67
27	4.21	4.05	---	---	---	---	---	---	6.84	6.81	4.67	4.55
28	4.05	3.47	---	---	---	---	---	---	6.86	6.84	4.73	4.55
29	3.67	3.48	---	---	---	---	---	---	6.87	6.85	4.74	4.73
30	3.67	3.49	---	---	---	---	---	---	6.92	6.87	4.74	4.73
31	---	---	---	---	---	---	---	---	6.94	6.92	---	---
MONTH	4.28	3.47	---	---	---	---	---	---	6.94	6.18	6.93	4.37

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## SUSSEX COUNTY--Continued

WELL NUMBER.--Of23-11. SITE ID.--384345075225101. PERMIT NUMBER.--159964.

LOCATION.--Lat 38°43'45", long 75°22'50", Hydrologic Unit 02040207, near Redden State Forest.

Owner: Delaware Department of Transportation.

AQUIFER.--Beaverdam Sand of Pliocene age. Aquifer code: 121BVDM.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 19 ft; casing diameter 2 in., to 16 ft; screen diameter 2 in. from 16 to 19 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from October 15, 1998 to current year.

DATUM.--Altitude of land surface is 46.64 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 3.60 ft above land surface.

REMARKS.--Delaware Department of Transportation Wetlands Project observation well. Missing data due to recorder malfunction.

Periods of equal maximum and minimum daily values may be questionable due to the float hanging up in small diameter wells or other well construction factors.

PERIOD OF RECORD.--August 24, 1998 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.26 ft above land surface April 22, 2000 (recorder);

lowest measured, 7.37 ft, Aug. 31, 2002 (recorder).

## WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	3.84	3.82	4.87	4.84	5.64	5.60	6.05	6.02	5.59	5.44	5.77	5.73
2	3.88	3.84	4.88	4.87	5.66	5.64	6.07	6.04	5.61	5.58	5.77	5.62
3	3.89	3.87	4.91	4.88	5.68	5.66	6.05	6.04	5.58	5.58	5.74	5.61
4	3.92	3.89	4.92	4.90	5.70	5.68	6.09	6.04	5.59	5.49	5.81	5.74
5	3.94	3.91	4.98	4.91	5.71	5.70	6.09	6.08	5.62	5.56	5.82	5.78
6	4.01	3.91	5.00	4.98	5.72	5.71	6.09	5.94	5.56	5.56	5.79	5.76
7	4.08	4.01	5.04	5.00	5.74	5.72	6.10	6.03	5.56	5.55	5.80	5.77
8	4.12	4.08	5.06	5.04	5.74	5.73	6.12	6.08	5.56	5.55	5.81	5.80
9	4.14	4.12	5.11	5.05	5.80	5.73	6.08	6.00	5.61	5.56	5.81	5.73
10	4.14	4.13	5.11	5.05	5.80	5.80	6.03	6.02	5.60	5.41	5.84	5.72
11	4.16	4.14	5.18	5.09	5.82	5.80	6.02	5.99	5.58	5.41	5.85	5.82
12	4.19	4.16	5.21	5.18	5.82	5.82	6.02	5.89	5.58	5.44	5.82	5.82
13	4.25	4.19	5.22	5.21	5.82	5.81	5.99	5.85	5.56	5.50	5.82	5.81
14	4.25	4.21	5.22	5.21	5.84	5.82	5.99	5.98	5.56	5.56	5.86	5.82
15	4.33	4.22	5.25	5.22	5.90	5.84	5.98	5.87	5.56	5.46	5.85	5.80
16	4.33	4.25	5.31	5.25	5.90	5.89	5.93	5.87	5.48	5.47	5.90	5.80
17	4.42	4.32	5.34	5.31	5.89	5.83	5.87	5.82	5.56	5.47	5.90	5.83
18	4.44	4.41	5.34	5.33	5.93	5.78	5.88	5.84	5.59	5.56	5.83	5.76
19	4.44	4.42	5.34	5.32	5.93	5.92	5.88	5.73	5.57	5.56	5.77	5.66
20	4.51	4.43	5.40	5.33	5.95	5.92	5.88	5.77	5.57	5.50	5.66	5.41
21	4.53	4.51	5.40	5.40	5.96	5.94	5.82	5.71	5.55	5.50	5.48	5.26
22	4.54	4.52	5.44	5.40	5.96	5.96	5.84	5.77	5.58	5.55	5.34	5.22
23	4.55	4.54	5.47	5.44	5.96	5.91	5.77	5.66	5.60	5.58	5.22	5.03
24	4.58	4.55	5.49	5.47	5.98	5.90	5.67	5.60	5.63	5.60	5.04	4.95
25	4.64	4.57	5.50	5.48	5.99	5.98	5.74	5.65	5.63	5.61	4.98	4.92
26	4.69	4.64	5.53	5.50	5.98	5.94	5.71	5.63	5.61	5.58	4.92	4.77
27	4.73	4.68	5.55	5.53	5.99	5.96	5.63	5.60	5.69	5.61	4.79	4.74
28	4.79	4.73	5.58	5.55	6.00	5.96	5.61	5.57	5.73	5.69	4.74	4.65
29	4.80	4.77	5.59	5.58	6.03	5.98	5.58	5.56	---	---	4.65	4.51
30	4.83	4.78	5.60	5.58	6.04	6.01	5.59	5.54	---	---	4.53	4.48
31	4.84	4.83	---	---	6.03	6.02	5.59	5.53	---	---	4.52	4.30
MONTH	4.84	3.82	5.60	4.84	6.04	5.60	6.12	5.53	5.73	5.41	5.90	4.30

GROUND-WATER LEVELS IN DELAWARE--Continued

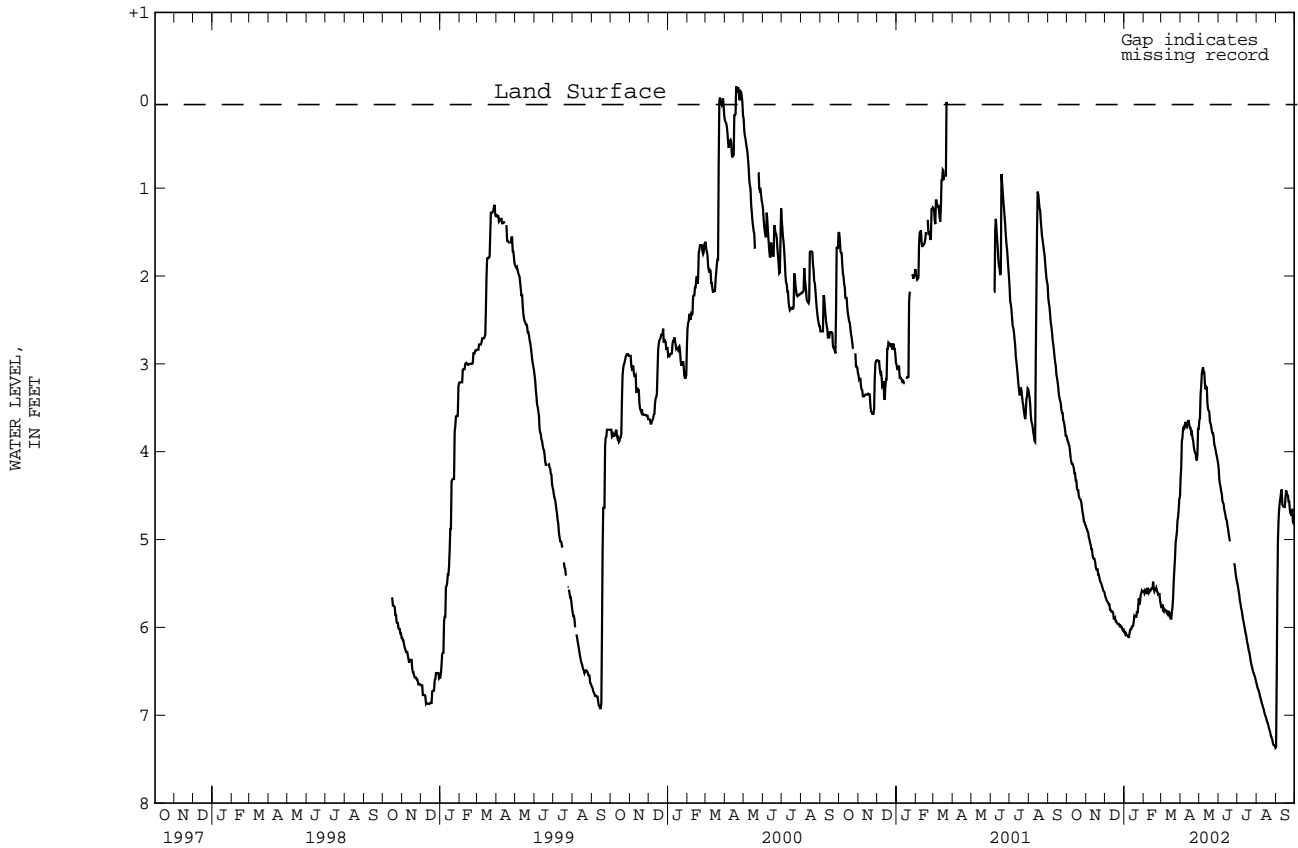
SUSSEX COUNTY--Continued

Of23-11--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4.30	4.18	3.64	3.62	4.19	4.13	5.50	5.47	6.65	6.62	7.36	6.56
2	4.18	3.88	3.62	3.33	4.31	4.19	5.54	5.50	6.68	6.65	6.56	5.60
3	3.88	3.74	3.35	3.24	4.37	4.31	5.59	5.54	6.70	6.68	5.60	4.99
4	3.84	3.73	3.26	3.11	4.40	4.37	5.63	5.59	6.72	6.70	4.99	4.77
5	3.73	3.65	3.11	3.06	4.45	4.39	5.70	5.63	6.74	6.72	4.77	4.64
6	3.72	3.65	3.07	2.99	4.48	4.42	5.73	5.70	6.78	6.74	4.64	4.57
7	3.73	3.69	3.04	2.96	4.56	4.48	5.78	5.73	6.80	6.78	4.57	4.52
8	3.69	3.63	3.10	3.04	4.58	4.56	5.81	5.78	6.83	6.80	4.52	4.46
9	3.66	3.62	3.10	3.05	4.60	4.58	5.86	5.81	6.86	6.83	4.46	4.43
10	3.71	3.65	3.23	3.08	4.66	4.60	5.91	5.86	6.88	6.86	4.43	4.36
11	3.72	3.69	3.29	3.23	4.69	4.66	5.94	5.91	6.91	6.88	4.60	4.36
12	3.69	3.64	3.26	3.18	4.73	4.69	5.98	5.94	6.93	6.91	4.62	4.59
13	3.65	3.62	3.27	3.17	4.77	4.73	6.02	5.98	6.96	6.93	4.62	4.58
14	3.65	3.62	3.45	3.27	4.78	4.76	6.06	6.02	6.99	6.96	4.63	4.62
15	3.70	3.63	3.52	3.45	4.84	4.78	6.09	6.06	7.01	6.99	4.63	4.53
16	3.73	3.70	3.53	3.50	4.88	4.84	6.14	6.09	7.03	7.01	4.53	4.42
17	3.73	3.71	3.55	3.52	4.93	4.88	6.18	6.14	7.06	7.03	4.44	4.40
18	3.79	3.73	3.66	3.46	4.98	4.93	6.21	6.18	7.08	7.06	4.47	4.43
19	3.78	3.75	3.68	3.66	5.02	4.98	6.26	6.21	7.10	7.08	4.49	4.46
20	3.84	3.77	3.71	3.67	---	---	6.28	6.26	7.13	7.10	4.50	4.49
21	3.87	3.84	3.76	3.71	---	---	6.32	6.28	7.16	7.13	4.57	4.50
22	3.93	3.80	3.79	3.76	---	---	6.37	6.32	7.18	7.16	4.57	4.55
23	3.98	3.93	3.79	3.75	---	---	6.41	6.37	7.21	7.18	4.66	4.57
24	4.01	3.98	3.84	3.77	---	---	6.44	6.41	7.24	7.21	4.70	4.66
25	4.02	3.90	3.92	3.84	---	---	6.47	6.44	7.26	7.24	4.72	4.70
26	4.07	4.02	3.94	3.88	5.27	5.23	6.50	6.47	7.28	7.26	4.72	4.65
27	4.10	4.03	3.98	3.94	5.31	5.27	6.52	6.50	7.32	7.28	4.65	4.61
28	4.03	3.70	4.02	3.98	5.38	5.31	6.54	6.52	7.34	7.32	4.80	4.64
29	3.74	3.70	4.05	4.02	5.43	5.38	6.56	6.54	7.34	7.28	4.82	4.80
30	3.74	3.62	4.09	4.05	5.47	5.43	6.59	6.56	7.34	7.33	4.83	4.80
31	---	---	4.13	4.09	---	---	6.62	6.59	7.37	7.34	---	---
MONTH	4.30	3.62	4.13	2.96	---	---	6.62	5.47	7.37	6.62	7.36	4.36

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

SUSSEX COUNTY--Continued

WELL NUMBER.--Oh54-01. SITE ID.--384038075110001.

LOCATION.--Lat 38°40'38", long 75°11'00", Hydrologic Unit 02060010, at intersection of DE Rts 24 and 277, near Angola.  
 Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 290 ft; casing diameter 2 in., to 280 ft; screen diameter 2 in., from 280 to 290 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by Delaware Geological Survey personnel.

Monthly water level measurements from November 1977 to December 1979. Twice yearly water level measurements from March 1980 to October 1984. Monthly water level measurements by U.S. Geological Survey and Delaware Geological Survey personnel from February 1985 to July 1987.

DATUM.--Elevation of land surface is 18 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of steel casing, 1.5 ft above land surface.

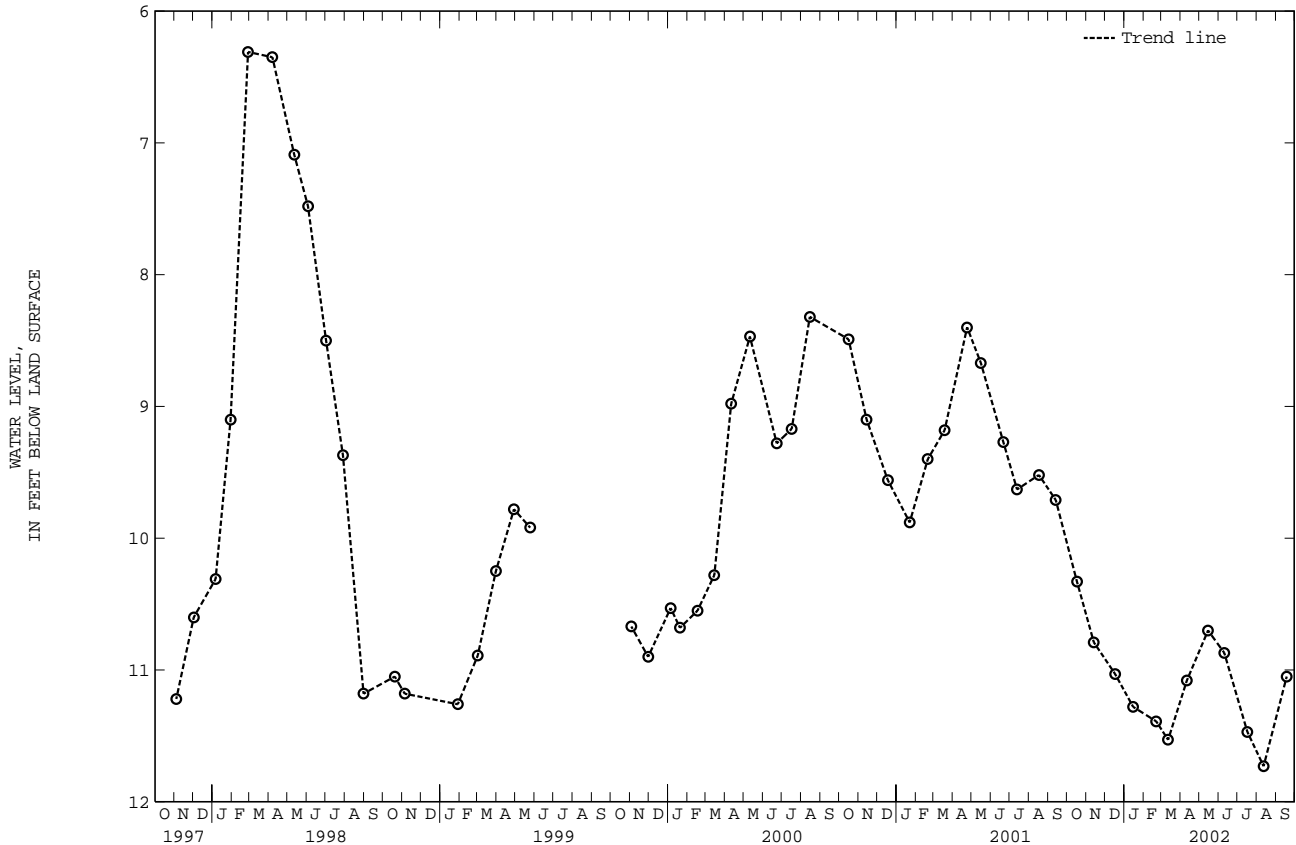
REMARKS.--Delaware Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--November 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.35 ft below land surface, April 4, 1984; lowest measured, 12.44 ft below land surface, Dec. 1, 1993.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 2001	10.33	JAN 15, 2002	11.28	APR 11, 2002	11.08	JUL 17, 2002	11.47
NOV 13	10.79	FEB 21	11.39	MAY 15	10.70	AUG 12	11.73
DEC 17	11.03	MAR 12	11.53	JUN 10	10.87	SEP 18	11.05
WATER YEAR 2002		HIGHEST	10.33	OCT 17, 2001	LOWEST	11.73	AUG 12, 2002



SUSSEX COUNTY--Continued

WELL NUMBER.--Oh54-02. SITE ID.--384038075110002.

LOCATION.--Lat 38°40'38", long 75°11'00", Hydrologic Unit 02060010, at intersection of DE Rts. 24 and 277, near Angola.

Owner: U.S. Geological Survey.

AQUIFER.--Pocomoke aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122PCMK.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 189 ft; casing diameter 2 in., to 179 ft; screen diameter 2 in., from 179 to 189 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by Delaware Geological Survey personnel.

Monthly water level from November 1977 to December 1979. Twice yearly water level measurements from March 1980 to

October 1984. Monthly water level measurements by U.S. Geological Survey and Delaware Geological Survey personnel from February 1985 to July 1987.

DATUM.--Elevation of land surface is 18 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of steel casing, 1.5 ft above land surface.

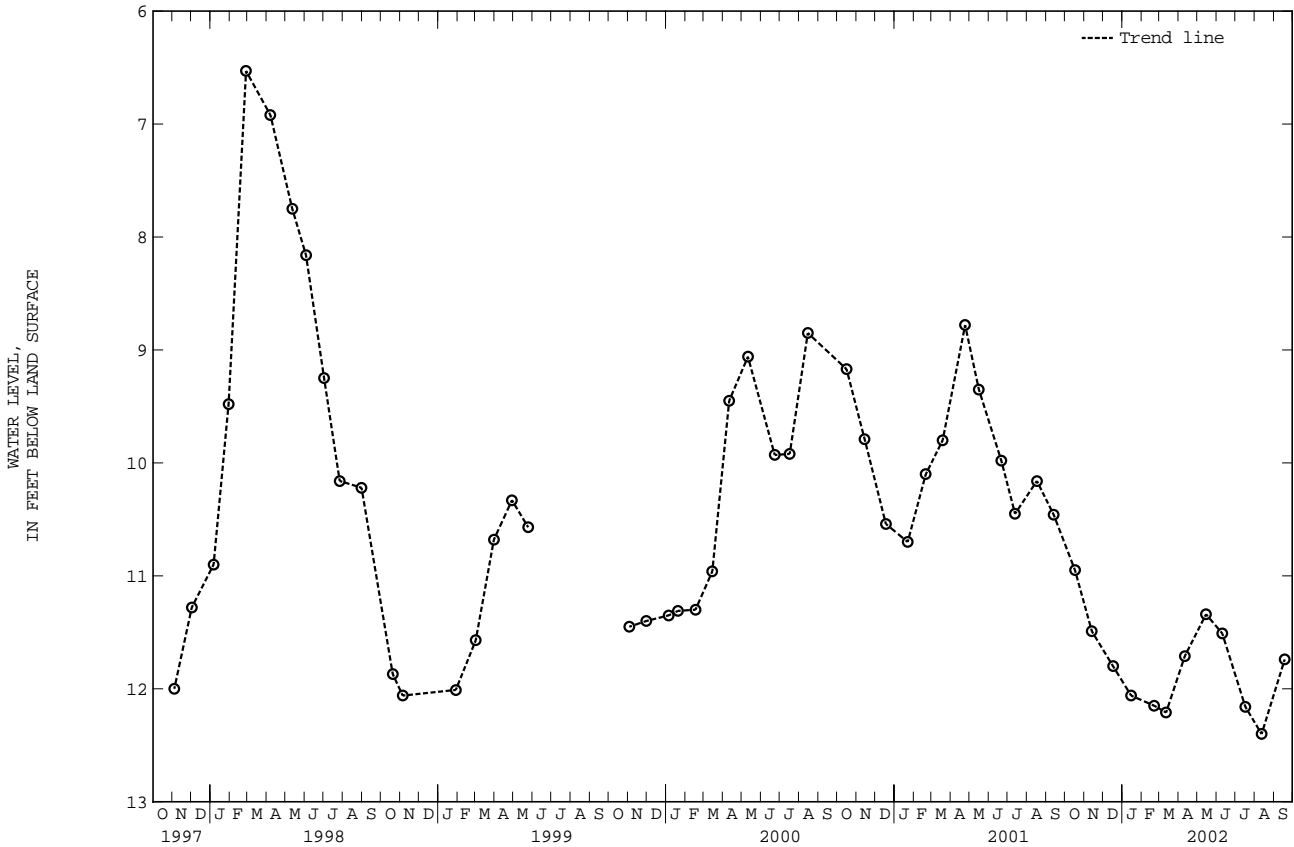
REMARKS.--Delaware Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--November 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.44 ft below land surface, April 2, 1979; lowest measured, 13.85 ft below land surface, Sept. 23, 1981.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 2001	10.95	JAN 15, 2002	12.06	APR 11, 2002	11.71	JUL 17, 2002	12.16
NOV 13	11.49	FEB 21	12.15	MAY 15	11.34	AUG 12	12.40
DEC 17	11.80	MAR 12	12.21	JUN 10	11.51	SEP 18	11.74
WATER YEAR 2002		HIGHEST	10.95	OCT 17, 2001	LOWEST	12.40	AUG 12, 2002



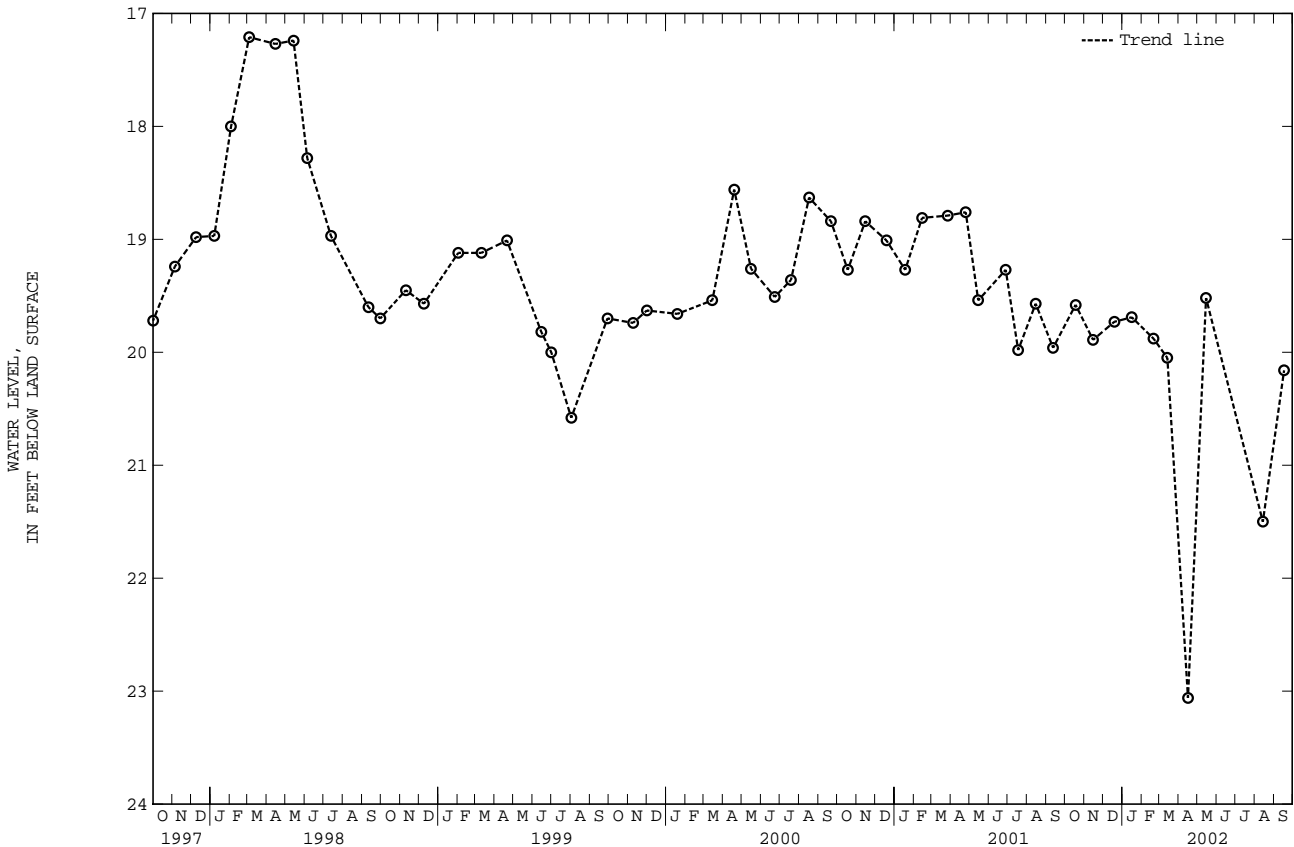
SUSSEX COUNTY--Continued

WELL NUMBER.--O124-06. SITE ID.--384258075063101. PERMIT NUMBER.--03489.  
 LOCATION.--Lat 38°42'58", long 75°06'31", Hydrologic Unit 02060010, nr DE Rt. 1, at Rehobeth Water Pumping Station.  
 Owner: City of Rehobeth.  
 AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 250 ft; casing diameter 4 in., to 230 ft; screened 230 to 250 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by Delaware Geological Survey personnel. Equipped with graphic water-level recorder from June 1976 to December 1979. Monthly water level measurements from January 1980 to December 1981.  
 DATUM.--Elevation of land surface is 25 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 0.70 ft above land surface.  
 REMARKS.--Delaware Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.  
 PERIOD OF RECORD.--May 1976 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.90 ft below land surface, March 25, 1979.  
 lowest measured, 23.06 ft below land surface, April 16, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	19.58	JAN 16, 2002	19.69	APR 16, 2002	23.06	SEP 17, 2002	20.16
NOV 15	19.89	FEB 20	19.88	MAY 15	19.52		
DEC 19	19.73	MAR 14	20.05	AUG 14	21.50		

WATER YEAR 2002      HIGHEST    19.52    MAY 15, 2002      LOWEST    23.06    APR 16, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

SUSSEX COUNTY--Continued

WELL NUMBER.--Pf24-02. SITE ID.--383730075213501.

LOCATION.--Lat 38°37'30", long 75°21'35", Hydrologic Unit 02060010, nr DE Rt. 113, nr Stockley Hospital.

Owner: U.S. Geological Survey.

AQUIFER.--Beaverdam Sand of Pliocene age. Aquifer code: 121BVDM.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 49 ft; casing diameter 4 in., to 46 ft; screen diameter 4 in. from 46 to 49 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel from June 1998 to current year. Equipped with graphic water-level recorder from January 1970 to January 1982. Intermittent water level measurements from April 1982 to August 1987. Twice yearly water level measurements from February 1988 to April 1993.

DATUM.--Elevation of land surface is 50 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 3.00 ft above land surface.

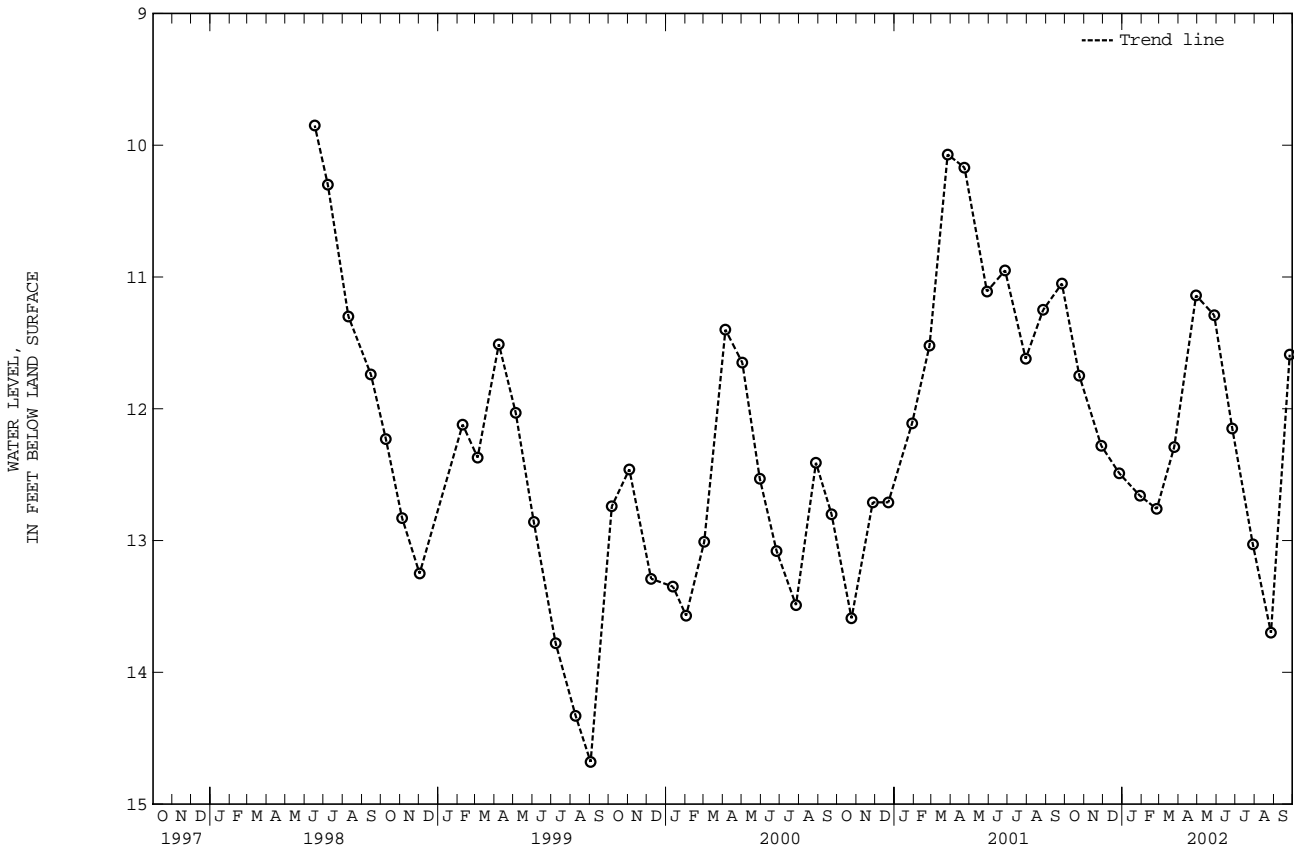
REMARKS.--Delaware Water-Level Monitoring Network observation well.

PERIOD OF RECORD.--January 1970 to April 1993, June 1998 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.53 ft below land surface, March 10, 1979. lowest measured, 14.68 ft below land surface, September 2, 1999.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	11.75	JAN 29, 2002	12.66	APR 29, 2002	11.14	JUL 29, 2002	13.03
NOV 28	12.28	FEB 25	12.76	MAY 28	11.29	AUG 27	13.70
DEC 27	12.49	MAR 25	12.29	JUN 26	12.15	SEP 26	11.59
WATER YEAR 2002		HIGHEST	11.14	APR 29, 2002	LOWEST	13.70	AUG 27, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



SUSSEX COUNTY--Continued

WELL NUMBER.--Pf24-03. SITE ID.--383730075213502.

LOCATION.--Lat 38°37'30", long 75°21'35", Hydrologic Unit 02060010, nr DE Rt. 113, nr Stockley Hospital.

Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 178 ft; casing diameter 4 in., to 58 ft; casing diameter 2 in., to 168 ft; screen diameter 2 in., from 168 to 178 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel from June 1998 to current year. Weekly water level measurements from November 1976 to May 1977. Monthly water level measurements from June 1977 to December 1986. Intermittent water level measurements from February 1987 to November 1988. Twice yearly water level measurements from April 1989 to April 1993

DATUM.--Elevation of land surface is 50 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 1.70 ft above land surface.

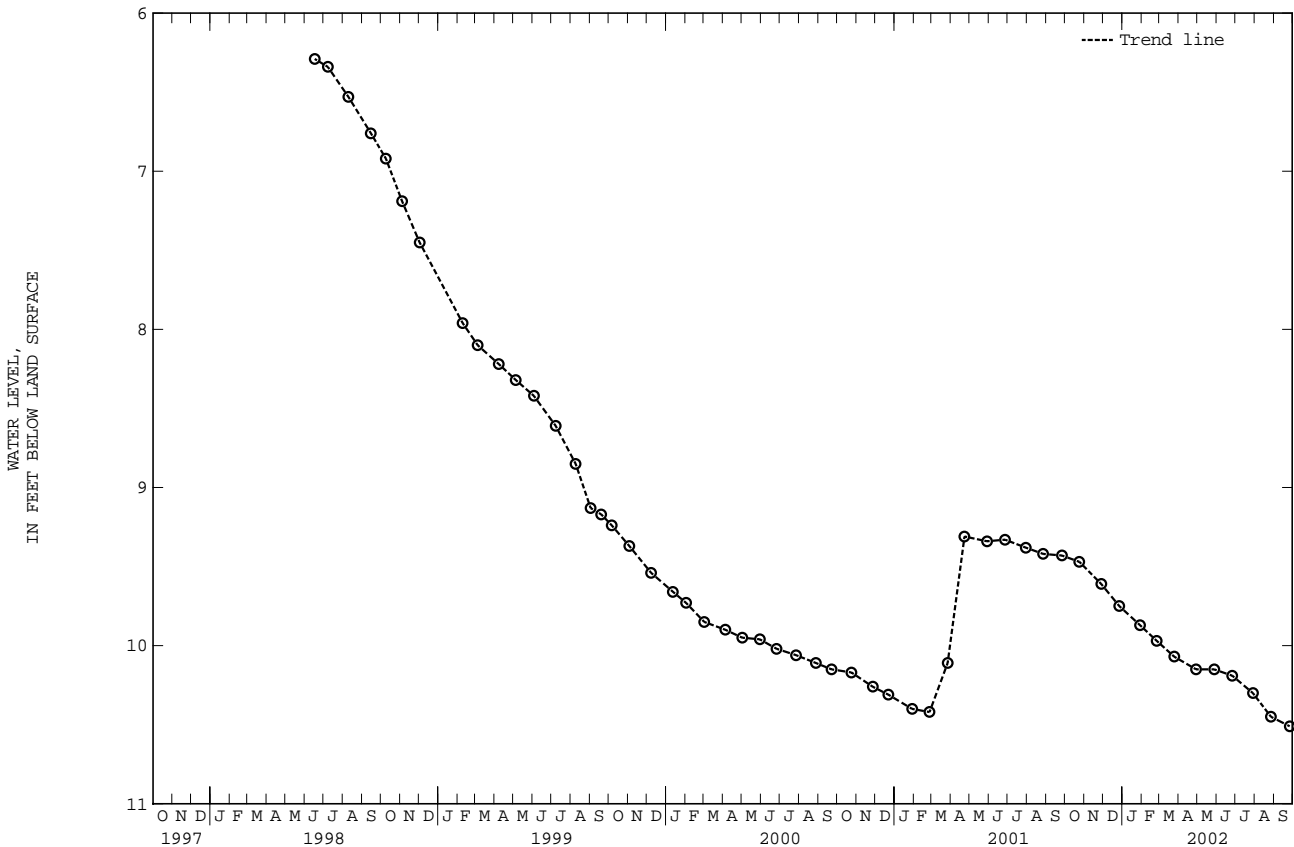
REMARKS.--Delaware Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal.

PERIOD OF RECORD.--November 1976 to April 1993, June 1998 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.67 ft below land surface, April 2, 1979. lowest measured, 12.72 ft below land surface, Aug. 28, 1979.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	9.47	JAN 29, 2002	9.87	APR 29, 2002	10.15	JUL 29, 2002	10.30
NOV 28	9.61	FEB 25	9.97	MAY 28	10.15	AUG 27	10.45
DEC 27	9.75	MAR 25	10.07	JUN 26	10.19	SEP 26	10.51
WATER YEAR 2002 HIGHEST 9.47		OCT 24, 2001		LOWEST 10.51		SEP 26, 2002	



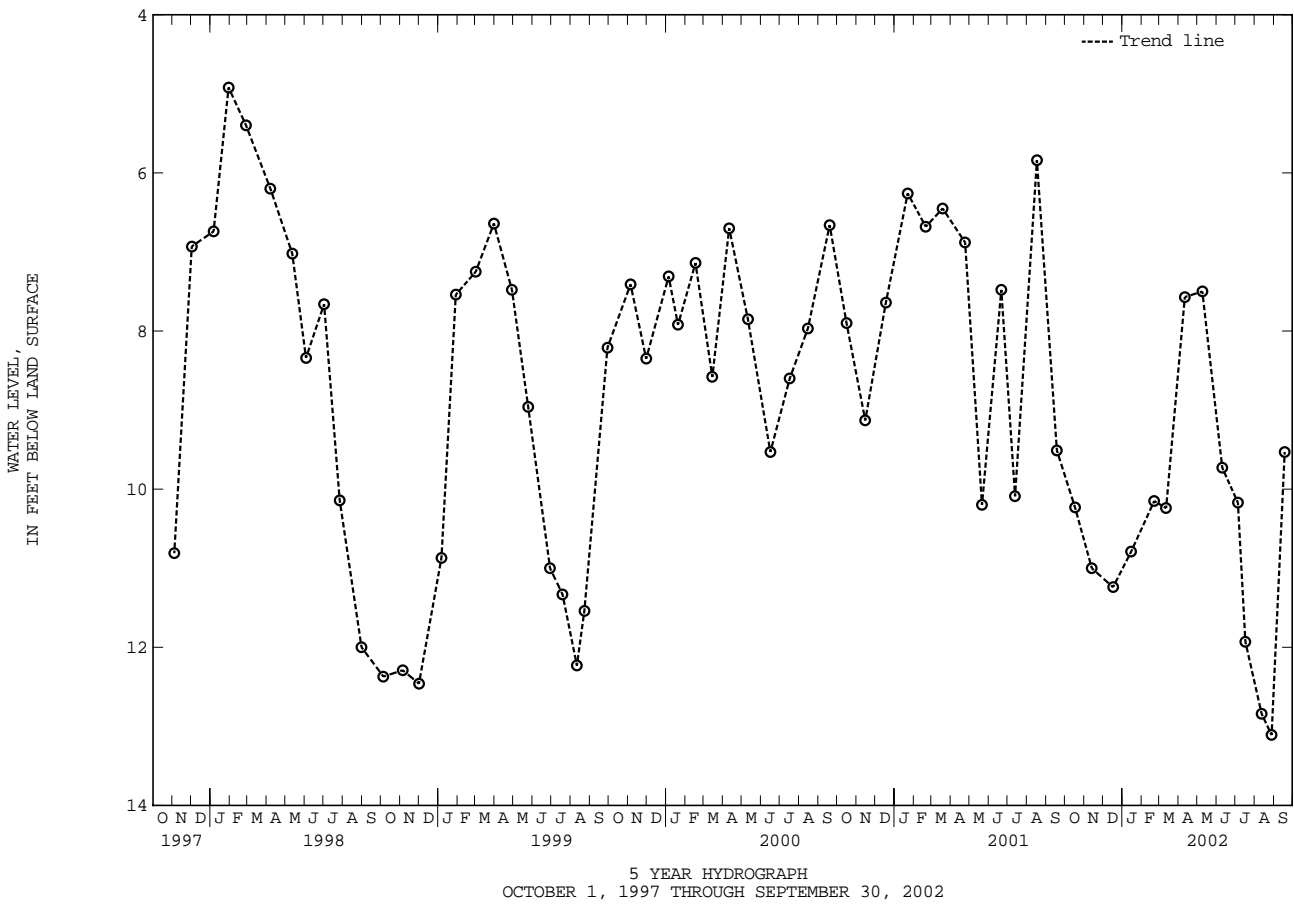
GROUND-WATER LEVELS IN DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Qe44-01. SITE ID.--383138075260201. PERMIT NUMBER.--49320.  
 LOCATION.--Lat 38°31'38", long 75°26'02", Hydrologic Unit 02060008, 1.0 mi east of Whaleys Crossroads.  
 Owner: Delaware Department of Transportation.  
 AQUIFER.--Beaverdam Sand of Pliocene age. Aquifer code: 121BVDM.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 25 ft; casing diameter 1 in., to 22 ft; well point from 22 to 25 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by and Delaware Geological Survey personnel.  
 DATUM.--Elevation of land surface is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing at land surface.  
 REMARKS.--Delaware Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.  
 PERIOD OF RECORD.--September 1959 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.66 ft below land surface, Jan. 10, 1994; lowest measured, 13.11 ft below land surface, Aug 28, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 2001	10.23	FEB 21, 2002	10.15	JUN 10, 2002	9.73	AUG 28, 2002	13.11
NOV 13	11.00	MAR 12	10.24	JUL 05	10.17	SEP 18	9.53
DEC 17	11.24	APR 11	7.57	17	11.93		
JAN 15, 2002	10.79	MAY 09	7.50	AUG 12	12.84		
WATER YEAR 2002 HIGHEST 7.50 MAY 09, 2002		LOWEST 13.11		AUG 28, 2002			



SUSSEX COUNTY--Continued

WELL NUMBER.--Qh54-04. SITE ID.--383050075105201.

LOCATION.--Lat 39°30'50", long 75°10'52", Hydrologic Unit 02060010 , at Pyle Center, Omar.

Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 328 ft; casing diameter 2 in., to 324 ft; screen diameter 2 in., from 324 to 328 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by Delaware Geological Survey personnel.

Monthly water level measurements from November 1978 to December 1979. Intermittent water level measurements from March 1980 to February 1985. Monthly water-level measurements from April 1985 to November 1988.

DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929.

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

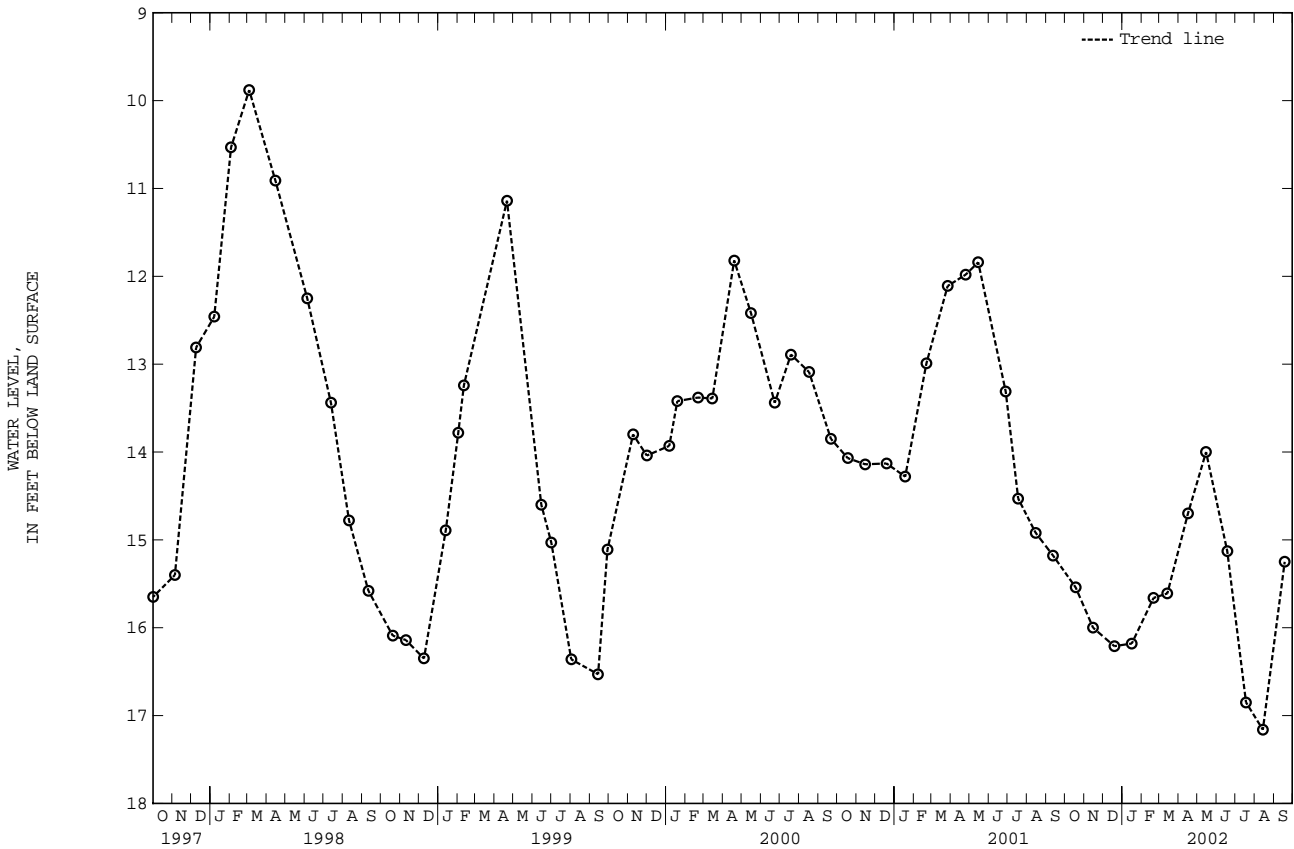
REMARKS.--Delaware Water-Level Network Monitoring observation well.

PERIOD OF RECORD.--November 1978 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.07 ft below land surface, April 2, 1979; lowest measured, 17.16 ft below land surface, Aug. 14, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	15.54	JAN 16, 2002	16.18	APR 16, 2002	14.70	JUL 18, 2002	16.85
NOV 15	16.00	FEB 20	15.66	MAY 15	14.00	AUG 14	17.16
DEC 19	16.21	MAR 14	15.61	JUN 18	15.13	SEP 18	15.25
WATER YEAR 2002		HIGHEST	14.00	MAY 15, 2002	LOWEST	17.16	AUG 14, 2002



SUSSEX COUNTY--Continued

WELL NUMBER.--Qh54-05. SITE ID.--383050075105202.

LOCATION.--Lat 39°30'50", long 75°10'52", Hydrologic Unit 02060010 , at Pyle Center, Omar.

Owner: U.S. Geological Survey.

AQUIFER.--Ocean City aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 1220CNC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 232 ft; casing diameter 2 in., to 229 ft; screen diameter 2 in., from 229 to 232 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by Delaware Geological Survey personnel.

Monthly water level measurements from November 1978 to December 1979, and from April 1985 to November 1988.

Intermittent water level measurements from March 1980 to February 1985.

DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929.

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

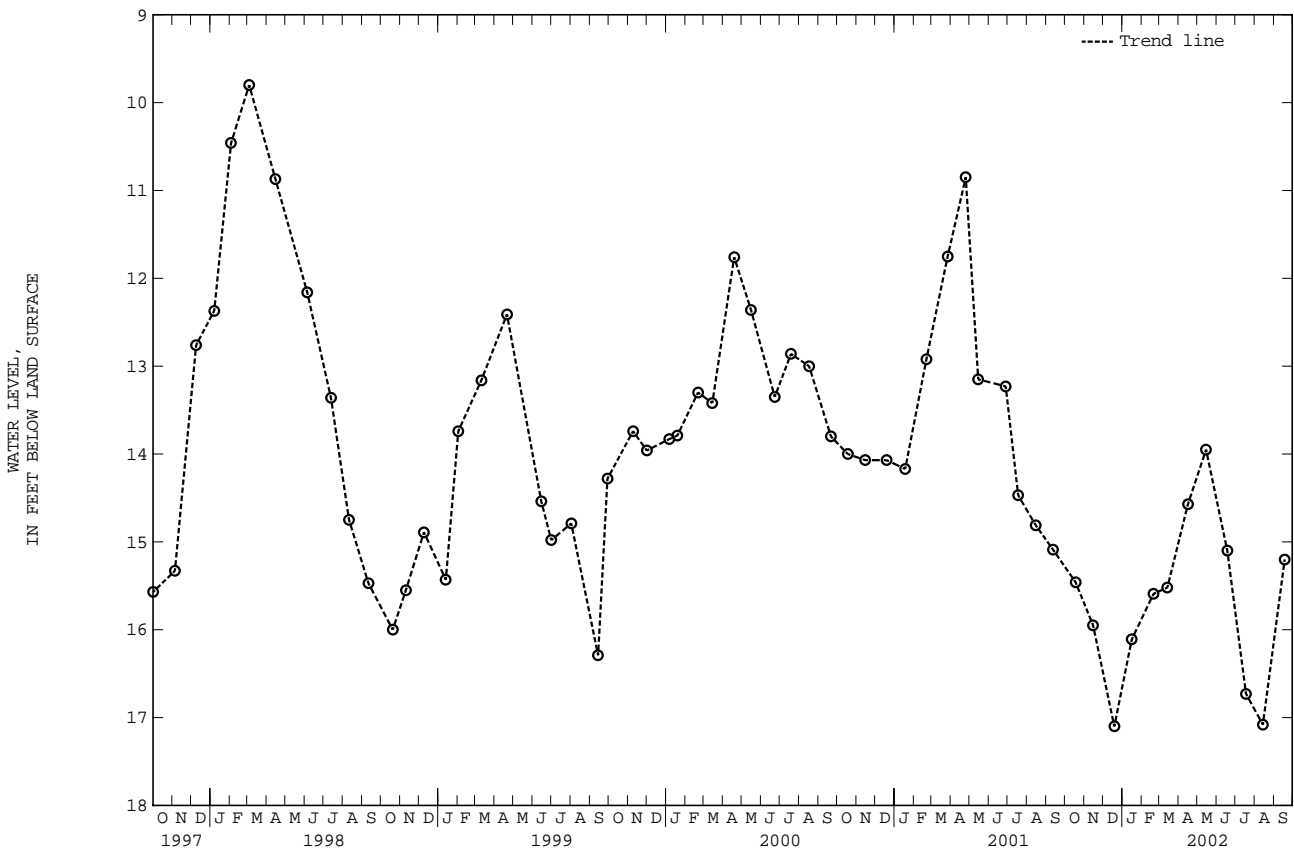
REMARKS.--Delaware Water-Level Monitoring Network observation well.

PERIOD OF RECORD.--November 1978 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.63 ft below land surface, March 1, 1979; lowest measured, 17.10 ft below land surface, Dec. 19, 2001.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	15.46	JAN 16, 2002	16.11	APR 16, 2002	14.57	JUL 18, 2002	16.73
NOV 15	15.95	FEB 20	15.59	MAY 15	13.95	AUG 14	17.08
DEC 19	17.10	MAR 14	15.52	JUN 18	15.10	SEP 18	15.20
WATER YEAR 2002		HIGHEST	13.95	MAY 15, 2002	LOWEST	17.10	DEC 19, 2001



SUSSEX COUNTY--Continued

WELL NUMBER.--Qh54-06. SITE ID.--383050075105203.

LOCATION.--Lat 39°30'50", long 75°10'52", Hydrologic Unit 02060010 , at Pyle Center, Omar.

Owner: U.S. Geological Survey.

AQUIFER.--Pocomoke aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122PCMK.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 148 ft; casing diameter 2 in., to 144 ft; screen diameter 2 in., from 144 to 148 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by Delaware Geological Survey personnel.

Monthly water level measurements from November 1978 to December 1979. Intermittent water level measurements from March 1980 to February 1985. Monthly water level measurements from April 1985 to November 1988.

DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929.

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

REMARKS.--Delaware Water-Level Monitoring Network observation well.

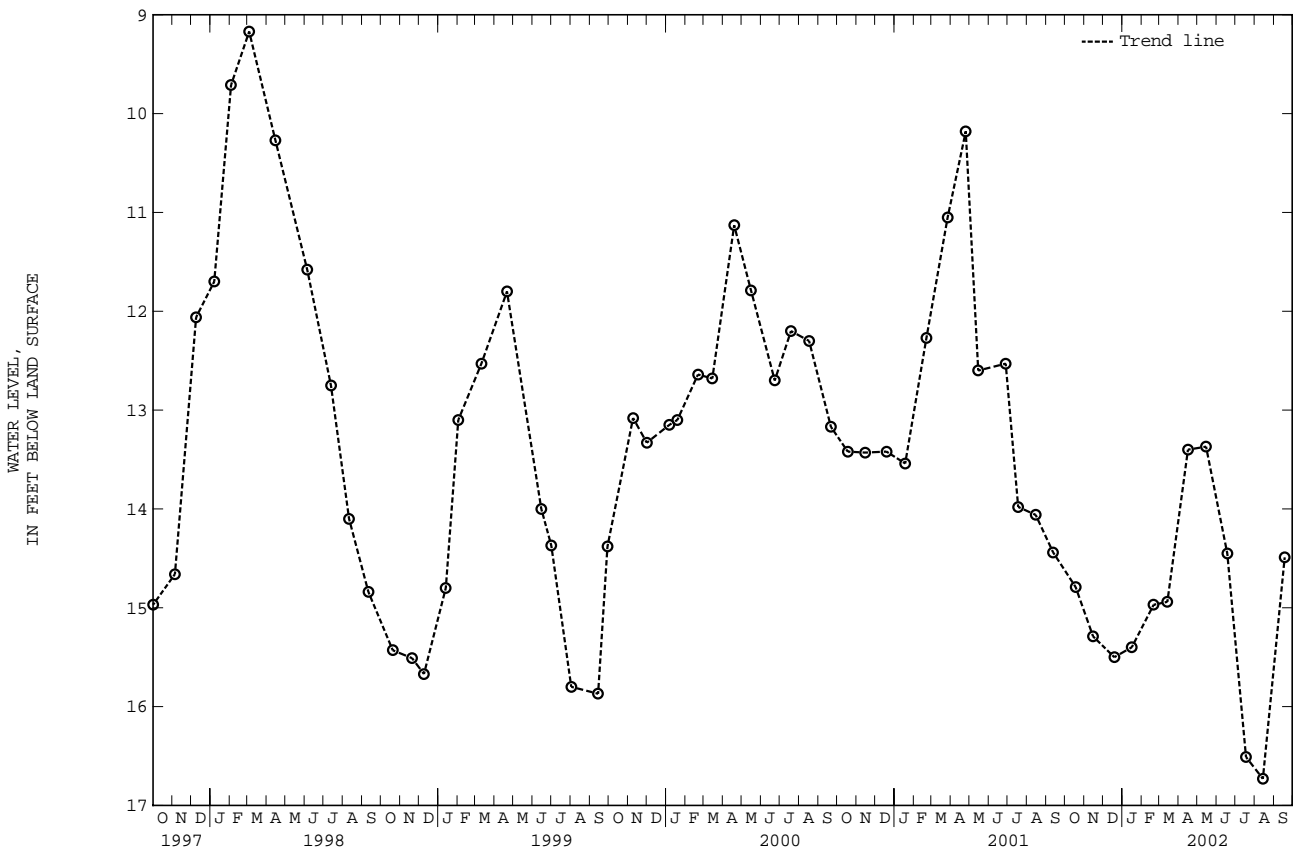
PERIOD OF RECORD.--November 1978 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.95 ft below land surface, March 1, 1979; lowest measured, 17.10 ft below land surface, July 24, 1986.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	14.79	JAN 16, 2002	15.40	APR 16, 2002	13.40	JUL 18, 2002	16.51
NOV 15	15.29	FEB 20	14.97	MAY 15	13.37	AUG 14	16.73
DEC 19	15.50	MAR 14	14.94	JUN 18	14.45	SEP 18	14.49

WATER YEAR 2002 HIGHEST 13.37 MAY 15, 2002 LOWEST 16.73 AUG 14, 2002

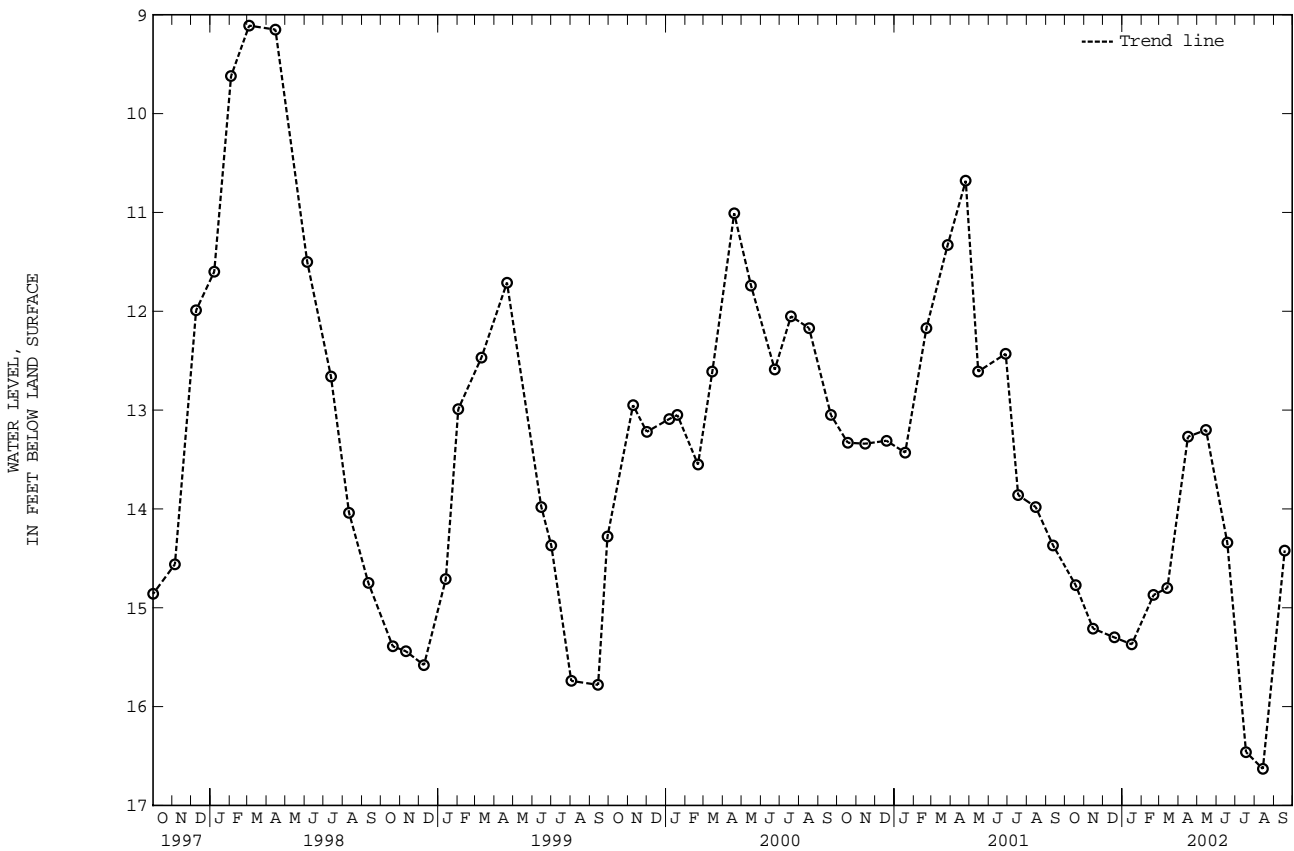


SUSSEX COUNTY--Continued

WELL NUMBER.--Qh54-07. SITE ID.--383050075105204.  
 LOCATION.--Lat 39°30'50", long 75°10'52", Hydrologic Unit 02060010, at Pyle Center, Omar.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Omar Formation of Pleistocene age. Aquifer code: 112OMAR.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 108 ft; casing diameter 2 in., to 104 ft; screen diameter 2 in., from 104 to 108 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by Delaware Geological Survey personnel. Monthly water level measurements from November 1978 to December 1979, and April 1985 to November 1988. Intermittent water level measurements from March 1980 to February 1985.  
 DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.00 ft above land surface.  
 REMARKS.--Delaware Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--December 1978 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.83 ft below land surface, March 1, 1979; lowest measured, 16.63 ft below land surface, Aug. 14, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	14.77	JAN 16, 2002	15.37	APR 16, 2002	13.27	JUL 18, 2002	16.46
NOV 15	15.21	FEB 20	14.87	MAY 15	13.20	AUG 14	16.63
DEC 19	15.30	MAR 14	14.80	JUN 18	14.34	SEP 18	14.42
WATER YEAR 2002		HIGHEST	13.20	MAY 15, 2002	LOWEST	16.63	AUG 14, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

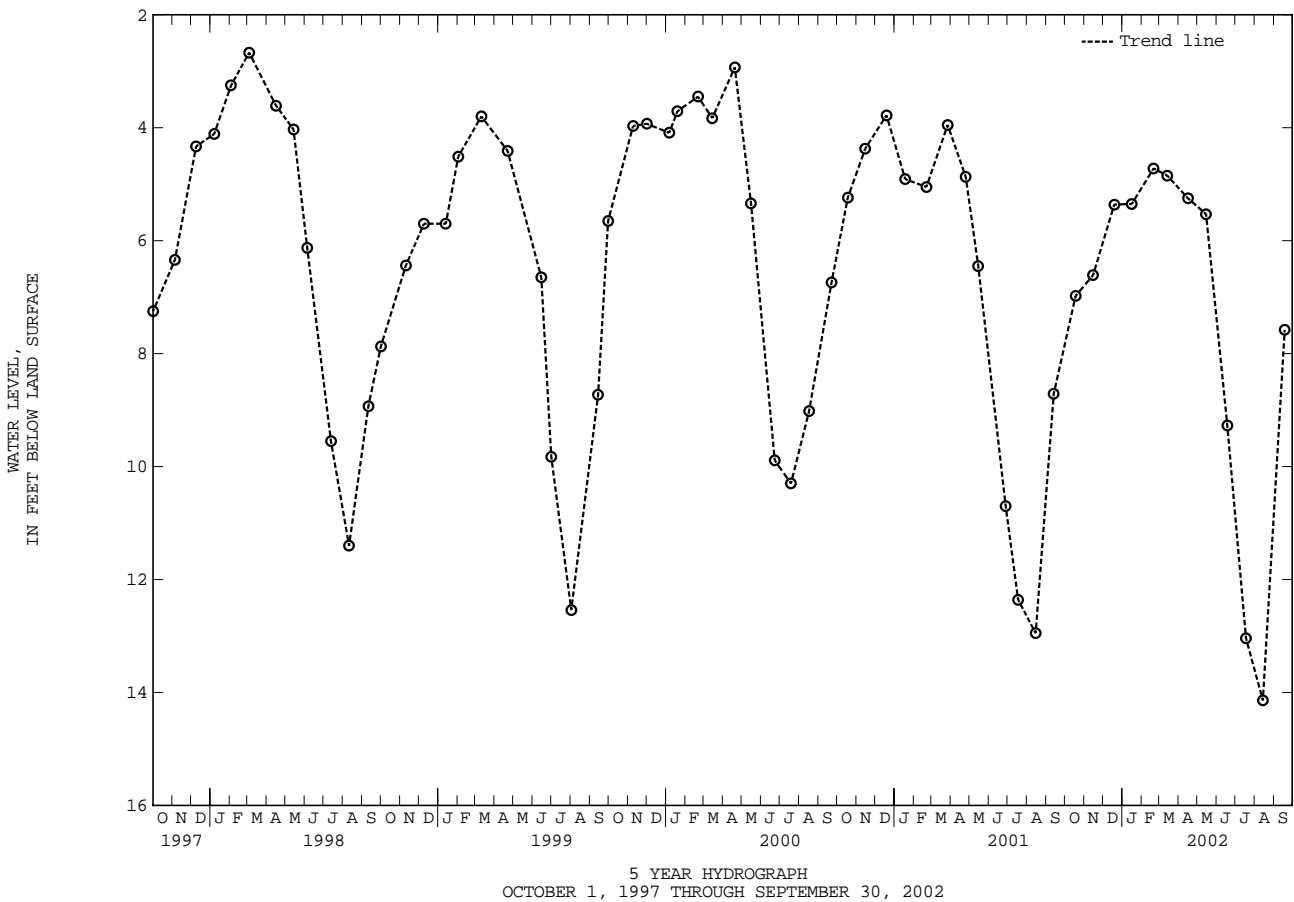
SUSSEX COUNTY--Continued

WELL NUMBER.--Qj32-17. SITE ID.--383210075035802. PERMIT NUMBER.--45428.  
 LOCATION.--Lat 38°32'10", long 75°03'58", Hydrologic Unit 02060010, 0.5 mi southwest of intersection with DE Rts. 1, and 26, Bethany Beach.  
 Owner: Town of Bethany Beach.  
 AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 400 ft; casing diameter 4 in., to 335 ft; screen diameter 4 in. from 335 to 400 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by Delaware Geological Survey personnel.  
 DATUM.--Elevation of land surface is 7 ft. above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, at land surface.  
 REMARKS.--Delaware Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--February 1988 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.12 ft below land surface, April 1, 1993;  
 lowest measured, 14.14 ft below land surface, Aug. 14, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	6.98	JAN 16, 2002	5.35	APR 16, 2002	5.25	JUL 18, 2002	13.04
NOV 15	6.61	FEB 20	4.72	MAY 15	5.53	AUG 14	14.14
DEC 19	5.36	MAR 14	4.85	JUN 18	9.27	SEP 18	7.58

WATER YEAR 2002      HIGHEST    4.72    FEB 20, 2002      LOWEST    14.14    AUG 14, 2002



SUSSEX COUNTY--Continued

WELL NUMBER.--Rj22-05. SITE ID.--382808075030501.

LOCATION.--Lat 38°28'08", long 75°03'05", Hydrologic Unit 02060010, at Fenwick Island State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 455 ft; casing diameter 1.25 in., to 450 ft; screen diameter 2 in., from 450 to 455 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by Delaware Geological Survey personnel.

Monthly water level measurements from April 1977 to March 1980, and April 1985 to July 1987. Intermittent

water level measurements from September 1980 to February 1985.

DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 1.00 ft above land surface.

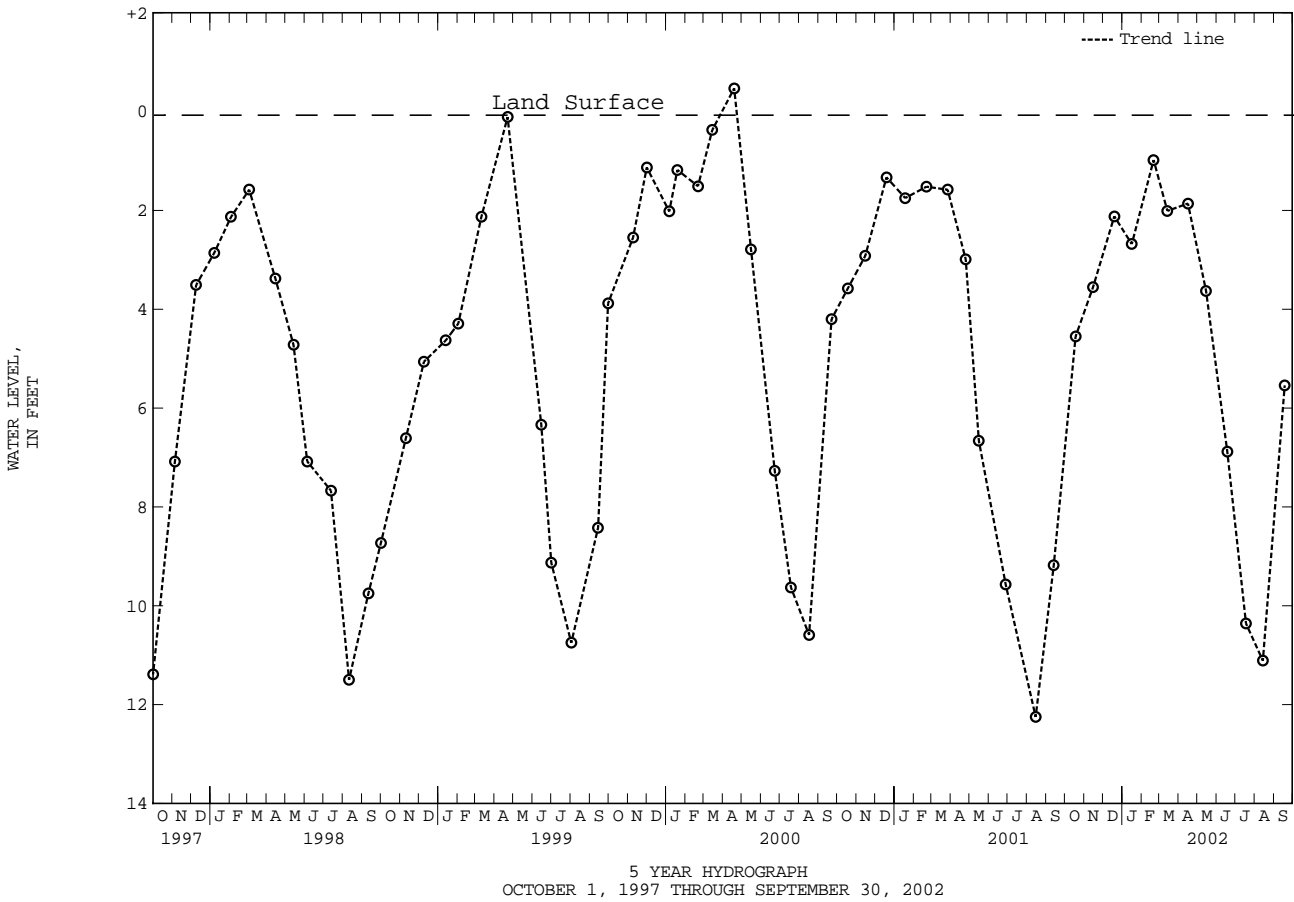
REMARKS.--Delaware Water-Level Monitoring Network observation well.

PERIOD OF RECORD.--April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.00 ft above land surface, March 4, 1997;  
lowest measured, 13.81 ft below land surface, July 30, 1992.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	4.55	JAN 16, 2002	2.68	APR 16, 2002	1.86	JUL 18, 2002	10.36
NOV 15	3.55	FEB 20	.98	MAY 15	3.63	AUG 14	11.11
DEC 19	2.12	MAR 14	2.01	JUN 18	6.88	SEP 18	5.54
WATER YEAR 2002		HIGHEST	.98 FEB 20, 2002	LOWEST	11.11	AUG 14, 2002	





SUSSEX COUNTY--Continued

WELL NUMBER.--Rj22-06. SITE ID.--382808075030502.

LOCATION.--Lat 38°28'08", long 75°03'05", Hydrologic Unit 02060010, at Fenwick Island State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Ocean City aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 1220CNC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 295 ft; casing diameter 1.25 in., to 290 ft; screen diameter 2 in., from 290 to 295 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by Delaware Geological Survey personnel.

Monthly water level measurements from April 1977 to March 1980, and April 1985 to July 1987. Intermittent

water level measurements from September 1980 to February 1985.

DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 1.00 ft above land surface.

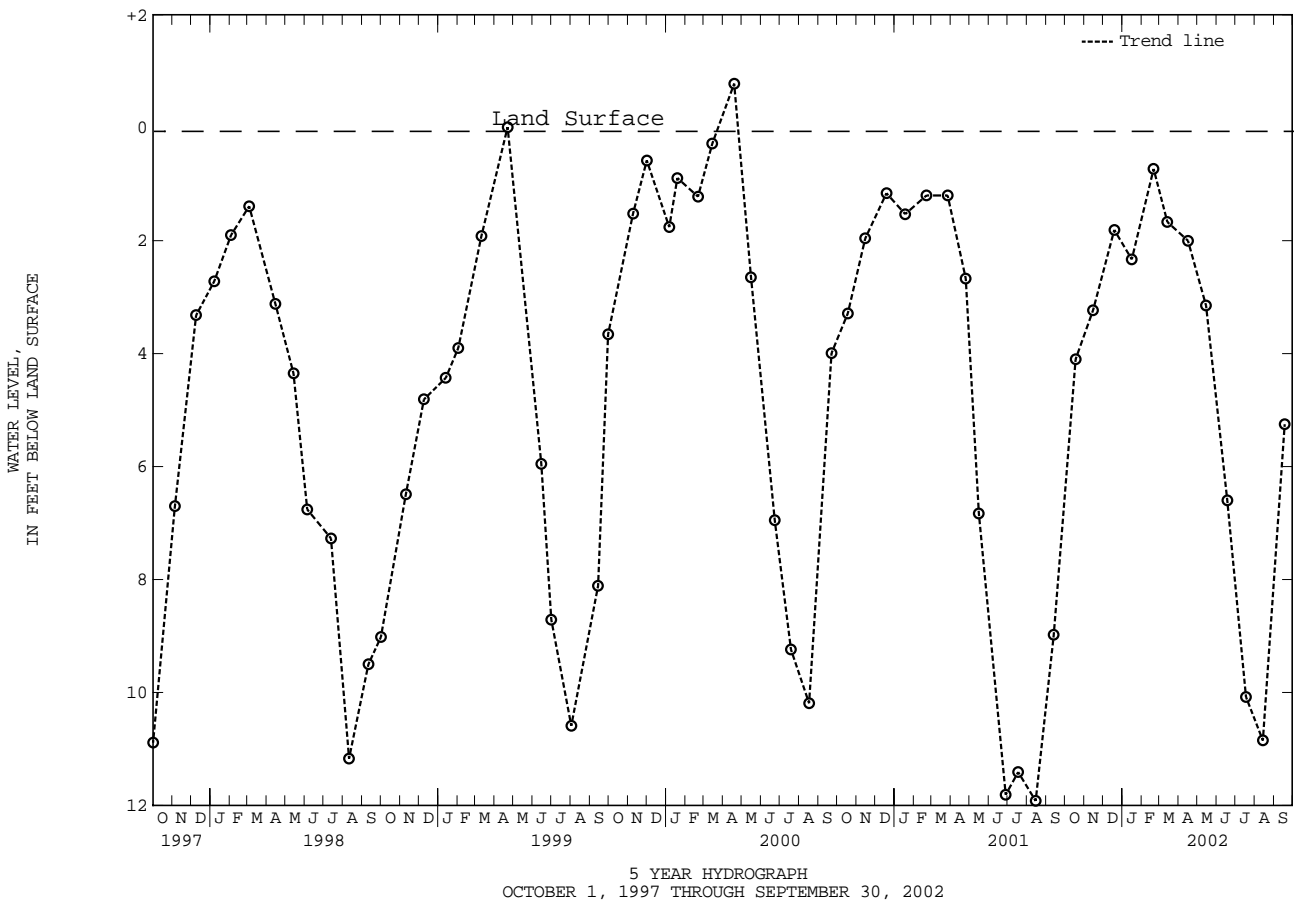
REMARKS.--Delaware Water-Level Monitoring Network observation well.

PERIOD OF RECORD.--April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.00 ft above land surface, April 2, 1979, April 4, 1984, and March 4, 1997; lowest measured, 12.86 ft below land surface, July 30, 1992.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	4.10	JAN 16, 2002	2.33	APR 16, 2002	2.00	JUL 18, 2002	10.08
NOV 15	3.23	FEB 20	.73	MAY 15	3.15	AUG 14	10.85
DEC 19	1.81	MAR 14	1.67	JUN 18	6.60	SEP 18	5.25
WATER YEAR 2002		HIGHEST	.73 FEB 20, 2002	LOWEST	10.85	AUG 14, 2002	



SUSSEX COUNTY--Continued

WELL NUMBER.--Rj22-07. SITE ID.--382808075030503.

LOCATION.--Lat 38°28'08", long 75°03'05", Hydrologic Unit 02060010, at Fenwick Island State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Pocomoke aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122PCMK.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 185 ft; casing diameter 1.25 in., to 180 ft; screen diameter 2 in., from 180 to 185 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by Delaware Geological Survey personnel.

Monthly water level measurements from April 1977 to March 1980, and April 1985 to July 1987. Intermittent water level measurements were collected from September 1980 to February 1985.

DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 1.00 ft above land surface.

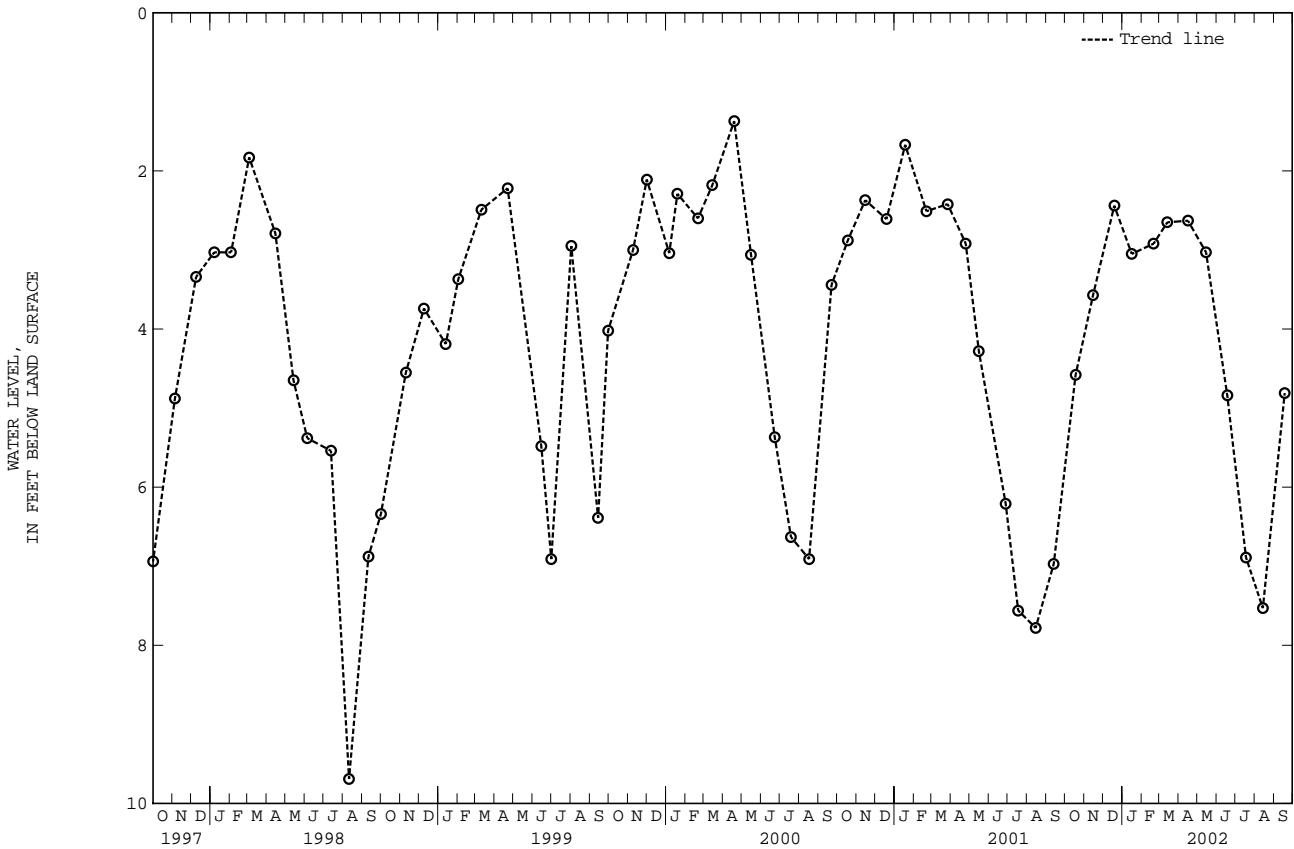
REMARKS.--Delaware Water-Level monitoring Network observation well. Water levels are affect by local ground-water withdrawal.

PERIOD OF RECORD.--April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.33 ft above land surface, Feb. 20, 1986; lowest measured, 10.00 ft below land surface, Aug 4, 1993.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	4.58	JAN 16, 2002	3.05	APR 16, 2002	2.63	JUL 18, 2002	6.89
NOV 15	3.57	FEB 20	2.92	MAY 15	3.03	AUG 14	7.53
DEC 19	2.44	MAR 14	2.65	JUN 18	4.84	SEP 18	4.81
WATER YEAR 2002 HIGHEST 2.44		DEC 19, 2001		LOWEST 7.53		AUG 14, 2002	



SUSSEX COUNTY--Continued

WELL NUMBER.--Rj22-08. SITE ID.--382808075030504.

LOCATION.--Lat 38°28'08", long 75°03'05", Hydrologic Unit 02060010, at Fenwick Island State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Beaverdam Sand of Pliocene age. Aquifer code: 121BVDM.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 115 ft; casing diameter 1.25 in., to 110 ft; screen diameter 2 in., from 110 to 115 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by Delaware Geological Survey personnel. Monthly water level measurements from April 1977 to March 1980, and April 1985 to July 1987. Intermittent water level measurements from September 1980 to February 1985.

DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 1.00 ft above land surface.

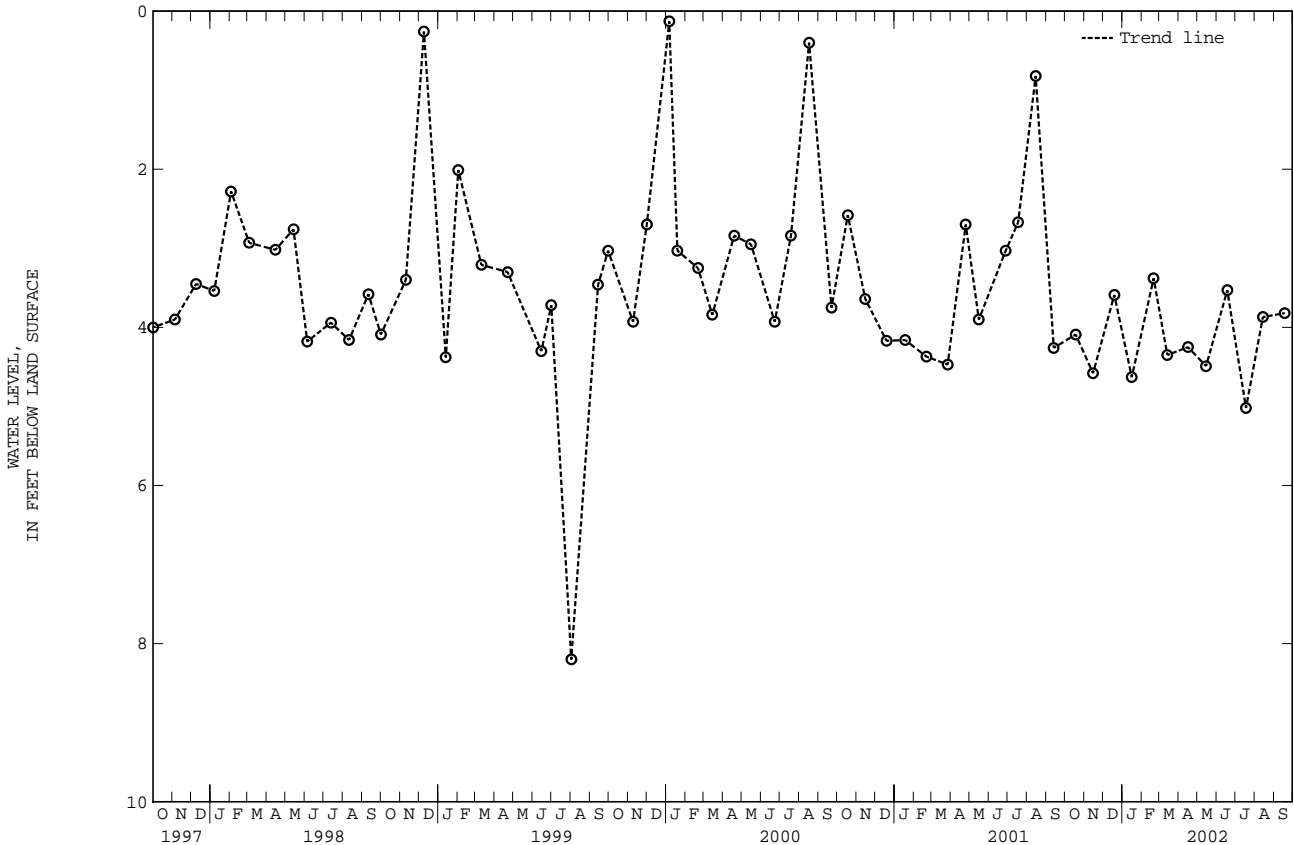
REMARKS.--Delaware Water-Level Monitoring Network observation well. The water level measurement of 8.20 ft below land surface on Aug. 2, 1999, is the result of nearby ground-water withdrawal due to dewatering during the installation of an underground pipeline.

PERIOD OF RECORD.--April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.13 ft below land surface, Jan. 6, 2000; lowest measured, 5.39 ft below land surface, July 24, 1981 (See REMARKS).

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	4.09	JAN 16, 2002	4.63	APR 16, 2002	4.25	JUL 18, 2002	5.02
NOV 15	4.58	FEB 20	3.38	MAY 15	4.49	AUG 14	3.87
DEC 19	3.59	MAR 14	4.35	JUN 18	3.53	SEP 18	3.82
WATER YEAR 2002		HIGHEST	3.38	FEB 20, 2002	LOWEST	5.02	JUL 18, 2002



GROUND-WATER LEVELS IN MARYLAND

ALLEGANY COUNTY

WELL NUMBER.--AL Ah 1. SITE ID.--394024078273401.

LOCATION.--Lat 39°40'24", long 78°27'34", Hydrologic Unit 02070003, near Fifteen Mile Creek, 2.8 mi southeast of Pratt.

Owner: Green Ridge State Forest.

AQUIFER.--Brallier Formation of Upper Devonian Age. Aquifer code: 341BRLR.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, reported depth 300 ft, measured depth 114.5 ft; casing diameter 8 in. to unknown depth; open hole.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 720 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of sanitary seal in casing, 0.25 ft above land surface.

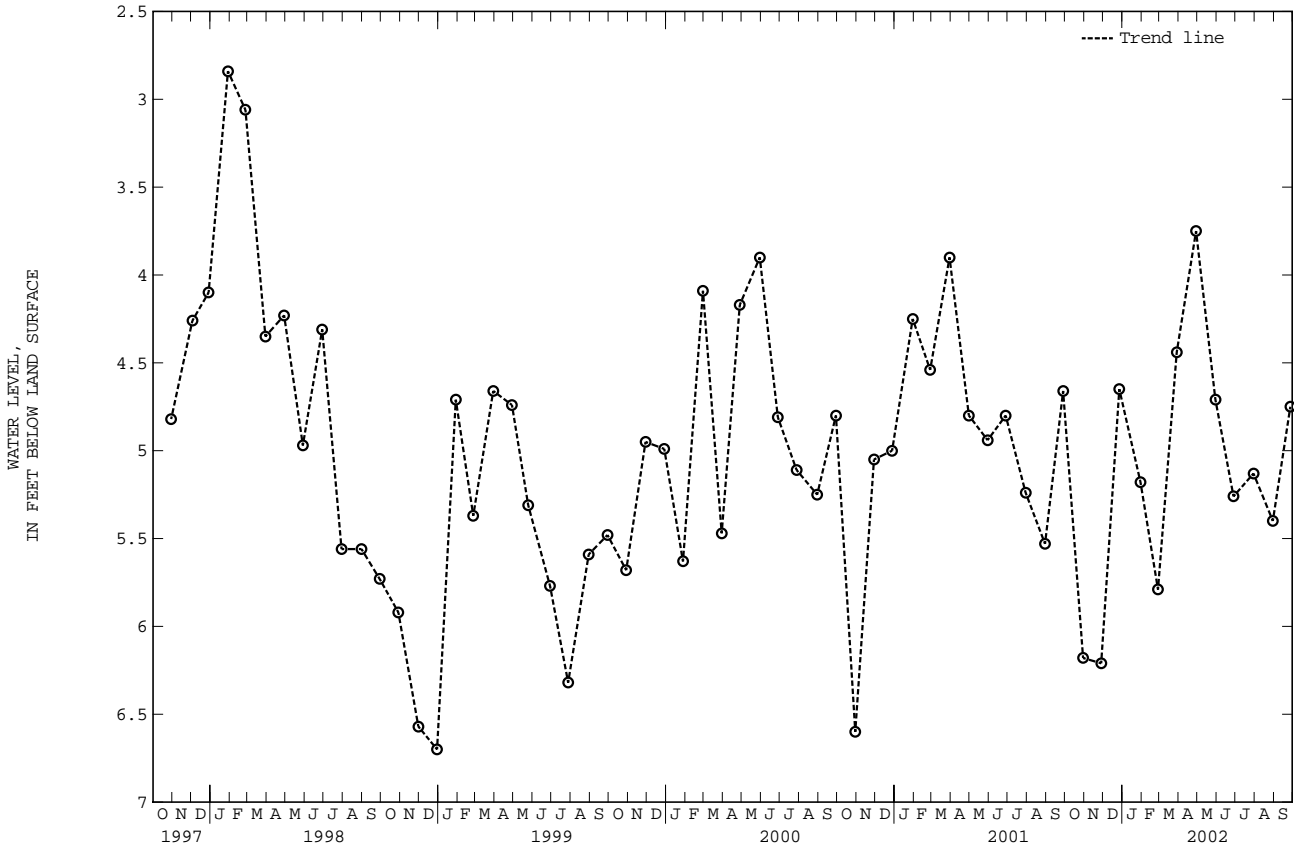
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water level was more than 40 ft below land surface on Nov. 19, 1969, and Feb. 12, 1970, when well was being pumped. Water levels may be affected by local ground-water withdrawal.

PERIOD OF RECORD.--December 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.80 ft below land surface, May 18, 1978; lowest measured 19.75 ft below land surface, July 17, 1968.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	6.18	JAN 30, 2002	5.18	APR 29, 2002	3.75	JUL 30, 2002	5.13
NOV 28	6.21	FEB 27	5.79	MAY 30	4.71	AUG 30	5.40
DEC 27	4.65	MAR 29	4.44	JUN 28	5.26	SEP 27	4.75
WATER YEAR 2002		HIGHEST	3.75	APR 29, 2002	LOWEST	6.21	NOV 28, 2001



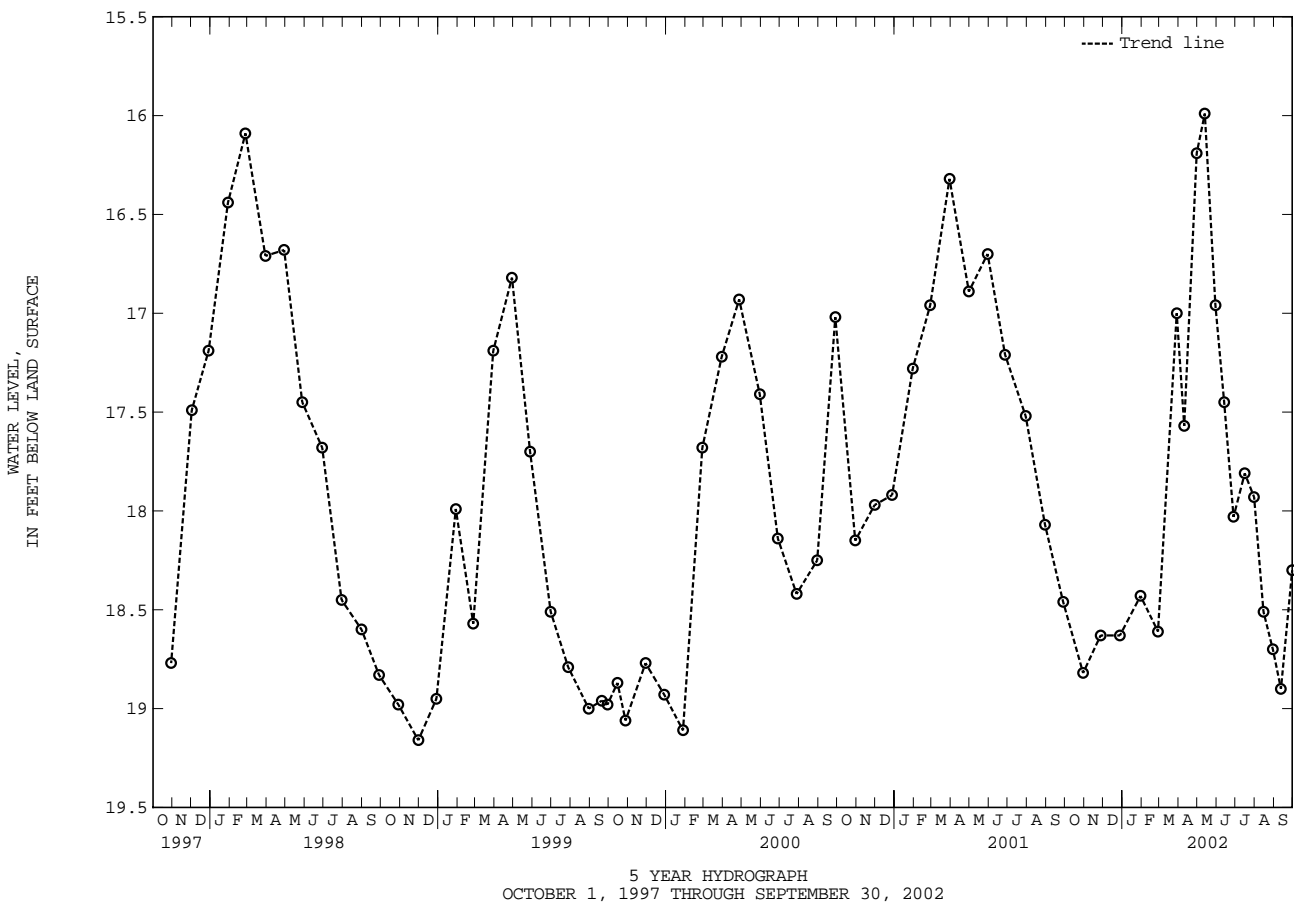
ALLEGANY COUNTY--Continued

WELL NUMBER.--AL Ca 19. SITE ID.--393009079025201. PERMIT NUMBER.--AL-05-0057.  
 LOCATION.--Lat 39°30'09", long 79°02'52", Hydrologic Unit 02070002, north end of Franklin.  
 Owner: Carl W. Arthur.  
 AQUIFER.--Conemaugh Group of Upper Pennsylvanian age. Aquifer code: 321CNMG.  
 WELL CHARACTERISTICS.--Drilled, unused, water-table well, measured depth 86 ft; casing diameter 6 in., to 46 ft; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 1,035 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 2.00 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--July 1974 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.88 ft below land surface, March 19, 1984;  
 lowest measured, 19.30 ft below land surface, Nov. 1, 1977.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	18.82	MAR 29, 2002	17.00	JUN 13, 2002	17.45	AUG 30, 2002	18.70
NOV 27	18.63	APR 10	17.57	28	18.03	SEP 12	18.90
DEC 28	18.63	30	16.19	JUL 16	17.81	30	18.30
JAN 30, 2002	18.43	MAY 13	15.99	31	17.93		
FEB 27	18.61	30	16.96	AUG 15	18.51		

WATER YEAR 2002    HIGHEST    15.99    MAY 13, 2002    LOWEST    18.90    SEP 12, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

ALLEGANY COUNTY--Continued

WELL NUMBER.--AL Ca 20. SITE ID.--393148079010601. PERMIT NUMBER.--AL-81-0477.

LOCATION.--Lat 39°31'48", long 79°01'06", Hydrologic Unit 02070002, at Barton Municipal Park.

Owner: Town of Barton.

AQUIFER.--Conemaugh Group of Upper Pennsylvanian age. Aquifer code: 321CNMG.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 71 ft; casing diameter 8 in., to 20 ft; open hole.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 1,250 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 1.70 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.

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

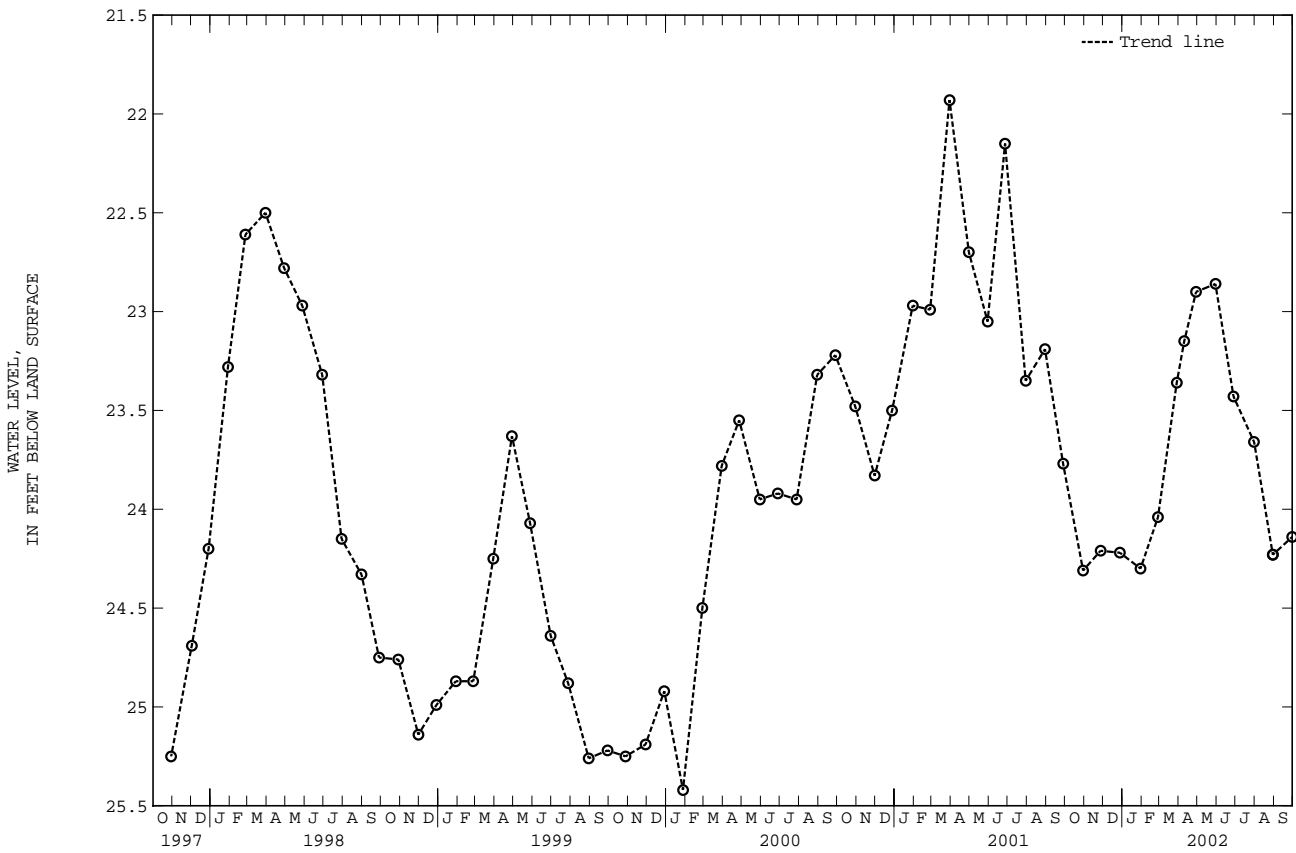
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.57 ft below land surface, Feb. 27, 1996;

lowest measured, 26.00 ft below land surface, March 17, 1992.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	24.31	FEB 27, 2002	24.04	MAY 30, 2002	22.86	AUG 30, 2002	24.23
NOV 27	24.21	MAR 29	23.36	JUN 28	23.43	SEP 30	24.14
DEC 28	24.22	APR 10	23.15	JUL 31	23.66		
JAN 30, 2002	24.30	29	22.90	AUG 30	24.23		

WATER YEAR 2002 HIGHEST 22.86 MAY 30, 2002 LOWEST 24.31 OCT 30, 2001



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

ANNE ARUNDEL COUNTY

WELL NUMBER.--AA Ac 11. SITE ID.--391101076404001. PERMIT NUMBER.--AA-00-2445.

LOCATION.--Lat 39°11'01", long 76°40'40", Hydrologic Unit 02060003, Baltimore-Washington International Airport.

Owner: Maryland Department of Transportation.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 320 ft; casing diameter 6 in., to 312 ft; screened from 312 to 320 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 136.9 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.00 above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Well used during construction of airport.

Water level reported by driller as 90 ft below land surface, April 23, 1948. Water levels are affected by local ground-water withdrawal.

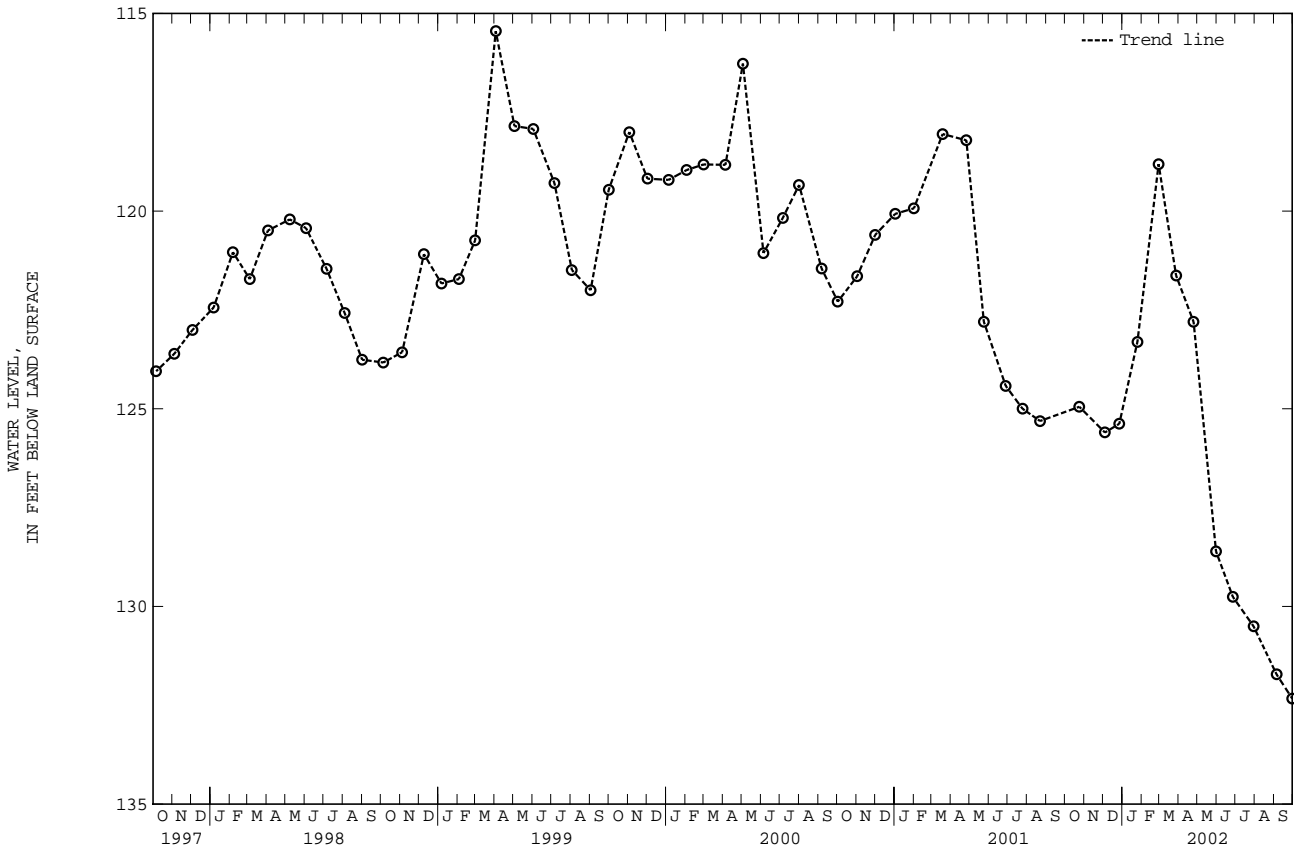
PERIOD OF RECORD.--June 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 86.60 ft below land surface, March 9, 1965; lowest measured, 132.50 ft below land surface, July 30, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	124.95	JAN 25, 2002	123.31	APR 25, 2002	122.80	JUL 30, 2002	130.50
DEC 04	125.60	FEB 28	118.81	MAY 31	128.61	SEP 05	131.72
27	125.38	MAR 28	121.63	JUN 27	129.76	30	132.33

WATER YEAR 2002 HIGHEST 118.81 FEB 28, 2002 LOWEST 132.33 SEP 30, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ad 29. SITE ID.--391015076373501.

LOCATION.--Lat 39°10'15", long 76°37'35", Hydrologic Unit 02060003, near Linden Lane, Glen Burnie, near the Anne Arundel County Department of Public Works office.

Owner: Anne Arundel County Department of Public Works.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 500 ft; casing diameter 3 in., to 395 ft, and from 400 to 420 ft; casing diameter 2 in. from 420 to 460 ft; screened with 3 in. slotted pipe from 395 to 400 ft; screened with 2 in. slotted pipe from 460 to 500 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with graphic water-level recorder from July 19, 1948 to Jan. 18, 1968.

DATUM.--Elevation of land surface is 37.0 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.85 ft above land surface. Prior to Dec. 5, 1972, measuring point was 16.3 ft above land surface.

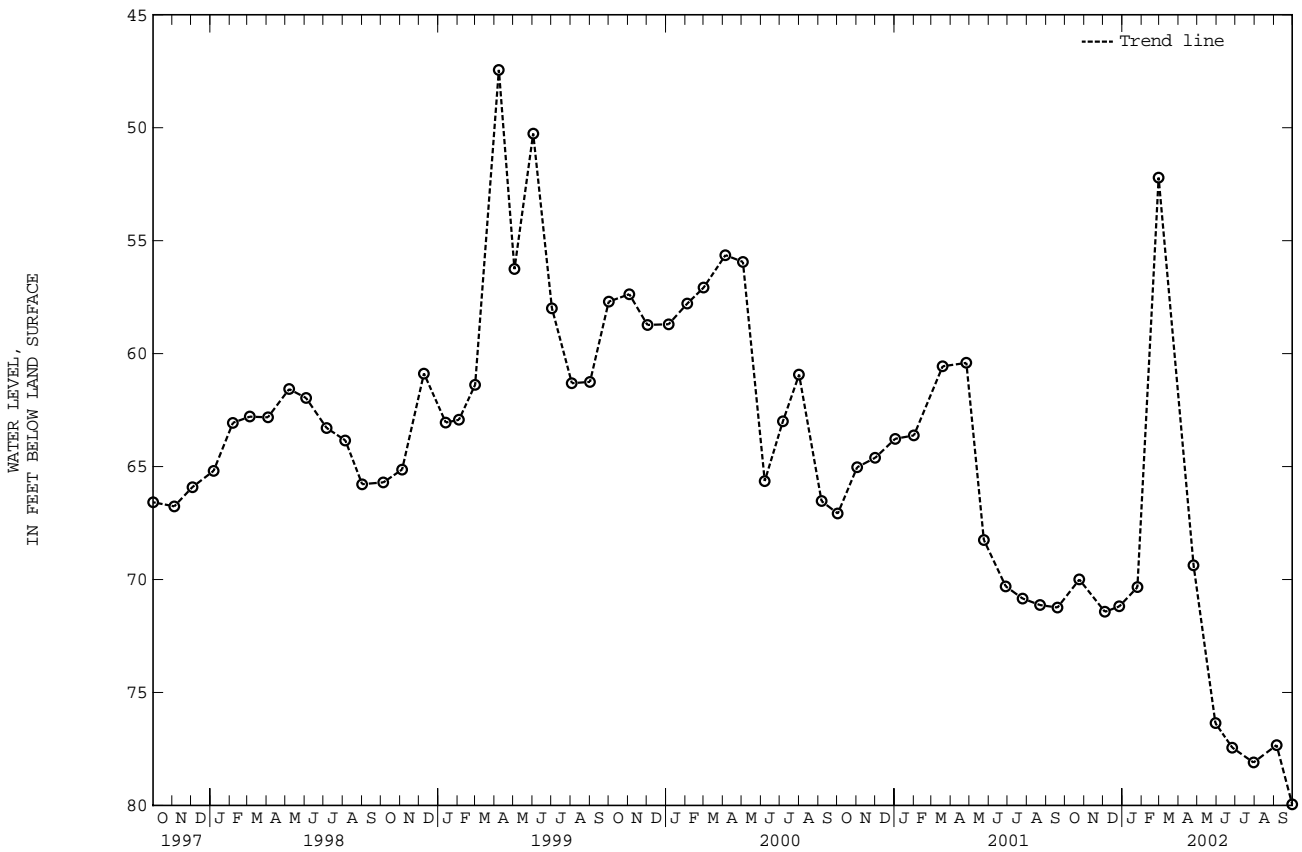
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--June 1948 to February 1968, April 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.04 ft above land surface, Sept. 2, 1952; lowest measured, 79.95 ft below land surface, Sept. 30, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	70.00	JAN 25, 2002	70.34	MAY 30, 2002	76.36	SEP 05, 2002	77.33
DEC 04	71.43	FEB 28	52.21	JUN 26	77.44	30	79.95
27	71.19	APR 25	69.37	JUL 30	78.10		
WATER YEAR 2002		HIGHEST	52.21	FEB 28, 2002	LOWEST	79.95	SEP 30, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



## ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ad 90. SITE ID.--391032076385902. PERMIT NUMBER.--AA-04-0298.  
 LOCATION.--Lat 39°10'32", long 76°38'59", Hydrologic Unit 02060003, off Aviation Blvd., 0.5 mi north of Dorsey Road intersection.  
 Owner: Anne Arundel County Department of Public Works.  
 AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 453 ft; casing diameter 6 in., to 443 ft;  
 screen diameter 6 in. from 443 to 453 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with graphic water-level recorder from Aug. 19, 1977 to Sept. 4, 1979. Periodic measurements from September 1979 to March 1980. Equipped with digital water-level recorder--30-minute recorder interval from March 1980 to Dec. 31, 1984, and August 1989 to current year.  
 DATUM.--Elevation of land surface is 77.85 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of shelter platform, 2.20 ft above land surface.  
 REMARKS.--Anne Arundel County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal. Missing data due to recorder malfunction.  
 PERIOD OF RECORD.--April 1977 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.87 ft above sea level, Nov. 20, 1978 (recorder); lowest measured, 64.72 ft below sea level, Sept. 26, 2002 (recorder).

## WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-54.49	-54.56	-53.42	-53.74	-53.98	-54.09	-53.60	-53.63	-52.42	-52.62	-20.92	-21.25
2	-54.49	-54.55	-53.42	-53.55	-54.08	-54.09	-53.53	-53.64	-52.62	-52.73	-21.02	-21.30
3	---	---	-53.55	-53.73	-53.99	-54.09	-53.38	-53.53	-52.52	-52.71	-21.00	-21.11
4	---	---	-53.73	-53.76	-54.04	-54.07	-53.38	-53.43	-52.45	-52.61	-21.11	-21.24
5	-54.42	-54.52	-53.76	-53.83	-53.84	-54.08	-53.33	-53.41	-52.45	-52.66	-21.22	-21.26
6	-54.38	-54.50	-53.83	-53.88	-52.58	-53.84	-53.03	-53.33	-41.79	-52.45	-21.14	-21.32
7	-54.50	-54.62	-53.88	-53.94	-53.38	-54.07	-53.03	-53.16	-36.65	-41.79	-21.25	-30.89
8	-54.62	-54.70	-53.93	-53.99	-54.07	-54.36	-53.16	-53.21	-33.73	-36.65	-30.89	-38.72
9	-54.70	-54.75	-52.69	-54.05	-54.36	-54.57	-53.02	-53.17	-31.81	-33.73	-38.72	-42.91
10	-48.18	-54.70	-52.51	-52.70	-54.51	-54.80	-53.03	-53.04	-30.06	-31.81	-42.91	-45.87
11	-48.67	-51.03	-52.70	-53.30	-54.80	-55.12	-52.96	-53.05	-29.03	-30.06	-45.87	-47.79
12	-51.03	-52.26	-53.30	-53.62	-55.12	-55.86	-52.89	-53.05	-27.84	-29.03	-47.49	-48.41
13	-52.26	-52.94	-52.51	-53.65	-55.86	-57.16	-52.81	-53.00	-27.14	-27.84	-47.90	-49.14
14	-52.94	-53.22	-52.51	-52.85	-56.52	-57.16	-52.91	-53.02	-25.67	-27.14	-48.58	-49.63
15	-52.98	-53.50	-51.33	-52.96	-56.11	-56.52	-52.89	-52.98	-25.12	-25.67	-49.38	-50.72
16	-52.79	-52.98	-51.74	-52.65	-55.57	-56.11	-52.97	-53.01	-24.68	-25.12	-50.48	-51.22
17	-52.98	-53.43	-52.65	-53.19	-54.90	-55.57	-52.86	-52.97	-24.48	-24.68	-48.60	-50.48
18	-53.43	-53.65	-53.19	-53.37	-54.77	-54.90	-52.89	-52.96	-24.21	-24.48	-47.41	-48.60
19	-53.65	-53.72	-53.37	-53.40	-54.53	-54.81	-52.73	-52.96	-23.84	-24.21	-46.64	-47.41
20	-53.72	-53.87	-53.38	-53.62	-54.46	-54.54	-52.74	-52.86	-23.40	-23.84	-45.97	-46.64
21	-52.13	-53.92	-53.62	-53.70	-54.44	-54.48	-52.72	-52.85	-23.26	-23.40	-45.57	-45.97
22	-52.04	-52.57	-53.70	-53.78	-54.32	-54.47	-52.79	-52.89	-23.22	-23.28	-45.43	-45.58
23	-52.14	-52.81	-53.78	-53.87	-54.04	-54.32	-52.71	-52.88	-23.08	-23.22	-45.21	-45.43
24	-51.50	-52.44	-53.87	-53.89	-53.97	-54.05	-52.56	-52.71	-22.94	-23.08	-45.01	-45.21
25	-52.31	-52.94	-53.84	-53.89	-53.96	-54.04	-52.63	-52.82	-22.65	-22.94	-44.95	-45.01
26	-52.94	-53.32	-53.84	-53.90	-53.81	-53.96	-52.76	-52.82	-22.33	-22.65	-44.69	-44.98
27	-52.66	-53.46	-53.77	-53.84	-53.70	-53.83	-52.74	-52.80	-20.16	-22.35	-44.67	-44.71
28	-52.66	-53.14	-53.82	-53.88	-53.60	-53.72	-52.69	-52.77	-20.30	-20.92	-44.62	-44.71
29	-53.14	-53.37	-53.85	-53.92	-53.59	-53.68	-52.66	-52.73	---	---	-44.46	-44.63
30	-53.37	-53.64	-53.88	-53.98	-53.65	-53.68	-52.60	-52.66	---	---	-44.43	-44.50
31	-53.64	-53.71	---	---	-53.60	-53.68	-52.60	-52.69	---	---	-43.26	-44.51
MONTH	---	---	-51.33	-54.05	-52.58	-57.16	-52.56	-53.64	-20.16	-52.73	-20.92	-51.22

GROUND-WATER LEVELS IN MARYLAND--Continued

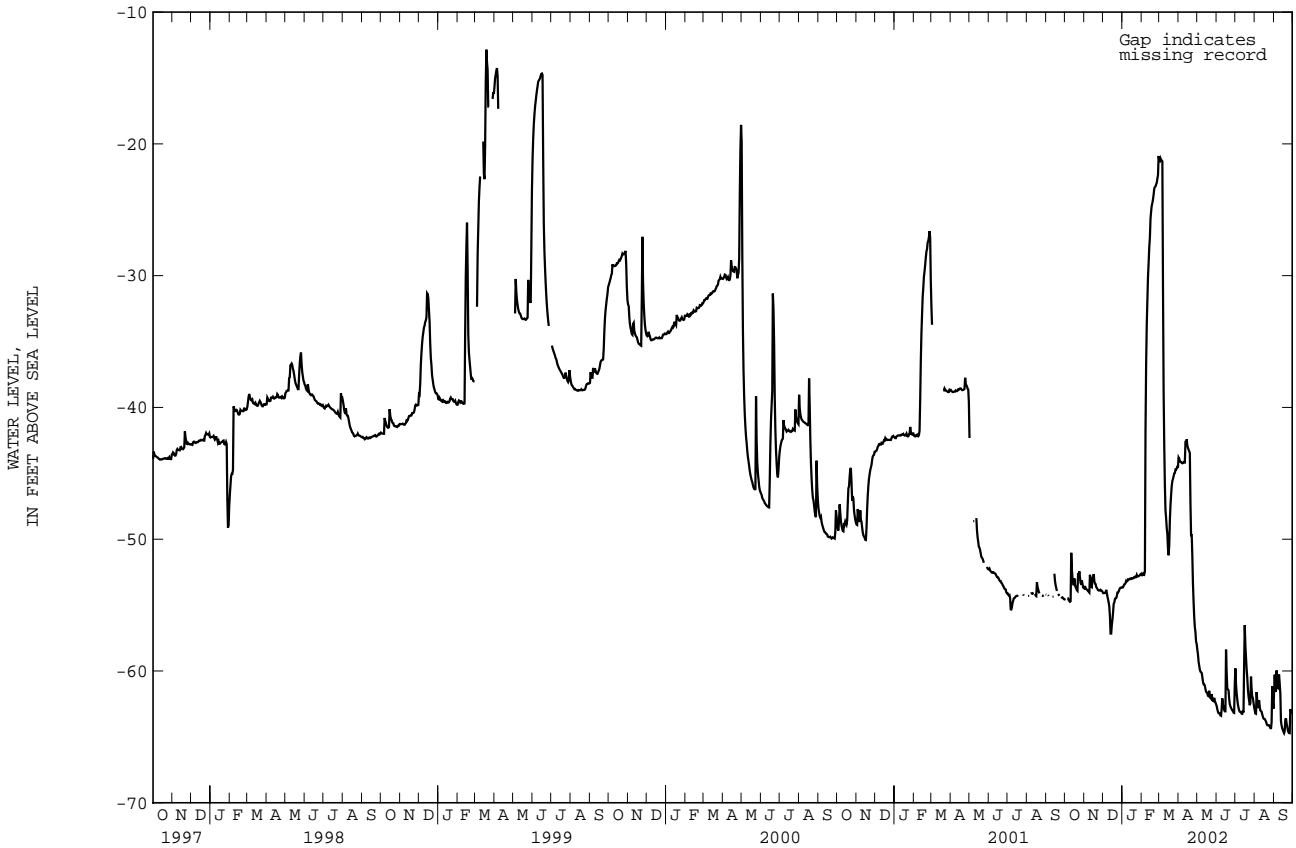
ANNE ARUNDEL COUNTY--Continued

AA Ad 90--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-43.38	-43.80	-57.91	-58.39	-62.51	-62.66	-57.42	-59.80	-62.76	-62.99	-55.96	-61.56
2	-43.80	-43.89	-58.35	-58.73	-62.66	-62.89	-59.80	-61.01	-62.99	-63.23	-58.01	-60.28
3	-43.87	-44.06	-58.73	-59.29	-62.89	-63.08	-61.01	-61.70	-59.22	-63.25	-60.28	-61.46
4	-44.06	-44.13	-59.29	-59.59	-63.08	-63.20	-61.70	-62.16	-60.31	-61.60	-56.94	-61.58
5	-44.12	-44.14	-59.59	-59.89	-63.20	-63.21	-62.16	-62.54	-61.60	-62.25	-57.76	-59.96
6	-44.12	-44.21	-59.89	-60.05	-63.13	-63.23	-62.54	-62.79	-62.25	-62.75	-59.96	-61.22
7	-44.21	-44.24	-58.91	-60.09	-63.22	-63.37	-62.79	-62.99	-60.31	-62.75	-60.23	-61.27
8	-44.14	-44.21	-59.54	-60.15	-62.67	-63.40	-62.99	-63.09	-61.31	-62.23	-59.25	-60.59
9	-44.08	-44.15	-60.15	-60.43	-60.23	-62.87	-63.07	-63.11	-62.23	-62.73	-59.58	-60.27
10	-44.07	-44.18	-60.43	-60.81	-61.05	-62.08	-63.07	-63.16	-62.73	-63.00	-60.27	-60.98
11	-40.63	-44.18	-60.81	-61.01	-62.08	-62.51	-63.16	-63.24	-62.58	-63.04	-60.98	-61.71
12	-41.84	-42.69	-60.99	-61.02	-62.51	-62.77	-62.49	-63.25	-62.77	-63.09	-61.71	-63.81
13	-40.77	-42.73	-60.96	-61.11	-62.77	-62.96	-62.72	-63.00	-63.09	-63.29	-63.81	-64.13
14	-41.69	-42.42	-61.11	-61.36	-62.96	-63.06	-59.35	-63.15	-63.29	-63.47	-64.13	-64.35
15	-42.42	-42.88	-61.36	-61.58	-56.47	-63.06	-52.50	-59.35	-63.47	-63.60	-64.35	-64.47
16	-42.88	-43.06	-61.58	-61.62	-55.46	-58.38	-53.70	-56.52	-63.58	-63.64	-64.47	-64.60
17	-43.06	-43.21	-61.62	-61.68	-57.80	-60.07	-56.21	-58.10	-63.59	-63.65	-64.55	-64.71
18	-40.36	-43.31	-61.60	-61.88	-60.07	-61.30	-57.63	-58.99	-63.65	-63.74	-63.71	-64.55
19	-40.67	-43.47	-60.43	-61.91	-59.87	-61.40	-58.99	-59.84	-63.74	-63.83	-63.23	-63.71
20	-43.47	-47.34	-60.91	-61.50	-60.36	-61.47	-59.72	-60.51	-63.82	-64.00	-63.26	-63.59
21	-47.34	-49.70	-61.50	-61.86	-61.47	-62.09	-60.51	-61.37	-64.00	-64.11	-63.59	-63.96
22	-46.64	-49.70	-61.86	-62.05	-62.09	-62.51	-61.37	-61.91	-64.07	-64.12	-63.96	-64.21
23	-49.07	-51.27	-61.37	-62.10	-62.51	-62.68	-61.91	-62.26	-64.07	-64.11	-64.21	-64.48
24	-51.27	-53.35	-61.39	-61.75	-62.68	-62.80	-62.26	-62.60	-64.09	-64.13	-64.48	-64.64
25	-53.35	-54.75	-61.75	-62.07	-62.80	-62.90	-58.40	-62.43	-64.13	-64.23	-64.64	-64.71
26	-54.75	-55.88	-62.07	-62.27	-62.90	-62.99	-59.56	-60.43	-64.23	-64.30	-62.89	-64.72
27	-55.88	-56.64	-61.57	-62.29	-62.98	-63.00	-60.43	-61.39	-63.87	-64.40	-62.82	-62.89
28	-56.64	-57.06	-61.67	-62.04	-63.00	-63.16	-61.39	-61.97	-57.86	-63.87	-62.84	-63.07
29	-57.06	-57.77	-62.04	-62.23	-60.95	-63.18	-61.50	-62.03	-59.19	-61.15	-63.07	-63.15
30	-57.77	-57.96	-62.23	-62.39	-55.08	-61.03	-61.90	-62.40	-61.15	-62.29	-63.15	-63.19
31	---	---	-62.39	-62.51	---	---	-62.40	-62.76	-61.56	-62.86	---	---
MONTH	-40.36	-57.96	-57.91	-62.51	-55.08	-63.40	-52.50	-63.25	-57.86	-64.40	-55.96	-64.72

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ad 102. SITE ID.--391032076385904. PERMIT NUMBER.--AA-81-2641.  
LOCATION.--Lat 39°10'32", long 76°38'59", Hydrologic Unit 02060003, off Aviation Blvd., 0.5 mi north of Dorsey Road intersection.

Owner: U.S. Geological Survey.

AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.

WELL CHARACTERISTICS.--Drilled, observation, artesian well (semi-confined), depth 95; casing diameter 6 in., to 85 ft; screen diameter 6 in. from 85 to 95 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from Dec. 1983 to Oct. 2, 1990.

DATUM.--Elevation of land surface is 76.72 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 5.27 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--December 1983 to current year.

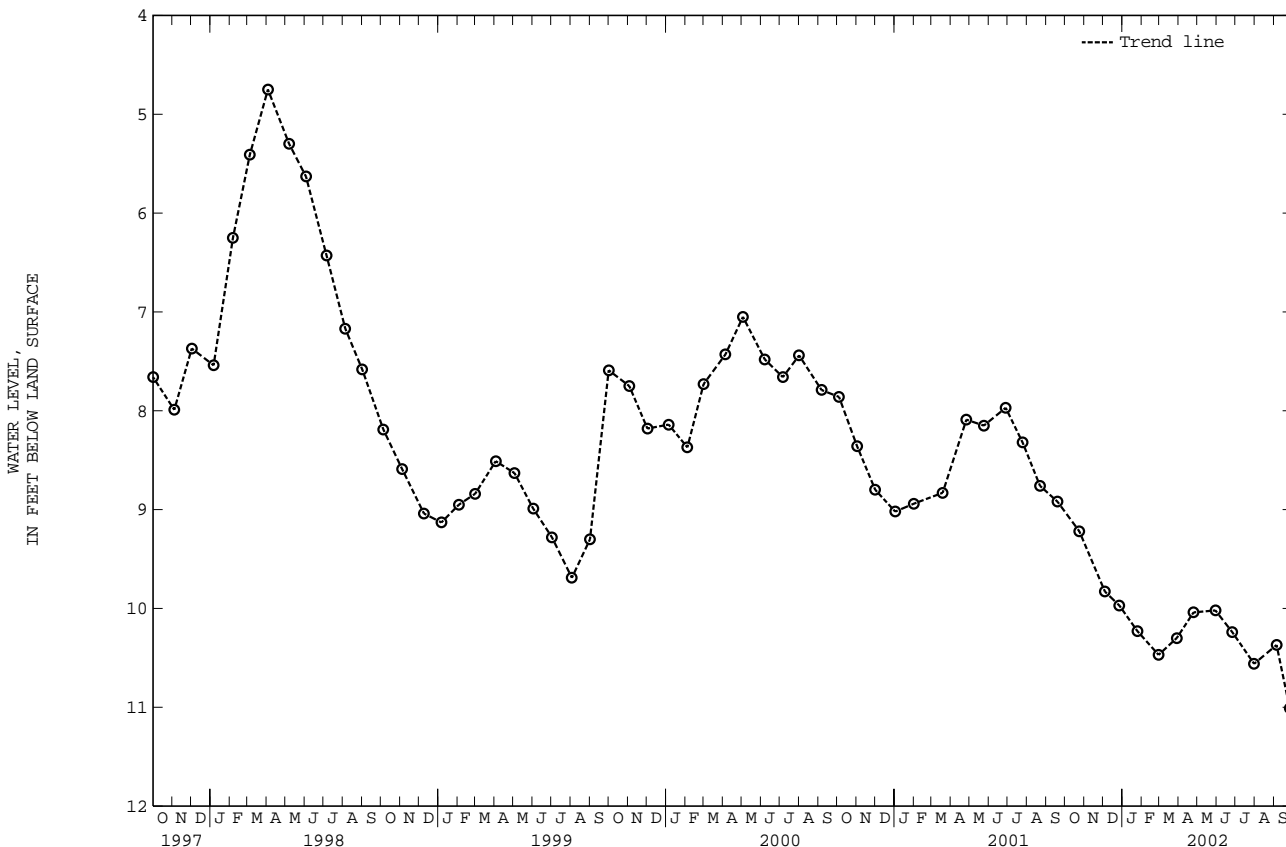
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.75 ft below land surface, April 3, 1998;

lowest measured, 14.36 ft below land surface, Nov. 3, 1986.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	9.22	JAN 25, 2002	10.23	APR 25, 2002	10.04	JUL 31, 2002	10.56
DEC 04	9.83	FEB 28	10.47	MAY 30	10.02	SEP 05	10.37
27	9.97	MAR 29	10.30	JUN 26	10.24	26	11.01

WATER YEAR 2002      HIGHEST    9.22 OCT 24, 2001      LOWEST    11.01 SEP 26, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

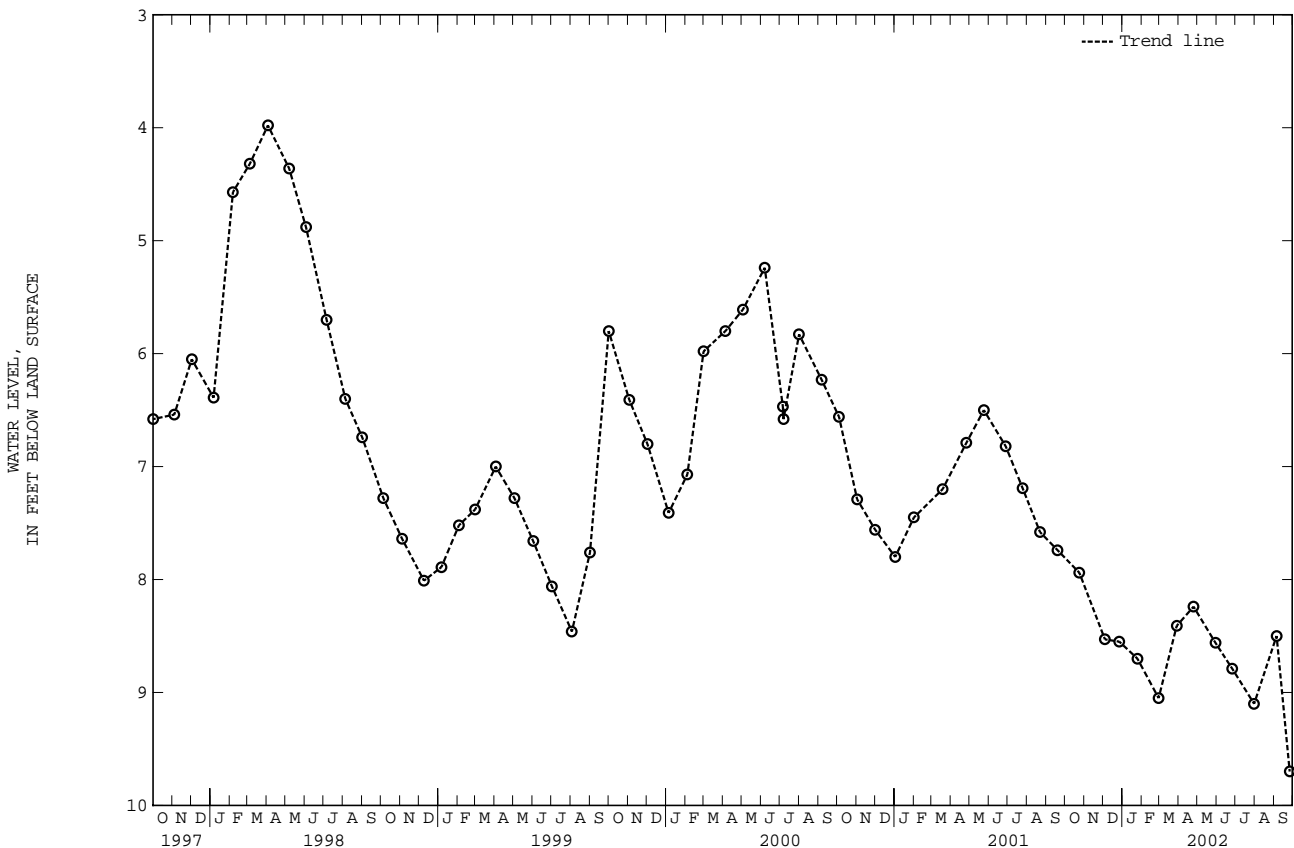
GROUND-WATER LEVELS IN MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ad 108. SITE ID.--391032076385906. PERMIT NUMBER.--AA-81-3475.  
 LOCATION.--Lat 39°10'32", long 76°38'59", Hydrologic Unit 02060003, off Aviation Blvd., 0.5 mi north of Dorsey Road intersection.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 11 ft; casing diameter 4 in., to 6 ft and casing diameter 6 in. to 3 ft; screen diameter 4 in. from 6 to 11 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from Feb. 23, 1986, to Sept. 30, 1990.  
 DATUM.--Elevation of land surface is 78.31 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 5.50 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--August 1984 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.98 ft below land surface, April 3, 1998;  
 lowest measured, Dry on Aug. 22, 1985; Jan. 17, 1986; May 20, 1986; July 8, 1986 and Nov. 3, 1986 (recorder).

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	7.94	JAN 25, 2002	8.70	APR 25, 2002	8.24	JUL 31, 2002	9.10
DEC 04	8.53	FEB 28	9.05	MAY 30	8.56	SEP 05	8.50
27	8.55	MAR 29	8.41	JUN 26	8.79	26	9.70
WATER YEAR 2002 HIGHEST 7.94 OCT 24, 2001		LOWEST 9.70		SEP 26, 2002			



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Ad 109--Continued

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	38.37	38.27	38.50	38.46	38.57	38.53	38.37	38.34	---	---	38.29	38.12
2	38.32	38.24	38.70	38.47	38.54	38.46	38.41	38.37	---	---	---	---
3	38.34	38.19	38.64	38.39	---	---	38.42	38.41	38.23	38.19	---	---
4	38.19	38.15	38.40	38.35	---	---	38.42	38.40	38.22	38.22	---	---
5	38.22	38.17	---	---	38.49	38.39	38.40	38.32	38.29	38.22	38.29	38.24
6	38.22	38.17	---	---	38.67	38.49	38.32	38.31	38.30	38.20	38.25	38.20
7	38.17	38.14	38.53	38.50	38.58	38.42	---	---	38.20	38.19	38.20	38.17
8	38.24	38.16	38.53	38.48	38.43	38.39	---	---	38.19	38.17	38.18	38.17
9	38.26	38.24	38.53	38.48	38.51	38.43	38.41	38.32	38.17	38.15	38.26	38.18
10	38.26	38.16	38.53	38.43	---	---	38.41	38.35	38.18	38.16	38.37	38.26
11	38.16	38.12	38.43	38.35	---	---	38.35	38.29	38.19	38.18	38.40	38.22
12	38.22	38.13	38.57	38.42	38.55	38.54	---	---	38.19	38.19	38.22	38.15
13	38.31	38.22	38.76	38.57	38.55	38.53	---	---	---	---	38.15	38.14
14	38.35	38.31	38.67	38.50	---	---	---	---	---	---	38.15	38.14
15	38.35	38.29	---	---	---	---	38.37	38.35	---	---	38.16	38.14
16	---	---	---	---	38.54	38.52	38.37	38.34	---	---	38.20	38.16
17	---	---	38.55	38.50	38.52	38.46	38.34	38.30	---	---	38.20	38.16
18	38.51	38.23	38.67	38.47	38.46	38.38	38.35	38.32	38.19	38.17	38.17	38.15
19	---	---	---	---	38.38	38.34	38.36	38.35	38.19	38.15	38.15	38.13
20	---	---	---	---	38.34	38.32	38.35	38.27	38.17	38.07	38.15	38.13
21	38.42	38.37	---	---	38.36	38.32	38.27	38.23	38.07	38.01	38.16	38.15
22	38.48	38.37	38.42	38.39	38.42	38.36	38.25	38.22	38.14	38.03	38.17	38.16
23	38.39	38.31	38.51	38.42	38.46	38.42	38.32	38.25	38.15	38.14	---	---
24	38.31	38.26	38.55	38.51	38.47	38.43	---	---	38.21	38.15	---	---
25	38.43	38.30	---	---	38.46	38.44	---	---	38.20	38.11	---	---
26	38.36	38.28	---	---	38.48	38.44	---	---	38.11	38.09	---	---
27	38.33	38.24	---	---	38.50	38.48	38.35	38.29	38.09	38.04	38.42	38.31
28	38.70	38.33	---	---	38.50	38.42	38.35	38.34	38.15	38.03	38.42	38.21
29	38.68	38.46	---	---	38.42	38.34	38.34	38.31	38.20	38.15	38.21	38.19
30	38.50	38.44	38.53	38.48	38.34	38.33	38.33	38.27	38.20	38.14	---	---
31	---	---	38.57	38.53	---	---	---	---	38.14	38.12	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ad 110. SITE ID.--391032076385907. PERMIT NUMBER.--AA-88-8878.  
 LOCATION.--Lat 39°10'32", long 76°38'59", Hydrologic Unit 02060003, off Aviation Blvd. 0.5 mi of Dorsey Road intersection.  
 Owner:Maryland State Highway Administration.

AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 28 ft; casing diameter 4 in., to 18 ft;  
 screen diameter 4 in. from 18 to 28 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 77.42 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 5.03 ft. above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.

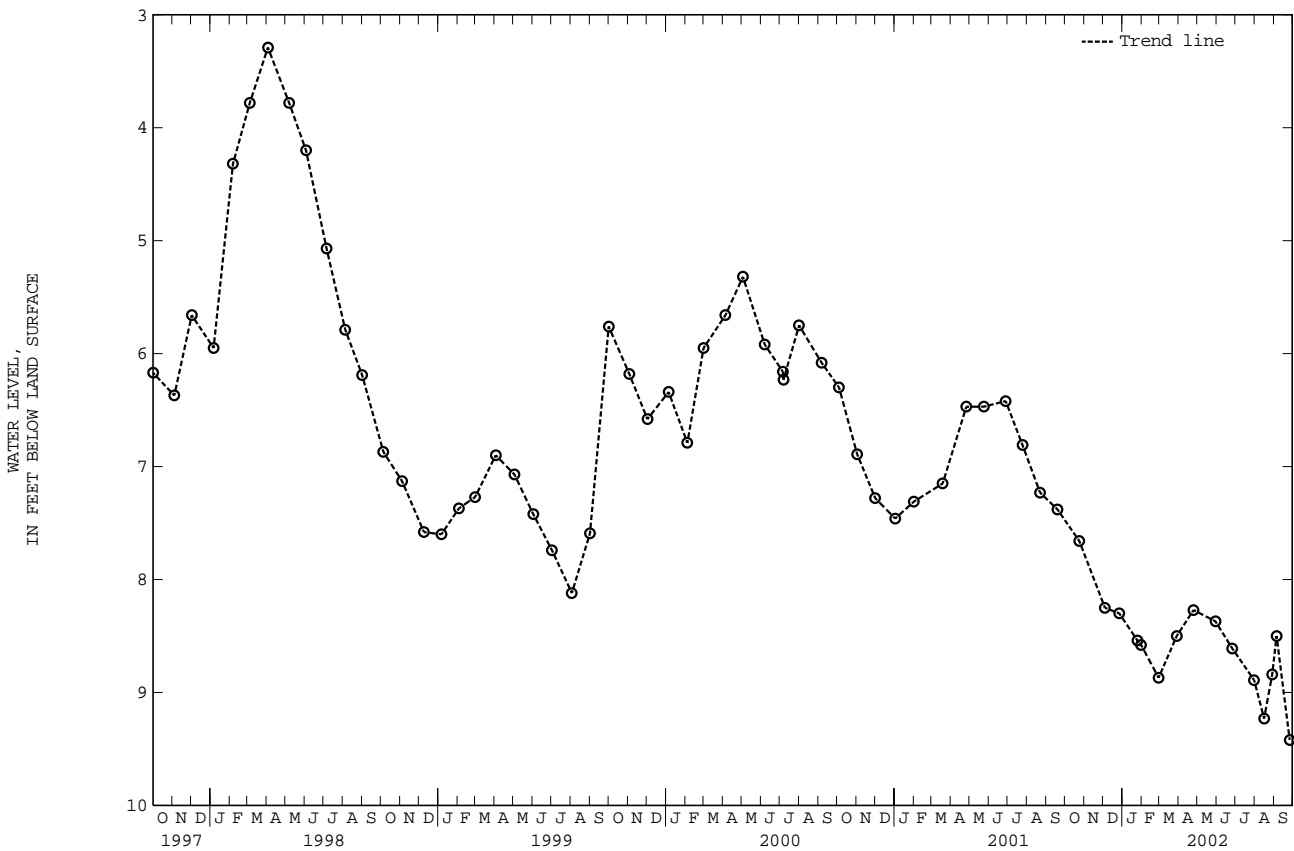
PERIOD OF RECORD.--December 1992 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.29 ft below land surface, April 3, 1998;  
 lowest measured, 9.89 ft below land surface, December 3, 1992.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	7.66	JAN 31, 2002	8.58	MAY 30, 2002	8.37	AUG 29, 2002	8.84
DEC 04	8.25	FEB 28	8.87	JUN 26	8.61	SEP 05	8.50
27	8.30	MAR 29	8.50	JUL 31	8.89	26	9.42
JAN 25, 2002	8.54	APR 25	8.27	AUG 16	9.23		

WATER YEAR 2002 HIGHEST 7.66 OCT 24, 2001 LOWEST 9.42 SEP 26, 2002



ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 91. SITE ID.--390950076391101. PERMIT NUMBER.--AA-04-2029.

LOCATION.--Lat 39°09'50", long 76°39'11", Hydrologic Unit 02060003, .3 mi southeast of the intersection of Dorsey Road and Baltimore Annapolis Blvd., in the median of MD Route 176, Glen Burnie.

Owner: Anne Arundel County Department of Public Works.

AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.

WELL CHARACTERISTICS.--Drilled, artesian (semi-confined), observation well, depth 160 ft; casing diameter 6 in., to 119 ft; casing diameter 4 in. from 119 to 155 ft; screen diameter 2 in. from 155 to 160 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital recorder from April 1981 to March 1986.

DATUM.--Elevation of land surface is 82.63 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 3.25 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels were affected by local ground-water withdrawal up to May 1995; when the nearby pumping station discontinued ground-water withdrawal from the Patapsco aquifer.

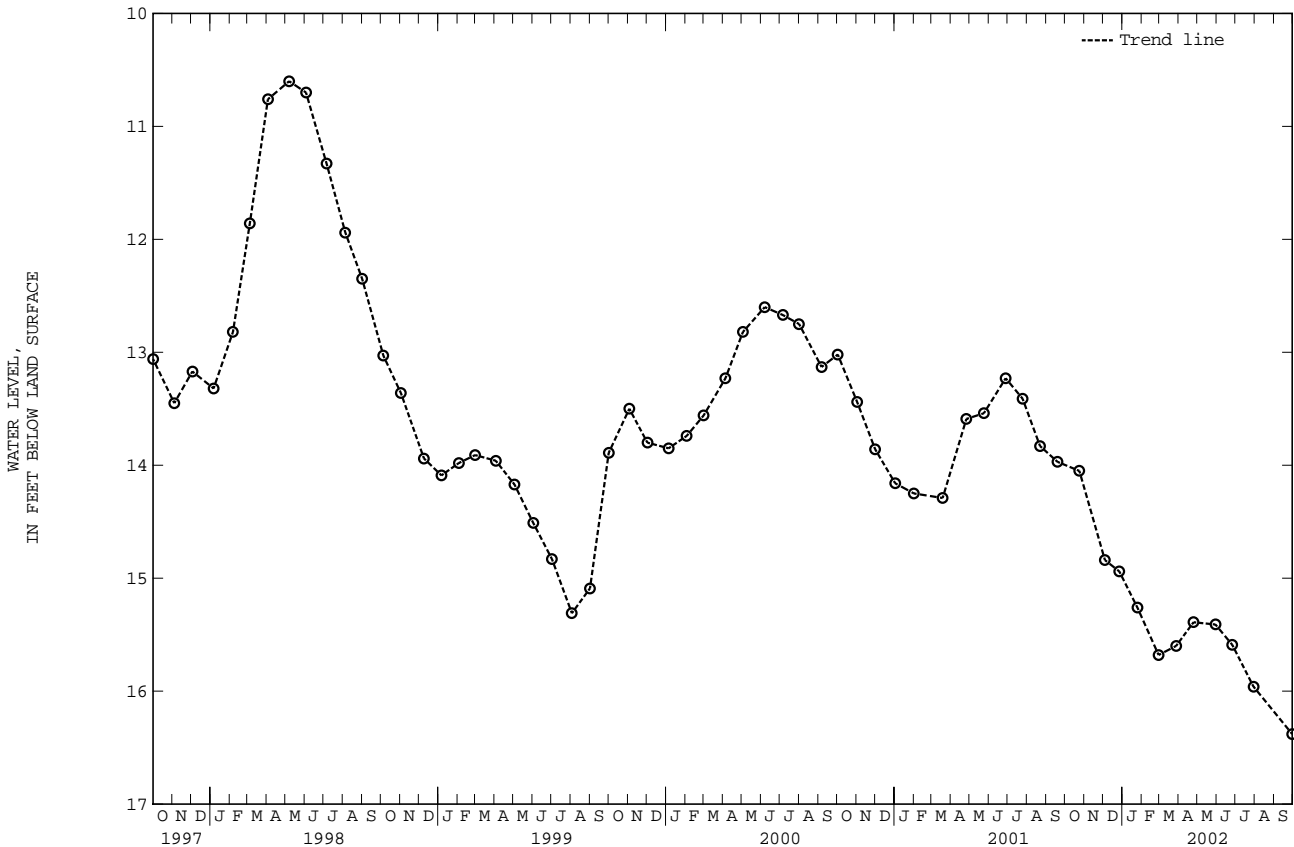
PERIOD OF RECORD.--March 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.60 ft below land surface, May 7, 1998; lowest measured, 75.20 ft below land surface, Sept. 1, 1982.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	14.05	JAN 25, 2002	15.26	APR 25, 2002	15.39	JUL 30, 2002	15.96
DEC 04	14.84	FEB 28	15.68	MAY 30	15.41	SEP 30	16.38
27	14.94	MAR 28	15.60	JUN 26	15.59		

WATER YEAR 2002      HIGHEST    14.05    OCT 24, 2001      LOWEST    16.38    SEP 30, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



## ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 152. SITE ID.--390821076365401. PERMIT NUMBER.--AA-81-3463.

LOCATION.--Lat 39°08'21", long 76°36'54", Hydrologic Unit 02060003, 100 ft north of MD Rt 100, 0.2 mi southeast of the intersection of Oakwood Road and Funke Road, at Woodside Elementary School.

Owner: U.S. Geological Survey.

AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 103 ft; casing diameter 6 in., to 90 ft; and casing diameter 4 in. from 100 to 103 ft; screen diameter 4 in. from 90 to 100 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from March 14, 1985 to December 2, 1996, and 30-minute recorder interval from December 2, 1996 to current year.

DATUM.--Elevation of land surface is 53.29 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of shelter platform, 3.00 ft above land surface.

REMARKS.--Anne Arundel County Ground-Water-Level Monitoring Network observation well. Water levels before Feb. 23, 1986 are currently not available. Water levels are affected by local ground-water withdrawal. Missing data due to recorder malfunction.

PERIOD OF RECORD.--March 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.98 ft above sea level, April 14, 1994 (recorder); lowest measured, 19.88 ft above sea level, Aug. 21, 1987 (recorder).

## WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	23.59	23.51	23.56	23.53	23.42	23.28	23.17	23.06	23.35	23.11	22.86	22.76
2	23.58	23.49	23.60	23.55	23.28	23.21	23.13	23.05	23.28	23.00	23.17	22.76
3	23.51	23.48	23.59	23.51	23.26	23.21	23.28	23.13	23.24	23.02	23.32	23.17
4	23.51	23.49	23.67	23.50	23.26	23.24	---	---	23.30	23.12	23.17	22.90
5	23.58	23.49	23.67	23.53	23.30	23.24	---	---	23.12	23.00	22.90	22.83
6	23.65	23.49	23.53	23.48	23.40	23.30	23.54	23.23	23.09	23.03	22.93	22.86
7	23.49	23.35	23.50	23.46	23.42	23.32	23.54	23.32	23.27	23.09	23.33	22.93
8	23.35	23.23	23.54	23.42	23.47	23.30	23.32	23.19	23.22	23.07	23.29	22.98
9	23.47	23.23	23.53	23.39	23.48	23.20	23.34	23.22	23.07	22.90	23.13	22.95
10	23.52	23.41	23.55	23.39	23.26	23.18	23.32	23.24	23.27	22.91	23.13	22.92
11	23.55	23.50	23.55	23.30	23.32	23.23	23.92	23.24	23.33	23.05	22.92	22.82
12	23.62	23.55	23.30	23.23	23.28	23.22	24.30	23.92	23.22	23.06	23.00	22.89
13	23.61	23.55	23.28	23.23	23.44	23.28	24.00	23.42	23.16	22.94	23.22	23.00
14	23.70	23.56	23.39	23.28	23.52	23.42	23.42	23.30	22.94	22.91	23.17	22.99
15	23.70	23.51	23.44	23.37	23.49	23.15	23.37	23.20	23.15	22.94	23.09	23.00
16	23.70	23.52	23.44	23.36	23.22	23.15	23.20	23.14	23.27	23.15	23.10	22.87
17	23.68	23.51	23.36	23.22	23.61	23.22	23.27	23.16	23.27	23.04	22.87	22.75
18	23.51	23.47	23.30	23.22	23.72	23.42	23.20	23.08	23.04	22.89	22.95	22.83
19	23.60	23.50	23.51	23.30	23.43	23.34	23.32	23.08	23.00	22.92	22.94	22.87
20	23.63	23.56	23.52	23.37	23.43	23.27	23.32	23.13	23.19	23.00	23.20	22.90
21	23.60	23.54	23.37	23.33	23.27	23.12	23.29	23.16	23.21	23.13	23.17	23.09
22	23.66	23.60	23.36	23.32	23.14	23.06	23.22	23.03	23.14	23.02	23.09	22.93
23	23.75	23.65	23.32	23.27	23.40	23.14	23.25	23.06	23.03	23.00	23.01	22.93
24	23.82	23.74	23.29	23.27	23.46	23.35	23.37	23.25	23.01	22.94	23.00	22.92
25	24.14	23.82	23.41	23.29	23.35	23.26	23.34	23.15	23.07	22.95	22.99	22.79
26	24.22	24.14	23.44	23.35	23.39	23.28	23.15	23.10	23.29	23.07	23.05	22.79
27	24.21	23.77	23.38	23.33	23.40	23.34	23.14	23.10	23.28	23.06	23.09	22.92
28	23.77	23.45	23.34	23.27	---	---	23.19	23.11	23.06	22.86	22.94	22.88
29	23.50	23.42	23.35	23.28	---	---	23.22	23.16	---	---	23.02	22.91
30	23.60	23.49	23.44	23.34	23.22	23.14	23.20	23.05	---	---	23.07	22.94
31	23.54	23.48	---	---	23.17	23.14	23.11	23.02	---	---	23.02	22.87
MONTH	24.22	23.23	23.67	23.22	---	---	---	---	23.35	22.86	23.33	22.75

GROUND-WATER LEVELS IN MARYLAND--Continued

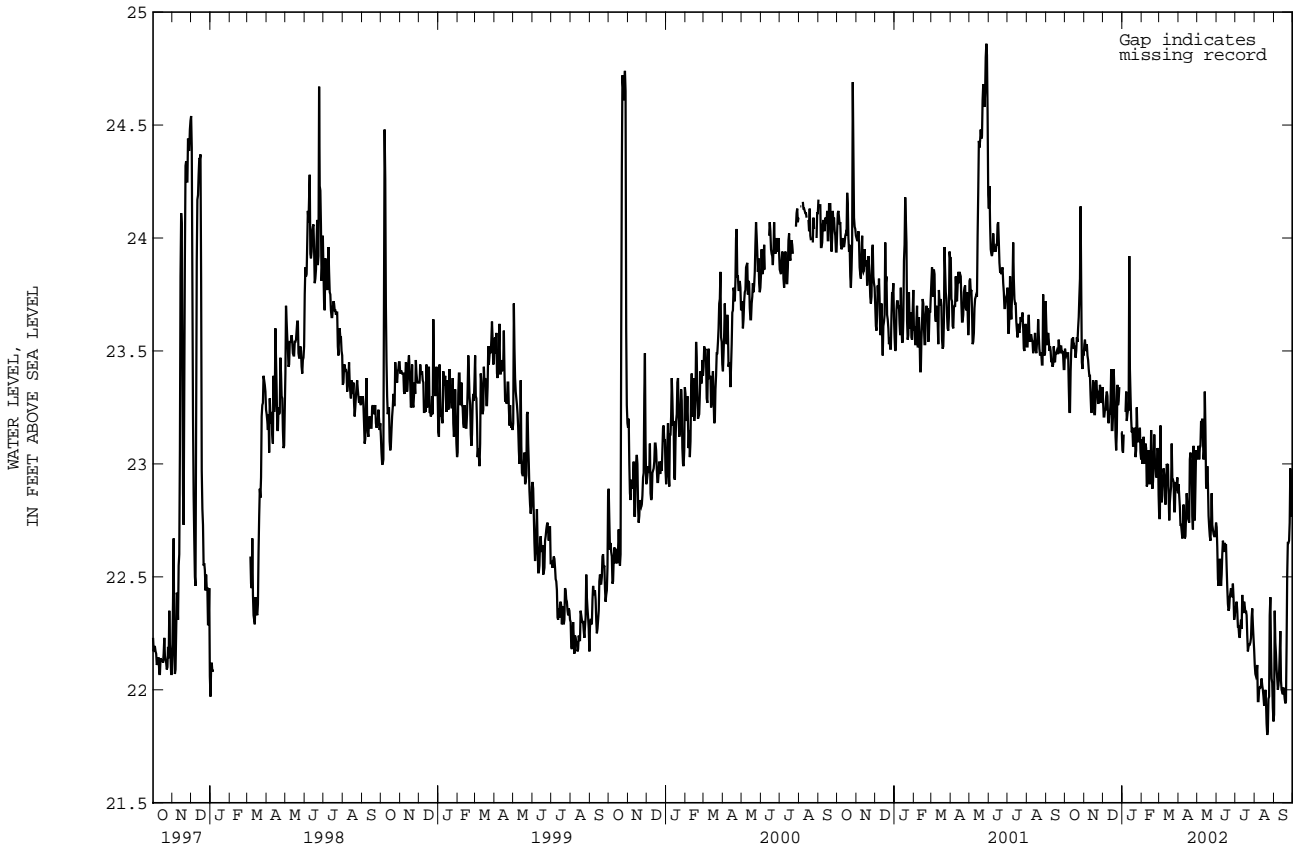
ANNE ARUNDEL COUNTY--Continued

AA Bd 152--Continued

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	23.05	22.91	23.07	23.03	22.80	22.72	22.40	22.36	22.18	22.11	22.42	21.89
2	22.99	22.86	23.39	23.05	22.79	22.63	22.42	22.37	22.12	22.07	22.52	22.35
3	23.01	22.81	23.36	23.08	22.63	22.49	22.42	22.39	22.13	22.06	22.35	22.21
4	22.81	22.73	23.08	23.02	22.50	22.46	22.40	22.35	22.11	22.07	22.23	22.16
5	22.83	22.73	23.11	23.07	22.58	22.49	22.36	22.28	22.19	22.11	22.16	22.09
6	22.82	22.70	23.19	23.08	22.82	22.58	22.38	22.28	22.13	21.95	22.12	22.05
7	22.73	22.67	23.33	23.19	22.79	22.54	22.29	22.24	22.02	21.95	22.06	22.00
8	22.82	22.73	23.30	23.18	22.54	22.46	22.29	22.23	22.03	22.00	22.07	22.02
9	22.87	22.82	23.32	23.20	22.61	22.51	22.36	22.28	22.13	22.01	22.16	22.07
10	22.87	22.73	23.31	23.11	22.72	22.60	22.40	22.31	22.06	22.01	22.32	22.16
11	22.75	22.67	23.11	23.02	22.69	22.66	22.68	22.27	22.05	22.02	22.42	22.26
12	22.78	22.68	23.32	23.06	22.70	22.64	22.68	22.42	22.13	22.05	22.26	22.04
13	22.90	22.78	23.50	23.32	22.65	22.61	22.42	22.34	22.09	22.02	22.04	22.00
14	22.93	22.87	23.40	23.16	22.79	22.65	22.41	22.35	22.03	22.00	22.01	21.99
15	22.93	22.82	23.16	22.91	22.74	22.64	22.50	22.39	22.00	21.97	22.01	21.98
16	22.83	22.76	22.99	22.89	22.67	22.64	22.49	22.37	21.98	21.93	22.07	22.01
17	22.81	22.75	23.05	22.99	22.64	22.54	22.38	22.34	22.00	21.95	22.04	21.99
18	23.02	22.74	23.15	22.91	22.54	22.45	22.37	22.35	22.02	22.00	22.01	21.96
19	23.05	23.02	22.91	22.77	22.45	22.38	22.37	22.33	22.00	21.95	21.99	21.94
20	23.15	23.05	22.78	22.72	22.39	22.35	22.33	22.24	21.99	21.85	22.19	21.95
21	23.06	23.00	22.75	22.68	22.42	22.36	22.24	22.17	21.85	21.80	22.51	22.19
22	23.10	22.95	22.73	22.66	22.45	22.41	22.24	22.19	21.99	21.82	22.67	22.51
23	22.95	22.77	22.88	22.73	22.49	22.43	22.27	22.20	22.00	21.96	22.69	22.65
24	23.11	22.71	22.92	22.87	22.49	22.45	22.29	22.20	22.33	21.97	22.67	22.65
25	23.34	23.08	22.87	22.73	22.45	22.41	22.25	22.21	22.41	22.33	22.76	22.66
26	23.08	22.86	22.76	22.71	22.48	22.42	22.32	22.23	22.45	22.41	22.98	22.74
27	22.90	22.75	22.73	22.69	22.53	22.47	22.39	22.32	22.46	22.19	23.10	22.98
28	23.34	22.90	22.72	22.68	22.52	22.41	22.40	22.36	22.19	22.05	23.08	22.84
29	23.32	23.06	22.71	22.68	22.41	22.31	22.40	22.29	22.11	22.03	22.84	22.77
30	23.07	23.02	22.74	22.70	22.46	22.33	22.31	22.23	22.03	21.92	22.89	22.77
31	---	---	22.80	22.74	---	---	22.23	22.18	21.92	21.86	---	---
MONTH	23.34	22.67	23.50	22.66	22.82	22.31	22.68	22.17	22.46	21.80	23.10	21.89

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 155. SITE ID.--390938076383701. PERMIT NUMBER.--AA-81-3460.  
 LOCATION.--Lat 39°09'38", long 76°38'37", Hydrologic Unit 02060003, 200 ft off MD Rt. 3, 0.4 mi south of MD Rt. 176 intersection, off Stewart Avenue near bike trail.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 159 ft; casing diameter 6 in., to 145 ft. screen diameter 4 in. from 145 to 155 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from Oct. 23, 1984 to June 19, 1998, and 30-minute recorder interval June 19, 1998 to current year.  
 DATUM.--Elevation of land surface is 57.50 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of shelter platform, 2.50 ft above land surface.  
 REMARKS.--Anne Arundel County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.  
 PERIOD OF RECORD.--October 1984 to current year  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.73 ft above sea level, April 9, 1998 (recorder); lowest measured, 32.39 ft above sea level, Nov. 3, 1986.

## WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	47.88	47.83	47.60	47.56	47.39	47.27	47.10	47.04	47.20	46.94	46.74	46.69
2	47.84	47.75	47.61	47.56	47.28	47.25	47.13	47.04	46.94	46.86	47.11	46.70
3	47.80	47.74	47.59	47.51	47.31	47.25	47.24	47.13	47.10	46.91	47.15	46.93
4	47.80	47.74	47.62	47.51	47.28	47.26	47.18	47.08	47.11	46.92	46.93	46.78
5	47.84	47.74	47.60	47.50	47.31	47.26	47.13	47.09	46.95	46.85	46.83	46.76
6	47.89	47.69	47.54	47.50	47.38	47.30	47.39	47.13	46.99	46.92	46.88	46.82
7	47.69	47.62	47.53	47.48	47.38	47.27	47.36	47.13	47.10	46.99	46.86	46.79
8	47.62	47.58	47.58	47.47	47.43	47.25	47.13	47.06	47.05	46.91	46.80	46.76
9	47.68	47.59	47.58	47.42	47.43	47.20	47.24	47.12	46.91	46.81	46.98	46.78
10	47.73	47.67	47.63	47.47	47.29	47.20	47.20	47.12	47.15	46.84	46.98	46.74
11	47.76	47.71	47.59	47.36	47.33	47.27	47.19	47.09	47.15	46.87	46.80	46.70
12	47.77	47.72	47.40	47.34	47.34	47.23	47.27	47.09	47.07	46.87	46.87	46.80
13	47.74	47.69	47.44	47.36	47.47	47.34	47.32	47.04	46.98	46.81	46.99	46.86
14	47.82	47.69	47.52	47.44	47.48	47.39	47.14	47.03	46.88	46.80	46.92	46.80
15	47.78	47.61	47.52	47.47	47.39	47.16	47.17	47.02	47.02	46.87	46.91	46.83
16	47.82	47.62	47.51	47.40	47.26	47.16	47.06	46.99	47.06	47.01	46.90	46.68
17	47.74	47.56	47.40	47.33	47.55	47.26	47.15	47.06	47.05	46.84	46.77	46.67
18	47.63	47.55	47.43	47.33	47.62	47.26	47.06	46.99	46.84	46.77	46.85	46.77
19	47.70	47.61	47.55	47.42	47.34	47.24	47.22	46.99	46.89	46.81	46.81	46.75
20	47.69	47.59	47.55	47.37	47.34	47.20	47.19	47.01	47.03	46.89	47.05	46.79
21	47.65	47.59	47.42	47.36	47.20	47.10	47.18	47.05	47.03	46.92	47.05	46.92
22	47.68	47.64	47.40	47.36	47.19	47.09	47.06	46.94	46.92	46.83	46.92	46.82
23	47.72	47.66	47.36	47.33	47.36	47.19	47.15	47.00	46.86	46.81	46.95	46.84
24	47.75	47.68	47.36	47.33	47.38	47.24	47.25	47.15	46.83	46.78	46.91	46.83
25	47.76	47.62	47.44	47.36	47.24	47.17	47.16	46.96	46.91	46.80	46.89	46.76
26	47.63	47.57	47.42	47.37	47.31	47.22	47.03	46.96	47.05	46.91	46.98	46.77
27	47.59	47.50	47.40	47.36	47.28	47.22	47.04	46.99	46.95	46.83	46.98	46.84
28	47.50	47.43	47.38	47.32	47.29	47.21	47.08	47.02	46.83	46.72	46.90	46.81
29	47.58	47.47	47.39	47.32	47.22	47.10	47.08	47.03	---	---	46.96	46.85
30	47.58	47.50	47.45	47.37	47.11	47.08	47.05	46.93	---	---	46.98	46.84
31	47.59	47.50	---	---	47.14	47.09	47.02	46.92	---	---	46.95	46.79
MONTH	47.89	47.43	47.63	47.32	47.62	47.08	47.39	46.92	47.20	46.72	47.15	46.67

GROUND-WATER LEVELS IN MARYLAND--Continued

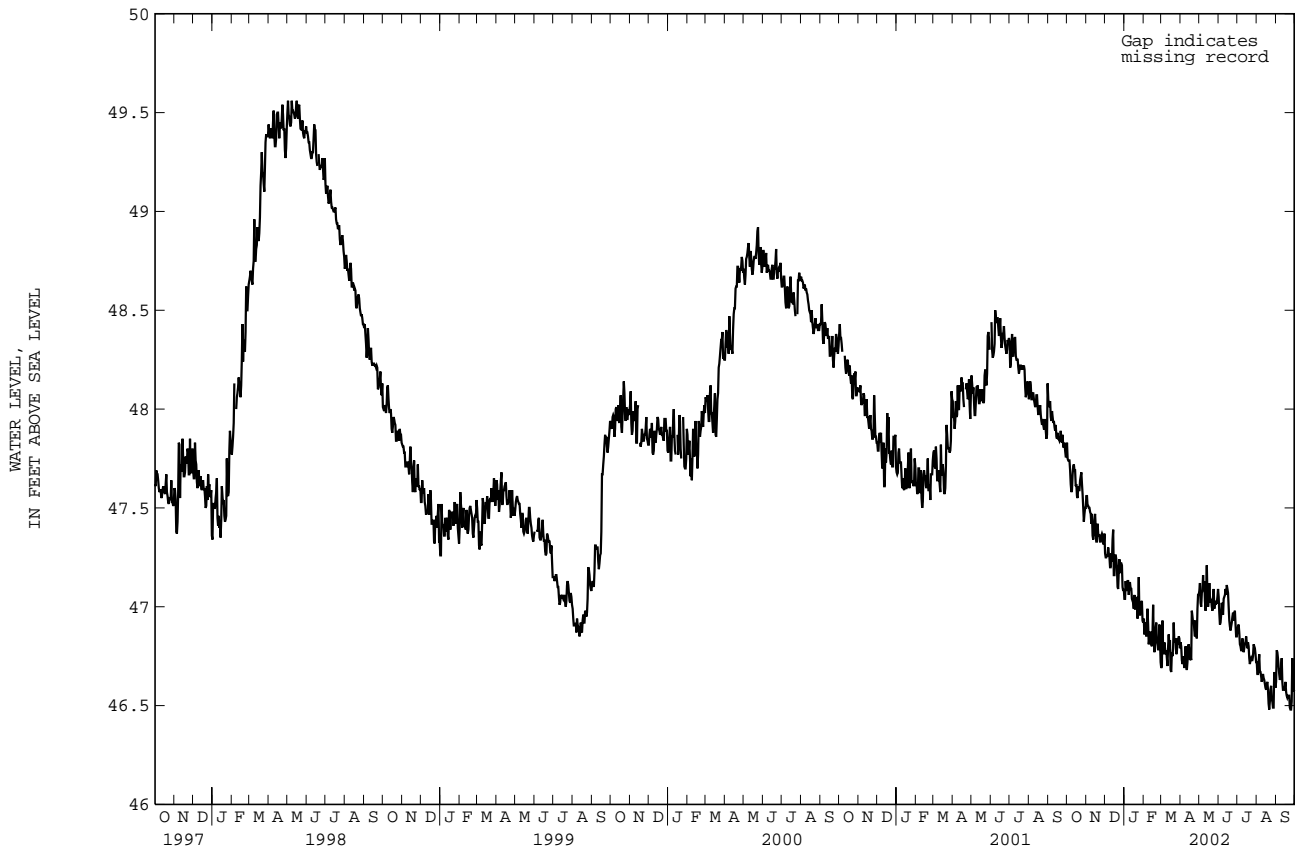
ANNE ARUNDEL COUNTY--Continued

AA Bd 155--Continued

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	46.97	46.82	47.13	47.08	47.11	47.05	46.92	46.88	46.75	46.72	46.81	46.62
2	46.92	46.80	47.33	47.12	47.10	46.97	46.94	46.90	46.72	46.66	46.82	46.78
3	46.93	46.73	47.22	47.02	46.97	46.91	46.93	46.91	46.74	46.66	46.82	46.77
4	46.78	46.71	47.10	47.00	46.96	46.92	46.91	46.87	46.77	46.72	46.82	46.74
5	46.83	46.75	47.11	47.07	47.05	46.96	46.89	46.81	46.82	46.76	46.75	46.70
6	46.81	46.72	47.19	47.08	47.18	47.02	46.84	46.80	46.82	46.67	46.70	46.66
7	46.77	46.69	47.22	47.16	47.12	46.99	46.82	46.78	46.71	46.67	46.67	46.63
8	46.83	46.74	47.16	47.09	47.04	46.96	46.85	46.78	46.70	46.65	46.70	46.64
9	46.82	46.80	47.22	47.13	47.12	47.04	46.90	46.84	46.68	46.62	46.75	46.69
10	46.81	46.70	47.17	47.03	47.11	47.05	46.91	46.82	46.70	46.64	46.83	46.74
11	46.74	46.68	47.08	46.98	47.14	47.06	46.83	46.77	46.70	46.66	46.85	46.62
12	46.81	46.72	47.24	47.08	47.14	47.09	46.85	46.79	46.68	46.64	46.62	46.58
13	46.87	46.80	47.36	47.21	47.11	47.06	46.83	46.81	46.67	46.63	46.63	46.58
14	46.89	46.81	47.21	47.06	47.17	47.11	46.88	46.82	46.65	46.61	46.61	46.58
15	46.87	46.78	47.06	47.00	47.16	47.09	46.89	46.85	46.63	46.59	46.65	46.59
16	46.78	46.73	47.14	47.03	47.11	47.07	46.88	46.82	46.62	46.58	46.66	46.62
17	46.80	46.75	47.20	47.12	47.07	47.00	46.84	46.79	46.66	46.61	46.64	46.57
18	46.99	46.73	47.28	47.05	47.00	46.93	46.85	46.82	46.67	46.62	46.60	46.55
19	47.02	46.98	47.06	47.02	46.94	46.90	46.85	46.80	46.65	46.58	46.59	46.54
20	47.02	46.95	47.07	47.04	46.92	46.88	46.80	46.74	46.62	46.51	46.60	46.55
21	46.98	46.92	47.04	47.00	46.96	46.90	46.77	46.71	46.55	46.48	46.60	46.55
22	47.07	46.93	47.06	46.98	46.99	46.92	46.79	46.73	46.64	46.52	46.60	46.55
23	46.93	46.88	47.16	47.05	47.02	46.95	46.79	46.74	46.64	46.58	46.56	46.49
24	46.95	46.85	47.18	47.09	47.02	46.97	46.78	46.73	46.68	46.60	46.51	46.48
25	47.05	46.93	47.09	46.99	46.98	46.93	46.77	46.73	46.60	46.53	46.52	46.48
26	46.94	46.87	47.07	47.03	47.02	46.96	46.82	46.75	46.56	46.52	46.74	46.52
27	46.99	46.84	47.07	47.01	47.04	46.98	46.86	46.81	46.53	46.49	46.82	46.74
28	47.33	46.99	47.06	47.02	47.01	46.91	46.84	46.80	46.67	46.49	46.77	46.60
29	47.24	47.06	47.08	47.02	46.91	46.85	46.82	46.79	46.71	46.67	46.61	46.57
30	47.17	47.06	47.11	47.05	46.90	46.85	46.81	46.76	46.67	46.61	46.63	46.58
31	---	---	47.16	47.09	---	---	46.77	46.72	46.62	46.59	---	---
MONTH	47.33	46.68	47.36	46.98	47.18	46.85	46.94	46.71	46.82	46.48	46.85	46.48
YEAR	47.89	46.48										

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 156. SITE ID.--390922076371001. PERMIT NUMBER.--AA-81-3462.

LOCATION.--Lat 39°09'22", long 76°37'10", Hydrologic Unit 02060003, off Wardour Road, 0.3 mi north of Aquahart Road intersection, next to the Baltimore and Annapolis bike trail.

Owner: U.S. Geological Survey.

AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 173 ft; casing diameter 6 in., to 160 ft; casing diameter 4 in. from 170 to 173 ft; screen diameter 4 in. from 160 to 170 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--30-minute recorder interval from October 1984 to June 19, 1998, and 15-minute recorder interval from June 19, 1998 to current year.

DATUM.--Elevation of land surface is 68.99 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of shelter platform, 2.26 ft above land surface.

REMARKS.--Anne Arundel County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal. Missing data due to recorder malfunction.

PERIOD OF RECORD.--October 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.04 ft above sea level, May 8, 1994 (recorder); lowest measured, 12.76 ft above sea level, Sept 14, 1987.

## WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	24.25	24.14	24.01	23.94	23.82	23.62	23.35	23.25	23.55	23.23	22.86	22.77
2	24.23	24.11	24.03	23.98	23.62	23.56	23.36	23.24	23.31	23.07	23.28	22.77
3	---	---	24.03	23.93	23.61	23.56	23.55	23.36	23.37	23.07	23.36	23.16
4	---	---	24.50	23.93	23.61	23.58	23.51	23.36	23.43	23.17	23.16	22.86
5	24.24	24.12	24.29	23.95	23.64	23.59	23.41	23.34	23.17	23.03	22.86	22.79
6	24.33	24.07	23.95	23.93	23.78	23.64	23.77	23.41	23.18	23.09	22.96	22.86
7	24.07	23.91	23.94	23.88	23.79	23.65	23.76	23.43	23.36	23.18	24.54	22.94
8	23.91	23.82	23.99	23.85	23.79	23.62	23.43	23.29	23.32	23.11	23.55	22.98
9	23.97	23.82	23.99	23.81	23.79	23.47	23.53	23.35	23.11	22.96	23.20	22.96
10	---	---	24.07	23.81	23.56	23.46	23.52	23.39	23.42	22.96	23.20	22.88
11	---	---	24.06	23.69	23.60	23.51	25.97	23.39	23.46	23.07	22.88	22.78
12	24.22	24.16	23.69	23.63	23.60	23.48	26.41	24.34	23.32	23.07	23.01	22.88
13	24.20	24.16	23.74	23.65	23.80	23.60	24.34	23.52	23.24	22.95	23.36	23.00
14	24.34	24.16	23.88	23.74	23.87	23.76	23.52	23.41	22.99	22.93	23.18	22.96
15	24.30	24.04	23.93	23.87	23.80	23.37	23.54	23.32	23.25	22.99	23.06	22.96
16	24.30	24.04	23.92	23.81	23.51	23.37	23.32	23.22	23.35	23.25	23.06	22.75
17	24.22	23.97	23.81	23.65	24.02	23.51	23.45	23.29	23.35	23.06	22.79	22.68
18	23.97	23.91	23.77	23.65	24.13	23.66	23.36	23.22	23.06	22.92	22.90	22.79
19	24.10	23.96	24.02	23.77	23.72	23.58	23.53	23.22	23.06	22.93	22.87	22.80
20	24.11	24.03	24.04	23.79	23.72	23.53	23.53	23.25	23.30	23.06	23.13	22.81
21	24.08	24.00	23.80	23.75	23.53	23.33	23.46	23.26	23.30	23.18	23.14	22.99
22	---	---	23.80	23.76	23.40	23.28	23.34	23.14	23.18	23.02	23.02	22.81
23	---	---	23.76	23.69	23.74	23.40	23.41	23.16	23.02	22.98	22.95	22.81
24	24.25	24.22	23.71	23.68	23.76	23.61	23.57	23.41	22.98	22.94	22.92	22.83
25	24.29	24.16	23.83	23.71	23.61	23.49	23.49	23.24	23.11	22.95	22.89	22.72
26	24.16	24.08	23.80	23.74	23.67	23.52	23.24	23.17	23.36	23.11	23.02	22.72
27	24.08	23.90	23.75	23.72	23.65	23.57	23.24	23.20	23.27	23.06	23.02	22.82
28	23.90	23.75	23.74	23.66	23.66	23.56	23.32	23.24	23.06	22.86	22.85	22.76
29	23.91	23.76	23.73	23.66	23.57	23.39	23.34	23.29	---	---	22.97	22.82
30	23.92	23.85	23.85	23.73	23.39	23.32	23.31	23.14	---	---	23.02	22.84
31	23.94	23.84	---	---	23.38	23.32	23.23	23.11	---	---	22.94	22.77
MONTH	---	---	24.50	23.63	24.13	23.28	26.41	23.11	23.55	22.86	24.54	22.68

GROUND-WATER LEVELS IN MARYLAND--Continued

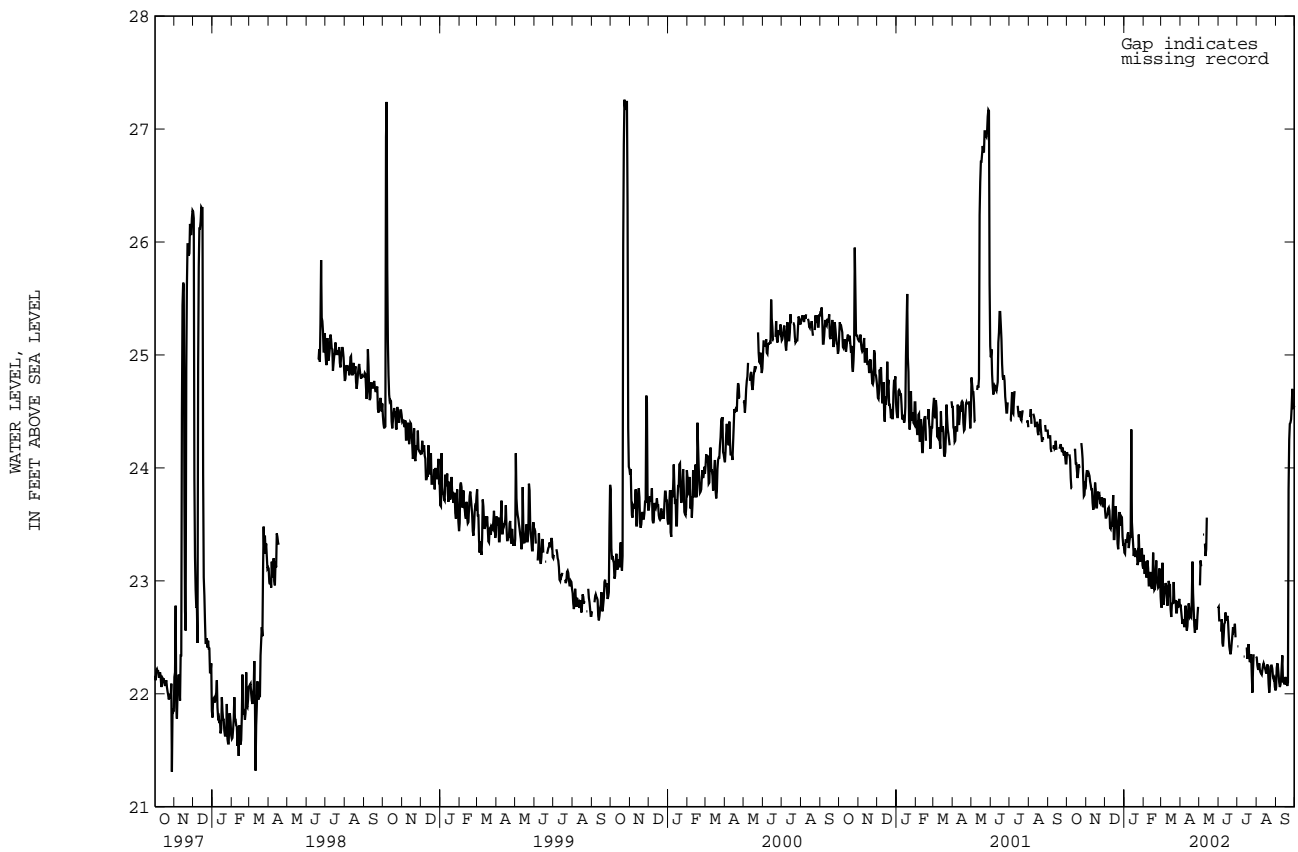
ANNE ARUNDEL COUNTY--Continued

AA Bd 156--Continued

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	22.97	22.79	---	---	22.85	22.77	22.48	22.42	22.36	22.32	22.23	22.05
2	22.90	22.73	23.54	22.96	22.81	22.64	---	---	22.32	22.25	22.32	22.23
3	22.93	22.67	23.52	23.18	---	---	---	---	22.25	22.22	22.31	22.27
4	22.67	22.62	23.19	23.13	---	---	---	---	22.27	22.22	22.31	22.24
5	22.76	22.66	---	---	22.67	22.55	---	---	22.39	22.27	22.24	22.17
6	22.75	22.63	---	---	22.76	22.66	---	---	22.39	22.21	22.17	22.10
7	22.67	22.59	23.50	23.41	22.66	22.45	---	---	22.23	22.19	22.10	22.06
8	22.78	22.67	---	---	22.51	22.42	---	---	22.22	22.18	22.13	22.08
9	22.80	22.78	---	---	22.65	22.51	---	---	22.22	22.17	22.24	22.13
10	22.81	22.61	23.52	23.33	22.65	22.62	---	---	22.26	22.21	22.46	22.24
11	22.66	22.56	23.33	23.22	22.74	22.63	22.91	22.33	22.29	22.25	22.85	22.34
12	22.73	22.60	23.56	23.28	22.76	22.72	---	---	22.29	22.27	22.34	22.11
13	22.84	22.73	23.80	23.56	22.72	22.65	---	---	22.27	22.25	22.13	22.11
14	22.89	22.80	---	---	23.14	22.67	---	---	22.25	22.23	22.11	22.09
15	22.89	22.75	---	---	22.82	22.69	---	---	22.23	22.21	22.15	22.09
16	22.75	22.68	---	---	22.69	22.64	22.48	22.41	22.21	22.18	22.20	22.15
17	22.74	22.69	---	---	22.64	22.53	22.41	22.31	22.26	22.20	22.18	22.09
18	23.02	22.68	---	---	22.53	22.42	22.45	22.41	22.31	22.26	22.13	22.09
19	23.19	22.85	---	---	22.42	22.38	22.48	22.44	22.29	22.23	22.12	22.07
20	23.32	23.17	---	---	22.39	22.35	22.44	22.32	22.26	22.09	23.81	22.10
21	23.28	22.89	---	---	22.46	22.39	22.32	22.28	22.09	22.01	24.25	23.81
22	22.94	22.74	---	---	22.53	22.46	22.36	22.31	22.25	22.07	24.43	24.25
23	22.74	22.60	---	---	22.59	22.52	22.39	22.35	22.27	22.24	24.43	24.39
24	22.66	22.54	---	---	22.61	22.59	22.35	22.18	22.35	22.25	24.43	24.40
25	22.89	22.66	---	---	22.60	22.55	22.27	22.01	22.31	22.25	24.54	24.43
26	22.77	22.64	---	---	22.63	22.56	22.35	22.21	22.25	22.22	24.70	24.54
27	22.69	22.57	---	---	22.67	22.62	22.43	22.35	22.23	22.15	24.87	24.70
28	23.18	22.69	---	---	22.66	22.50	---	---	22.15	22.13	24.83	24.55
29	23.17	22.77	---	---	---	---	---	---	22.17	22.14	24.55	24.52
30	---	---	---	---	---	---	---	---	22.15	22.06	24.63	24.55
31	---	---	22.86	22.76	---	---	22.38	22.33	22.06	22.03	---	---
MONTH	---	---	---	---	---	---	---	---	22.39	22.01	24.87	22.05

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 157. SITE ID.--390737076374401. PERMIT NUMBER.--AA-81-3464.  
 LOCATION.--Lat 39°07'37", long 76°37'44", Hydrologic Unit 02060003, off Nolfield Dr., 0.14 mi east of Phirne Rd.,  
 at Rippling Woods Elementary School.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 180 ft; casing diameter 6 in., to 167 ft; and  
 casing diameter 4 in. from 177 to 180 ft; screen diameter 4 in. from 167 to 177 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey  
 personnel. Equipped with digital water-level recorder--60-minute recorder interval from March 1985 to December 2, 1996,  
 and 30-minute recorder interval from December 2, 1996 to current year.  
 DATUM.--Elevation of land surface is 75.75 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of shelter platform, 2.50 ft above land surface.  
 REMARKS.--Anne Arundel County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local  
 ground-water withdrawal. Missing data due to recorder malfunction.  
 PERIOD OF RECORD.--March 1985 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.12 ft above sea level, Nov. 8, 1984;  
 lowest measured, 32.02 ft above sea level, Sept. 4, 1992.

## WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	36.33	36.25	36.32	36.28	36.16	36.06	36.00	35.93	36.07	35.90	35.67	35.60
2	36.31	36.26	36.32	36.28	36.06	36.04	35.99	35.93	35.90	35.82	35.93	35.60
3	---	---	36.32	36.28	36.07	36.04	36.09	35.99	36.00	35.83	35.96	35.83
4	---	---	36.36	36.28	36.06	36.04	36.06	35.99	36.03	35.90	35.83	35.67
5	36.31	36.23	36.35	36.25	36.06	36.04	36.04	36.00	35.90	35.82	35.67	35.63
6	36.35	36.24	36.25	36.21	36.12	36.06	36.29	36.04	35.89	35.85	35.70	35.66
7	36.24	36.14	36.25	36.21	36.13	36.08	36.28	36.10	36.00	35.89	35.69	35.67
8	---	---	36.27	36.19	36.21	36.06	36.10	36.02	35.96	35.86	35.68	35.65
9	---	---	36.27	36.14	36.21	36.05	36.15	36.06	35.86	35.77	35.80	35.65
10	---	---	36.29	36.14	36.09	36.05	36.12	36.06	36.03	35.77	35.80	35.65
11	---	---	36.27	36.09	36.13	36.08	36.12	36.06	36.06	35.85	35.66	35.62
12	36.36	36.31	36.09	36.05	36.12	36.06	36.27	36.07	35.98	35.85	35.73	35.66
13	36.34	36.32	36.09	36.05	36.23	36.12	36.31	36.06	35.91	35.77	35.85	35.72
14	36.45	36.33	36.14	36.08	36.29	36.20	36.10	36.04	35.78	35.75	35.80	35.72
15	36.45	36.33	36.16	36.11	36.23	36.04	36.11	35.98	35.90	35.78	35.78	35.72
16	36.49	36.33	36.15	36.06	36.09	36.04	35.98	35.94	35.97	35.90	35.78	35.63
17	36.44	36.33	36.06	36.00	36.37	36.09	36.04	35.97	35.97	35.82	35.66	35.60
18	36.34	36.31	36.07	36.00	36.44	36.19	35.98	35.92	35.82	35.74	35.74	35.66
19	---	---	36.20	36.07	36.20	36.15	36.12	35.92	35.79	35.75	35.71	35.68
20	---	---	36.20	36.10	36.20	36.09	36.11	35.99	35.92	35.79	35.92	35.69
21	36.44	36.39	36.12	36.08	36.09	35.97	36.12	36.01	35.92	35.88	35.91	35.83
22	36.46	36.44	36.10	36.08	35.99	35.94	36.03	35.92	35.88	35.83	35.83	35.73
23	---	---	36.08	36.02	36.17	35.99	36.05	35.94	35.85	35.81	35.80	35.73
24	---	---	36.06	36.02	36.21	36.14	36.17	36.05	35.82	35.77	35.78	35.73
25	36.88	36.57	36.16	36.06	36.14	36.09	36.11	35.93	35.84	35.77	35.76	35.64
26	36.96	36.88	36.17	36.13	36.20	36.11	35.96	35.93	35.99	35.83	35.82	35.64
27	36.96	36.52	36.14	36.12	36.19	36.11	35.96	35.93	35.94	35.78	35.82	35.70
28	36.52	36.32	36.13	36.08	36.18	36.11	35.99	35.95	35.78	35.67	35.74	35.69
29	---	---	36.13	36.08	36.13	36.02	35.99	35.95	---	---	35.78	35.70
30	---	---	36.20	36.12	36.02	35.97	35.96	35.86	---	---	35.81	35.71
31	36.32	36.28	---	---	36.02	35.97	35.91	35.85	---	---	35.79	35.67
MONTH	---	---	36.36	36.00	36.44	35.94	36.31	35.85	36.07	35.67	35.96	35.60

GROUND-WATER LEVELS IN MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Bd 157--Continued

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	35.80	35.68	35.88	35.81	35.27	35.14	34.63	34.58	34.52	34.32	34.90	34.37
2	35.74	35.66	36.12	35.88	35.35	35.20	34.64	34.58	34.43	34.29	34.97	34.73
3	35.76	35.60	36.06	35.84	35.22	34.98	34.58	34.51	34.53	34.30	34.73	34.63
4	---	---	35.88	35.83	35.02	34.92	34.51	34.44	34.60	34.53	34.65	34.62
5	---	---	35.90	35.88	35.01	34.92	34.54	34.42	34.61	34.27	34.65	34.61
6	35.61	35.54	35.92	35.89	35.21	34.94	34.54	34.42	34.32	34.17	34.63	34.61
7	35.54	35.52	36.02	35.92	35.28	35.14	34.48	34.40	34.43	34.32	34.61	34.51
8	35.59	35.54	35.98	35.83	35.17	35.12	34.48	34.40	34.45	34.37	34.60	34.52
9	35.60	35.57	35.94	35.84	35.26	35.14	34.51	34.43	34.56	34.38	34.64	34.60
10	35.60	35.48	35.85	35.71	35.41	35.13	34.59	34.47	34.42	34.41	34.72	34.61
11	35.50	35.46	35.71	35.62	35.21	35.04	34.79	34.47	34.44	34.35	34.73	34.57
12	35.55	35.48	35.84	35.66	35.04	34.91	34.73	34.56	34.49	34.26	34.57	34.47
13	35.58	35.54	35.91	35.82	35.03	34.83	34.64	34.53	34.26	34.16	34.47	34.25
14	35.61	35.55	35.82	35.74	35.21	35.03	34.77	34.53	34.24	34.14	34.38	34.22
15	35.60	35.50	---	---	35.24	35.21	34.95	34.77	34.28	34.12	34.46	34.38
16	35.50	35.48	---	---	35.32	35.24	34.90	34.63	34.12	34.04	34.48	34.41
17	35.53	35.49	35.65	35.61	35.28	35.19	34.66	34.55	34.19	34.09	34.47	34.41
18	35.63	35.49	35.76	35.62	35.19	34.93	34.60	34.53	34.29	34.14	34.45	34.27
19	35.70	35.63	---	---	34.96	34.82	34.59	34.48	34.29	34.15	34.33	34.15
20	35.74	35.66	---	---	34.88	34.82	34.54	34.37	34.20	34.16	34.24	34.08
21	35.66	35.65	---	---	34.88	34.80	34.54	34.37	34.19	34.00	34.37	34.24
22	35.79	35.66	---	---	34.80	34.72	34.56	34.40	34.05	33.94	34.48	34.37
23	35.66	35.60	35.56	35.44	34.84	34.72	34.48	34.35	34.17	33.96	34.46	34.34
24	35.93	35.58	35.58	35.40	34.74	34.62	34.60	34.46	34.63	34.17	34.43	34.35
25	36.11	35.74	35.42	35.32	34.62	34.57	34.68	34.59	34.69	34.63	34.59	34.41
26	---	---	35.43	35.33	34.73	34.58	34.76	34.67	34.77	34.69	34.68	34.43
27	---	---	35.44	35.31	34.82	34.70	34.82	34.76	34.77	34.39	34.78	34.68
28	36.06	35.66	35.35	35.19	34.86	34.71	34.83	34.81	34.43	34.33	34.76	34.62
29	36.03	35.80	35.19	35.07	34.75	34.62	34.83	34.63	34.45	34.42	34.64	34.61
30	35.82	35.80	35.09	35.05	34.77	34.62	34.68	34.58	34.42	34.37	34.69	34.63
31	---	---	35.14	35.04	---	---	34.60	34.46	34.37	34.35	---	---
MONTH	---	---	---	---	35.41	34.57	34.95	34.35	34.77	33.94	34.97	34.08

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



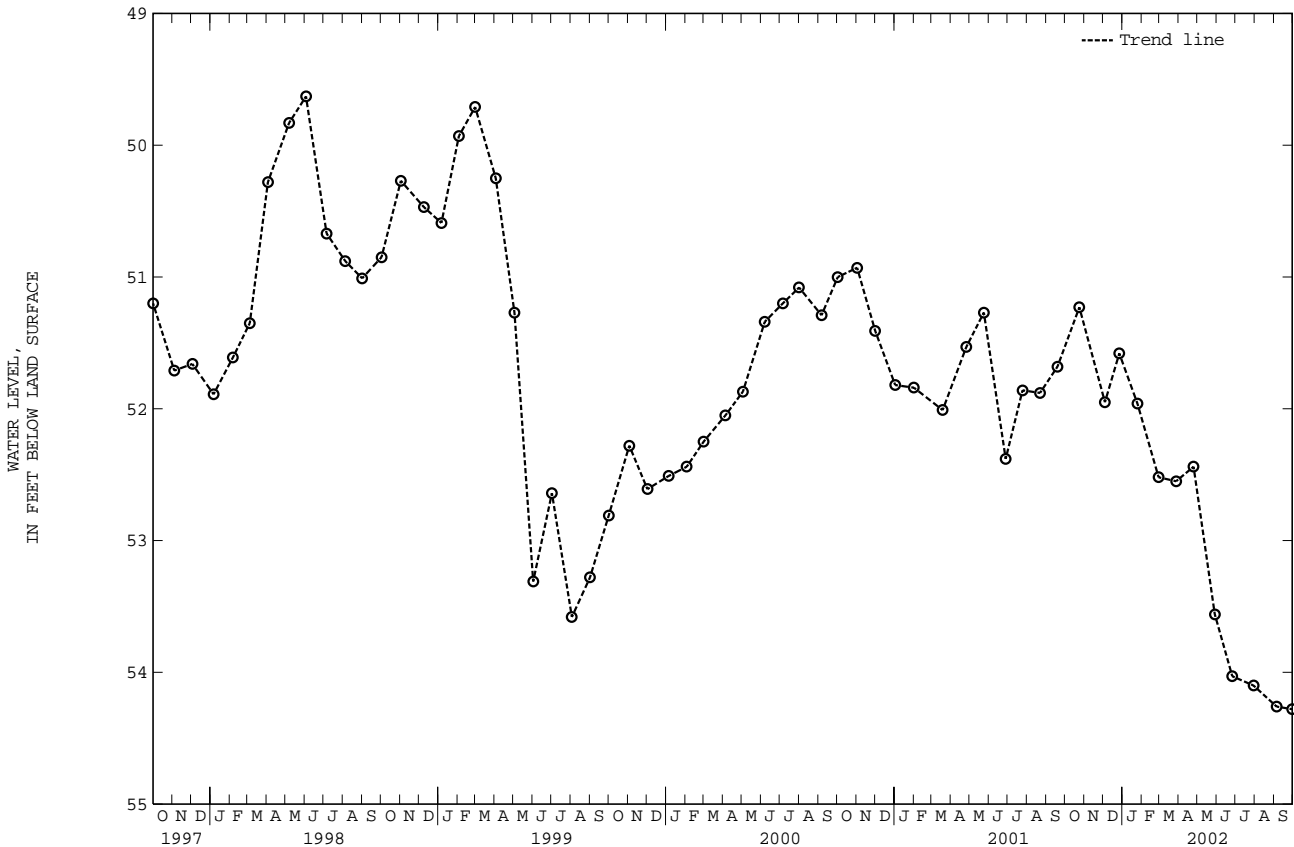
ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 158. SITE ID.--390744076390001. PERMIT NUMBER.--AA-81-3459.  
 LOCATION.--Lat 39°07'44", long 76°39'00", Hydrologic Unit 02060003, 0.05 mi off Stevenson Rd., 0.45 mi west of New Cut Road, at Center for Applied Technology-North.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 187 ft; casing diameter 6 in., to 174 ft; screen diameter 4 in. from 174 to 184 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from January 1985 to 1989.  
 DATUM.--Elevation of land surface is 108.25 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.60 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.  
 PERIOD OF RECORD.--January 1985 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.18 ft below land surface, May 1, 1997;  
 lowest measured, 55.90 ft below land surface, Sept. 14, 1987 and Jan. 15, 1988.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	51.23	JAN 25, 2002	51.96	APR 25, 2002	52.44	JUL 30, 2002	54.10
DEC 04	51.95	FEB 28	52.52	MAY 29	53.56	SEP 05	54.26
27	51.58	MAR 28	52.55	JUN 26	54.03	30	54.28

WATER YEAR 2002      HIGHEST    51.23    OCT 24, 2001      LOWEST    54.28    SEP 30, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

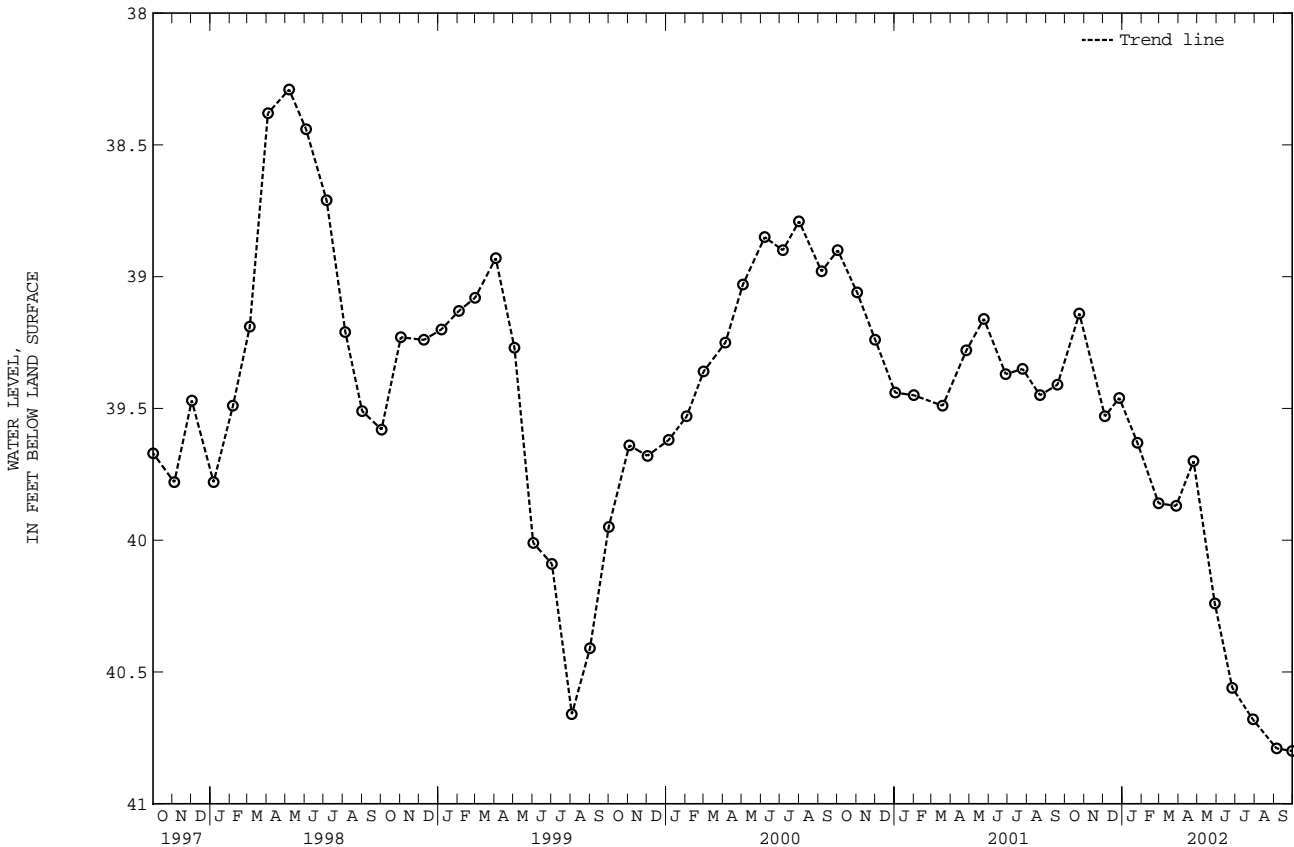
GROUND-WATER LEVELS IN MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 159. SITE ID.--390737076374402. PERMIT NUMBER.--AA-81-3949.  
 LOCATION.--Lat 39°07'37", long 76°37'44", Hydrologic Unit 02060003, off Nolfield Dr., 0.14 mi east of Phrine Rd., at Rippling Woods Elementary School.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 105 ft; casing diameter 6 in., to 92 ft; and casing diameter 4 in. from 102 to 105 ft; screen diameter 4 in. from 92 to 102 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 Equipped with digital water-level recorder--60-minute recorder interval from March 1985, to July 24, 1989.  
 DATUM.--Elevation of land surface is 75.48 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.50 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.  
 PERIOD OF RECORD.--March 1985 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.77 ft below land surface, Sept. 14, 1987; lowest measured, 42.38 ft below land surface, Sept. 7, 1995.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	39.14	JAN 25, 2002	39.63	APR 25, 2002	39.70	JUL 29, 2002	40.68
DEC 04	39.53	FEB 28	39.86	MAY 29	40.24	SEP 05	40.79
27	39.46	MAR 28	39.87	JUN 26	40.56	30	40.80
WATER YEAR 2002		HIGHEST	39.14	OCT 24, 2001	LOWEST	40.80	SEP 30, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Bd 160--Continued

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	72.97	72.88	73.28	73.27	73.04	72.91	72.62	72.58	72.34	72.26	72.19	72.02
2	72.93	72.86	73.46	73.28	72.91	72.81	72.63	72.57	72.27	72.19	72.22	72.19
3	72.95	72.82	73.42	73.24	72.83	72.79	72.62	72.51	72.30	72.19	72.21	72.19
4	72.82	72.77	73.24	73.20	72.80	72.76	72.52	72.48	72.31	72.29	72.21	72.16
5	72.80	72.78	---	---	72.83	72.76	72.50	72.43	72.36	72.29	72.17	72.14
6	72.82	72.74	73.29	73.22	73.00	72.83	72.46	72.41	72.34	72.22	72.16	72.11
7	72.74	72.73	73.32	73.29	---	---	72.41	72.36	72.26	72.22	---	---
8	72.79	72.74	73.31	73.27	---	---	72.44	72.36	72.25	72.21	---	---
9	72.82	72.78	73.31	73.27	73.01	72.94	72.51	72.41	72.22	72.16	72.18	72.11
10	72.82	72.74	73.27	73.12	73.01	72.99	72.54	72.50	72.16	72.11	72.21	72.18
11	72.74	72.73	73.12	73.04	73.00	72.95	72.50	72.45	72.15	72.11	72.24	72.04
12	72.79	72.74	73.21	73.07	72.99	72.95	72.45	72.43	72.17	72.14	72.04	71.95
13	72.84	72.79	73.33	73.21	72.95	72.92	72.48	72.45	72.16	72.09	71.99	71.95
14	72.84	72.83	73.27	73.15	72.99	72.95	72.51	72.45	72.14	72.07	71.98	71.95
15	72.84	72.78	---	---	73.03	72.99	72.52	72.51	72.13	72.10	71.99	71.96
16	---	---	---	---	73.03	73.01	---	---	72.11	72.07	72.04	71.99
17	---	---	73.18	73.13	73.01	72.92	---	---	72.10	72.07	72.04	71.99
18	72.91	72.73	73.26	73.09	72.92	72.83	---	---	72.12	72.10	71.99	71.94
19	72.95	72.91	---	---	72.83	72.78	72.48	72.43	72.10	72.05	71.94	71.91
20	---	---	---	---	72.80	72.79	72.43	72.31	72.05	71.97	71.91	71.90
21	---	---	73.06	73.03	72.80	72.78	72.34	72.30	71.97	71.88	71.91	71.88
22	73.06	72.97	73.05	73.01	72.78	72.72	72.34	72.26	72.02	71.88	71.88	71.86
23	72.97	72.93	73.11	73.05	72.76	72.72	72.39	72.34	72.02	71.98	71.87	71.80
24	72.99	72.93	73.12	73.07	72.77	72.70	72.41	72.37	72.05	72.01	71.80	71.78
25	73.12	72.99	73.07	72.99	72.73	72.69	72.39	72.37	72.04	71.92	71.80	71.78
26	73.09	73.03	73.01	72.97	72.80	72.71	72.43	72.38	71.95	71.89	71.97	71.79
27	73.10	73.03	73.03	72.99	72.84	72.79	72.45	72.42	71.96	71.94	72.05	71.97
28	73.40	73.10	73.01	72.99	72.86	72.74	72.44	72.41	72.06	71.93	72.05	71.90
29	73.38	73.24	73.00	72.98	72.74	72.62	72.43	72.37	---	---	71.95	71.90
30	73.28	73.20	73.00	72.96	72.63	72.58	72.38	72.33	---	---	72.02	71.94
31	---	---	73.04	73.00	---	---	72.34	72.31	72.03	72.02	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bf 3. SITE ID.--390945076285601.

LOCATION.--Lat 39°09'45", long 76°28'56", Hydrologic Unit 02060003, 8 mi east of Glen Burnie at Fort Smallwood Park.

Owner: Baltimore City Department of Recreation and Parks.

AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.

WELL CHARACTERISTICS.--Dug, brick-lined, unused, water-table well, diameter 48 in., depth 22.8 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 20.38 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Hole in concrete cover at land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water level measured 14.10 ft below land surface, Jan. 27, 1944.

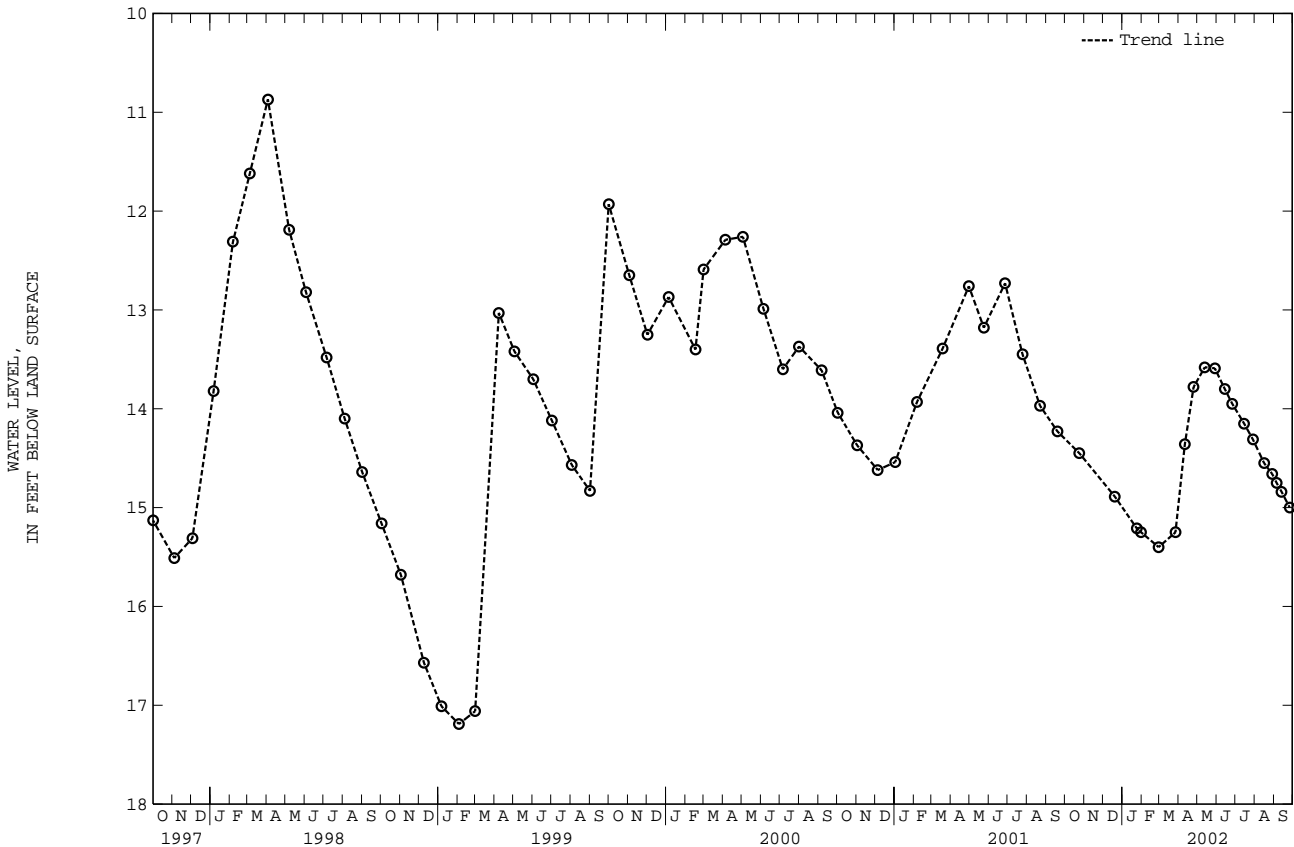
PERIOD OF RECORD.--April 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.40 ft below land surface, March 31, 1958; lowest measured, 19.09 ft below land surface, Dec. 7, 1965.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	14.45	MAR 27, 2002	15.25	JUN 14, 2002	13.80	AUG 29, 2002	14.66
DEC 20	14.89	APR 11	14.36	26	13.95	SEP 05	14.75
JAN 24, 2002	15.21	25	13.78	JUL 15	14.15	13	14.84
31	15.25	MAY 13	13.58	29	14.31	26	15.00
FEB 28	15.40	29	13.59	AUG 16	14.55		

WATER YEAR 2002 HIGHEST 13.58 MAY 13, 2002 LOWEST 15.40 FEB 28, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

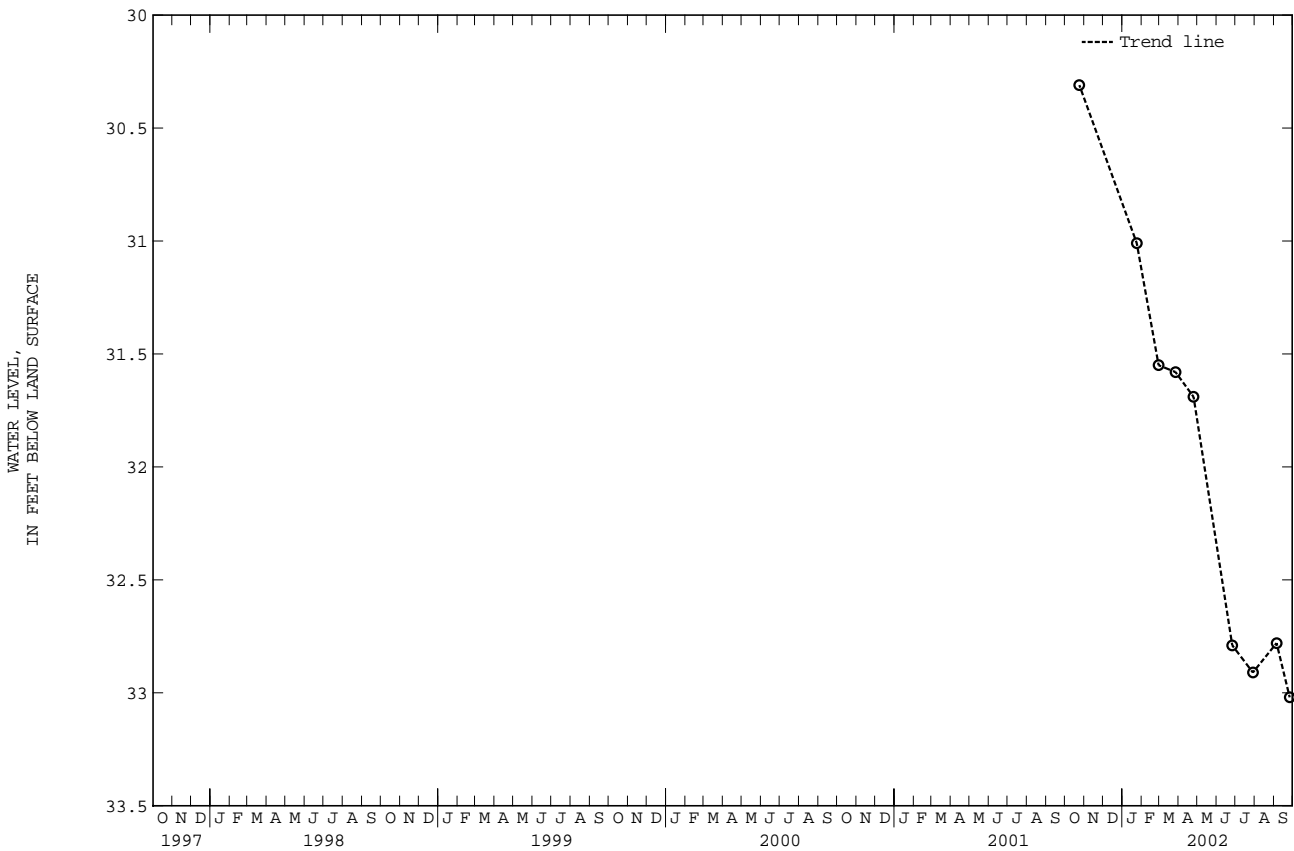
ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bf 100. SITE ID.--390629076273601. PERMIT NUMBER.--AA-94-7214.  
 LOCATION.--Lat 39°06'29", long 76°27'36", Hydrologic Unit 02060003, at Chesapeake High School.  
 Owner: Anne Arundel County School Board.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, artesian well, depth 146 ft; casing diameter 2 in. to 96 ft, and 116 to 146 ft; screen diameter 2 in. from 96 to 116 ft;  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 52 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 3.00 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal.  
 PERIOD OF RECORD.--October 2001 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.31 ft below land surface, Oct. 24, 2001; lowest measured, 33.02 ft below land surface, Sept. 26, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	30.31	MAR 27, 2002	31.58	JUL 29, 2002	32.91
JAN 24, 2002	31.01	APR 25	31.69	SEP 05	32.78
FEB 28	31.55	JUN 26	32.79	26	33.02

WATER YEAR 2002 HIGHEST 30.31 OCT 24, 2001 LOWEST 33.02 SEP 26, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cb 1. SITE ID.--390303076463201. PERMIT NUMBER.--AA-03-5695.  
 LOCATION.--Lat 39°03'03", long 76°46'32", Hydrologic Unit 02060006, on Duvall Bridge Rd., Patuxent Wildlife Research Center.  
 Owner: U.S. Fish and Wildlife (formerly U.S. Army).  
 AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 505 ft; casing diameter 6 in. to 485 ft; screen diameter 6 in. from 485 to 505 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval from July 2, 1984 to current year.  
 DATUM.--Elevation of land surface is 129.10 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top lip of 3 in. extension pipe, 3.35 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal. Missing data due to recorder malfunction.  
 PERIOD OF RECORD.--March 1962 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.50 ft above sea level, May 1, 1962;  
 lowest measured, 30.63 ft above sea level, Sept. 30, 2002 (recorder).

## WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	44.84	44.78	45.69	45.61	47.96	47.89	46.57	46.39	47.33	47.21
2	---	---	44.78	44.67	45.66	45.61	48.01	47.88	46.39	46.30	47.57	47.20
3	---	---	44.67	44.54	45.76	45.63	48.14	48.00	46.60	46.33	47.63	47.52
4	---	---	44.65	44.54	45.84	45.75	48.11	48.01	46.70	46.57	47.52	47.37
5	---	---	44.63	44.57	45.97	45.83	48.04	48.00	46.61	46.51	47.37	47.34
6	---	---	44.61	44.56	46.13	45.97	48.31	48.04	46.73	46.61	47.42	47.37
7	---	---	44.59	44.55	46.14	46.10	48.31	48.17	46.92	46.73	47.42	47.34
8	---	---	44.64	44.54	46.28	46.09	48.17	48.10	46.89	46.80	47.36	47.28
9	---	---	44.64	44.53	46.28	46.12	48.28	48.14	46.80	46.72	47.36	47.28
10	---	---	44.71	44.55	46.28	46.12	48.23	48.11	47.09	46.73	47.36	47.01
11	---	---	44.69	44.48	46.42	46.28	48.16	47.95	47.16	46.95	47.01	46.82
12	---	---	44.48	44.44	46.57	46.38	48.06	47.95	47.19	46.95	46.84	46.75
13	---	---	44.52	44.44	46.82	46.57	48.13	47.87	47.12	46.99	46.85	46.75
14	---	---	44.63	44.50	47.08	46.82	47.95	47.86	47.03	46.98	46.76	46.66
15	---	---	44.69	44.59	47.02	46.92	47.96	47.82	47.20	47.02	46.77	46.67
16	---	---	44.75	44.67	47.09	46.92	47.85	47.79	47.32	47.20	46.79	46.61
17	---	---	44.71	44.69	47.57	47.09	47.97	47.85	47.32	47.16	46.63	46.55
18	---	---	44.83	44.69	47.67	47.50	47.92	47.86	47.16	47.08	46.71	46.63
19	---	---	45.05	44.83	47.64	47.48	48.11	47.86	47.20	47.10	46.71	46.68
20	---	---	45.06	45.03	47.64	47.55	48.10	47.97	47.38	47.20	46.96	46.71
21	---	---	45.09	45.02	47.55	47.38	48.07	47.95	47.40	47.35	46.99	46.90
22	---	---	45.11	45.07	47.39	47.33	47.95	47.71	47.37	47.25	46.90	46.68
23	45.42	45.35	45.12	45.09	47.63	47.39	47.77	47.72	47.30	47.23	46.68	46.58
24	45.43	45.38	45.21	45.11	47.69	47.63	47.81	47.65	47.27	47.23	46.58	46.48
25	45.44	45.33	45.35	45.21	47.70	47.62	47.65	47.21	47.40	47.23	46.50	46.33
26	45.33	45.23	45.44	45.35	47.88	47.70	47.21	47.03	47.64	47.39	46.55	46.33
27	45.23	45.09	45.49	45.42	47.99	47.87	47.03	46.90	47.60	47.49	46.56	46.46
28	45.09	44.94	45.49	45.44	48.07	47.92	46.91	46.77	47.49	47.33	46.50	46.44
29	44.98	44.93	45.55	45.44	48.06	47.91	46.77	46.58	---	---	46.54	46.44
30	44.97	44.86	45.69	45.53	47.93	47.89	46.59	46.39	---	---	46.57	46.45
31	44.87	44.83	---	---	47.97	47.89	46.40	46.35	---	---	46.51	46.38
MONTH	---	---	45.69	44.44	48.07	45.61	48.31	46.35	47.64	46.30	47.63	46.33

GROUND-WATER LEVELS IN MARYLAND--Continued

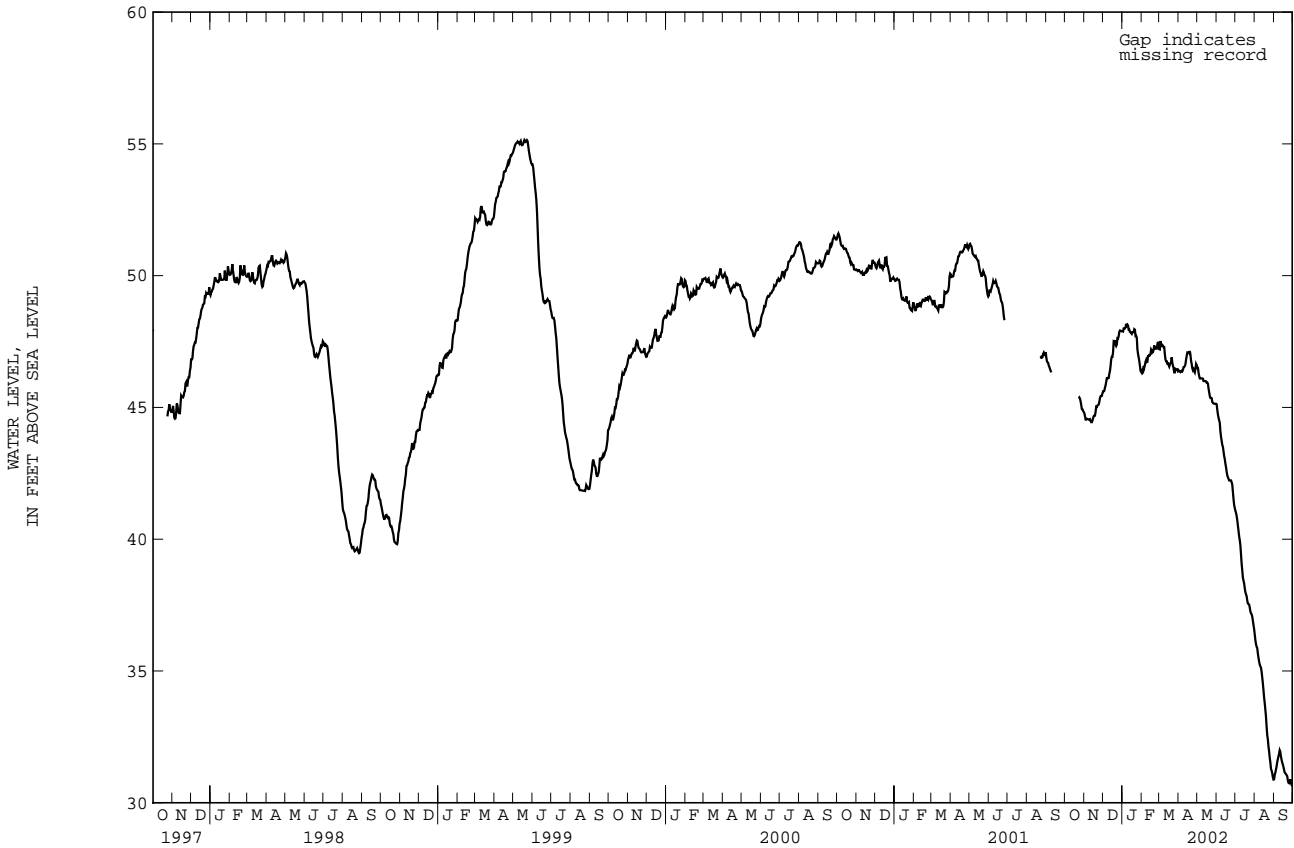
ANNE ARUNDEL COUNTY--Continued

AA Cb 1--Continued

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	46.52	46.41	46.60	46.50	45.16	45.12	41.18	41.08	36.59	36.38	31.06	30.89
2	46.48	46.37	46.52	46.50	45.12	44.91	41.08	41.00	36.38	36.17	31.15	31.06
3	46.52	46.37	46.52	46.31	44.91	44.73	41.00	40.88	36.17	36.02	31.26	31.14
4	46.37	46.34	46.31	46.19	44.73	44.61	40.88	40.72	36.02	35.92	31.39	31.26
5	46.43	46.36	46.19	46.10	44.61	44.51	40.72	40.51	35.93	35.87	31.54	31.38
6	46.46	46.39	46.10	46.10	44.51	44.41	40.51	40.32	35.91	35.66	31.66	31.54
7	46.44	46.37	46.10	46.10	44.41	44.08	40.32	40.11	35.66	35.50	31.78	31.66
8	46.56	46.43	46.10	46.10	44.08	43.88	40.11	39.96	35.50	35.36	31.86	31.76
9	46.63	46.53	46.10	46.10	43.88	43.73	39.96	39.77	35.36	35.24	31.99	31.86
10	46.62	46.54	46.10	46.09	43.73	43.58	39.77	39.41	35.24	35.18	32.13	31.99
11	46.65	46.57	46.09	46.00	43.58	43.50	39.41	39.07	35.19	35.12	32.13	31.93
12	46.82	46.64	46.00	46.00	43.50	43.33	39.07	38.82	35.12	34.97	31.93	31.75
13	46.97	46.82	46.00	46.00	43.33	43.15	38.82	38.54	34.97	34.76	31.75	31.63
14	47.12	46.96	46.00	46.00	43.15	43.04	38.54	38.43	34.76	34.53	31.63	31.52
15	47.12	47.08	46.00	45.99	43.04	42.86	38.43	38.32	34.53	34.27	31.52	31.45
16	47.11	47.07	45.99	45.94	42.86	42.73	38.32	38.14	34.27	33.99	31.46	31.36
17	47.11	47.09	45.94	45.94	42.73	42.56	38.14	37.99	33.99	33.78	31.36	31.24
18	47.14	47.06	45.94	45.90	42.56	42.42	37.99	37.91	33.78	33.52	31.24	31.15
19	47.16	47.14	45.90	45.71	42.42	42.35	37.91	37.84	33.52	33.27	31.16	31.12
20	47.16	46.99	45.71	45.57	42.35	42.29	37.84	37.67	33.27	32.90	31.12	31.09
21	46.99	46.77	45.57	45.43	42.29	42.23	37.67	37.56	32.90	32.56	31.11	31.05
22	46.85	46.64	45.43	45.36	42.23	42.23	37.59	37.54	32.56	32.41	31.05	31.01
23	46.64	46.48	45.36	45.36	42.23	42.23	37.58	37.52	32.41	32.14	31.01	30.86
24	46.49	46.41	45.36	45.35	42.23	42.23	37.53	37.41	32.14	31.95	30.86	30.76
25	46.56	46.45	45.35	45.21	42.23	42.16	37.41	37.26	31.95	31.71	30.78	30.74
26	46.46	46.38	45.21	45.17	42.16	42.07	37.26	37.19	31.71	31.53	30.89	30.78
27	46.46	46.33	45.17	45.15	42.07	41.80	37.21	37.15	31.53	31.29	31.00	30.89
28	46.86	46.46	45.15	45.14	41.80	41.52	37.15	37.06	31.29	31.22	30.99	30.75
29	46.83	46.65	45.14	45.14	41.52	41.30	37.07	36.91	31.23	31.12	30.75	30.68
30	46.65	46.60	45.14	45.14	41.30	41.18	36.91	36.74	31.12	30.97	30.68	30.63
31	---	---	45.16	45.14	---	---	36.74	36.59	30.97	30.88	---	---
MONTH	47.16	46.33	46.60	45.14	45.16	41.18	41.18	36.59	36.59	30.88	32.13	30.63

Daily Low Water Levels



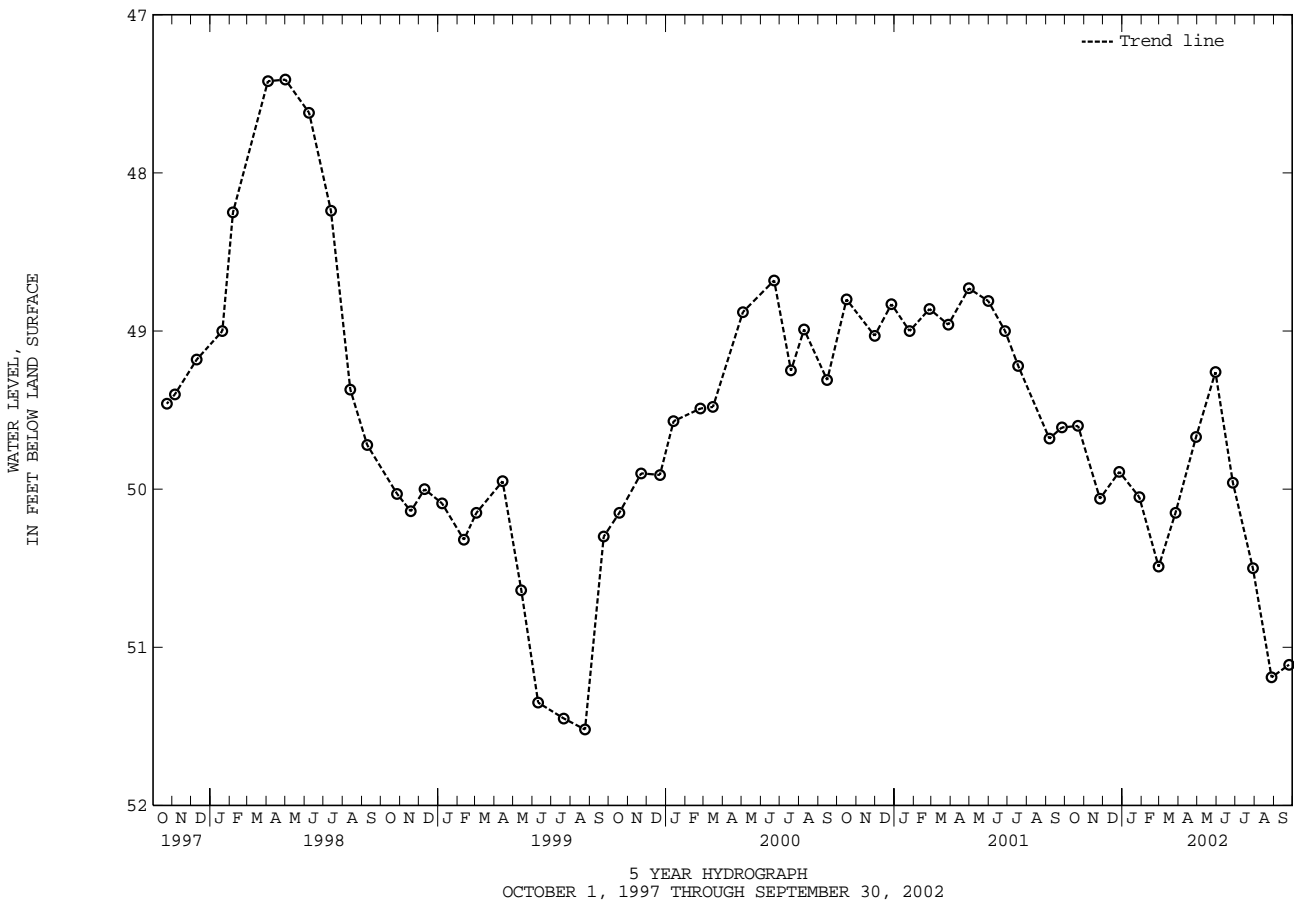


ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cc 40. SITE ID.--390423076432001. PERMIT NUMBER.--AA-03-5693.  
 LOCATION.--Lat 39°04'23", long 76°43'20", Hydrologic Unit 02060006, on Rifle Range Rd., Fort George G. Meade.  
 Owner: U.S. Army.  
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 238 ft; casing diameter 6 in., to 208 ft; screened diameter 6 in., from 208 to 238 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with graphic water-level recorder from Dec. 4, 1959 to July 21, 1960 and Jan. 12, 1978 to December 1985.  
 DATUM.--Elevation of land surface is 136.92 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 2.60 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Network observation well (See Figure 2.). Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--December 1959 to current year  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.58 ft below land surface, March 25, 1961; lowest measured, 51.69 ft below land surface, Sept. 1, 1992.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 2001	49.60	JAN 28, 2002	50.05	APR 29, 2002	49.67	JUL 29, 2002	50.50
NOV 26	50.06	FEB 28	50.49	MAY 30	49.26	AUG 28	51.19
DEC 27	49.89	MAR 27	50.15	JUN 27	49.96	SEP 25	51.11
WATER YEAR 2002		HIGHEST	49.26	MAY 30, 2002	LOWEST	51.19	AUG 28, 2002





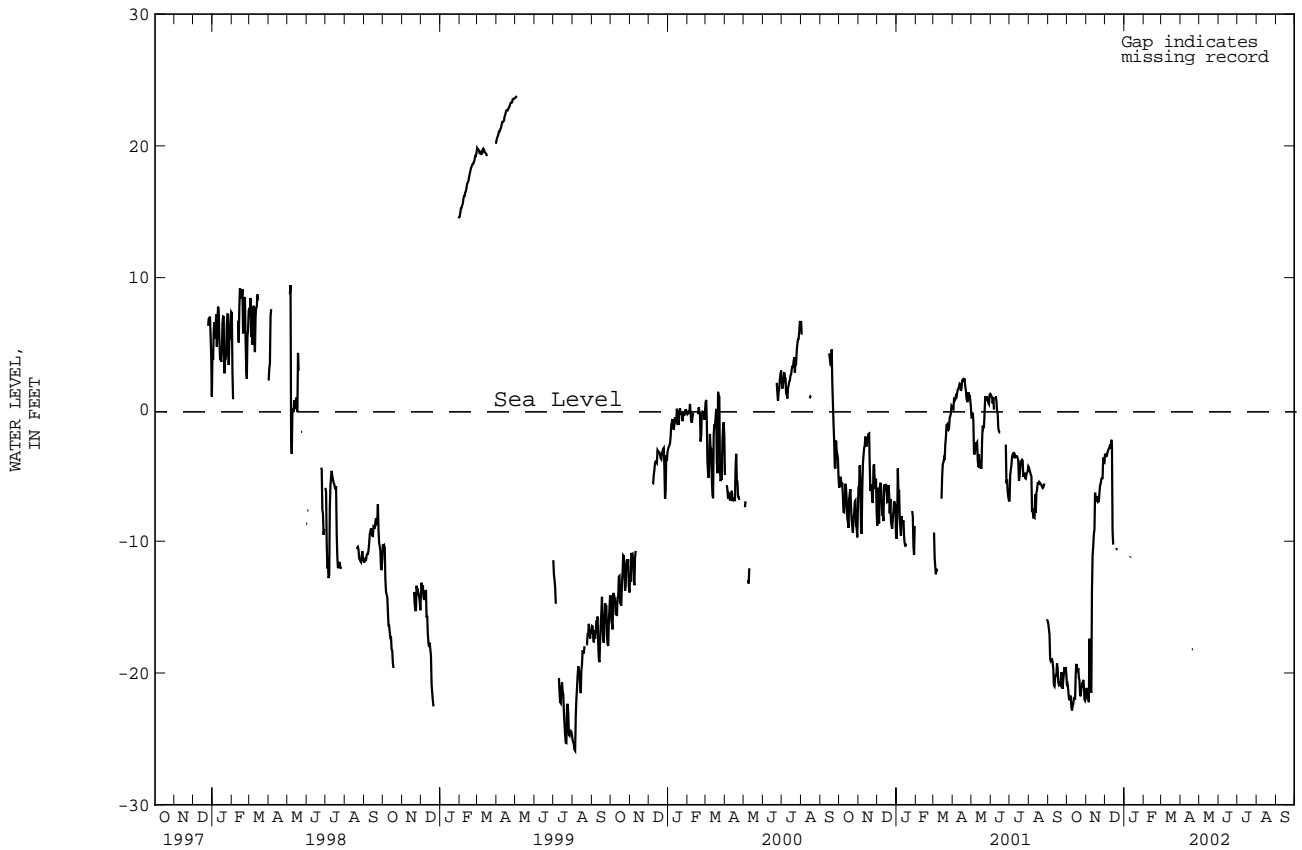
ANNE ARUNDEL COUNTY--Continued

AA Cc 135--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	-13.36	-18.20	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cc 137. SITE ID.--390126076402901. PERMIT NUMBER.--AA-93-0993.  
 LOCATION.--Lat 39°01'26", long 76°40'29", Hydrologic Unit 02060006, nr Reidel Rd and Johns Hopkins Rd, at Crofton Meadows.  
 Owner: Anne Arundel County.  
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 690 ft; casing diameter 4 in. to 300 ft, and casing diameter 2 in. from 300 to 476 ft, and 506 to 536 ft, 576 to 606 ft, and 686 to 690 ft; screen diameter 2 in. from 476 to 506 ft, and 536 to 576 ft, and 606 to 686 ft.  
 INSTRUMENTATION.--Monthly water level measurements with steel tape by Maryland Geological Survey personnel. Equipped with digital water-level recorder--15-minute recorder interval from May 4, 1998 to current year.  
 DATUM.--Elevation of land surface is 115.34 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of shelter platform, 2.10 ft above land surface.  
 REMARKS.--Anne Arundel County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal. Missing data due to recorder malfunction.  
 PERIOD OF RECORD.--December 1997 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.28 ft above sea level, Feb. 17, 2001 (recorder); lowest measured, 4.49 ft above sea level, June 2, 1999 (recorder).

## WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN	
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH					
1	21.65	21.23	23.09	22.12	19.10	17.89	25.81	24.47	25.22	24.17	26.32	25.40				
2	22.29	21.21	23.13	22.18	18.49	17.59	25.47	24.28	25.64	24.50	26.35	25.44				
3	21.71	21.19	23.11	22.21	18.22	17.40	25.89	24.69	25.37	24.43	26.63	25.40				
4	21.43	21.08	23.04	22.07	18.88	17.41	25.93	25.00	25.20	24.51	26.13	25.19				
5	21.58	21.01	22.54	20.42	18.75	17.59	26.18	24.95	25.50	24.53	26.21	25.20				
6	22.01	21.15	22.68	20.40	18.85	17.69	26.11	24.88	25.53	24.69	26.25	25.42				
7	21.86	21.16	21.82	20.75	18.68	17.61	25.98	24.97	25.77	24.87	26.10	25.35				
8	21.29	21.01	22.41	21.56	18.96	17.60	26.16	25.16	25.68	24.83	26.04	25.13				
9	21.27	20.92	22.72	20.87	18.73	17.71	26.42	25.47	25.72	24.66	26.32	25.23				
10	21.59	20.97	21.33	20.11	17.89	17.27	26.72	25.69	25.46	24.45	26.49	25.19				
11	22.07	21.19	20.11	19.07	18.95	17.53	26.75	25.78	25.29	24.57	26.17	25.10				
12	22.03	21.36	19.77	18.70	19.84	18.25	26.78	25.45	25.43	24.52	26.51	25.57				
13	22.25	21.42	19.00	17.43	20.14	18.78	26.77	25.10	25.67	24.68	26.95	25.99				
14	21.98	21.48	18.74	17.18	21.17	19.94	26.51	24.87	25.59	24.76	27.36	26.33				
15	21.72	20.37	---	---	22.22	21.04	27.43	24.94	25.60	24.77	27.36	26.20				
16	21.94	20.94	---	---	22.58	21.17	27.55	25.17	26.10	24.89	27.52	26.02				
17	22.73	21.73	---	---	22.94	21.67	27.14	26.14	25.80	24.75	27.28	26.02				
18	22.89	21.87	---	---	23.79	22.58	26.80	26.00	25.29	24.44	27.07	25.94				
19	22.85	21.86	---	---	23.99	22.91	26.93	25.93	25.26	24.32	27.32	26.13				
20	23.11	22.00	---	---	24.23	23.31	26.70	25.71	25.55	24.69	27.31	26.26				
21	22.97	21.94	---	---	24.36	23.43	26.64	25.64	26.11	25.02	27.60	26.76				
22	22.12	21.92	---	---	24.61	23.40	26.27	25.56	26.35	25.13	27.59	26.80				
23	22.82	21.88	---	---	24.67	23.34	26.42	25.66	26.48	25.04	27.91	26.49				
24	23.11	22.05	---	---	24.80	23.57	27.07	25.95	26.32	24.91	27.47	26.17				
25	23.34	22.18	---	---	24.80	23.47	27.24	26.13	26.00	24.81	27.10	26.11				
26	23.14	22.17	---	---	25.25	24.13	26.85	25.64	26.50	25.37	27.40	26.35				
27	23.32	22.22	---	---	25.46	24.38	26.45	25.44	26.64	25.49	27.86	26.87				
28	23.37	22.07	19.53	18.04	25.67	24.48	25.77	25.02	26.44	25.48	27.81	26.74				
29	22.46	21.92	18.91	17.79	25.89	24.44	25.98	25.00	---	---	27.87	26.89				
30	22.80	21.90	18.86	17.69	25.77	24.38	26.07	24.14	---	---	28.16	26.55				
31	23.00	21.93	---	---	25.60	24.24	24.85	23.97	---	---	27.51	26.35				
MONTH	23.37	20.37	---	---	25.89	17.27	27.55	23.97	26.64	24.17	28.16	25.10				

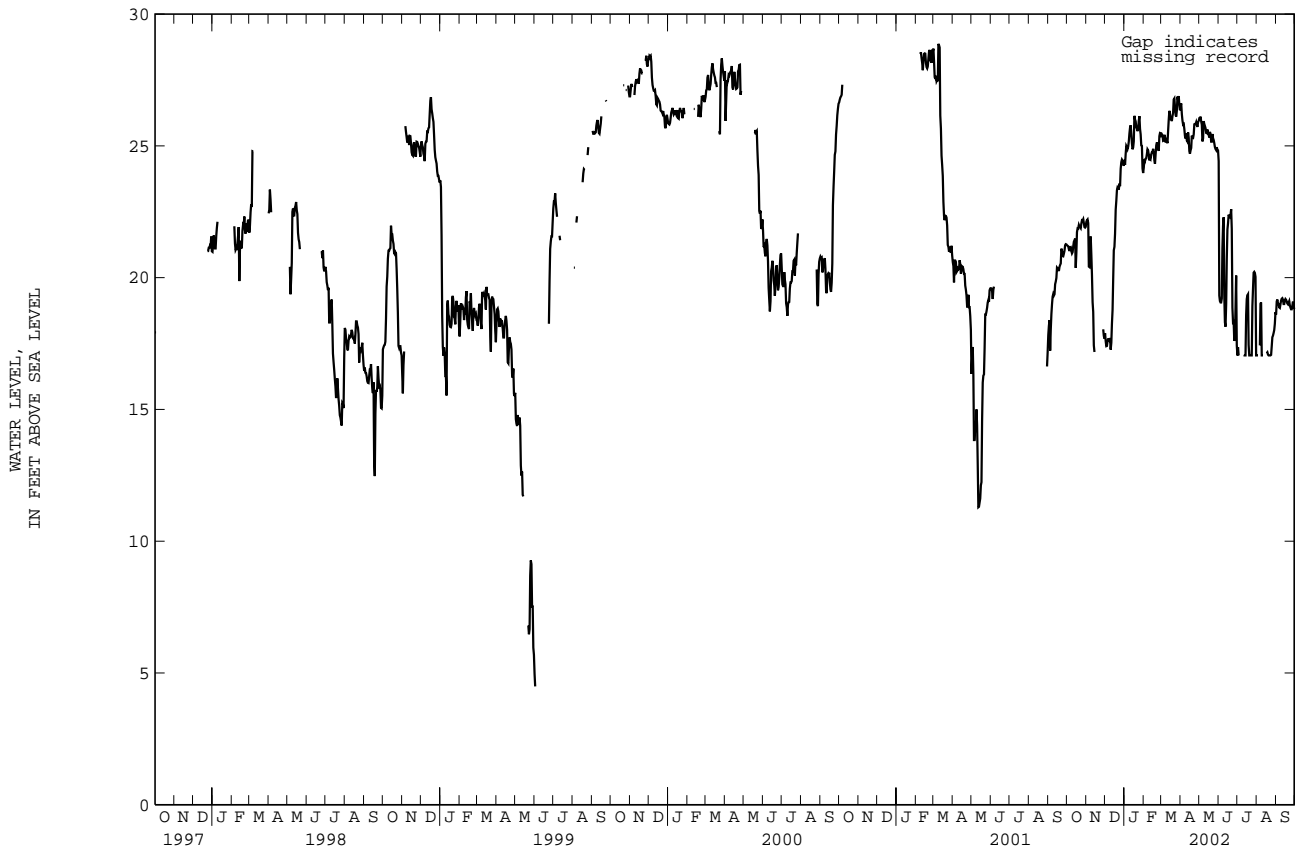
ANNE ARUNDEL COUNTY--Continued

AA Cc 137--Continued

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	27.66	26.48	27.10	26.04	25.59	24.42	19.32	17.05	18.57	17.05	19.57	18.60
2	27.67	26.61	27.26	26.03	24.42	19.32	19.40	17.36	17.70	17.05	19.71	19.10
3	27.47	26.20	27.16	26.11	22.00	19.11	18.91	17.05	18.07	17.05	19.66	19.17
4	27.07	25.96	27.25	25.93	22.23	19.06	---	---	---	---	19.31	19.04
5	26.77	25.81	27.02	25.80	21.63	19.06	---	---	---	---	19.30	18.99
6	26.95	25.83	26.35	25.17	21.17	19.21	---	---	19.49	17.43	19.04	18.87
7	26.50	25.64	26.47	25.28	22.05	21.11	---	---	19.14	19.01	19.31	18.85
8	25.86	25.37	26.81	25.94	22.74	21.98	---	---	19.50	19.06	19.45	18.99
9	26.32	25.28	26.89	25.83	22.43	22.29	---	---	19.28	17.05	19.60	19.13
10	26.35	25.48	26.87	25.75	22.35	19.34	---	---	18.24	17.05	19.32	19.20
11	26.33	25.20	26.88	25.67	21.02	18.30	17.95	17.06	18.03	17.05	19.61	19.22
12	25.98	25.16	26.40	25.49	20.37	18.14	18.30	17.05	---	---	19.41	19.16
13	26.32	25.51	26.12	25.48	20.73	19.00	18.02	17.05	---	---	19.16	19.00
14	25.95	25.31	26.57	25.62	21.83	20.73	18.58	17.05	---	---	19.28	19.00
15	25.40	24.80	26.37	25.51	22.62	21.83	19.41	18.58	---	---	19.66	19.13
16	25.47	24.70	26.59	25.41	23.16	22.06	19.77	19.19	---	---	19.34	19.19
17	25.84	24.83	26.17	25.32	22.92	22.39	19.52	19.33	17.53	17.14	19.43	19.16
18	25.82	24.92	26.96	25.53	23.47	22.33	19.49	19.37	17.69	17.17	19.25	19.10
19	26.64	25.39	26.50	25.45	22.70	22.30	19.58	17.45	17.31	17.08	19.15	19.02
20	26.88	25.31	26.11	25.16	23.23	22.38	19.29	17.05	17.68	17.05	19.09	18.99
21	26.55	25.30	26.09	25.16	23.06	22.60	18.29	17.05	17.31	17.05	19.38	19.05
22	26.51	25.44	26.31	25.45	22.63	21.85	18.09	17.05	17.37	17.05	19.22	19.11
23	26.36	25.82	26.32	25.29	21.85	18.86	18.12	17.05	17.38	17.05	19.18	18.95
24	26.66	25.83	26.24	25.22	20.58	18.30	18.94	17.05	17.48	17.07	18.95	18.87
25	26.82	25.83	26.01	25.10	20.09	18.32	19.89	18.92	18.02	17.39	18.88	18.80
26	26.76	25.90	25.75	24.95	20.26	17.60	20.31	19.57	18.07	17.74	18.93	18.80
27	26.84	25.79	25.73	24.88	19.64	17.73	20.91	20.19	18.04	17.80	19.48	18.93
28	27.11	25.72	25.65	24.84	20.10	18.87	21.13	20.22	18.09	17.90	19.51	19.09
29	26.82	25.90	25.90	24.95	20.72	20.08	20.43	20.18	18.29	18.01	19.26	18.94
30	26.81	25.95	25.67	24.85	20.50	17.43	20.50	20.03	19.81	18.25	19.08	18.81
31	---	---	25.59	24.83	---	---	20.19	17.05	19.36	18.69	---	---
MONTH	27.67	24.70	27.26	24.83	25.59	17.43	---	---	---	---	19.71	18.60

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ce 117. SITE ID.--390450076343402. PERMIT NUMBER.--AA-73-0172.

LOCATION.--Lat 39°04'50", long 76°34'35", Hydrologic Unit 02060004, 0.1 mi southwest of intersection of Severndale Road and Southway Road.

Owner: Anne Arundel County Department of Public Works.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 922 ft; casing diameter 6 in., to 836 ft, 851 to 870 ft, and 890 to 907 ft; screen diameter 6 in. from 836 to 851 ft, 870 to 890 ft, and 907 to 922 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey and Maryland Geological Survey personnel. Equipped with digital water-level recorder--30-minute recorder interval from Aug. 18, 1977 to April 1980 and August 1983 to current year.

DATUM.--Elevation of land surface is 86.0 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of shelter platform, 0.5 ft above land surface.

REMARKS.--Anne Arundel County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal. Missing data due to recorder malfunction.

PERIOD OF RECORD.--August 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.58 ft above sea level, March 27, 1978 (recorder); lowest measured, 28.66 ft below sea level, Sept. 26, 2002 (recorder).

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
(READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	2.12	1.83	-1.53	-2.83	1.75	1.45	2.64	2.31	3.02	2.52	2.42	1.96
2	2.15	2.02	-0.81	-1.53	1.64	1.29	2.61	2.49	2.85	2.32	2.65	1.96
3	2.14	1.80	-0.45	-0.89	1.67	1.30	2.75	2.37	2.71	2.54	2.93	2.43
4	2.26	1.88	-0.10	-0.45	1.73	1.36	2.74	2.35	2.80	2.55	2.85	2.22
5	2.35	2.15	0.01	-0.10	1.81	1.41	2.79	2.42	2.55	2.12	2.56	2.14
6	2.42	2.22	0.16	-0.25	2.05	1.54	3.12	2.54	2.52	2.20	2.62	2.20
7	2.22	1.80	0.34	-0.09	2.08	1.74	3.09	2.94	2.70	2.32	2.61	2.20
8	2.03	1.88	0.53	0.33	2.25	1.69	2.94	2.56	2.62	2.25	2.62	2.20
9	1.88	1.39	0.54	0.15	2.28	1.91	3.10	2.85	2.28	1.99	2.87	2.27
10	1.47	1.00	0.73	0.24	2.17	1.77	3.06	2.76	2.59	2.07	2.92	2.41
11	1.29	0.99	0.72	0.46	2.28	1.94	3.06	2.75	2.63	2.31	2.66	2.25
12	1.23	0.96	0.50	0.44	2.28	1.93	3.12	2.93	2.41	1.33	2.85	2.27
13	1.42	0.98	0.57	0.30	2.46	2.05	3.21	2.90	2.03	1.52	2.99	2.42
14	1.63	1.41	0.70	0.56	2.56	2.20	3.06	2.94	2.15	1.65	2.96	2.50
15	1.62	0.94	0.76	0.66	2.51	2.08	3.07	2.91	2.37	1.82	2.98	2.55
16	1.17	0.91	0.82	0.64	2.29	1.89	2.91	2.84	2.51	2.09	2.98	2.60
17	1.10	0.91	0.79	0.71	2.72	2.29	3.07	2.72	2.51	2.16	2.80	2.32
18	1.11	1.02	0.89	0.72	2.80	2.51	3.07	2.72	2.36	1.90	2.90	2.42
19	1.29	0.90	1.12	0.73	2.68	2.46	3.17	2.66	2.41	1.82	2.83	2.37
20	1.37	1.05	1.13	0.98	2.68	2.37	3.17	2.72	2.55	2.05	3.04	2.46
21	1.42	1.01	1.10	0.83	2.52	2.20	3.22	2.77	2.52	2.47	3.10	2.58
22	1.46	1.06	1.17	0.82	2.40	2.01	3.14	2.91	2.68	2.42	3.04	2.38
23	---	---	1.21	0.84	2.73	2.40	3.09	2.64	2.58	2.29	2.91	2.39
24	---	---	1.29	0.87	2.76	2.44	3.25	2.80	2.44	2.07	2.87	2.62
25	---	---	1.46	1.05	2.66	2.59	3.22	2.70	2.59	2.08	2.83	2.42
26	---	---	1.47	1.15	2.76	2.41	2.85	2.46	2.86	2.25	3.00	2.41
27	---	---	1.53	1.14	2.82	2.47	2.81	2.50	2.81	2.32	3.02	2.62
28	---	---	1.53	1.19	2.85	2.49	2.86	2.78	2.61	2.10	2.92	2.44
29	---	---	1.61	1.22	2.78	2.52	2.88	2.85	---	---	3.03	2.52
30	---	---	1.78	1.37	2.67	2.36	2.89	2.58	---	---	3.15	2.64
31	---	---	---	---	2.66	2.32	2.81	2.39	---	---	3.02	2.55
MONTH	---	---	1.78	-2.83	2.85	1.29	3.25	2.31	3.02	1.33	3.15	1.96

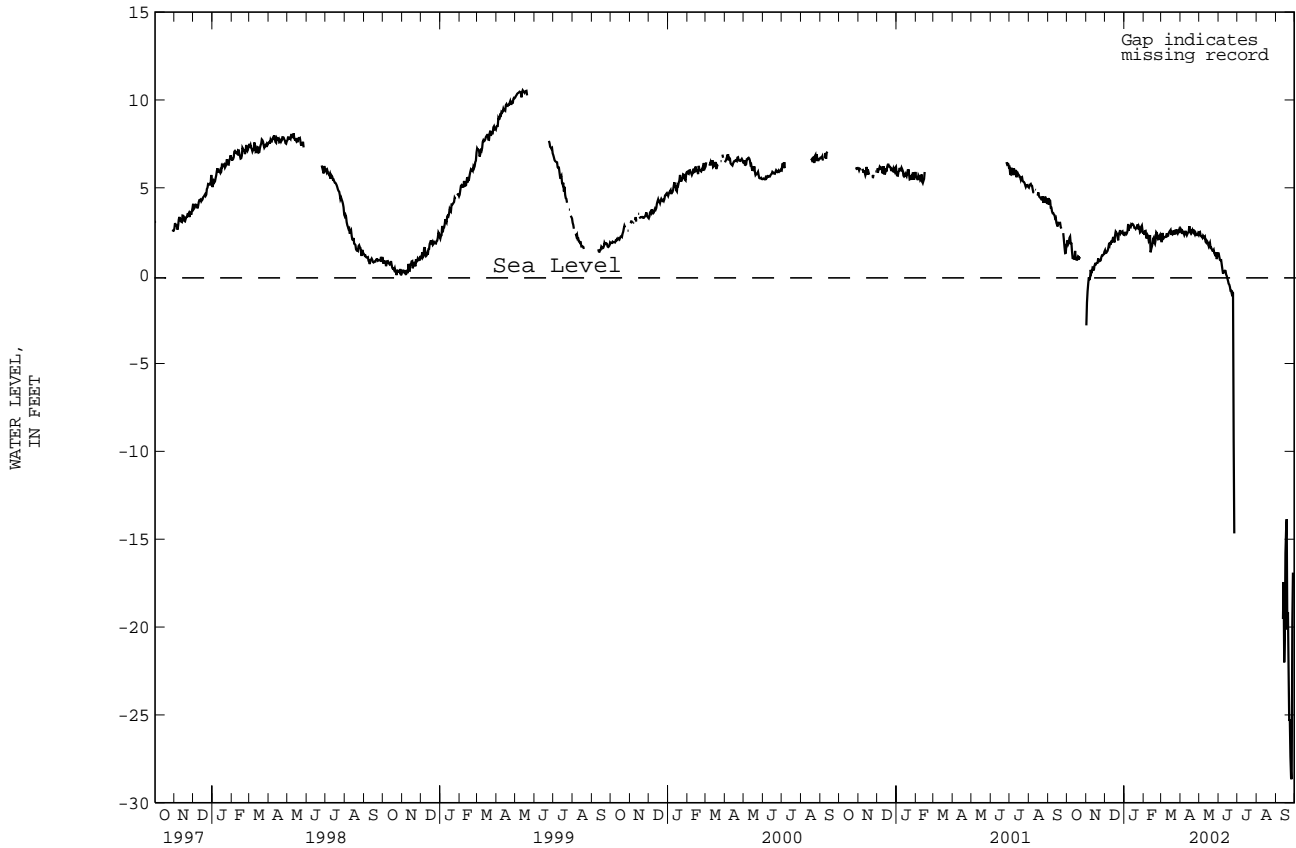
ANNE ARUNDEL COUNTY--Continued

AA Ce 117--Continued

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
(READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	3.08	2.65	2.83	2.47	1.34	1.27	---	---	---	---	---	---
2	3.02	2.55	3.00	2.49	1.27	1.08	---	---	---	---	---	---
3	3.12	2.65	2.93	2.29	1.08	0.90	---	---	---	---	---	---
4	2.88	2.37	2.54	2.24	0.91	0.87	---	---	---	---	---	---
5	2.83	2.55	2.52	2.22	0.93	0.88	---	---	---	---	---	---
6	2.85	2.42	2.50	2.16	0.88	0.61	---	---	---	---	---	---
7	2.77	2.31	2.60	2.28	0.69	0.35	---	---	---	---	---	---
8	2.89	2.40	2.52	2.23	0.62	0.11	---	---	---	---	---	---
9	2.90	2.55	2.54	2.16	0.63	0.20	---	---	---	---	---	---
10	2.86	2.39	2.51	2.21	0.53	0.23	---	---	---	---	---	---
11	2.69	2.30	2.26	1.93	0.37	0.28	---	---	---	---	---	---
12	2.81	2.38	2.38	1.88	0.36	0.27	---	---	---	---	-14.46	-19.54
13	2.91	2.46	2.58	1.99	0.27	0.06	---	---	---	---	-14.91	-17.44
14	2.94	2.50	2.45	1.94	0.31	-0.02	---	---	---	---	-14.54	-22.01
15	2.93	2.82	2.29	1.83	0.18	-0.17	---	---	---	---	-15.79	-20.45
16	2.90	2.49	2.16	1.69	0.15	-0.30	---	---	---	---	-14.49	-15.79
17	2.88	2.43	2.26	1.80	-0.08	-0.46	---	---	---	---	-13.86	-14.49
18	2.90	2.63	2.29	1.88	-0.31	-0.51	---	---	---	---	-13.37	-13.86
19	2.97	2.50	2.04	1.58	-0.51	-0.64	---	---	---	---	-13.21	-20.14
20	3.03	2.60	1.93	1.59	-0.64	-0.86	---	---	---	---	-14.93	-19.16
21	2.94	2.51	1.83	1.51	-0.79	-0.86	---	---	---	---	-14.15	-22.34
22	3.07	2.62	1.75	1.42	-0.84	-1.02	---	---	---	---	-17.92	-25.34
23	2.88	2.41	1.81	1.41	-0.89	-0.94	---	---	---	---	-20.40	-25.26
24	2.73	2.33	1.84	1.47	-0.91	-0.99	---	---	---	---	-19.58	-27.37
25	2.92	2.43	1.72	1.27	-0.99	-9.35	---	---	---	---	-22.51	-28.57
26	2.84	2.34	1.58	1.21	-5.78	-14.67	---	---	---	---	-19.70	-28.66
27	2.67	2.31	1.52	1.11	---	---	---	---	---	---	-16.90	-19.70
28	3.03	2.31	1.45	1.34	---	---	---	---	---	---	-15.93	-16.90
29	2.99	2.41	1.40	0.94	---	---	---	---	---	---	---	---
30	2.82	2.33	1.33	1.26	---	---	---	---	---	---	---	---
31	---	---	1.37	1.28	---	---	---	---	---	---	---	---
MONTH	3.12	2.30	3.00	0.94	---	---	---	---	---	---	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cf 98. SITE ID.--390150076283003. PERMIT NUMBER.--AA-70-0199.

LOCATION.--Lat 39°01'50", long 76°28'30", Hydrologic Unit 02060004, 3.1 mi northeast of Annapolis, near Anne Arundel Co. Traffic Engineering Building, Broad Neck.

Owner: Anne Arundel Co. Dept. of Recreation and Parks.

AQUIFER.--Severn Formation (Monmouth aquifer) of Upper Cretaceous age. Aquifer code: 211SVRN.

WELL CHARACTERISTICS.--Drilled, artesian, observation well, depth 100 ft; casing diameter 2 in., to 90 ft; screen diameter 2 in. from 90 to 100 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Twice yearly water level measurements from September 1969 to September 1986, and April 1989 to February 1999.

DATUM.--Elevation of land surface is 93.42 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 3.51 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.

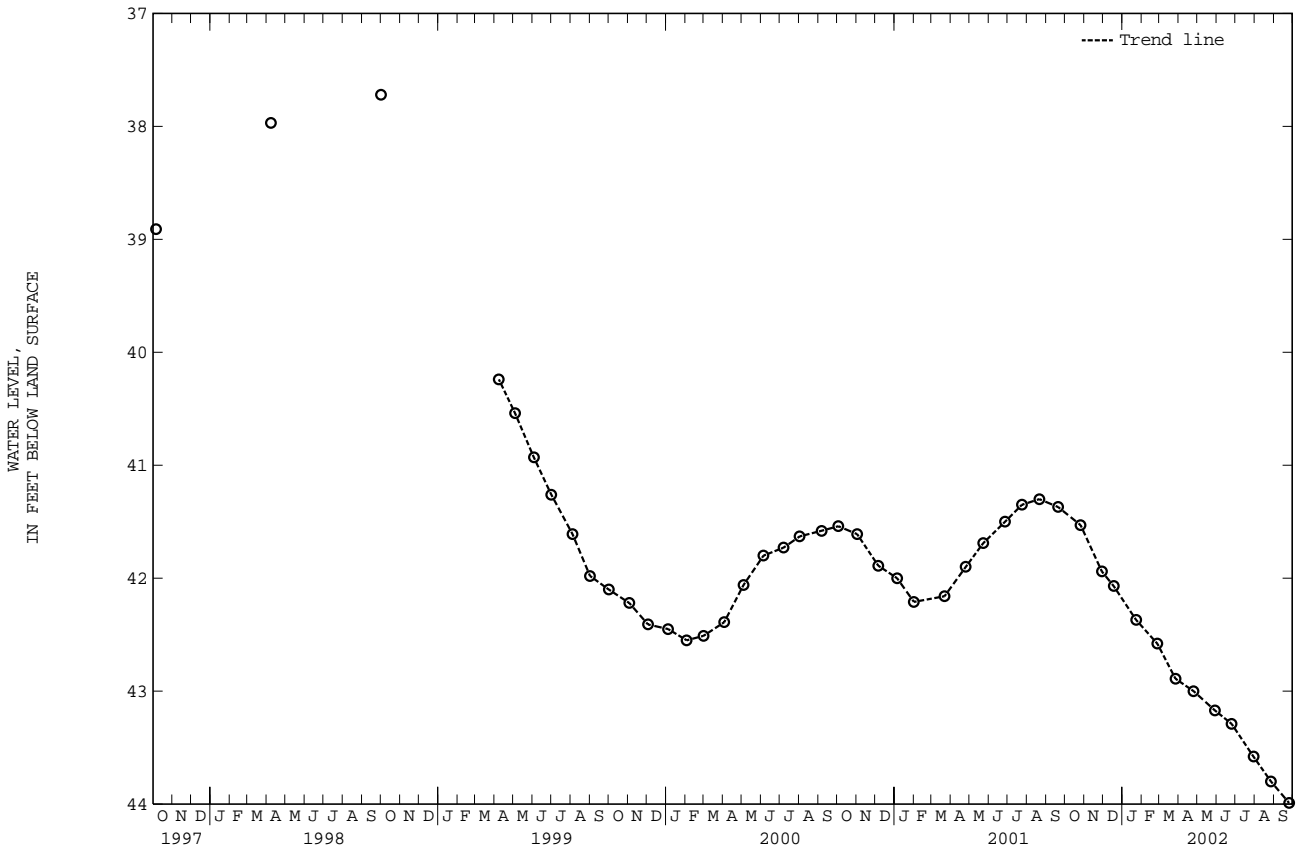
PERIOD OF RECORD.--September 1969 to September 1986, April 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.14 ft below land surface, Aug. 3, 1972; lowest measured, 44.39 ft below land surface, Nov. 15, 1988.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	41.53	JAN 23, 2002	42.37	APR 25, 2002	43.00	JUL 30, 2002	43.58
NOV 29	41.94	FEB 26	42.58	MAY 29	43.17	AUG 27	43.80
DEC 18	42.07	MAR 27	42.89	JUN 25	43.29	SEP 25	43.99

WATER YEAR 2002      HIGHEST    41.53    OCT 26, 2001      LOWEST    43.99    SEP 25, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cf 99. SITE ID.--390150076283002. PERMIT NUMBER.--AA-70-0199.

LOCATION.--Lat 39°01'50", long 76°28'30", Hydrologic Unit 02060004, 3.1 mi northeast of Annapolis, near Anne Arundel Co. Traffic Engineering Building, Broad Neck.

Owner: Anne Arundel Co. Dept. of Recreation and Parks.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, artesian, observation well, depth 220 ft; casing diameter 2 in., to 210 ft; screen diameter 2 in. from 210 to 220 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with graphic water-level recorder from Sept. 28, 1969 to July 13, 1971.

DATUM.--Elevation of land surface is 93.70 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 3.60 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

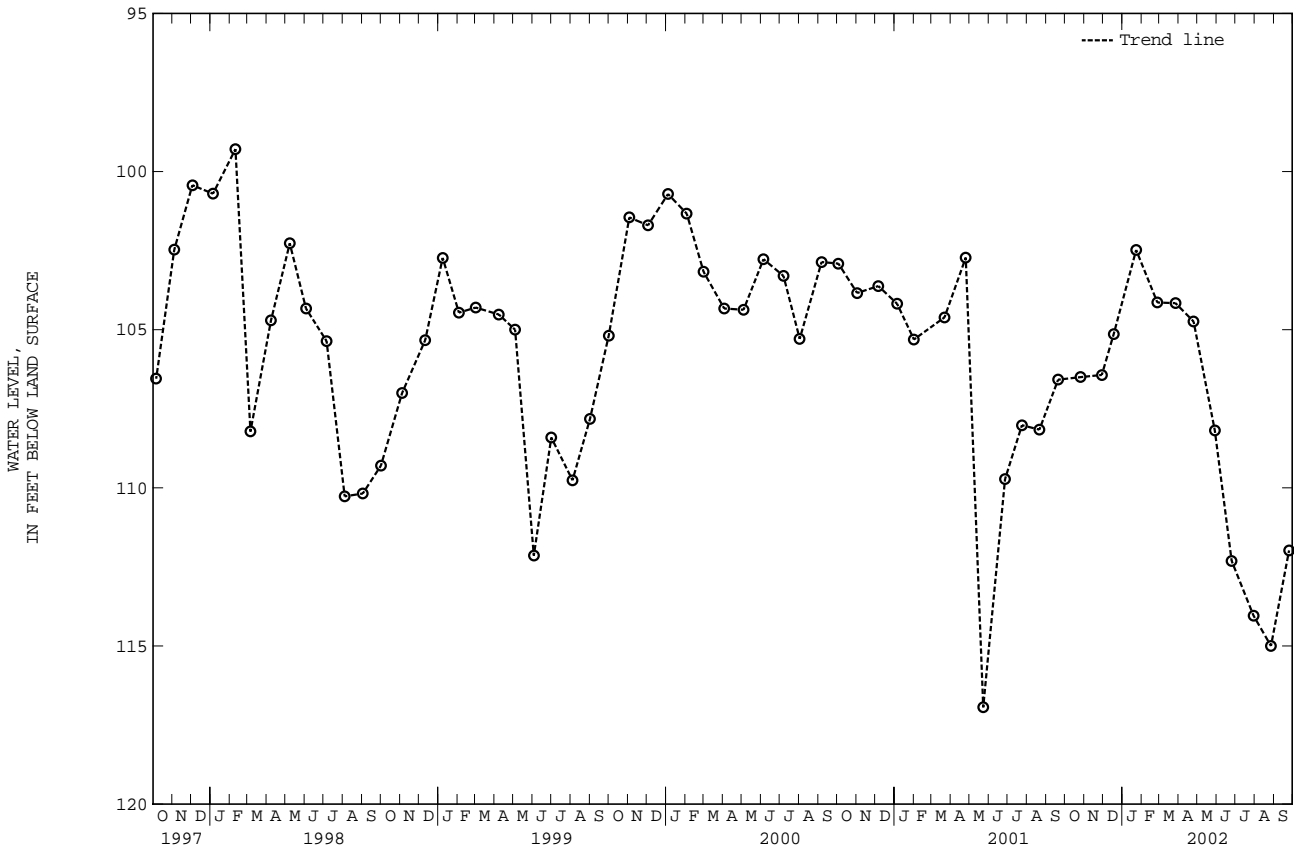
PERIOD OF RECORD.--September 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 89.29 ft below land surface, April 13, 1976; lowest measured, 116.94 ft below land surface, May 23, 2001.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	106.50	JAN 23, 2002	102.48	APR 25, 2002	104.74	JUL 30, 2002	114.04
NOV 29	106.43	FEB 26	104.14	MAY 29	108.18	AUG 27	115.00
DEC 18	105.14	MAR 27	104.16	JUN 25	112.31	SEP 25	111.98

WATER YEAR 2002      HIGHEST 102.48 JAN 23, 2002      LOWEST 115.00 AUG 27, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cg 22. SITE ID.--390123076241601. PERMIT NUMBER.--AA-73-8606.

LOCATION.--Lat 39°01'23", long 76°24'16", Hydrologic Unit 02060004, 1,500 ft northeast of Oceanic Dr. and South Beach Rd., at Sandy Point State Park.

Owner: U.S. Geological Survey

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,762 ft; casing diameter 10 in., to 163 ft; casing diameter 8 in., 0 to 1,760 ft; screen diameter 4 in. from 1,735 to 1,755 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 12.61 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of flange, 3.44 ft above land surface.

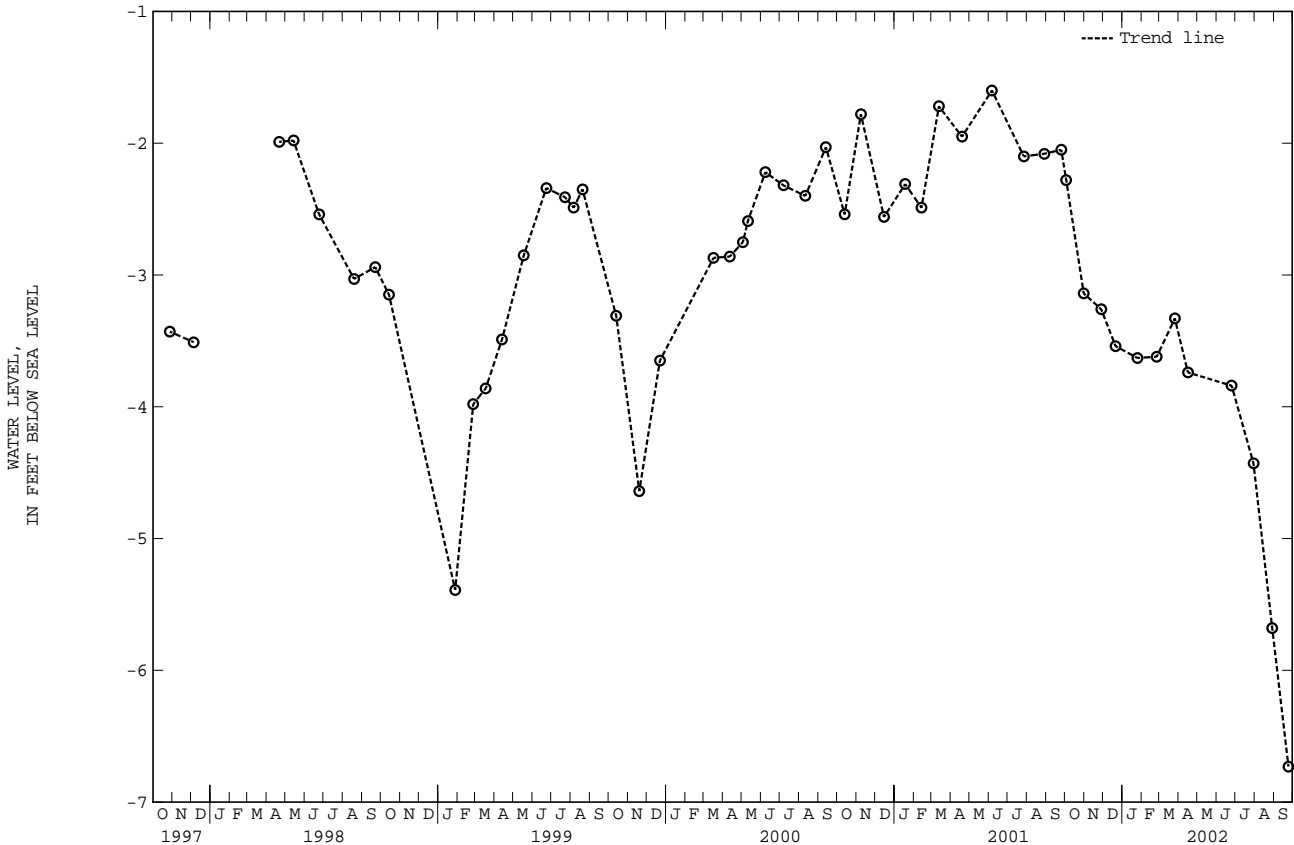
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.--September 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.47 ft above sea level, Sept. 6, 1979; lowest measured, 6.73 ft below sea level, Sept. 24, 2002.

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 2001	-2.28	DEC 21, 2001	-3.54	MAR 26, 2002	-3.33	JUL 30, 2002	-4.43
31	-3.14	JAN 25, 2002	-3.63	APR 16	-3.74	AUG 29	-5.68
NOV 28	-3.26	FEB 25	-3.62	JUN 25	-3.84	SEP 24	-6.73
WATER YEAR 2002		HIGHEST	-2.28	OCT 03, 2001	LOWEST	-6.73	SEP 24, 2002



ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cg 23. SITE ID.--390123076241602. PERMIT NUMBER.--AA-73-8959.

LOCATION.--Lat 39°01'23", long 76°24'16", Hydrologic Unit 02060004, 1500 ft northeast of Oceanic Dr. and South Beach Rd., at Sandy Point State Park.

Owner: U.S. Geological Survey

AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 986 ft; casing diameter 4 in., to 968 ft; and 978 to 986 ft; screen diameter 4 in. from 968 to 978 ft.

INSTRUMENTATION.-- Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with a graphic water-level recorder from Sept. 9, 1978 to Feb. 21, 1980. Equipped with digital water-level recorder--60-minute recorder interval from Sept. 11, 1990 to August 29, 2001.

DATUM.--Elevation of land surface is 12.57 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of flange, 3.43 ft above land surface.

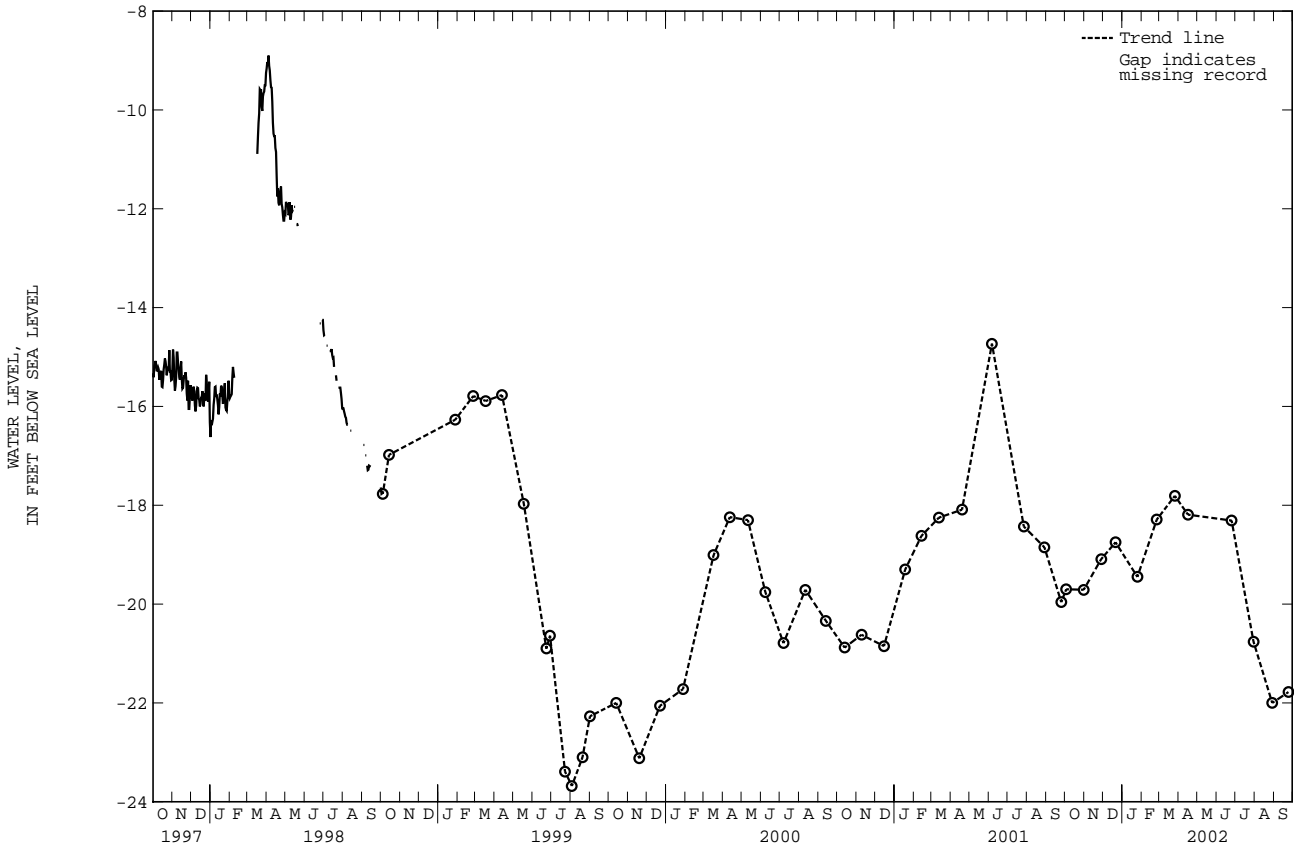
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.-- September 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.92 ft above sea level, Sept. 6, 1979; lowest measured, 23.93 ft below sea level, Aug. 9, 1999.

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 2001	-19.70	DEC 21, 2001	-18.75	MAR 26, 2002	-17.81	JUL 30, 2002	-20.76
31	-19.71	JAN 25, 2002	-19.45	APR 16	-18.19	AUG 29	-22.00
NOV 28	-19.09	FEB 25	-18.29	JUN 25	-18.31	SEP 24	-21.78
WATER YEAR 2002		HIGHEST	-17.81	MAR 26, 2002	LOWEST	-22.00	AUG 29, 2002

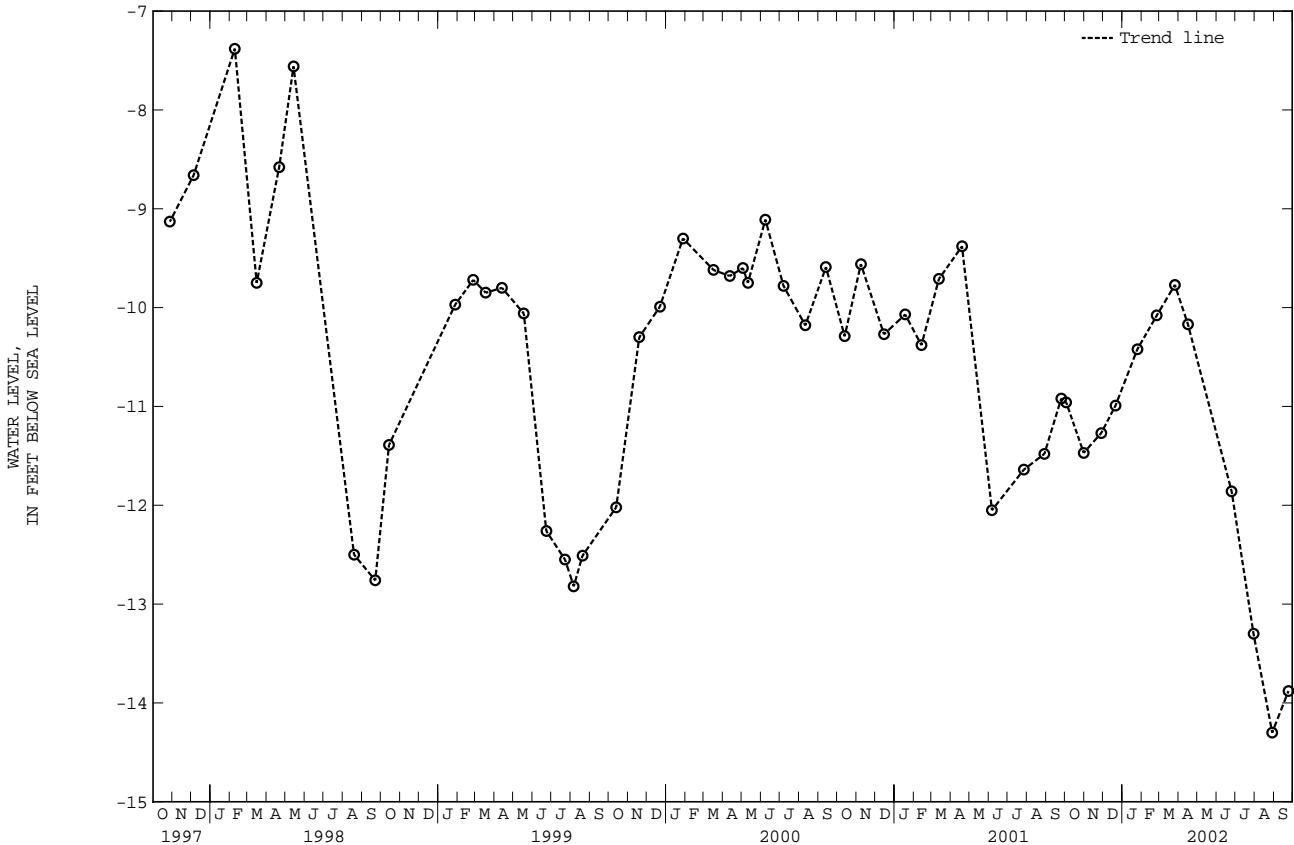


ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cg 24. SITE ID.--390123076241603 PERMIT NUMBER.--AA-73-8960.  
 LOCATION.--Lat 39°01'23", long 76°24'16", Hydrologic Unit 02060004, 1500 ft northeast of Oceanic Dr. and South Beach Rd., at Sandy Point State Park.  
 Owner: U.S. Geological Survey  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 664 ft; casing diameter 6 in., to 158 ft; casing diameter 4 in., 158 to 605 ft, 615 to 648 and 658 to 664 ft; screen diameter 4 in. from 605 to 615 ft, and 648 to 658 ft.  
 INSTRUMENTATION.-- Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 12.68 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of flange, 3.16 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal.  
 PERIOD OF RECORD.-- September 1978 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.21 ft above sea level, Aug. 15, 1980; lowest measured, 14.30 ft below sea level, Aug. 29, 2002.

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 2001	-10.96	DEC 21, 2001	-10.99	MAR 26, 2002	-9.77	JUL 30, 2002	-13.30
31	-11.47	JAN 25, 2002	-10.42	APR 16	-10.17	AUG 29	-14.30
NOV 28	-11.27	FEB 25	-10.08	JUN 25	-11.86	SEP 24	-13.88
WATER YEAR 2002		HIGHEST	-9.77	MAR 26, 2002	LOWEST	-14.30	AUG 29, 2002



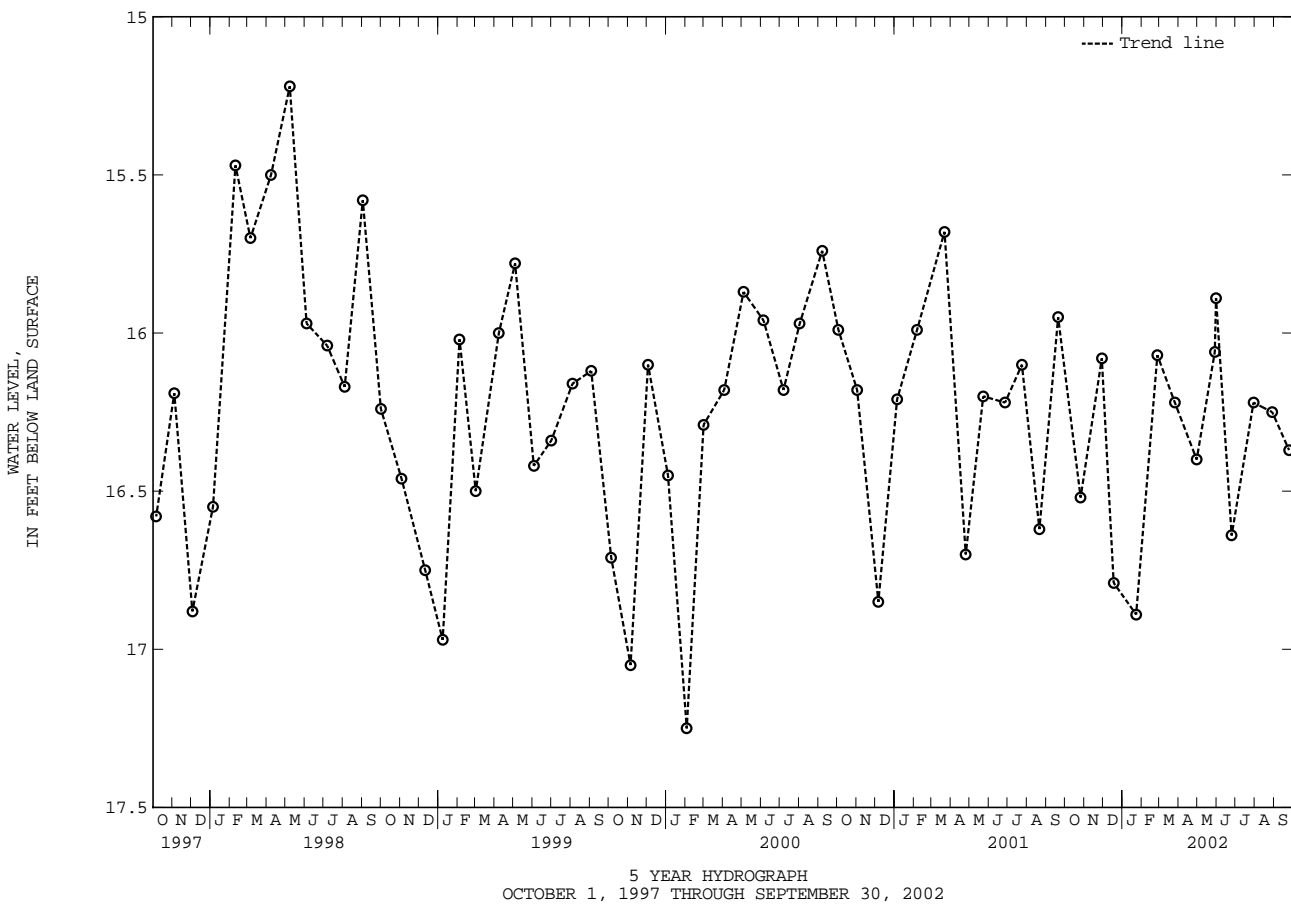
ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cg 25. SITE ID.--390127076240301. PERMIT NUMBER.--AA-74-1240.  
 LOCATION.--Lat 39°01'27", long 76°24'03", Hydrologic Unit 02060004, at Sandy Point State Park, near maintenance area.  
 Owner: Maryland Department of Natural Resources.  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 107 ft; casing diameter 3 in., to 100 ft;  
 screen diameter 3 in. from 100 to 107 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 17.33 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.43 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--April 1981 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.74 ft below land surface, April 13, 1988;  
 lowest measured, 18.25 ft below land surface, Oct. 1, 1986.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	16.52	FEB 26, 2002	16.07	MAY 31, 2002	15.89	SEP 25, 2002	16.37
NOV 29	16.08	MAR 26	16.22	JUN 25	16.64		
DEC 18	16.79	APR 30	16.40	JUL 30	16.22		
JAN 23, 2002	16.89	MAY 29	16.06	AUG 29	16.25		

WATER YEAR 2002    HIGHEST    15.89    MAY 31, 2002    LOWEST    16.89    JAN 23, 2002



ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Dd 42. SITE ID.--385808076373502. PERMIT NUMBER.--AA-71-0231.

LOCATION.--Lat 38°58'10", long 76°37'35", Hydrologic Unit 02060004, 30 ft south of MD Rt 50, 0.5 mi from intersection with Howard Grove Rd. and Rutland Rd.

Owner: U.S. Geological Survey.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 275 ft; casing diameter 4 in., to 190 ft; casing diameter 2 in., from 200 to 225 ft, and 235 to 265 ft. screen diameter 2 in. from 190 to 200 ft., 225 to 235 ft, and 265 to 275 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with graphic water-level recorder from December 1971 to August 1975 and with a digital water-level recorder--30-minute recorder interval from August 1975 to May 10, 1992.

DATUM.--Elevation of land surface is 105.48 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of shelter platform, .72 ft above land surface.

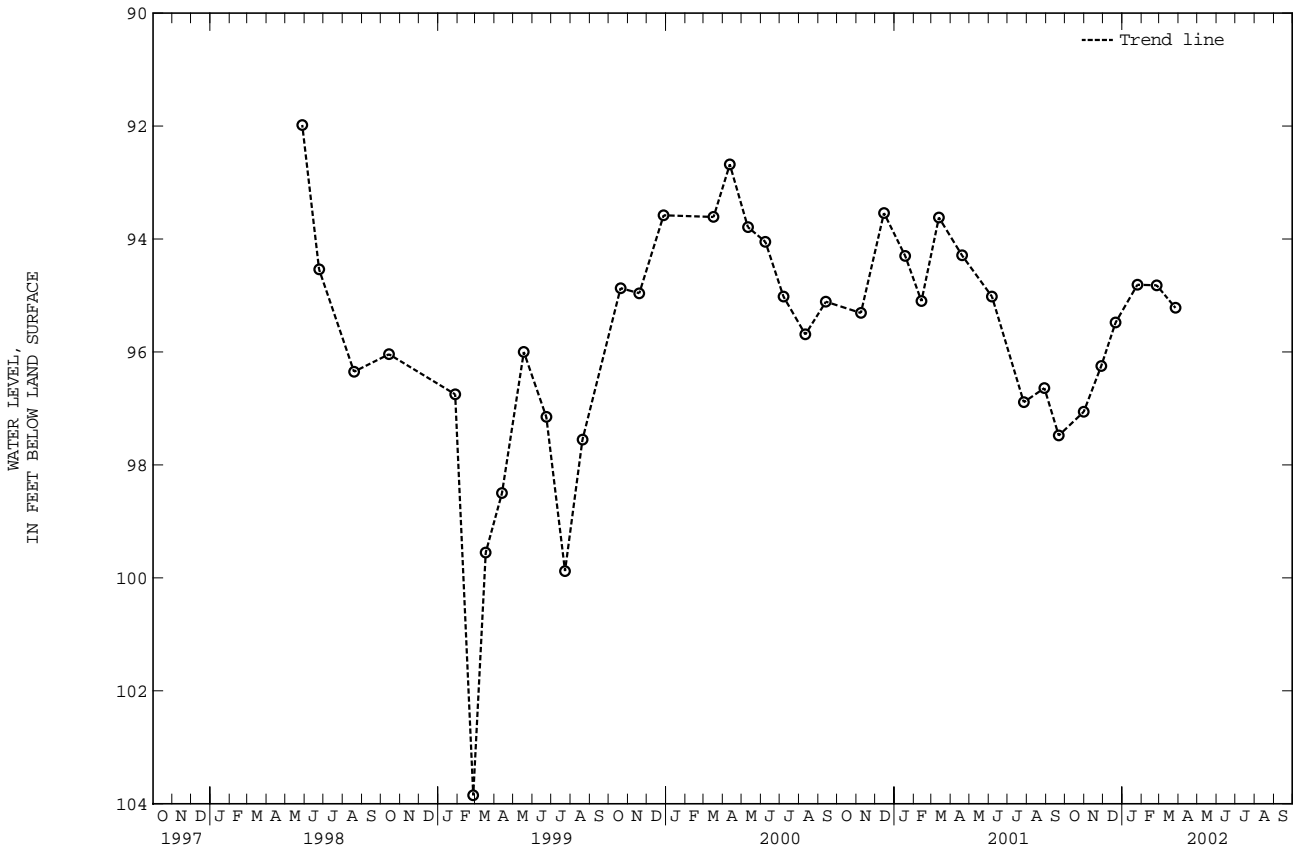
REMARKS.--Southern Maryland Ground-Water-Level Monitoring Network. Water levels are affected by local ground-water withdrawal. Water-level measurements could not be taken from April to October 2002.

PERIOD OF RECORD.--October 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 80.25 ft below land surface May 4, 1973. lowest measured, 103.85 ft below land surface, Feb. 26, 1999.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 2001	97.06	DEC 21, 2001	95.48	FEB 25, 2002	94.82
NOV 28	96.25	JAN 25, 2002	94.81	MAR 27	95.22
WATER YEAR 2002	HIGHEST	94.81	JAN 25, 2002	LOWEST	97.06
					OCT 31, 2001



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA De 1. SITE ID.--385915076340401.

LOCATION.--Lat 38°59'15", long 76°34'03", Hydrologic Unit 02060004, 0.07 mi north of MD Rt 450, 1.1 mi west of Generals Highway.  
Owner: City of Annapolis.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 237 ft; casing diameter 10 in., to 207 ft; screen diameter 6 in. from 207 to 237 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with graphic water-level recorder from May 1969 to Dec. 28, 1977 and with a digital water-level recorder--15-minute recorder interval from December 1977 to September 1996.

DATUM.--Elevation of land surface is 13.72 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 2.00 ft above land surface.

REMARKS.--Southern Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.

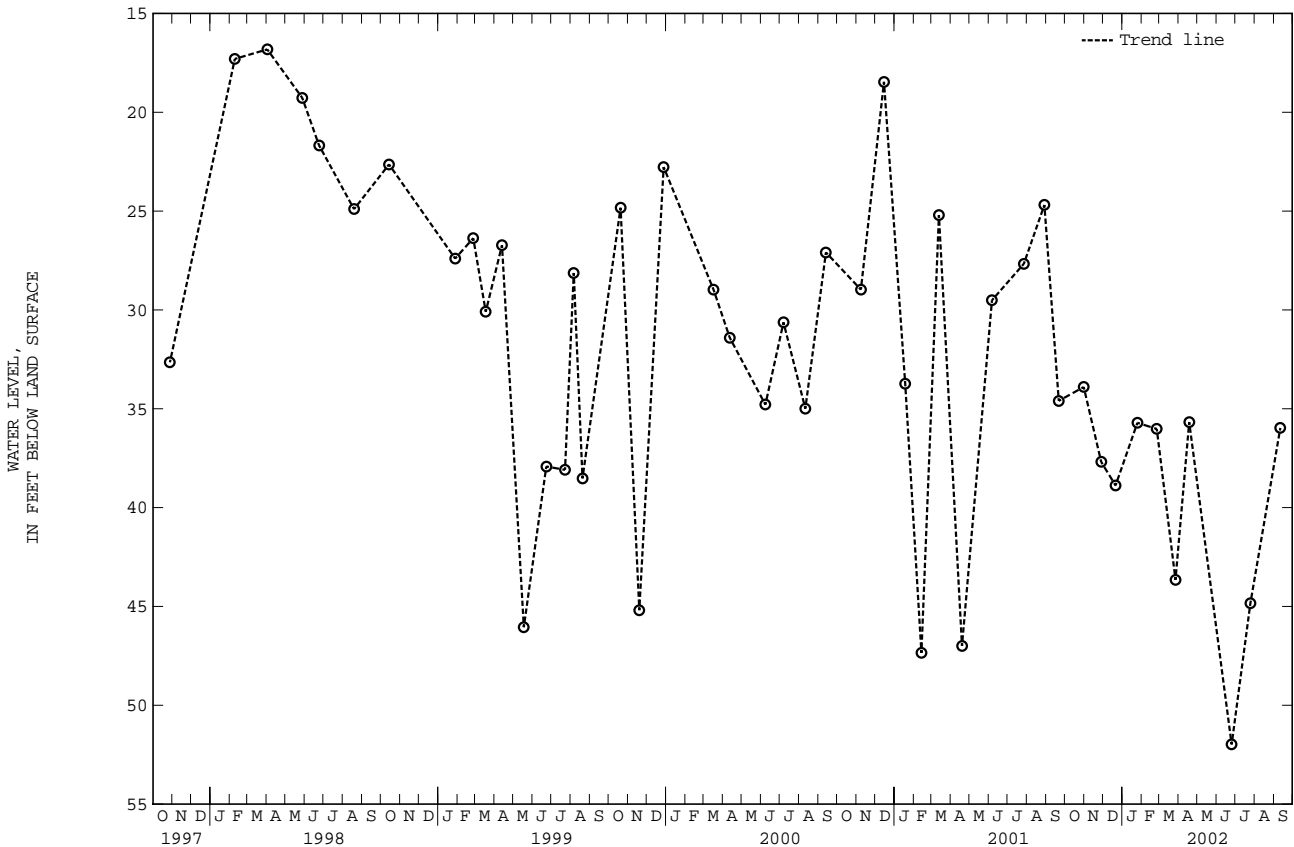
PERIOD OF RECORD.--May 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.25 ft below land surface, Nov. 14, 1988 (recorder); lowest measured, 52.90 ft below land surface, May 18, 1997.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 2001	33.90	JAN 25, 2002	35.71	APR 18, 2002	35.68	SEP 11, 2002	35.97
NOV 28	37.69	FEB 25	36.02	JUN 25	51.98		
DEC 21	38.88	MAR 27	43.65	JUL 25	44.84		

WATER YEAR 2002      HIGHEST    33.90    OCT 31, 2001      LOWEST    51.98    JUN 25, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Df 19. SITE ID.--385921076270701.

LOCATION.--Lat 38°59'22", long 76°27'04", Hydrologic Unit 02060004, 200 ft east of intersection with McLean and Hooper Rd.  
 Owner: U.S. Navy.

AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 590 ft; casing diameter 10 in., to 151.6 ft; casing diameter 8 in. from 151.6 to 464.3 ft, and casing diameter 6 in. from 0 to 565 ft; screen diameter 10 in. from 565 to 590 ft.

INSTRUMENTATION.--Periodic water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with graphic water-level recorder from November 1979 to April 1980.

DATUM.--Elevation of land surface is 15.84 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of flange, 2.5 ft above land surface.

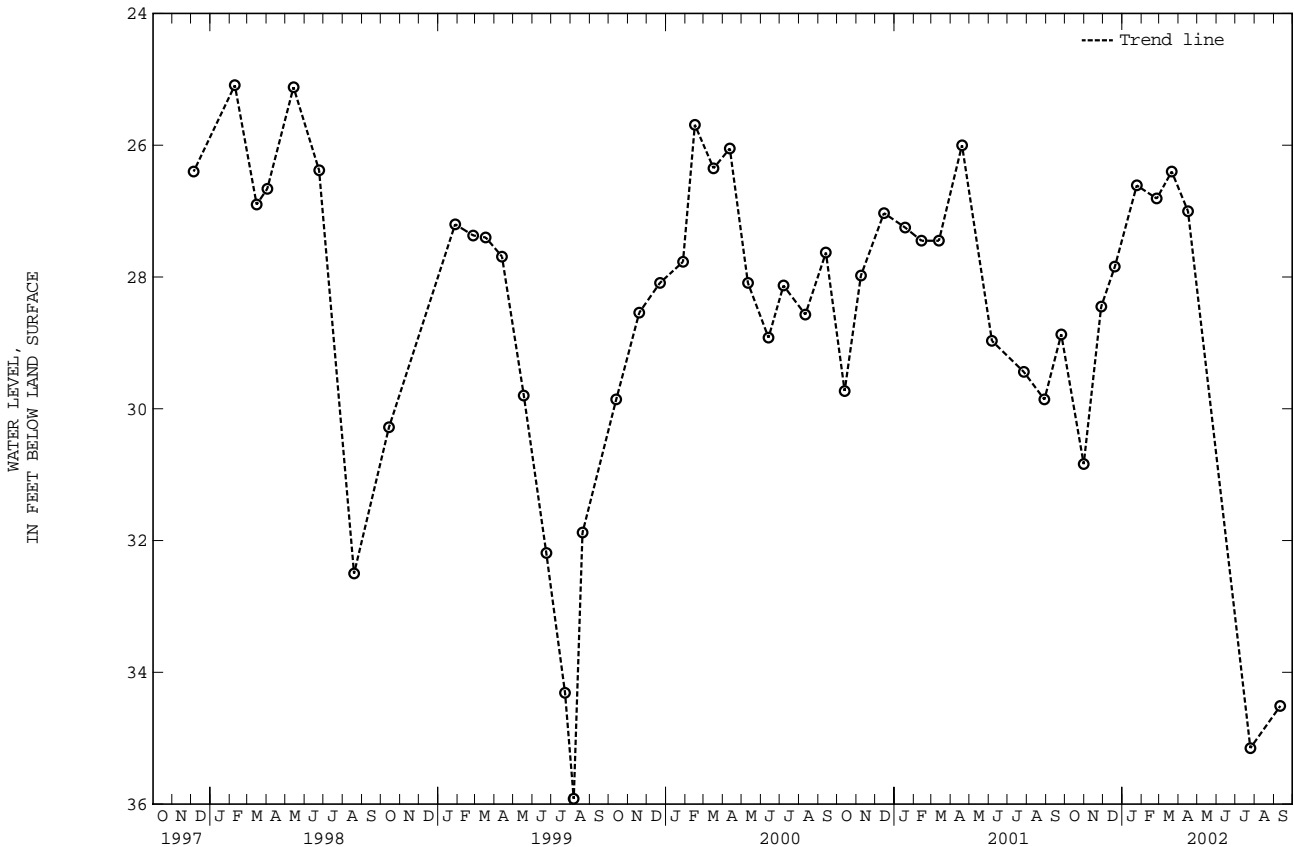
REMARKS.--Southern Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--March 1977 to current year

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.34 ft below land surface, March 9, 1977; lowest measured, 35.92 ft below land surface, Aug. 6, 1999.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 2001	30.84	JAN 24, 2002	26.61	APR 16, 2002	27.00
NOV 28	28.45	FEB 25	26.81	JUL 25	35.15
DEC 20	27.84	MAR 21	26.40	SEP 11	34.51
WATER YEAR 2002		HIGHEST 26.40	MAR 21, 2002	LOWEST 35.15	JUL 25, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002





GROUND-WATER LEVELS IN MARYLAND--Continued

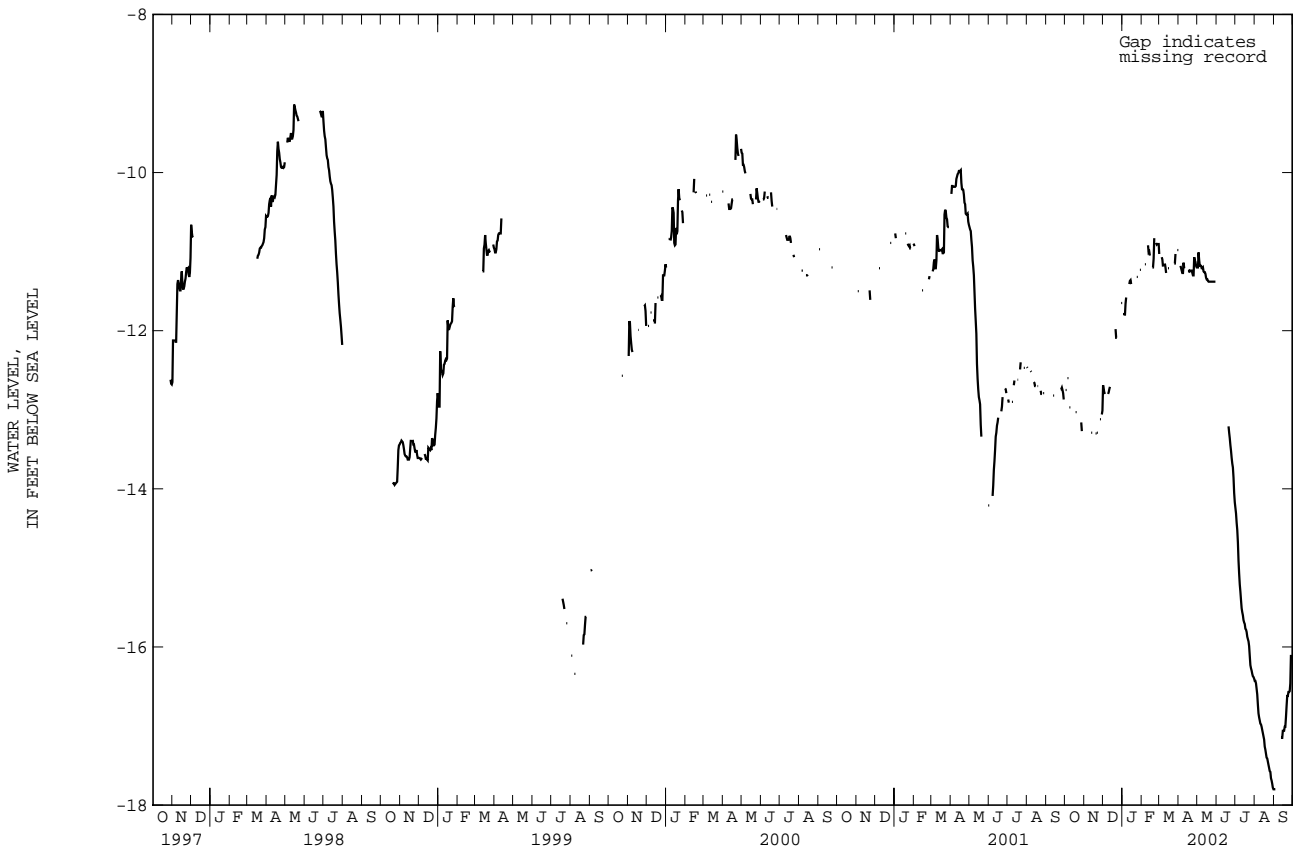
ANNE ARUNDEL COUNTY--Continued

AA Df 20--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	-11.20	-11.20	---	---	-14.17	-14.24	-16.40	-16.43	-17.80	-17.80
2	---	---	-11.00	-11.20	---	---	-14.24	-14.31	-16.43	-16.43	-17.80	-17.80
3	---	---	-11.00	-11.01	---	---	-14.31	-14.43	-16.43	-16.46	-17.79	-17.80
4	-10.95	-11.18	-11.01	-11.11	---	---	-14.43	-14.52	-16.46	-16.53	---	---
5	-11.18	-11.21	-11.11	-11.18	---	---	-14.52	-14.68	-16.53	-16.60	---	---
6	-11.21	-11.24	-11.18	-11.18	---	---	-14.68	-14.91	-16.60	-16.73	---	---
7	-11.24	-11.27	-11.18	-11.18	---	---	-14.91	-15.07	-16.73	-16.84	---	---
8	-11.14	-11.27	-11.18	-11.21	---	---	-15.07	-15.21	-16.84	-16.89	---	---
9	-11.11	-11.14	-11.20	-11.21	---	---	-15.21	-15.30	-16.89	-16.93	---	---
10	-11.11	-11.21	-11.17	-11.20	---	---	-15.30	-15.41	-16.93	-16.97	---	---
11	---	---	-11.18	-11.25	---	---	-15.41	-15.51	-16.97	-16.98	---	---
12	---	---	-11.25	-11.26	---	---	-15.51	-15.56	-16.98	-17.01	-17.15	-17.15
13	---	---	-11.26	-11.26	---	---	-15.56	-15.60	-17.01	-17.05	-17.15	-17.15
14	---	---	-11.26	-11.28	---	---	-15.60	-15.66	-17.05	-17.09	-17.06	-17.15
15	---	---	-11.28	-11.33	---	---	-15.66	-15.69	-17.09	-17.13	-17.06	-17.06
16	-11.24	-11.25	-11.33	-11.35	---	---	-15.69	-15.71	-17.13	-17.17	-17.06	-17.06
17	-11.24	-11.25	-11.35	-11.35	---	---	-15.71	-15.77	-17.17	-17.26	-17.01	-17.06
18	-11.24	-11.24	-11.35	-11.37	---	---	-15.77	-15.78	-17.26	-17.30	-17.01	-17.01
19	-11.24	-11.25	-11.37	-11.38	---	---	-15.78	-15.81	-17.30	-17.35	-16.89	-17.01
20	-11.24	-11.24	-11.38	-11.38	-13.11	-13.21	-15.81	-15.87	-17.35	-17.40	-16.75	-16.89
21	-11.24	-11.24	-11.38	-11.38	-13.21	-13.29	-15.87	-15.90	-17.40	-17.41	-16.62	-16.75
22	-11.19	-11.24	-11.38	-11.38	-13.29	-13.36	-15.90	-15.93	-17.41	-17.45	-16.62	-16.62
23	-11.19	-11.27	-11.38	-11.38	-13.36	-13.45	-15.93	-15.99	-17.45	-17.49	-16.56	-16.62
24	-11.27	-11.30	-11.38	-11.38	-13.45	-13.52	-15.99	-16.11	-17.49	-17.53	-16.57	-16.57
25	-11.06	-11.30	-11.38	-11.38	-13.52	-13.61	-16.11	-16.23	-17.53	-17.57	-16.56	-16.57
26	-11.06	-11.07	-11.38	-11.38	-13.61	-13.68	-16.23	-16.27	-17.57	-17.58	-16.46	-16.56
27	-11.07	-11.11	-11.38	-11.38	-13.68	-13.73	-16.27	-16.30	-17.58	-17.66	-16.10	-16.46
28	-11.11	-11.13	-11.38	-11.38	-13.73	-13.86	-16.30	-16.34	-17.66	-17.69	-16.06	-16.10
29	-11.13	-11.18	-11.38	-11.38	-13.86	-14.05	-16.34	-16.37	-17.69	-17.73	---	---
30	-11.18	-11.20	-11.38	-11.38	-14.05	-14.17	-16.37	-16.38	-17.73	-17.78	---	---
31	---	---	---	---	---	---	-16.38	-16.40	-17.78	-17.80	---	---
MONTH	---	---	---	---	---	---	-14.17	-16.40	-16.40	-17.80	---	---

Daily Low Water Levels



## ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Df 79. SITE ID.--385905076293601. PERMIT NUMBER.--AA-03-7867.

LOCATION.--Lat 38°59'05", long 76°29'36", Hydrologic Unit 02060004, off Dorsy Creek Rd., 500 ft north of MD Rt. 450.  
Owner: U.S.Navy.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 695 ft; casing diameter 6 in., to 300 ft;  
320 to 572 ft and 592 to 675 ft; screen diameter 6 in. from 300 to 320 ft, 572 to 592 ft and 675 to 695 ft.INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey  
personnel. Equipped with graphic water-level recorder from May 20, 1969 to Dec. 19, 1977. Equipped with digital  
water-level recorder--60-minute recorder interval from Dec. 19, 1977 to current year.

DATUM.--Elevation of land surface is 5.17 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of shelter platform, 2.8 ft above land surface.

REMARKS.--Anne Arundel County Ground-Water-Level Monitoring Network observation. Water levels are affected by local  
ground-water withdrawal.

PERIOD OF RECORD.--May 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.65 ft above sea level, Feb. 20, 1974 (recorder);  
lowest measured, 19.40 ft below sea level, Aug. 25, 2002 (recorder).

## WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-12.45	-12.50	-12.38	-12.61	-11.31	-11.57	-10.15	-10.34	-9.53	-9.80	-10.06	-10.37
2	-12.36	-12.83	-12.33	-12.59	-11.48	-11.70	-10.02	-10.36	-9.80	-10.11	-9.85	-10.44
3	-12.71	-12.93	-12.36	-12.60	-11.24	-11.65	-9.90	-10.25	-9.64	-10.22	-9.52	-9.91
4	-12.80	-12.99	-12.27	-12.68	-11.23	-11.51	-9.99	-10.35	-9.64	-10.17	-9.72	-10.10
5	-12.75	-12.97	-12.31	-12.58	-11.25	-11.48	-9.92	-10.17	-10.04	-10.46	-9.98	-10.44
6	-12.60	-13.09	-12.34	-12.63	-11.12	-11.44	-9.82	-10.14	-9.83	-10.15	-9.98	-10.30
7	-13.06	-13.24	-12.24	-12.44	-11.12	-11.40	-9.82	-10.06	-9.73	-10.02	-10.08	-10.34
8	-12.98	-13.23	-12.07	-12.44	-10.96	-11.44	-10.02	-10.31	-9.74	-10.00	-10.04	-10.46
9	-12.85	-13.15	-12.07	-12.56	-10.94	-11.35	-9.79	-10.09	-9.89	-10.23	-9.84	-10.29
10	-12.83	-12.96	-12.08	-12.40	-10.96	-11.30	-10.00	-10.29	-9.70	-10.22	-9.85	-10.39
11	-12.82	-13.09	-12.04	-12.61	-10.94	-11.21	-9.89	-10.35	-9.73	-10.36	-10.35	-10.79
12	-12.85	-13.08	-12.26	-12.56	-10.88	-11.20	-9.88	-10.35	-9.76	-10.41	-10.42	-10.72
13	-12.80	-13.02	-12.24	-12.48	-10.62	-11.02	-9.96	-10.28	-10.00	-10.30	-10.31	-10.72
14	-12.59	-12.88	-12.16	-12.42	-10.53	-10.91	-9.98	-10.34	-10.09	-10.45	-10.30	-10.60
15	-12.53	-12.95	-12.15	-12.49	-10.69	-11.20	-10.17	-10.44	-9.93	-10.36	-10.24	-10.44
16	-12.57	-12.94	-12.05	-12.37	-10.70	-11.21	-10.17	-10.53	-9.87	-10.30	-10.31	-10.64
17	-12.81	-13.14	-12.16	-12.49	-10.25	-10.81	-9.99	-10.40	-9.83	-10.26	-10.45	-10.73
18	-13.08	-13.32	-11.89	-12.26	-10.20	-10.71	-10.03	-10.35	-10.10	-10.51	-10.30	-10.62
19	-12.79	-13.28	-11.81	-12.07	-10.18	-10.76	-9.77	-10.47	-9.78	-10.26	-10.56	-10.70
20	-12.70	-12.97	-11.87	-12.31	-10.20	-10.60	-9.83	-10.19	-9.62	-10.00	-10.35	-10.65
21	-12.55	-12.91	-11.87	-12.38	-10.49	-10.73	-9.63	-10.05	-9.64	-9.89	-10.35	-10.64
22	-12.56	-12.76	-11.81	-11.95	-10.45	-10.94	-9.71	-10.10	-9.76	-10.16	-10.56	-11.10
23	-12.38	-12.75	-11.81	-12.01	-10.08	-10.48	-9.92	-10.35	-9.90	-10.21	-10.63	-11.05
24	-12.29	-12.46	-11.58	-11.96	-10.06	-10.35	-9.81	-10.07	-9.87	-10.08	-10.64	-11.02
25	-12.27	-12.57	-11.45	-11.69	-10.21	-10.45	-9.96	-10.18	-9.60	-9.96	-10.62	-10.91
26	-12.51	-12.86	-11.40	-11.69	-10.11	-10.32	-9.64	-10.14	-9.44	-9.82	-10.30	-10.78
27	-12.79	-12.94	-11.44	-11.71	-9.86	-10.21	-9.87	-10.28	-9.69	-10.04	-10.31	-10.72
28	-12.78	-13.06	-11.40	-11.64	-9.87	-10.18	-9.69	-10.22	-9.87	-10.18	-10.44	-10.80
29	-12.47	-12.78	-11.32	-11.67	-9.83	-10.18	-9.50	-9.96	---	---	-10.29	-10.62
30	-12.48	-12.77	-11.12	-11.48	-10.14	-10.44	-9.57	-9.93	---	---	-10.26	-10.52
31	-12.41	-12.76	---	---	-10.00	-10.31	-9.56	-10.00	---	---	-10.29	-10.63
MONTH	-12.27	-13.32	-11.12	-12.68	-9.83	-11.70	-9.50	-10.53	-9.44	-10.51	-9.52	-11.10

GROUND-WATER LEVELS IN MARYLAND--Continued

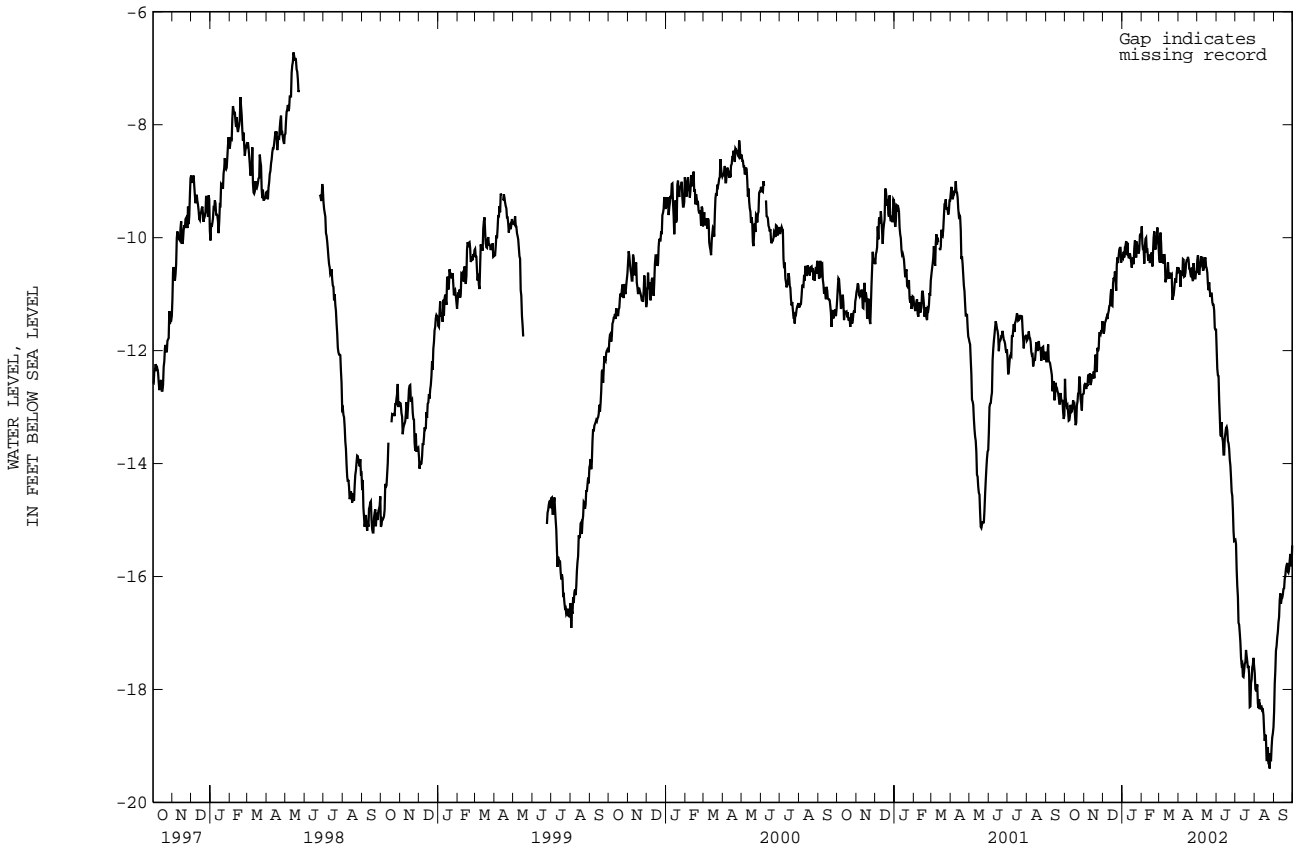
ANNE ARUNDEL COUNTY--Continued

AA Df 79--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-10.24	-10.53	-9.99	-10.39	-11.60	-11.98	-15.13	-15.35	-17.41	-17.71	-17.82	-18.40
2	-10.22	-10.62	-9.87	-10.31	-11.75	-12.32	-15.22	-15.42	-17.52	-17.99	-17.66	-17.90
3	-10.03	-10.58	-10.03	-10.46	-12.19	-12.44	-15.39	-15.87	-17.51	-18.02	-17.17	-17.66
4	-10.50	-10.87	-10.30	-10.66	-12.18	-12.45	-15.70	-16.16	-17.52	-18.02	-17.07	-17.31
5	-10.42	-10.67	-10.30	-10.54	-12.27	-12.87	-15.93	-16.36	-17.50	-17.91	-17.01	-17.23
6	-10.36	-10.59	-10.23	-10.51	-12.56	-13.17	-16.25	-16.82	-17.49	-18.25	-16.81	-17.08
7	-10.30	-10.68	-10.09	-10.33	-13.15	-13.49	-16.33	-16.85	-17.85	-18.33	-16.60	-16.98
8	-10.03	-10.38	-10.16	-10.44	-12.83	-13.52	-16.58	-17.00	-17.82	-18.17	-16.32	-16.81
9	-10.06	-10.39	-9.96	-10.34	-12.98	-13.27	-16.66	-17.16	-17.78	-18.35	-16.29	-16.72
10	-10.27	-10.69	-10.02	-10.57	-13.09	-13.54	-16.96	-17.44	-17.70	-18.29	-16.03	-16.42
11	-10.45	-10.68	-10.33	-10.57	-13.16	-13.61	-17.27	-17.56	-17.74	-18.32	-16.00	-16.30
12	-10.22	-10.62	-10.06	-10.52	-13.04	-13.84	-17.17	-17.54	-17.83	-18.31	-16.17	-16.48
13	-10.16	-10.45	-9.88	-10.38	-13.36	-13.84	-17.21	-17.77	-17.93	-18.37	-16.14	-16.40
14	-10.06	-10.40	-9.97	-10.35	-12.95	-13.55	-17.26	-17.78	-18.11	-18.36	-16.13	-16.38
15	-10.04	-10.40	-10.27	-10.51	-12.99	-13.46	-17.16	-17.67	-18.12	-18.46	-16.13	-16.32
16	-10.13	-10.34	-10.31	-10.54	-13.06	-13.37	-17.26	-17.54	-18.31	-18.73	-16.05	-16.22
17	-10.18	-10.39	-10.35	-10.62	-13.07	-13.35	-17.10	-17.52	-18.53	-18.91	-16.04	-16.21
18	-10.32	-10.55	-10.46	-10.83	-13.15	-13.41	-17.06	-17.30	-18.48	-18.80	-15.86	-16.05
19	-10.35	-10.56	-10.58	-10.93	-13.22	-13.60	-17.09	-17.40	-18.56	-18.89	-15.70	-15.98
20	-10.32	-10.64	-10.58	-10.79	-13.39	-13.64	-17.20	-17.50	-18.63	-19.25	-15.64	-15.86
21	-10.42	-10.70	-10.69	-10.94	-13.44	-13.74	-17.15	-17.62	-18.82	-19.25	-15.61	-15.80
22	-10.10	-10.53	-10.85	-11.05	-13.50	-13.93	-17.14	-17.58	-18.78	-19.02	-15.54	-15.76
23	-10.44	-10.71	-10.76	-10.99	-13.69	-14.04	-17.38	-17.74	-18.85	-19.31	-15.62	-15.91
24	-10.34	-10.77	-10.68	-10.99	-13.77	-14.25	-17.62	-18.31	-18.96	-19.33	-15.66	-15.93
25	-10.03	-10.45	-10.78	-11.14	-14.06	-14.50	-17.70	-18.30	-18.90	-19.40	-15.59	-15.87
26	-10.26	-10.58	-10.77	-11.19	-14.25	-14.57	-17.41	-17.89	-18.87	-19.13	-15.33	-15.72
27	-10.26	-10.72	-10.85	-11.19	-14.45	-14.82	-17.26	-17.82	-18.85	-19.27	-15.12	-15.60
28	-9.99	-10.72	-10.98	-11.29	-14.81	-15.20	-17.22	-17.61	-18.79	-19.02	-15.17	-15.69
29	-10.06	-10.60	-11.16	-11.60	-15.12	-15.37	-17.13	-17.56	-18.65	-18.85	-15.45	-15.82
30	-10.05	-10.63	-11.19	-11.63	-15.14	-15.36	-17.18	-17.44	-18.58	-18.78	-15.25	-15.45
31	---	---	-11.43	-11.63	---	---	-17.34	-17.59	-18.40	-18.67	---	---
MONTH	-9.99	-10.87	-9.87	-11.63	-11.60	-15.37	-15.13	-18.31	-17.41	-19.40	-15.12	-18.40
YEAR	-9.44	-19.40										

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

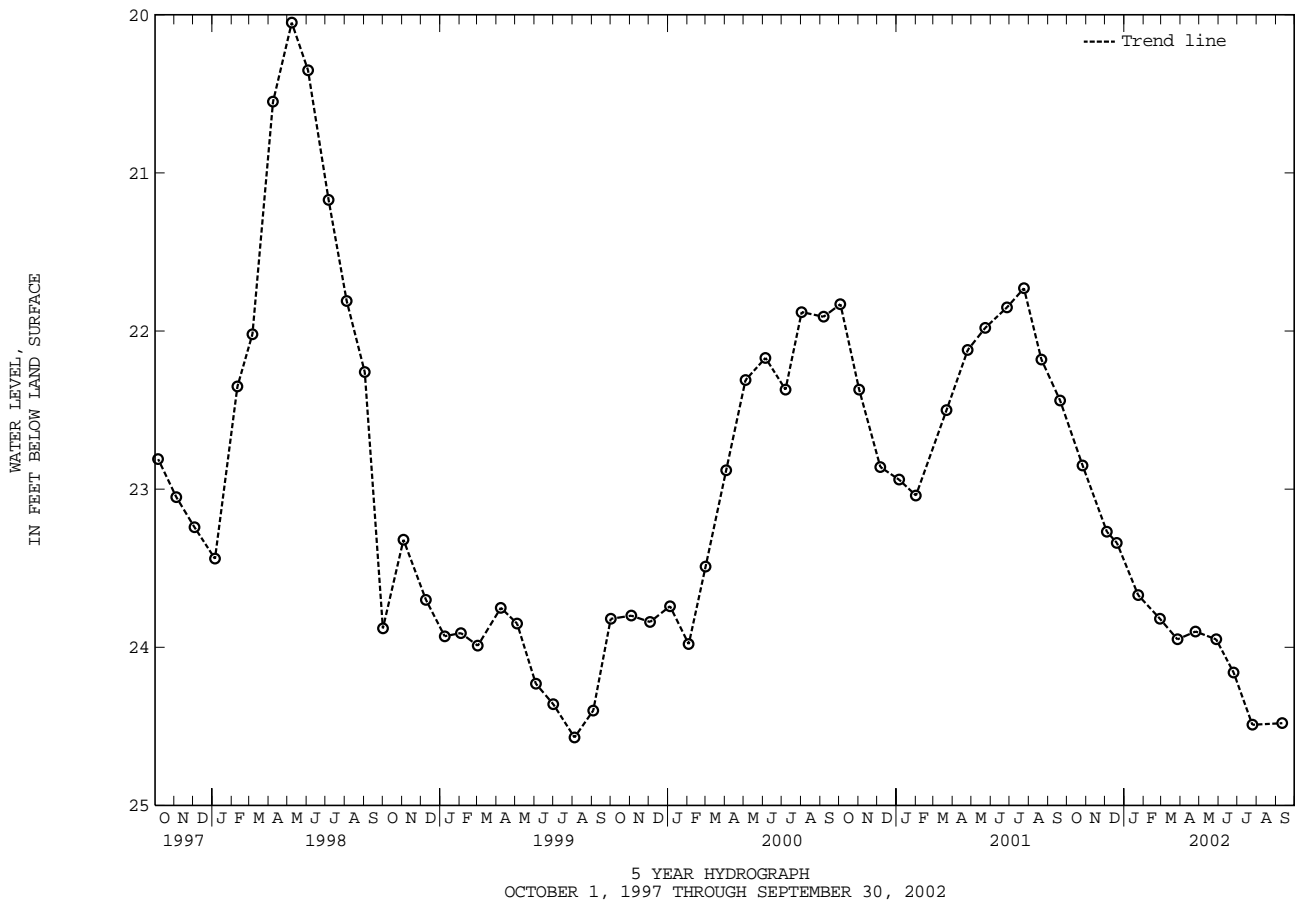
ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Df 103. SITE ID.--385623076274401. PERMIT NUMBER.--AA-73-3315.  
 LOCATION.--Lat 38°56'23", long 76°27'44", Hydrologic Unit 02060004, off West Lake Dr, 900 ft north of intersection with Farragut Rd.  
 Owner: Mildred Hudson.  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 46 ft; casing diameter 4 in., to 39 ft; screen diameter 2 in. from 39 to 46 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 26.51 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.57 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--May 1987, January 1988 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.05 ft below land surface, May 8, 1998; lowest measured, 25.39 ft below land surface, April 9, 1990.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	22.85	JAN 23, 2002	23.67	APR 25, 2002	23.90	JUL 25, 2002	24.49
DEC 04	23.27	FEB 27	23.82	MAY 28	23.95	SEP 11	24.48
20	23.34	MAR 27	23.95	JUN 25	24.16		

WATER YEAR 2002      HIGHEST    22.85    OCT 26, 2001      LOWEST    24.49    JUL 25, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ed 45. SITE ID.--385406076383901. PERMIT NUMBER.--AA-74-1005.

LOCATION.--Lat 38°54'06", long 76°38'39", Hydrologic Unit 02060006, at Anne Arundel County Police Academy, nr Davidsonville.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 157 ft; casing diameter 4 in., to 147 ft; screen diameter 2 in. from 147 to 157 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 100 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of coupling, 0.87 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.

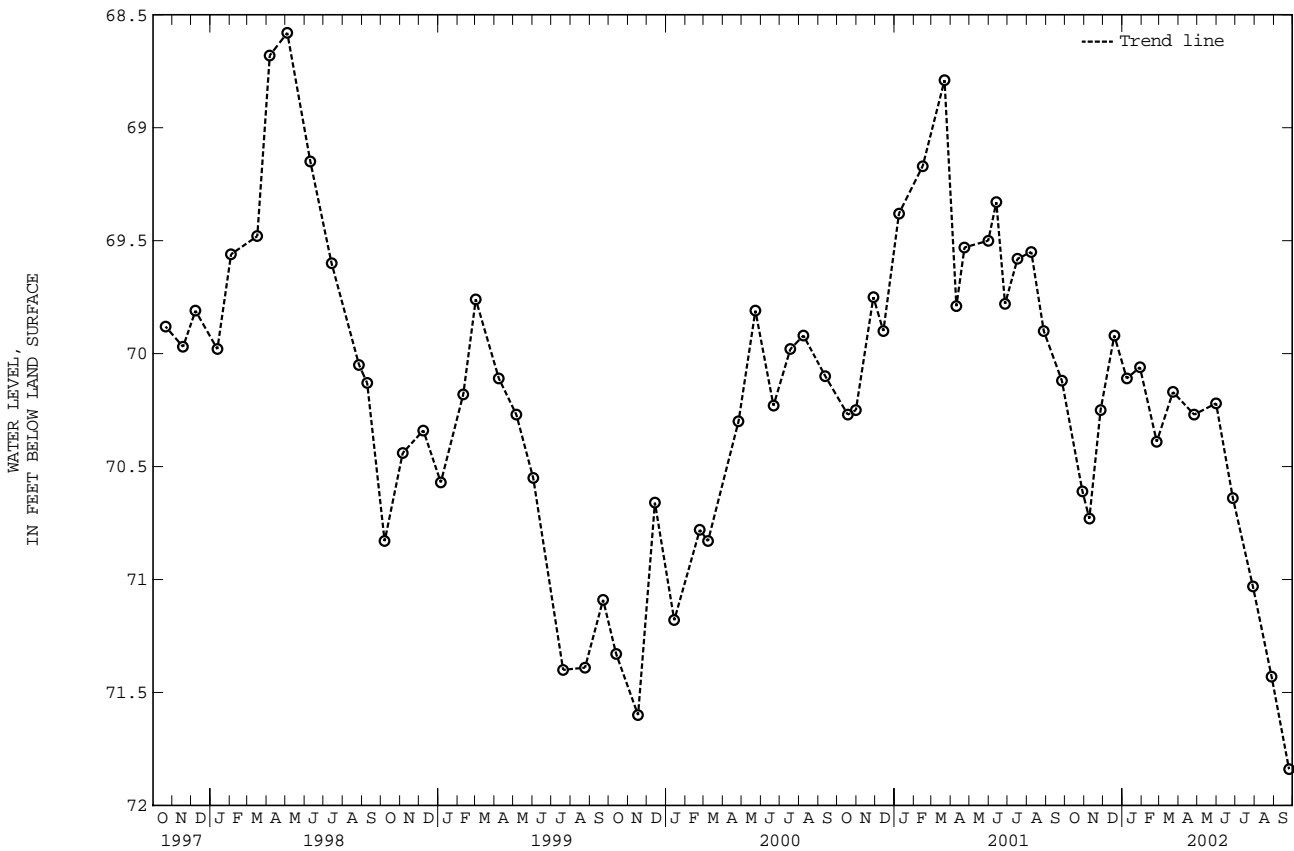
PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.51 ft below land surface, May 6, 1980; lowest measured, 71.84 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 2001	70.61	JAN 08, 2002	70.11	APR 26, 2002	70.27	AUG 28, 2002	71.43
NOV 09	70.73	29	70.06	MAY 31	70.22	SEP 25	71.84
27	70.25	FEB 25	70.39	JUN 27	70.64		
DEC 19	69.92	MAR 23	70.17	JUL 29	71.03		

WATER YEAR 2002 HIGHEST 69.92 DEC 19, 2001 LOWEST 71.84 SEP 25, 2002



ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ed 65. SITE ID.--385406076383902. PERMIT NUMBER.--AA-94-5387.

LOCATION.--Lat 38°54'06", long 76°38'39", Hydrologic Unit 02060006, at Anne Arundel County Police Academy, nr Davidsonville.

Owner: Maryland Geological Survey.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, artesian well, depth 310 ft; casing diameter 4.5 in., to 285 ft, and 305 to 310 ft; screen diameter 4.5 in. from 285 to 305 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--30-minute recording interval, November 1, 2000 to November 9, 2001.

DATUM.--Elevation of land surface is 110 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of shelter platform, 3.70 ft above land surface.

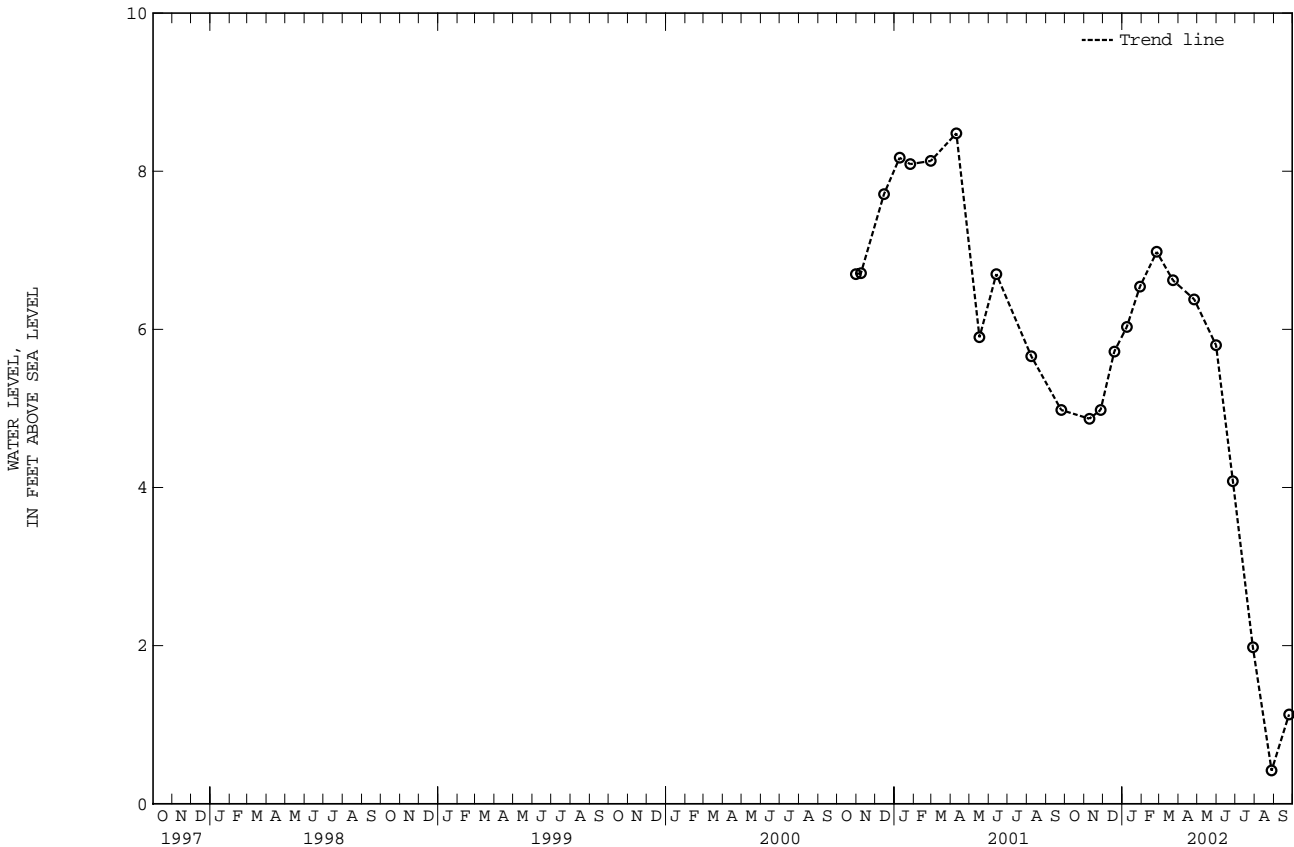
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.--October 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.86 ft above sea level, April 1, 2001 (recorder); lowest measured, 0.42 ft above sea level, Aug. 28, 2002.

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 09, 2001	4.87	JAN 29, 2002	6.54	MAY 31, 2002	5.80	SEP 25, 2002	1.13
27	4.98	FEB 25	6.98	JUN 27	4.08		
DEC 19	5.72	MAR 23	6.62	JUL 29	1.98		
JAN 08, 2002	6.03	APR 26	6.38	AUG 28	0.42		
WATER YEAR 2002		HIGHEST	6.98 FEB 25, 2002	LOWEST	0.42 AUG 28, 2002		



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Fc 34. SITE ID.--384833076415601. PERMIT NUMBER.--AA-94-5390.  
 LOCATION.--Lat 38°48'33", long 76°41'56", Hydrologic Unit 02060006, at Waysons Corner.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.  
 WELL CHARACTERISTICS.--Drilled, artesian well, depth 371 ft; casing diameter 4.5 in., to 336 ft, and 366 to 371 ft; screen diameter 4.5 in. from 336 to 366 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--30-minute recording interval, October 17, 2000 to May 16, 2002.  
 DATUM.--Elevation of land surface is 51.0 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of shelter platform, 3.00 ft above land surface.  
 REMARKS.--Southern Maryland Ground-Water-Level Monitoring observation well. Water levels are affected by local and regional ground-water withdrawal. Missing data due to recorder malfunction.  
 PERIOD OF RECORD.--October 2000 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.23 ft above sea level, March 21, 2001 (recorder); lowest measured, 3.61 ft below sea level, Aug. 23, 2002.

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	0.13	-0.05	-0.54	-0.61	-0.76	-0.90	-0.26	-0.38	0.55	0.35	0.41	0.35
2	0.20	0.03	-0.54	-0.64	-0.85	-0.94	-0.24	-0.42	0.38	0.22	0.67	0.33
3	0.03	-0.03	-0.56	-0.64	-0.81	-0.95	-0.13	-0.28	0.43	0.25	0.75	0.66
4	0.02	-0.04	-0.62	-0.71	-0.80	-0.90	-0.14	-0.22	0.51	0.35	0.67	0.52
5	0.09	-0.06	-0.64	-0.71	-0.76	-0.88	-0.08	-0.19	0.35	0.28	0.52	0.47
6	0.14	0.03	-0.70	-0.75	-0.68	-0.81	0.11	-0.12	0.39	0.32	0.58	0.50
7	0.03	-0.04	-0.71	-0.76	-0.68	-0.77	0.12	0.00	0.53	0.39	0.58	0.50
8	-0.01	-0.08	-0.73	-0.80	-0.58	-0.77	0.01	-0.06	0.51	0.41	0.56	0.48
9	-0.05	-0.13	-0.73	-0.89	-0.57	-0.79	0.14	-0.01	0.43	0.32	0.64	0.50
10	0.02	-0.09	-0.72	-0.86	-0.66	-0.78	0.11	0.03	0.58	0.32	0.67	0.46
11	0.05	-0.04	-0.76	-1.00	-0.62	-0.74	0.12	0.03	0.63	0.40	0.51	0.43
12	0.10	0.00	-0.95	-1.03	-0.62	-0.74	0.16	0.02	0.60	0.40	0.59	0.47
13	0.11	0.01	-0.94	-1.03	-0.48	-0.69	0.25	0.02	0.53	0.39	0.73	0.54
14	0.19	0.01	-0.91	-1.02	-0.40	-0.59	0.12	0.01	0.45	0.36	0.69	0.60
15	0.15	-0.06	-0.92	-1.00	-0.51	-0.68	0.11	0.00	0.56	0.37	0.73	0.60
16	0.10	-0.08	-0.93	-1.00	-0.58	-0.69	0.02	-0.03	0.60	0.51	0.72	0.53
17	-0.01	-0.20	-0.99	-1.06	-0.28	-0.62	0.13	0.00	0.60	0.46	0.55	0.48
18	-0.20	-0.30	-0.96	-1.07	-0.25	-0.44	0.06	0.00	0.46	0.36	0.68	0.52
19	-0.19	-0.33	-0.85	-1.01	-0.29	-0.48	0.23	0.01	0.49	0.37	0.63	0.57
20	-0.19	-0.27	-0.85	-0.96	-0.30	-0.46	0.23	0.08	0.60	0.44	0.80	0.60
21	-0.25	-0.30	-0.92	-1.00	-0.44	-0.52	0.27	0.12	0.61	0.49	0.81	0.71
22	-0.23	-0.29	-0.92	-0.97	-0.45	-0.57	0.22	0.07	0.53	0.43	0.77	0.62
23	-0.21	-0.25	-0.92	-1.00	-0.27	-0.47	0.25	0.11	0.47	0.37	0.72	0.63
24	-0.20	-0.21	-0.93	-0.99	-0.22	-0.35	0.40	0.25	0.43	0.32	0.73	0.66
25	-0.10	-0.20	-0.83	-0.93	-0.29	-0.35	0.35	0.20	0.54	0.34	0.71	0.54
26	-0.19	-0.29	-0.85	-0.96	-0.18	-0.29	0.31	0.21	0.72	0.46	0.78	0.55
27	-0.28	-0.41	-0.84	-0.95	-0.13	-0.23	0.30	0.24	0.63	0.48	0.85	0.69
28	-0.41	-0.56	-0.86	-0.96	-0.09	-0.22	0.39	0.24	0.51	0.39	0.78	0.68
29	-0.49	-0.57	-0.82	-0.96	-0.14	-0.27	0.43	0.33	---	---	0.88	0.68
30	-0.51	-0.60	-0.69	-0.90	-0.24	-0.30	0.44	0.34	---	---	0.94	0.77
31	-0.53	-0.61	---	---	-0.21	-0.31	0.40	0.28	---	---	0.86	0.72
MONTH	0.20	-0.61	-0.54	-1.07	-0.09	-0.95	0.44	-0.42	0.72	0.22	0.94	0.33



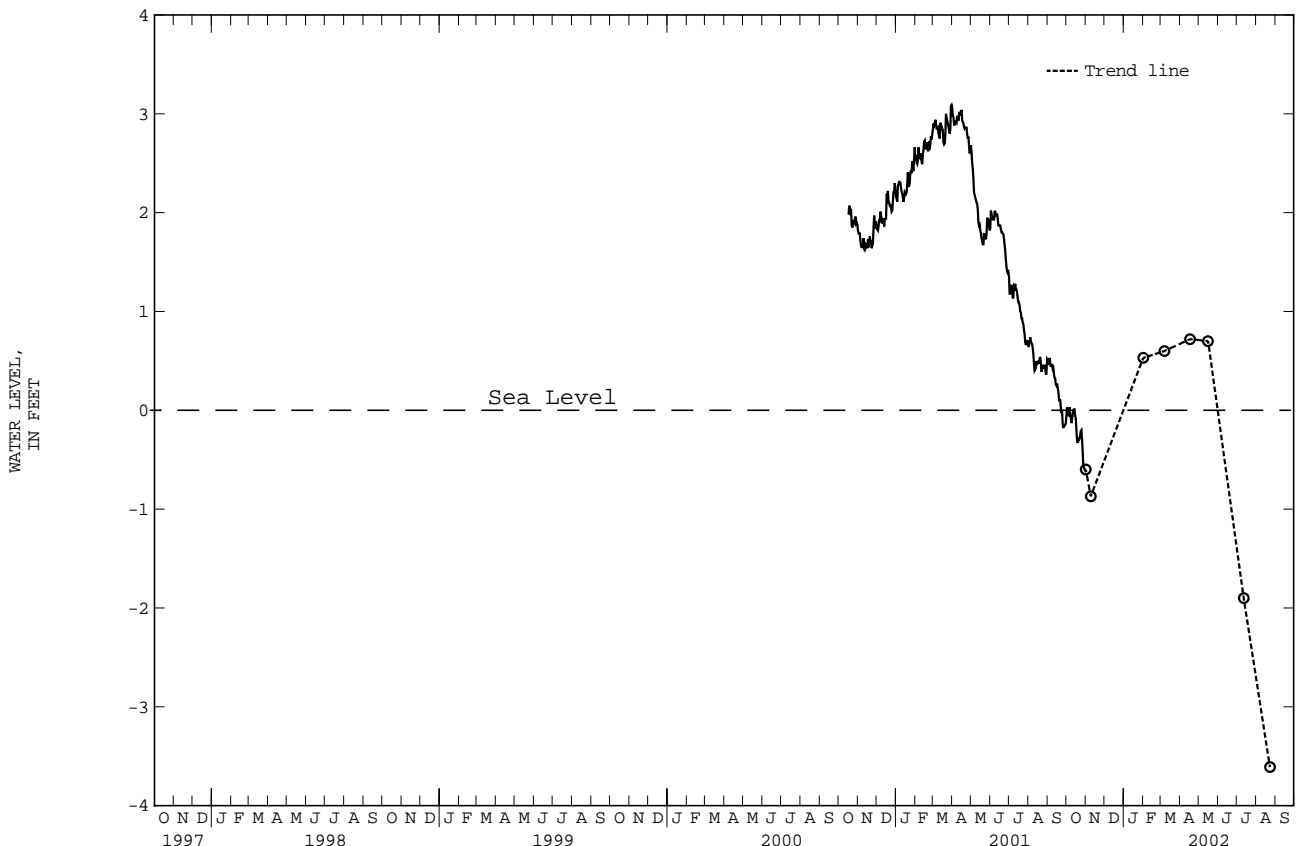
ANNE ARUNDEL COUNTY--Continued

AA Fc 34--Continued

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
(READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	0.89	0.78	0.90	0.82	---	---	---	---	---	---	---	---
2	0.89	0.75	1.07	0.86	---	---	---	---	---	---	---	---
3	0.93	0.73	1.03	0.78	---	---	---	---	---	---	---	---
4	0.73	0.67	0.79	0.72	---	---	---	---	---	---	---	---
5	0.74	0.67	0.79	0.70	---	---	---	---	---	---	---	---
6	0.74	0.62	0.81	0.71	---	---	---	---	---	---	---	---
7	0.64	0.60	0.93	0.80	---	---	---	---	---	---	---	---
8	0.79	0.63	0.90	0.79	---	---	---	---	---	---	---	---
9	0.77	0.64	0.95	0.79	---	---	---	---	---	---	---	---
10	0.67	0.55	0.90	0.71	---	---	---	---	---	---	---	---
11	0.64	0.56	0.75	0.64	---	---	---	---	---	---	---	---
12	0.69	0.56	0.85	0.69	---	---	---	---	---	---	---	---
13	0.73	0.63	1.00	0.80	---	---	---	---	---	---	---	---
14	0.76	0.66	0.92	0.80	---	---	---	---	---	---	---	---
15	0.76	0.68	0.80	0.70	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	0.78	0.63	---	---	---	---	---	---	---	---	---	---
18	0.78	0.70	---	---	---	---	---	---	---	---	---	---
19	0.82	0.73	---	---	---	---	---	---	---	---	---	---
20	0.82	0.72	---	---	---	---	---	---	---	---	---	---
21	0.75	0.68	---	---	---	---	---	---	---	---	---	---
22	0.85	0.69	---	---	---	---	---	---	---	---	---	---
23	0.70	0.60	---	---	---	---	---	---	---	---	---	---
24	0.73	0.60	---	---	---	---	---	---	---	---	---	---
25	0.85	0.63	---	---	---	---	---	---	---	---	---	---
26	0.74	0.64	---	---	---	---	---	---	---	---	---	---
27	0.70	0.59	---	---	---	---	---	---	---	---	---	---
28	0.99	0.67	---	---	---	---	---	---	---	---	---	---
29	0.96	0.83	---	---	---	---	---	---	---	---	---	---
30	0.90	0.79	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## GROUND-WATER LEVELS IN MARYLAND--Continued

## ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Fc 35. SITE ID.--384833076415602. PERMIT NUMBER.--AA-94-5388.

LOCATION.--Lat 38°48'33", long 76°41'56", Hydrologic Unit 02060006, at Waysons Corner.

Owner: Maryland Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, artesian well, depth 177 ft; casing diameter 4.5 in., to 142 ft, and 172 to 177 ft; screen diameter 4.5 in. from 142 to 172 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--30-minute recording interval, October 17, 2000 to May 16, 2002.

DATUM.--Elevation of land surface is 51.3 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of shelter platform, 3.00 ft above land surface.

REMARKS.--Southern Maryland Ground-Water-Level Monitoring observation well. Water levels are affected by local ground-water withdrawal. Missing data due to recorder malfunction.

PERIOD OF RECORD.--October 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, .63 ft below sea level, Nov. 10, 2000 (recorder); lowest measured, 2.98 ft below sea level, Jan. 2, 2001 (recorder).

## WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-1.92	-2.13	-2.14	-2.31	-1.50	-1.74	-2.02	-2.14	-1.67	-1.84	-2.03	-2.21
2	-1.62	-1.92	-2.06	-2.22	-1.64	-1.85	-2.10	-2.25	-1.61	-1.88	-1.87	-2.17
3	-1.52	-1.64	-2.07	-2.20	-1.77	-1.96	-2.08	-2.18	-1.69	-1.84	-1.69	-1.87
4	-1.54	-1.71	-2.11	-2.27	-1.85	-1.98	-2.16	-2.45	-1.72	-1.84	-1.78	-2.02
5	-1.61	-1.78	-2.27	-2.49	-1.88	-2.02	-2.22	-2.38	-1.83	-2.02	-1.98	-2.16
6	-1.62	-1.80	-2.43	-2.59	-1.79	-1.94	-1.87	-2.23	-1.89	-1.99	-2.03	-2.14
7	-1.80	-2.13	-2.53	-2.65	-1.74	-1.90	-1.88	-2.06	-1.69	-1.89	-1.99	-2.21
8	-2.13	-2.35	-2.53	-2.63	-1.77	-1.90	-2.05	-2.25	-1.69	-1.97	-2.09	-2.26
9	-2.29	-2.37	-2.37	-2.57	-1.75	-1.93	-2.04	-2.17	-1.82	-1.94	-1.98	-2.22
10	-2.17	-2.29	-2.21	-2.43	-1.86	-2.01	-1.94	-2.13	-1.58	-1.87	-1.85	-2.01
11	-2.11	-2.17	-2.14	-2.28	-1.74	-1.91	-2.01	-2.22	-1.52	-1.82	-1.99	-2.14
12	-2.04	-2.13	-2.24	-2.43	-1.65	-1.84	-2.06	-2.18	-1.69	-1.82	-2.03	-2.20
13	-2.00	-2.09	-2.26	-2.40	-1.44	-1.65	-1.92	-2.15	-1.69	-2.00	-2.01	-2.14
14	-1.87	-2.06	-2.12	-2.26	-1.40	-1.57	-2.13	-2.23	-1.93	-2.03	-1.97	-2.17
15	-1.79	-1.98	-2.00	-2.15	-1.52	-1.85	-2.08	-2.30	-1.82	-1.99	-1.95	-2.10
16	-1.86	-1.98	-2.00	-2.19	-1.74	-1.85	-2.26	-2.38	-1.66	-1.84	-1.81	-1.99
17	-1.83	-2.07	-2.05	-2.28	-1.57	-1.81	-2.17	-2.33	-1.67	-1.85	-1.96	-2.03
18	-2.04	-2.26	-2.12	-2.25	-1.45	-1.62	-2.12	-2.23	-1.85	-2.24	-1.83	-1.96
19	-2.18	-2.44	-1.95	-2.12	-1.59	-1.75	-1.94	-2.14	-2.08	-2.25	-1.77	-1.91
20	-2.19	-2.34	-1.88	-2.06	-1.57	-1.76	-1.94	-2.04	-1.77	-2.08	-1.63	-1.85
21	-2.28	-2.38	-2.00	-2.18	-1.71	-1.95	-1.86	-2.00	-1.64	-1.82	-1.65	-1.71
22	-2.34	-2.44	-1.95	-2.10	-1.90	-2.09	-1.89	-2.14	-1.66	-1.97	-1.65	-1.87
23	-2.21	-2.34	-1.86	-2.05	-1.73	-2.04	-1.92	-2.04	-1.82	-1.94	-1.82	-2.02
24	-2.21	-2.32	-1.84	-1.99	-1.58	-1.73	-1.85	-2.07	-1.81	-2.02	-1.87	-1.99
25	-2.17	-2.28	-1.67	-1.84	-1.59	-1.67	-1.95	-2.29	-1.87	-1.99	-1.94	-2.10
26	-2.15	-2.38	-1.60	-1.74	-1.60	-1.73	-2.04	-2.23	-1.69	-1.88	-1.83	-2.08
27	-2.34	-2.65	-1.62	-1.77	-1.59	-1.71	-1.94	-2.12	-1.63	-1.84	-1.74	-1.89
28	-2.65	-2.86	-1.63	-1.77	-1.58	-1.82	-1.94	-2.13	-1.80	-2.06	-1.77	-1.97
29	-2.62	-2.86	-1.63	-1.75	-1.76	-1.86	-1.90	-2.16	---	---	-1.74	-1.93
30	-2.30	-2.62	-1.58	-1.72	-1.81	-1.99	-1.82	-1.96	---	---	-1.58	-1.74
31	-2.31	-2.47	---	---	-1.94	-2.11	-1.84	-1.96	---	---	-1.55	-1.68
MONTH	-1.52	-2.86	-1.58	-2.65	-1.40	-2.11	-1.82	-2.45	-1.52	-2.25	-1.55	-2.26

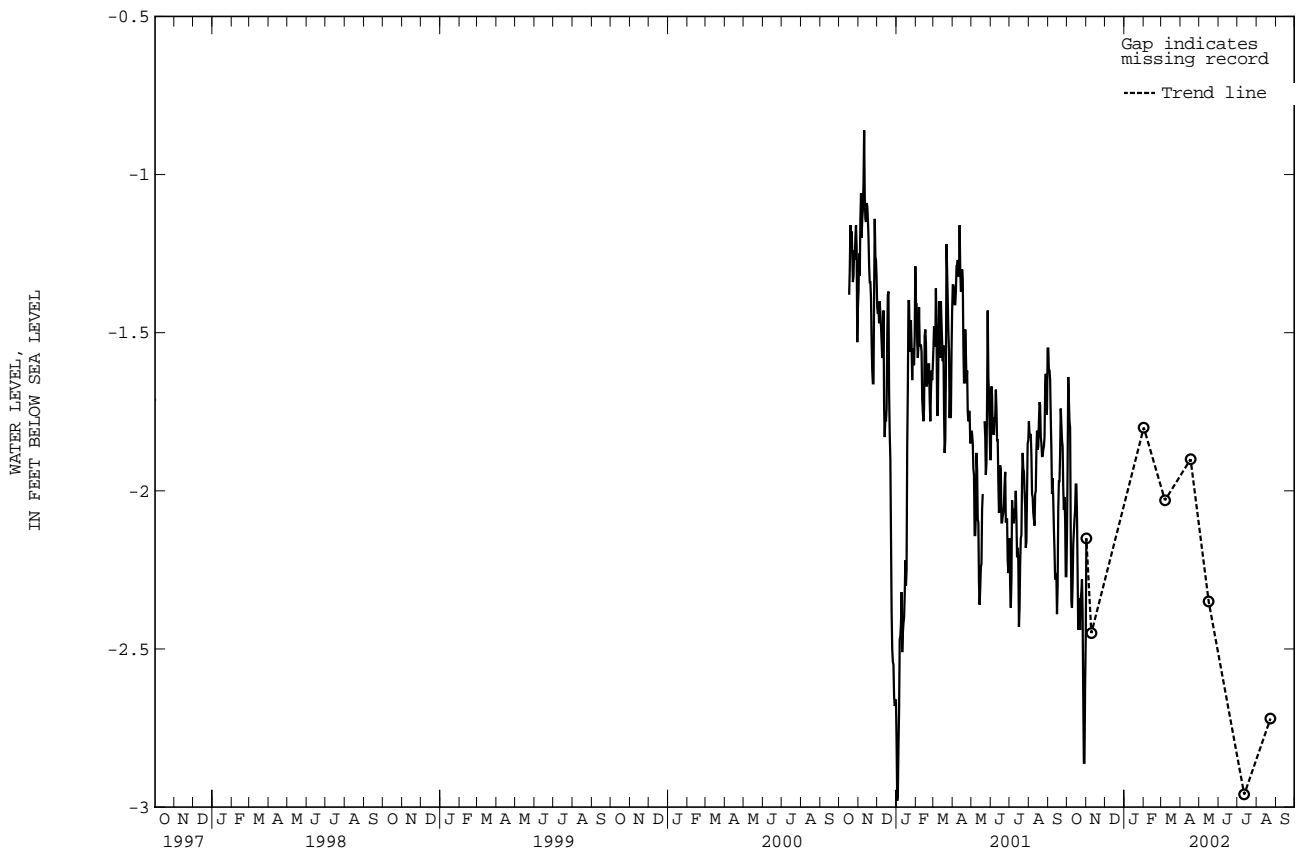
ANNE ARUNDEL COUNTY--Continued

AA Fc 35--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-1.51	-1.80	-1.39	-1.54	---	---	---	---	---	---	---	---
2	-1.71	-1.83	-1.28	-1.48	---	---	---	---	---	---	---	---
3	-1.65	-1.86	-1.25	-1.46	---	---	---	---	---	---	---	---
4	-1.82	-2.10	-1.44	-1.54	---	---	---	---	---	---	---	---
5	-2.04	-2.12	-1.42	-1.55	---	---	---	---	---	---	---	---
6	-1.98	-2.10	-1.43	-1.56	---	---	---	---	---	---	---	---
7	-2.00	-2.09	-1.29	-1.43	---	---	---	---	---	---	---	---
8	-1.96	-2.10	-1.27	-1.49	---	---	---	---	---	---	---	---
9	-1.80	-1.96	-1.29	-1.42	---	---	---	---	---	---	---	---
10	-1.74	-2.06	-1.22	-1.43	---	---	---	---	---	---	---	---
11	-2.03	-2.21	-1.36	-1.56	---	---	---	---	---	---	---	---
12	-1.92	-2.14	-1.43	-1.54	---	---	---	---	---	---	---	---
13	-1.75	-1.92	-1.40	-1.59	---	---	---	---	---	---	---	---
14	-1.60	-1.75	-1.59	-1.83	---	---	---	---	---	---	---	---
15	-1.57	-1.79	-1.80	-2.11	---	---	---	---	---	---	---	---
16	-1.71	-1.91	---	---	---	---	---	---	---	---	---	---
17	-1.71	-1.97	---	---	---	---	---	---	---	---	---	---
18	-1.64	-1.89	---	---	---	---	---	---	---	---	---	---
19	-1.58	-1.72	---	---	---	---	---	---	---	---	---	---
20	-1.47	-1.61	---	---	---	---	---	---	---	---	---	---
21	-1.50	-1.59	---	---	---	---	---	---	---	---	---	---
22	-1.44	-1.59	---	---	---	---	---	---	---	---	---	---
23	-1.51	-1.73	---	---	---	---	---	---	---	---	---	---
24	-1.66	-1.79	---	---	---	---	---	---	---	---	---	---
25	-1.44	-1.70	---	---	---	---	---	---	---	---	---	---
26	-1.35	-1.54	---	---	---	---	---	---	---	---	---	---
27	-1.39	-1.51	---	---	---	---	---	---	---	---	---	---
28	-1.06	-1.39	---	---	---	---	---	---	---	---	---	---
29	-1.06	-1.31	---	---	---	---	---	---	---	---	---	---
30	-1.31	-1.50	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	-1.06	-2.21	---	---	---	---	---	---	---	---	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Fd 43. SITE ID.--384646076352401. PERMIT NUMBER.--AA-74-1004.

LOCATION.--Lat 38°46'46", long. 76°35'24", Hydrologic Unit 02060004 at Tracys Landing Regional Park, 0.2 mi east of Tracys Landing.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 280 ft, casing diameter 4 in., to 231 ft; casing diameter 2 in. from 231 to 270 ft; screen diameter 2 in. from 270 to 280 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 150 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of coupling, 0.94 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal.

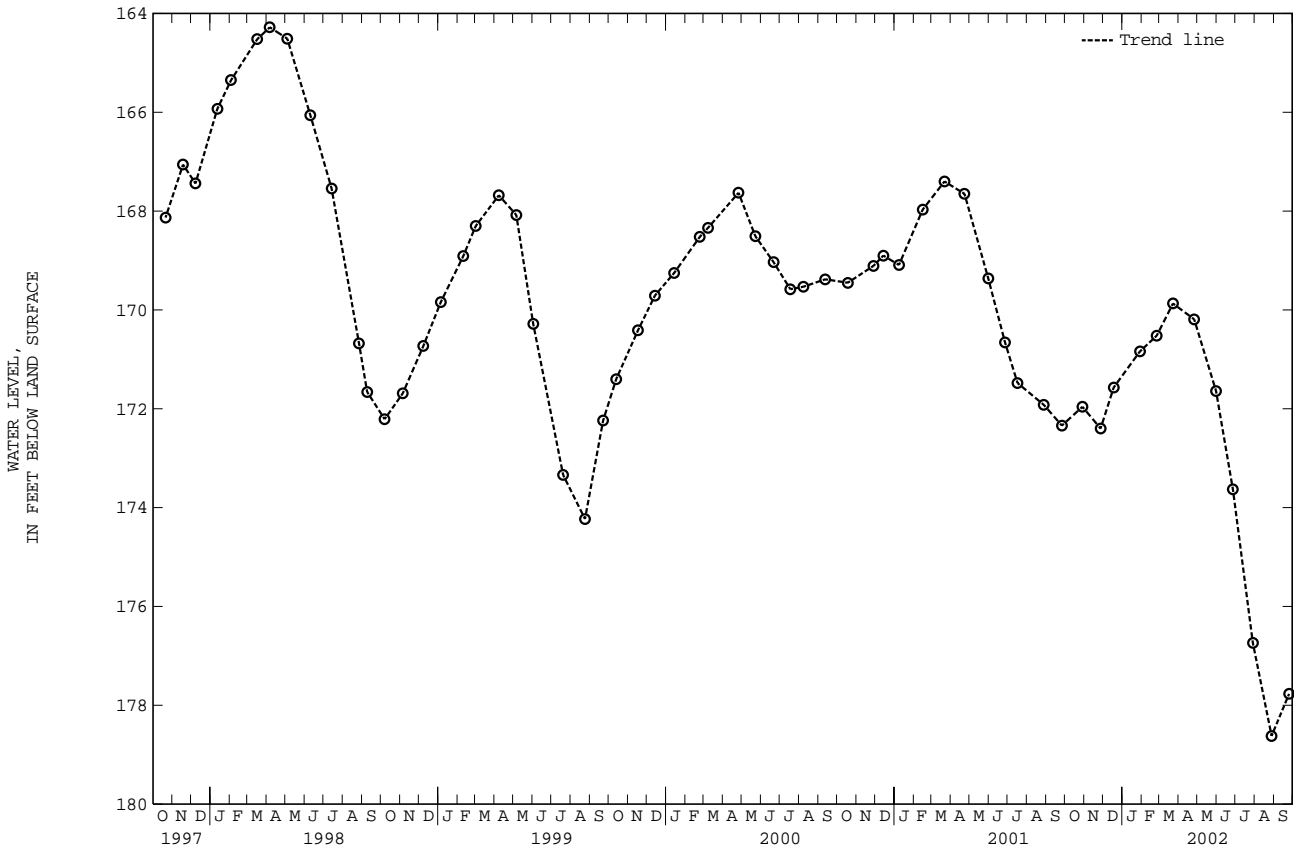
PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 143.90 ft below land surface, May 6, 1980; lowest measured, 178.62 ft below land surface, Aug. 28, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 2001	171.96	JAN 29, 2002	170.84	APR 26, 2002	170.19	JUL 29, 2002	176.74
NOV 27	172.40	FEB 25	170.52	MAY 31	171.64	AUG 28	178.62
DEC 18	171.57	MAR 23	169.87	JUN 27	173.63	SEP 25	177.77

WATER YEAR 2002      HIGHEST 169.87 MAR 23, 2002      LOWEST 178.62 AUG 28, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Fe 51. SITE ID.--384917076305801. PERMIT NUMBER.--AA-88-1276.

LOCATION.--Lat 38°49'17", long 76°30'58", Hydrologic Unit 02060004, at Shady Side.

Owner: Anne Arundel County.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, artesian well, depth 429 ft; casing diameter 4 in., to 368 ft, 383 to 394 ft, and 404 to 414 ft; screen diameter 4 in. from 368 to 383 ft, 394 to 404 ft, and 414 to 429 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--30-minute recording interval, March 31, 2000 to May 16, 2002.

DATUM.--Elevation of land surface is 8.5 ft, above National Geodetic Vertical Datum of 1929.

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

REMARKS.--Southern Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal. Missing data due to recorder malfunction.

PERIOD OF RECORD.--May 1999, March 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.58 ft below sea level, May 26, 1999;  
lowest measured, 13.56 ft below sea level, Aug. 23, 2002.

## WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	-10.94	-10.98	-11.73	-11.80	-11.32	-11.42	-10.76	-10.93	---	---
2	---	---	-10.97	-11.03	-11.80	-11.90	-11.42	-11.46	-10.84	-10.98	---	---
3	---	---	-11.03	-11.13	-11.85	-11.90	-11.35	-11.42	-10.91	-10.99	---	---
4	---	---	-11.13	-11.22	-11.80	-11.86	-11.37	-11.46	-10.85	-10.96	---	---
5	---	---	-11.22	-11.35	-11.76	-11.81	-11.32	-11.45	-10.96	-11.10	---	---
6	---	---	-11.35	-11.47	-11.67	-11.76	-11.09	-11.32	-11.01	-11.11	---	---
7	---	---	-11.47	-11.51	-11.66	-11.67	-11.09	-11.18	-10.88	-11.01	---	---
8	---	---	-11.51	-11.55	-11.54	-11.69	-11.18	-11.27	---	---	-11.02	-11.06
9	---	---	-11.50	-11.63	-11.54	-11.63	-11.14	-11.26	---	---	-10.82	-11.03
10	---	---	-11.59	-11.65	-11.56	-11.65	-11.13	-11.20	---	---	-10.80	-10.88
11	---	---	-11.59	-11.78	-11.49	-11.56	-11.17	-11.25	---	---	-10.88	-10.99
12	---	---	-11.78	-11.90	-11.45	-11.52	-11.12	-11.25	---	---	-10.96	-11.00
13	---	---	-11.89	-11.92	-11.31	-11.45	-11.06	-11.21	---	---	-10.83	-10.96
14	---	---	-11.87	-11.91	-11.19	-11.31	-11.17	-11.22	---	---	-10.84	-10.89
15	---	---	-11.90	-11.95	-11.23	-11.44	-11.16	-11.29	---	---	-10.75	-10.85
16	---	---	-11.94	-12.00	-11.44	-11.50	-11.29	-11.34	---	---	-10.73	-10.87
17	---	---	-12.00	-12.10	-11.14	-11.46	-11.21	-11.31	---	---	-10.87	-10.95
18	---	---	-12.02	-12.10	-11.05	-11.24	-11.21	-11.23	---	---	-10.76	-10.88
19	---	---	-11.91	-12.02	-11.18	-11.28	-11.06	-11.23	---	---	-10.78	-10.82
20	---	---	-11.92	-12.10	-11.16	-11.24	-11.06	-11.15	---	---	-10.57	-10.80
21	-10.64	-10.68	-12.10	-12.16	-11.24	-11.41	-11.00	-11.12	---	---	-10.52	-10.58
22	-10.60	-10.64	-12.11	-12.16	-11.41	-11.50	-11.01	-11.10	---	---	-10.56	-10.77
23	-10.55	-10.61	-12.11	-12.14	-11.17	-11.48	-11.10	-11.14	---	---	---	---
24	-10.44	-10.55	-12.11	-12.16	-11.10	-11.17	-11.05	-11.13	---	---	---	---
25	-10.41	-10.45	-11.99	-12.11	-11.12	-11.17	-11.06	-11.18	---	---	-10.83	-10.92
26	-10.45	-10.61	-11.99	-12.02	-11.08	-11.12	-11.13	-11.18	---	---	-10.66	-10.92
27	-10.61	-10.83	-12.01	-12.04	-11.05	-11.09	-11.10	-11.13	---	---	-10.63	-10.69
28	-10.83	-11.00	-11.98	-12.02	-11.01	-11.06	-11.08	-11.12	---	---	-10.68	-10.73
29	-10.93	-11.00	-11.91	-12.00	-11.05	-11.14	-11.00	-11.08	---	---	-10.58	-10.71
30	-10.90	-10.97	-11.76	-11.91	-11.14	-11.30	-10.95	-11.00	---	---	-10.51	-10.58
31	-10.94	-11.00	---	---	-11.29	-11.33	-10.93	-10.98	---	---	-10.51	-10.58
MONTH	---	---	-10.94	-12.16	-11.01	-11.90	-10.93	-11.46	---	---	---	---

GROUND-WATER LEVELS IN MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Fe 51--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	-10.45	-10.48	---	---	---	---	---	---	---	---
2	---	---	-10.25	-10.45	---	---	---	---	---	---	---	---
3	-10.48	-10.59	-10.26	-10.44	---	---	---	---	---	---	---	---
4	-10.59	-10.75	-10.44	-10.52	---	---	---	---	---	---	---	---
5	---	---	-10.51	-10.56	---	---	---	---	---	---	---	---
6	---	---	-10.51	-10.57	---	---	---	---	---	---	---	---
7	-10.80	-10.86	-10.44	-10.51	---	---	---	---	---	---	---	---
8	-10.65	-10.81	-10.44	-10.53	---	---	---	---	---	---	---	---
9	-10.62	-10.65	-10.42	-10.53	---	---	---	---	---	---	---	---
10	-10.61	-10.78	-10.40	-10.49	---	---	---	---	---	---	---	---
11	-10.78	-10.84	-10.49	-10.58	---	---	---	---	---	---	---	---
12	-10.73	-10.83	-10.52	-10.58	---	---	---	---	---	---	---	---
13	-10.65	-10.74	-10.42	-10.53	---	---	---	---	---	---	---	---
14	-10.61	-10.67	-10.46	-10.56	---	---	---	---	---	---	---	---
15	-10.60	-10.64	-10.56	-10.69	---	---	---	---	---	---	---	---
16	-10.64	-10.67	---	---	---	---	---	---	---	---	---	---
17	-10.63	-10.66	---	---	---	---	---	---	---	---	---	---
18	-10.63	-10.65	---	---	---	---	---	---	---	---	---	---
19	-10.57	-10.63	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	-10.45	-10.60	---	---	---	---	---	---	---	---	---	---
24	-10.60	-10.64	---	---	---	---	---	---	---	---	---	---
25	-10.41	-10.61	---	---	---	---	---	---	---	---	---	---
26	-10.43	-10.50	---	---	---	---	---	---	---	---	---	---
27	-10.49	-10.54	---	---	---	---	---	---	---	---	---	---
28	-10.27	-10.52	---	---	---	---	---	---	---	---	---	---
29	-10.30	-10.47	---	---	---	---	---	---	---	---	---	---
30	-10.47	-10.51	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Fe 56. SITE ID.--384731076325501. PERMIT NUMBER.--AA-94-4137.

LOCATION.--Lat 38°47'31", long 76°47'31", Hydrologic Unit 02060004, at Deale.

Owner: Safeway, Inc.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, artesian well, depth 450 ft; casing diameter 4 in., to 407 ft, and 427 to 450 ft; screen diameter 4 in. from 407 to 427 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--30-minute recording interval, April 11, 2000 to March 7, 2002.

DATUM.--Elevation of land surface is 9 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing 1.00 ft above land surface.

REMARKS.--Southern Anne Arundel County Ground-Water project observation well. Water level are affected by local and regional ground-water withdrawal. Missing data due to recorder malfunction.

PERIOD OF RECORD.--April 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.40 ft below sea level, April 27, 2000; lowest measured, 15.00 ft below sea level, Aug. 23, 2002.

## WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-12.02	-12.19	-12.50	-12.58	-13.27	-13.39	-12.99	-13.09	-12.50	-12.66	-12.62	-12.71
2	-11.92	-12.08	-12.56	-12.62	-13.39	-13.51	-13.01	-13.11	-12.60	-12.81	-12.42	-12.72
3	-12.06	-12.15	-12.60	-12.69	-13.35	-13.49	-12.99	-13.03	-12.63	-12.79	-12.27	-12.42
4	-12.13	-12.19	-12.69	-12.78	-13.36	-13.42	-12.99	-13.10	-12.58	-12.76	-12.40	-12.59
5	-12.12	-12.20	-12.70	-12.82	-13.35	-13.40	-12.94	-13.01	-12.76	-12.89	-12.59	-12.65
6	-12.10	-12.26	-12.82	-12.92	-13.25	-13.37	-12.75	-12.95	-12.67	-12.79	-12.57	-12.63
7	-12.26	-12.41	-12.86	-12.90	-13.25	-13.32	-12.75	-12.87	-12.58	-12.67	---	---
8	---	---	-12.84	-12.90	-13.14	-13.33	-12.87	-12.97	-12.53	-12.66	---	---
9	---	---	-12.84	-13.14	-13.14	-13.31	-12.75	-12.91	-12.57	-12.69	---	---
10	-12.33	-12.42	-12.98	-13.13	-13.20	-13.31	-12.81	-12.91	-12.45	-12.69	---	---
11	-12.33	-12.38	-12.99	-13.27	-13.15	-13.21	-12.85	-12.91	-12.40	-12.73	---	---
12	-12.32	-12.36	-13.25	-13.30	-13.15	-13.22	-12.77	-12.91	-12.48	-12.73	---	---
13	-12.23	-12.32	-13.24	-13.32	-12.95	-13.15	-12.73	-12.91	-12.53	-12.70	---	---
14	-12.10	-12.28	-13.24	-13.32	-12.87	-13.02	-12.83	-12.93	-12.64	-12.73	---	---
15	-12.06	-12.23	-13.26	-13.34	-12.97	-13.25	-12.85	-12.96	-12.53	-12.67	---	---
16	-12.06	-12.23	-13.29	-13.35	-13.10	-13.25	-12.94	-13.00	-12.50	-12.55	---	---
17	-12.16	-12.33	-13.35	-13.47	-12.84	-13.11	-12.85	-12.94	-12.51	-12.66	---	---
18	-12.33	-12.45	-13.31	-13.45	-12.75	-13.04	-12.87	-12.90	-12.66	-12.79	---	---
19	-12.30	-12.42	-13.29	-13.36	-12.83	-13.06	-12.75	-12.93	-12.53	-12.72	---	---
20	-12.32	-12.35	-13.29	-13.50	-12.83	-13.02	-12.75	-12.86	-12.35	-12.53	---	---
21	-12.31	-12.38	-13.41	-13.56	-13.01	-13.15	-12.67	-12.80	-12.35	-12.44	---	---
22	-12.30	-12.34	-13.41	-13.44	-13.06	-13.21	-12.71	-12.89	-12.42	-12.49	---	---
23	-12.23	-12.33	-13.43	-13.52	-12.80	-13.06	-12.84	-12.92	-12.48	-12.57	---	---
24	-12.13	-12.23	-13.44	-13.51	-12.80	-12.89	-12.69	-12.85	-12.54	-12.61	---	---
25	-12.13	-12.23	-13.36	-13.45	-12.85	-12.93	-12.71	-12.89	-12.42	-12.56	---	---
26	-12.23	-12.43	-13.35	-13.47	-12.81	-12.88	-12.75	-12.88	-12.25	-12.43	---	---
27	-12.43	-12.54	-13.43	-13.50	-12.77	-12.85	-12.80	-12.86	-12.33	-12.52	---	---
28	-12.54	-12.66	-13.41	-13.47	-12.77	-12.83	-12.74	-12.84	-12.51	-12.63	---	---
29	-12.50	-12.63	-13.35	-13.48	-12.79	-12.92	-12.65	-12.77	---	---	---	---
30	-12.50	-12.62	-13.24	-13.41	-12.92	-13.04	-12.65	-12.72	---	---	---	---
31	-12.50	-12.62	---	---	-12.95	-13.01	-12.64	-12.75	---	---	---	---
MONTH	---	---	-12.50	-13.56	-12.75	-13.51	-12.64	-13.11	-12.25	-12.89	---	---

GROUND-WATER LEVELS IN MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Fe 56--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



## ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Fe 60. SITE ID.--384917076305802. PERMIT NUMBER.--AA-94-5776.

LOCATION.--Lat 38°49'17", long 76°30'58", Hydrologic Unit 02060004, at Shady Side.

Owner: Maryland Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, artesian well, depth 205 ft; casing diameter 4.5 in., to 160 ft, 175 to 185 ft, and 200 to 205 ft; screen diameter 4.5 in. from 160 to 175 ft, and 185 to 200 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--60-minute recording interval, Sept. 27, 2000 to May 16, 2002.

DATUM.--Elevation of land surface is 8.5 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of shelter platform, 3.30 ft above land surface.

REMARKS.--Southern Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal. Missing data due to recorder malfunction.

PERIOD OF RECORD.--September 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.57 ft below sea level, March 22, 2001 (recorder); lowest measured, 21.33 ft below sea level, Aug. 23, 2002.

## WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-16.11	-16.29	-16.49	-16.61	-16.31	-16.46	-16.43	-16.56	-15.53	-15.75	-15.54	-15.65
2	-15.96	-16.11	-16.43	-16.52	-16.46	-16.67	-16.51	-16.59	-15.63	-15.80	-15.36	-15.65
3	-15.98	-16.06	-16.43	-16.56	-16.64	-16.69	-16.40	-16.51	-15.71	-15.80	-15.26	-15.38
4	-16.04	-16.10	-16.56	-16.62	-16.63	-16.67	-16.43	-16.50	-15.65	-15.83	-15.38	-15.62
5	-16.02	-16.08	-16.60	-16.75	-16.60	-16.65	-16.34	-16.47	-15.83	-15.95	-15.62	-15.70
6	-15.96	-16.15	-16.73	-16.76	-16.47	-16.61	-16.10	-16.34	-15.77	-15.92	-15.63	-15.69
7	-16.15	-16.40	-16.65	-16.73	-16.46	-16.51	-16.12	-16.26	-15.62	-15.77	-15.63	-15.70
8	-16.40	-16.55	-16.54	-16.65	-16.36	-16.51	-16.26	-16.35	-15.61	-15.67	-15.67	-15.71
9	-16.53	-16.59	-16.53	-16.63	-16.35	-16.56	-16.10	-16.29	-15.65	-15.75	-15.48	-15.67
10	-16.36	-16.53	-16.45	-16.60	-16.50	-16.59	-16.11	-16.17	-15.52	-15.74	-15.44	-15.65
11	-16.33	-16.37	-16.46	-16.77	-16.42	-16.50	-16.09	-16.19	-15.46	-15.75	-15.65	-15.79
12	-16.30	-16.38	-16.77	-16.91	-16.37	-16.49	-16.06	-16.19	-15.57	-15.76	-15.69	-15.78
13	-16.24	-16.31	-16.85	-16.94	-16.17	-16.37	-15.96	-16.23	-15.60	-15.72	-15.49	-15.70
14	-16.12	-16.28	-16.73	-16.87	-16.06	-16.20	-16.21	-16.27	-15.69	-15.75	-15.47	-15.55
15	-16.11	-16.26	-16.69	-16.77	-16.11	-16.42	-16.19	-16.33	-15.50	-15.70	-15.34	-15.49
16	-16.04	-16.26	-16.67	-16.76	-16.40	-16.45	-16.28	-16.35	-15.42	-15.50	-15.31	-15.52
17	-16.08	-16.24	-16.76	-16.90	-16.10	-16.43	-16.16	-16.28	-15.42	-15.61	-15.52	-15.58
18	-16.24	-16.30	-16.79	-16.90	-15.98	-16.24	-16.16	-16.18	-15.61	-15.82	-15.41	-15.52
19	-16.25	-16.31	-16.69	-16.81	-16.09	-16.26	-15.99	-16.18	-15.61	-15.81	-15.45	-15.48
20	-16.25	-16.34	-16.67	-16.82	-16.09	-16.21	-15.99	-16.13	-15.36	-15.61	-15.19	-15.46
21	-16.34	-16.37	-16.77	-16.84	-16.21	-16.39	-15.98	-16.11	-15.30	-15.36	-15.15	-15.22
22	-16.36	-16.43	-16.76	-16.77	-16.39	-16.46	-16.03	-16.17	-15.33	-15.39	---	---
23	-16.36	-16.45	-16.76	-16.79	-16.11	-16.42	-16.08	-16.16	-15.37	-15.46	---	---
24	-16.19	-16.36	-16.74	-16.79	-16.07	-16.17	-15.91	-16.08	-15.44	-15.54	-15.46	-15.58
25	-16.16	-16.26	-16.59	-16.74	-16.17	-16.22	-15.93	-16.09	-15.43	-15.54	-15.57	-15.73
26	-16.25	-16.41	-16.57	-16.66	-16.09	-16.17	-15.98	-16.08	-15.22	-15.43	-15.43	-15.71
27	-16.40	-16.60	-16.57	-16.65	-16.01	-16.10	-15.98	-16.05	-15.25	-15.39	-15.37	-15.47
28	-16.60	-16.80	-16.56	-16.62	-15.97	-16.08	-15.96	-16.06	-15.39	-15.54	-15.40	-15.49
29	-16.71	-16.79	-16.51	-16.60	-16.05	-16.21	-15.89	-16.00	---	---	-15.28	-15.44
30	-16.64	-16.74	-16.31	-16.51	-16.21	-16.36	-15.82	-15.91	---	---	-15.18	-15.34
31	-16.60	-16.74	---	---	-16.34	-16.43	-15.75	-15.89	---	---	-15.30	-15.39
MONTH	-15.96	-16.80	-16.31	-16.94	-15.97	-16.69	-15.75	-16.59	-15.22	-15.95	-15.15	-15.79

GROUND-WATER LEVELS IN MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Fe 60--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-15.25	-15.38	-15.61	-15.67	---	---	---	---	---	---	---	---
2	-15.32	-15.40	-15.35	-15.62	---	---	---	---	---	---	---	---
3	-15.25	-15.42	-15.35	-15.55	---	---	---	---	---	---	---	---
4	-15.42	-15.53	-15.55	-15.60	---	---	---	---	---	---	---	---
5	-15.52	-15.57	-15.57	-15.66	---	---	---	---	---	---	---	---
6	-15.50	-15.64	-15.61	-15.69	---	---	---	---	---	---	---	---
7	-15.64	-15.73	-15.51	-15.61	---	---	---	---	---	---	---	---
8	-15.54	-15.69	-15.53	-15.60	---	---	---	---	---	---	---	---
9	-15.46	-15.54	-15.47	-15.60	---	---	---	---	---	---	---	---
10	-15.46	-15.64	-15.45	-15.62	---	---	---	---	---	---	---	---
11	-15.59	-15.66	-15.62	-15.81	---	---	---	---	---	---	---	---
12	-15.50	-15.63	-15.77	-15.82	---	---	---	---	---	---	---	---
13	-15.40	-15.51	-15.76	-15.82	---	---	---	---	---	---	---	---
14	-15.40	-15.47	-15.47	-15.91	---	---	---	---	---	---	---	---
15	-15.43	-15.58	-15.91	-16.06	---	---	---	---	---	---	---	---
16	-15.56	-15.64	---	---	---	---	---	---	---	---	---	---
17	-15.54	-15.64	---	---	---	---	---	---	---	---	---	---
18	-15.58	-15.64	---	---	---	---	---	---	---	---	---	---
19	-15.52	-15.61	---	---	---	---	---	---	---	---	---	---
20	-15.48	-15.54	---	---	---	---	---	---	---	---	---	---
21	-15.53	-15.59	---	---	---	---	---	---	---	---	---	---
22	-15.45	-15.57	---	---	---	---	---	---	---	---	---	---
23	-15.54	-15.69	---	---	---	---	---	---	---	---	---	---
24	-15.63	-15.72	---	---	---	---	---	---	---	---	---	---
25	-15.41	-15.64	---	---	---	---	---	---	---	---	---	---
26	-15.47	-15.59	---	---	---	---	---	---	---	---	---	---
27	-15.54	-15.66	---	---	---	---	---	---	---	---	---	---
28	-15.40	-15.66	---	---	---	---	---	---	---	---	---	---
29	-15.46	-15.72	---	---	---	---	---	---	---	---	---	---
30	-15.66	-15.74	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	-15.25	-15.74	---	---	---	---	---	---	---	---	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Fe 92--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	-26.63	-27.55	-27.69	-28.16	-31.08	-31.61	-33.24	-33.60	-34.72	-35.64
2	-26.51	-27.21	-26.46	-27.28	-28.01	-28.53	-31.26	-31.80	-33.40	-34.24	-34.57	-34.92
3	-26.44	-26.86	-26.48	-27.40	-28.45	-28.76	-31.40	-31.83	-33.47	-33.77	-34.59	-35.55
4	-26.80	-27.71	-26.78	-26.94	-28.38	-29.53	-31.59	-32.23	-33.54	-33.82	-34.37	-35.27
5	-26.80	-27.37	-26.75	-27.12	-28.46	-29.45	-31.89	-32.91	-33.56	-33.90	-34.41	-35.22
6	---	---	-26.81	-27.50	-28.42	-29.32	-32.16	-32.69	-33.46	-34.48	-34.21	-34.71
7	-26.95	-27.08	-26.52	-27.19	-28.62	-28.98	-32.68	-32.87	-33.72	-34.26	-34.19	-34.68
8	-26.69	-27.02	-26.57	-27.50	-28.36	-28.97	-32.68	-33.74	-33.70	-34.72	-34.26	-34.81
9	-26.70	-27.02	-26.56	-27.30	-28.34	-28.67	-32.64	-33.96	-33.81	-34.97	-34.33	-35.36
10	-26.76	-27.26	-26.37	-27.29	-28.67	-28.95	-32.76	-33.96	-33.75	-34.85	-34.13	-34.44
11	-26.92	-27.35	-26.62	-27.29	-28.64	-29.33	-32.78	-33.53	-33.93	-34.90	-34.03	-34.86
12	-26.75	-27.59	-26.73	-27.13	-28.60	-29.44	---	---	-34.08	-34.55	-34.31	-35.29
13	-26.69	-26.79	-26.77	-27.44	-28.80	-29.21	---	---	-34.24	-35.27	-34.27	-35.29
14	-26.67	-26.93	-26.72	-27.70	-28.52	-28.87	---	---	-34.42	-35.53	-34.14	-35.00
15	-26.84	-27.38	-27.02	-28.05	-28.46	-28.66	---	---	-34.45	-35.40	-34.18	-34.45
16	-26.98	-27.22	-27.05	-27.95	-28.61	-29.44	-32.61	-33.51	-34.52	-35.52	-34.13	-34.65
17	-26.88	-27.33	-26.98	-27.29	-28.93	-29.15	-32.70	-33.40	-34.66	-35.80	-34.05	-35.00
18	-27.00	-27.89	-26.68	-27.78	-29.07	-30.28	-32.65	-33.26	-34.78	-35.58	-34.00	-34.72
19	-26.84	-27.13	-26.92	-27.14	-29.26	-30.28	-32.82	-33.53	-34.94	-35.37	-33.89	-34.88
20	---	---	-26.89	-27.13	-29.31	-30.31	-32.93	-33.97	-34.84	-36.20	-33.83	-34.81
21	---	---	-26.88	-27.78	-29.48	-30.45	-33.15	-34.49	-34.97	-35.75	-33.72	-34.21
22	---	---	-27.00	-27.25	-29.57	-30.14	-33.30	-34.40	-34.88	-35.84	-33.78	-34.33
23	-26.86	-28.07	-26.91	-27.26	-29.93	-30.44	-33.26	-34.36	-34.83	-35.51	-33.96	-34.36
24	-26.98	-27.83	-26.78	-27.54	-30.16	-30.49	-33.26	-34.22	-34.94	-35.65	---	---
25	-26.61	-27.10	-26.97	-27.59	-30.36	-31.36	-33.11	-33.66	-34.95	-35.92	---	---
26	-26.76	-27.47	-27.10	-27.47	-30.45	-31.49	-32.82	-33.11	-35.12	-35.55	---	---
27	-26.95	-27.09	---	---	-30.47	-30.83	-32.60	-33.03	-35.09	-35.87	---	---
28	---	---	-27.53	-28.23	-30.50	-30.77	-32.74	-33.50	-35.01	-36.09	---	---
29	---	---	-27.55	-28.24	-30.65	-31.26	-33.00	-34.08	-34.77	-35.17	---	---
30	-26.79	-27.10	-27.62	-28.53	-30.79	-31.29	-32.96	-33.82	-34.84	-35.82	---	---
31	---	---	-27.66	-28.40	---	---	-33.26	-34.08	-34.93	-35.16	---	---
MONTH	---	---	---	---	-27.69	-31.49	---	---	-33.24	-36.20	---	---

Daily Low Water Levels





GROUND-WATER LEVELS IN MARYLAND--Continued

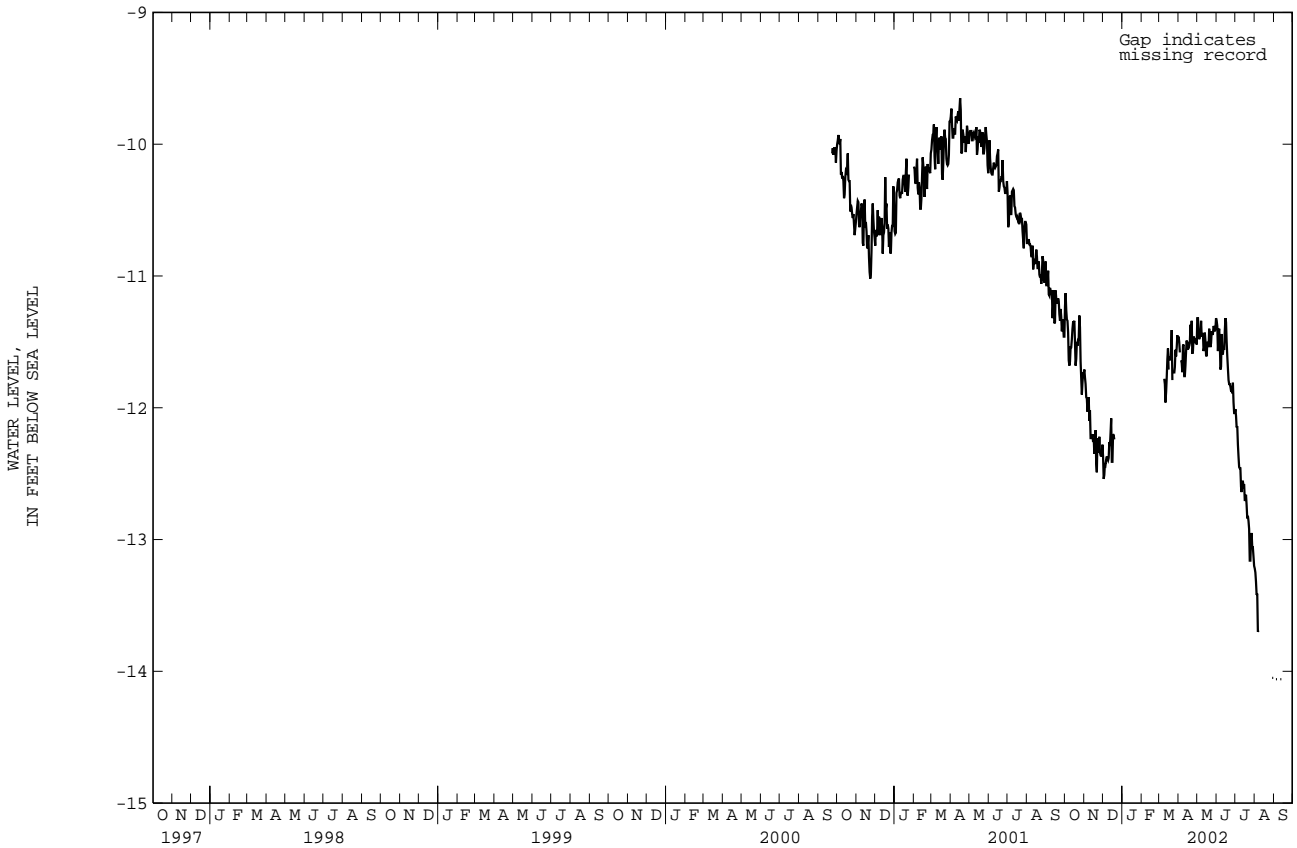
ANNE ARUNDEL COUNTY--Continued

AA Fe 93--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-11.34	-11.46	-11.21	-11.32	-11.18	-11.34	-11.93	-12.01	-13.12	-13.22	---	---
2	-11.35	-11.50	-11.03	-11.32	-11.24	-11.38	-11.98	-12.06	-13.17	-13.25	---	---
3	-11.25	-11.58	-11.06	-11.42	-11.38	-11.57	-12.02	-12.15	-13.17	-13.32	---	---
4	---	---	-11.38	-11.48	-11.33	-11.45	-12.09	-12.14	-13.27	-13.42	-13.92	-14.06
5	-11.58	-11.64	-11.38	-11.46	-11.27	-11.40	-12.06	-12.28	-13.31	-13.41	---	---
6	-11.56	-11.66	-11.31	-11.45	-11.32	-11.50	-12.24	-12.37	-13.30	-13.70	---	---
7	-11.53	-11.73	-11.22	-11.34	-11.46	-11.71	-12.31	-12.45	-13.50	-13.69	---	---
8	-11.34	-11.53	-11.32	-11.46	-11.25	-11.69	-12.37	-12.46	---	---	---	---
9	-11.40	-11.52	-11.16	-11.44	-11.25	-11.44	-12.32	-12.46	---	---	---	---
10	-11.51	-11.76	-11.16	-11.44	-11.37	-11.59	-12.41	-12.60	---	---	---	---
11	-11.62	-11.76	-11.43	-11.57	-11.43	-11.59	-12.52	-12.64	---	---	-14.00	-14.06
12	-11.51	-11.68	-11.36	-11.54	-11.35	-11.54	-12.37	-12.56	---	---	---	---
13	-11.44	-11.57	-11.21	-11.43	-11.41	-11.56	-12.47	-12.56	---	---	---	---
14	-11.42	-11.49	-11.29	-11.49	-11.18	-11.42	-12.47	-12.59	---	---	---	---
15	-11.41	-11.54	-11.49	-11.60	-11.25	-11.32	-12.49	-12.58	---	---	---	---
16	-11.48	-11.56	-11.47	-11.61	-11.25	-11.35	-12.52	-12.70	---	---	---	---
17	-11.44	-11.52	-11.39	-11.50	-11.35	-11.50	-12.57	-12.70	---	---	---	---
18	-11.47	-11.53	-11.26	-11.51	-11.46	-11.61	-12.55	-12.66	---	---	---	---
19	-11.34	-11.51	-11.32	-11.54	-11.54	-11.70	-12.59	-12.74	---	---	---	---
20	-11.31	-11.37	-11.32	-11.40	-11.62	-11.79	-12.64	-12.84	---	---	---	---
21	-11.34	-11.46	-11.39	-11.48	-11.70	-11.82	-12.70	-12.82	---	---	---	---
22	-11.16	-11.34	-11.46	-11.54	-11.70	-11.82	-12.70	-12.86	---	---	---	---
23	-11.32	-11.59	-11.37	-11.51	-11.73	-11.84	-12.76	-12.92	---	---	---	---
24	-11.43	-11.57	-11.29	-11.42	-11.72	-11.87	-12.91	-13.16	---	---	---	---
25	-11.09	-11.46	-11.32	-11.44	-11.78	-11.87	-12.97	-13.16	---	---	---	---
26	-11.29	-11.47	-11.26	-11.44	-11.72	-11.89	-12.86	-13.00	---	---	---	---
27	-11.37	-11.49	-11.27	-11.38	-11.72	-11.81	-12.86	-12.95	---	---	---	---
28	-11.14	-11.48	-11.29	-11.39	-11.81	-11.96	-12.93	-13.06	---	---	---	---
29	-11.22	-11.48	-11.33	-11.42	-11.96	-12.04	-12.98	-13.06	-14.01	-14.05	---	---
30	-11.26	-11.52	-11.29	-11.40	-11.94	-12.04	-13.02	-13.13	---	---	---	---
31	---	---	-11.18	-11.32	---	---	-13.10	-13.20	---	---	---	---
MONTH	---	---	-11.03	-11.61	-11.18	-12.04	-11.93	-13.20	---	---	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

BALTIMORE CITY

WELL NUMBER.--2S5E- 1. SITE ID.--391617076322001.

LOCATION.--Lat 39°16'17", long 76°32'20", Hydrologic Unit 02060003, near Holabird Ave. and Pumphrey St. at Ft. Holabird Industrial Park.

Owner: City of Baltimore.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 290 ft; casing diameter 12 in. to unknown depth.

INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 30 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing extension, 2.35 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well. Water level reported 58 ft below land surface in 1934.

PERIOD OF RECORD.--April 1943 to current year.

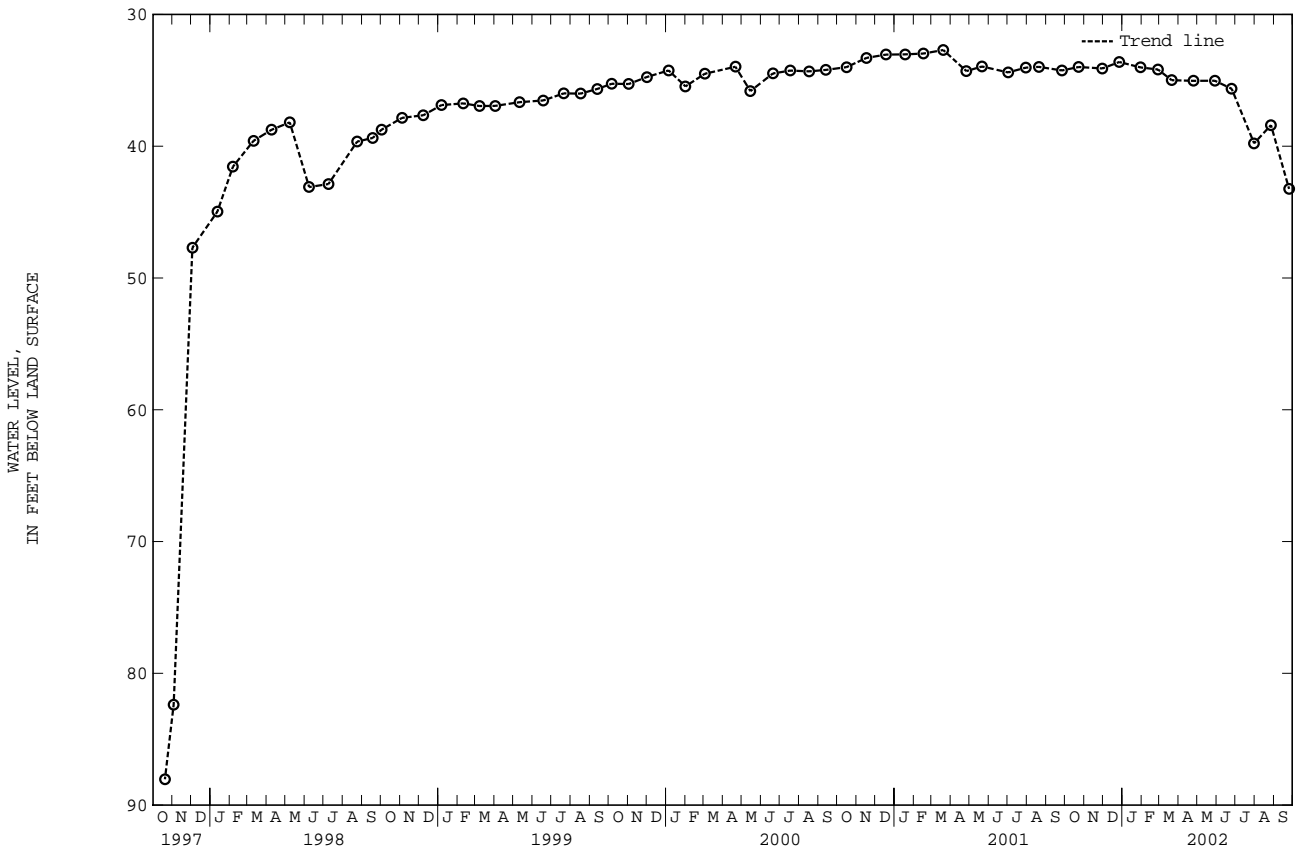
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.70 ft below land surface, Mar. 20, 2001;

lowest measured, 103.70 ft below land surface, Oct. 15, 1948.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	33.99	JAN 30, 2002	34.02	APR 25, 2002	35.04	JUL 31, 2002	39.78
NOV 30	34.10	FEB 27	34.18	MAY 29	35.03	AUG 27	38.40
DEC 27	33.61	MAR 21	34.99	JUN 25	35.64	SEP 25	43.24

WATER YEAR 2002      HIGHEST    33.61    DEC 27, 2001      LOWEST    43.24    SEP 25, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

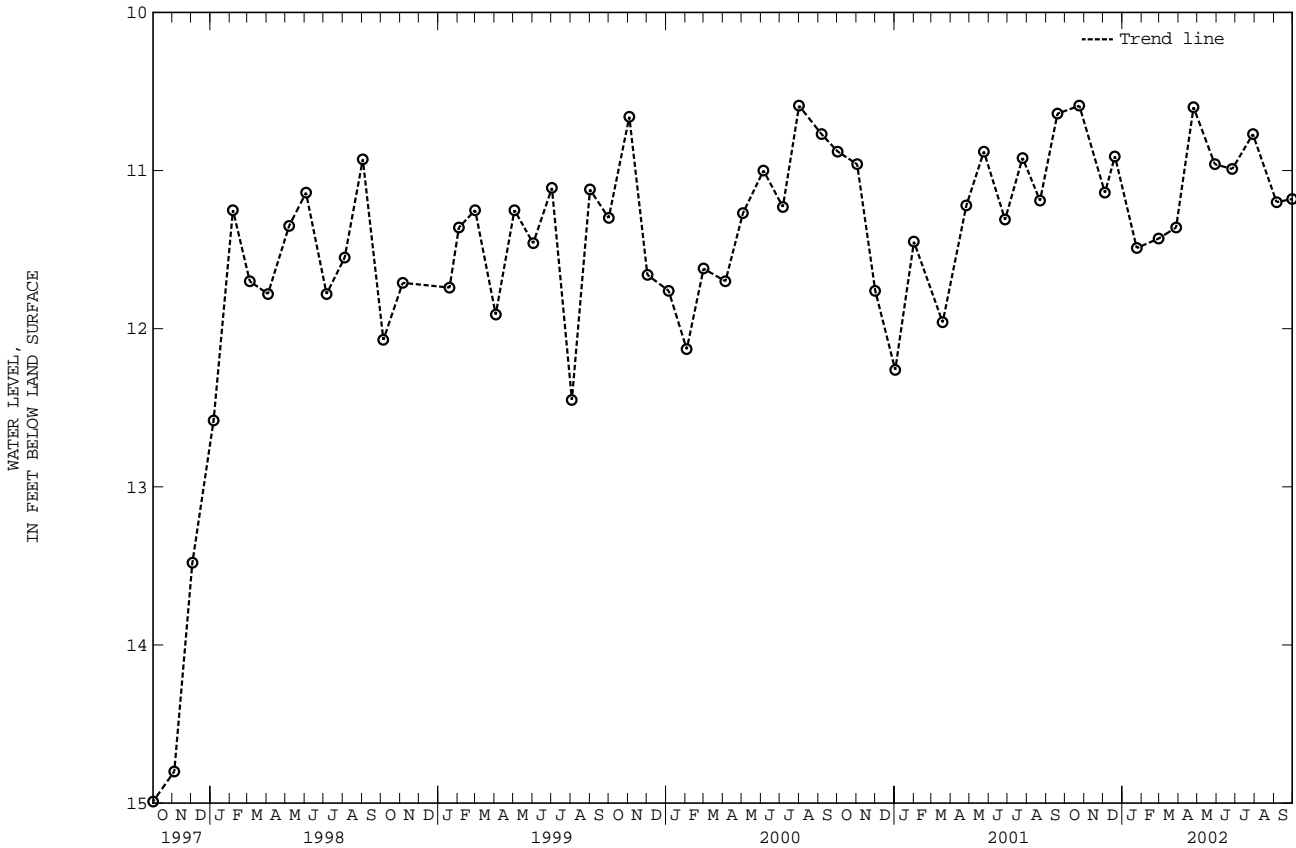
BALTIMORE CITY--Continued

WELL NUMBER.--3S2E- 5. SITE ID.--391600076353301. PERMIT NUMBER.--BC-81-0087.  
 LOCATION.--Lat 39°16'00", long 76°35'33", Hydrologic Unit 02060003, at Latrobe Park.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 136 ft; casing diameter 4 in., to 126 ft;  
 screen diameter 3 in. from 126 to 136 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 14.44 ft. above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 1.92 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well.  
 PERIOD OF RECORD.--January 1983 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.59 ft below land surface, Aug. 1, 2000, Oct. 24, 2001;  
 lowest measured, 17.71 ft below land surface, Dec. 30, 1983.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	10.59	JAN 24, 2002	11.49	APR 25, 2002	10.60	JUL 29, 2002	10.77
DEC 04	11.14	FEB 28	11.43	MAY 29	10.96	SEP 05	11.20
20	10.91	MAR 28	11.36	JUN 26	10.99	30	11.18

WATER YEAR 2002      HIGHEST 10.59 OCT 24, 2001      LOWEST 11.49 JAN 24, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



BALTIMORE CITY--Continued

WELL NUMBER.--3S5E- 46. SITE ID.--391556076315301. PERMIT NUMBER.--BC-81-0088.

LOCATION.--Lat 39°15'56", long 76°31'53", Hydrologic Unit 02060003, at Ft. Holabird Industrial Park, near Colgate Creek.

Owner: U.S. Geological Survey.

AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 73 ft; casing diameter 4 in., to 63 ft; screen diameter 3 in. from 63 to 73 ft.

INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.07 ft above land surface.

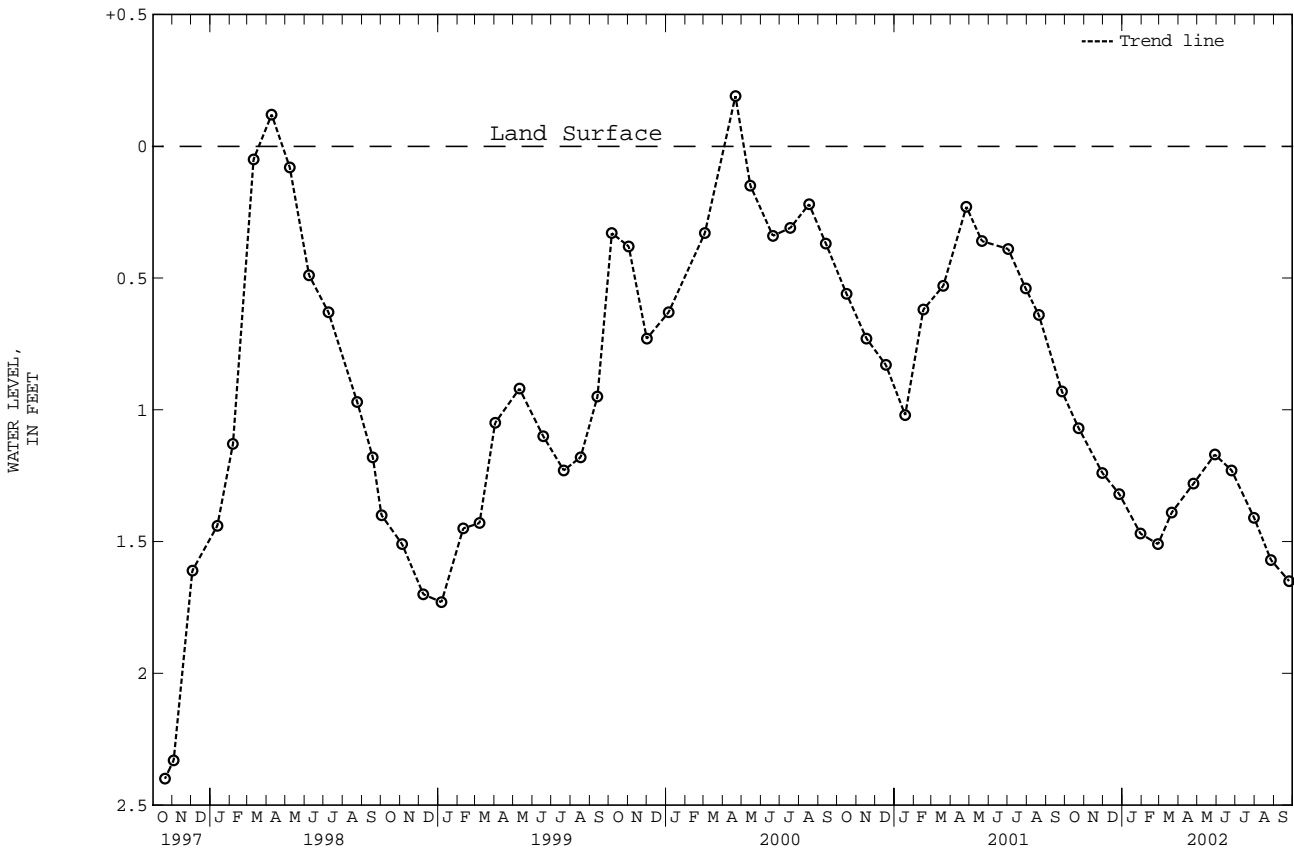
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--January 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.22 ft above land surface, May 5, 1983; lowest measured, 3.07 ft below land surface, July 8, 1986.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	1.07	JAN 30, 2002	1.47	APR 25, 2002	1.28	JUL 31, 2002	1.41
NOV 30	1.24	FEB 27	1.51	MAY 29	1.17	AUG 27	1.57
DEC 27	1.32	MAR 21	1.39	JUN 25	1.23	SEP 25	1.65
WATER YEAR 2002 HIGHEST		1.07 OCT 23, 2001	LOWEST		1.65 SEP 25, 2002		



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

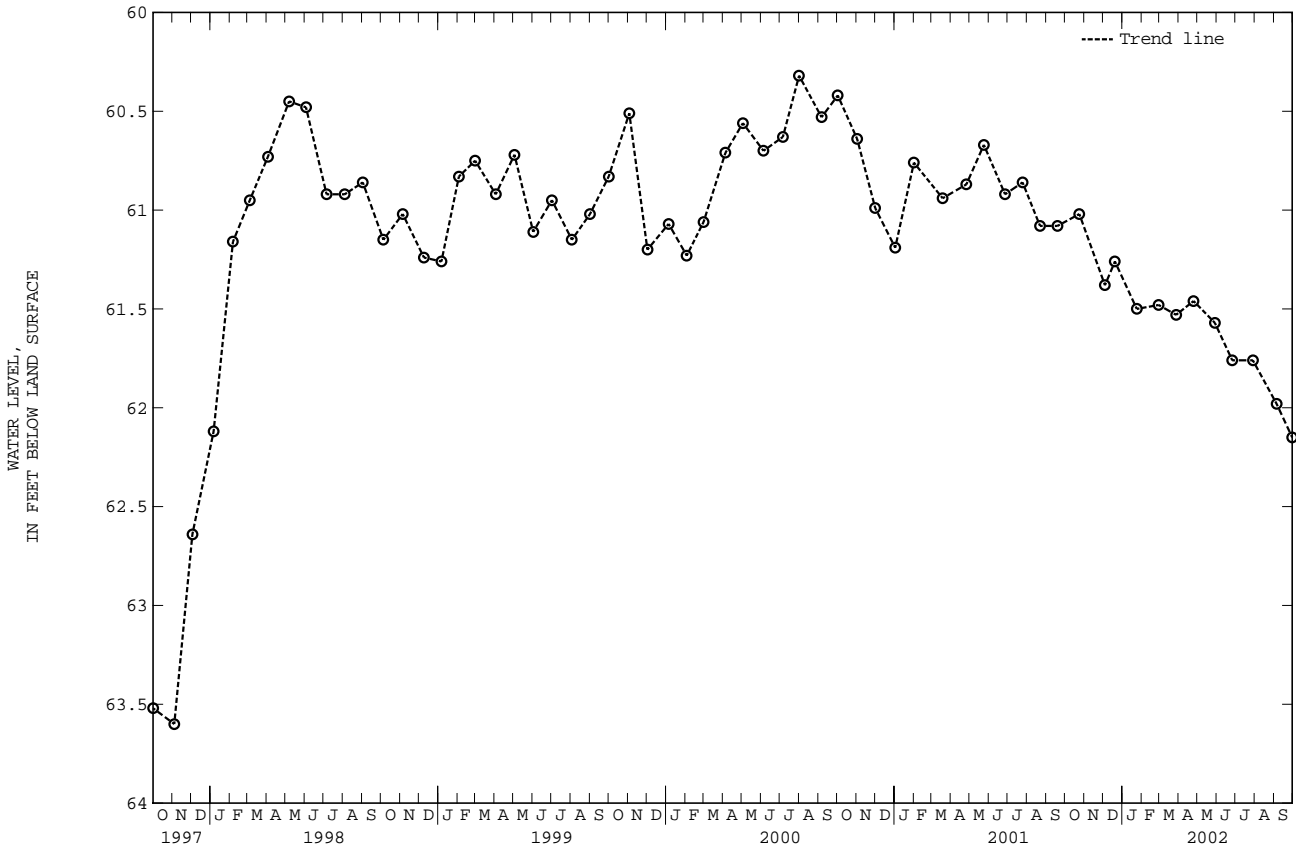
BALTIMORE CITY--Continued

WELL NUMBER.--5S2E- 24. SITE ID.--391349076354501. PERMIT NUMBER.--BC-81-0089.  
 LOCATION.--Lat 39°13'49", long 76°35'45", Hydrologic Unit 02060003, at Farrington Park.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 272 ft; casing diameter 4 in., to 262 ft; screen diameter 3 in. from 262 ft to 272 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 75 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 0.35 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well.  
 PERIOD OF RECORD.--January 1983 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 60.32 ft below land surface, Aug. 1, 2000;  
 lowest measured, 66.36 ft below land surface, May 5, 1983.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	61.02	JAN 24, 2002	61.50	APR 25, 2002	61.46	JUL 29, 2002	61.76
DEC 04	61.38	FEB 28	61.48	MAY 29	61.57	SEP 05	61.98
20	61.26	MAR 28	61.53	JUN 26	61.76	30	62.15

WATER YEAR 2002      HIGHEST    61.02    OCT 24, 2001      LOWEST    62.15    SEP 30, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

BALTIMORE COUNTY

WELL NUMBER.--BA Cd 26. SITE ID.--393129076384201. PERMIT NUMBER.--BA-02-8527.

LOCATION.--Lat 39°31'29", long 76°38'42" ,Hydrologic Unit, 02060003, 1.4 mi south of Sparks, near York Road.

Owner: Diecraft Division, Leica Inc.

AQUIFER.--Baltimore Gneiss of Precambrian age. Aquifer code: 400BLMR.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 250 ft; casing diameter 6 in., to 19 ft; open hole.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 480 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.30 ft above land surface.

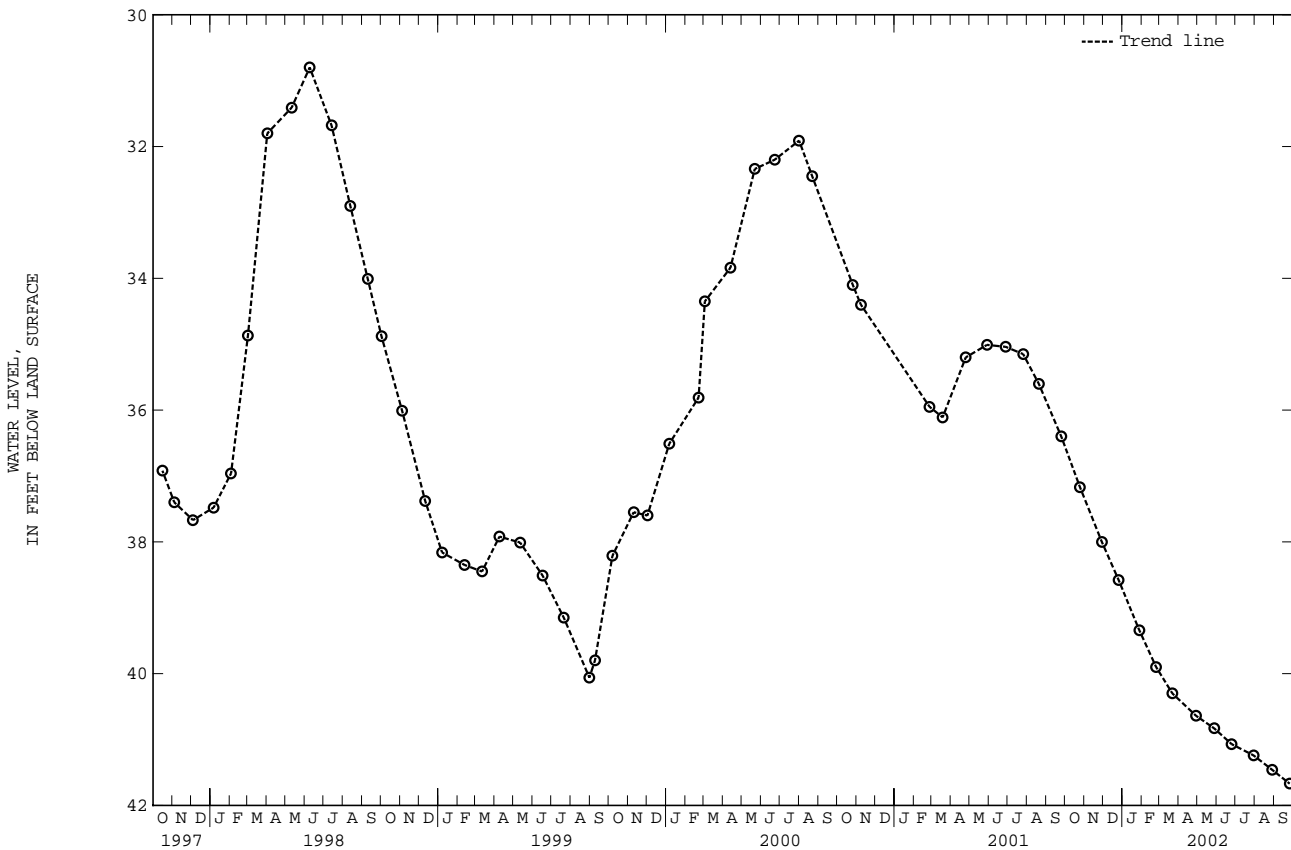
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.

PERIOD OF RECORD.--January 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.42 ft below land surface, Sept. 9, 1975;  
lowest measured, 80.20 ft below land surface, Dec. 23, 1969.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	37.17	JAN 28, 2002	39.34	APR 29, 2002	40.64	JUL 30, 2002	41.24
NOV 29	38.00	FEB 24	39.90	MAY 28	40.83	AUG 29	41.46
DEC 26	38.58	MAR 22	40.30	JUN 25	41.07	SEP 26	41.67
WATER YEAR 2002 HIGHEST 37.17		OCT 25, 2001		LOWEST 41.67		SEP 26, 2002	



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

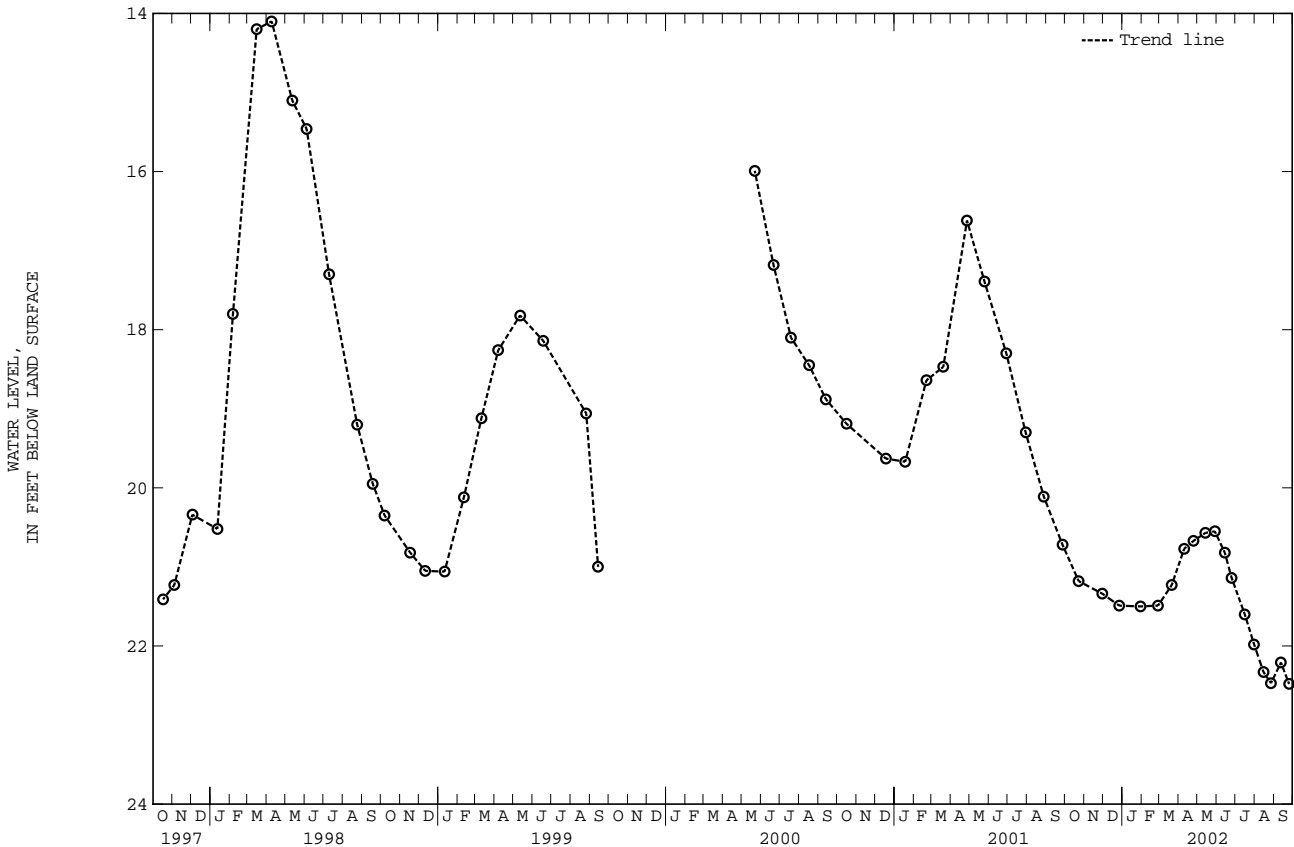
GROUND-WATER LEVELS IN MARYLAND--Continued

BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Ce 21. SITE ID.--393102076341801. PERMIT NUMBER.--BA-02-1266.  
 LOCATION.--Lat 39°31'02", long 76°34'18", Hydrologic Unit 02060003, on Paper Mill Road, 0.6 mi west of Jacksonville.  
 Owner: Baltimore County.  
 AQUIFER.--Loch Raven Formation of Cambrian Age. Aquifer code: 370LCRV.  
 WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 350 ft; casing diameter 10 in., to 12.4 ft; casing diameter 6 in., to 33.2 ft; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 536 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 2.00 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--November and December 1955, November 1956 through September 1975, July 1977 through July 1996, November 1996 to September 1999, and May 2000 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.60 ft below land surface, June 23, 1972; lowest measured, 22.48 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	21.18	MAR 21, 2002	21.23	JUN 14, 2002	20.82	AUG 27, 2002	22.47
NOV 30	21.34	APR 10	20.77	25	21.14	SEP 12	22.21
DEC 27	21.49	25	20.67	JUL 16	21.60	25	22.48
JAN 30, 2002	21.50	MAY 14	20.57	31	21.98		
FEB 27	21.49	29	20.55	AUG 15	22.33		
WATER YEAR 2002		HIGHEST	20.55	MAY 29, 2002	LOWEST	22.48	SEP 25, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## BALTIMORE COUNTY--Continued

WELL NUMBER.-- BA Dc 444. SITE ID.--392931076410301. PERMIT NUMBER.--BA-81-4198.

LOCATION.--Lat 39°29'31", long 76°41'03", Hydrologic Unit 02060003, at Oregon Ridge Park.

Owner: Baltimore County Parks and Recreation.

AQUIFER.--Cockeysville Marble of Cambrian age. Aquifer code: 370CCKV.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 300 ft; casing diameter 6 in., to 88 ft; open hole.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--15-minute recorder interval from Nov. 4, 1998 to current year.

DATUM.--Elevation of land surface is 390 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of shelter platform, 1.62 ft above land surface.

REMARKS.--Climatic Response Network (CRN) observation well (See Figure 3.).

Missing data due to recorder malfunction.

PERIOD OF RECORD.--September 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.46 ft below land surface, April 9, 1997;  
lowest measured, 45.59 ft below land surface, Sept. 24-26, 2002.

## WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	41.70	41.67	42.36	42.35	42.93	42.90	43.41	43.39	43.85	43.81	---	---
2	41.74	41.70	42.39	42.36	42.94	42.93	43.41	43.41	43.86	43.85	---	---
3	41.77	41.74	42.41	42.39	42.97	42.94	43.41	43.41	43.86	43.85	---	---
4	41.78	41.77	42.42	42.41	42.97	42.97	43.44	43.41	43.90	43.85	---	---
5	41.79	41.78	42.44	42.42	42.99	42.97	43.45	43.44	43.90	43.90	---	---
6	41.85	41.79	42.47	42.44	42.99	42.99	43.45	43.43	43.91	43.90	---	---
7	41.88	41.85	42.49	42.47	43.04	42.99	43.49	43.44	43.93	43.91	---	---
8	41.89	41.88	42.49	42.49	43.04	43.04	43.49	43.49	43.96	43.93	---	---
9	41.90	41.89	42.52	42.49	43.08	43.04	43.50	43.49	43.97	43.96	---	---
10	41.92	41.90	42.52	42.51	43.08	43.08	43.53	43.50	43.97	43.95	---	---
11	41.94	41.92	42.57	42.52	43.10	43.08	43.54	43.52	43.99	43.96	---	---
12	41.97	41.94	42.59	42.57	43.10	43.10	43.54	43.53	---	---	---	---
13	42.00	41.97	42.59	42.59	43.12	43.10	43.59	43.53	---	---	---	---
14	42.00	42.00	42.61	42.59	43.13	43.11	43.59	43.58	---	---	---	---
15	42.04	42.00	42.63	42.61	43.15	43.13	43.62	43.58	---	---	---	---
16	42.04	42.03	42.67	42.63	43.15	43.15	43.62	43.62	---	---	---	---
17	42.08	42.04	42.68	42.67	43.15	43.14	43.64	43.62	---	---	---	---
18	42.10	42.08	42.68	42.68	43.18	43.14	43.66	43.64	---	---	---	---
19	42.11	42.10	42.68	42.68	43.18	43.18	43.66	43.64	---	---	---	---
20	42.16	42.11	42.73	42.68	43.20	43.18	43.68	43.64	---	---	---	---
21	42.16	42.16	42.75	42.73	43.23	43.20	43.70	43.68	---	---	---	---
22	42.18	42.16	42.77	42.75	43.23	43.23	43.72	43.70	44.14	44.12	---	---
23	42.18	42.18	42.79	42.77	43.23	43.23	43.72	43.72	44.16	44.14	44.47	44.46
24	42.21	42.18	42.80	42.79	43.27	43.23	43.72	43.71	---	---	44.47	44.47
25	42.24	42.21	42.81	42.78	43.28	43.27	43.74	43.72	---	---	44.50	44.47
26	42.26	42.24	42.82	42.80	43.29	43.28	43.75	43.74	---	---	44.50	44.48
27	42.29	42.26	42.83	42.81	43.32	43.28	43.77	43.75	---	---	44.51	44.49
28	42.31	42.29	42.87	42.83	43.33	43.32	43.79	43.76	---	---	44.52	44.51
29	42.32	42.31	42.88	42.87	43.36	43.33	43.81	43.78	---	---	44.52	44.51
30	42.35	42.31	42.90	42.88	43.38	43.36	43.82	43.80	---	---	44.53	44.51
31	42.35	42.34	---	---	43.39	43.38	43.83	43.82	---	---	44.54	44.53
MONTH	42.35	41.67	42.90	42.35	43.39	42.90	43.83	43.39	---	---	---	---

GROUND-WATER LEVELS IN MARYLAND--Continued

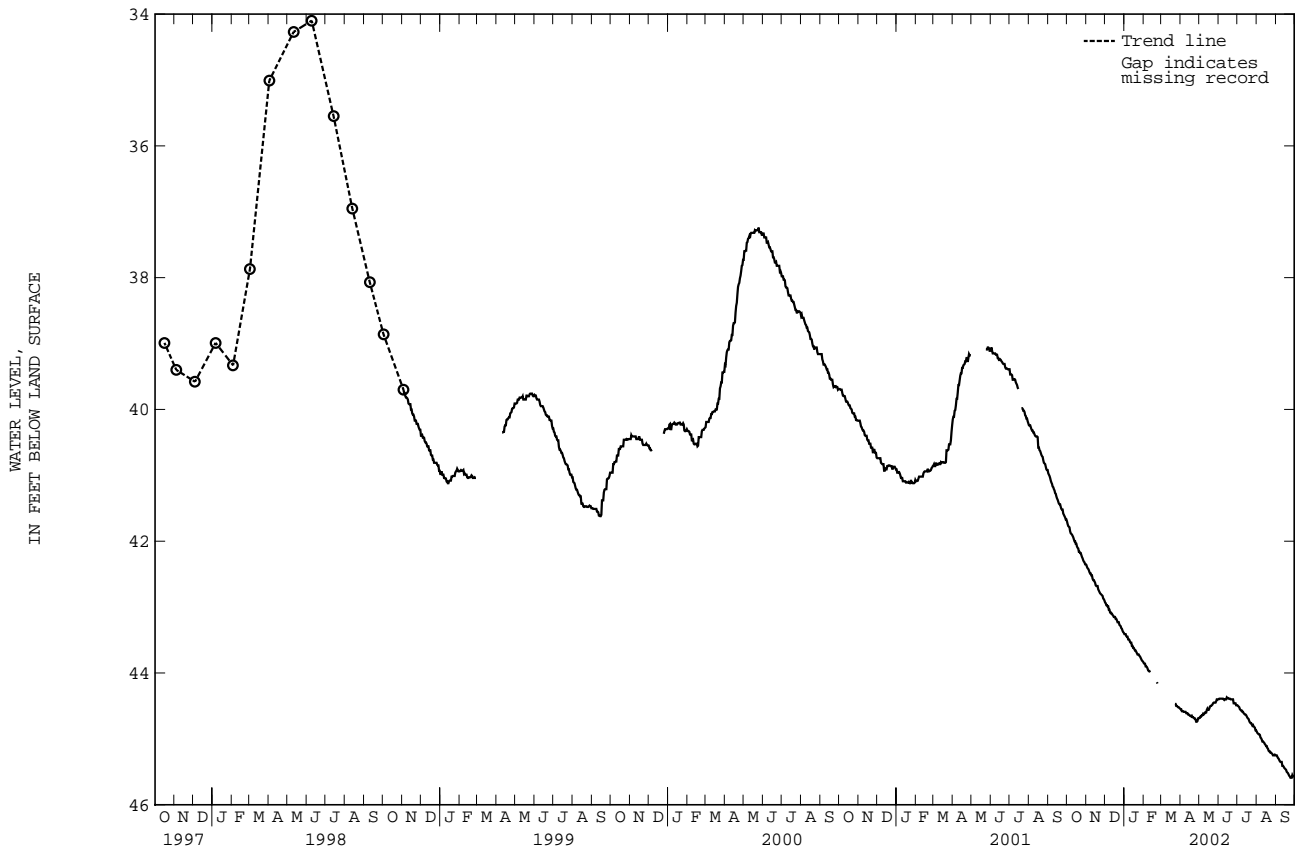
BALTIMORE COUNTY--Continued

BA Dc 444--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	44.55	44.53	44.68	44.68	44.40	44.39	44.49	44.48	44.89	44.87	45.25	45.25
2	44.55	44.55	44.68	44.61	44.39	44.39	44.50	44.49	44.91	44.89	45.25	45.25
3	44.58	44.55	44.66	44.65	44.39	44.39	44.51	44.49	44.92	44.91	45.27	45.25
4	44.58	44.58	44.66	44.64	44.39	44.39	44.52	44.51	44.93	44.92	45.29	45.27
5	44.58	44.58	44.64	44.64	44.39	44.39	44.55	44.52	44.93	44.93	45.30	45.29
6	44.59	44.58	44.64	44.62	44.39	44.38	44.56	44.54	44.94	44.93	45.32	45.30
7	44.59	44.59	44.62	44.61	44.39	44.39	44.57	44.56	44.98	44.94	45.34	45.32
8	44.59	44.58	44.63	44.61	44.39	44.39	44.57	44.57	44.99	44.97	45.35	45.34
9	44.59	44.59	44.62	44.60	44.40	44.39	44.59	44.57	45.01	44.99	45.35	45.35
10	44.61	44.59	44.60	44.60	44.41	44.39	44.59	44.57	45.04	45.01	45.35	45.35
11	44.61	44.61	44.60	44.60	44.40	44.39	44.61	44.59	45.04	45.04	45.41	45.35
12	44.61	44.61	44.60	44.56	44.40	44.39	44.62	44.60	45.05	45.04	45.41	45.41
13	44.63	44.61	44.56	44.54	44.40	44.37	44.63	44.61	45.06	45.05	45.42	45.41
14	44.63	44.62	44.54	44.54	44.37	44.37	44.63	44.63	45.08	45.06	45.44	45.42
15	44.64	44.63	44.56	44.54	44.38	44.37	44.64	44.63	45.09	45.08	45.45	45.44
16	44.65	44.64	44.56	44.54	44.38	44.38	44.66	44.64	45.11	45.09	45.46	45.45
17	44.65	44.65	44.54	44.51	44.39	44.38	44.68	44.66	45.11	45.11	45.47	45.46
18	44.66	44.64	44.51	44.47	44.39	44.38	44.69	44.68	45.14	45.11	45.50	45.47
19	44.65	44.65	44.50	44.50	44.39	44.38	44.70	44.69	45.15	45.14	45.51	45.50
20	44.67	44.65	44.50	44.49	44.40	44.39	44.73	44.70	45.18	45.15	45.52	45.51
21	44.67	44.67	44.49	44.48	44.40	44.38	44.75	44.73	45.19	45.18	45.54	45.52
22	44.68	44.66	44.48	44.46	44.40	44.38	44.76	44.74	45.19	45.19	45.56	45.54
23	44.69	44.68	44.46	44.45	44.40	44.39	44.76	44.75	45.21	45.19	45.57	45.56
24	44.69	44.69	44.45	44.45	44.40	44.39	44.78	44.76	45.21	45.17	45.59	45.57
25	44.71	44.68	44.45	44.45	44.46	44.39	44.80	44.78	45.22	45.21	45.59	45.59
26	44.74	44.71	44.45	44.45	44.46	44.46	44.79	44.78	45.23	45.22	45.59	45.55
27	44.74	44.73	44.45	44.43	44.46	44.46	44.81	44.79	45.25	45.23	45.55	45.55
28	44.73	44.68	44.43	44.40	44.46	44.46	44.82	44.81	45.25	45.25	45.57	45.55
29	44.69	44.68	44.40	44.40	44.49	44.46	44.83	44.82	45.25	45.24	45.57	45.56
30	44.69	44.68	44.40	44.40	44.49	44.48	44.87	44.83	45.24	45.24	45.57	45.57
31	---	---	44.40	44.40	---	---	44.87	44.87	45.25	45.24	---	---
MONTH	44.74	44.53	44.68	44.40	44.49	44.37	44.87	44.48	45.25	44.87	45.59	45.25

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Ea 18. SITE ID.--392045076512501. PERMIT NUMBER.--BA-01-8151.  
 LOCATION.--Lat 39°20'45", long 76°51'25", Hydrologic Unit 02060003, at Granite.  
 Owner: Maryland National Guard (U.S. Army).  
 AQUIFER.--Woodstock Granite of Silurian age. Aquifer code: 350WDCK.  
 WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 250 ft; casing diameter 10 in., to 50.7 ft;  
 casing diameter 6 in. with depth to 71.3 ft; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with  
 water-level digital recorder--60 minute recorder interval from Sept. 10, 1999 to current Year.  
 DATUM.--Elevation of land surface is 491 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of shelter platform, 1.6 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. U.S. Geological Survey water-level telemeter at  
 well (See MD-DE-DC District WEB page, Real-Time, Ground-Water, Maryland). Missing data due to recorder malfunction.  
 PERIOD OF RECORD.-- November 1956 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.94 ft below land surface, June 24, 1972;  
 lowest measured, 27.93 ft below land surface, Sept. 30, 2002 (recorder).

## WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	23.09	23.05	23.97	23.94	24.73	24.70	25.36	25.33	---	---	26.26	26.25
2	23.14	23.09	23.99	23.97	24.76	24.73	25.37	25.35	---	---	26.26	26.23
3	23.17	23.14	24.03	23.99	24.78	24.76	25.38	25.36	25.87	25.87	26.27	26.23
4	23.20	23.16	24.04	24.02	24.80	24.78	25.40	25.38	---	---	26.28	26.27
5	23.20	23.20	24.07	24.04	24.81	24.80	25.41	25.40	25.90	25.89	26.30	26.28
6	23.26	23.19	24.09	24.07	24.82	24.81	25.43	25.40	25.91	25.90	26.31	26.29
7	23.30	23.26	24.13	24.09	24.86	24.82	25.46	25.43	25.92	25.90	26.33	26.30
8	23.34	23.30	24.14	24.12	24.88	24.86	25.48	25.46	25.94	25.92	26.34	26.32
9	23.36	23.34	24.18	24.14	24.92	24.88	25.50	25.48	25.97	25.94	26.34	26.33
10	23.38	23.35	24.19	24.17	24.93	24.92	25.52	25.49	25.97	25.95	26.36	26.33
11	23.40	23.38	24.26	24.19	24.96	24.93	25.54	25.51	25.99	25.96	26.37	26.35
12	23.43	23.40	24.29	24.25	24.97	24.95	25.54	25.52	26.00	25.98	26.37	26.36
13	23.46	23.42	24.30	24.28	24.98	24.95	25.58	25.53	26.01	25.99	26.38	26.36
14	23.47	23.44	24.32	24.29	25.00	24.97	25.58	25.56	26.02	26.01	26.39	26.38
15	23.52	23.47	24.35	24.31	25.04	25.00	25.60	25.57	26.02	26.01	26.40	26.39
16	23.52	23.48	24.38	24.34	25.04	25.03	25.62	25.60	26.03	26.02	26.41	26.40
17	23.59	23.51	24.41	24.38	25.04	25.02	25.63	25.61	26.05	26.03	26.42	26.41
18	23.60	23.58	24.43	24.41	25.07	25.02	25.65	25.63	26.06	26.05	26.42	26.42
19	23.62	23.59	24.43	24.42	25.08	25.07	25.66	25.64	26.07	26.06	26.43	26.42
20	23.66	23.61	24.47	24.43	25.10	25.07	25.68	25.65	26.11	26.07	26.43	26.42
21	23.67	23.66	24.49	24.47	25.12	25.10	25.70	25.68	26.13	26.11	26.42	26.40
22	23.69	23.67	24.52	24.49	25.15	25.12	25.73	25.70	26.16	26.13	26.40	26.39
23	23.71	23.69	24.56	24.52	25.15	25.15	25.73	25.72	26.17	26.15	26.39	26.37
24	23.73	23.71	24.58	24.56	25.19	25.15	25.74	25.72	26.19	26.16	26.39	26.37
25	23.77	23.71	24.59	24.57	25.21	25.19	25.77	25.74	26.20	26.17	26.40	26.38
26	23.81	23.77	24.62	24.59	25.22	25.20	25.78	25.76	26.21	26.18	26.40	26.38
27	23.85	23.81	24.64	24.61	25.25	25.22	25.80	25.77	26.23	26.20	26.41	26.39
28	23.89	23.85	24.67	24.64	25.27	25.24	25.81	25.79	26.25	26.23	26.41	26.39
29	23.90	23.88	24.69	24.66	25.30	25.26	---	---	---	---	26.40	26.38
30	23.93	23.89	24.71	24.67	25.32	25.29	---	---	---	---	26.40	26.38
31	23.95	23.92	---	---	25.33	25.31	---	---	---	---	26.41	26.39
MONTH	23.95	23.05	24.71	23.94	25.33	24.70	---	---	---	---	26.43	26.23

GROUND-WATER LEVELS IN MARYLAND--Continued

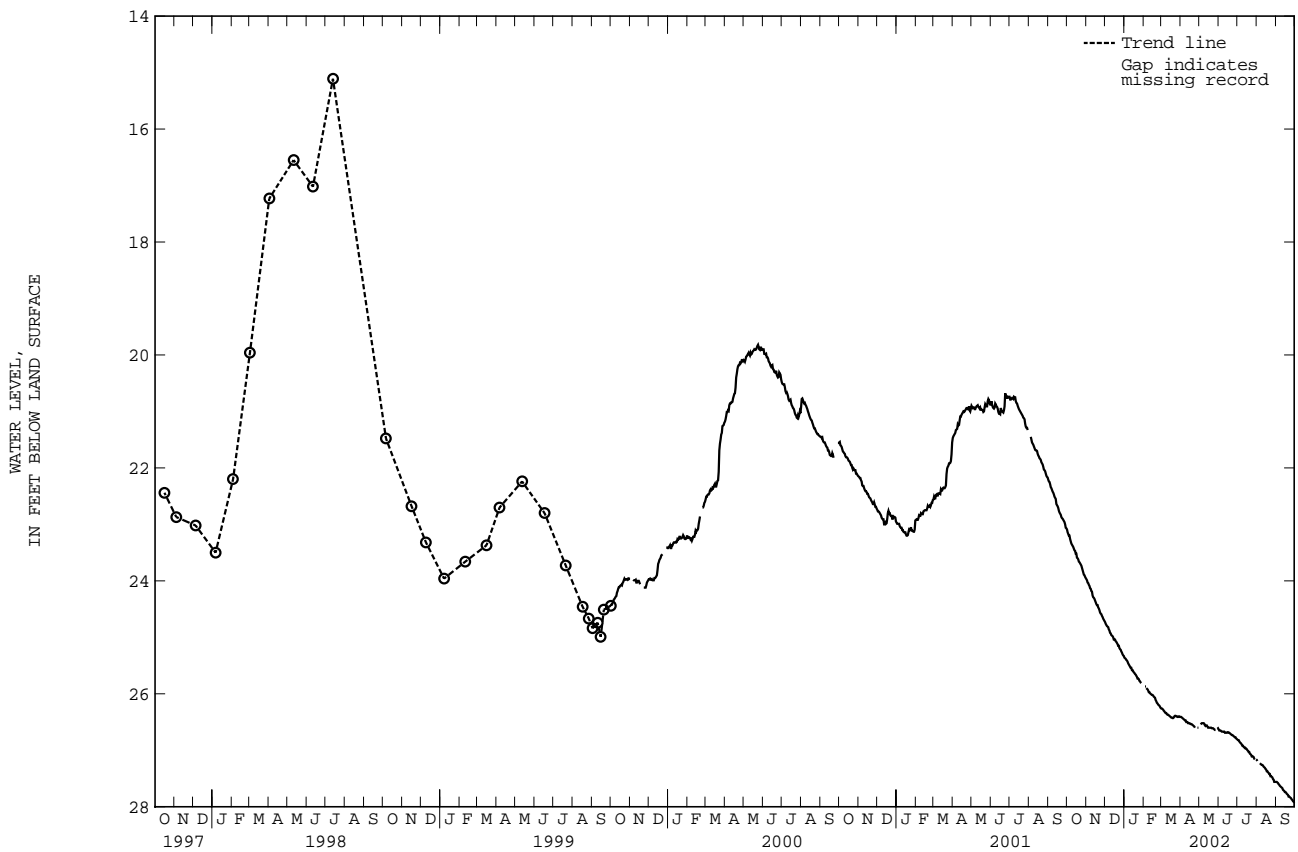
BALTIMORE COUNTY--Continued

BA Ea 18--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	26.41	26.39	---	---	26.63	26.61	26.81	26.79	27.17	27.16	27.56	27.56
2	26.41	26.40	---	---	26.65	26.63	26.82	26.81	27.19	27.16	27.56	27.56
3	26.42	26.40	26.54	26.53	26.65	26.65	26.82	26.82	---	---	27.57	27.56
4	26.43	26.42	26.53	26.52	26.65	26.65	26.84	26.82	---	---	27.58	27.57
5	26.44	26.43	26.52	26.51	26.66	26.65	26.86	26.84	---	---	27.60	27.58
6	26.45	26.44	26.52	26.51	26.67	26.66	26.87	26.86	27.23	27.22	27.61	27.60
7	26.46	26.45	26.52	26.50	26.67	26.67	26.88	26.87	27.24	27.23	27.63	27.61
8	26.47	26.46	26.52	26.51	26.67	26.67	26.90	26.87	27.25	27.24	27.64	27.63
9	26.47	26.47	26.53	26.52	26.67	26.67	26.92	26.88	27.26	27.25	27.65	27.64
10	26.50	26.47	26.56	26.53	26.67	26.67	26.92	26.90	27.26	27.25	27.66	27.65
11	26.50	26.49	26.57	26.56	26.69	26.66	26.94	26.92	27.27	27.26	27.67	27.66
12	26.50	26.50	26.56	26.55	26.69	26.66	26.95	26.92	27.29	27.27	27.70	27.67
13	26.52	26.50	26.56	26.54	26.69	26.68	26.95	26.93	27.30	27.29	27.71	27.70
14	26.52	26.51	26.58	26.56	26.69	26.67	26.97	26.95	27.31	27.30	27.72	27.71
15	26.52	26.51	26.60	26.57	26.68	26.67	26.97	26.97	27.33	27.31	27.74	27.72
16	26.53	26.52	26.60	26.59	26.68	26.67	26.98	26.97	27.34	27.33	27.74	27.73
17	26.53	26.53	26.60	26.58	26.69	26.67	27.00	26.98	27.37	27.34	27.75	27.74
18	26.54	26.53	26.60	26.57	26.69	26.68	27.01	26.99	27.37	27.36	27.77	27.75
19	26.54	26.53	26.60	26.59	26.70	26.69	27.03	27.01	27.39	27.37	27.78	27.77
20	26.55	26.54	26.60	26.59	26.71	26.70	27.03	27.03	27.40	27.39	27.79	27.78
21	26.56	26.55	26.61	26.59	26.72	26.70	27.06	27.03	27.42	27.40	27.82	27.79
22	26.57	26.56	26.61	26.60	26.73	26.70	27.07	27.06	27.42	27.42	27.82	27.82
23	26.58	26.57	26.61	26.60	26.73	26.71	27.08	27.07	27.46	27.42	27.83	27.82
24	26.60	26.58	26.62	26.60	26.74	26.72	27.11	27.08	27.46	27.45	27.84	27.83
25	---	---	26.63	26.61	26.75	26.73	27.11	27.10	27.47	27.46	27.85	27.84
26	---	---	26.64	26.61	26.76	26.73	27.11	27.11	27.48	27.47	27.87	27.85
27	---	---	26.64	26.61	26.77	26.74	27.12	27.11	27.51	27.48	27.88	27.87
28	26.60	26.58	---	---	26.77	26.75	27.15	27.12	27.52	27.51	27.90	27.88
29	---	---	---	---	26.79	26.77	27.16	27.15	27.56	27.52	27.91	27.90
30	---	---	26.62	26.61	26.80	26.79	---	---	27.56	27.56	27.93	27.91
31	---	---	26.61	26.61	---	---	27.16	27.16	27.56	27.56	---	---
MONTH	---	---	---	---	26.80	26.61	---	---	---	---	27.93	27.56

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Ec 43. SITE ID.--392305076432001.

LOCATION.--Lat 39°23'05", long 76°43'20", Hydrologic Unit 02060003, nr Pikesville, at Druid Ridge Cemetery.  
 Owner: Druid Ridge Cemetery.

AQUIFER.--Baltimore Gneiss of Precambrian age. Aquifer code: 400BLMR.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 111 ft; casing diameter 6 in., to 40 ft; open hole.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 500 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 1.00 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.

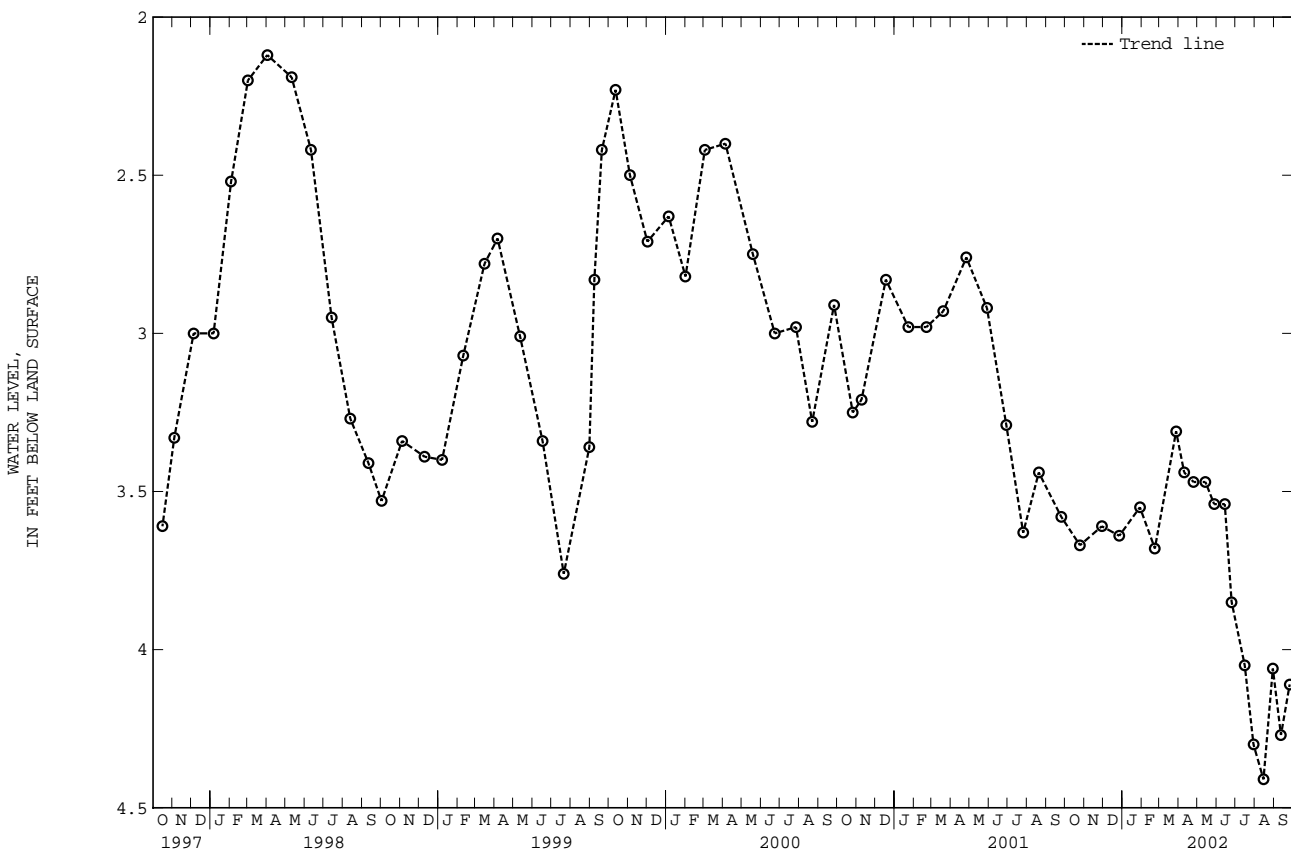
PERIOD OF RECORD.--March 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.27 ft below land surface, June 24, 1972;  
 lowest measured, 4.69 ft below land surface, Nov. 11, 1964.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	3.67	MAR 28, 2002	3.31	JUN 14, 2002	3.54	AUG 30, 2002	4.06
NOV 29	3.61	APR 10	3.44	25	3.85	SEP 12	4.27
DEC 27	3.64	25	3.47	JUL 16	4.05	26	4.11
JAN 29, 2002	3.55	MAY 14	3.47	30	4.30		
FEB 22	3.68	28	3.54	AUG 15	4.41		

WATER YEAR 2002      HIGHEST    3.31    MAR 28, 2002      LOWEST    4.41    AUG 15, 2002

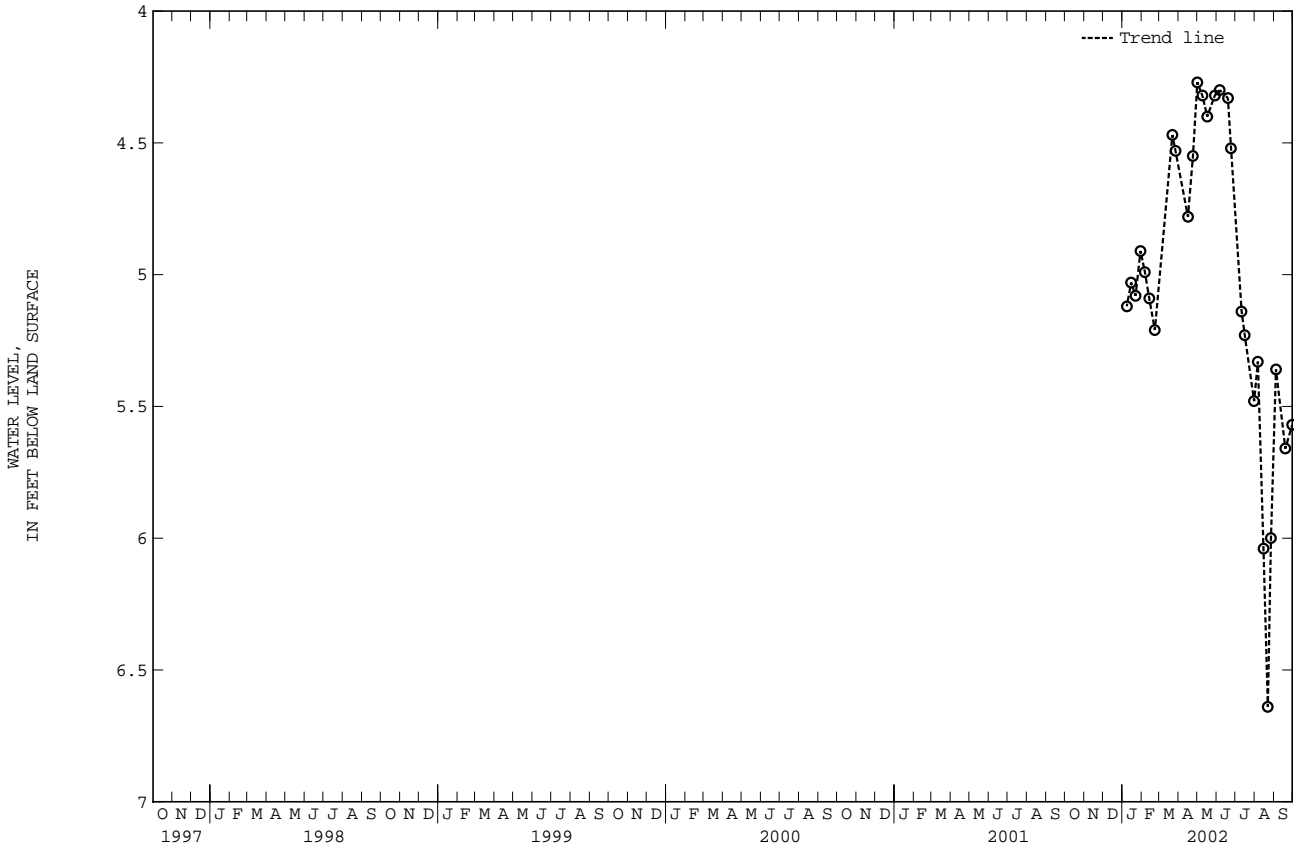


BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Ee 145. SITE ID.--392436076332201.  
 LOCATION.--Lat 39°24'36", long 76°33'22", Hydrologic Unit 02060003, at Cromwell Valley Park.  
 Owner: U.S. Environmental Protection Agency.  
 AQUIFER.--Colluvium of Quaternary age. Aquifer code: 110CLVM.  
 WELL CHARACTERISTICS.--Cored, observation, water table well, depth 14.15 ft; casing diameter 2 in., to 8.65 ft., and 13.65 to 14.15 ft; screen diameter 2 in. from 8.65 to 13.65 ft.  
 INSTRUMENTATION.--Weekly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 223.72 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.85 ft above land surface.  
 REMARKS.--Minebank Run Project observation well.  
 PERIOD OF RECORD.--January 2002 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.27 ft below land surface, May 1, 2002; lowest measured, 6.64 ft below land surface, August 22, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08, 2002	5.12	MAR 22, 2002	4.47	MAY 29, 2002	4.32	AUG 06, 2002	5.33
15	5.03	27	4.53	JUN 06	4.30	15	6.04
22	5.08	APR 16	4.78	19	4.33	22	6.64
30	4.91	24	4.55	24	4.52	27	6.00
FEB 06	4.99	MAY 01	4.27	JUL 11	5.14	SEP 04	5.36
13	5.09	09	4.32	16	5.23	19	5.66
22	5.21	17	4.40	31	5.48	30	5.57
WATER YEAR 2002		HIGHEST	4.27	MAY 01, 2002	LOWEST	6.64	AUG 22, 2002



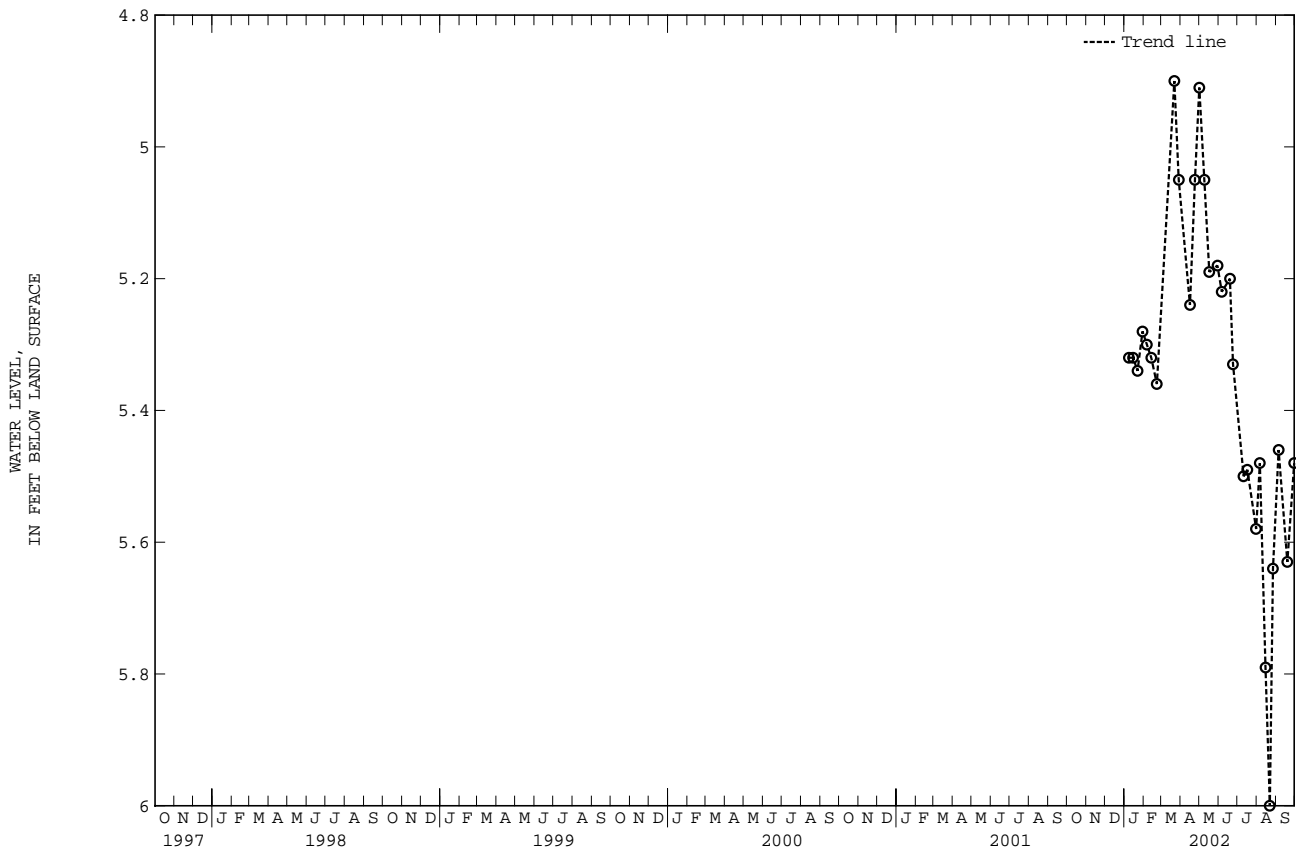
5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Ee 161. SITE ID.--392437076332301.  
 LOCATION.--Lat 39°24'37", long 76°33'23", Hydrologic Unit 02060003, at Cromwell Valley Park.  
 Owner: U.S. Environmental Protection Agency.  
 AQUIFER.--Alluvium of Quaternary age. Aquifer code: 110ALVM.  
 WELL CHARACTERISTICS.--Cored, observation, water table well, depth 10.80 ft; casing diameter 2 in, to 5.30 ft and 10.30 to 10.80 ft; screen diameter 2 in., from 5.30 to 10.30 ft.  
 INSTRUMENTATION.--Weekly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 224.72 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.90 ft above land surface.  
 REMARKS.--Minebank Run Project observation well.  
 PERIOD OF RECORD.--January 2002 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.90 ft below land surface, March 22, 2002; lowest measured, 6.00 ft below land surface, August 22, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08, 2002	5.32	MAR 22, 2002	4.90	MAY 30, 2002	5.18	AUG 06, 2002	5.48
15	5.32	29	5.05	JUN 06	5.22	15	5.79
22	5.34	APR 16	5.24	19	5.20	22	6.00
30	5.28	24	5.05	24	5.33	27	5.64
FEB 06	5.30	MAY 01	4.91	JUL 11	5.50	SEP 05	5.46
13	5.32	09	5.05	17	5.49	19	5.63
22	5.36	17	5.19	31	5.58	30	5.48
WATER YEAR 2002		HIGHEST	4.90 MAR 22, 2002	LOWEST	6.00 AUG 22, 2002		



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

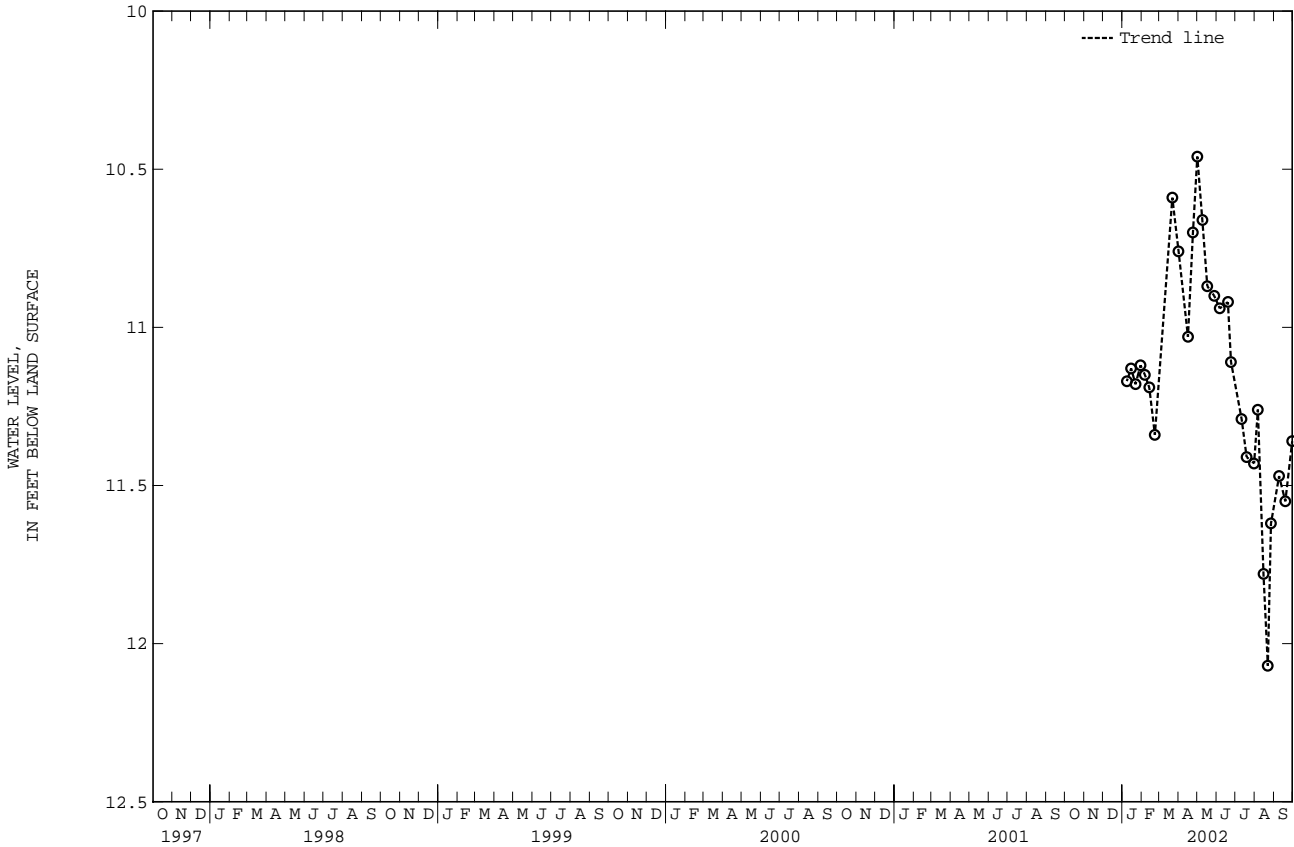
BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Ee 170. SITE ID.--392438076332201.  
 LOCATION.--Lat 39°24'38", long 76°33'22", Hydrologic Unit 02060003, at Cromwell Valley Park.  
 Owner: U.S. Environmental Protection Agency  
 AQUIFER.--Alluvium of Quaternary age. Aquifer code: 110ALVM.  
 WELL CHARACTERISTICS.--Cored, observation, water table well, depth 15.00 ft; casing diameter 2 in., to 9.50 ft. and 14.50 to 15.00 ft; screen diameter 2 in., from 9.50 to 14.50 ft.  
 INSTRUMENTATION.--Weekly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 228.37 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 3.22 ft above land surface.  
 REMARKS.-- Minebank Run Project observation well.  
 PERIOD OF RECORD.--January 2002 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.46 ft below land surface, May 1, 2002;  
 lowest measured, 12.07 ft below land surface, August 22, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08, 2002	11.17	MAR 22, 2002	10.59	MAY 28, 2002	10.90	AUG 06, 2002	11.26
15	11.13	APR 01	10.76	JUN 06	10.94	15	11.78
22	11.18	16	11.03	19	10.92	22	12.07
30	11.12	24	10.70	24	11.11	27	11.62
FEB 06	11.15	MAY 01	10.46	JUL 11	11.29	SEP 09	11.47
13	11.19	09	10.66	19	11.41	19	11.55
22	11.34	17	10.87	31	11.43	30	11.36

WATER YEAR 2002      HIGHEST    10.46    MAY 01, 2002      LOWEST    12.07    AUG 22, 2002



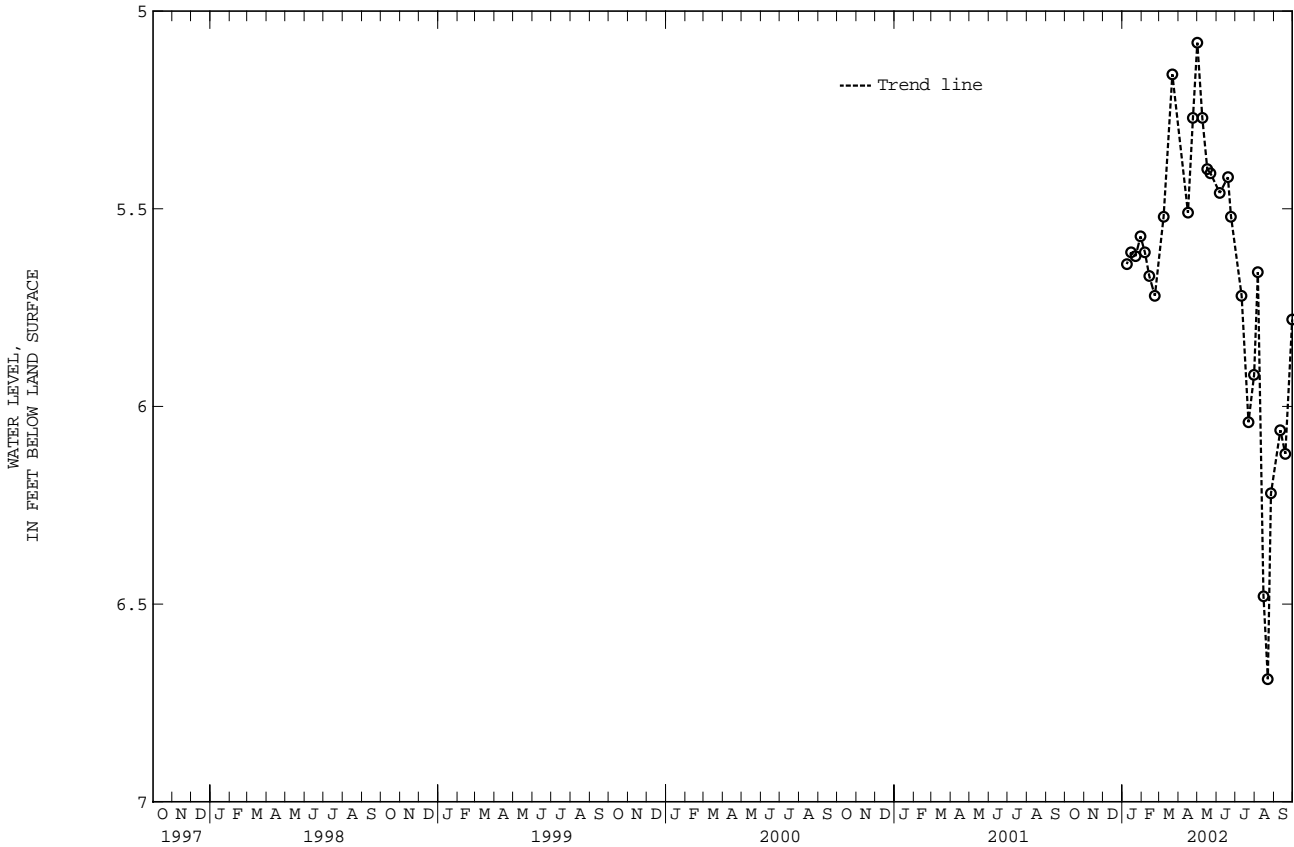
5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Ee 183. SITE ID.--392440076332002.  
 LOCATION.--Lat 39°24'40", long 76°33'20", Hydrologic Unit 02060003, at Cromwell Valley Park.  
 Owner: U.S. Environmental Protection Agency.  
 AQUIFER.--Alluvium of Quaternary age. Aquifer code: 110ALVM.  
 WELL CHARACTERISTICS.--Cored, observation, water table well, depth 7.50 ft; casing diameter 2 in.,  
 to 2.00 ft. and 7.00 to 7.50 ft.; screen diameter 2 in., from 2.00 to 7.00 ft.  
 INSTRUMENTATION.--Weekly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 221.99 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.80 ft above land surface.  
 REMARKS.--Minebank Run Project observation well.  
 PERIOD OF RECORD.--January 2002 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.08 ft below land surface, May 1, 2002;  
 lowest measured, 6.69 ft below land surface, August 22, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08, 2002	5.64	MAR 08, 2002	5.52	MAY 22, 2002	5.41	AUG 06, 2002	5.66
15	5.61	22	5.16	JUN 06	5.46	15	6.48
22	5.62	APR 16	5.51	19	5.42	22	6.69
30	5.57	24	5.27	24	5.52	27	6.22
FEB 06	5.61	MAY 01	5.08	JUL 11	5.72	SEP 11	6.06
13	5.67	09	5.27	22	6.04	19	6.12
22	5.72	17	5.40	31	5.92	30	5.78
WATER YEAR 2002		HIGHEST	5.08	MAY 01, 2002	LOWEST	6.69	AUG 22, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Ee 189. SITE ID.--392436076331901.

LOCATION.--Lat 39°24'36, long 76°33'19", Hydrologic Unit 0206000, at Cromwell Valley Park.

Owner: U.S. Environmental Protection Agency.

AQUIFER.--Colluvium of Quaternary Age. Aquifer code: 110CLVM.

WELL CHARACTERISTICS.--Cored, observation, water table well, depth 24.50 ft; casing diameter 2 in., to 19.00 ft, and 24.00 to 24.50 ft; screen diameter 2 in., from 19.00 to 24.00 ft.

INSTRUMENTATION.--Weekly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 223.98 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.99 ft above land surface.

REMARKS.--Minebank Run Project observation well.

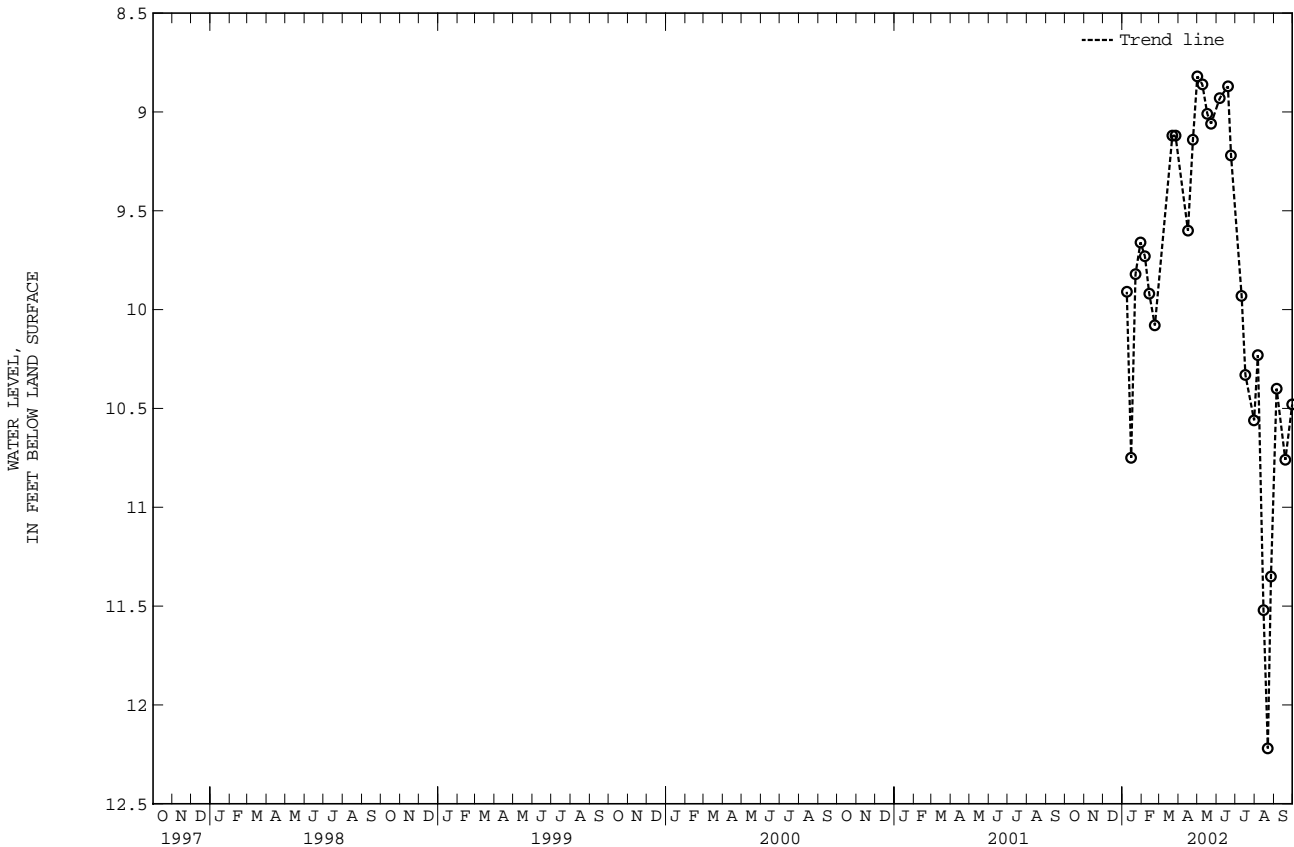
PERIOD OF RECORD.--January 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.82 ft below land surface, May 1, 2002; lowest measured, 12.22 ft below land surface, August 22, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08, 2002	9.91	MAR 22, 2002	9.12	MAY 23, 2002	9.06	AUG 06, 2002	10.23
15	10.75	27	9.12	JUN 06	8.93	15	11.52
22	9.82	APR 16	9.60	19	8.87	22	12.22
30	9.66	24	9.14	24	9.22	27	11.35
FEB 06	9.73	MAY 01	8.82	JUL 11	9.93	SEP 05	10.40
13	9.92	09	8.86	17	10.33	19	10.76
22	10.08	17	9.01	31	10.56	30	10.48

WATER YEAR 2002      HIGHEST      8.82      MAY 01, 2002      LOWEST      12.22      AUG 22, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

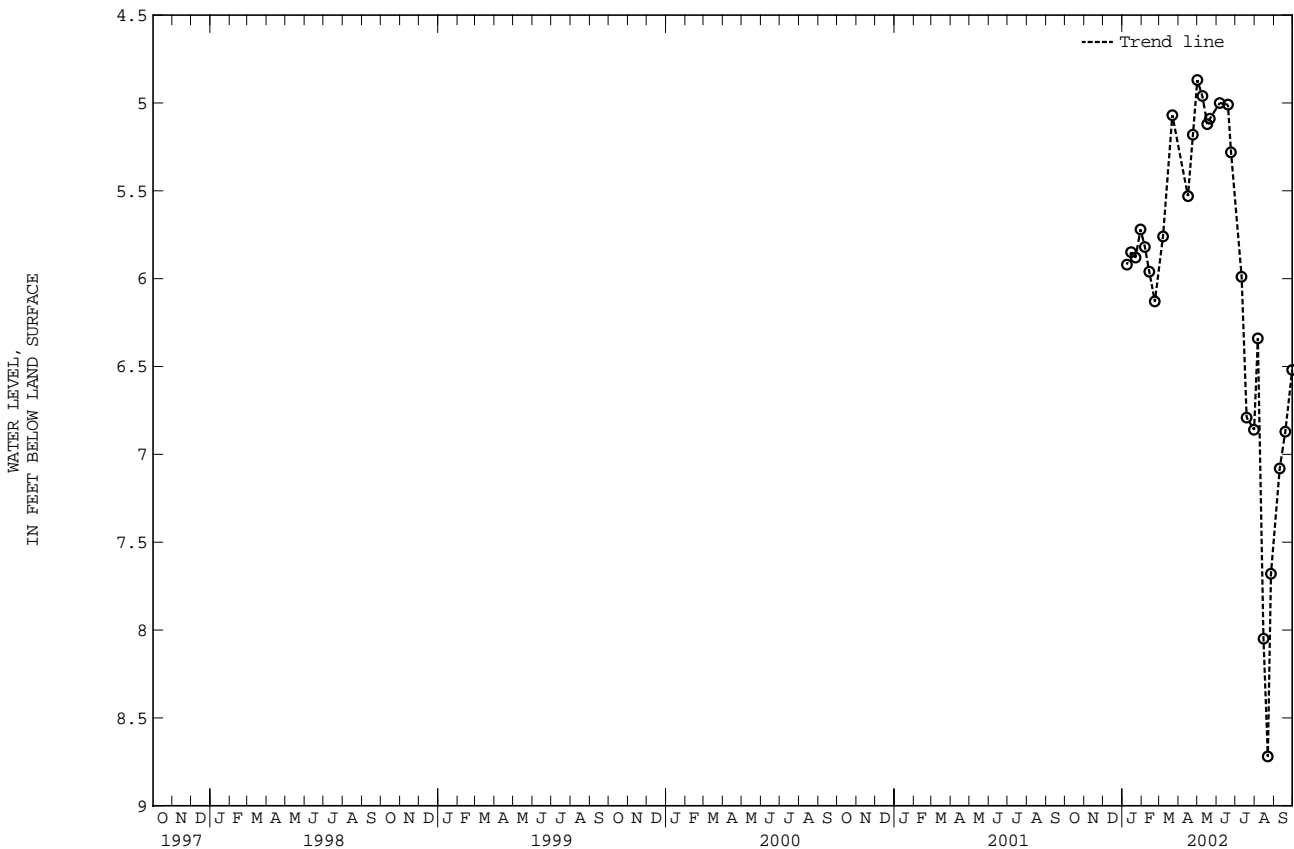
BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Ee 192. SITE ID.--392438076331803.  
 LOCATION.--Lat 39°24'38", long 76°33'18", Hydrologic Unit 02060003, at Cromwell Valley Park.  
 Owner: U.S. Environmental Protection Agency.  
 AQUIFER.--Colluvium of Quaternary age. Aquifer code: 110CLVM.  
 WELL CHARACTERISTICS.--Drilled, observation, water table well, depth 24.70 ft; casing diameter 2 in.,  
 to 19.20 ft. and 24.20 to 24.70 ft; screen diameter 2 in., from 19.20 to 24.20 ft.  
 INSTRUMENTATION.--Weekly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 219.43 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.85 ft above land surface.  
 REMARKS.--Minebank Run Project observation well.  
 PERIOD OF RECORD.--January 2002 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.87 ft below land surface, May 1, 2002;  
 lowest measured, 8.72 ft below land surface, August 22, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08, 2002	5.92	MAR 07, 2002	5.76	MAY 21, 2002	5.09	AUG 06, 2002	6.34
15	5.85	22	5.07	JUN 06	5.00	15	8.05
22	5.88	APR 16	5.53	19	5.01	22	8.72
30	5.72	24	5.18	24	5.28	27	7.68
FEB 06	5.82	MAY 01	4.87	JUL 11	5.99	SEP 10	7.08
13	5.96	09	4.96	19	6.79	19	6.87
22	6.13	17	5.12	31	6.86	30	6.52

WATER YEAR 2002      HIGHEST      4.87      MAY 01, 2002      LOWEST      8.72      AUG 22, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Fe 19. SITE ID.--391607076312901.

LOCATION.--Lat 39°16'07", long 76°31'29", Hydrologic Unit 02060003, 0.2 mi east of Willow Spring Road, at Seagrams warehouse facility, Dundalk.

Owner: Montebello Brands.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 402 ft; casing diameter 8 in., to unknown depth; screen length 35 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 30 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.5 ft above land surface.

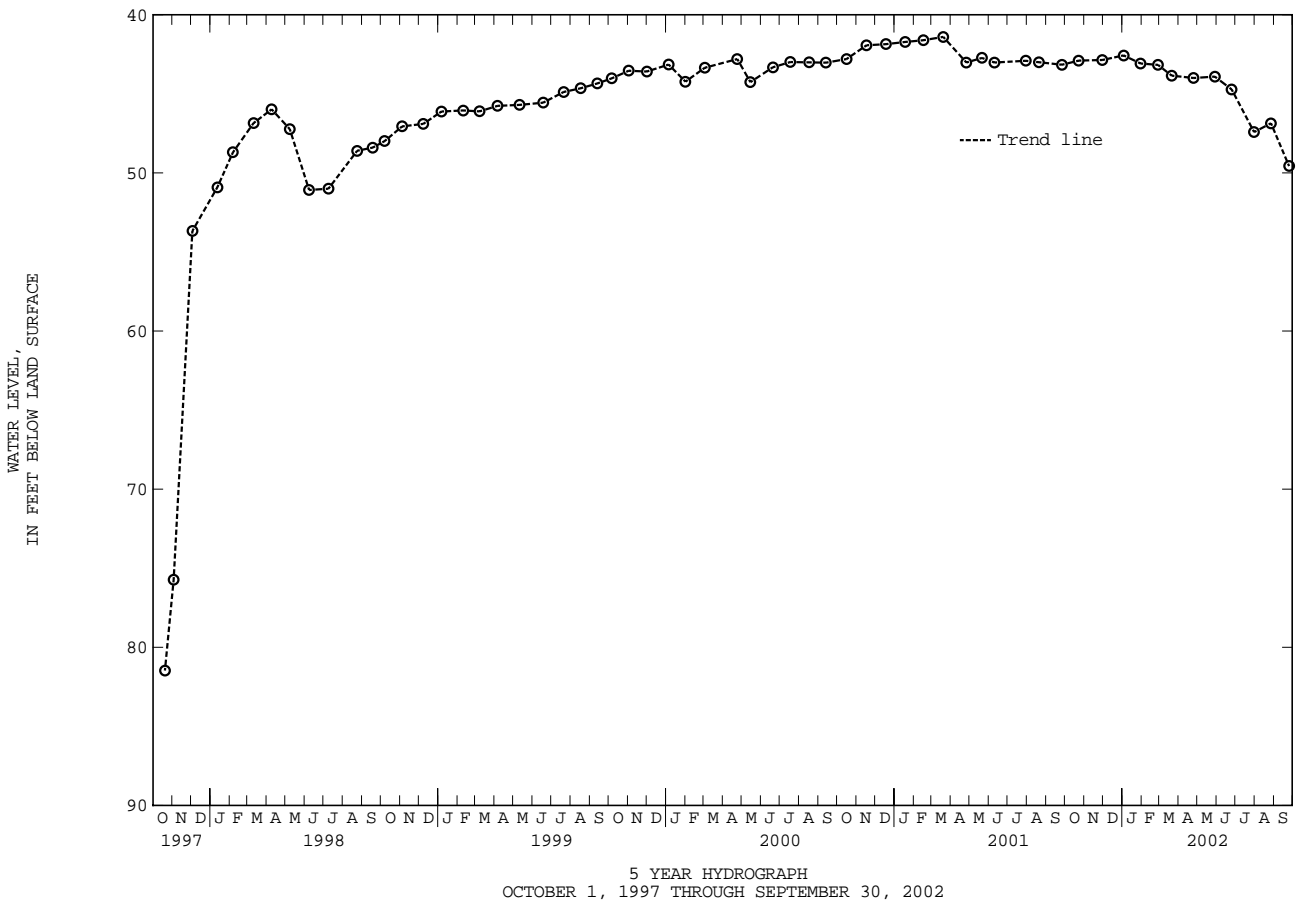
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are recovering due to a decrease in ground-water withdrawal, since October 1997.

PERIOD OF RECORD.--January 1952 to March 1954, January 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.40 ft below land surface, March 20, 2001; lowest measured, 95.88 ft below land surface, Oct. 6, 1952.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	42.90	JAN 30, 2002	43.08	APR 25, 2002	44.00	JUL 31, 2002	47.42
NOV 30	42.86	FEB 27	43.17	MAY 29	43.91	AUG 27	46.86
JAN 03, 2002	42.57	MAR 21	43.85	JUN 25	44.72	SEP 25	49.57
WATER YEAR 2002 HIGHEST 42.57 JAN 03, 2002		LOWEST 49.57		SEP 25, 2002			





BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Gf 11. SITE ID.--391356076293501.

LOCATION.--Lat 39°13'56", long 76°29'35", Hydrologic Unit 02060003, near Tin Mill Rd., Sparrows Point.

Owner: Bethlehem Steel Co.

AQUIFER.-- Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 645 ft; casing diameter 14 in., to 422.7 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 13.57 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing 2.58 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are recovering due to a decrease in ground-water withdrawal, since October 1997.

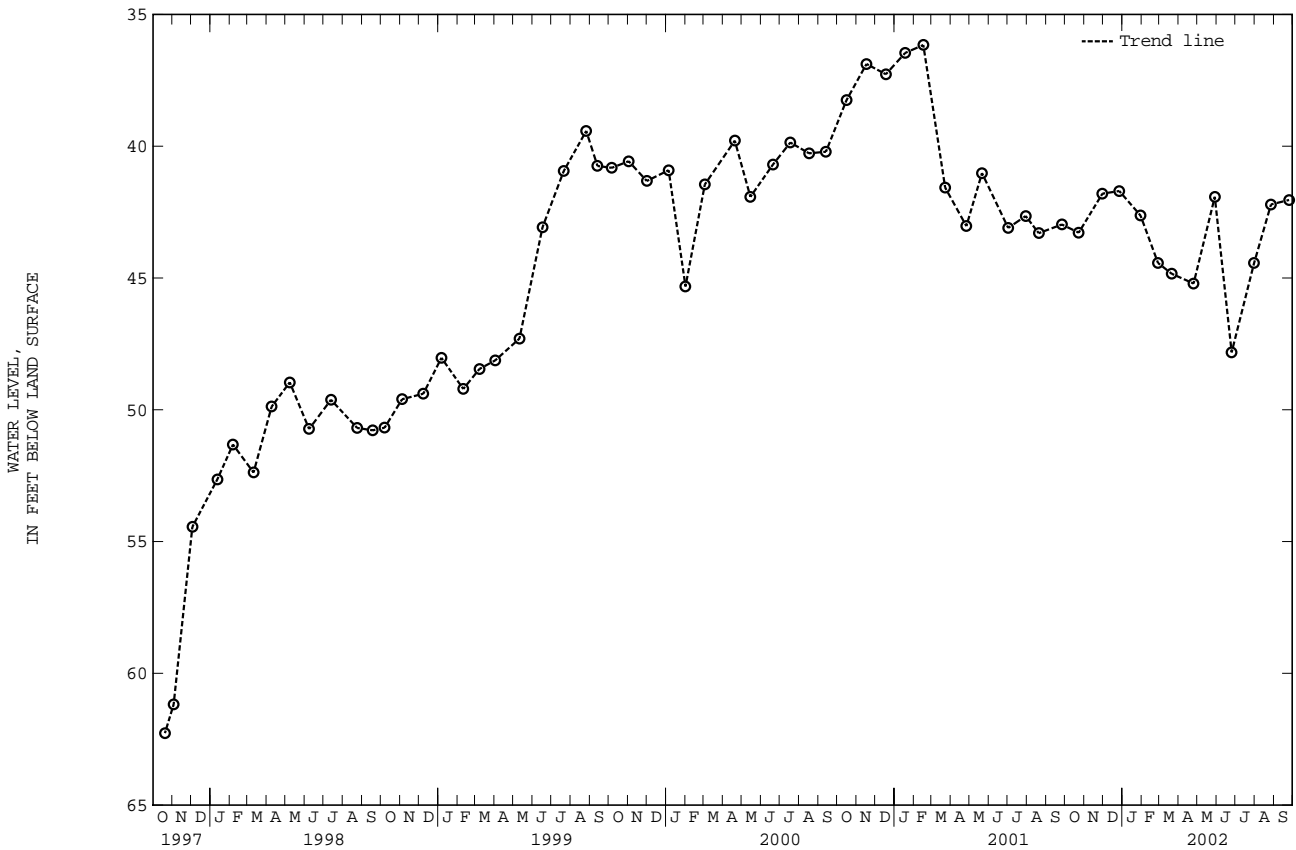
PERIOD OF RECORD.--September 1981, March 1982, September 1982, January 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.25 ft below land surface, June 3, 1983; lowest measured, 62.27 ft below land surface, October 20, 1997.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	43.28	JAN 30, 2002	42.63	APR 25, 2002	45.21	JUL 31, 2002	44.43
NOV 30	41.80	FEB 27	44.43	MAY 29	41.92	AUG 27	42.21
DEC 27	41.70	MAR 21	44.84	JUN 25	47.82	SEP 25	42.04

WATER YEAR 2002      HIGHEST    41.70    DEC 27, 2001      LOWEST    47.82    JUN 25, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

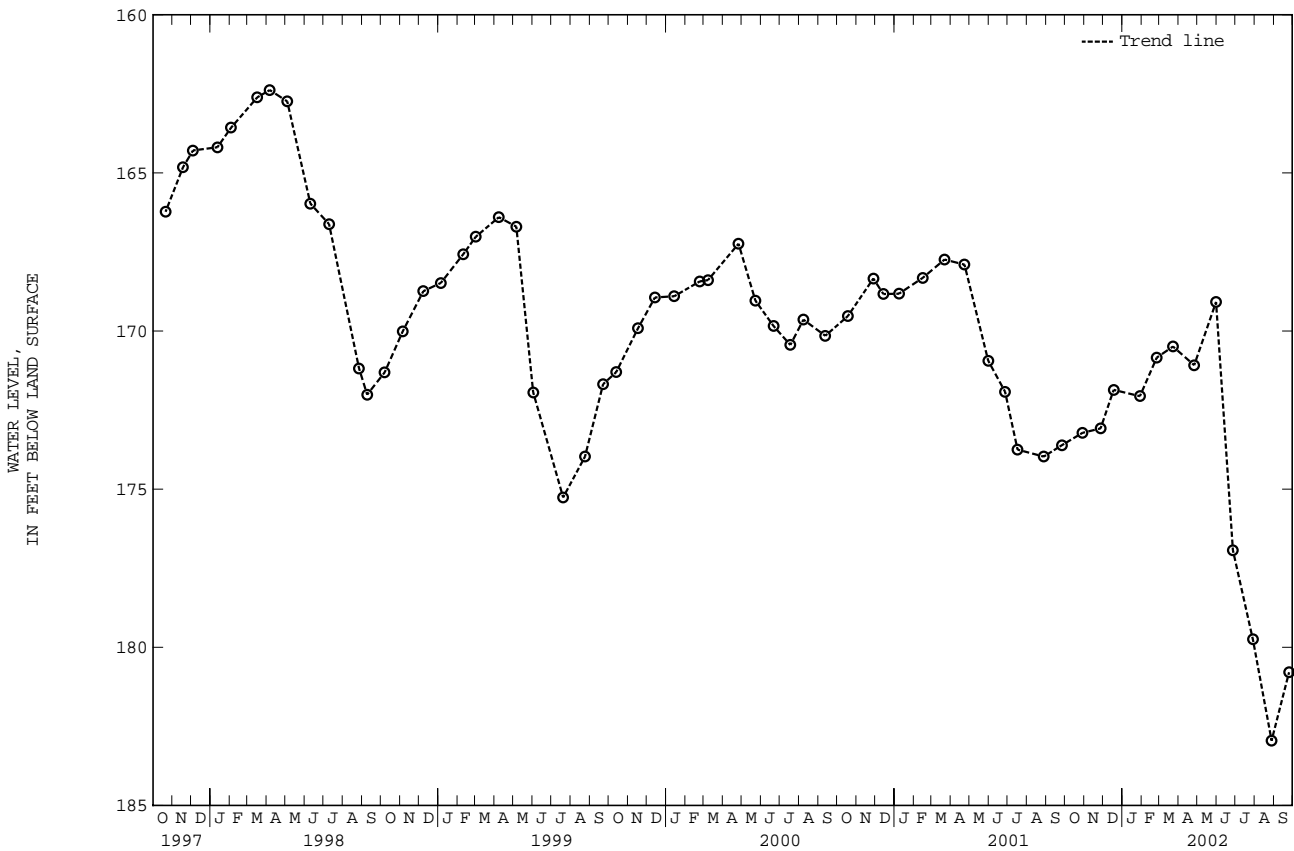
CALVERT COUNTY

WELL NUMBER.--CA Bb 27. SITE ID.--3843330766394701. PERMIT NUMBER.--CA-73-3303.  
 LOCATION.--Lat 38°43'33", long 76°39'47", Hydrologic Unit 02060006, at Dunkirk Regional Park, Dunkirk.  
 Owner: U.S. Geological Survey  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 320 ft; casing diameter 4 in., to 250 ft; casing diameter 2 in. from 250 to 310 ft; screen diameter 2 in. from 310 to 320 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 137.87 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 1.80 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal.  
 PERIOD OF RECORD.--August 1979 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 133.82 ft below land surface, May 6, 1980;  
 lowest measured, 182.95 ft below land surface, Aug. 28, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 2001	173.22	JAN 29, 2002	172.06	APR 26, 2002	171.08	JUL 29, 2002	179.75
NOV 27	173.08	FEB 25	170.84	MAY 31	169.08	AUG 28	182.95
DEC 18	171.86	MAR 23	170.49	JUN 27	176.93	SEP 25	180.79

WATER YEAR 2002 HIGHEST 169.08 MAY 31, 2002 LOWEST 182.95 AUG 28, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CALVERT COUNTY--Continued

WELL NUMBER.--CA Bb 28. SITE ID.--384333076394702. PERMIT NUMBER.--CA-73-3721.

LOCATION.--Lat 38°43'33", long 76°39'47", Hydrologic Unit 02060006, at Dunkirk Regional Park, Dunkirk.

Owner: U.S. Geological Survey

AQUIFER.--Nanjemoy Formation of Lower Eocene age.. Aquifer code: 124NNJM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 170 ft; casing diameter 4 in., to 147 ft; casing diameter 2 in. from 147 to 160 ft; screen diameter 2 in. from 160 to 170 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 138.67 ft above National Geodetic Vertical Datum of 1929.

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

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.

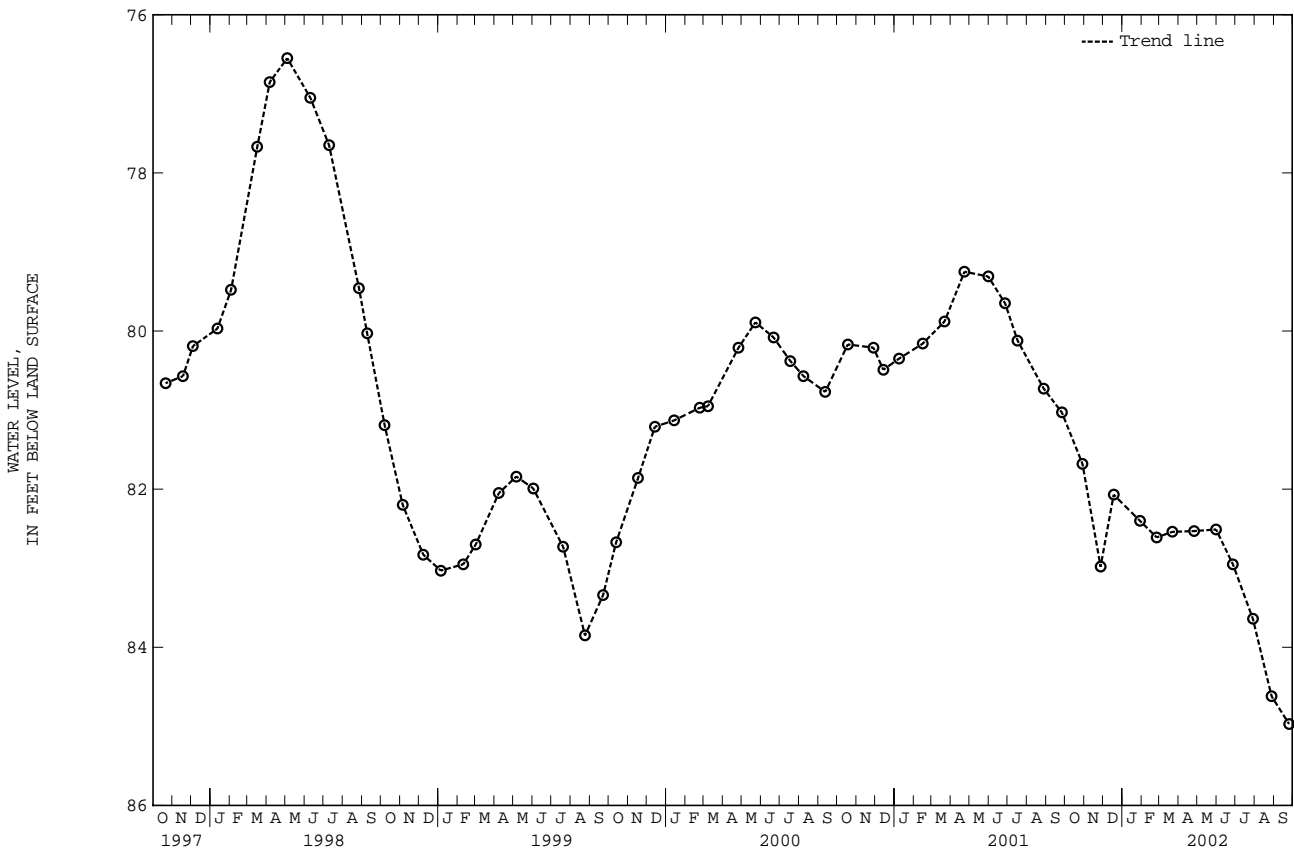
PERIOD OF RECORD.--July 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 76.55 ft below land surface, May 4, 1998;  
lowest measured, 84.97 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 2001	81.68	JAN 29, 2002	82.40	APR 26, 2002	82.53	JUL 29, 2002	83.64
NOV 27	82.98	FEB 25	82.61	MAY 31	82.51	AUG 28	84.62
DEC 18	82.07	MAR 22	82.54	JUN 27	82.95	SEP 25	84.97

WATER YEAR 2002 HIGHEST 81.68 OCT 29, 2001 LOWEST 84.97 SEP 25, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

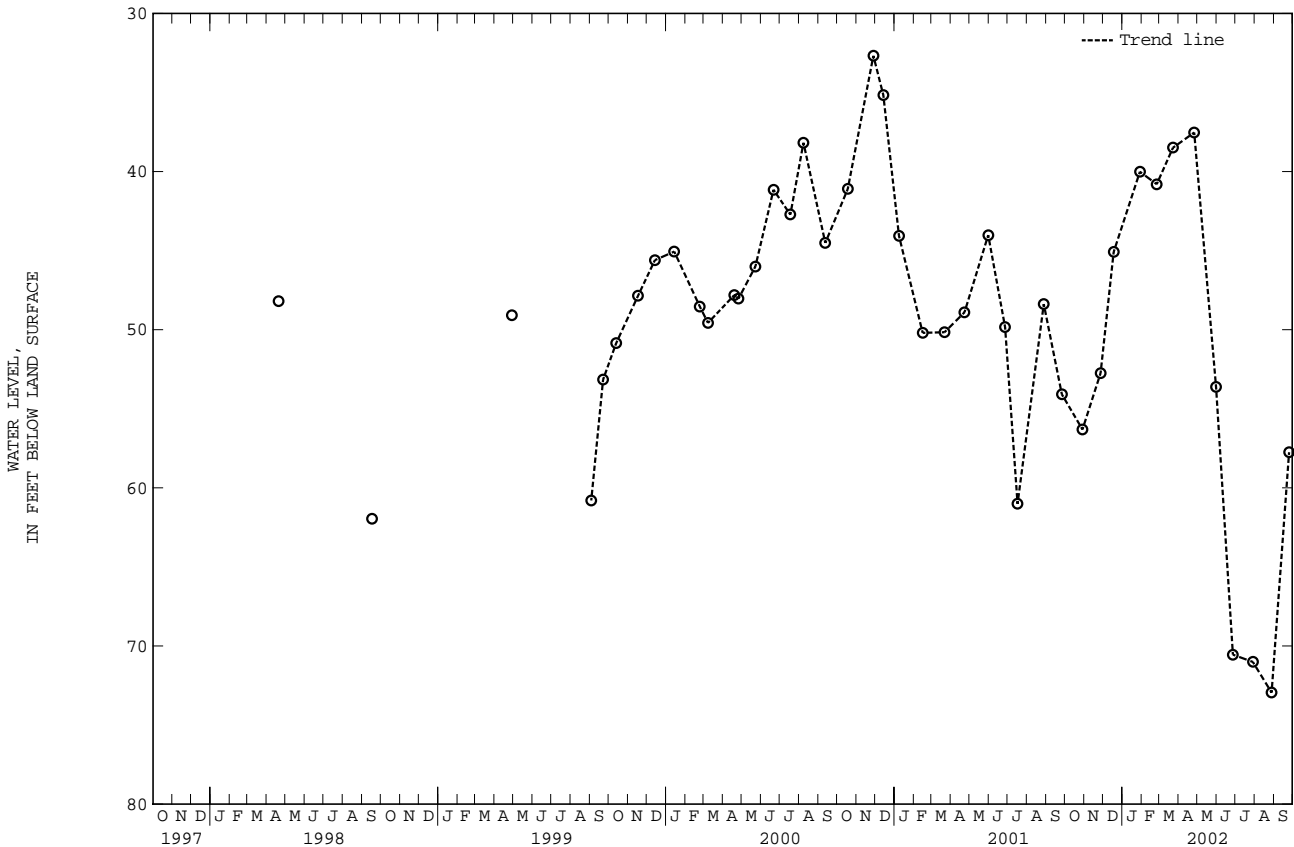
CALVERT COUNTY--Continued

WELL NUMBER.--CA Bc 25. SITE ID.--384114076320301. PERMIT NUMBER.--CA-67-0011.  
 LOCATION.--Lat 38°41'14", long 76°32'03", Hydrologic Unit 02060004, at Chesapeake Beach Park, Chesapeake Beach.  
 Owner: Chesapeake Beach Park, Inc..  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 365 ft; casing diameter 8 in., to 333.4 ft; screen diameter 8 in. from 333.4 to 365 ft.  
 INSTRUMENTATION.--Monthly water level measurements from September 1999 to current year. Twice yearly water level measurements from June 1993 to September 1999 with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 17.77 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 3.50 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.  
 PERIOD OF RECORD.--June 1993 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.00 ft below land surface, July 23, 1966; lowest measured, 72.95 ft below land surface, Aug. 28, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 2001	56.31	JAN 29, 2002	40.01	APR 26, 2002	37.53	JUL 29, 2002	71.01
NOV 27	52.75	FEB 25	40.80	MAY 31	53.62	AUG 28	72.95
DEC 18	45.08	MAR 23	38.49	JUN 27	70.55	SEP 25	57.75

WATER YEAR 2002      HIGHEST    37.53    APR 26, 2002      LOWEST    72.95    AUG 28, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CALVERT COUNTY--Continued

WELL NUMBER.--CA Cc 18. SITE ID.--383940076314801.

LOCATION.--Lat 38°39'40", long 76°31'48", Hydrologic Unit 02060004, at Naval Research Laboratory, Randle Cliff.

Owner: U.S.Navy.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 476 ft; casing diameter 6 in., to 462 ft; screened from 462 to 476 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with water-level recorder Sept. 15, 1958 to Dec. 7, 1962.

DATUM.--Elevation of land surface is 111.31 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 0.30 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. A water level measurement of 76.68 ft below land surface, was made on Sept. 10, 1952. Water levels are affected by local and regional ground-water withdrawal.

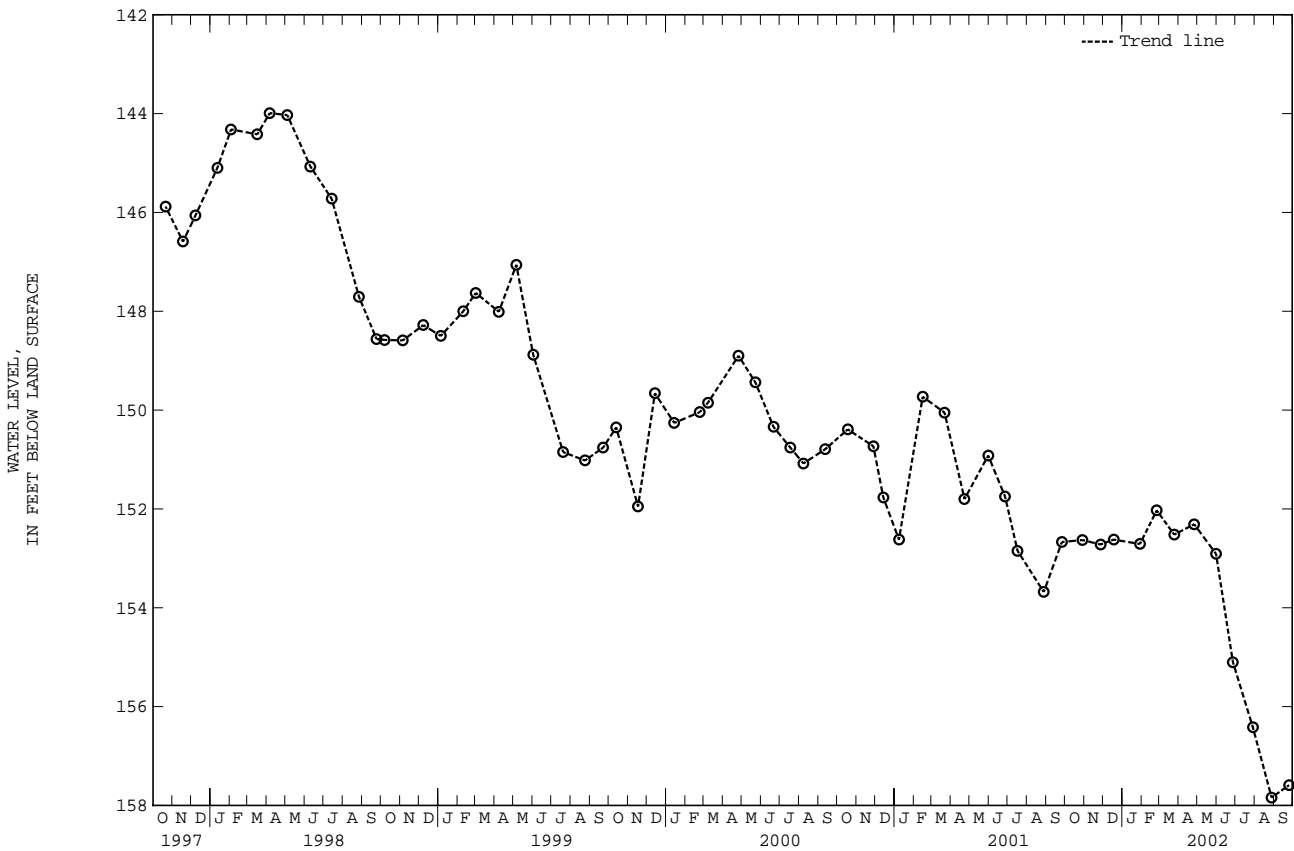
PERIOD OF RECORD.--September 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 103.63 ft below land surface, May 14, 1961; lowest measured, 157.84 ft below land surface, Aug. 28, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 2001	152.63	JAN 29, 2002	152.71	APR 26, 2002	152.31	JUL 29, 2002	156.42
NOV 27	152.72	FEB 25	152.03	MAY 31	152.91	AUG 28	157.84
DEC 18	152.62	MAR 25	152.52	JUN 27	155.10	SEP 25	157.59

WATER YEAR 2002 HIGHEST 152.03 FEB 25, 2002 LOWEST 157.84 AUG 28, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CALVERT COUNTY--Continued

WELL NUMBER.--CA Cc 57. SITE ID.--383605076344601. PERMIT NUMBER.--CA-73-2893.

LOCATION.--Lat 38°36'05", long 76°34'46", Hydrologic Unit 02060006, Cox Rd. near MD Rt. 263, Huntingtown.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 579 ft; casing diameter 4 in., to 211 ft; casing diameter 2 in. from 211 to 511 ft, and 521 to 579 ft; screen diameter 3 in. from 511 to 521 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 138.60 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.66 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

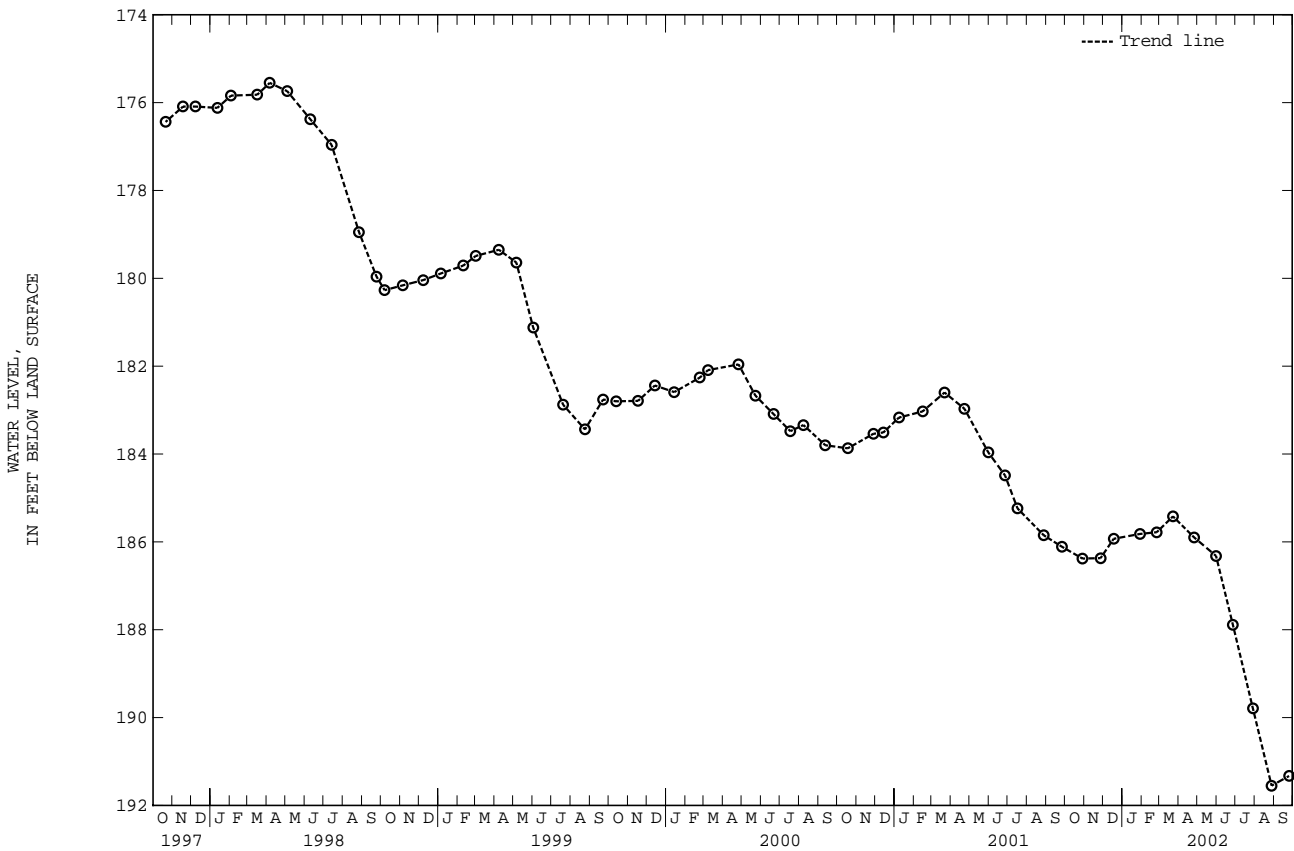
PERIOD OF RECORD.--December 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 140.00 ft below land surface, March 7, 1979; lowest measured, 191.55 ft below land surface, Aug. 28, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 2001	186.38	JAN 29, 2002	185.82	APR 26, 2002	185.90	JUL 29, 2002	189.79
NOV 27	186.37	FEB 25	185.78	MAY 31	186.32	AUG 28	191.55
DEC 18	185.93	MAR 23	185.42	JUN 27	187.89	SEP 25	191.33

WATER YEAR 2002 HIGHEST 185.42 MAR 23, 2002 LOWEST 191.55 AUG 28, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CALVERT COUNTY--Continued

WELL NUMBER.--CA Db 47. SITE ID.--383239076354201. PERMIT NUMBER.--CA-73-3304.

LOCATION.--Lat 38°32'39", long 76°35'42", Hydrologic Unit 02060006, near Prince Frederick.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 570 ft; casing diameter 4 in., to 483 ft; casing diameter 2 in. from 483 to 560 ft; screen diameter 2 in. from 560 to 570 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 140 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.20 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal.

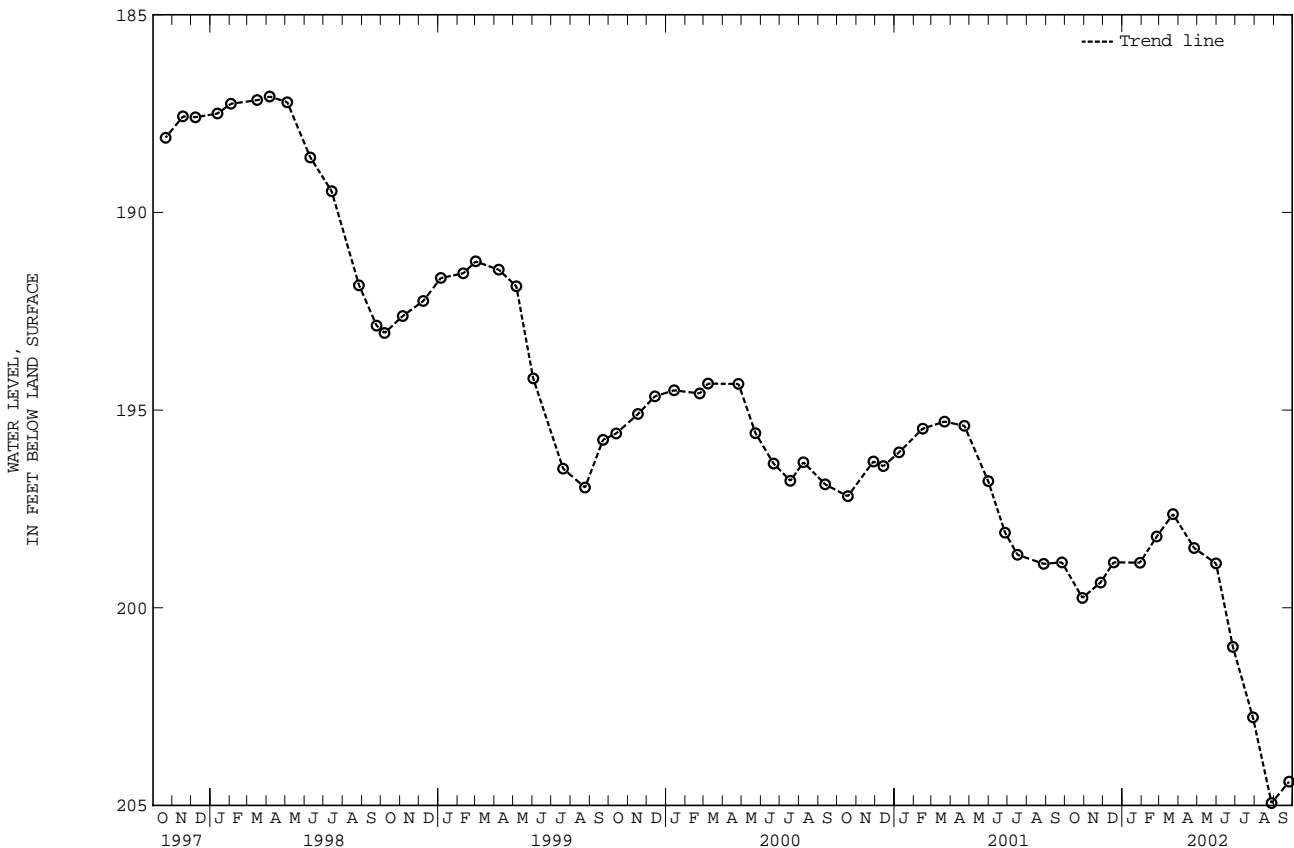
PERIOD OF RECORD.--July 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 148.54 ft below land surface, July 31, 1979; lowest measured, 204.94 ft below land surface, Aug. 28, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 2001	199.75	JAN 29, 2002	198.86	APR 26, 2002	198.49	JUL 29, 2002	202.77
NOV 27	199.36	FEB 25	198.20	MAY 31	198.88	AUG 28	204.94
DEC 18	198.85	MAR 23	197.63	JUN 27	200.99	SEP 25	204.40

WATER YEAR 2002 HIGHEST 197.63 MAR 23, 2002 LOWEST 204.94 AUG 28, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Db 65. SITE ID.--383216076351401. PERMIT NUMBER.--CA-81-2415.

LOCATION.--Lat 38°32'16", long 76°35'14", Hydrologic Unit 02060006, at St. Paul's Episcopal Church parking lot, Prince Frederick.

Owner: U.S. Geological Survey.

AQUIFER.--Brandywine Formation of Pliocene age. Aquifer code: 121BRND.

WELL CHARACTERISTICS.--Drilled, water-table, observation well, depth 49 ft; casing diameter 3 in., to 22 ft, and 32 to 49 ft; screen diameter 3 in. from 22 to 32 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 159.33 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of plastic PVC casing, 2.38 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. The water level measurement of 17.42 ft below land surface, on August 24, 1999, was made after a heavy rain shower earlier in the day.

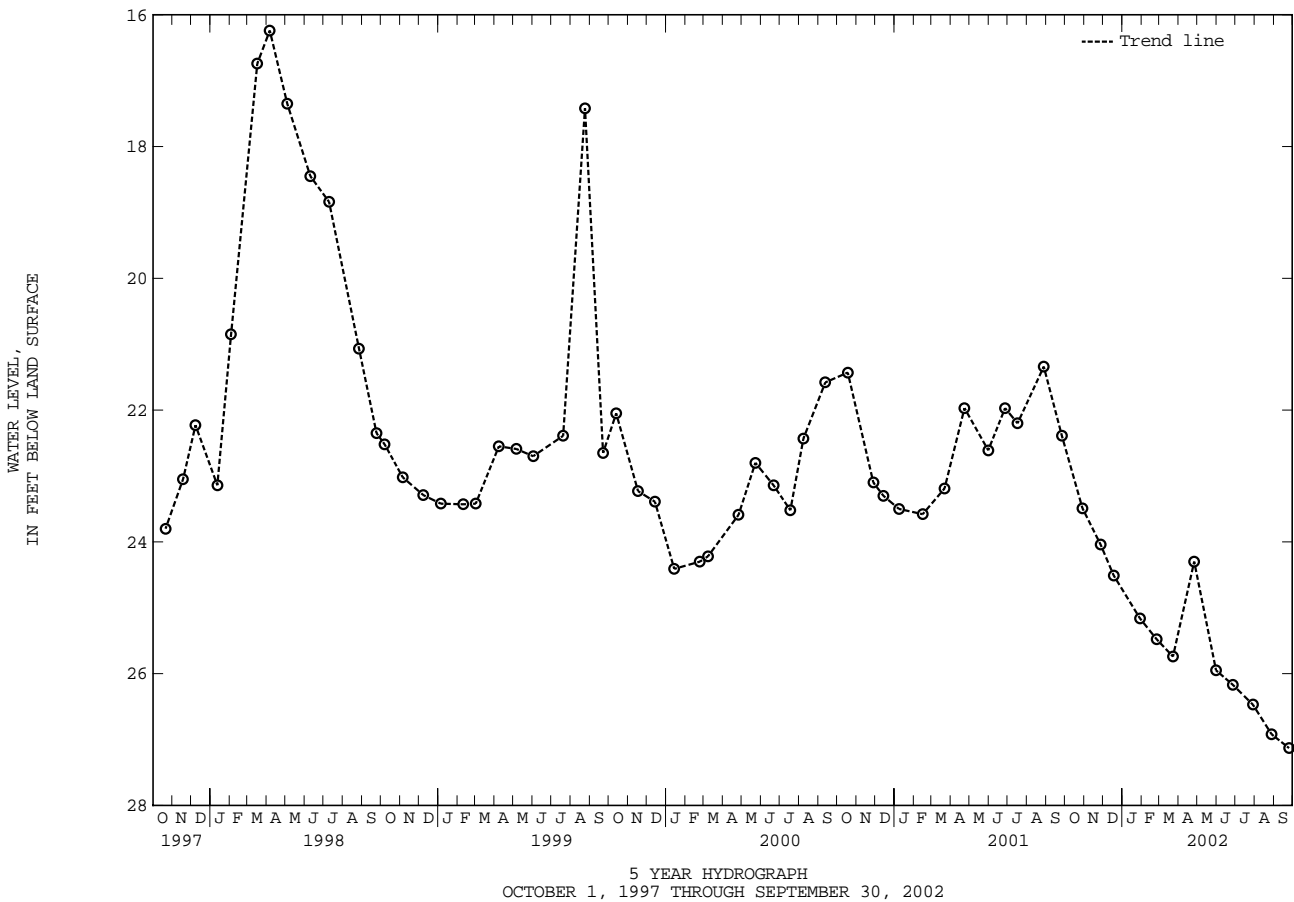
PERIOD OF RECORD.--July and August 1986, October 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.64 ft below land surface, May 9, 1990; lowest measured, 27.13 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 2001	23.49	JAN 29, 2002	25.16	APR 26, 2002	24.30	JUL 29, 2002	26.47
NOV 27	24.04	FEB 25	25.48	MAY 31	25.95	AUG 28	26.92
DEC 18	24.51	MAR 23	25.74	JUN 27	26.17	SEP 25	27.13

WATER YEAR 2002      HIGHEST    23.49    OCT 29, 2001      LOWEST    27.13    SEP 25, 2002





CALVERT COUNTY--Continued

WELL NUMBER.--CA Dc 35. SITE ID.--383050076305501. PERMIT NUMBER.--CA-73-0718.

LOCATION.--Lat 38°30'50", long 76°30'55", Hydrologic Unit 02060004, 5.1 mi. southeast of Prince Frederick. at Scientist Cliff community.

Owner: U.S. Geological Survey.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 760 ft; casing diameter 4 in., to 750 ft; screen diameter 2 in. from 750 to 760 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel from November 1991 to current year. Twice yearly water level measurements from April 1975 to September 1978, and April 1983 to September 1990. Equipped with water-level recorder from February 1976 to January 1980.

DATUM.--Elevation of land surface is 91.60 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 1.90 ft above land surface.

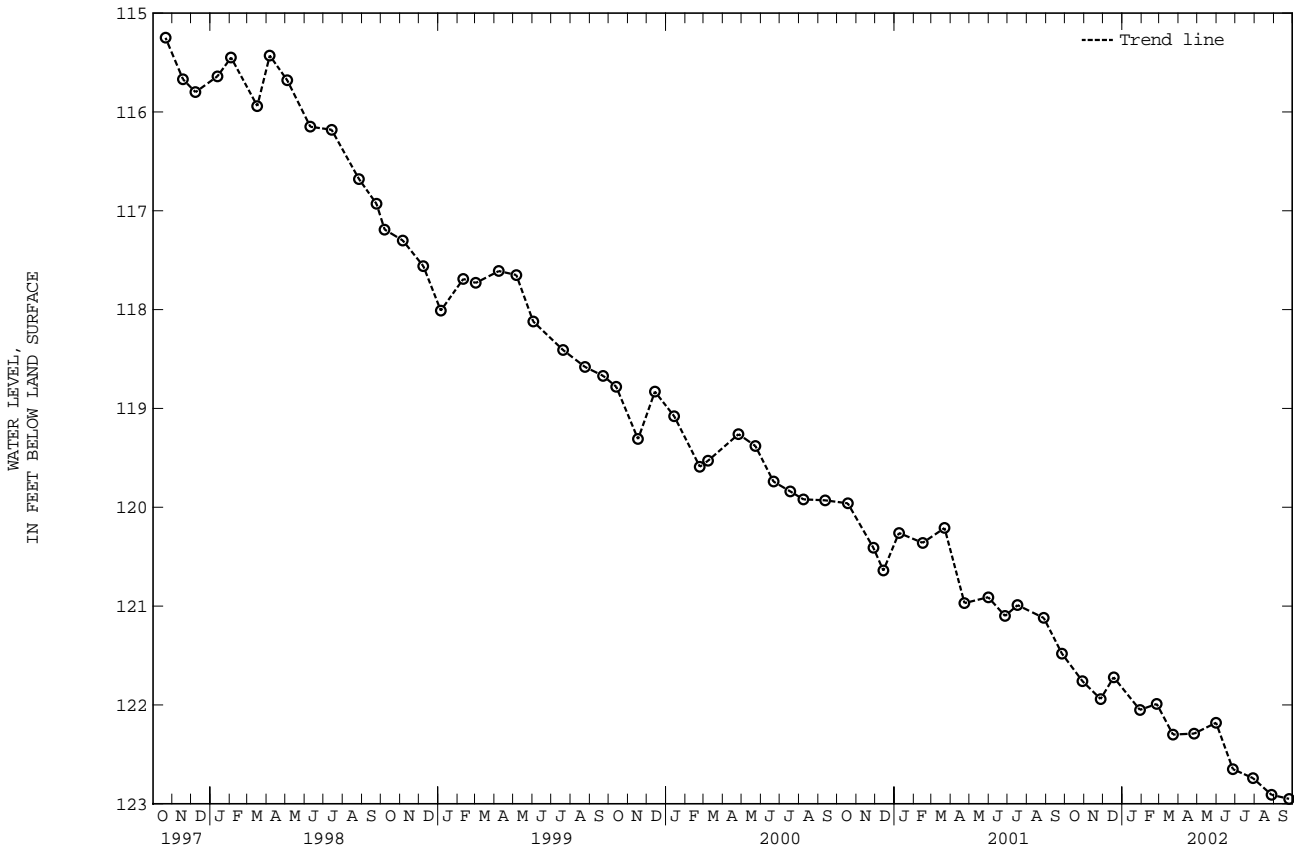
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.--October 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.30 ft below land surface, Sept. 12, 1975. lowest measured, 122.95 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 2001	121.76	JAN 29, 2002	122.05	APR 26, 2002	122.29	JUL 29, 2002	122.74
NOV 27	121.94	FEB 25	121.99	MAY 31	122.18	AUG 28	122.91
DEC 18	121.72	MAR 23	122.30	JUN 27	122.65	SEP 25	122.95
WATER YEAR 2002		HIGHEST	121.72	DEC 18, 2001	LOWEST	122.95	SEP 25, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## GROUND-WATER LEVELS IN MARYLAND--Continued

## CALVERT COUNTY--Continued

WELL NUMBER.--CA Ed 52. SITE ID.--382549076260101. PERMIT NUMBER.--CA-92-0081.

LOCATION.--Lat 38°25'49", Long 76°26'01", Hydrologic Unit 020600004, at Calvert Cliffs Nuclear Power Plant, 4.3 mi. southeast of St. Leonard.

Owner: Baltimore Gas and Electric Co.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 590 ft; casing diameter 4.5 in., to 460 ft; casing diameter 2 in. from 455 to 565 ft, and 580 to 590 ft; screen diameter 2 in. from 565 to 580 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--15-minute recorder interval from April 27, 1995 to current year.

DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of shelter platform, 1.4 ft above land surface.

REMARKS.--Southern Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.--April 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 70.66 ft below sea level, May 21, 1995 (recorder); lowest measured, 107.00 ft below sea level, Aug. 20, 2002 (recorder).

## WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-101.22	-102.23	-101.31	-103.29	-95.93	-97.37	-98.87	-101.22	-95.30	-97.26	-94.56	-96.45
2	-101.54	-103.41	-101.83	-103.41	-96.65	-100.65	-100.22	-103.21	-96.60	-101.51	-93.23	-95.50
3	-103.07	-104.59	-102.12	-103.67	-96.42	-101.40	-99.41	-101.71	-96.57	-97.89	-93.38	-94.41
4	-102.58	-103.78	-101.86	-103.32	-97.43	-101.37	-99.01	-104.10	-96.14	-97.57	-94.41	-96.16
5	-102.46	-103.99	-101.40	-103.47	-98.03	-99.61	-98.64	-101.00	-96.91	-98.44	-93.98	-96.94
6	-102.14	-103.61	-101.94	-103.70	-98.15	-99.61	-99.53	-103.32	-97.26	-98.55	-94.09	-96.25
7	-102.38	-103.27	-102.46	-104.73	-98.01	-99.38	-99.27	-100.25	-97.00	-98.15	-92.77	-94.50
8	-102.46	-103.64	-102.46	-104.79	-98.09	-99.10	-99.27	-103.29	-96.94	-97.92	-94.50	-96.48
9	-102.20	-103.75	-101.77	-103.18	-98.09	-99.87	-98.90	-100.45	-96.71	-97.69	-95.13	-96.45
10	-102.09	-103.58	-101.60	-103.27	-98.35	-99.50	-99.24	-103.90	-95.99	-96.86	-95.33	-96.22
11	-102.17	-103.99	-101.60	-104.10	-98.38	-99.44	-99.61	-101.22	-95.82	-97.32	-95.65	-97.00
12	-102.00	-103.84	-102.43	-104.39	-98.46	-99.41	-98.93	-102.03	-96.83	-97.89	-95.76	-96.91
13	-101.94	-102.89	-102.75	-104.24	-98.21	-99.30	-99.79	-102.49	-96.91	-98.18	-95.25	-96.34
14	-101.34	-102.84	-101.00	-103.38	-98.15	-99.38	-99.41	-102.75	-95.53	-97.77	-95.10	-96.19
15	-101.11	-102.43	-100.42	-101.77	-98.38	-99.64	-100.19	-103.18	-94.64	-95.99	-95.02	-96.22
16	-101.02	-102.78	-99.47	-101.31	-98.29	-99.18	-99.27	-101.05	-92.95	-95.27	-95.02	-95.96
17	-101.46	-103.41	-100.31	-101.34	-98.01	-99.27	-98.38	-99.67	-94.53	-100.36	-94.81	-95.93
18	-102.32	-103.58	-100.65	-101.60	-97.37	-99.13	-98.01	-99.04	-97.17	-98.38	-94.53	-96.05
19	-101.83	-103.18	-100.68	-101.71	-97.20	-98.55	-97.26	-98.90	-96.68	-97.89	-95.02	-96.16
20	-101.46	-106.49	-97.77	-101.94	-97.23	-98.93	-97.26	-98.32	-96.88	-97.92	-94.73	-95.71
21	-101.57	-103.47	-97.14	-100.19	-98.12	-102.61	-96.97	-98.18	-96.86	-98.29	-92.74	-95.73
22	-101.63	-103.27	-96.39	-97.54	-98.81	-101.00	-97.54	-98.81	-97.54	-101.31	-92.89	-95.53
23	-101.40	-102.95	-96.42	-100.13	-98.09	-99.04	-97.60	-99.10	-97.89	-99.16	-94.44	-95.25
24	-101.37	-103.47	-95.96	-97.37	-97.98	-98.98	-97.49	-98.70	-97.40	-98.84	-94.53	-95.56
25	-102.12	-103.12	-95.53	-97.00	-98.55	-101.94	-97.43	-98.61	-95.45	-98.12	-94.58	-95.62
26	-102.09	-103.12	-95.53	-96.77	-98.52	-99.64	-96.80	-97.89	-92.97	-95.45	-93.06	-95.62
27	-101.57	-103.41	-95.85	-100.91	-98.46	-99.73	-96.88	-97.86	-92.51	-94.64	-91.74	-93.84
28	-102.98	-105.97	-96.77	-101.83	-98.41	-102.09	-96.65	-98.09	-94.24	-96.14	-93.23	-94.81
29	-102.49	-103.93	-97.14	-100.22	-99.10	-101.31	-97.03	-98.09	---	---	-93.38	-94.44
30	-101.94	-103.01	-96.31	-97.77	-98.90	-100.10	-97.11	-98.64	---	---	-93.78	-95.59
31	-100.71	-103.09	---	---	-98.72	-100.05	-97.26	-98.93	---	---	-95.02	-98.70
MONTH	-100.71	-106.49	-95.53	-104.79	-95.93	-102.61	-96.65	-104.10	-92.51	-101.51	-91.74	-98.70

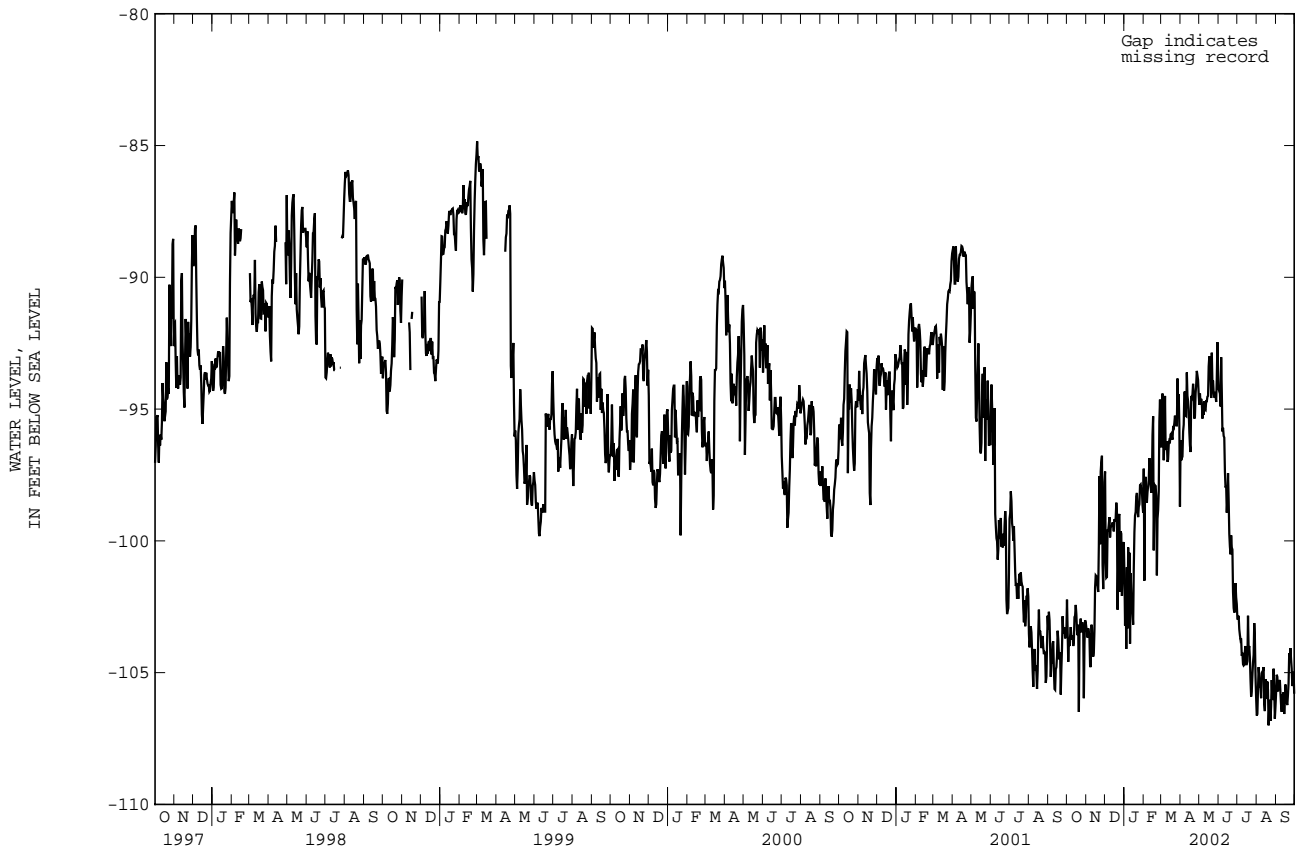
CALVERT COUNTY--Continued

CA Ed 52--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-94.93	-96.19	-93.23	-94.84	-92.54	-94.24	-101.37	-102.95	-104.27	-106.63	-104.22	-105.77
2	-95.53	-96.94	-93.35	-94.41	-92.83	-94.33	-101.74	-102.95	-104.50	-106.57	-104.13	-105.08
3	-95.42	-96.86	-93.63	-94.81	-93.29	-94.41	-101.51	-102.84	-103.99	-105.65	-103.78	-105.16
4	-94.84	-96.80	-93.69	-94.61	-91.94	-94.90	-101.89	-103.35	-103.64	-104.79	-104.01	-105.71
5	-94.81	-95.85	-93.52	-94.76	-90.47	-93.03	-102.38	-103.58	-103.47	-105.11	-104.07	-105.36
6	-93.55	-95.59	-93.78	-95.36	-92.14	-94.33	-102.20	-103.75	-103.07	-105.54	-103.90	-105.34
7	-91.51	-94.38	-93.66	-94.84	-93.41	-95.85	-102.32	-103.70	-102.84	-105.57	-103.96	-105.28
8	-91.51	-94.33	-94.04	-95.22	-94.58	-95.71	-102.72	-104.36	-103.93	-105.97	-104.36	-105.77
9	-93.49	-95.25	-93.75	-94.70	-94.35	-96.02	-102.78	-104.24	-104.04	-105.02	-104.79	-106.23
10	-92.63	-95.27	-93.58	-95.02	-94.73	-96.08	-102.61	-104.68	-103.47	-104.96	-104.96	-106.49
11	-92.37	-93.61	-94.12	-95.04	-94.67	-97.37	-102.69	-104.73	-103.41	-104.93	-104.36	-105.83
12	-93.09	-94.50	-93.52	-94.70	-96.74	-97.98	-102.38	-104.70	-103.32	-104.79	-104.42	-106.23
13	-93.58	-94.70	-93.52	-94.70	-96.65	-97.92	-102.52	-104.19	-103.41	-106.20	-104.39	-105.74
14	-93.78	-95.02	-92.40	-94.53	-96.28	-98.93	-102.26	-103.99	-104.50	-106.46	-104.39	-106.57
15	-94.18	-95.88	-92.66	-94.50	-97.17	-98.38	-102.49	-104.68	-103.81	-105.25	-104.45	-106.03
16	-94.38	-96.39	-90.85	-93.38	-96.28	-97.43	-103.09	-104.68	-103.81	-105.34	-104.24	-105.45
17	-93.09	-96.63	-90.18	-93.00	-96.45	-98.44	-100.13	-104.56	-104.56	-106.00	-104.50	-105.91
18	-92.60	-94.50	-92.17	-93.23	-98.41	-99.73	-100.31	-102.84	-103.99	-105.34	-104.99	-106.14
19	-93.29	-94.56	-92.83	-93.78	-98.64	-100.22	-102.17	-104.13	-104.10	-105.65	-104.99	-106.23
20	-93.41	-94.44	-91.62	-94.58	-99.10	-100.51	-102.58	-103.99	-104.22	-107.00	-104.79	-105.83
21	-93.23	-94.04	-90.18	-92.86	-97.77	-99.79	-102.49	-104.42	-104.79	-106.34	-103.99	-105.39
22	-92.92	-94.44	-92.66	-94.04	-97.86	-100.25	-102.86	-105.28	-104.33	-106.03	-103.44	-104.27
23	-93.78	-95.36	-92.80	-93.92	-99.13	-100.33	-103.52	-105.91	-104.47	-106.83	-103.38	-104.59
24	-93.15	-95.27	-92.89	-94.41	-98.93	-101.94	-104.07	-105.71	-104.33	-106.29	-102.89	-104.07
25	-93.00	-94.41	-93.46	-94.56	-100.08	-102.55	-103.47	-105.13	-104.22	-105.28	-103.07	-104.50
26	-92.08	-94.07	-93.29	-94.35	-100.48	-102.72	-103.04	-104.62	-104.10	-106.00	-103.21	-104.85
27	-92.20	-93.55	-93.03	-94.50	-100.68	-102.66	-102.49	-104.33	-104.42	-106.00	-103.29	-105.51
28	-92.40	-93.72	-92.77	-94.73	-100.13	-101.60	-101.71	-103.12	-103.75	-104.85	-104.07	-105.31
29	-92.48	-93.89	-90.96	-93.86	-100.77	-102.14	-101.48	-103.64	-103.84	-105.65	-104.04	-104.96
30	-93.43	-94.47	-89.41	-92.46	-101.05	-102.40	-103.50	-105.13	-104.36	-106.75	-103.78	-105.80
31	---	---	-91.48	-93.52	---	---	-104.19	-105.94	-104.96	-106.29	---	---
MONTH	-91.51	-96.94	-89.41	-95.36	-90.47	-102.72	-100.13	-105.94	-102.84	-107.00	-102.89	-106.57
YEAR	-89.41	-107.00										

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CALVERT COUNTY--Continued

WELL NUMBER.--CA Fc 13. SITE ID.--382343076302901. PERMIT NUMBER.--CA-81-2391.

LOCATION.--Lat 38°23'41", long 76°30'29", Hydrologic Unit 02060006, Jefferson Patterson State Park and Museum.

Owner: U.S. Geological Survey.

AQUIFER.--Choptank-St. Mary's undivided, Chesapeake Group of Miocene age. Aquifer code: 122CSPK.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 34 ft; casing diameter 3.5 in., to 29 ft; screen diameter 3.5 in. from 29 to 34 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from Oct. 2, 1986 to April 16, 1996.

DATUM.--Elevation of land surface is 47.44 ft above National Geodetic Vertical Datum of 1929.

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

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well, and Maryland Water Quality Network observation well. Water levels respond to natural climatic affects.

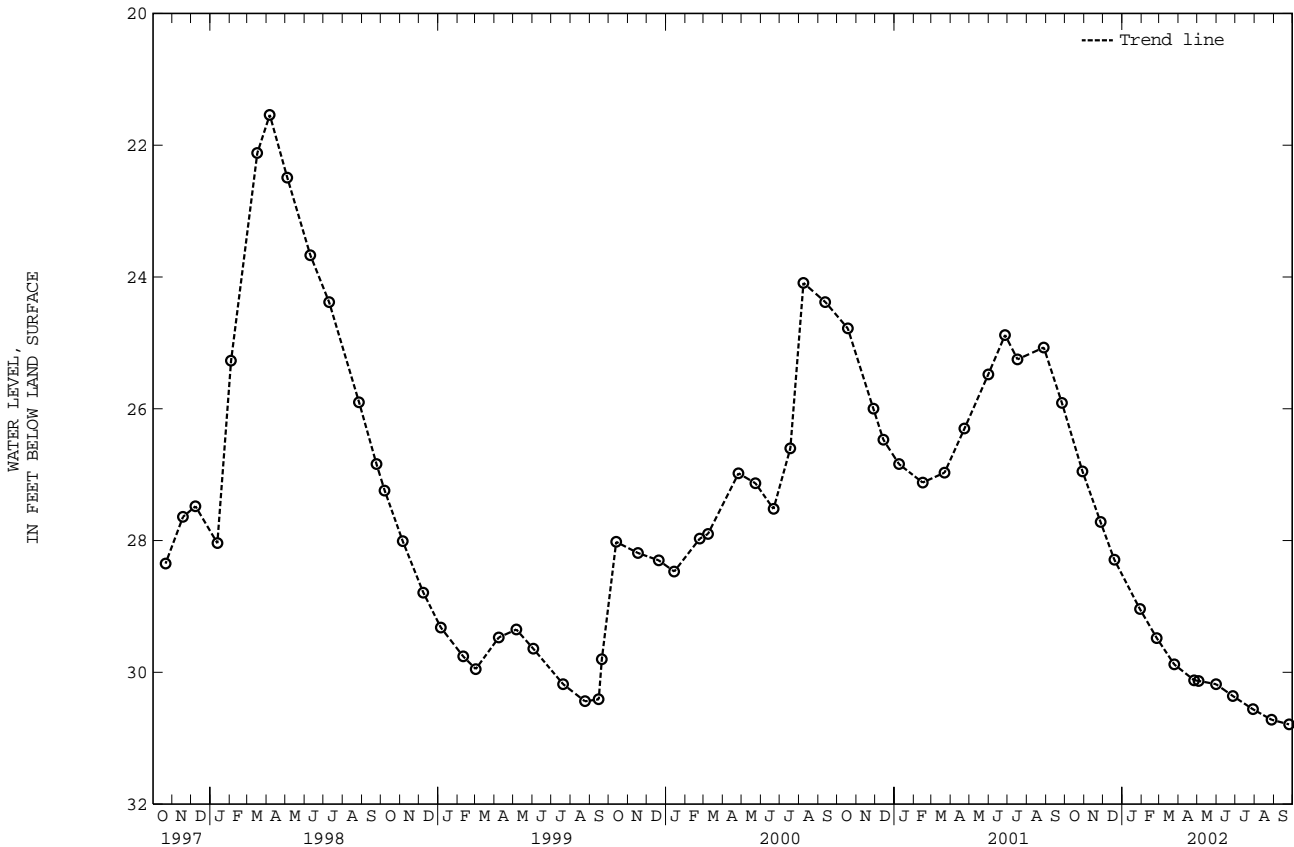
PERIOD OF RECORD.--October 1986 to November 1995, September 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.54 ft below land surface, April 6, 1998; lowest measured, 30.79 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 2001	26.95	FEB 25, 2002	29.48	MAY 31, 2002	30.18	SEP 25, 2002	30.79
NOV 27	27.72	MAR 25	29.88	JUN 27	30.36		
DEC 19	28.29	APR 26	30.12	JUL 29	30.56		
JAN 29, 2002	29.04	MAY 03	30.13	AUG 28	30.72		

WATER YEAR 2002      HIGHEST    26.95    OCT 29, 2001      LOWEST    30.79    SEP 25, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CALVERT COUNTY--Continued

WELL NUMBER.--CA Fd 51. SITE ID.--382408076260401. PERMIT NUMBER.--CA-73-1449.

LOCATION.--Lat 38°24'08", long 76°26'04", Hydrologic Unit 02060004, at Calvert Cliffs State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 352 ft; casing diameter 6 in., to 140 ft; casing diameter 2 in. from 140 to 342 ft; screen diameter 2 in. from 342 to 352 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 129.4 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of protective casing, 3.63 ft above land surface.

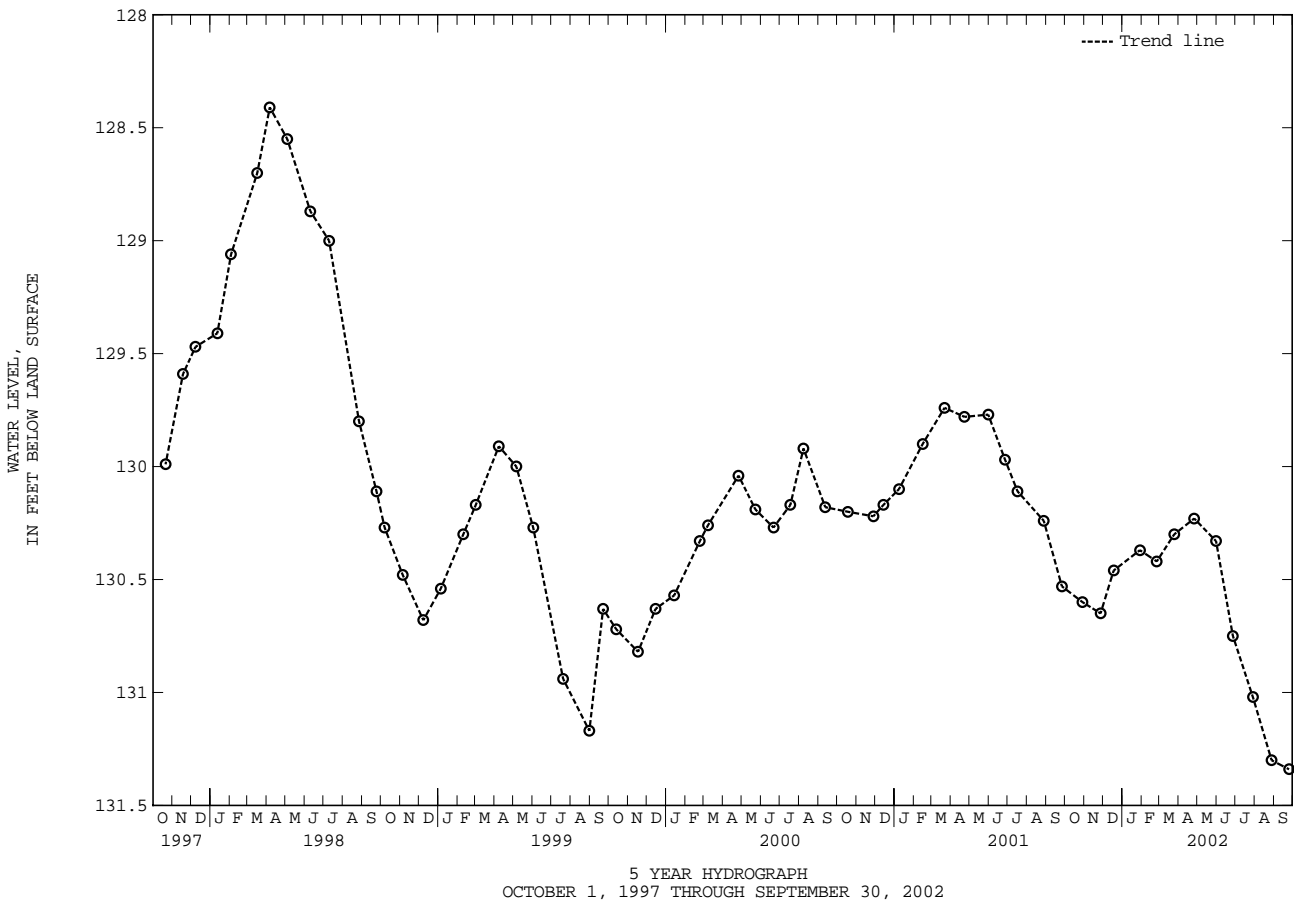
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.--February 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 116.36 ft below land surface, Jan. 8, 1980; lowest measured, 131.34 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 2001	130.60	JAN 29, 2002	130.37	APR 26, 2002	130.23	JUL 29, 2002	131.02
NOV 27	130.65	FEB 25	130.42	MAY 31	130.33	AUG 28	131.30
DEC 18	130.46	MAR 25	130.30	JUN 27	130.75	SEP 25	131.34
WATER YEAR 2002		HIGHEST	130.23	APR 26, 2002	LOWEST	131.34	SEP 25, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Fd 54. SITE ID.--382407076260301. PERMIT NUMBER.--CA-73-2892.

LOCATION.--Lat 38°24'07", long 76°26'03", Hydrologic Unit 02060004, at Calvert Cliffs State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 698 ft; casing diameter 4 in., to 234 ft; casing diameter 2 in. from 234 to 641 ft, and 651 to 698 ft; screen diameter 3 in. from 641 to 651 ft.

INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 129.4 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.92 ft above land surface.

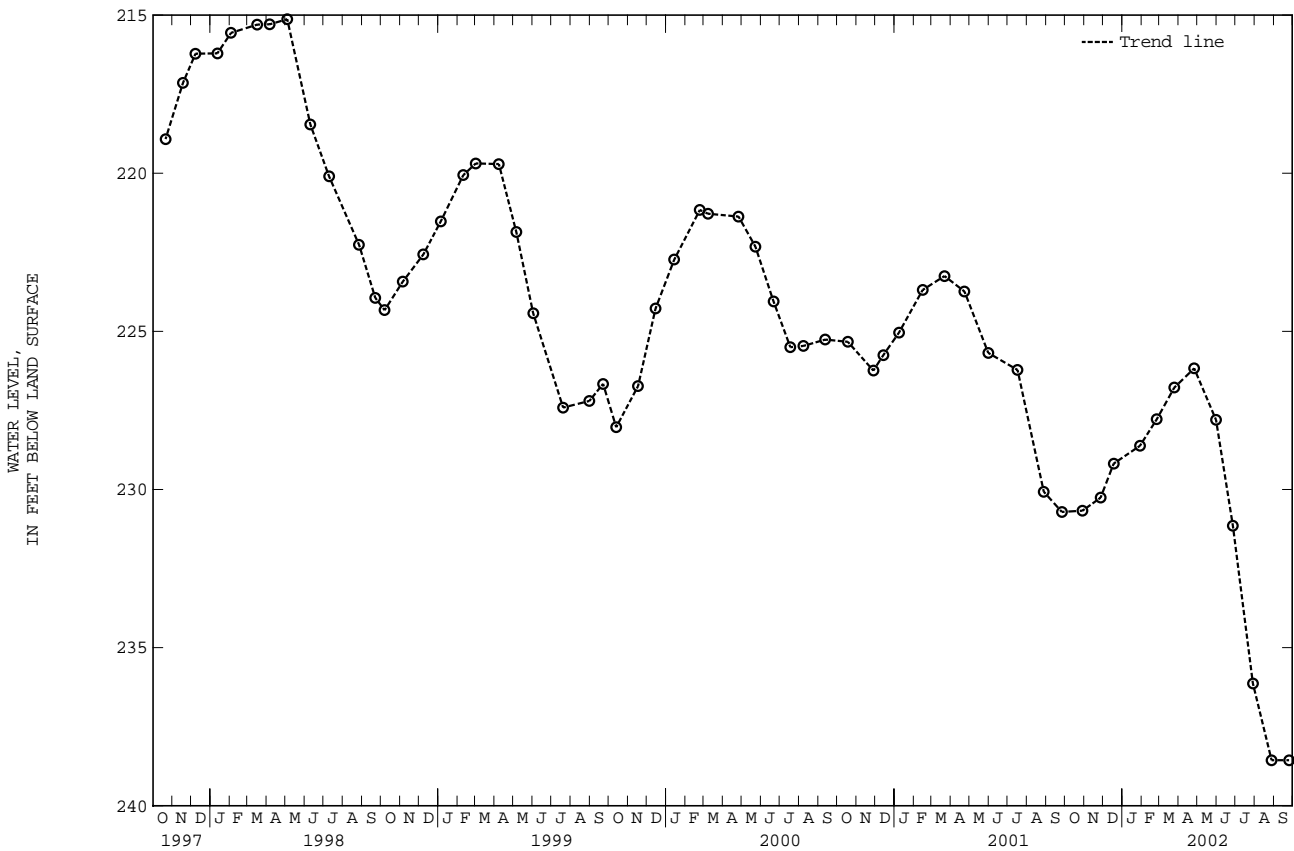
REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 142.69 ft below land surface, April 21, 1980; lowest measured, 238.56 ft below land surface, Aug. 28, and Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 2001	230.67	JAN 29, 2002	228.62	APR 26, 2002	226.17	JUL 29, 2002	236.13
NOV 27	230.26	FEB 25	227.78	MAY 31	227.80	AUG 28	238.56
DEC 18	229.18	MAR 25	226.78	JUN 27	231.15	SEP 25	238.56
WATER YEAR 2002		HIGHEST	226.17	APR 26, 2002	LOWEST	238.56	AUG 28, 2002
							SEP 25, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## CALVERT COUNTY--Continued

WELL NUMBER.--CA Fd 85. SITE ID.--382236076255401. PERMIT NUMBER.--CA-94-3305.

LOCATION.--Lat 38°22'36", long 76°25'54", Hydrologic Unit 02060004, at Chesapeake Ranch Water Company facility.  
Owner: Maryland Geological Survey.

AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.

WELL CHARACTERISTICS.--Drilled, artesian well, depth 1,643 ft; casing diameter 12 in. to 54 ft,  
casing diameter 4 in. from +2.0 to 1,535 ft, 1,545 to 1,560 ft, 1,570 to 1,623 ft, and 1,633 to 1,643 ft;  
screen diameter 4 in. from 1,535 to 1,545 ft, 1,560 to 1,570 ft, and 1,623 to 1,633 ft.INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with  
digital water-level recorder--60-minute recording interval, January 29, 2002 to current year.

DATUM.--Elevation of land surface is 105.98 ft above National Geodetic Vertical Datum of 1929.

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

REMARKS.--Southern Maryland Patapsco Aquifer Well Drilling Project observation well. Water levels are affected by regional  
ground-water withdrawal.

PERIOD OF RECORD.--November 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.34 ft below sea level, February 1, 2002 (recorder); lowest  
measured, 15.54 ft below sea level, August 21, 2002 (recorder).

## WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	---	---	-14.34	-14.56	-14.75	-14.91
2	---	---	---	---	---	---	---	---	-14.49	-14.67	-14.57	-14.92
3	---	---	---	---	---	---	---	---	-14.52	-14.67	-14.49	-14.57
4	---	---	---	---	---	---	---	---	-14.44	-14.63	-14.55	-14.77
5	---	---	---	---	---	---	---	---	-14.63	-14.75	-14.77	-14.90
6	---	---	---	---	---	---	---	---	-14.69	-14.77	-14.88	-14.91
7	---	---	---	---	---	---	---	---	-14.49	-14.69	-14.89	-14.96
8	---	---	---	---	---	---	---	---	-14.51	-14.60	-14.96	-15.05
9	---	---	---	---	---	---	---	---	-14.60	-14.75	-14.83	-15.05
10	---	---	---	---	---	---	---	---	-14.43	-14.75	-14.77	-14.94
11	---	---	---	---	---	---	---	---	-14.40	-14.61	-14.94	-15.02
12	---	---	---	---	---	---	---	---	-14.53	-14.61	-14.93	-14.98
13	---	---	---	---	---	---	---	---	-14.58	-14.73	-14.75	-14.93
14	---	---	---	---	---	---	---	---	-14.73	-14.77	-14.77	-14.83
15	---	---	---	---	---	---	---	---	-14.62	-14.77	-14.70	-14.83
16	---	---	---	---	---	---	---	---	-14.52	-14.62	-14.73	-14.83
17	---	---	---	---	---	---	---	---	-14.52	-14.71	-14.83	-14.93
18	---	---	---	---	---	---	---	---	-14.71	-14.84	-14.74	-14.89
19	---	---	---	---	---	---	---	---	-14.75	-14.84	-14.76	-14.80
20	---	---	---	---	---	---	---	---	-14.50	-14.75	-14.53	-14.79
21	---	---	---	---	---	---	---	---	-14.45	-14.50	-14.47	-14.57
22	---	---	---	---	---	---	---	---	-14.50	-14.56	-14.53	-14.77
23	---	---	---	---	---	---	---	---	-14.56	-14.66	-14.73	-14.78
24	---	---	---	---	---	---	---	---	-14.63	-14.70	-14.75	-14.83
25	---	---	---	---	---	---	---	---	-14.59	-14.70	-14.79	-14.92
26	---	---	---	---	---	---	---	---	-14.38	-14.59	-14.73	-14.92
27	---	---	---	---	---	---	---	---	-14.41	-14.53	-14.67	-14.73
28	---	---	---	---	---	---	---	---	-14.53	-14.75	-14.71	-14.76
29	---	---	---	---	---	---	---	---	---	---	-14.60	-14.75
30	---	---	---	---	---	---	-14.55	-14.64	---	---	-14.55	-14.65
31	---	---	---	---	---	---	-14.56	-14.64	---	---	-14.56	-14.70
MONTH	---	---	---	---	---	---	---	---	-14.34	-14.84	-14.47	-15.05

GROUND-WATER LEVELS IN MARYLAND--Continued

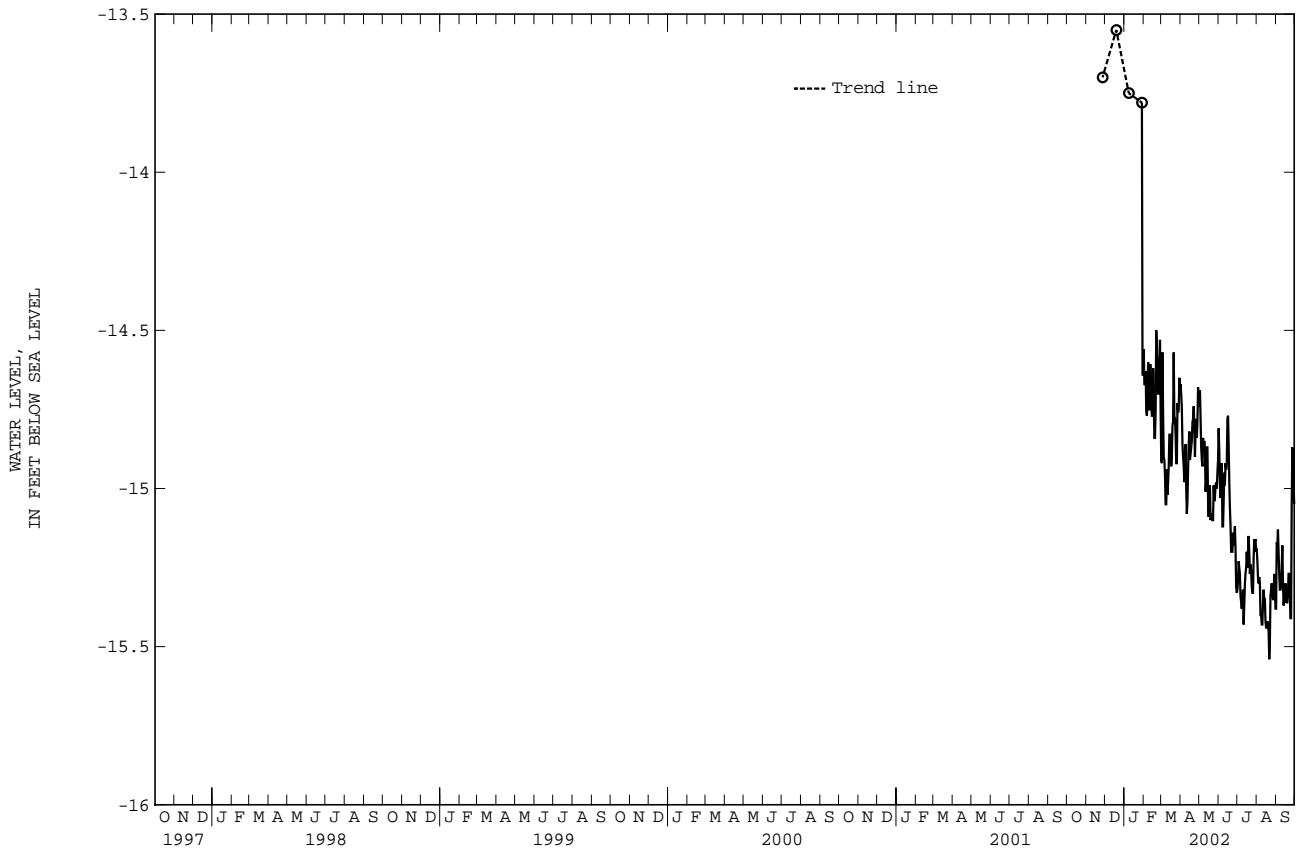
CALVERT COUNTY--Continued

CA Fd 85--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-14.56	-14.67	-14.68	-14.71	-14.80	-14.81	-15.29	-15.32	-15.17	-15.19	-15.17	-15.38
2	-14.61	-14.70	-14.54	-14.69	-14.80	-14.88	-15.23	-15.29	-15.17	-15.23	-15.17	-15.17
3	-14.57	-14.75	-14.55	-14.78	-14.88	-14.99	-15.23	-15.23	-15.21	-15.28	-15.13	-15.18
4	-14.75	-14.86	-14.78	-14.87	-14.98	-15.03	-15.23	-15.25	-15.26	-15.30	-15.08	-15.13
5	-14.86	-14.90	-14.84	-14.91	-14.90	-14.98	-15.22	-15.27	-15.21	-15.28	-15.10	-15.20
6	-14.86	-14.93	-14.84	-14.93	-14.86	-14.92	-15.27	-15.34	-15.18	-15.30	-15.20	-15.27
7	-14.93	-14.98	-14.77	-14.84	-14.92	-15.12	-15.32	-15.36	-15.30	-15.40	-15.27	-15.32
8	-14.84	-14.96	-14.78	-14.87	-15.04	-15.12	-15.35	-15.38	-15.34	-15.40	-15.31	-15.32
9	-14.80	-14.86	-14.77	-14.85	-14.93	-15.04	-15.27	-15.35	-15.35	-15.43	-15.25	-15.31
10	-14.80	-15.00	-14.77	-14.88	-14.93	-14.95	-15.27	-15.32	-15.36	-15.43	-15.09	-15.25
11	-15.00	-15.08	-14.88	-15.01	-14.92	-14.99	-15.32	-15.43	-15.32	-15.36	-15.06	-15.18
12	-14.94	-15.04	-14.87	-14.98	-14.86	-14.92	-15.30	-15.37	-15.32	-15.32	-15.18	-15.30
13	-14.83	-14.94	-14.67	-14.87	-14.87	-14.94	-15.27	-15.30	-15.32	-15.35	-15.30	-15.37
14	-14.78	-14.86	-14.72	-14.87	-14.78	-14.92	-15.24	-15.27	-15.33	-15.35	-15.32	-15.35
15	-14.78	-14.82	-14.87	-15.04	-14.73	-14.78	-15.18	-15.25	-15.34	-15.42	-15.30	-15.36
16	-14.82	-14.91	-15.01	-15.09	-14.75	-14.77	-15.18	-15.20	-15.37	-15.44	-15.27	-15.30
17	-14.84	-14.89	-14.93	-15.01	-14.76	-14.86	-15.19	-15.25	-15.42	-15.44	-15.27	-15.32
18	-14.84	-14.87	-14.84	-14.99	-14.86	-14.98	-15.13	-15.20	-15.36	-15.42	-15.31	-15.36
19	-14.79	-14.85	-14.99	-15.10	-14.98	-15.06	-15.11	-15.15	-15.36	-15.43	-15.32	-15.36
20	-14.74	-14.79	-15.04	-15.08	-15.06	-15.12	-15.11	-15.20	-15.36	-15.45	-15.26	-15.33
21	-14.74	-14.78	-15.04	-15.09	-15.12	-15.20	-15.18	-15.27	-15.43	-15.54	-15.26	-15.27
22	-14.57	-14.74	-15.09	-15.10	-15.13	-15.20	-15.21	-15.24	-15.34	-15.49	-15.24	-15.27
23	-14.65	-14.80	-14.99	-15.10	-15.13	-15.20	-15.18	-15.26	-15.30	-15.34	-15.24	-15.33
24	-14.80	-14.90	-14.92	-14.99	-15.11	-15.14	-15.19	-15.31	-15.27	-15.32	-15.33	-15.41
25	-14.66	-14.82	-14.93	-15.04	-15.12	-15.18	-15.30	-15.33	-15.27	-15.30	-15.06	-15.41
26	-14.71	-14.78	-14.96	-15.03	-15.11	-15.16	-15.22	-15.33	-15.29	-15.33	-14.87	-15.06
27	-14.76	-14.84	-14.96	-14.99	-15.10	-15.12	-15.14	-15.22	-15.32	-15.35	-14.67	-14.87
28	-14.46	-14.79	-14.95	-14.98	-15.10	-15.19	-15.13	-15.16	-15.27	-15.35	-14.67	-14.91
29	-14.47	-14.68	-14.95	-15.00	-15.19	-15.31	-15.13	-15.17	-15.26	-15.27	-14.91	-14.99
30	-14.68	-14.74	-14.91	-14.95	-15.31	-15.33	-15.13	-15.16	-15.26	-15.30	-14.99	-15.05
31	---	---	-14.80	-14.91	---	---	-15.14	-15.20	-15.30	-15.38	---	---
MONTH	-14.46	-15.08	-14.54	-15.10	-14.73	-15.33	-15.11	-15.43	-15.17	-15.54	-14.67	-15.41

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



CALVERT COUNTY--Continued

WELL NUMBER.--CA Fe 22. SITE ID.--382318076242401. PERMIT NUMBER.--CA-73-1386.

LOCATION.--Lat 38°23'18", long 76°24'24", Hydrologic Unit 02060004, at Williams LNG Plant, Cove Point.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 350 ft; casing diameter 6 in., to 10 ft; casing diameter 2 in. from 10 to 340 ft; screen diameter 2 in. from 340 to 350 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 113.89 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.82 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

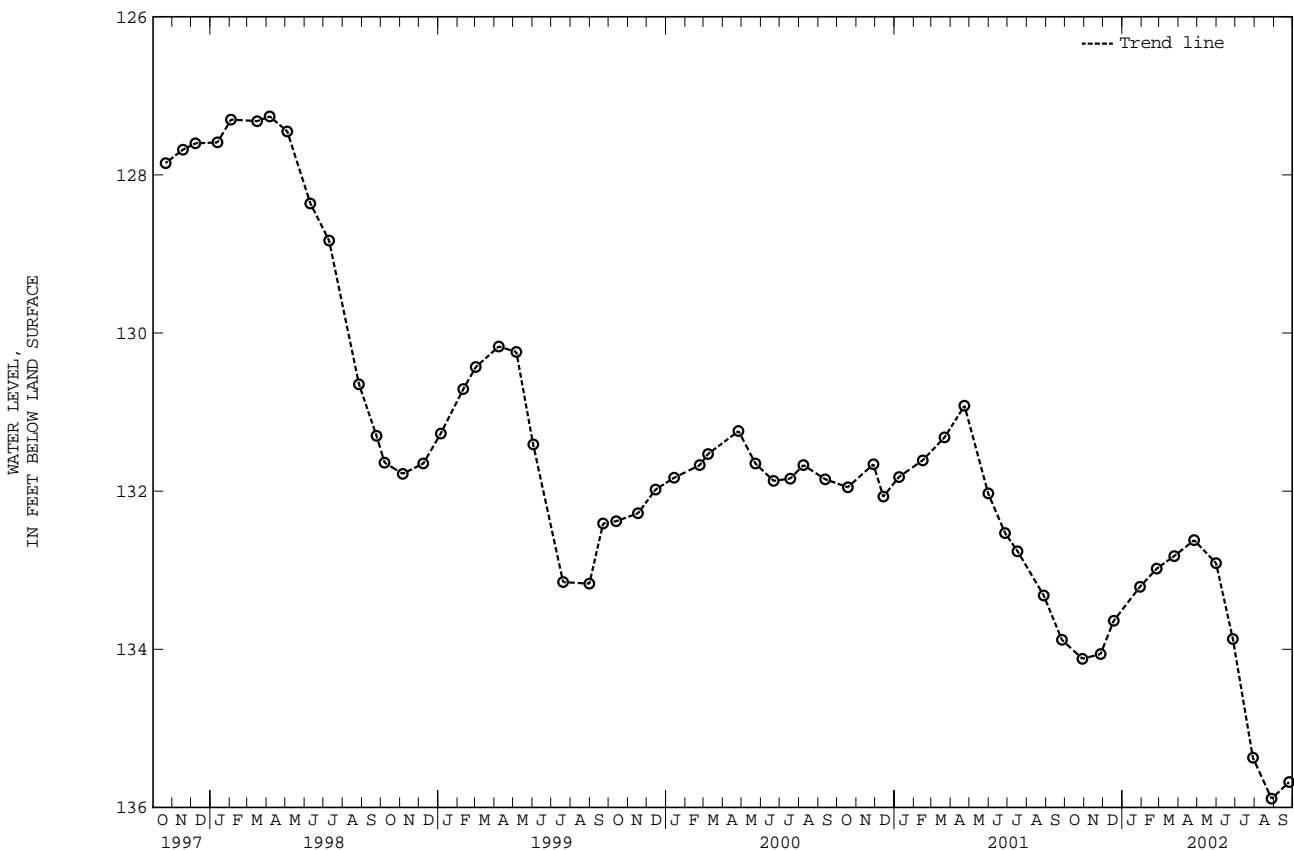
PERIOD OF RECORD.--June 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 111.50 ft below land surface, Oct. 5, 1976; lowest measured, 135.89 ft below land surface, Aug. 28, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 2001	134.12	JAN 29, 2002	133.21	APR 26, 2002	132.62	JUL 29, 2002	135.37
NOV 27	134.06	FEB 25	132.98	MAY 31	132.91	AUG 28	135.89
DEC 18	133.64	MAR 25	132.82	JUN 27	133.87	SEP 25	135.68

WATER YEAR 2002 HIGHEST 132.62 APR 26, 2002 LOWEST 135.89 AUG 28, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CALVERT COUNTY--Continued

WELL NUMBER.--CA Gd 6. SITE ID.--381952076270901.

LOCATION.--Lat 38°19'52", Long 76°27'09", Hydrologic Unit 02060006, at the Lord Calvert Yacht Club, 0.5 mi northeast of Solomons.

Owner: Calvert Marina.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 493 ft; casing diameter 8 in., to 272 ft; casing diameter 6 in. from 272 to 472 ft; screened from 472 to 493 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with a graphic water-level recorder from Oct. 19, 1949 to Feb. 25, 1960.

DATUM.--Elevation of land surface is 12.73 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of sanitary seal, 1.59 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well (See Figure 2.). Water level reported at land surface 1942, and the water level measured 58.9 ft below land surface on Jan. 13, 1944. The well was not measured from April through July 1988 during building construction at well site. On July 18, 1991 the water-level measured, 119.93 ft below land surface due to an extended period of pumping. Water levels are affected by local and regional ground-water withdrawal.

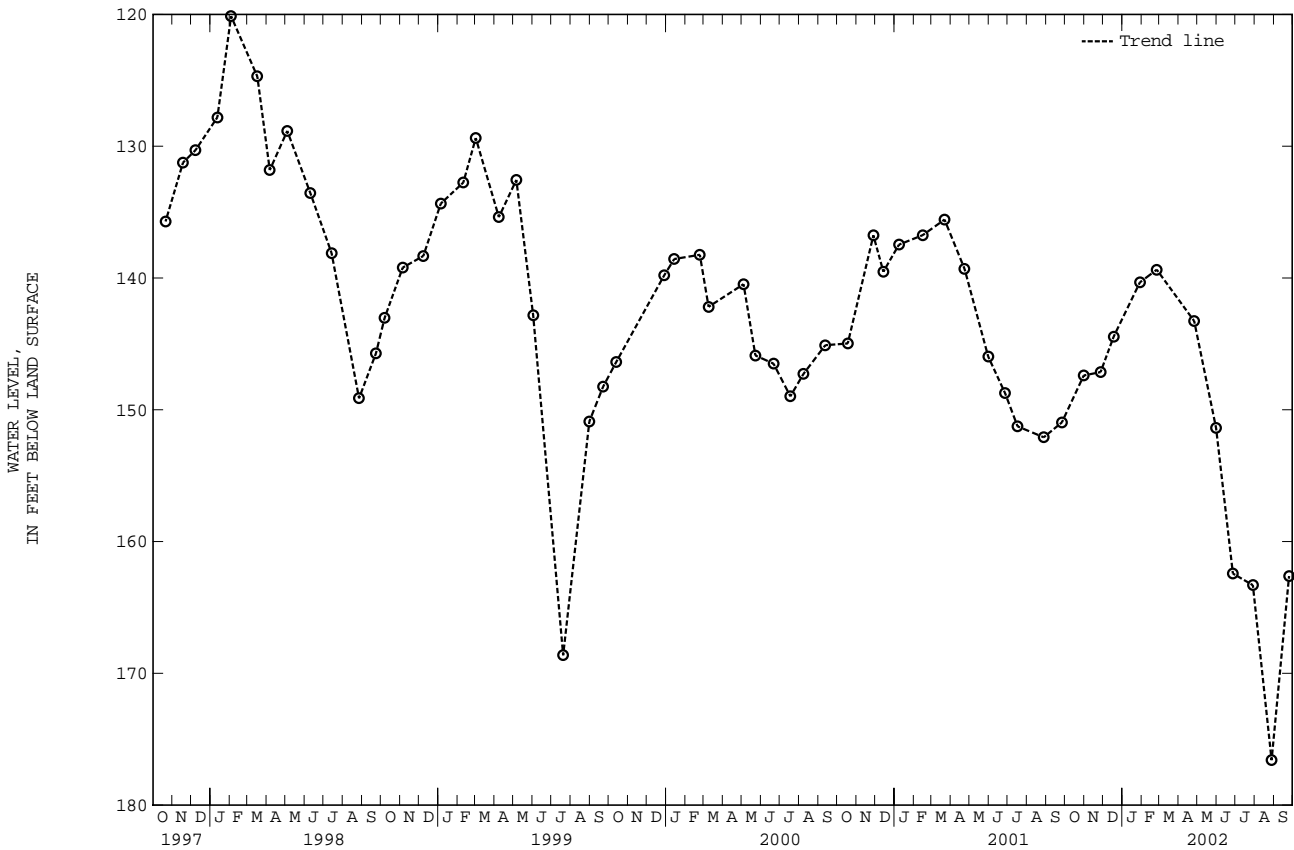
PERIOD OF RECORD.-- October 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.15 ft below land surface, May 18, 1950; lowest measured, 176.59 ft below land surface, Aug. 28, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 2001	147.40	JAN 29, 2002	140.33	MAY 31, 2002	151.37	AUG 28, 2002	176.59
NOV 27	147.14	FEB 25	139.37	JUN 27	162.43	SEP 25	162.62
DEC 18	144.45	APR 26	143.27	JUL 29	163.31		

WATER YEAR 2002 HIGHEST 139.37 FEB 25, 2002 LOWEST 176.59 AUG 28, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CAROLINE COUNTY

WELL NUMBER.--CO Bc 1. SITE ID.--390333075504501.

LOCATION.--Lat 39°03'33", long 75°50'45", Hydrologic Unit 02060005, at Baltimore Corner.

Owner: Maryland State Highway Administration.

AQUIFER.--Pensauken Formation (fluvial facies) of Miocene age. Aquifer code: 122PNSK.

WELL CHARACTERISTICS.--Driven, observation, water-table well, depth 20.5 ft; well point diameter 1.25 in., to 20.5 ft.

INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 54 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.10 ft below land surface.

REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1949 to current year.

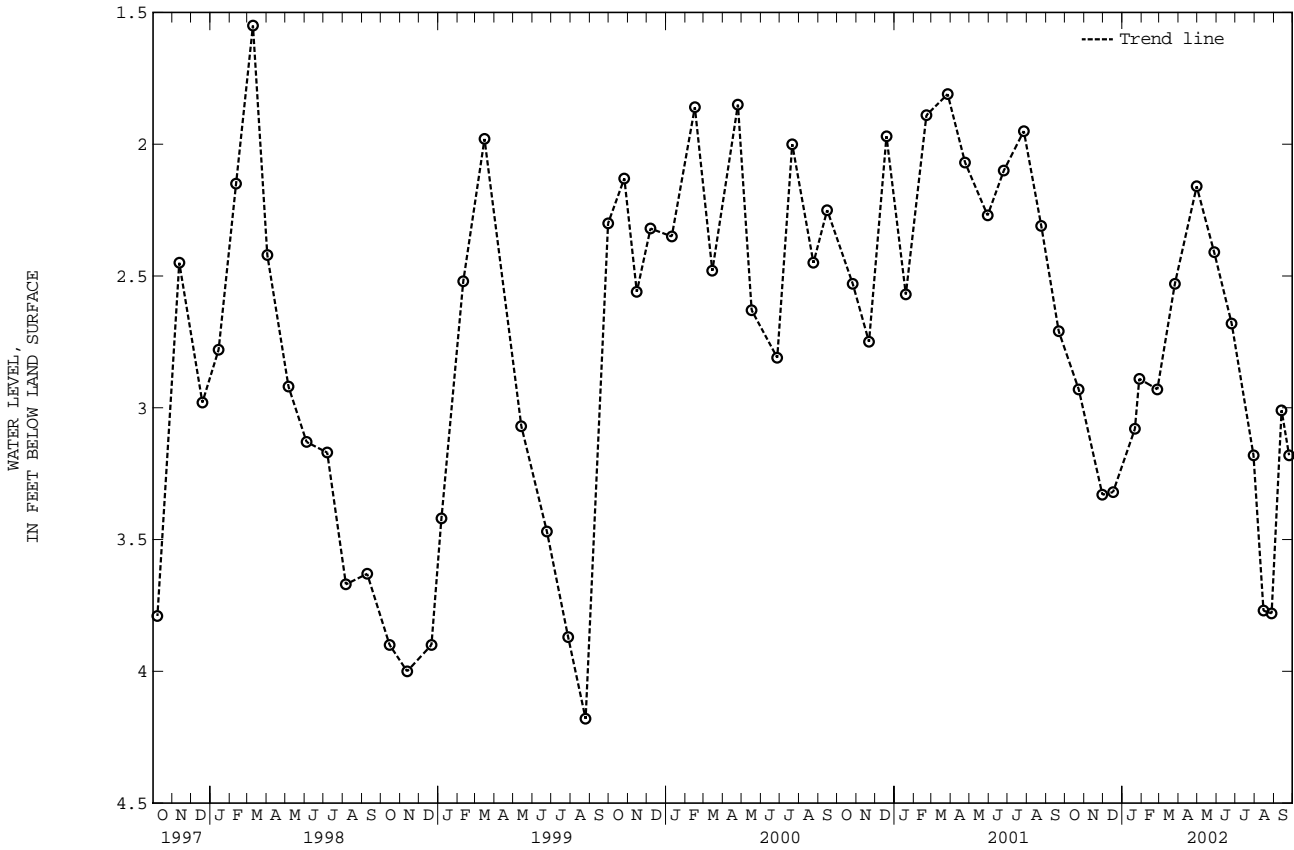
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.25 ft above land surface, Nov. 27, 1951;

lowest measured, 4.37 ft below land surface, Oct. 11, 1957.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	2.93	JAN 28, 2002	2.89	MAY 28, 2002	2.41	AUG 28, 2002	3.78
NOV 30	3.33	FEB 26	2.93	JUN 25	2.68	SEP 13	3.01
DEC 17	3.32	MAR 26	2.53	JUL 30	3.18	25	3.18
JAN 21, 2002	3.08	APR 30	2.16	AUG 15	3.77		

WATER YEAR 2002      HIGHEST    2.16 APR 30, 2002      LOWEST    3.78 AUG 28, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

CAROLINE COUNTY--Continued

WELL NUMBER.--CO Bd 53. SITE ID.--390227075470201. PERMIT NUMBER.--CO-73-0541.

LOCATION.--Lat 39°02'27", long 75°47'02", Hydrologic Unit 02060005, near MD Rt. 311, Goldsboro.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 312 ft; casing diameter 6 in., to 70 ft; casing diameter 2 in. from 70 to 300 ft; screen diameter 2 in. from 300 to 312 ft.

INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.45 ft above land surface.

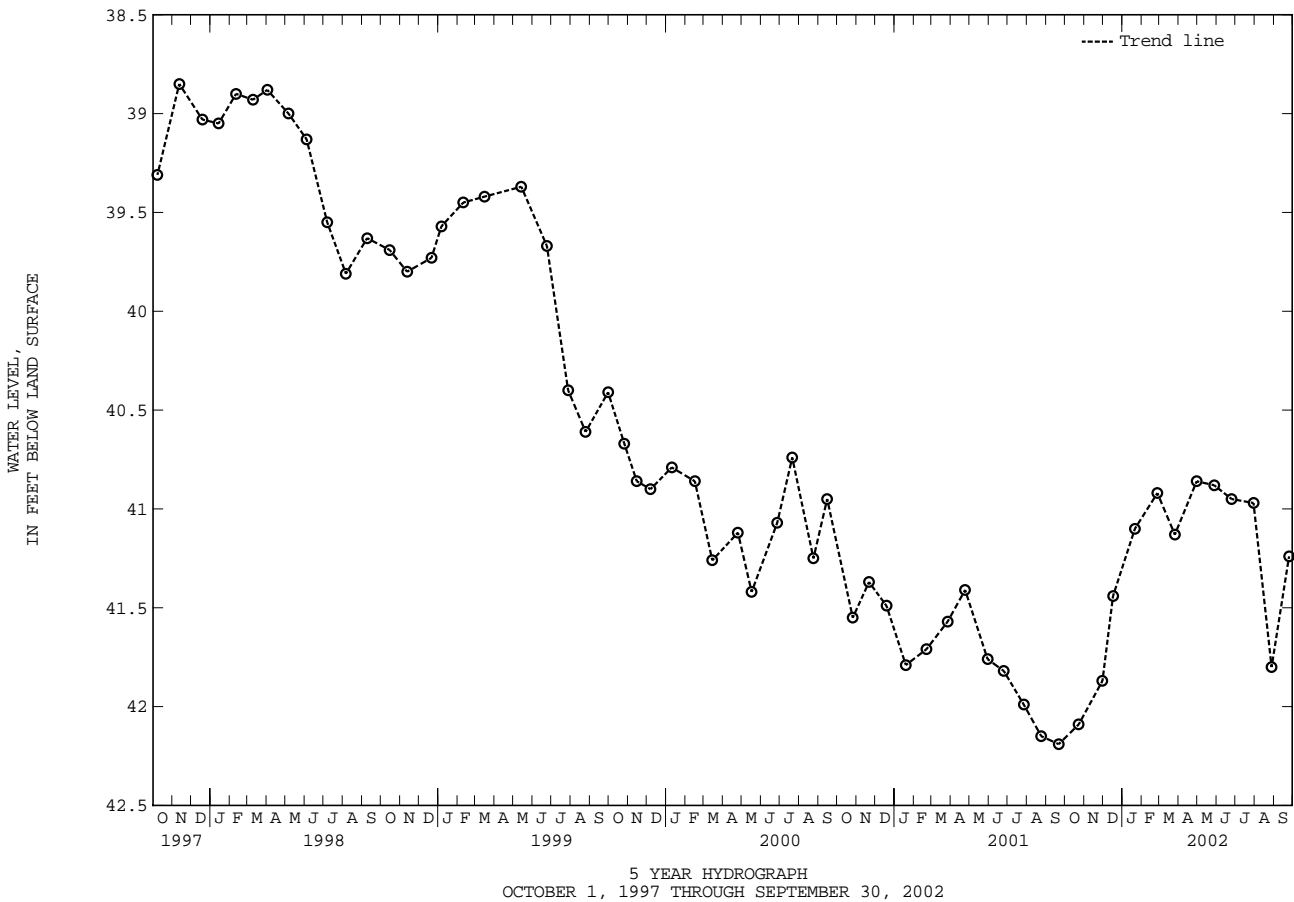
REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by regional ground-water withdrawal.

PERIOD OF RECORD.--February 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.64 ft below land surface, Dec. 10, 1976; lowest measured, 42.19 ft below land surface, Sept. 21, 2001.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	42.09	JAN 21, 2002	41.10	APR 30, 2002	40.86	JUL 30, 2002	40.97
NOV 30	41.87	FEB 26	40.92	MAY 28	40.88	AUG 28	41.80
DEC 17	41.44	MAR 26	41.13	JUN 25	40.95	SEP 25	41.24
WATER YEAR 2002		HIGHEST	40.86	APR 30, 2002	LOWEST	42.09	OCT 23, 2001



CARROLL COUNTY

WELL NUMBER.--CL Ad 47. SITE ID.--394008077005601. PERMIT NUMBER.--CL-73-3178.  
 LOCATION.--Lat 39°40'08", long 77°00'56", Hydrologic Unit 02070009, at Union Mills Homestead Park.  
 Owner: U.S. Geological Survey.

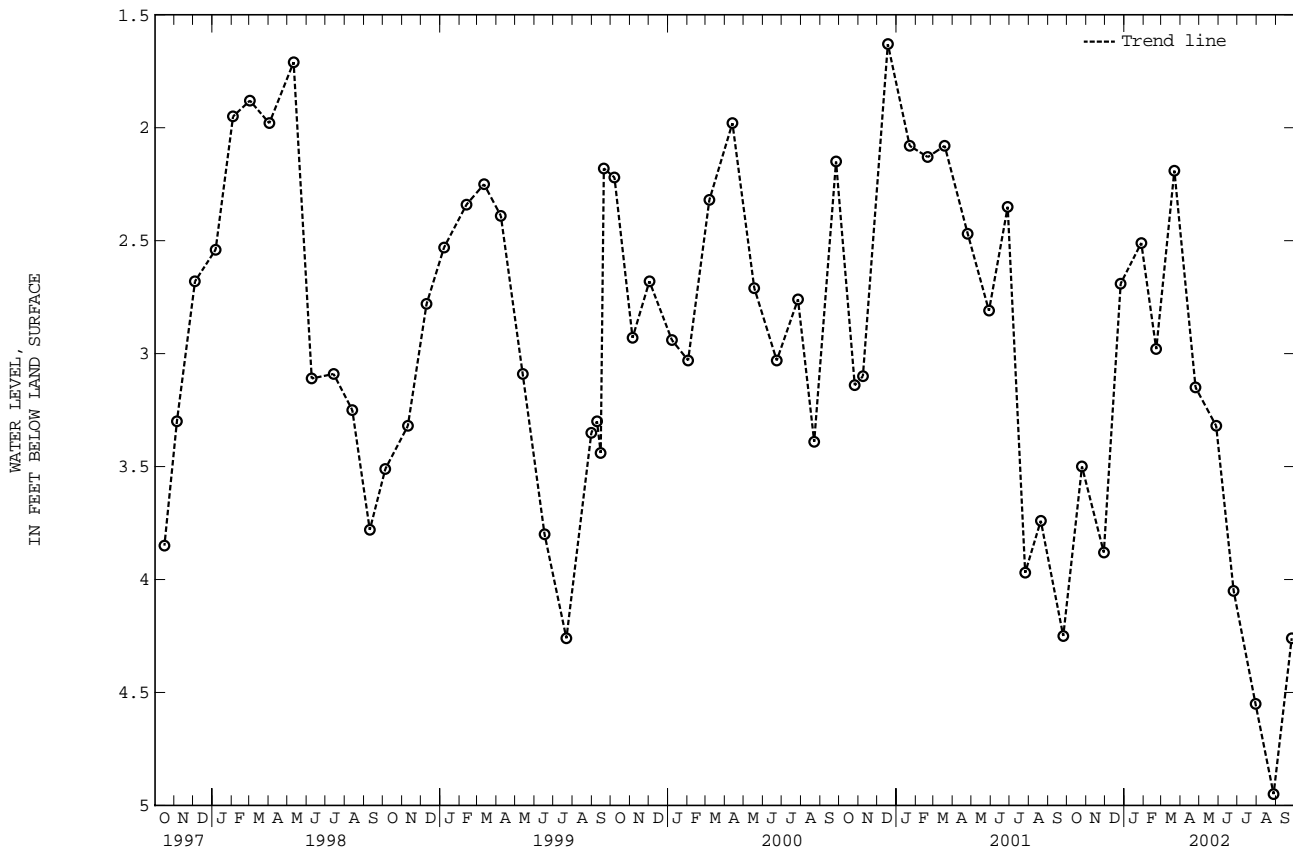
AQUIFER.--Marburg Formation of Paleozoic age. Aquifer code: 300MRBG.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 310 ft; casing diameter 6 in., to 35 ft.; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 540 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing 2.97 ft above land surface.  
 REMARKS.--Climatic Response Network (CRN) observation well (See Figure 3.).  
 PERIOD OF RECORD.--August 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.30 ft below land surface, Jan. 29, 1996;  
 lowest measured, 4.95 ft below land surface, August 28, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	3.50	JAN 28, 2002	2.51	APR 25, 2002	3.15	JUL 30, 2002	4.55
NOV 29	3.88	FEB 21	2.98	MAY 28	3.32	AUG 28	4.95
DEC 26	2.69	MAR 22	2.19	JUN 25	4.05	SEP 26	4.26
WATER YEAR 2002		HIGHEST	2.19	MAR 22, 2002	LOWEST	4.95	AUG 28, 2002



CARROLL COUNTY--Continued

WELL NUMBER.--CL Bf 1. SITE ID.--393638076510001.

LOCATION.--Lat 39°36'38", long 76°51'00", Hydrologic Unit 02060003, on Hillcrest St., Hampstead.

Owner: Town of Hampstead.

AQUIFER.-- Prettyboy Schist of Paleozoic age. Aquifer code: 300PRTB.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 407 ft; casing diameter 8 in., to approximately 65 ft; open hole.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with water-level recorder from July 1, 1952, to Nov. 7, 1962.

DATUM.--Elevation of land surface is 933 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of 2 in. casing extension, 2.35 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.

PERIOD OF RECORD.--September 1946 and December 1946, April 1947 and September 1947, February 1949 to current year.

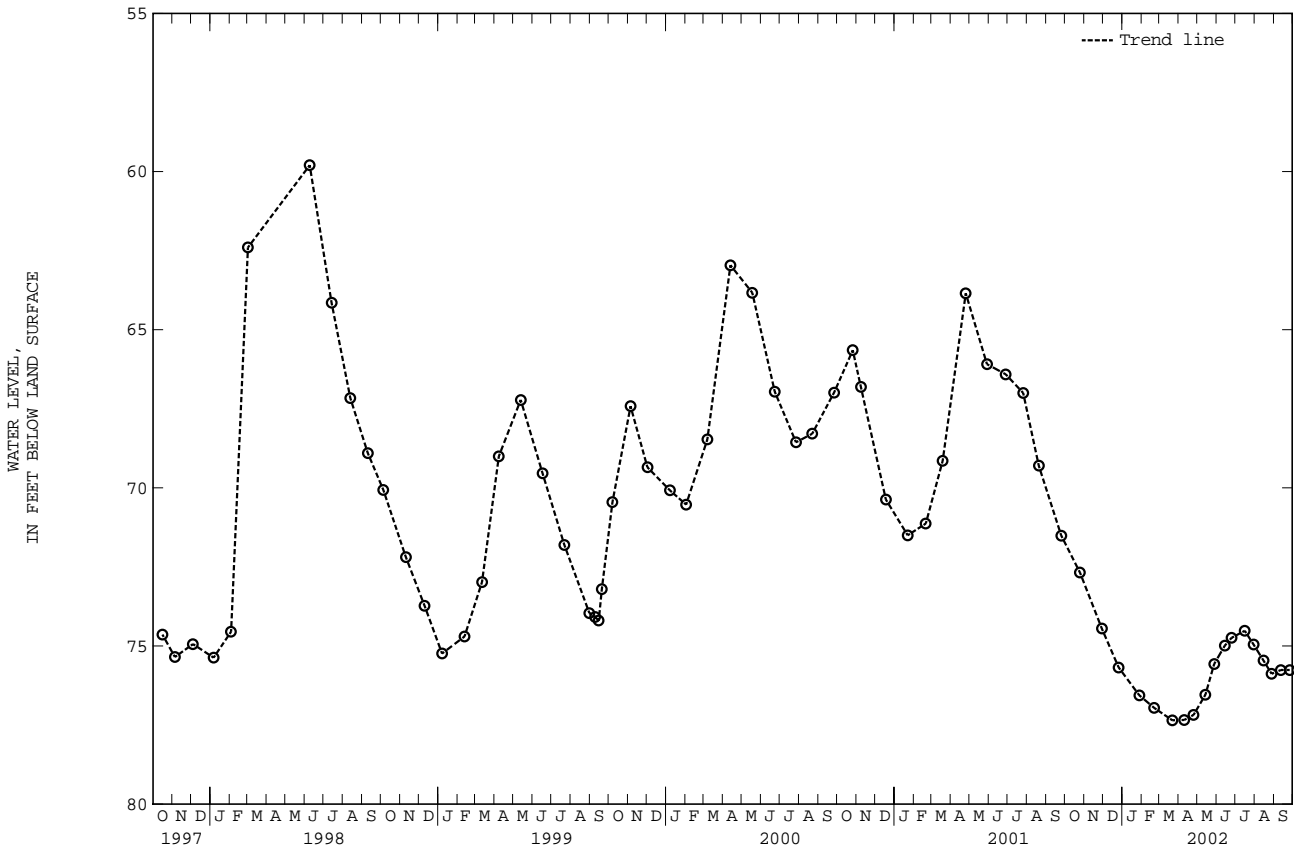
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.10 ft below land surface, June 13, 1989;

lowest measured, 77.35 ft below land surface, March 22, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	72.68	MAR 22, 2002	77.35	JUN 14, 2002	74.99	AUG 28, 2002	75.88
NOV 29	74.45	APR 10	77.34	25	74.74	SEP 12	75.76
DEC 26	75.68	25	77.18	JUL 16	74.52	26	75.76
JAN 28, 2002	76.56	MAY 14	76.54	30	74.95		
FEB 21	76.96	28	75.57	AUG 15	75.46		

WATER YEAR 2002      HIGHEST    72.68    OCT 25, 2001      LOWEST    77.35    MAR 22, 2002

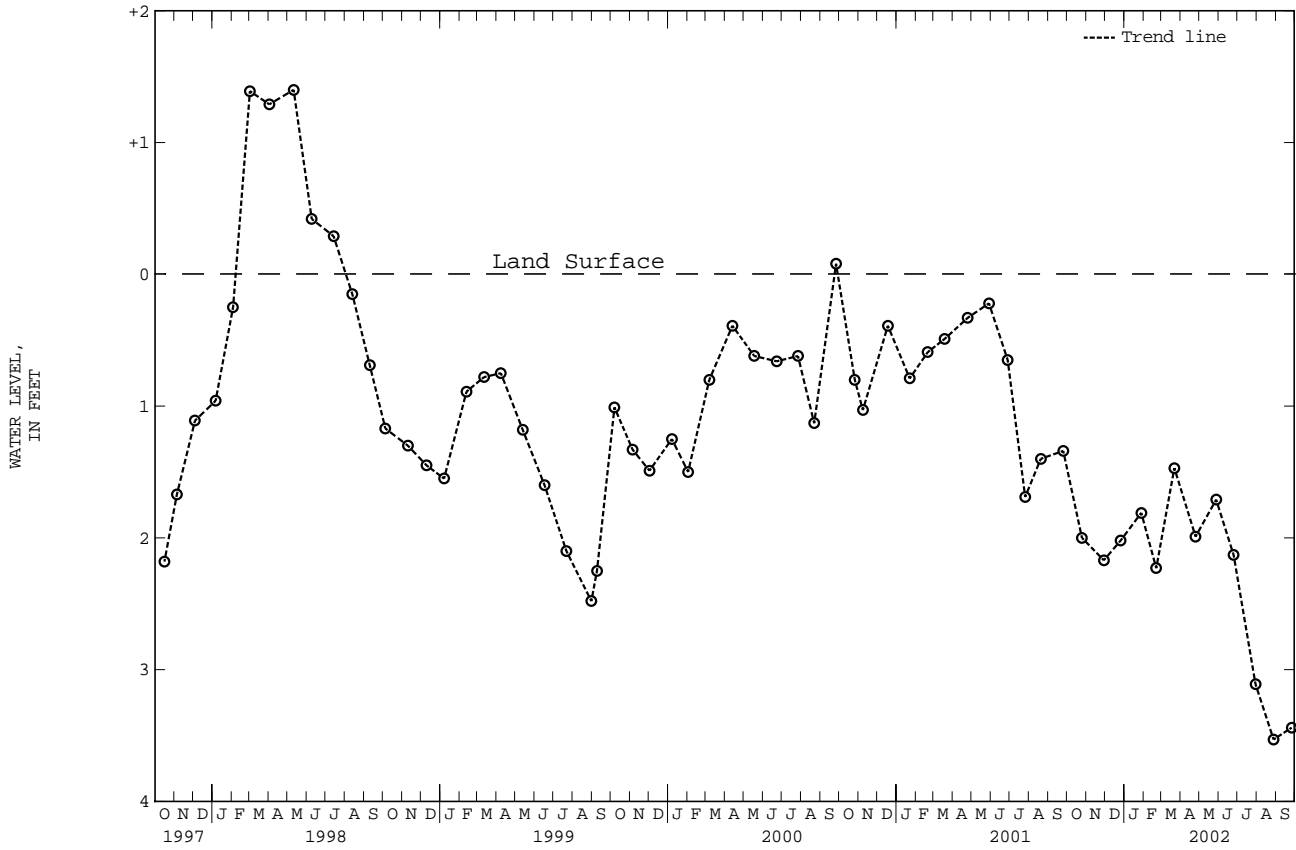


CARROLL COUNTY--Continued

WELL NUMBER.--CL Bf 184. SITE ID.--393754076512401. PERMIT NUMBER.--CL-73-6466.  
 LOCATION.--Lat 39°37'54", long 76°51'24", Hydrologic Unit 02060003, near Utz Rd., Greenmount.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Prettyboy Schist (calcareous zone) of Paleozoic age. Aquifer code: 300PRTB.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 339 ft; casing diameter 6 in., to 50 ft; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 785 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 1.81 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--August 1985 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.81 ft above land surface, Dec. 3, 1996, and Jan. 2, 1997;  
 lowest measured, 3.53 ft below land surface, Aug. 28, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	2.00	JAN 28, 2002	1.81	APR 25, 2002	1.99	JUL 30, 2002	3.11
NOV 29	2.17	FEB 21	2.23	MAY 28	1.71	AUG 28	3.53
DEC 26	2.02	MAR 22	1.47	JUN 25	2.13	SEP 26	3.44
WATER YEAR 2002		HIGHEST	1.47	MAR 22, 2002	LOWEST	3.53	AUG 28, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

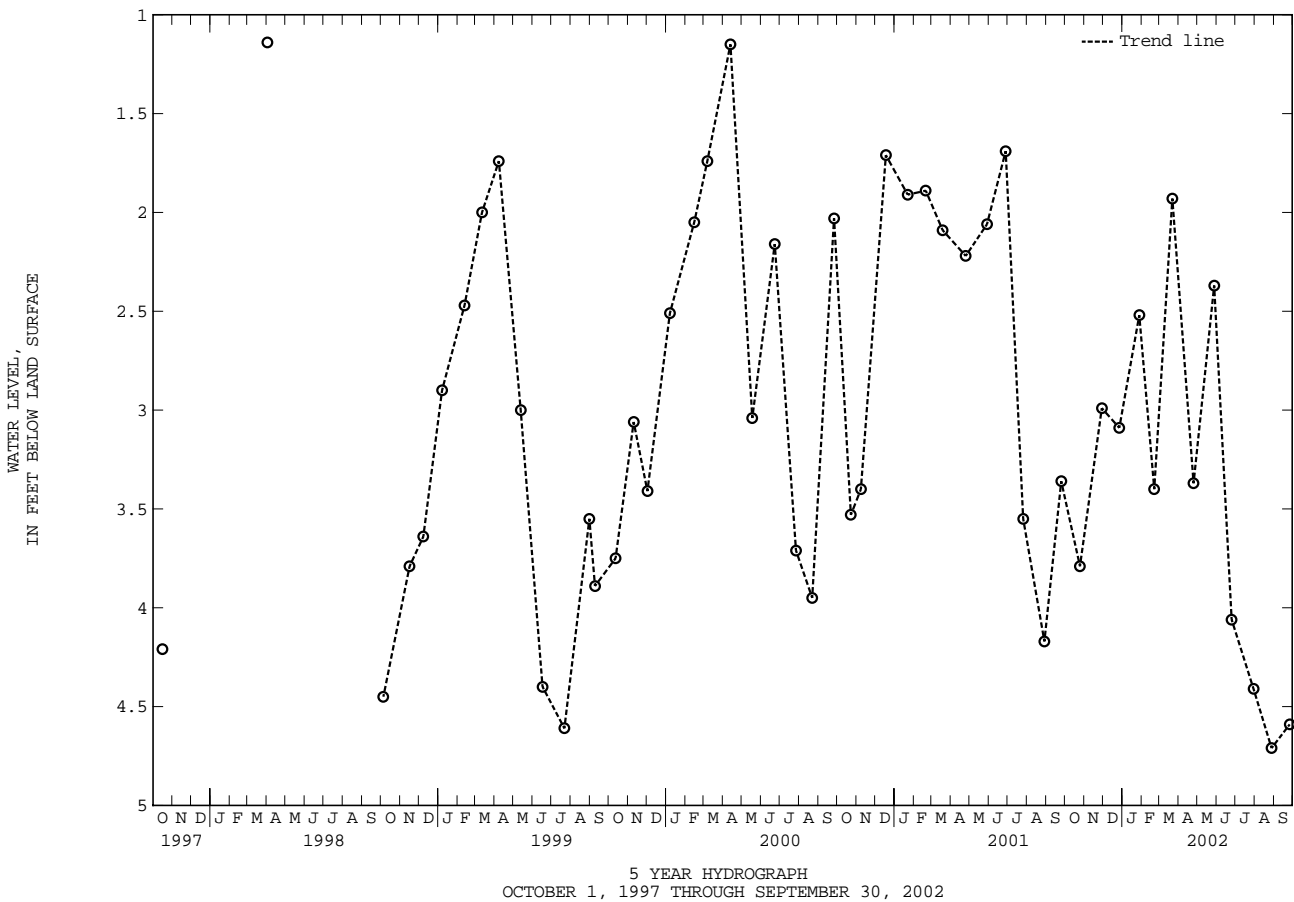
GROUND-WATER LEVELS IN MARYLAND--Continued

CARROLL COUNTY--Continued

WELL NUMBER.--CL Ec 75. SITE ID.--392259077052401. PERMIT NUMBER.--CL-73-2722.  
 LOCATION.--Lat 39°22'59", long 77°05'24", Hydrologic Unit 02060003, 2.3 mi northwest of Woodbine, at Gills Falls Park.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Gillis Group of Ordovician age. Aquifer code: (code in review).  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 248 ft; casing diameter 6 in., to 21 ft; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Twice yearly water level measurements from October 1990 to April 1998. Equipped with graphic recorder December 26, 1974 to July 19, 1980.  
 DATUM.--Elevation of land surface is 550 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 2.31 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--March 1980 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.76 ft below land surface, April 5, 1993;  
 lowest measured, 5.23 ft below land surface, Aug. 7, 1985.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	3.79	JAN 28, 2002	2.52	APR 25, 2002	3.37	JUL 30, 2002	4.41
NOV 29	2.99	FEB 21	3.40	MAY 28	2.37	AUG 28	4.71
DEC 27	3.09	MAR 22	1.93	JUN 25	4.06	SEP 26	4.59
WATER YEAR 2002 HIGHEST		1.93 MAR 22, 2002	LOWEST		4.71	AUG 28, 2002	



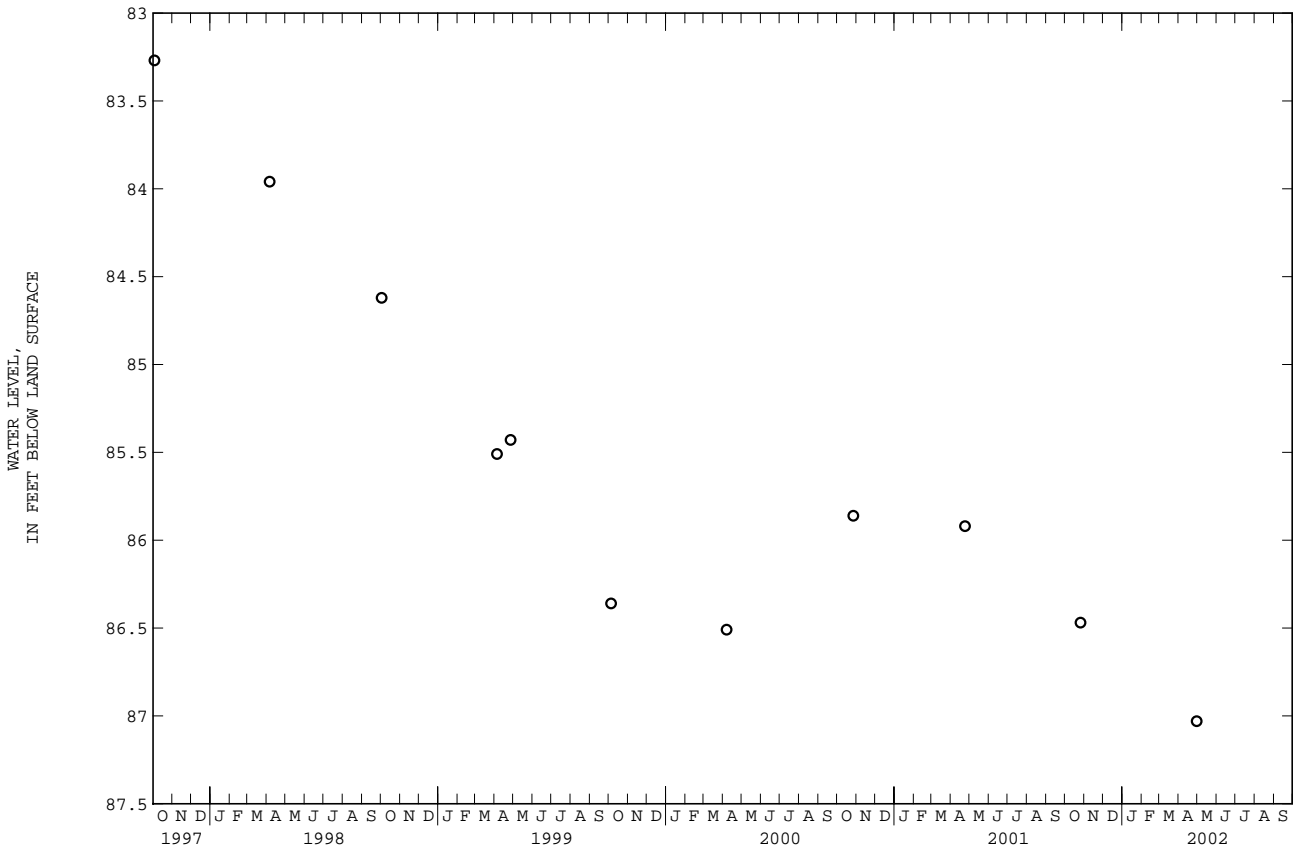


CECIL COUNTY

WELL NUMBER.--CE Be 73. SITE ID.--393637075535001. PERMIT NUMBER.--CE-81-0464.  
 LOCATION.--Lat 39°36'37", long 75°53'50", Hydrologic Unit 02060002, 2 mi west of Elkton near US Rt. 40.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 152 ft; casing diameter 2 in., to 147 ft; screen diameter 2 in. from 147 to 152 ft.  
 INSTRUMENTATION.--Twice yearly measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 162 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring Point: Top of casing, 1.95 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by regional ground-water withdrawal.  
 PERIOD OF RECORD.--November 1982 to November 1984, April 1988 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.06 ft below land surface, July 31, 1984; lowest measured, 87.03 ft below land surface, April 30, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	86.47	APR 30, 2002	87.03
WATER YEAR 2002	HIGHEST 86.47	OCT 26, 2001	LOWEST 87.03
		APR 30, 2002	



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

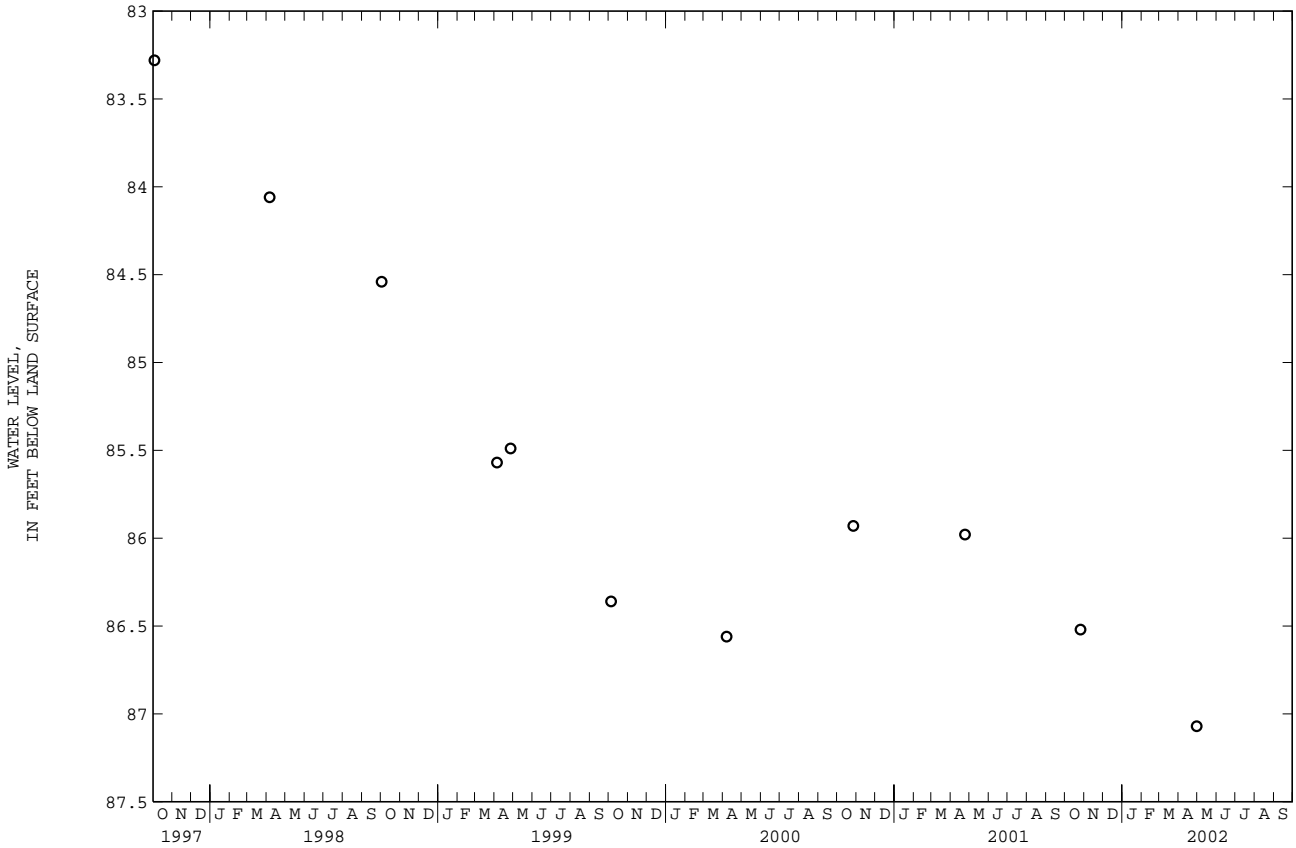
GROUND-WATER LEVELS IN MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Be 74. SITE ID.--393637075535002. PERMIT NUMBER.--CE-81-0464.  
 LOCATION.--Lat 39°36'37", long 75°53'50", Hydrologic Unit 02060002, 2 mi west of Elkton near US Rt. 40.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation. Aquifer code: 217PPSCL.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 115 ft; casing diameter 2 in., to 110 ft; screen diameter 2 in. from 110 to 115 ft.  
 INSTRUMENTATION.--Twice yearly measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 162 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring Point: Top of casing, 2.00 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by regional ground-water withdrawal.  
 PERIOD OF RECORD.--November 1982 to November 1984, April 1988 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.12 ft below land surface, July 31, 1984; lowest measured, 87.07 ft below land surface, April 30, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	86.52	APR 30, 2002	87.07
WATER YEAR 2002	HIGHEST 86.52	OCT 26, 2001	LOWEST 87.07
		APR 30, 2002	



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CECIL COUNTY--Continued

WELL NUMBER.--CE Bf 81. SITE ID.--393615075475901. PERMIT NUMBER.--CE-81-0537.

LOCATION.--Lat 39°36'15", long 75°47'59", Hydrologic Unit 02060002, at Thompson Estates Elementary School, Elkton.

Owner: U.S. Geological Survey.

AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 55.5 ft; casing diameter 4 in., to 50 ft; screen diameter 2 in. from 50 to 55 ft.

INSTRUMENTATION.--Twice yearly measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 90 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local ground-water withdrawal..

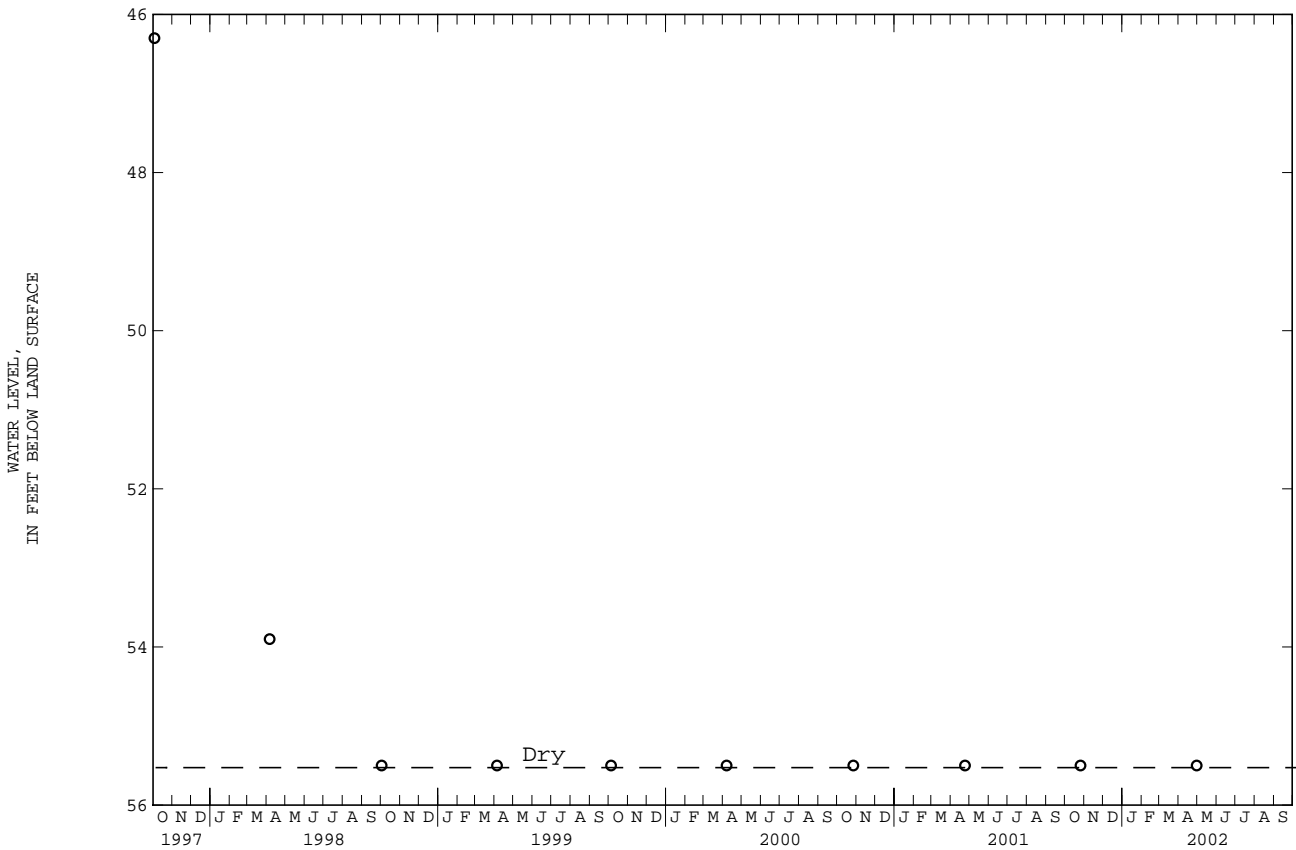
PERIOD OF RECORD.--March 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.26 ft below land surface, July 9, 1983;

lowest measured, dry, Nov. 6, 1985, April 8, 1986, May 12, 1986, May 10, 1988, June 21, 1988, Oct. 6, 1988, Oct. 2, 1992, Oct. 4, 1995, April 3, 1996, Oct. 2, 1998, April 5, 1999, Oct. 5, 1999, April 7, 2000, Oct. 27, 2000, April 24, 2001, Oct 26, 2002, and April 30, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	DRY	APR 30, 2002	DRY
WATER YEAR 2002 HIGHEST		DRY LOWEST	



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

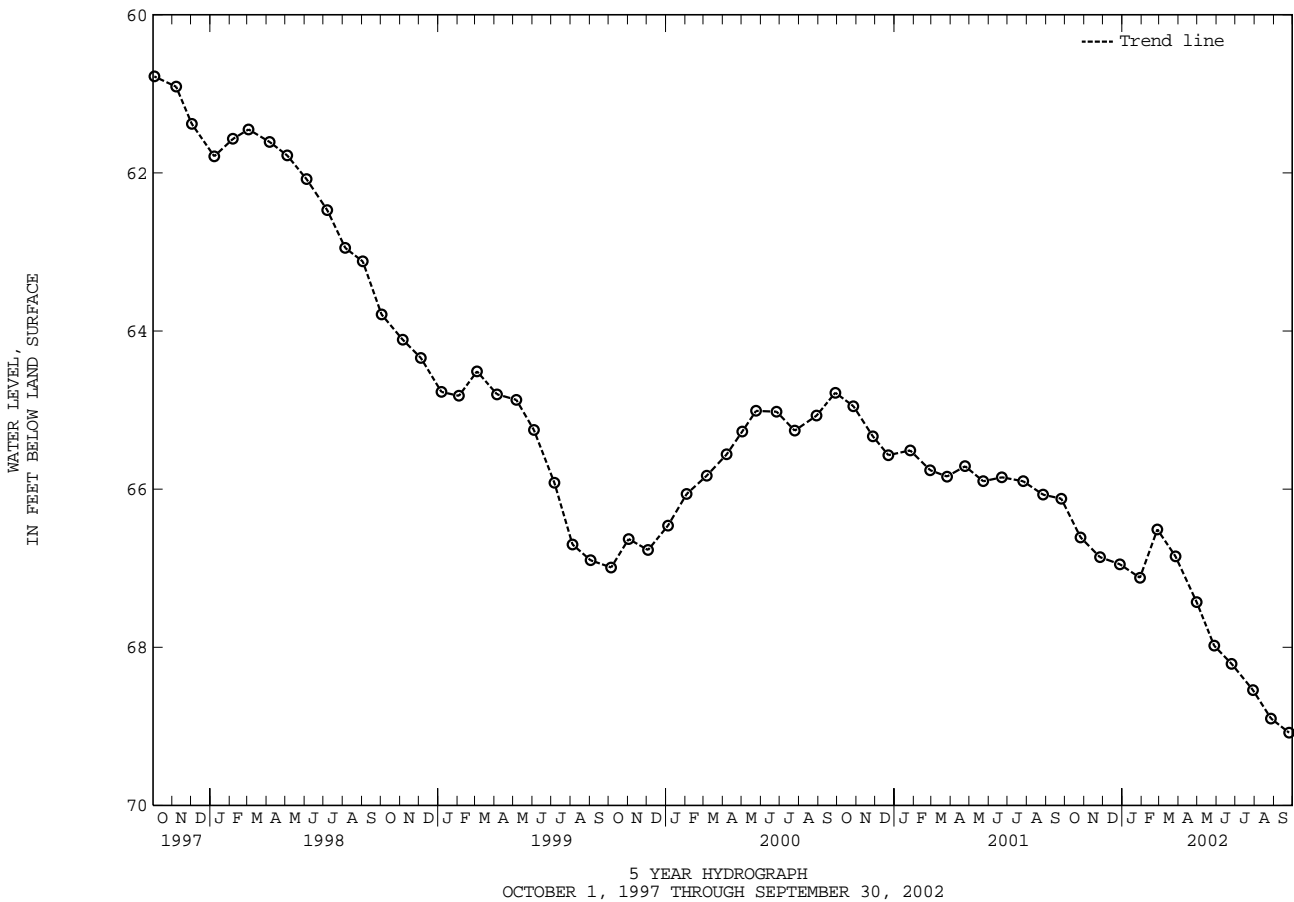
CECIL COUNTY--Continued

WELL NUMBER.--CE Bf 82. SITE ID.--393537075492001. PERMIT NUMBER.--CE-81-0470.  
 LOCATION.--Lat 39°35'37", long 75°49'20", Hydrologic Unit 02060002, at Holly Hall Elementary School, Elkton.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 125 ft; casing diameter 4 in., to 120 ft; screen diameter 2 in. from 120 to 125 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Equipped with water-level recorder July 1, 1983 to Nov. 6, 1984.  
 DATUM.--Elevation of land surface is 70 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.60 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--February 1983 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.13 ft below land surface, July 1, 1983; lowest measured, 69.08 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	66.61	JAN 29, 2002	67.12	APR 30, 2002	67.43	JUL 29, 2002	68.54
NOV 26	66.86	FEB 26	66.51	MAY 28	67.98	AUG 27	68.90
DEC 28	66.95	MAR 27	66.85	JUN 25	68.21	SEP 25	69.08

WATER YEAR 2002    HIGHEST    66.51    FEB 26, 2002    LOWEST    69.08    SEP 25, 2002



CECIL COUNTY--Continued

WELL NUMBER.--CE Cd 51. SITE ID.--393432075593601. PERMIT NUMBER.--CE-81-0440.

LOCATION.--Lat 39°34'32", long 75°59'36", Hydrologic Unit 02060002, near intersection of MD Rts. 7 and 267, 1 mi west of Charlestown.

Owner: U.S. Geological Survey.

AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 125 ft; casing diameter 4 in., to 120 ft; screen diameter 2 in. from 120 to 125 ft.

INSTRUMENTATION.--Twice yearly measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 70 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 3.12 ft above land surface.

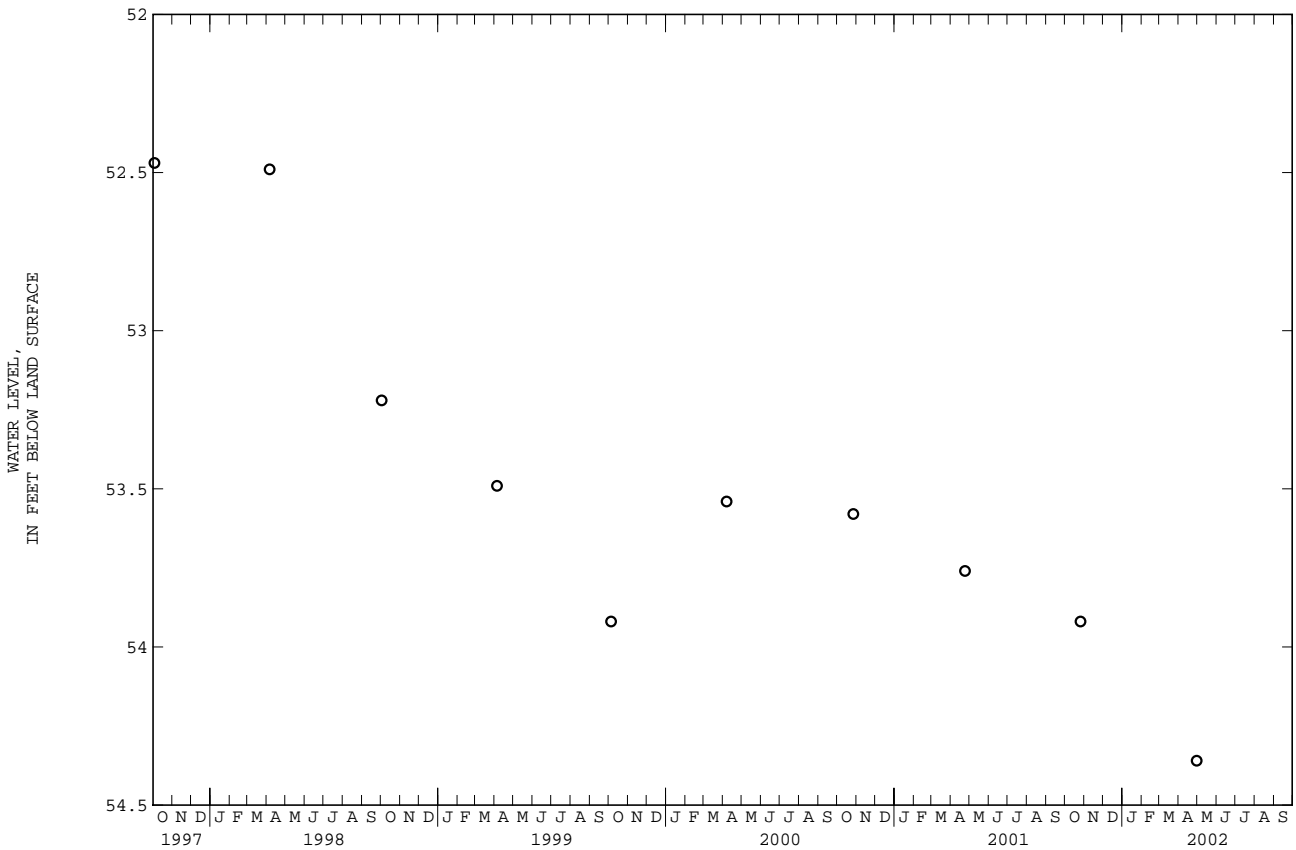
REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.--November 1982 to November 1984, April 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.80 ft below land surface, April 6, 1984; lowest measured, 54.36 ft below land surface, April 30, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	53.92	APR 30, 2002	54.36
WATER YEAR 2002 HIGHEST		53.92	OCT 26, 2001
LOWEST		54.36	APR 30, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Cd 52. SITE ID.--393432075593602. PERMIT NUMBER.--CE-81-0440.

LOCATION.--Lat 39°34'32", long 75°59'36", Hydrologic Unit 02060002, near intersection of MD Rts. 7 and 267, 1 mi west of Charlestown.

Owner: U.S. Geological Survey.

AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 48 ft; casing diameter 4 in., to 43 ft; screen diameter 2 in. from 43 to 48 ft.

INSTRUMENTATION.--Twice yearly measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 70 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 3.18 ft above land surface.

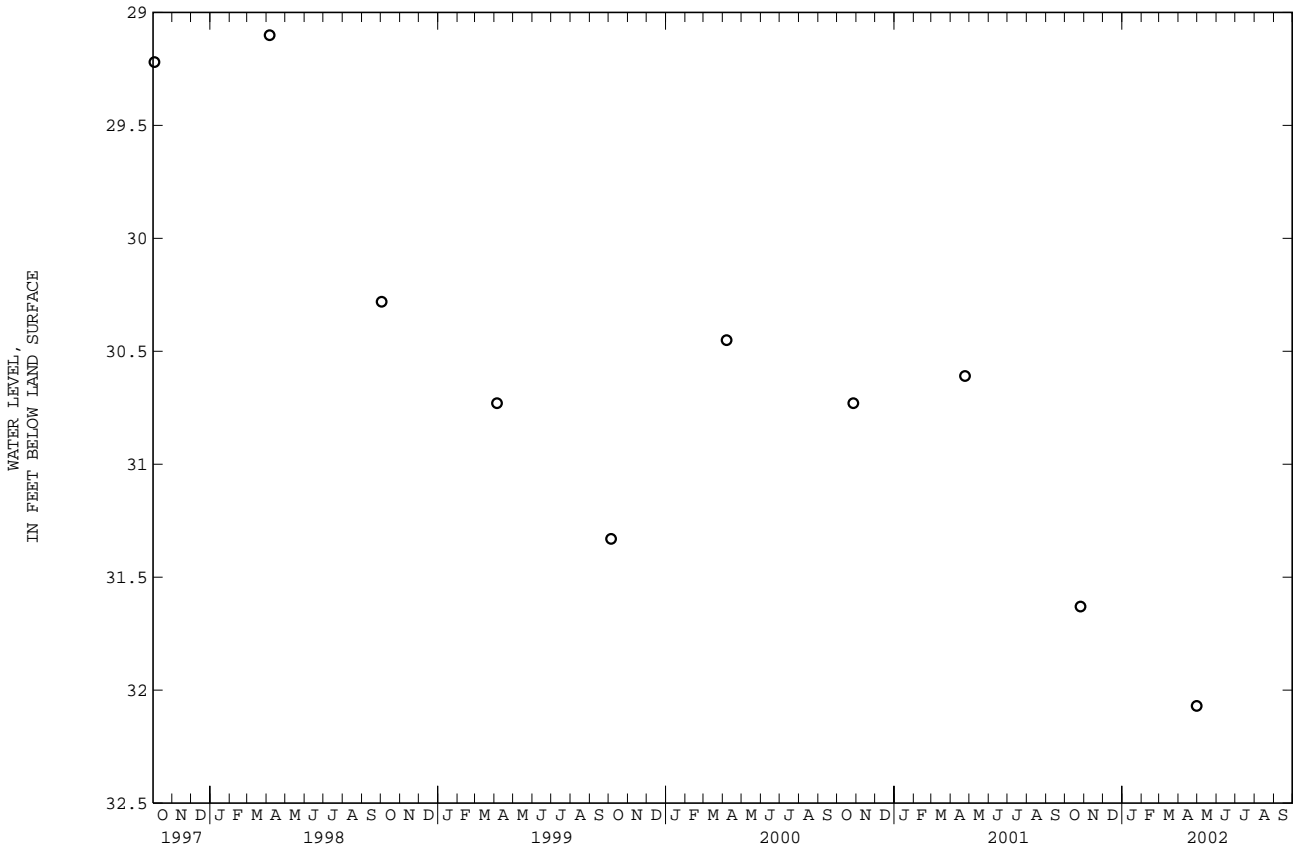
REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.--November 1982 to November 1984, April 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.75 ft below land surface, July 5, 1983; lowest measured, 32.07 ft below land surface, April 30, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	31.63	APR 30, 2002	32.07
WATER YEAR 2002 HIGHEST		31.63	OCT 26, 2001
LOWEST		32.07	APR 30, 2002



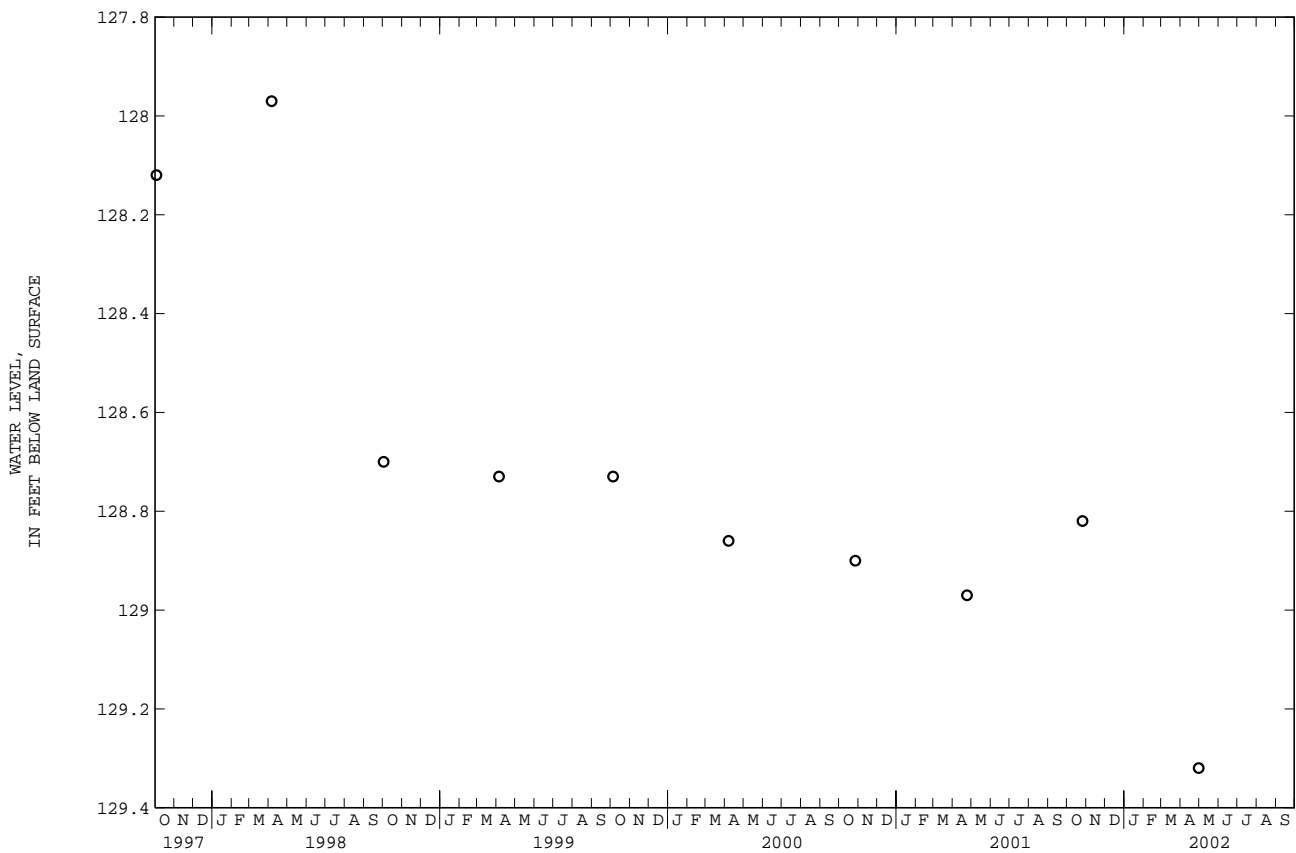
5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CECIL COUNTY--Continued

WELL NUMBER.--CE Cd 53. SITE ID.--393216075564201. PERMIT NUMBER.--CE-81-0463.  
 LOCATION.--Lat 39°32'16", long 75°56'42", Hydrologic Unit 02060002, Elk Neck State Forest, 0.5 mi north of Black Hill Lookout Tower.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 350 ft; casing diameter 4 in., to 345 ft; screen diameter 2 in. from 345 to 350 ft.  
 INSTRUMENTATION.--Twice yearly measurements with electric tape by U.S. Geological Survey personnel. Equipped with graphic water-level recorder from July 22, 1983 to Oct. 24, 1984.  
 DATUM.--Elevation of land surface is 135 ft above , from topographic map.  
 Measuring Point: Top of casing, 2.00 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--March 1983 to October 1984, October 1988 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 126.65 ft below land surface, April 6, 1984; lowest measured, 129.32 ft below land surface, April 30, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	128.82	APR 30, 2002	129.32
WATER YEAR 2002 HIGHEST 128.82 OCT 26, 2001		LOWEST 129.32 APR 30, 2002	



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

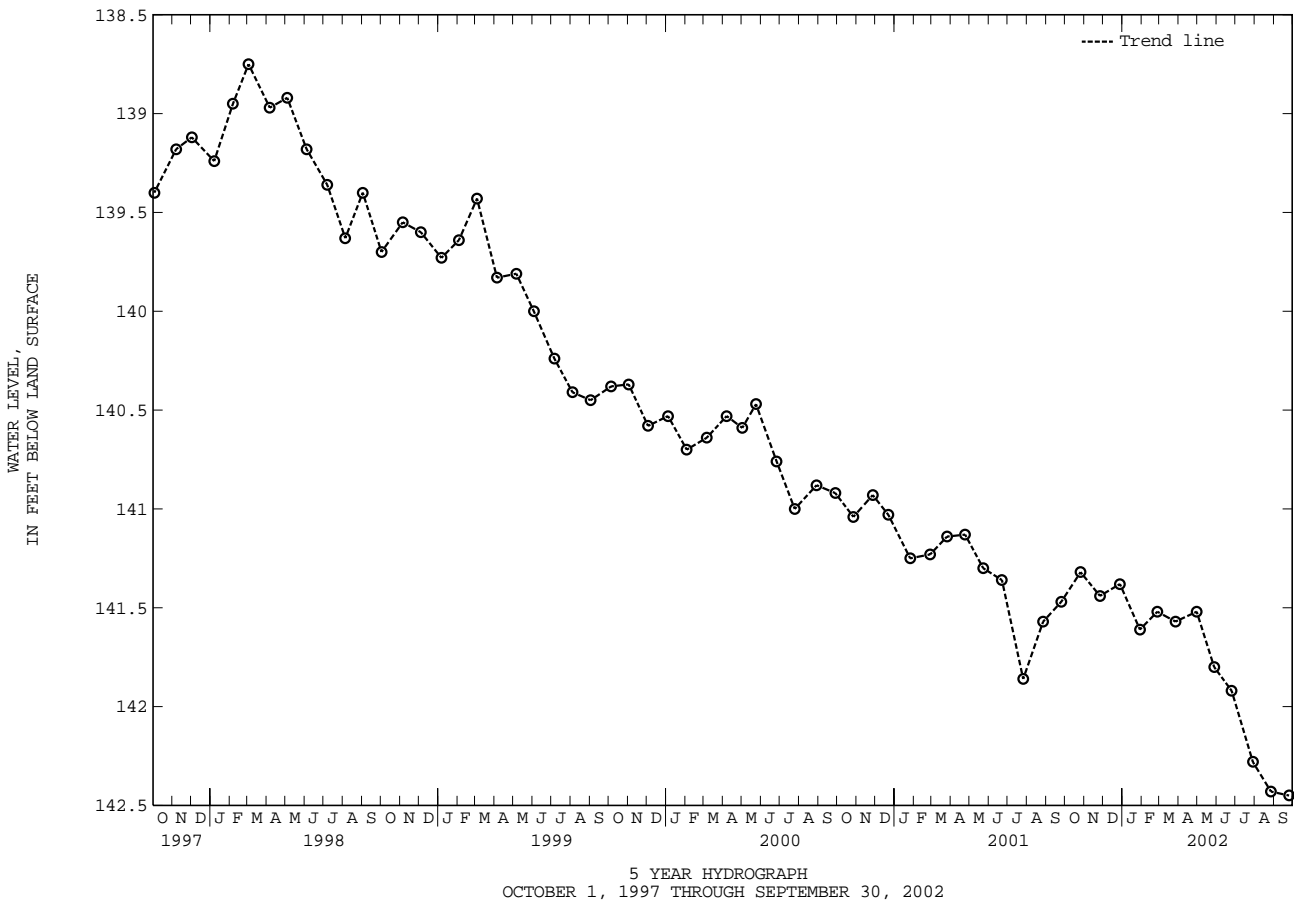
CECIL COUNTY--Continued

WELL NUMBER.--CE Ce 54. SITE ID.--393433075544901. PERMIT NUMBER.--CE-81-0461.  
 LOCATION.--Lat 39°34'33", long 75°54'49", Hydrologic Unit 02060002, Elk Neck State Forest near Irishtown Road.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 250 ft; casing diameter 4 in., to 245 ft; screen diameter 2 in. from 245 to 250 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Equipped with graphic water-level recorder July 21, 1983 to Nov. 6, 1984.  
 DATUM.--Elevation of land surface is 180 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.00 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--March 1983 to November 1984, July 1985 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 136.10 ft below land surface, March 29, 1984, April 6, 1984, and Nov. 6, 1984; lowest measured, 142.45 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	141.32	JAN 29, 2002	141.61	APR 30, 2002	141.52	JUL 29, 2002	142.28
NOV 26	141.44	FEB 26	141.52	MAY 28	141.80	AUG 27	142.43
DEC 28	141.38	MAR 27	141.57	JUN 25	141.92	SEP 25	142.45

WATER YEAR 2002    HIGHEST 141.32    OCT 26, 2001    LOWEST 142.45    SEP 25, 2002





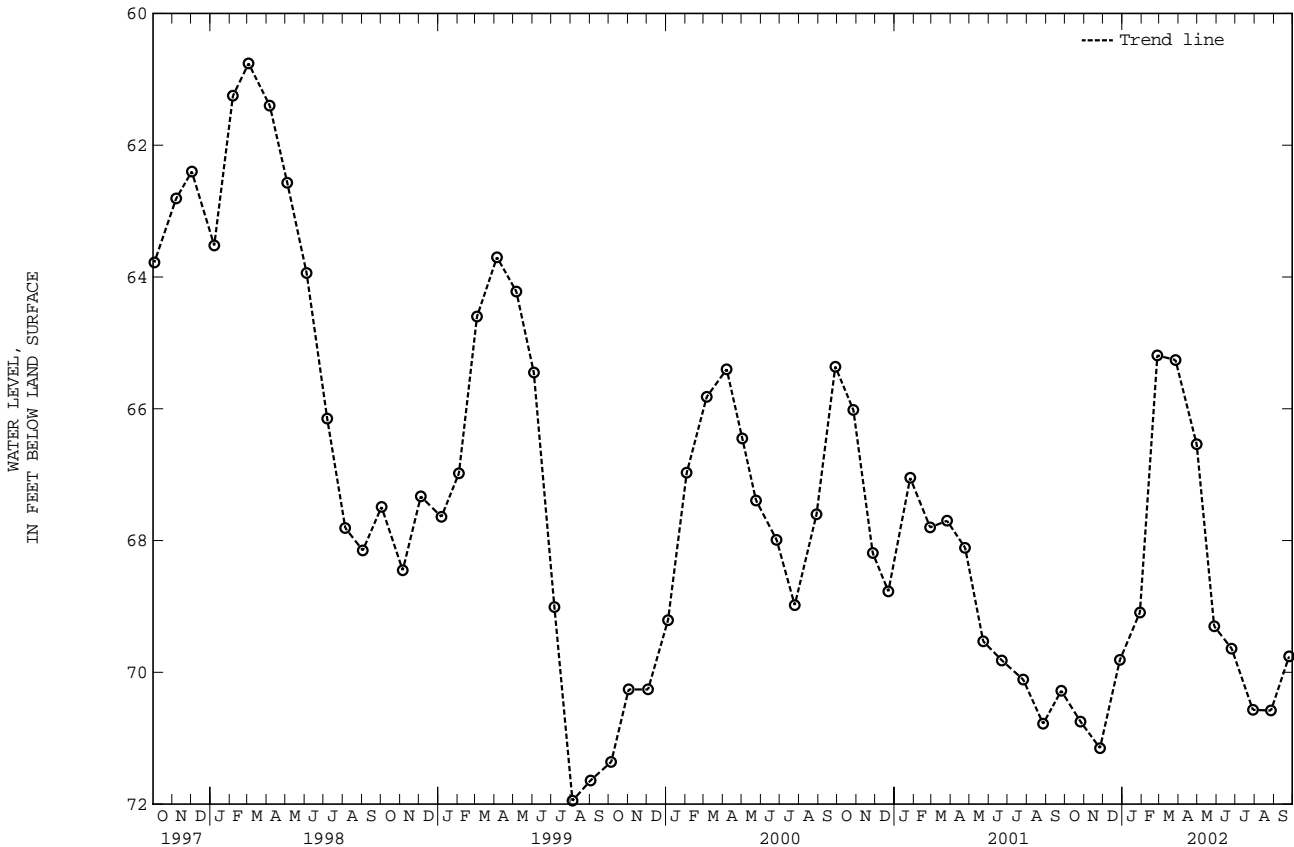
CECIL COUNTY--Continued

WELL NUMBER.--CE Ce 55. SITE ID.--393241075500201. PERMIT NUMBER.--CE-81-0465.  
 LOCATION.--Lat 39°32'41", long 75°50'02", Hydrologic Unit 02060002, Canal National Wildlife Refuge near Elk Forest Rd.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 375 ft; casing diameter 4 in., to 370 ft;  
 screen diameter 2 in. from 370 to 375 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Equipped with graphic  
 water-level recorder from July 21, 1983 to Nov. 6, 1984.  
 DATUM.--Elevation of land surface is 55 ft above , from topographic map.  
 Measuring point: Top of casing 2.40 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. During August 1995, a new well field located 3 miles northwest  
 of this site began pumping groundwater at approximately 2.4 million gallons per day. Water levels are affected by  
 local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--March 1983 to November 1984, July 1985 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.56 ft below land surface, April 17, 1984;  
 lowest measured, 71.95 ft below land surface, Aug. 4, 1999.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	70.75	JAN 29, 2002	69.09	APR 30, 2002	66.54	JUL 29, 2002	70.57
NOV 26	71.15	FEB 26	65.19	MAY 28	69.30	AUG 27	70.58
DEC 28	69.81	MAR 27	65.26	JUN 25	69.64	SEP 25	69.76

WATER YEAR 2002      HIGHEST    65.19    FEB 26, 2002      LOWEST    71.15    NOV 26, 2001



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

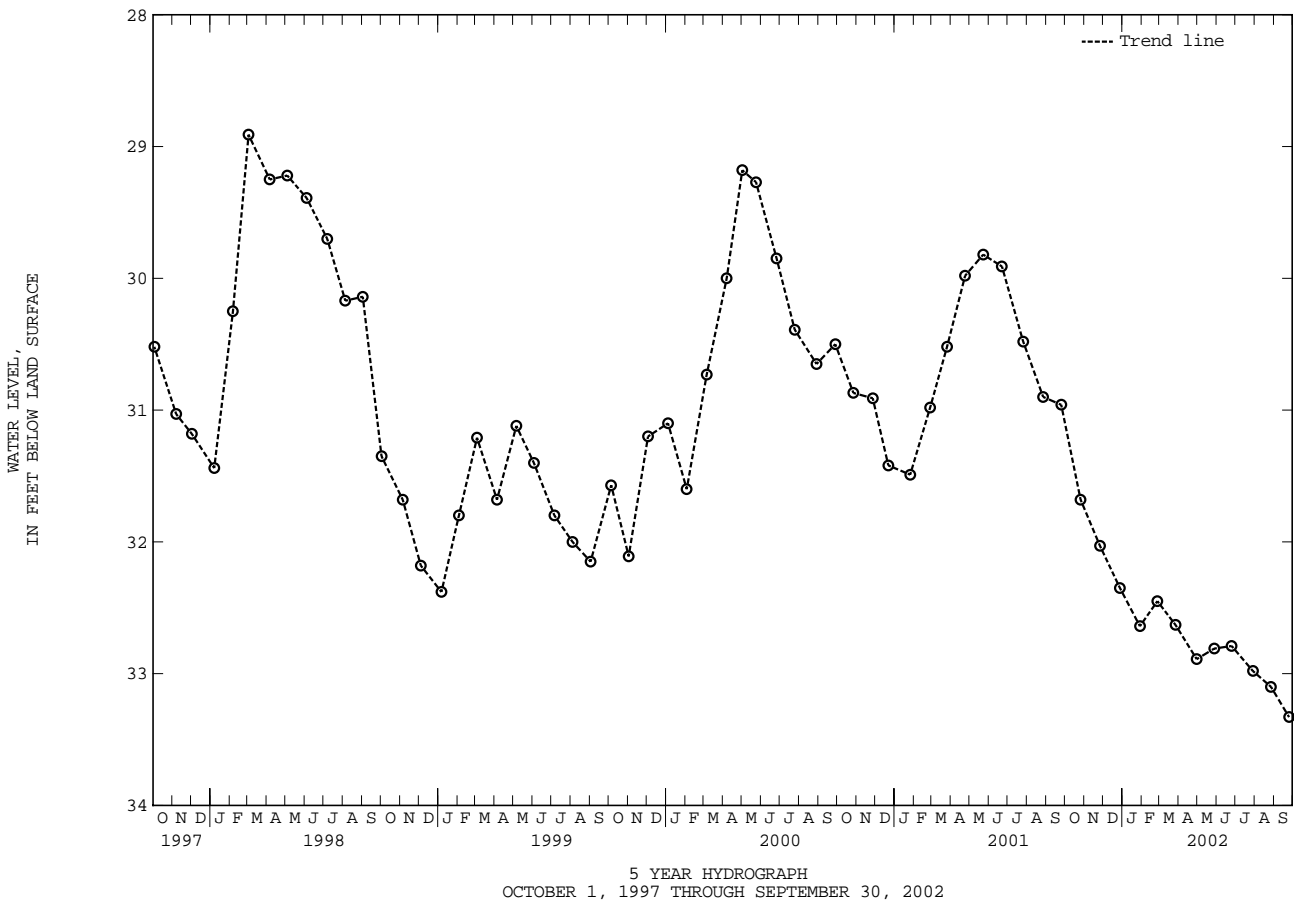
GROUND-WATER LEVELS IN MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Ce 56. SITE ID.--393026075523101. PERMIT NUMBER.--CE-81-0466.  
 LOCATION.--Lat 39°30'26", long 75°52'31", Hydrologic Unit 02060002, 1.2 mi east of Courthouse Point.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 121 ft; casing diameter 4 in., to 116 ft; screen diameter 2 in. from 116 to 121 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Measured twice yearly from April 1988 to April 1994.  
 DATUM.--Elevation of land surface is 38 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.00 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--April 1983 to September 1984, April 1988 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.42 ft below land surface, April 4, 1997; lowest measured, 34.48 ft below land surface, Nov. 19, 1983.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	31.68	JAN 29, 2002	32.64	APR 30, 2002	32.89	JUL 29, 2002	32.98
NOV 26	32.03	FEB 26	32.45	MAY 28	32.81	AUG 27	33.10
DEC 28	32.35	MAR 27	32.63	JUN 25	32.79	SEP 25	33.33
WATER YEAR 2002 HIGHEST 31.68 OCT 26, 2001		LOWEST 33.33		SEP 25, 2002			



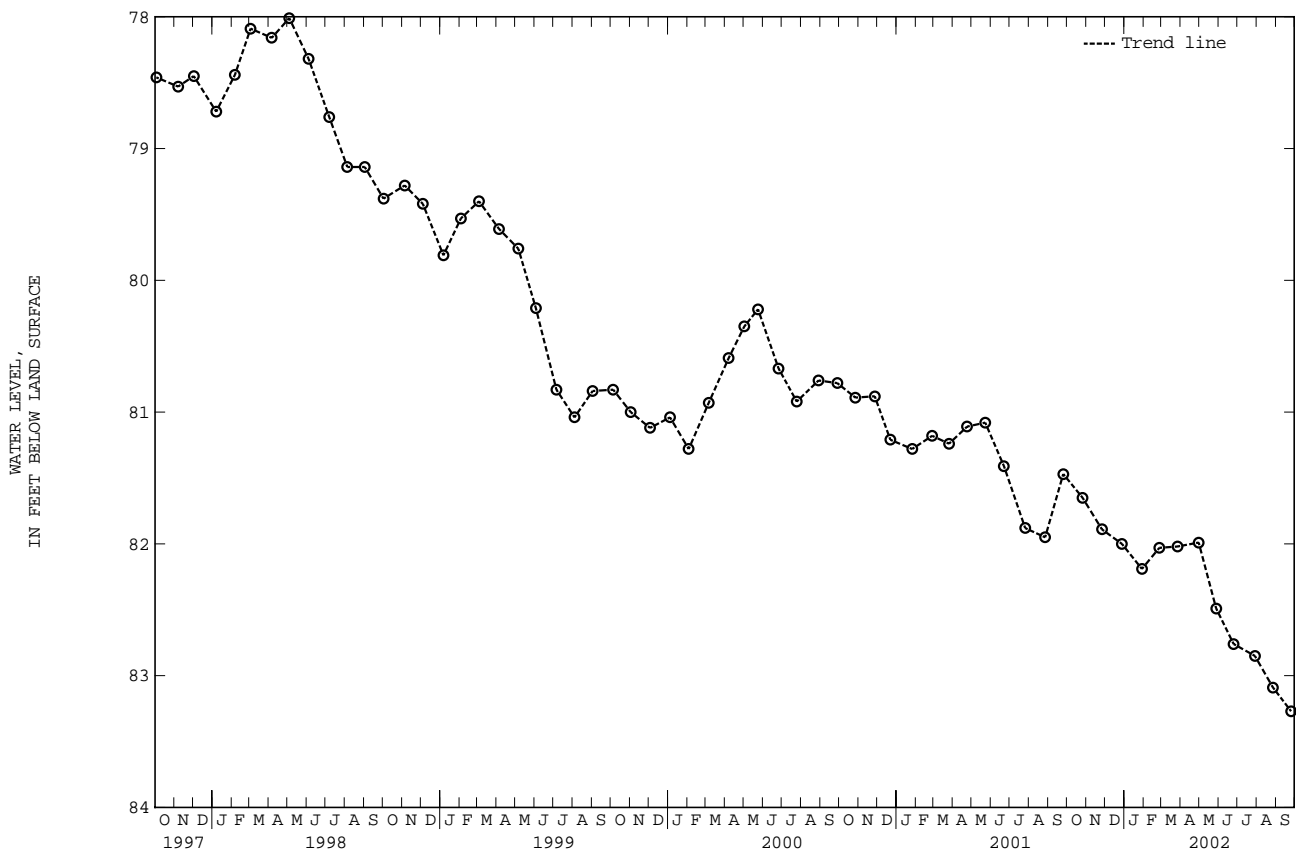
CECIL COUNTY--Continued

WELL NUMBER.--CE Ce 82. SITE ID.--393209075541301. PERMIT NUMBER.--CE-94-1417.  
 LOCATION.--Lat 39°32'09", long 75°54'13", Hydrologic Unit 02060002, 4.0 mi southeast of North East, at Village of Elk Neck, 0.1 mi north of Racine-School Rd.  
 Owner: Stuart Associates.  
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 210 ft; casing diameter 4 in., to 205 ft; screen diameter 4 in. from 205 to 210 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 120 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring Point: Top of casing, 1.00 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--August 1996 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 78.01 ft below land surface, May 4, 1998; lowest measured, 83.27 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	81.65	JAN 29, 2002	82.19	APR 30, 2002	81.99	JUL 29, 2002	82.85
NOV 26	81.89	FEB 26	82.03	MAY 28	82.49	AUG 27	83.09
DEC 28	82.00	MAR 27	82.02	JUN 25	82.76	SEP 25	83.27

WATER YEAR 2002 HIGHEST 81.65 OCT 26, 2001 LOWEST 83.27 SEP 25, 2002



CECIL COUNTY--Continued

WELL NUMBER.--CE Dd 81. SITE ID.--392536075593201. PERMIT NUMBER.--CE-81-0469.

LOCATION.--Lat 39°25'36", long 75°59'32", Hydrologic Unit 02060002, at dredge spoil site, off Pond Neck Road, near West View Shores.

Owner: U.S. Geological Survey.

AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 115 ft; casing diameter 4 in., to 110 ft; screen diameter 2 in. from 110 to 115 ft.

INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Measured twice yearly from April 1988 to April 1994.

DATUM.--Elevation of land surface is 24 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 1.80 ft above land surface.

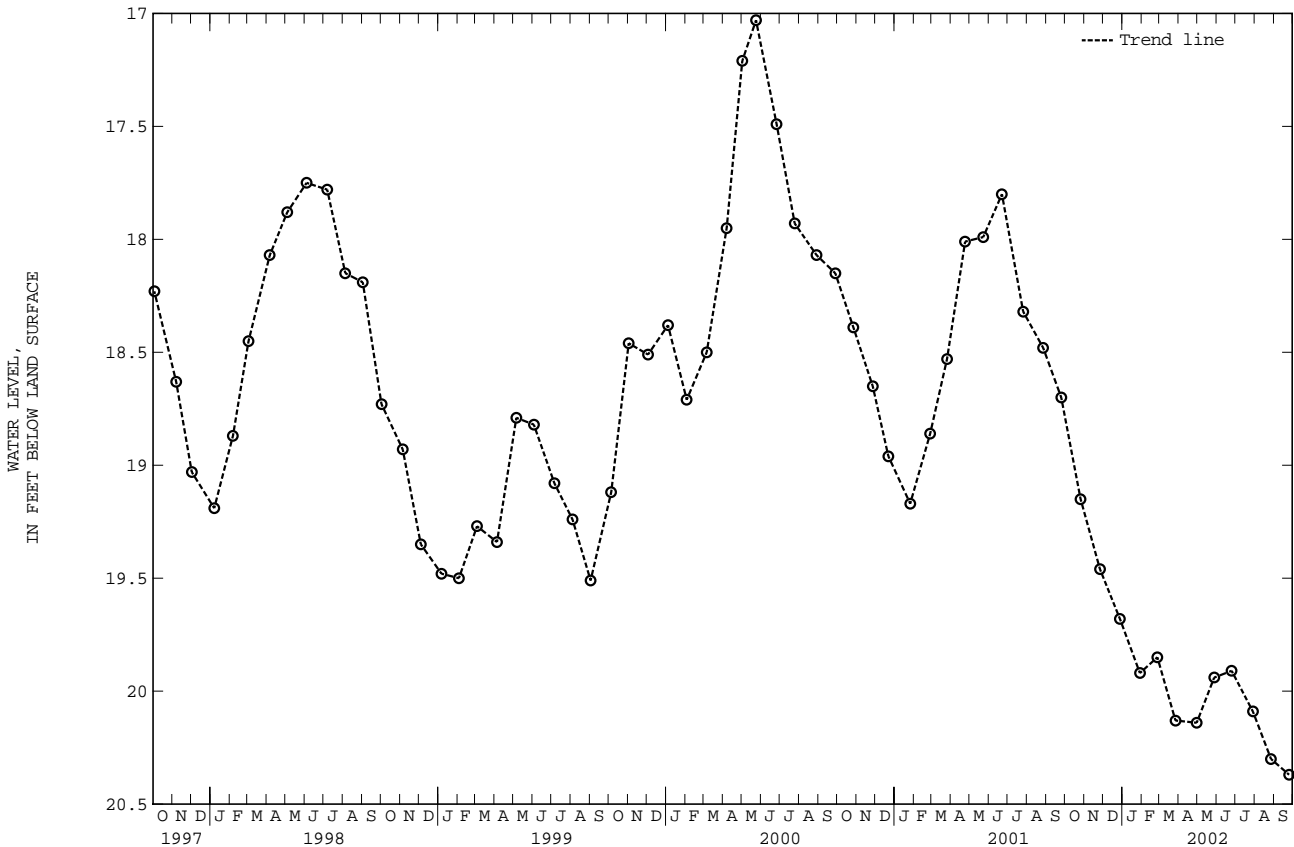
REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.--March 1983 to October 1983, April 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.25 ft below land surface, July 1, 1983; lowest measured, 20.37 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	19.15	JAN 29, 2002	19.92	APR 30, 2002	20.14	JUL 29, 2002	20.09
NOV 26	19.46	FEB 26	19.85	MAY 28	19.94	AUG 27	20.30
DEC 28	19.68	MAR 27	20.13	JUN 25	19.91	SEP 25	20.37
WATER YEAR 2002		HIGHEST	19.15	OCT 26, 2001	LOWEST	20.37	SEP 25, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

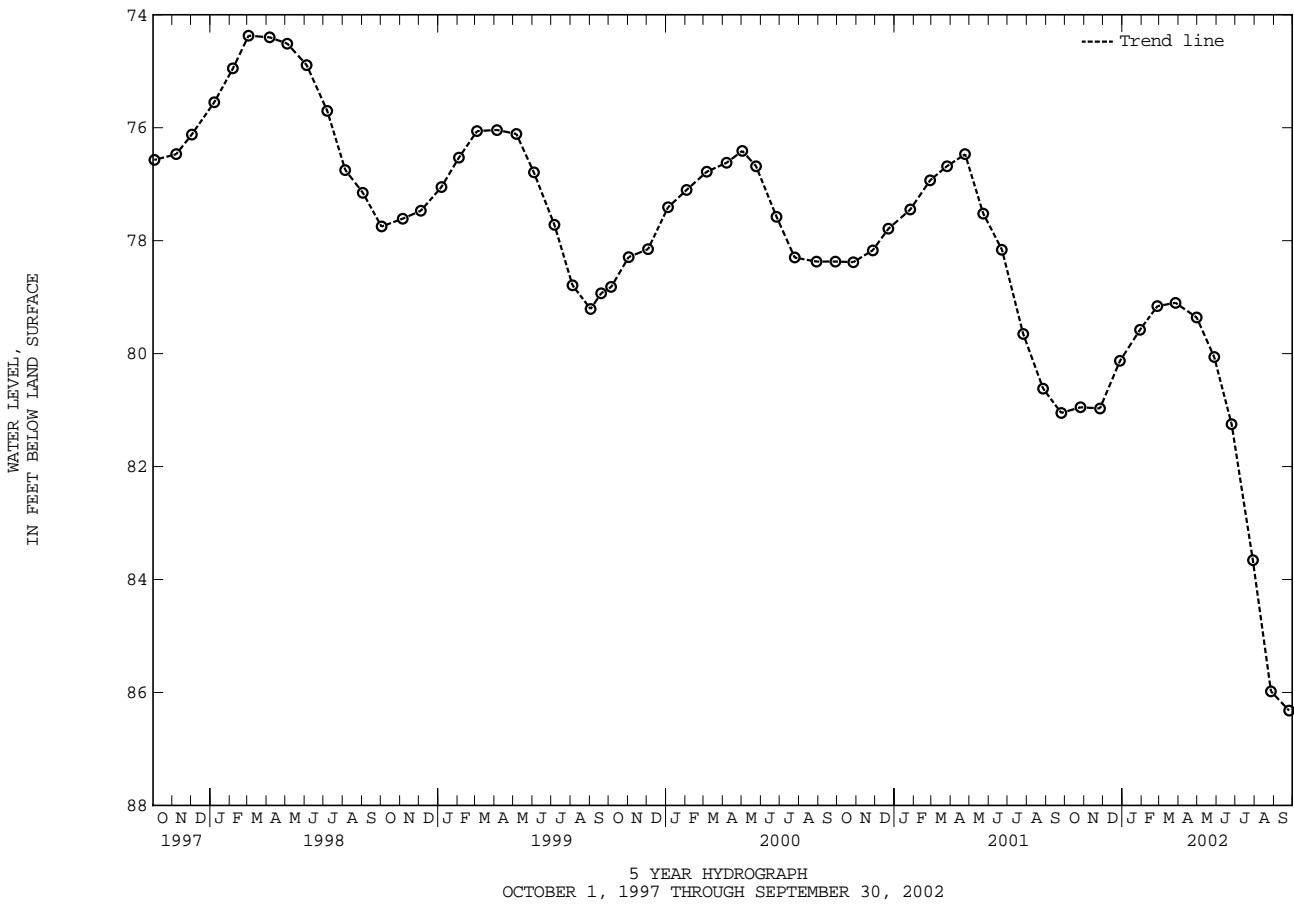
CECIL COUNTY--Continued

WELL NUMBER.--CE Ee 29. SITE ID.--392403075521801. PERMIT NUMBER.--CE-73-2266.  
 LOCATION.--Lat 39°24'03", long 75°52'18", Hydrologic Unit 02060002, 0.3 mi southwest of MD Rts. 213 and 282, Cecilton.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 547 ft; casing diameter 10 in., to 158 ft; casing diameter 4 in., to 515 ft and 525 to 547 ft; screen diameter 4 in. from 515 to 525 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Equipped with a digital water-level recorder from Aug. 22, 1979 to Dec. 4, 1979.  
 DATUM.--Elevation of land surface is 75 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 2.35 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water withdrawal  
 PERIOD OF RECORD.--August 1978 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 67.99 ft below land surface, March 25, 1979;  
 lowest measured, 86.32 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	80.95	JAN 29, 2002	79.58	APR 30, 2002	79.36	JUL 29, 2002	83.66
NOV 26	80.97	FEB 26	79.16	MAY 28	80.06	AUG 27	85.98
DEC 28	80.13	MAR 27	79.10	JUN 25	81.25	SEP 25	86.32

WATER YEAR 2002    HIGHEST    79.10    MAR 27, 2002    LOWEST    86.32    SEP 25, 2002



CHARLES COUNTY

WELL NUMBER.--CH Bc 24. SITE ID.--383633077083001. PERMIT NUMBER.--CH-02-0874.

LOCATION.--Lat 38°36'33", long 77°08'30", Hydrologic Unit 0207001, at Cedar Lane, Potomac Heights.

Owner: Potomac Heights Mutual Home Owners Association.

AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 435 ft; casing diameter 10 in., to 383.5 ft; and 398.5 to 415 ft; screen diameter 10 in. from 383.5 to 398.5 ft and 415 to 435 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval, April 30, 1988 to Nov. 20, 1997.

Equipped with digital water-level recorder--30-minute recorder interval, Nov. 20, 1997 to June 20, 2000.

DATUM.--Elevation of land surface is 72 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 1.55 ft above land surface.

REMARKS.--Charles County Ground-Water-Level Monitoring Network observation. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--May 1988 to current year.

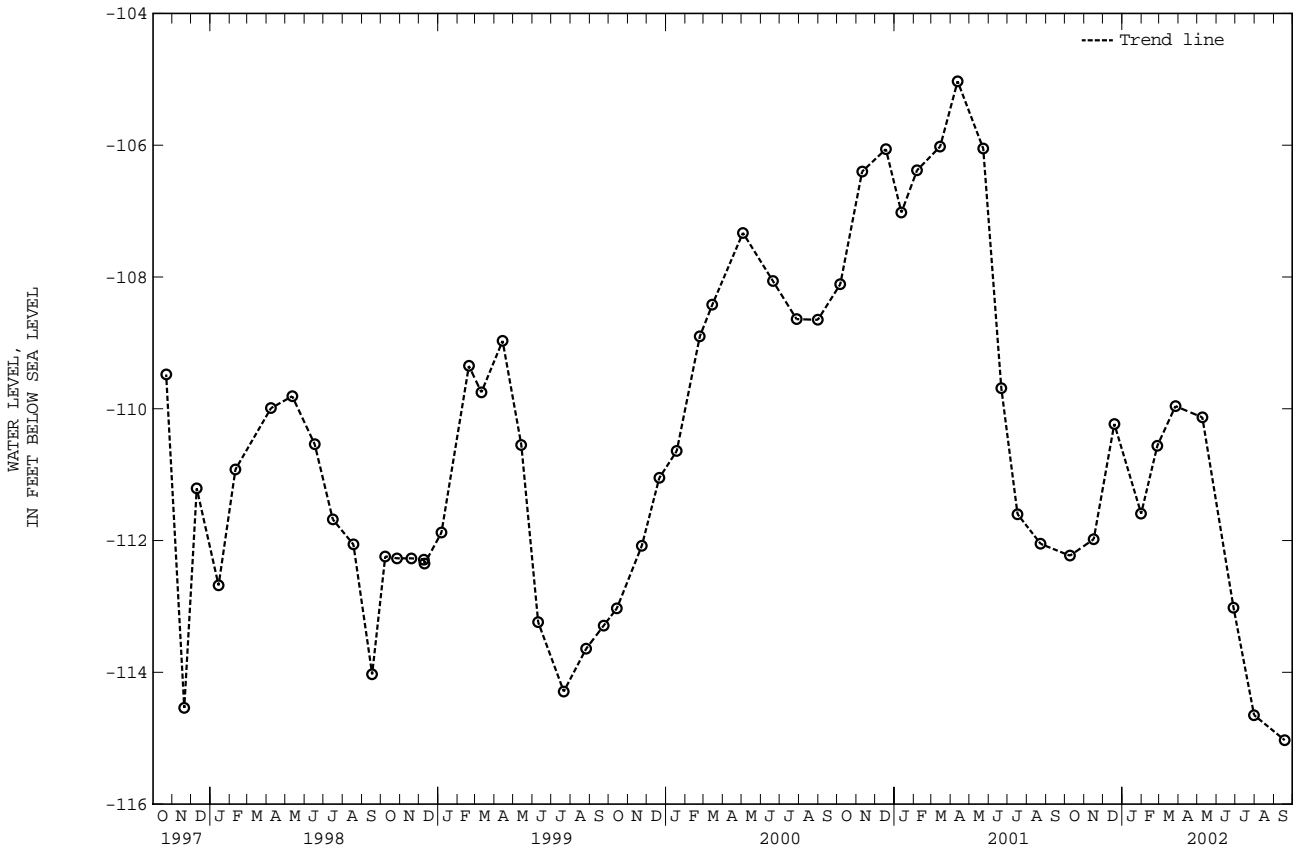
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 70.26 ft below sea level, April 30, 1988;

lowest measured, 115.03 ft below sea level, September 18, 2002.

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09, 2001	-112.23	JAN 31, 2002	-111.59	MAY 09, 2002	-110.13	SEP 18, 2002	-115.03
NOV 16	-111.98	FEB 26	-110.56	JUN 28	-113.02		
DEC 19	-110.23	MAR 27	-109.96	JUL 31	-114.65		

WATER YEAR 2002      HIGHEST -109.96 MAR 27, 2002      LOWEST -115.03 SEP 18, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bc 75. SITE ID.--383645077062401. PERMIT NUMBER.--CH-92-0500.

LOCATION.--Lat 38°36'45", long 77°06'24", Hydrologic Unit 02070011, Chapmans Landing.

Owner: Maryland Department of Natural Resources.

AQUIFER.--Upper Patuxent aquifer in the Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 940 ft; casing diameter 8 in., to 820 ft, 825 to 860 ft, 880 to 898 ft, and 923 to 940 ft; screen diameter 8 in. from 820 to 825 ft, 860 to 880 ft, and 898 to 923 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 124.59 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 1.98 ft above land surface.

REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal. A 48-hour pump test occurred on Nov. 18-20, 1996. The lowest water level measured during this period was 82.53 ft below sea level on Nov. 20, 1996. The land surface was graded on October 16, 1998, and is 12.45 ft below the original land surface.

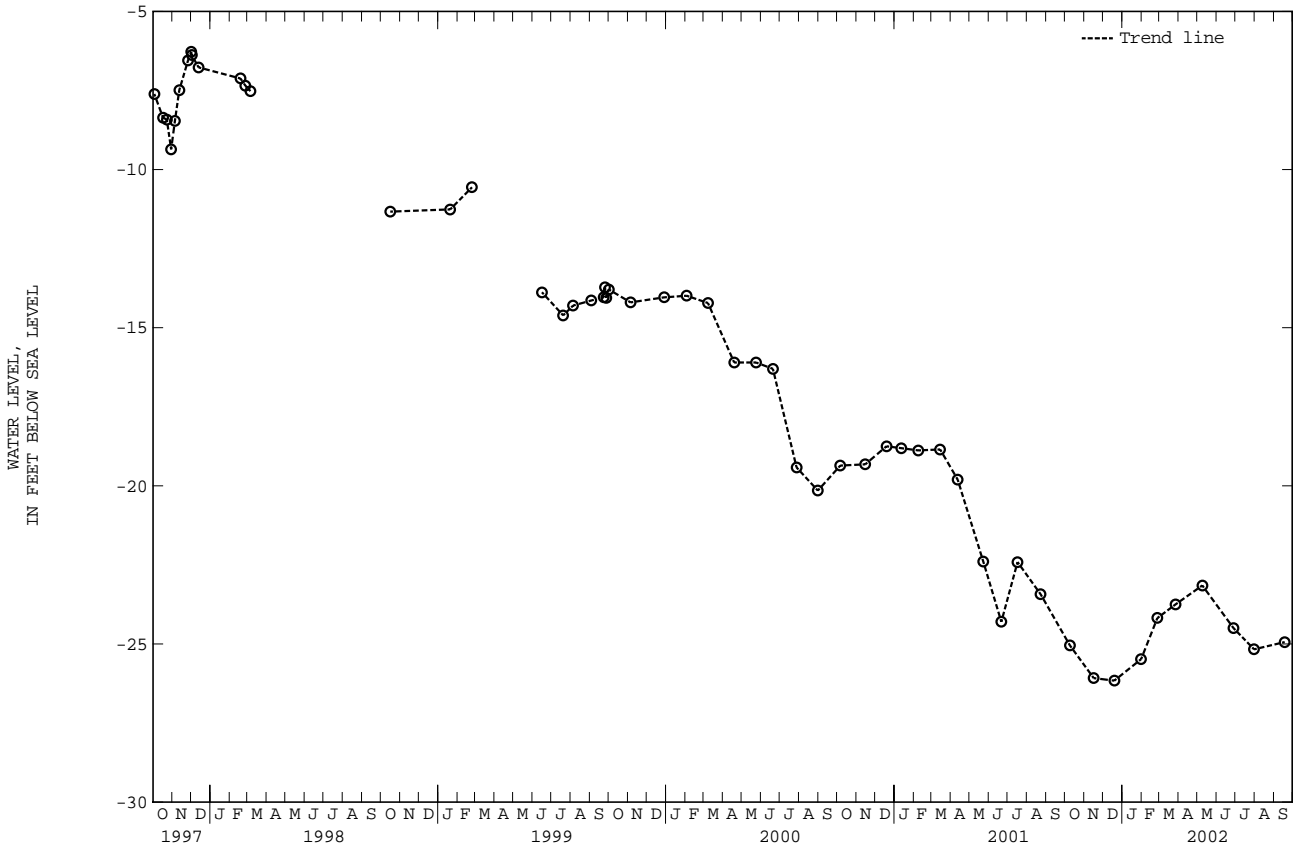
PERIOD OF RECORD.--June 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.64 ft above sea level, Sept. 26, 1994; lowest measured, 26.16 ft below sea level, Dec. 19, 2001 (See REMARKS).

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09, 2001	-25.05	JAN 31, 2002	-25.48	MAY 09, 2002	-23.15	SEP 18, 2002	-24.94
NOV 16	-26.08	FEB 26	-24.18	JUN 28	-24.50		
DEC 19	-26.16	MAR 27	-23.75	JUL 31	-25.17		

WATER YEAR 2002      HIGHEST -23.15 MAY 09, 2002      LOWEST -26.16 DEC 19, 2001



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bc 77. SITE ID.--383644077055501. PERMIT NUMBER.--CH-88-1028.

LOCATION.--Lat 38°36'44", long 77°05'55", Hydrologic Unit 02070011, 2.75 mi southwest of intersection with MD Rts 210, and 227, 0.25 mi south of MD 210.

Owner: The Arden Group.

AQUIFER.--Upper Patuxent aquifer in the Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 955 ft; casing diameter 16 in., to 60 ft; casing diameter 8 in. from 0 to 845 ft; and casing diameter 6 in., from 845 to 925 ft; screen diameter 6 in. from 925 to 955 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval, August 28, 1995 to current year.

DATUM.--Elevation of land surface is 96.64 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder shelf, 3.38 ft above land surface.

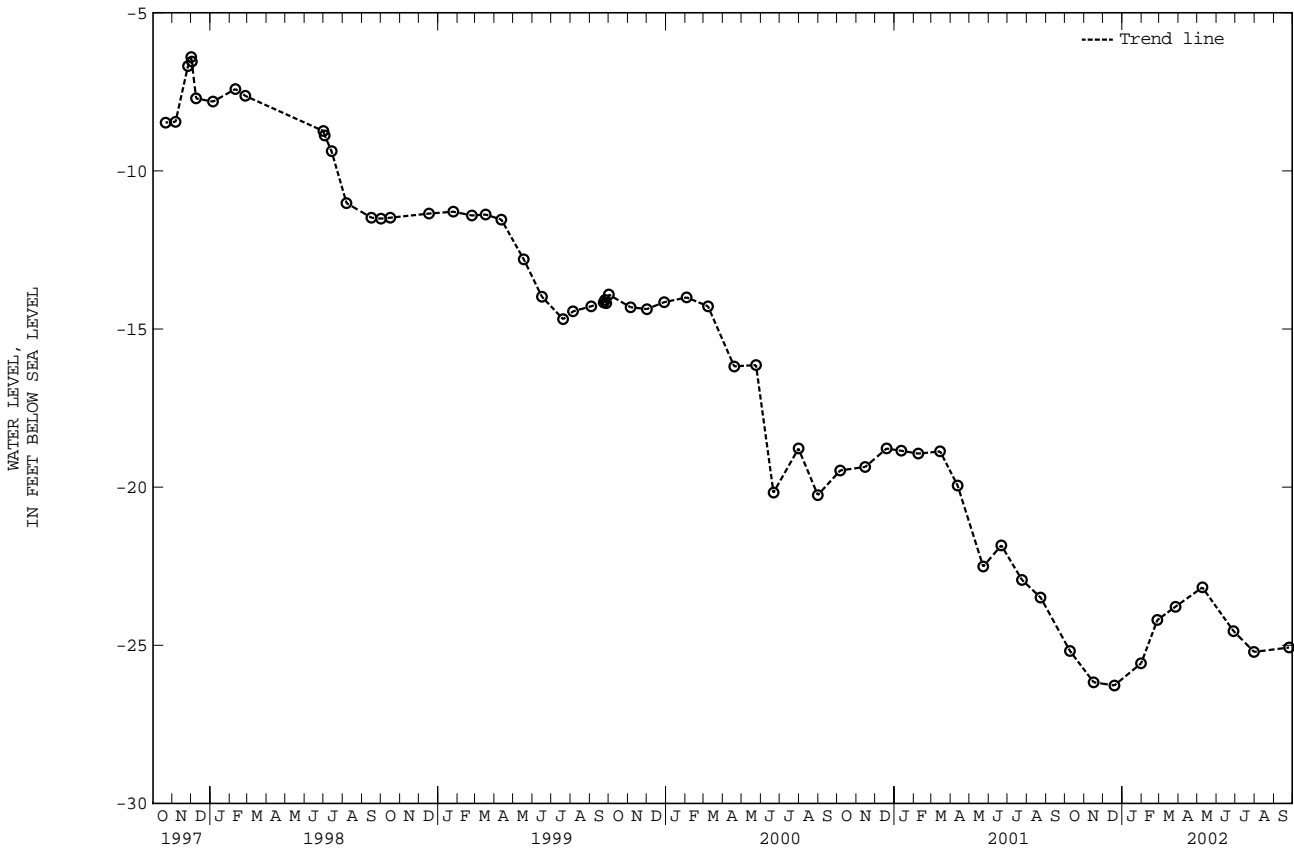
REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal. Missing data due to recorder malfunction. A 48-hour pump test occurred in a nearby well on Nov. 22, and 23, 1996. The lowest water level measured during this period was 15.54 ft sea level.

PERIOD OF RECORD.--August 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.76 ft above sea level, Aug. 29, 1995; lowest measured, 27.16 ft below sea level, Jan. 2, 2002 (recorder).

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09, 2001	-25.18	JAN 31, 2002	-25.57	MAY 09, 2002	-23.17	SEP 25, 2002	-25.07
NOV 16	-26.17	FEB 26	-24.20	JUN 28	-24.55		
DEC 19	-26.27	MAR 27	-23.78	JUL 31	-25.21		
WATER YEAR 2002		HIGHEST	-23.17	MAY 09, 2002	LOWEST	-26.27	DEC 19, 2001



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



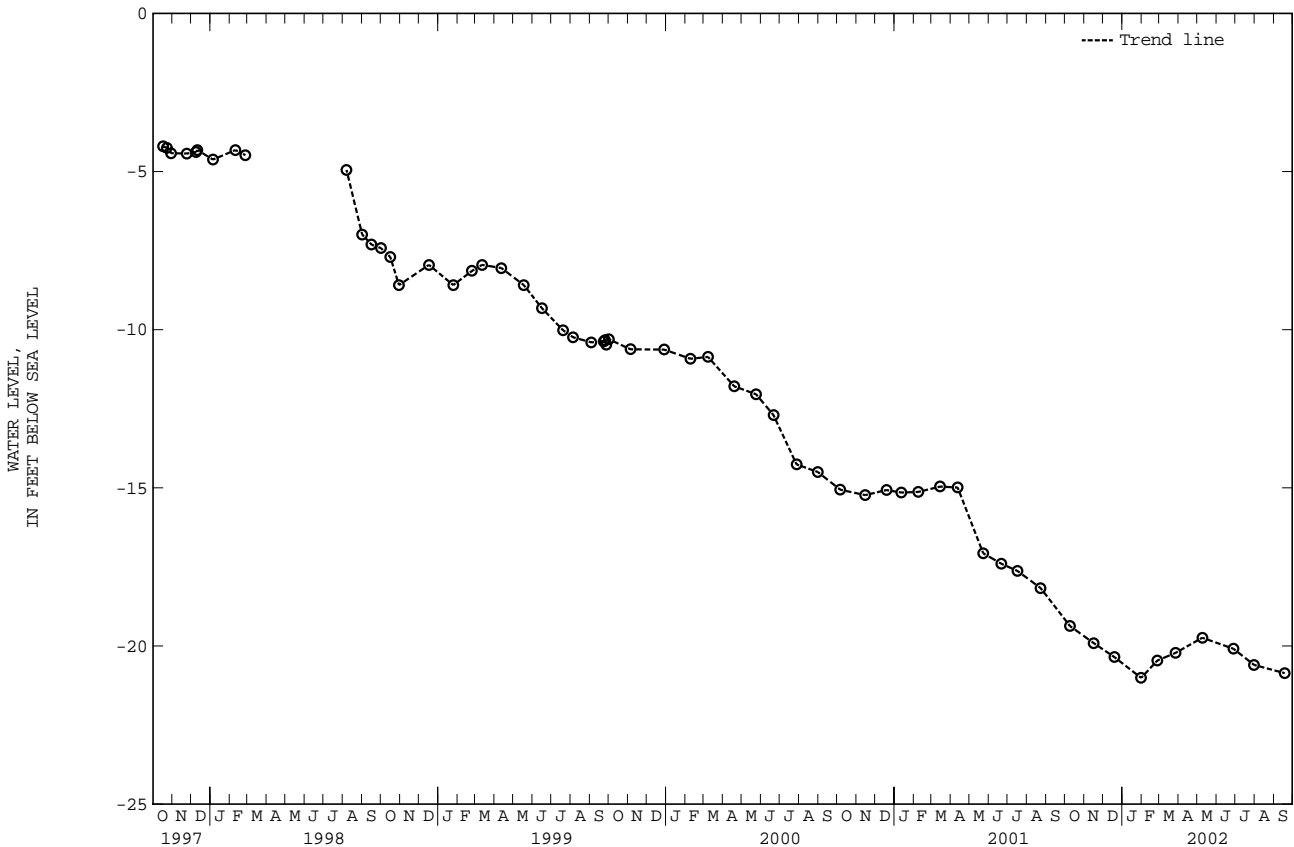
CHARLES COUNTY--Continued

WELL NUMBER.--CH Bc 80. SITE ID.--383645077062402. PERMIT NUMBER.--CH-94-0898.  
 LOCATION.--Lat 38°36'45", long 77°06'24", Hydrologic Unit 02070011, 2.0 southwest of intersection with MD Rts. 210 and 227, 100 ft south of MD Rt. 210.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Upper Patuxent aquifer in the Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,120 ft; casing diameter 4 in., to 1,085 ft, and 1,095 to 1,105 ft; screen diameter 4 in. from 1,085 to 1,095 ft and 1,105 to 1,115 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval, Oct. 22, 1996 to July 17, 2001.  
 DATUM.--Elevation of land surface is 123.10 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of recorder platform, 13.6 ft below land surface (land graded to 13.6 ft below original elevation).  
 REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal  
 PERIOD OF RECORD.--October 1996 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.90 ft above sea level, Oct. 30, 1996 (recorder); lowest measured, 21.01 ft below sea level, Jan. 31, 2002.

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09, 2001	-19.37	JAN 31, 2002	-21.01	MAY 09, 2002	-19.74	SEP 18, 2002	-20.86
NOV 16	-19.91	FEB 26	-20.46	JUN 28	-20.09		
DEC 19	-20.35	MAR 27	-20.22	JUL 31	-20.60		

WATER YEAR 2002      HIGHEST -19.37 OCT 09, 2001      LOWEST -21.01 JAN 31, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bc 81. SITE ID.--383709077061002. PERMIT NUMBER.--CH-88-0482.

LOCATION.--Lat 38°37'09", long 77°06'10", Hydrologic Unit 02070010, 1.7 mi southwest of intersection with MD Rts. 210 and 227, on northwest side of Chapmans Landing Rd.

Owner: Montrose Farms.

AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 656 ft; casing diameter 6 in., to 541 ft, casing diameter 4 in. from 531 to 556 ft, 588 to 642 ft, 646 to 656 ft; screen diameter 4 in. from 556 to 588 ft, 642 to 646 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval, Aug. 28, 1996 to current year.

DATUM.--Elevation of land surface is 156.46 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder shelf, 2.07 ft above land surface.

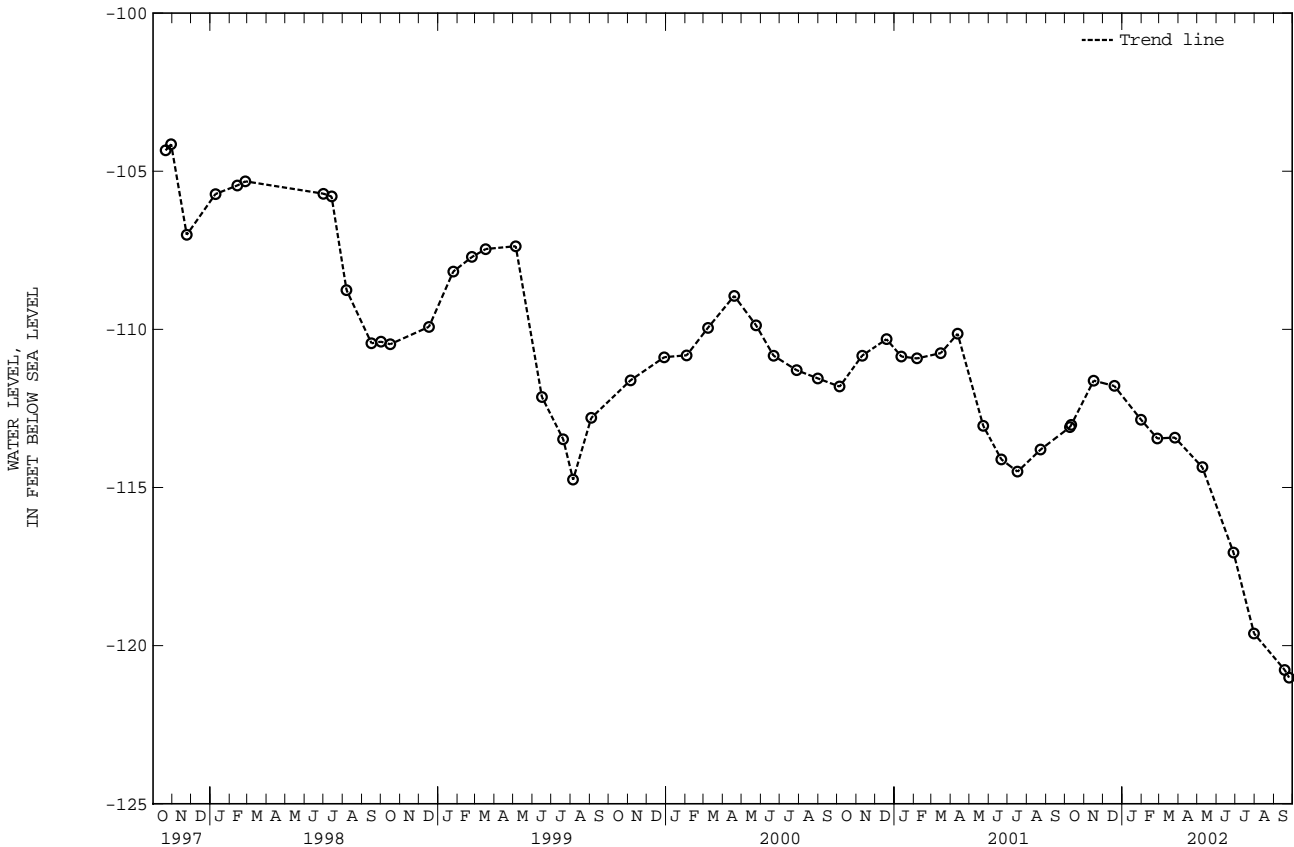
REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal. Missing data due to recorder malfunction.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 97.97 ft below sea level, July 3, and 4, 1997 (recorder); lowest measured, 121.76 ft below sea level, Sept. 12, 2002 (recorder).

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09, 2001	-113.09	DEC 19, 2001	-111.79	MAR 26, 2002	-113.42	JUL 31, 2002	-119.62
11	-113.02	JAN 31, 2002	-112.86	MAY 09	-114.36	SEP 18	-120.77
NOV 16	-111.62	FEB 26	-113.45	JUN 28	-117.06	25	-121.01
WATER YEAR 2002		HIGHEST	-111.62	NOV 16, 2001	LOWEST	-121.01	SEP 25, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

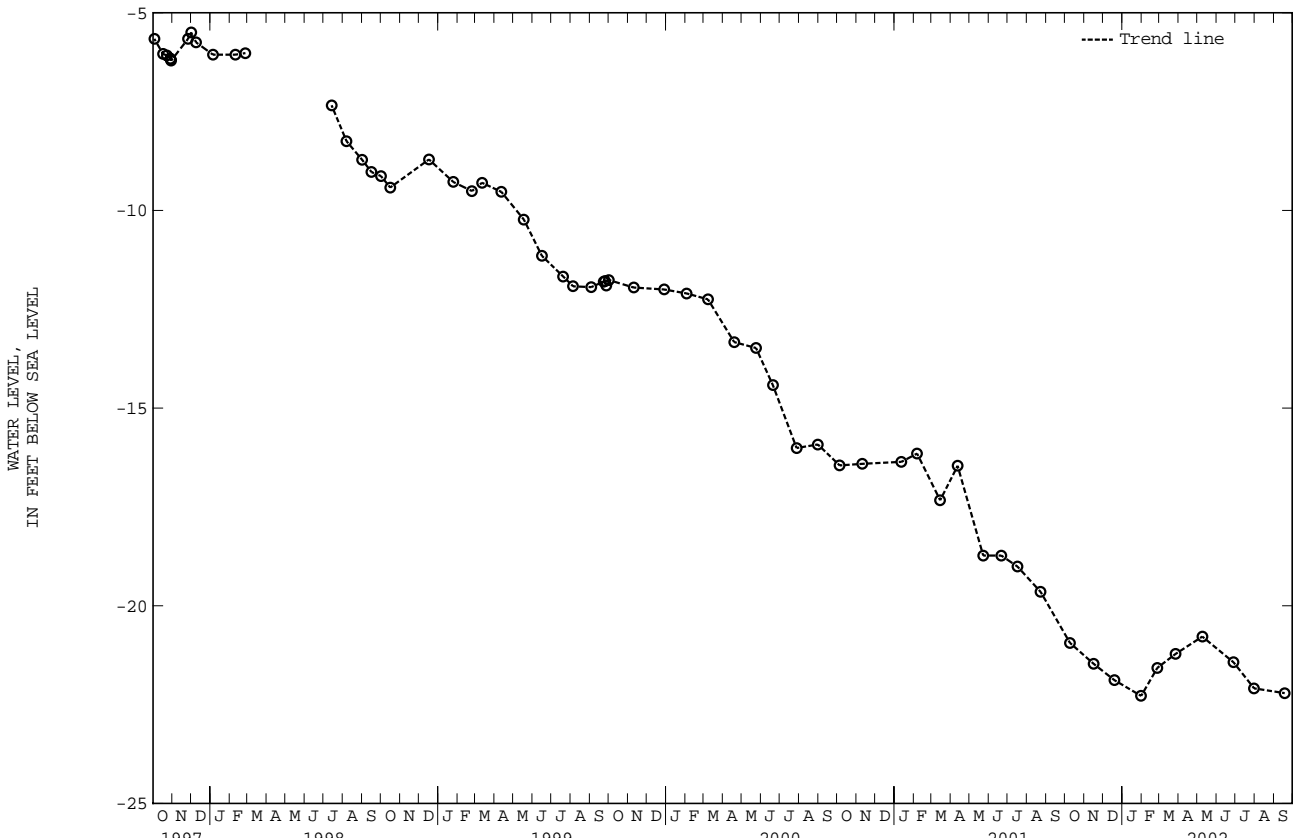
CHARLES COUNTY--Continued

WELL NUMBER.--CH Bd 52. SITE ID.--383553077032401. PERMIT NUMBER.--CH-94-0899.  
 LOCATION.--Lat 38°35'53", long 77°03'24", Hydrologic Unit 02070011, 2.5 mi southeast of Pomonkey, on east side of MD Rt. 227.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Upper Patuxent aquifer in the Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,105 ft; casing diameter 4 in., to 1,040 ft, and 1,050 to 1,085 ft, and 1,095 to 1,105 ft; screen diameter 4 in. from 1,040 to 1,050 ft, and 1,085 to 1,095 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by Maryland Geological Survey personnel. Equipped with digital water-level recorder--15-minute recorder interval, Sept. 1, 1998 to April 19, 2000.  
 DATUM.--Elevation of land surface is 47.50 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of flange, 3.00 ft above land surface.  
 REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal..  
 PERIOD OF RECORD.--October 1996 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.03 ft above sea level, Nov. 9, 1996;  
 lowest measured, 22.28 ft below sea level, Jan. 31, 2002.

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09, 2001	-20.94	JAN 31, 2002	-22.28	MAY 09, 2002	-20.78	SEP 18, 2002	-22.21
NOV 16	-21.47	FEB 26	-21.57	JUN 28	-21.43		
DEC 19	-21.88	MAR 27	-21.22	JUL 31	-22.09		

WATER YEAR 2002      HIGHEST   -20.78   MAY 09, 2002      LOWEST   -22.28   JAN 31, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CHARLES COUNTY--Continued

WELL NUMBER.--CH Be 43. SITE ID.--38381907655501. PERMIT NUMBER.--CH-71-0066.

LOCATION.--Lat 38°38'19", long 76°55'55", Hydrologic Unit 02070011, at northeast end of Joy Lane, 0.2 mi east of Sun Valley Drive, Waldorf.

Owner: Lennart Larson.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 459 ft; casing diameter 6 in., to 428 ft; screen diameter 5 in. from 433 to 459 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with graphic water-level recorder from Feb. 10, 1977 to Jan. 27, 1978. Equipped with digital water-level recorder--60-minute recorder interval from Feb. 27, 1978 to Jan. 3, 2000.

DATUM.--Elevation of land surface is 216.79 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.0 ft above land surface.

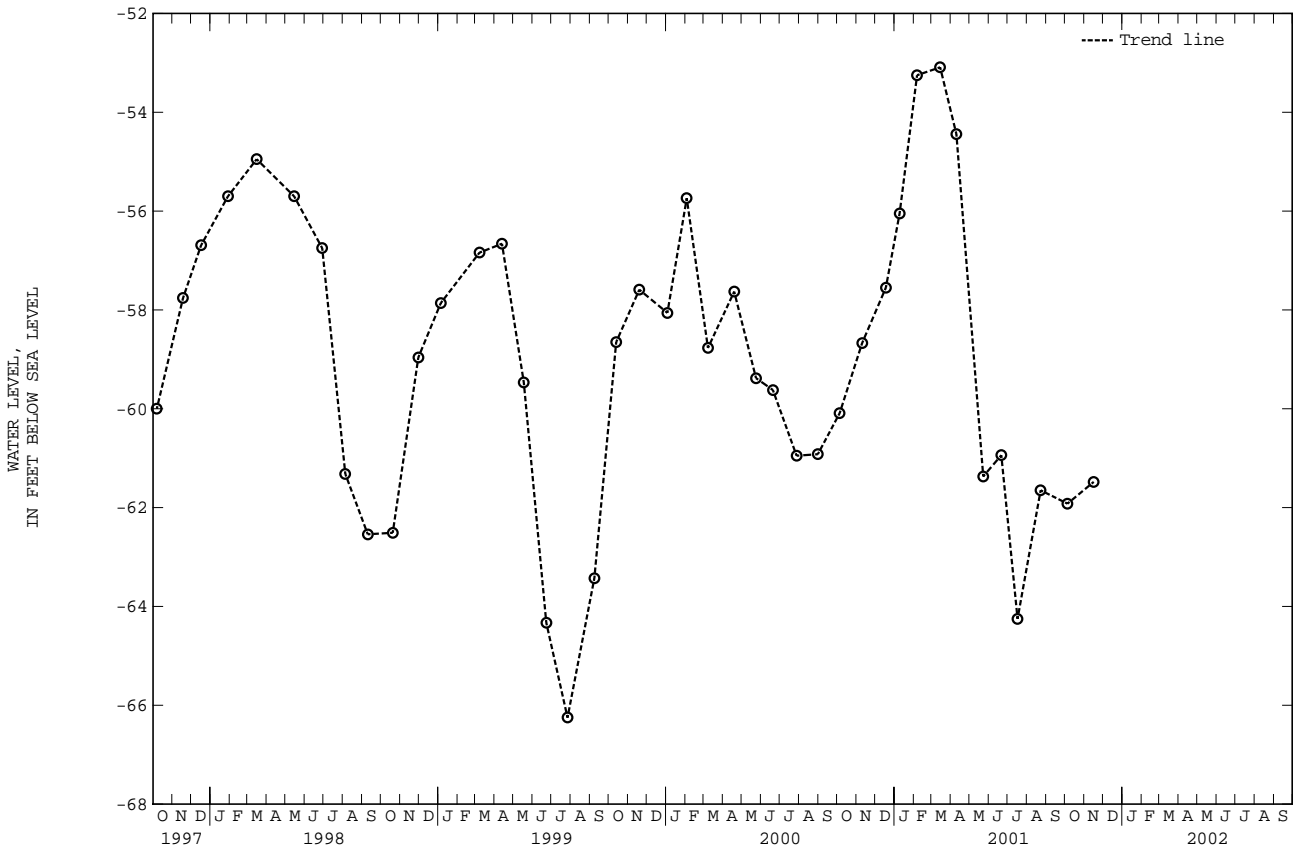
REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal. Water levels were discontinued in December 2001, until another means of access to the well is established.

PERIOD OF RECORD.--February 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.05 ft above sea level, Feb. 22, 1977 (recorder); lowest measured, 66.69 ft below sea level, July 22-24, 1999 (recorder).

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 2001	-61.92	NOV 16, 2001	-61.48
WATER YEAR 2002 HIGHEST		NOV 16, 2001 LOWEST	



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CHARLES COUNTY--Continued

WELL NUMBER.--CH Be 57. SITE ID.--383706076575601. PERMIT NUMBER.--CH-81-1194.

LOCATION.--Lat 38°37'06", long 76°57'56", Hydrologic Unit 02070011, St. John's pumping station, St. Charles.

Owner: Charles County Department of Public Works.

AQUIFER.--Upper Patuxant aquifer in the Patuxant Formation of Lower Cretaceous age. Aquifer code: 217PTXNU.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,696 ft; casing diameter 6 in., to 400 ft; casing diameter 4 in. from 400 to 1,660 ft, screen diameter 4 in. from 1,660 to 1,696 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel to current year.

DATUM.--Elevation of land surface is 212.26 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of flange, 2.00 ft above land surface.

REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal.

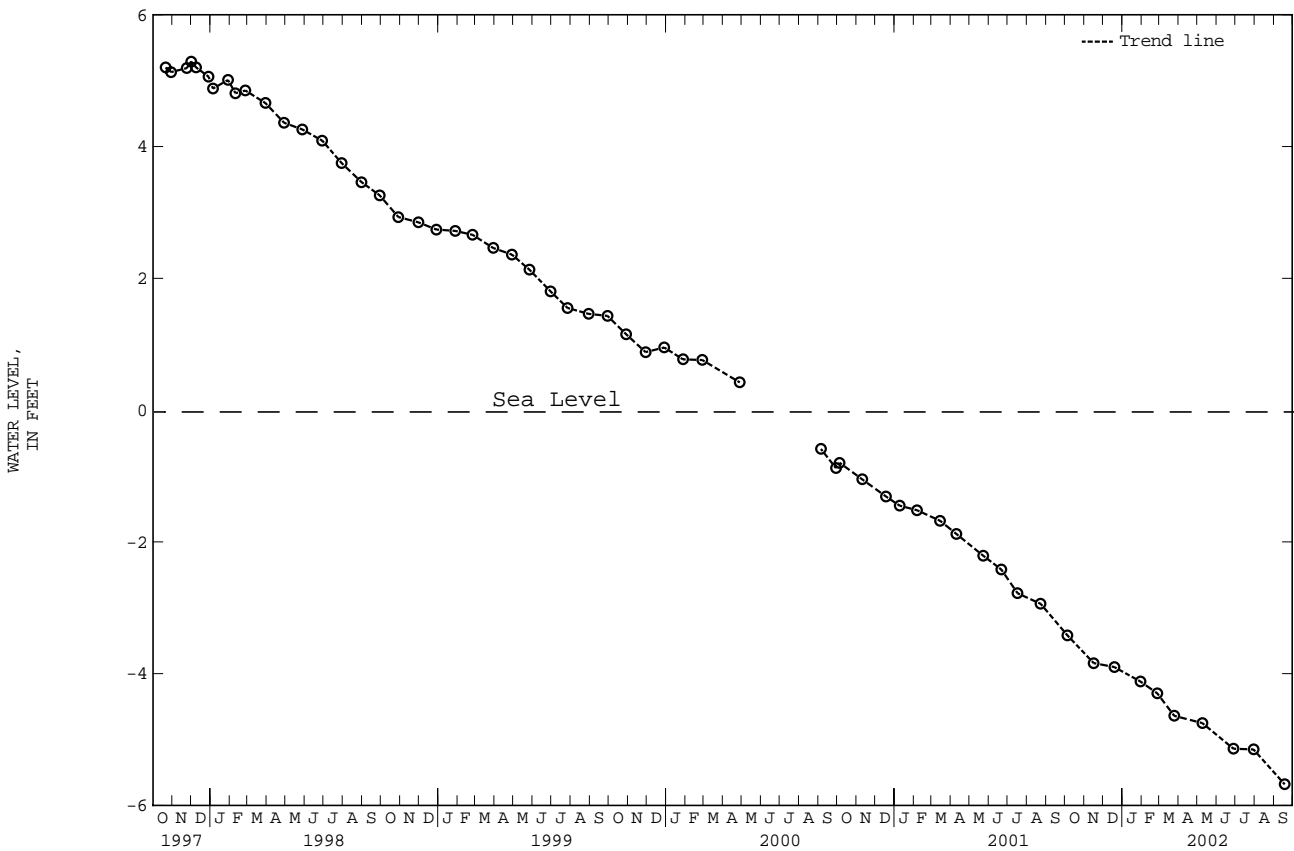
PERIOD OF RECORD.--April 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.16 ft above sea level, April 3, 1986; lowest measured, 5.68 ft below sea level, Sept. 18, 2002.

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 2001	-3.42	JAN 30, 2002	-4.12	MAY 09, 2002	-4.75	SEP 18, 2002	-5.68
NOV 16	-3.84	FEB 26	-4.30	JUN 28	-5.14		
DEC 19	-3.90	MAR 25	-4.64	JUL 30	-5.15		

WATER YEAR 2002 HIGHEST -3.42 OCT 05, 2001 LOWEST -5.68 SEP 18, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CHARLES COUNTY--Continued

WELL NUMBER.--CH Be 60. SITE ID.--383706076575604. PERMIT NUMBER.--CH-81-1468.

LOCATION.--Lat 38°37'06", long 76°57'56", Hydrologic Unit 02070011, St. John's pumping station, St. Charles.

Owner: U.S. Geological Survey.

AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 625 ft; casing diameter 6 in., to 401 ft; casing diameter 4 in. from 401 ft to 610 ft, and 625 to 635 ft; screen diameter 4 in. from 610 to 625 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel to current year.

DATUM.--Elevation of land surface is 212.80 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of flange, 2.20 ft above land surface.

REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal.

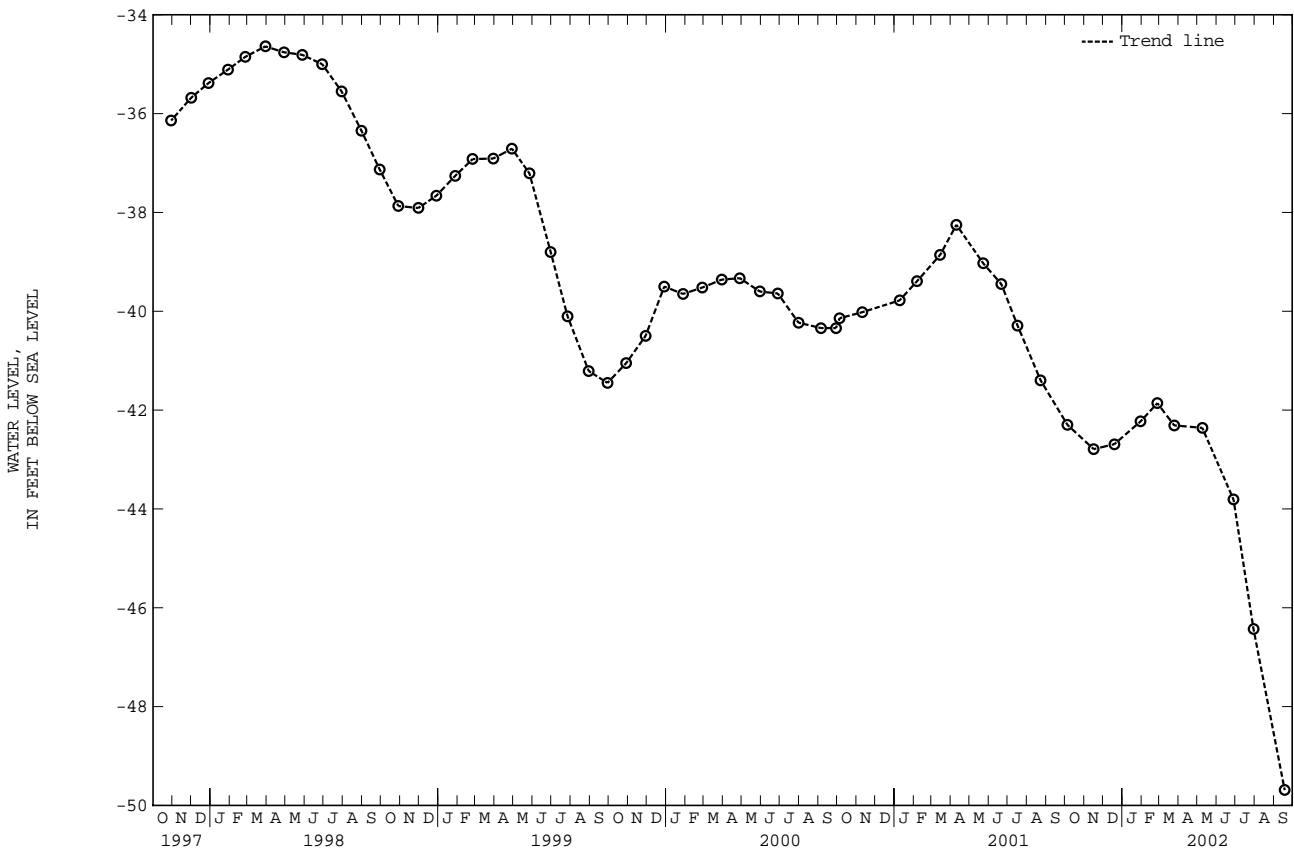
PERIOD OF RECORD.--November 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.30 ft below sea level, April 10, 1987; lowest measured, 49.69 ft below sea level, Sept. 18, 2002.

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 2001	-42.30	JAN 30, 2002	-42.23	MAY 09, 2002	-42.36	SEP 18, 2002	-49.69
NOV 16	-42.79	FEB 26	-41.86	JUN 28	-43.81		
DEC 19	-42.69	MAR 25	-42.31	JUL 30	-46.43		

WATER YEAR 2002 HIGHEST -41.86 FEB 26, 2002 LOWEST -49.69 SEP 18, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## CHARLES COUNTY--Continued

WELL NUMBER.--CH Bf 101. SITE ID.--383853076532601. PERMIT NUMBER.--CH-01-1882.

LOCATION.--Lat 38°38'53", long 76°53'26", Hydrologic Unit 02070011, at Sam's Club, 1.7 mi. northwest of Waldorf.

Owner: Sam's Club.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, artesian well, depth 475 ft; casing diameter 6 in., to 423 ft, and 438 to 449 ft; screen diameter 6 in. from 423 to 438 ft, and 449 to 475 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with graphic water-level recorder from Nov. 20, 1976 to Feb. 6, 1978. Equipped with digital water-level recorder--60-minute recorder interval from Feb. 26, 1978 to May 14, 1991, and Nov. 19, 1999 to Oct. 21, 2000.

DATUM.--Elevation of land surface is 216.45 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of shelter platform, 1.18 ft above land surface.

REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

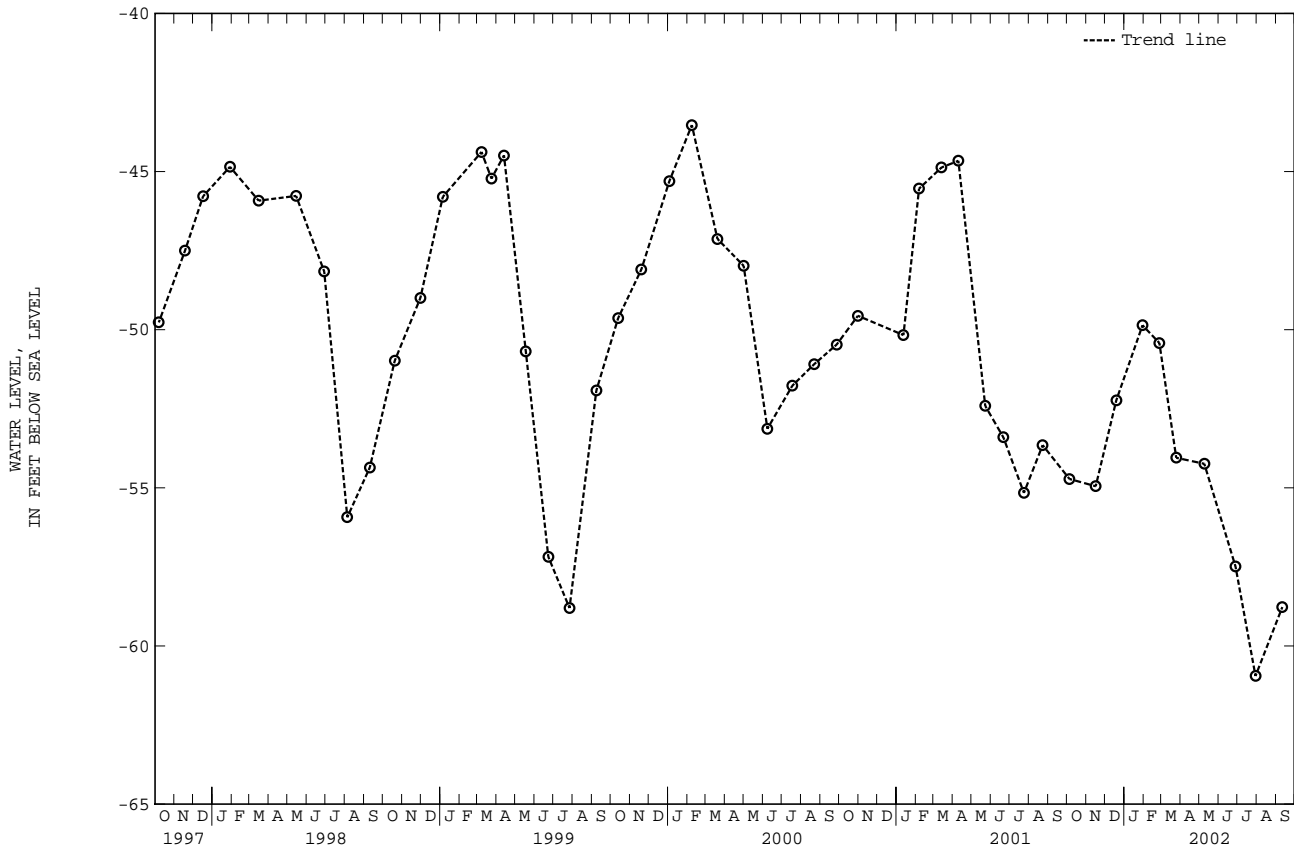
PERIOD OF RECORD.--November 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.60 ft above sea level, Jan. 16, 1977 (recorder); lowest measured, 61.25 ft below sea level, June 14, 1999 (recorder).

## WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 2001	-54.72	JAN 30, 2002	-49.86	MAY 09, 2002	-54.24	SEP 11, 2002	-58.77
NOV 16	-54.95	FEB 26	-50.42	JUN 28	-57.49		
DEC 19	-52.23	MAR 25	-54.05	JUL 30	-60.95		

WATER YEAR 2002	HIGHEST	DATE	LOWEST	DATE
	-49.86	JAN 30, 2002	-60.95	JUL 30, 2002



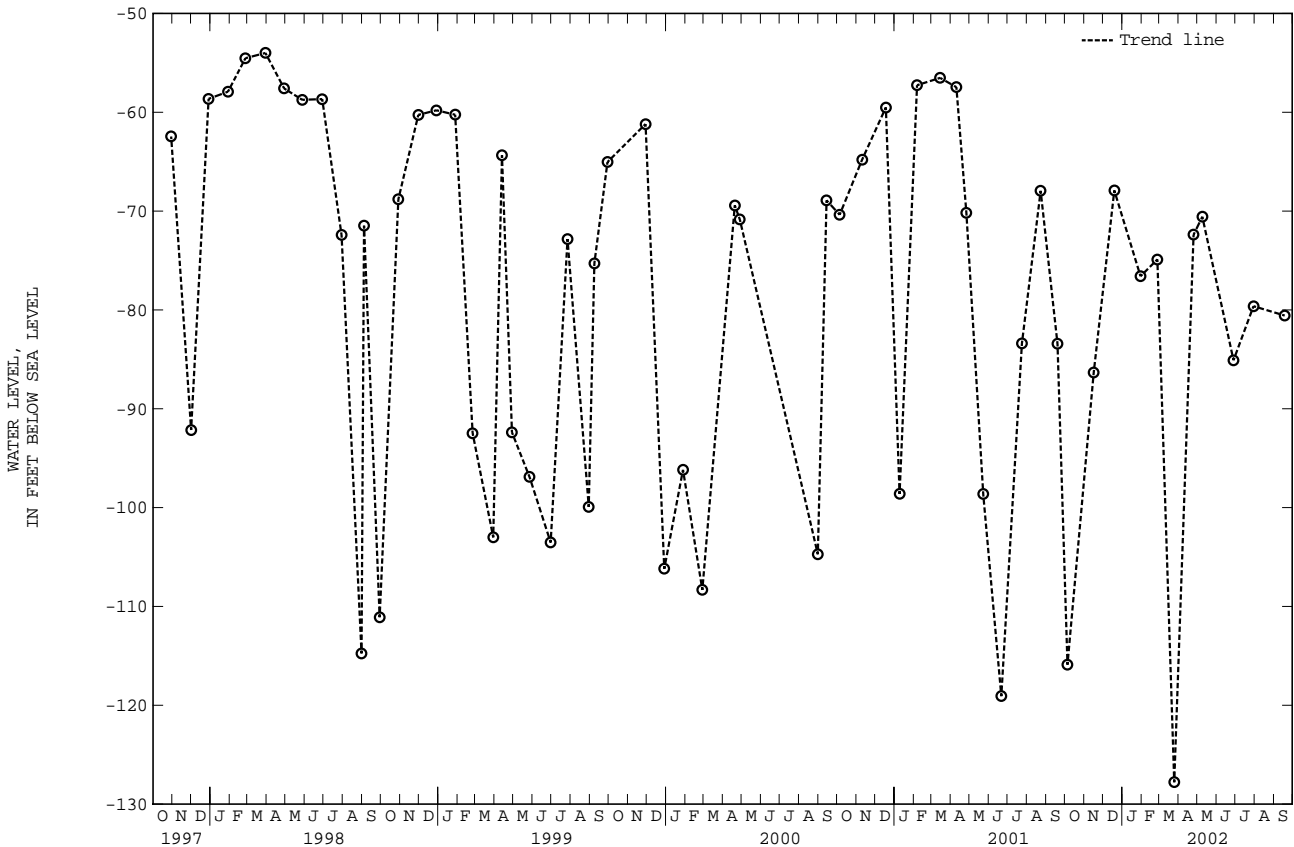
5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bf 133. SITE ID.--383640076545901. PERMIT NUMBER.--CH-70-0069.  
 LOCATION.--Lat 38°36'40", long 76°54'59", Hydrologic Unit 02070011, at St. Charles, Copely Rd. pumping station.  
 Owner: Charles County Department of Public Works.  
 AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 510 ft; casing diameter 10 in., to 77 ft; casing diameter 6 in. from -2 to 420 ft, casing diameter 4 in. from 420 to 436 ft and 506 to 510 ft; screen diameter 4 in. from 436 to 506 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel from April 1992 to current year. Twice yearly measurements from April 1974 to April 1992.  
 DATUM.--Elevation of land surface is 223.50 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 0.82 ft above land surface.  
 REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--April 1974 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.82 ft above sea level, April 26, 1974; lowest measured, 127.79 ft below sea level, March 25, 2002.

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 2001	-115.89	JAN 30, 2002	-76.59	APR 25, 2002	-72.39	JUL 30, 2002	-79.62
NOV 16	-86.34	FEB 26	-74.89	MAY 09	-70.57	SEP 18	-80.57
DEC 19	-67.91	MAR 25	-127.79	JUN 28	-85.09	18	-115.38
WATER YEAR 2002		HIGHEST	-67.91	DEC 19, 2001	LOWEST	-127.79	MAR 25, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



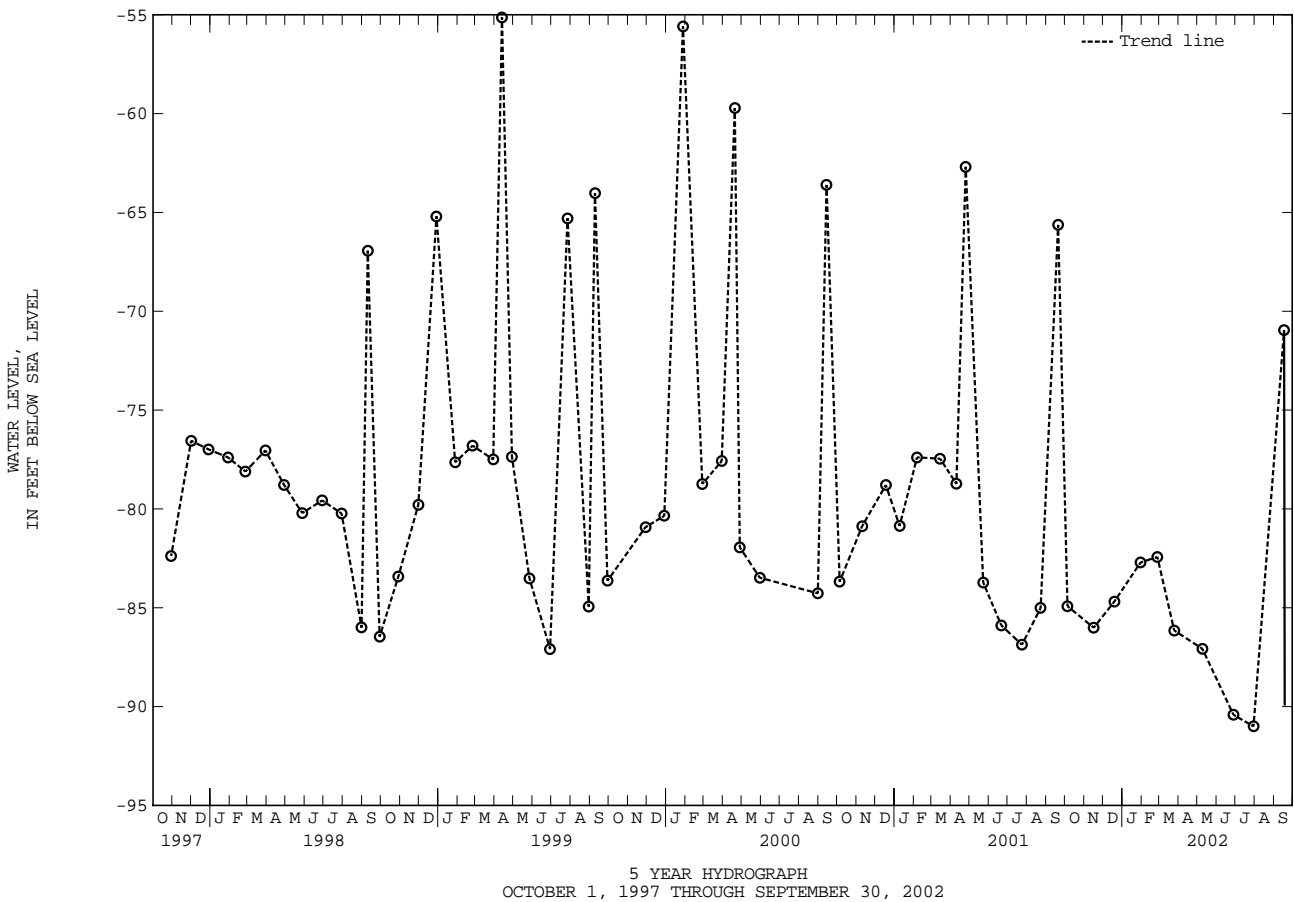
CHARLES COUNTY--Continued

WELL NUMBER.--CH Bf 134. SITE ID.--383728076531701. PERMIT NUMBER.--CH-70-0067.  
 LOCATION.--Lat 38°37'28", long 76°53'17", Hydrologic Unit 02070011, at John Hansen Middle School parking lot, at Waldorf.  
 Owner: Charles County Department of Public Works.  
 AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 546 ft; casing diameter 6 in., to 402 ft; casing diameter 4 in. from 422 to 485 ft; screen diameter 4 in. from 402 to 422 ft and 485 to 546 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 202.09 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 1.52 ft above land surface.  
 REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--April 1974 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.22 ft above sea level, April 26, 1974; lowest measured, 91.00 ft below sea level, July 30, 2002.

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 2001	-84.92	JAN 30, 2002	-82.71	MAY 09, 2002	-87.07	SEP 17, 2002	-70.95
NOV 16	-86.01	FEB 26	-82.43	JUN 28	-90.42	18	-89.95
DEC 19	-84.69	MAR 25	-86.15	JUL 30	-91.00		

WATER YEAR 2002 HIGHEST -70.95 SEP 17, 2002 LOWEST -91.00 JUL 30, 2002

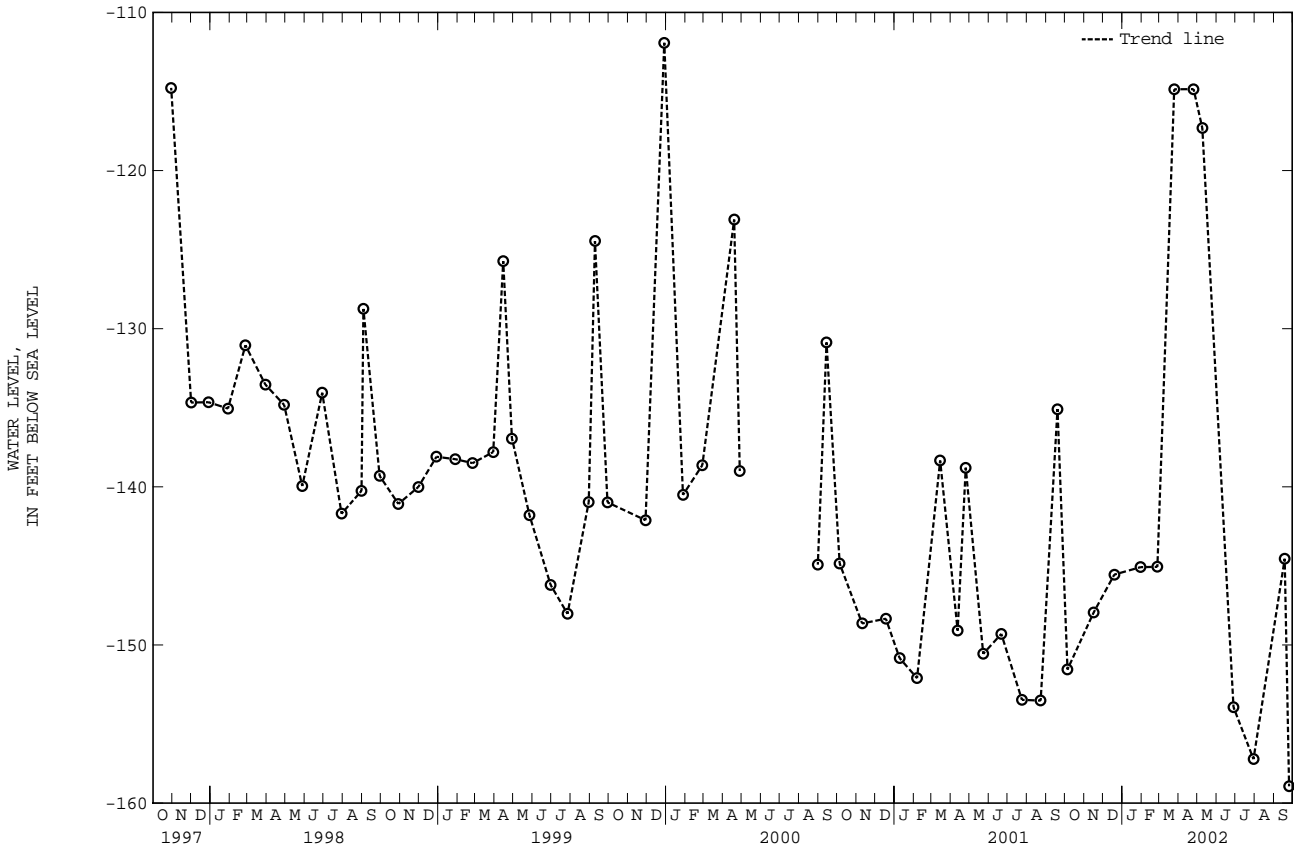


CHARLES COUNTY--Continued

WELL NUMBER.--CH Bf 146. SITE ID.--383508076540701. PERMIT NUMBER.--CH-81-0593.  
 LOCATION.--Lat 38°35'08", long 76°54'07", Hydrologic Unit 02070011, 0.3 mi south of the intersection of St. Pauls Dr. and Piney Church Rd., St. Charles.  
 Owner: Charles County Department of Public Works.  
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,427 ft; casing diameter 6 in., to 1,059 ft, 1,069 to 1,073 ft, 1,083 to 1,161 ft, 1,166 to 1,170 ft, 1,180 to 1,184 ft, 1,189 to 1,195 ft, 1,205 to 1,244 ft, 1,249 to 1,252 ft, 1,262 to 1,298 ft, 1,328 to 1,342 ft, and 1,417 to 1,427 ft; screen diameter 10 in. from 1,059 to 1,069 ft, 1,073 to 1,083 ft, 1,161 to 1,166 ft, 1,170 to 1,180 ft, 1,184 to 1,189 ft, 1,195 to 1,205 ft, 1,244 to 1,249 ft, 1,252 to 1,262 ft, 1,298 to 1,328 ft, and 1,342 to 1,417 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 192.80 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.50 ft above land surface.  
 REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--April 1984 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.02 ft below sea level, April 4, 1985; lowest measured, 158.94 ft below sea level, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 2001	-151.55	JAN 30, 2002	-145.08	APR 25, 2002	-114.85	JUL 30, 2002	-157.22
NOV 16	-147.94	FEB 26	-145.06	MAY 09	-117.31	SEP 18	-144.55
DEC 19	-145.55	MAR 25	-114.86	JUN 28	-153.94	25	-158.94
WATER YEAR 2002		HIGHEST -114.85 APR 25, 2002		LOWEST -158.94		SEP 25, 2002	





GROUND-WATER LEVELS IN MARYLAND--Continued

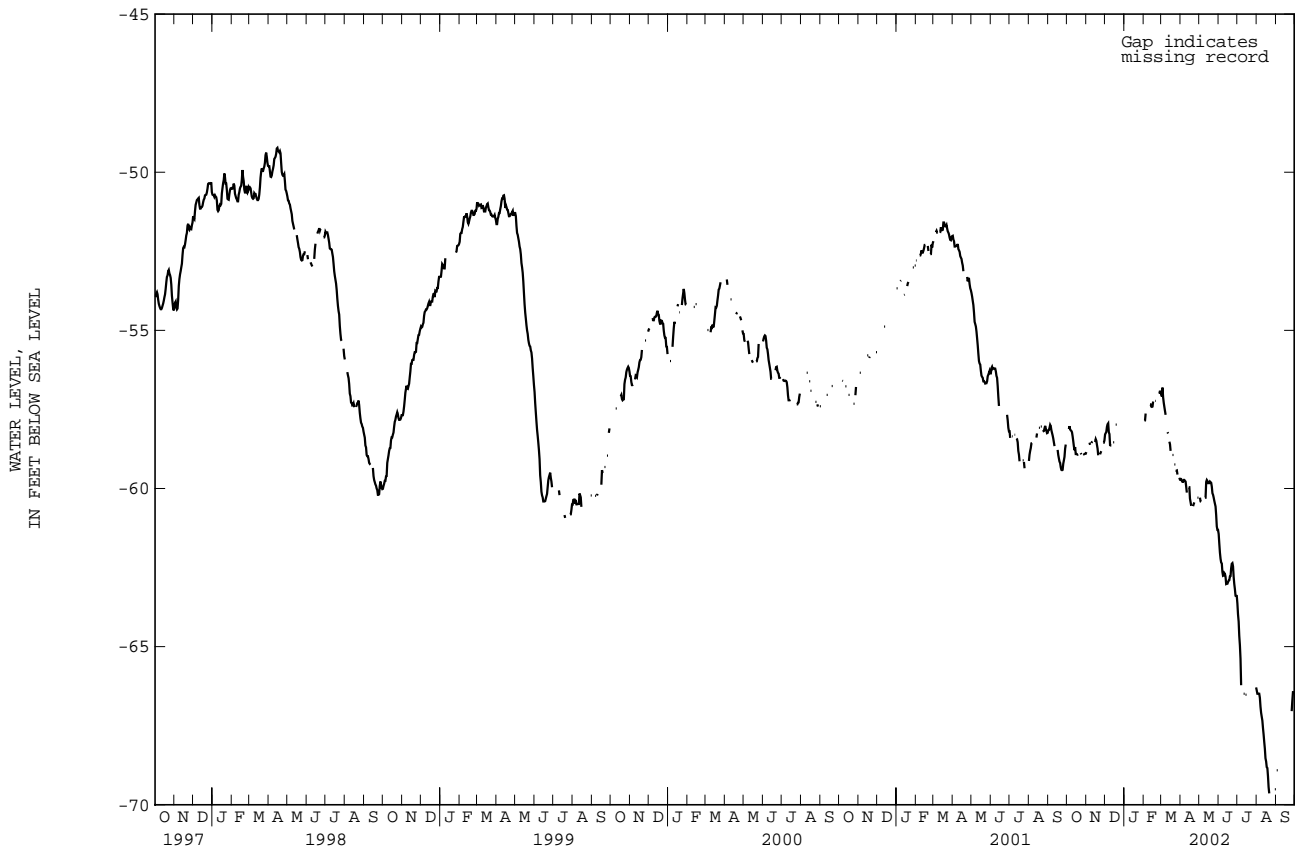
CHARLES COUNTY--Continued

CH Bf 151 --Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-59.66	-59.72	---	---	-61.31	-61.44	-63.40	-63.64	-66.29	-66.39	---	---
2	-59.70	-59.71	-60.28	-60.29	-61.44	-61.74	-63.64	-63.98	-66.39	-66.49	-68.72	-68.91
3	-59.71	-59.76	-60.29	-60.41	-61.74	-62.03	-63.98	-64.21	-66.49	-66.49	---	---
4	-59.76	-59.79	-60.41	-60.42	-62.03	-62.22	-64.21	-64.66	-66.49	-66.49	---	---
5	-59.73	-59.79	---	---	-62.22	-62.34	-64.66	-64.96	-66.43	-66.49	---	---
6	-59.69	-59.73	---	---	-62.34	-62.37	-64.96	-65.39	-66.43	-66.62	---	---
7	-59.71	-59.73	---	---	-62.37	-62.64	-65.39	-66.22	-66.62	-66.90	---	---
8	-59.73	-59.76	---	---	-62.64	-62.76	---	---	-66.90	-67.09	---	---
9	-59.76	-59.78	---	---	-62.66	-62.75	---	---	-67.09	-67.22	---	---
10	-59.78	-59.95	-60.29	-60.29	-62.58	-62.67	---	---	-67.22	-67.34	---	---
11	-59.95	-60.13	-59.79	-60.29	-62.58	-62.70	-66.48	-66.49	-67.34	-67.58	---	---
12	---	---	-59.73	-59.79	-62.70	-62.79	---	---	-67.58	-67.78	---	---
13	---	---	-59.65	-59.73	-62.79	-63.02	---	---	-67.78	-68.01	---	---
14	-59.89	-59.96	-59.66	-59.76	-63.01	-63.01	-66.50	-66.52	-68.01	-68.23	---	---
15	-59.89	-59.96	-59.76	-59.83	-62.95	-63.01	---	---	-68.23	-68.53	---	---
16	-59.96	-60.32	-59.83	-59.83	-62.91	-62.96	---	---	-68.53	-68.63	---	---
17	-60.32	-60.43	-59.77	-59.83	-62.90	-62.91	---	---	-68.63	-68.81	---	---
18	-60.43	-60.55	-59.70	-59.78	-62.77	-62.90	---	---	-68.81	-68.84	---	---
19	---	---	-59.78	-59.80	-62.77	-62.78	---	---	-68.84	-69.10	---	---
20	---	---	-59.79	-59.82	-62.52	-62.77	---	---	-69.10	-69.44	---	---
21	-60.49	-60.56	-59.82	-59.94	-62.38	-62.52	---	---	-69.44	-69.64	---	---
22	-60.42	-60.49	-59.94	-60.15	-62.35	-62.38	---	---	---	---	---	---
23	-60.43	-60.44	-60.14	-60.20	-62.35	-62.36	---	---	---	---	---	---
24	---	---	-60.20	-60.29	-62.35	-62.46	---	---	---	---	---	---
25	---	---	-60.29	-60.39	-62.46	-62.80	---	---	---	---	---	---
26	---	---	-60.39	-60.48	-62.80	-63.02	---	---	---	---	-66.71	-67.04
27	---	---	-60.48	-60.57	-63.02	-63.18	---	---	---	---	-66.43	-66.71
28	-60.28	-60.29	-60.57	-60.84	-63.18	-63.39	---	---	---	---	-66.43	-66.44
29	---	---	-60.84	-61.20	-63.39	-63.40	---	---	---	---	-66.43	-66.44
30	---	---	-61.20	-61.31	-63.40	-63.40	---	---	-69.51	-69.51	-66.34	-66.43
31	---	---	-61.31	-61.31	---	---	-66.24	-66.29	---	---	---	---
MONTH	---	---	---	---	-61.31	-63.40	---	---	---	---	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

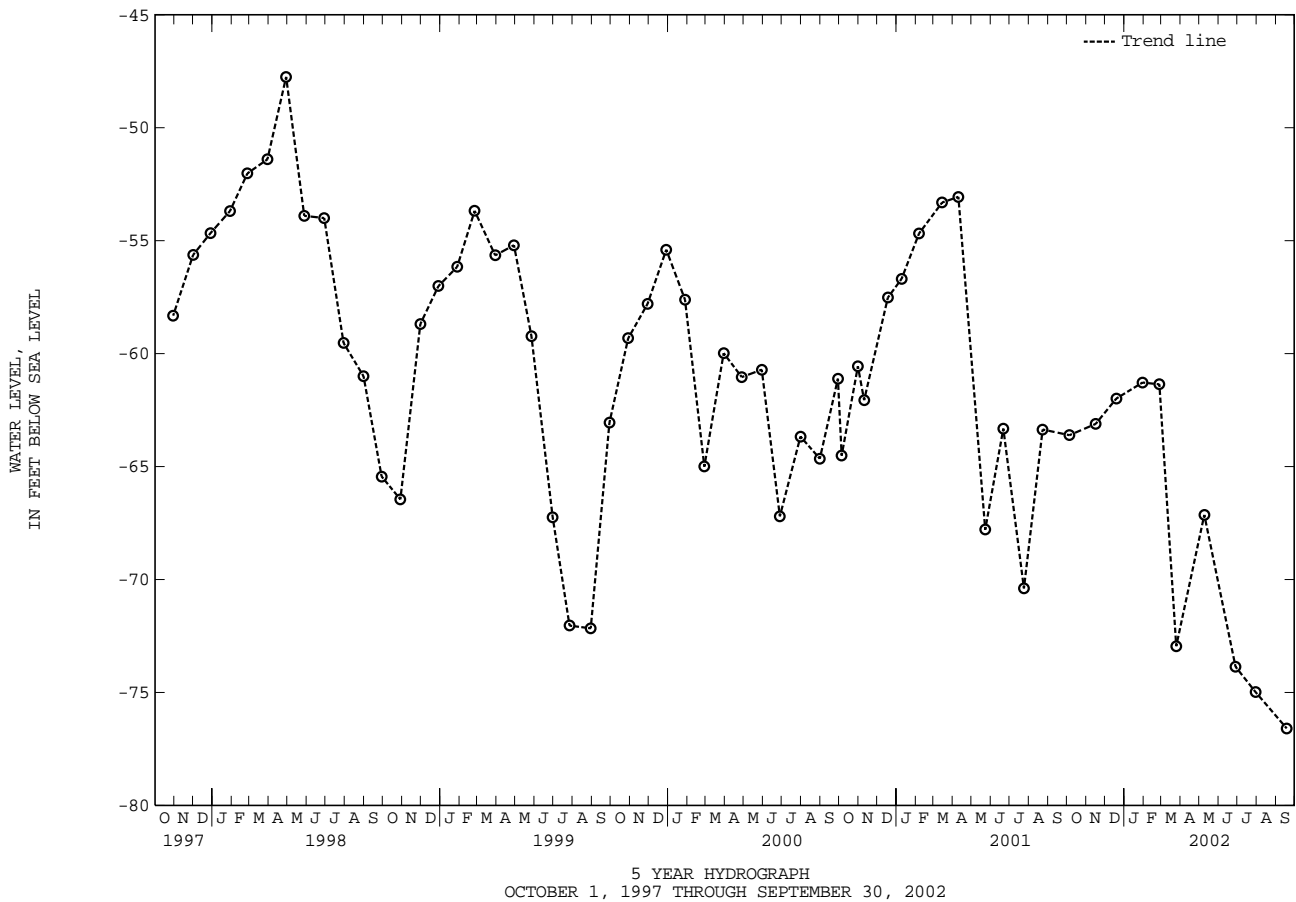
CHARLES COUNTY--Continued

WELL NUMBER.--CH Bf 157. SITE ID.--383637076545803. PERMIT NUMBER.--CH-81-1846.  
 LOCATION.--Lat 38°36'40", long 76°54'59", Hydrologic Unit 02070011, at St. Charles, Copely Rd. pumping station.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 623 ft; casing diameter 6 in., to 396 ft; casing diameter 4 in. from 396 to 608 ft; screen diameter 4 in. from 608 to 623 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 225.00 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 1.70 ft above land surface.  
 REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--November 1986 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.27 ft below sea level, April 5, 1988; lowest measured, 76.59 ft below sea level, Sept. 18, 2002.

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 2001	-63.61	JAN 30, 2002	-61.28	MAY 09, 2002	-67.14	SEP 18, 2002	-76.59
NOV 16	-63.11	FEB 26	-61.36	JUN 28	-73.86		
DEC 19	-61.99	MAR 25	-72.95	JUL 30	-74.98		

WATER YEAR 2002    HIGHEST -61.28 JAN 30, 2002    LOWEST -76.59 SEP 18, 2002



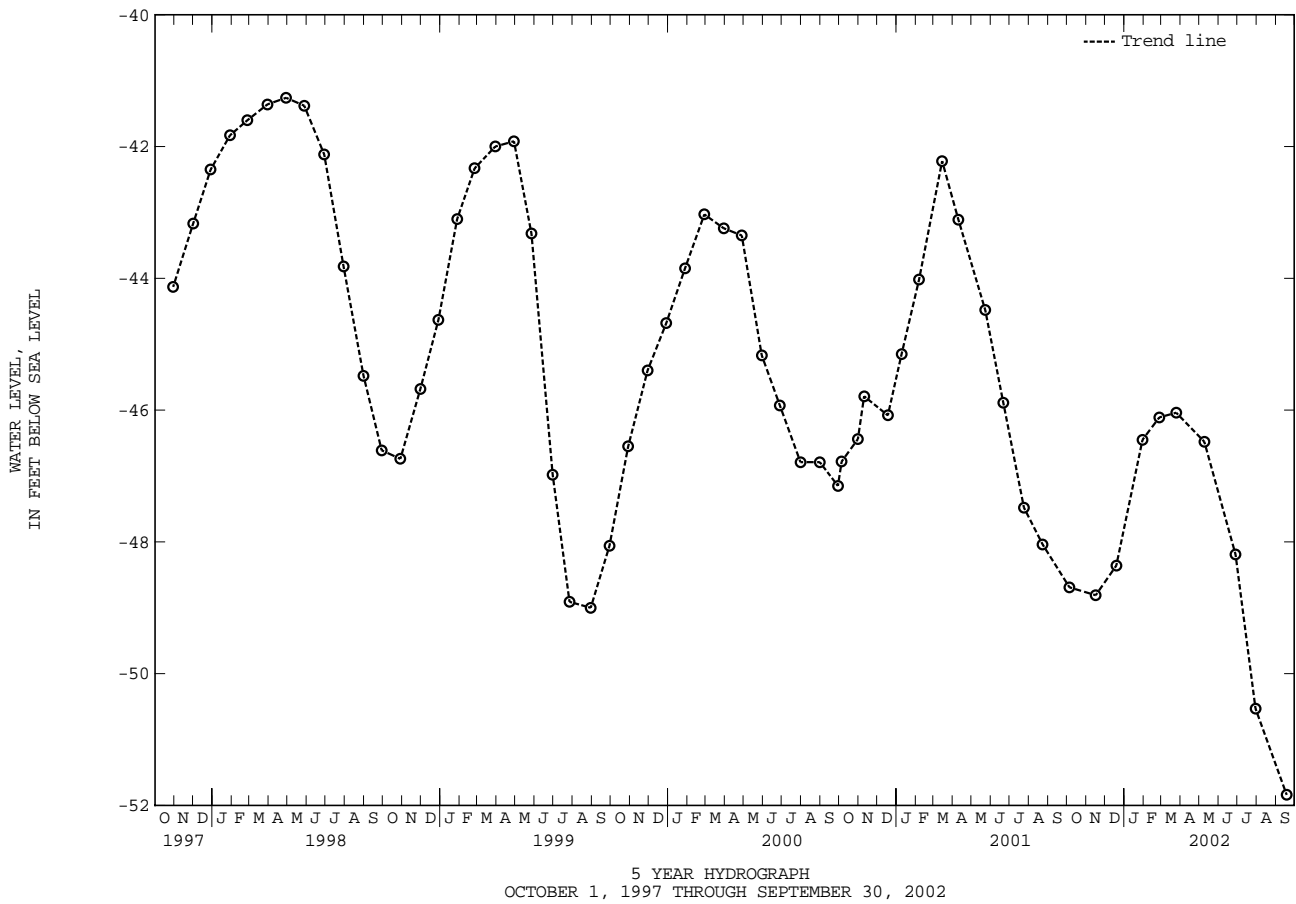
GROUND-WATER LEVELS IN MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bf 158. SITE ID.--383732076531902. PERMIT NUMBER.--CH-81-1847.  
 LOCATION.--Lat 38°37'32", long 76°53'19", Hydrologic Unit 02070011, at John Hansen Middle School pumping station, Waldorf.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 645 ft; casing diameter 6 in., to 398 ft; casing diameter 4 in. from 398 to 630 ft; screen diameter 4 in. from 630 to 645 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 193 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 2.0 ft above land surface.  
 REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal.  
 PERIOD OF RECORD.--April 1986 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.70 ft below sea level, April 10, 1987;  
 lowest measured, 51.84 ft below sea level, Sept. 18, 2002.

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 2001	-48.69	JAN 30, 2002	-46.45	MAY 09, 2002	-46.48	SEP 18, 2002	-51.84
NOV 16	-48.81	FEB 26	-46.11	JUN 28	-48.19		
DEC 19	-48.36	MAR 25	-46.04	JUL 30	-50.53		
WATER YEAR 2002		HIGHEST	-46.04 MAR 25, 2002	LOWEST		-51.84 SEP 18, 2002	



CHARLES COUNTY--Continued

WELL NUMBER.--CH Bg 12. SITE ID.--383746076482901. PERMIT NUMBER.--CH-81-0600.

LOCATION.--Lat 38°37'46", long 76°48'29", Hydrologic Unit 02070011, Cedarville State Forest, near Forest Rd.

Owner: U.S. Geological Survey.

AQUIFER.--Calvert Formation of Lower middle Miocene age. Aquifer code: 122CLVR.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 24.5 ft; casing diameter 4 in., to 13.5 ft; casing diameter 2 in., from 13.5 to 24.5 ft; screen diameter 2 in. from 13.5 to 18.5 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 149.69 ft above National Geodetic Vertical Datum of 1929.

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

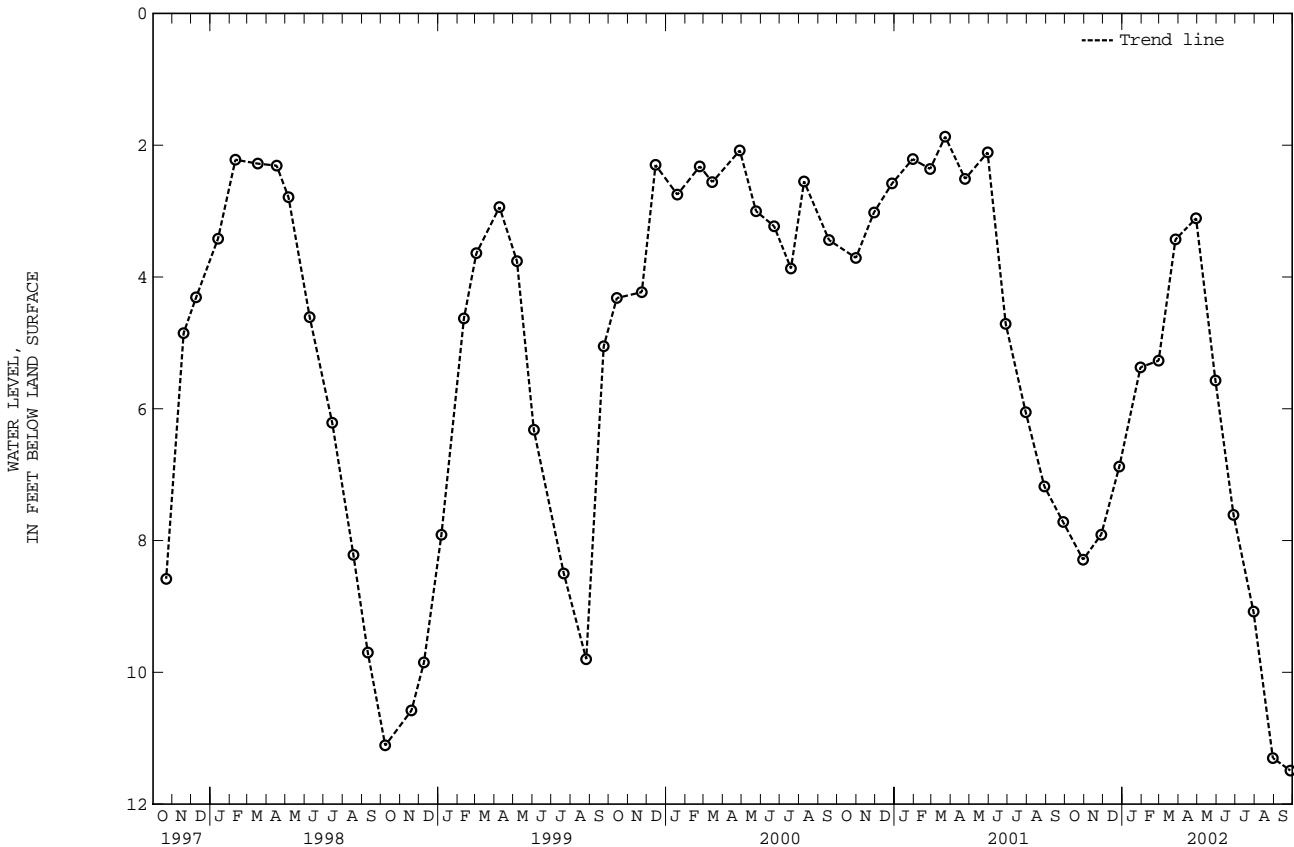
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by natural climatic response. The high water levels from December 1999 through May 2001 is the result of beavers damming nearby Zekiah Swamp Run.

PERIOD OF RECORD.--August 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.87 ft below land surface, March 23, 2001;  
lowest measured, 11.49 ft below land surface, Sept. 27, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	8.29	JAN 30, 2002	5.37	APR 29, 2002	3.11	JUL 30, 2002	9.08
NOV 28	7.91	FEB 28	5.27	MAY 30	5.57	AUG 30	11.30
DEC 27	6.88	MAR 27	3.43	JUN 28	7.61	SEP 27	11.49
WATER YEAR 2002		HIGHEST	3.11	APR 29, 2002	LOWEST	11.49	SEP 27, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CHARLES COUNTY--Continued

WELL NUMBER.--CH Cb 7. SITE ID.--383422077114601. PERMIT NUMBER.--CH-01-1908.

LOCATION.--Lat 38°34'22", long 77°11'46", Hydrologic Unit 02070011, at Caffee and Greenslade Rds., U.S. Naval Ordnance Station, about 2.5 mi southwest of Indian Head.

Owner: U.S. Navy.

AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 167 ft; casing diameter 8 in., to 144 ft; screen diameter 6 in. from 144 to 167 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with graphic water-level recorder Sept. 21, 1953 to July 8, 1965 Equipped with digital water-level recorder--60-minute recorder interval, April 28, 1988 to June 20, 2000.

DATUM.--Elevation of land surface is 36.0 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.08 ft above land surface.

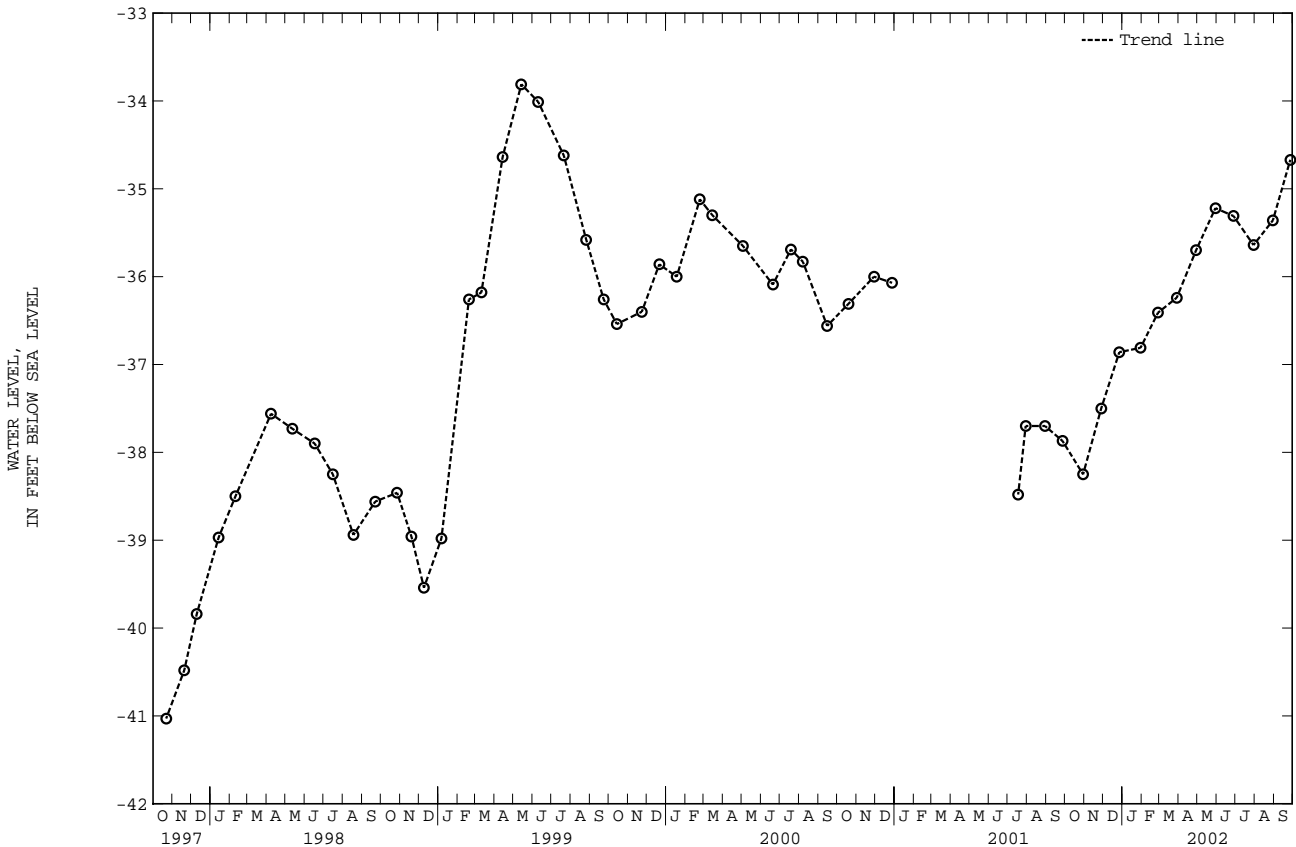
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--March and April 1952, August 1953 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.35 ft below sea level, April 18, 1952; lowest measured, 53.33 ft below sea level, Aug. 12, 14, 1989 (recorder).

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	-38.25	JAN 30, 2002	-36.81	APR 29, 2002	-35.70	JUL 30, 2002	-35.64
NOV 28	-37.50	FEB 27	-36.41	MAY 30	-35.22	AUG 30	-35.36
DEC 27	-36.86	MAR 29	-36.24	JUN 28	-35.31	SEP 27	-34.67
WATER YEAR 2002		HIGHEST	-34.67	SEP 27, 2002	LOWEST	-38.25	OCT 30, 2001





CHARLES COUNTY--Continued

WELL NUMBER.--CH Cc 31. SITE ID.--383455077074401. PERMIT NUMBER.--CH-73-1416.

LOCATION.--Lat 38°34'55", long 77°07'44", Hydrologic Unit 02070011, at Mattawoman Natural Environment Area, approximately 2,000 ft west of the intersection of MD Rts. 224, and 425.

Owner: Maryland Department of Natural Resources.

AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 559 ft; casing diameter 6 in., to 200 ft; casing diameter 4 in., from 200 to 438 ft., 453 to 480 ft, 505 to 540 ft, and 554 to 559 ft; screen diameter 4 in. from 438 to 453 ft, 480 to 505 ft, and 540 to 554 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval, Oct. 27, 1998 to June 20, 2000, and from July 11, 2001 to current year.

DATUM.--Elevation of land surface is 35.00 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of shelter platform, 3.75 ft above land surface.

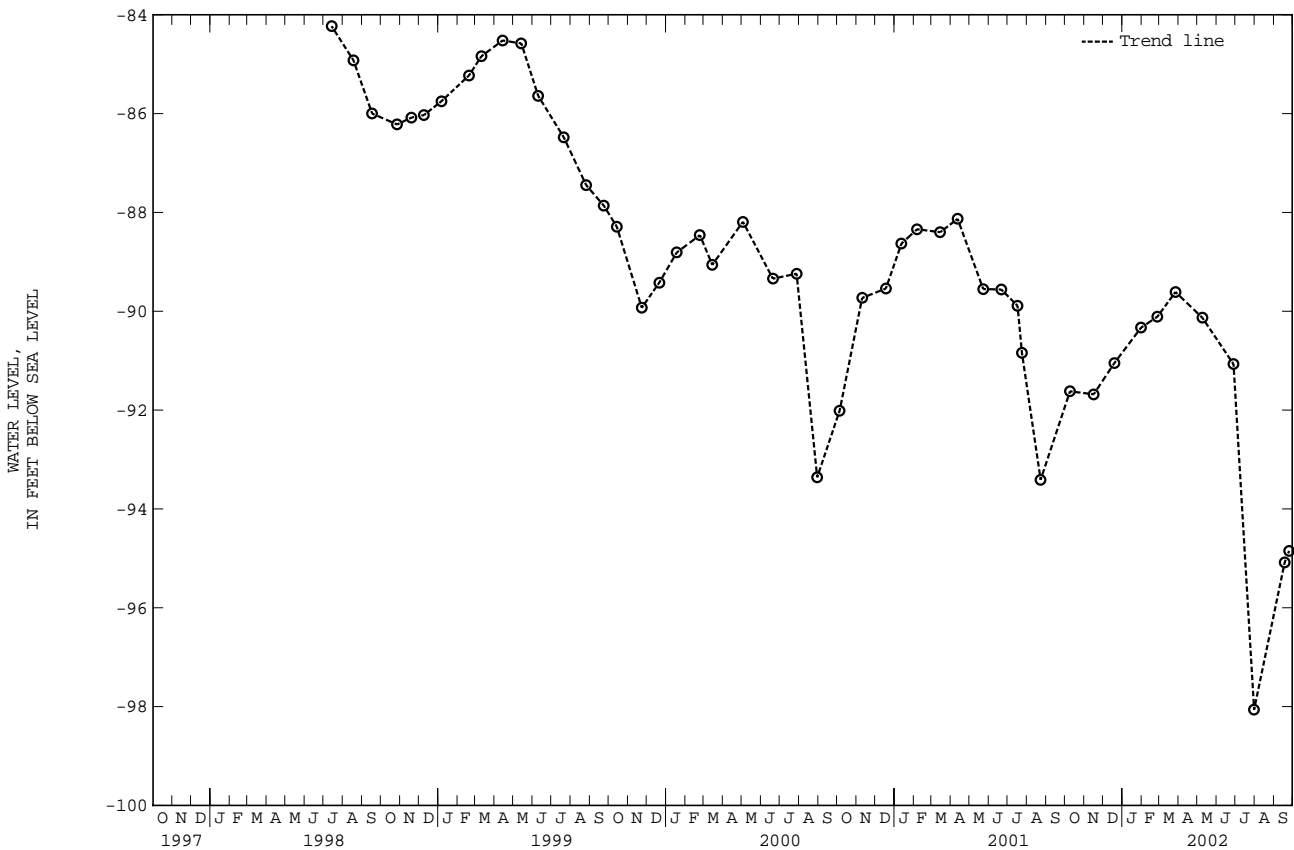
REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.--July 1998 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 84.23 ft below sea level, July 14, 1998; lowest measured, 98.87 ft below sea level, Aug. 9, 2002 (recorder).

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09, 2001	-91.62	JAN 31, 2002	-90.33	MAY 09, 2002	-90.13	SEP 18, 2002	-95.08
NOV 16	-91.68	FEB 26	-90.11	JUN 28	-91.07	25	-94.85
DEC 19	-91.05	MAR 27	-89.61	JUL 31	-98.06		
WATER YEAR 2002		HIGHEST	-89.61	MAR 27, 2002	LOWEST	-98.06	JUL 31, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Cc 34. SITE ID.--383441077063901. PERMIT NUMBER.--CH-94-0897.

LOCATION.--Lat 38°34'41", long 77°06'39", Hydrologic Unit 02070011, at Mattawoman Water Treatment Plant.

Owner: Maryland Geological Survey.

AQUIFER.--Upper Patuxent aquifer in the Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 975 ft; casing diameter 4 in., to 874 ft, 884 to 945 ft, and 965 to 975 ft; screen diameter 4 in. from 874 to 884 ft, and 945 to 955 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from Aug. 28, 1996 to current year.

DATUM.--Elevation of land surface is 41.82 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder shelf, 3.0 ft above land surface.

REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal. A ground-water pumping test began on Sept. 21, 1999, at a nearby production well with the deepest drawdown recorded as 24.16 ft below sea level on Oct. 1, 1999.

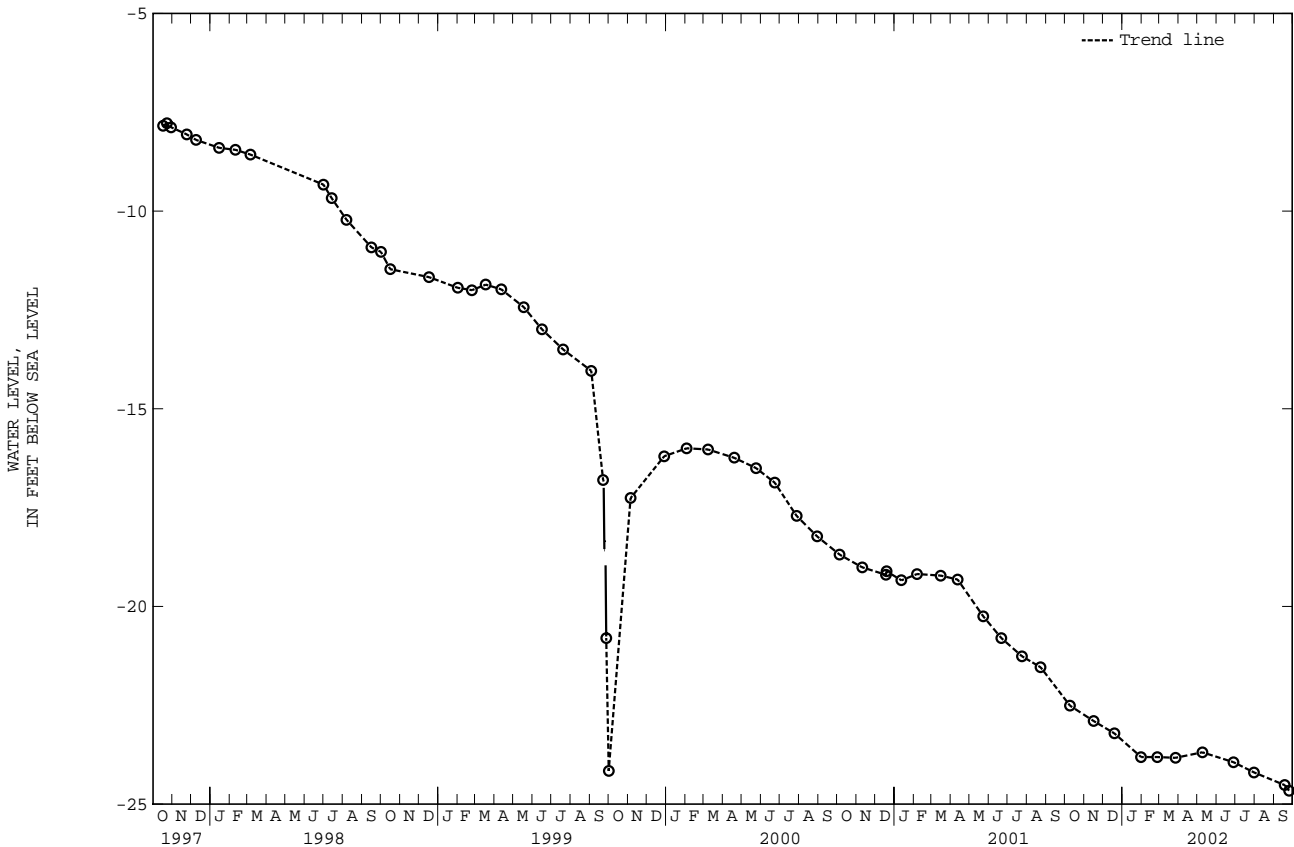
PERIOD OF RECORD.--August 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.80 ft below sea level, Oct. 8, 1996; lowest measured, 24.68 ft below sea level, Sept. 25, and 26, 2002 (recorder)(See REMARKS).

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09, 2001	-22.51	JAN 31, 2002	-23.81	MAY 09, 2002	-23.69	SEP 18, 2002	-24.52
NOV 16	-22.90	FEB 26	-23.81	JUN 28	-23.94	25	-24.66
DEC 19	-23.21	MAR 27	-23.83	JUL 31	-24.20		

WATER YEAR 2002 HIGHEST -22.51 OCT 09, 2001 LOWEST -24.66 SEP 25, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CHARLES COUNTY--Continued

WELL NUMBER.--CH Ce 37. SITE ID.--383236076563901. PERMIT NUMBER.--CH-73-0219.

LOCATION.--Lat 38°32'36", long 76°56'39", Hydrologic Unit 02070011, at La Plata Water Treatment Plant, 2.0 mi. northeast of La Plata.

Owner: U.S. Geological Survey.

AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1340 ft; casing diameter 6 in., to 300 ft;

casing diameter 4 in. from 300 to 1,174 ft, 1,184 to 1,250 ft, and 1,260 to 1,330 ft;

screen diameter 4 in. from 1,174 to 1,184 ft, 1,250 to 1,260 ft, and 1,330 to 1,340 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with graphic water-level recorder from Nov. 23, 1973 to Dec. 10, 1975. Equipped with digital water-level recorder--15-minute recorder interval from July 12, 1976 to October 1998.

DATUM.--Elevation of land surface is 184.95 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 3.62 ft above land surface.

REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

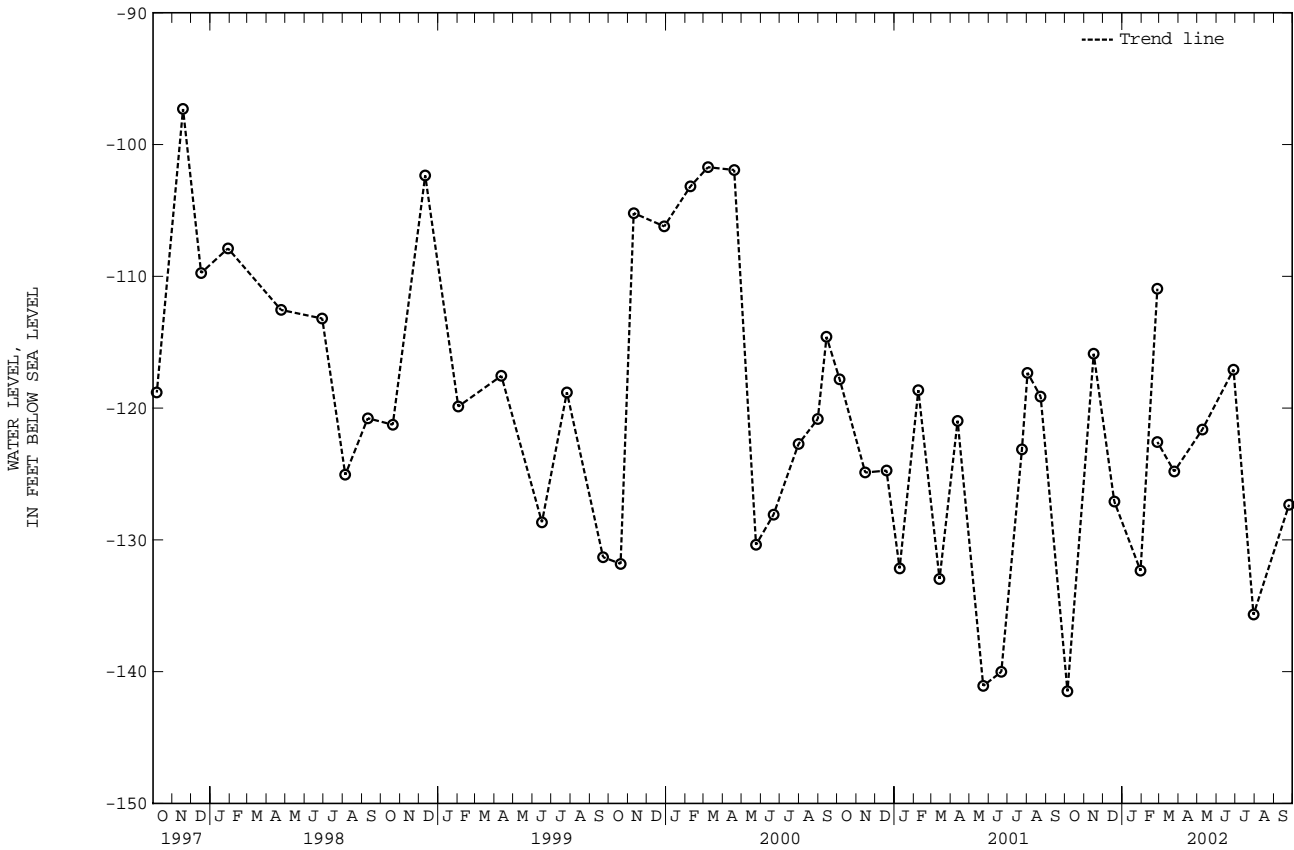
PERIOD OF RECORD.--November 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, .19 ft below sea level, Nov. 5, 1973; lowest measured, 147.94 ft below sea level, Aug. 17, 2002 (recorder).

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 2001	-141.49	JAN 30, 2002	-132.34	MAR 25, 2002	-124.81	JUL 30, 2002	-135.67
NOV 16	-115.88	FEB 26	-110.94	MAY 09	-121.63	SEP 25	-127.33
DEC 19	-127.09	26	-122.57	JUN 28	-117.08		

WATER YEAR 2002 HIGHEST -115.88 NOV 16, 2001 LOWEST -141.49 OCT 05, 2001



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Ce 56. SITE ID.--383251076583901. PERMIT NUMBER.--CH-94-1111  
 LOCATION.--Lat 38°32'51", long 76°58'39", Hydrologic Unit 02070011, Heritage Green, LaPlata.  
 Owner: Town of La Plata.  
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,268 ft; casing diameter 6 in., to 475 ft; 4 in., from 475 to 896 ft, 906 to 945 ft, 950 to 957 ft, 962 to 993 ft, 1,008 to 1,024 ft, 1,029 to 1,037 ft, 1,042 to 1,094 ft, 1,134 to 1,166 ft, 1,186 to 1,204 ft, 1,214 to 1,248 ft and 1,258 to 1,268ft;  
 Screen diameter 4 in. from 896 to 906 ft, 945 to 950 ft, 957 to 962 ft, 993 to 1,008 ft, 1,024 to 1,029 ft, 1,037 to 1,042 ft, 1,094 to 1,134 ft, 1,166 to 1,186 ft, 1,204 to 1,214 ft and 1,248 to 1,258 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--15-minute recorder interval, Aug. 28, 1997 To current year.  
 DATUM.--Elevation of land surface is 196.48 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of recorder platform 2.85 ft above land surface.  
 REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal. Missing data due to recorder malfunction.  
 PERIOD OF RECORD.--March 1997 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 87.67 ft below sea level, July 15, 1997;  
 lowest measured, 174.15 ft below sea level, Aug. 25, 2001 (recorder).

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-125.52	-152.01	-121.34	-142.27	-114.49	-114.91	-113.58	-114.44	-111.97	-112.63	-110.89	-123.66
2	-125.93	-158.87	-121.01	-151.69	-114.17	-114.51	-113.30	-130.21	-111.63	-111.97	-110.80	-123.24
3	-126.00	-134.23	-120.70	-125.41	-113.88	-116.54	-112.80	-113.82	-111.20	-111.63	-110.31	-122.25
4	-124.27	-126.00	-119.43	-120.70	-113.66	-114.90	-112.46	-112.80	-111.02	-111.20	-112.97	-134.39
5	-123.77	-151.63	-119.13	-138.48	-113.51	-137.04	-112.16	-112.46	-111.00	-133.87	-111.51	-125.32
6	-123.52	-126.78	-118.58	-120.22	-113.92	-144.46	-111.73	-112.16	-111.46	-136.07	-111.03	-122.74
7	-122.56	-123.52	-117.80	-118.74	-115.84	-141.32	-111.64	-116.04	-111.58	-117.82	-110.43	-126.13
8	-122.34	-159.12	-117.59	-146.89	-115.37	-143.43	-111.60	-111.79	-111.09	-111.58	-110.75	-130.26
9	-140.34	-163.33	-118.63	-147.61	-115.19	-118.91	-111.48	-125.53	-110.90	-111.09	-111.32	-127.79
10	-128.83	-156.93	-119.18	-151.36	-114.32	-115.19	-111.56	-142.31	-110.74	-138.90	-111.01	-138.58
11	-128.21	-156.10	-120.68	-148.63	-113.71	-114.32	-112.39	-116.05	-111.79	-135.69	-112.80	-130.79
12	-126.80	-153.14	-120.13	-142.63	-113.16	-113.71	-111.90	-147.57	-122.86	-151.40	-112.03	-129.60
13	-124.03	-127.41	-119.24	-144.50	-112.66	-113.16	-114.79	-148.48	-135.04	-154.86	-111.67	-131.08
14	-122.54	-124.03	-118.25	-120.90	-112.37	-112.66	-112.86	-114.79	-121.80	-155.11	-113.35	-129.47
15	-122.16	-145.19	-117.77	-144.09	-112.39	-139.27	-112.20	-112.86	-117.13	-126.05	-111.81	-127.92
16	-122.44	-157.86	-118.07	-151.22	-113.74	-149.97	-111.79	-112.20	-115.02	-132.40	-111.06	-129.25
17	-126.51	-153.56	-120.33	-150.73	-118.09	-150.29	-111.46	-111.79	-113.90	-116.62	-115.60	-135.33
18	-124.81	-150.05	-118.67	-127.23	-117.39	-151.09	-111.26	-111.46	-113.07	-113.90	-114.05	-129.72
19	-123.48	-155.55	-117.81	-143.72	-114.90	-117.39	-110.84	-111.26	-112.64	-125.01	-111.68	-124.26
20	-125.05	-157.30	-116.80	-120.08	-113.99	-114.90	-110.74	-110.87	-112.05	-113.14	-111.33	-128.38
21	-123.83	-134.37	-116.33	-152.46	-113.70	-149.01	-110.52	-144.57	-111.74	-126.16	-111.84	-131.06
22	-122.90	-154.25	-152.46	-158.36	-121.19	-153.49	-113.31	-145.63	-111.63	-122.26	-113.32	-133.46
23	-124.11	-152.46	-122.84	-158.71	-119.04	-154.33	-112.08	-145.53	-111.65	-131.72	-112.02	-137.68
24	-123.25	-153.40	-119.49	-122.84	-117.37	-149.51	-113.81	-146.54	-111.87	-130.97	-112.85	-138.94
25	-124.91	-153.00	-117.98	-119.49	-118.38	-144.97	-112.18	-113.81	-111.23	-117.60	-112.75	-128.62
26	-123.27	-150.32	-117.07	-117.98	-116.51	-145.88	-111.39	-112.18	-110.24	-116.48	-112.04	-134.33
27	-123.20	-152.30	-116.43	-117.07	-115.26	-120.99	-110.92	-111.39	-110.01	-122.55	-112.06	-130.73
28	-123.38	-152.62	-115.89	-116.43	-113.85	-115.26	-110.62	-136.78	-109.84	-118.88	-111.65	-129.55
29	-123.47	-152.33	-115.31	-115.89	-113.42	-149.34	-119.77	-149.74	---	---	-111.46	-129.09
30	-123.16	-147.92	-114.91	-115.31	-116.61	-150.52	-113.92	-119.77	---	---	-111.64	-130.43
31	-122.15	-146.67	---	---	-114.44	-116.61	-112.63	-113.92	---	---	-111.74	-131.03
MONTH	-122.15	-163.33	-114.91	-158.71	-112.37	-154.33	-110.52	-149.74	-109.84	-155.11	-110.31	-138.94

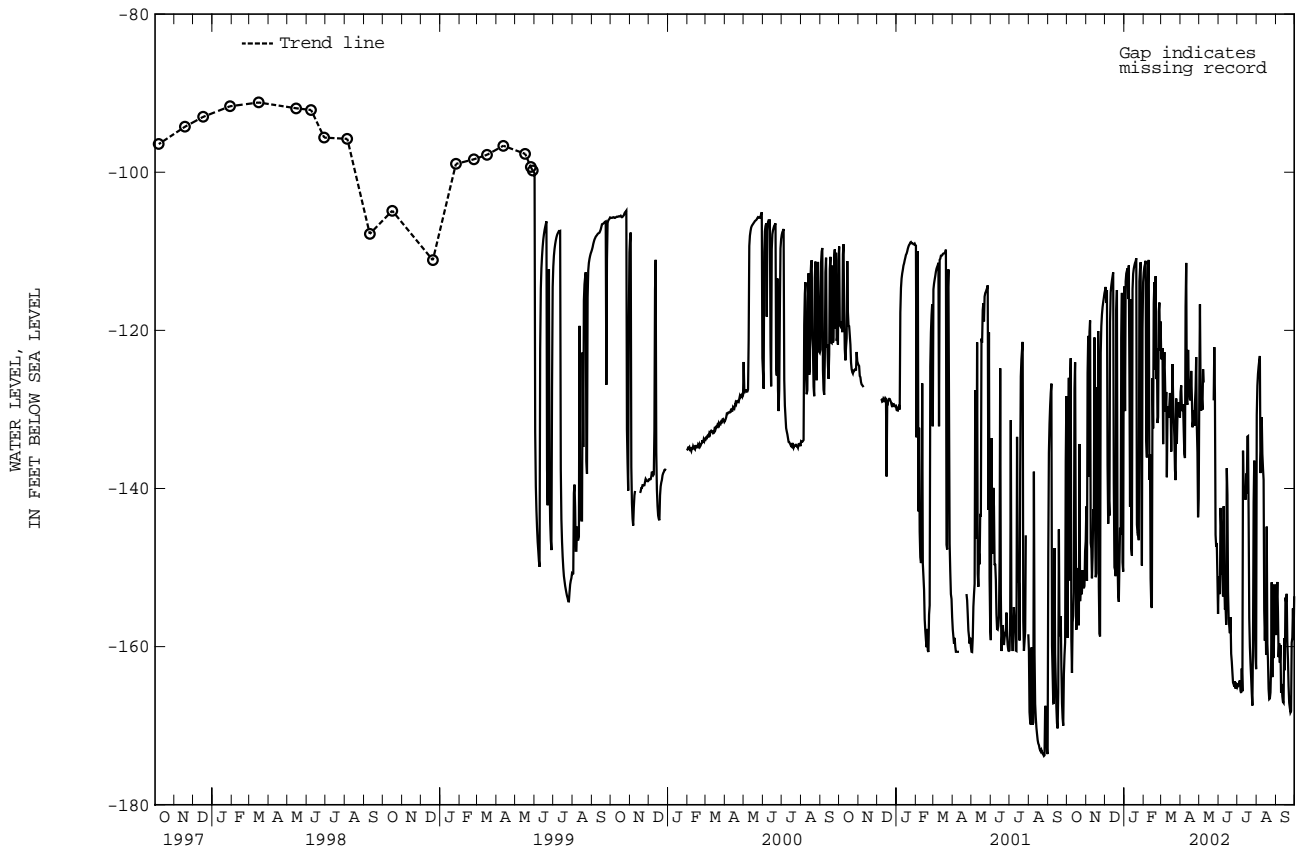
CHARLES COUNTY--Continued

CH Ce 56--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-112.05	-127.77	-114.10	-127.45	-125.41	-151.09	-135.80	-165.11	-126.99	-130.71	-130.63	-158.54
2	-111.36	-126.96	-112.32	-116.70	-124.68	-153.23	-134.57	-164.94	-125.49	-126.99	-131.84	-154.29
3	-111.04	-129.79	-112.12	-127.40	-124.04	-153.23	-134.70	-164.88	-124.55	-125.49	-130.87	-151.82
4	-111.56	-130.22	-112.69	-130.15	-122.05	-142.46	-133.86	-164.47	-123.83	-124.55	-130.91	-155.62
5	-111.71	-129.36	-112.77	-128.54	-122.16	-144.92	-135.88	-164.27	-123.24	-123.83	-135.78	-161.33
6	-112.22	-132.62	-112.75	-130.04	-123.92	-150.69	-148.57	-165.59	-122.87	-123.24	-135.19	-159.58
7	-115.07	-135.64	-112.26	-124.91	-124.73	-150.69	-135.02	-165.87	-122.75	-138.05	-135.56	-162.03
8	-113.18	-136.15	-111.97	-126.60	-125.41	-153.65	-134.14	-162.76	-122.81	-135.32	-135.34	-159.79
9	-111.47	-117.02	---	---	-123.12	-142.25	-135.22	-165.65	-122.61	-130.97	-136.11	-165.81
10	-110.55	-111.47	---	---	-125.91	-151.62	-129.30	-135.22	-122.55	-135.62	-135.36	-164.72
11	-110.40	-129.13	---	---	-124.54	-155.30	-127.89	-140.57	-122.82	-137.46	-139.88	-166.29
12	-110.84	-129.41	---	---	-124.23	-154.75	-127.75	-141.30	-122.89	-138.90	-140.58	-167.00
13	-110.70	-122.47	---	---	-125.21	-157.25	-125.99	-140.10	-123.12	-155.42	-136.98	-167.11
14	-111.07	-126.10	---	---	-121.94	-137.43	-125.15	-141.42	-129.53	-159.25	-135.10	-158.94
15	-110.45	-127.50	---	---	-121.07	-140.78	-125.33	-138.12	-128.89	-155.34	-134.89	-162.98
16	-111.49	-128.70	---	---	-128.28	-153.03	-124.18	-140.69	-129.98	-161.06	-132.33	-153.79
17	-111.05	-128.85	---	---	-130.60	-156.36	-123.12	-133.44	-127.59	-144.82	-130.90	-154.35
18	-110.98	-125.13	---	---	-133.05	-157.47	-122.37	-133.38	-127.41	-159.64	-130.73	-153.32
19	-110.70	-128.14	---	---	-133.99	-158.30	-122.36	-143.29	-129.88	-161.78	-135.65	-159.35
20	-111.45	-132.26	---	---	-130.77	-156.28	-128.22	-156.41	-139.07	-165.37	-134.78	-161.66
21	-111.71	-131.52	---	---	-135.98	-160.89	-134.06	-160.02	-137.97	-166.64	-137.67	-164.97
22	-112.24	-130.15	---	---	-140.14	-161.89	-132.45	-162.17	-136.95	-166.56	-140.78	-167.11
23	-112.44	-132.08	---	---	-138.82	-163.29	-136.52	-163.87	-136.33	-165.80	-140.51	-167.75
24	-111.95	-129.25	-112.66	-128.85	-138.86	-164.55	-151.04	-165.83	-133.97	-162.45	-143.96	-168.33
25	-111.60	-127.45	-112.22	-122.12	-137.50	-164.78	-148.97	-167.45	-131.30	-151.86	-137.36	-168.15
26	-111.06	-123.38	-111.82	-127.99	-135.95	-165.05	-134.63	-159.60	-139.15	-163.86	-140.08	-159.52
27	-110.81	-132.07	-120.47	-145.85	-135.55	-164.37	-129.28	-141.76	-133.92	-152.15	-133.06	-158.85
28	-111.16	-135.43	-122.79	-147.38	-140.88	-165.31	-126.87	-136.48	-137.16	-161.45	-131.76	-155.17
29	-124.91	-143.64	-125.04	-146.89	-134.63	-164.66	-126.41	-155.63	-133.84	-157.36	-131.86	-159.18
30	-116.80	-141.24	-124.51	-151.22	-136.13	-164.73	-134.51	-161.21	-131.72	-152.47	-130.42	-153.63
31	---	---	-133.65	-155.86	---	---	-130.71	-162.85	-130.68	-152.15	---	---
MONTH	-110.40	-143.64	---	---	-121.07	-165.31	-122.36	-167.45	-122.55	-166.64	-130.42	-168.33

Daily Low Water Levels



CHARLES COUNTY--Continued

WELL NUMBER.--CH Ce 57. SITE ID.--383250076584001. PERMIT NUMBER.--CH-94-1112

LOCATION.--Lat 38°32'50", long 76°58'40", Hydrologic Unit 02070011, Heritage Green, LaPlata.

Owner: Town of La Plata.

AQUIFER.--Upper Patuxent aquifer in the Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,703 ft; casing diameter 6 in., to 400 ft; 4 in from 400 to 1,406 ft, 1,421 to 1,500 ft, 1,515 to 1,668 ft and 1,698 to 1,703 ft. Screen diameter 4 in. from 1,406 to 1,421 ft, 1,500 to 1,515 ft and 1,668 to 1,698 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval, March 18, 1997 to July 1998.

DATUM.--Elevation of land surface is 193.47 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of recorder platform 5.0 ft above land surface.

REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

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

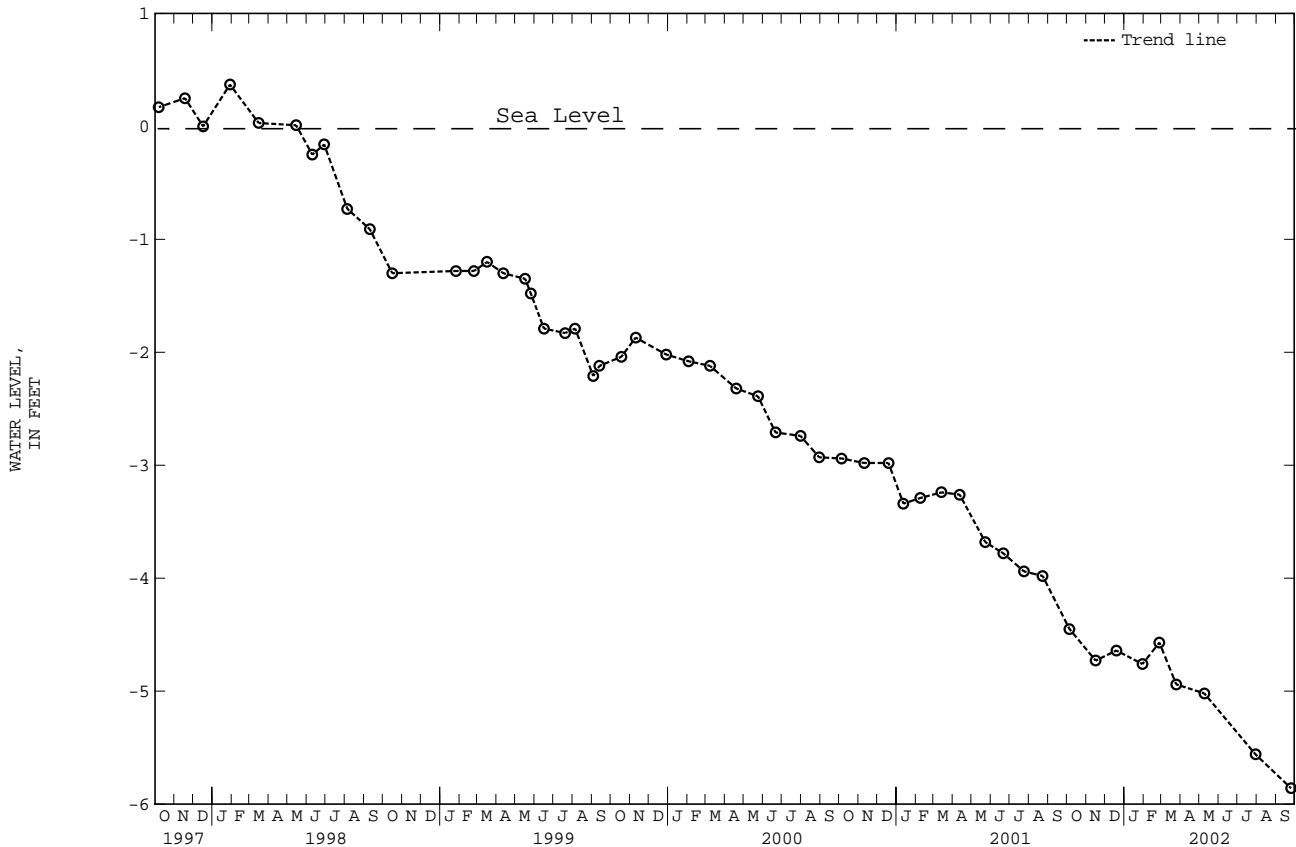
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.13 ft above sea level, May 1, 1997 (recorder);

lowest measured, 5.86 ft below sea level, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 2001	-4.45	JAN 30, 2002	-4.76	MAY 09, 2002	-5.02
NOV 16	-4.73	FEB 26	-4.57	JUL 30	-5.56
DEC 19	-4.64	MAR 25	-4.94	SEP 25	-5.86

WATER YEAR 2002 HIGHEST -4.45 OCT 05, 2001 LOWEST -5.86 SEP 25, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

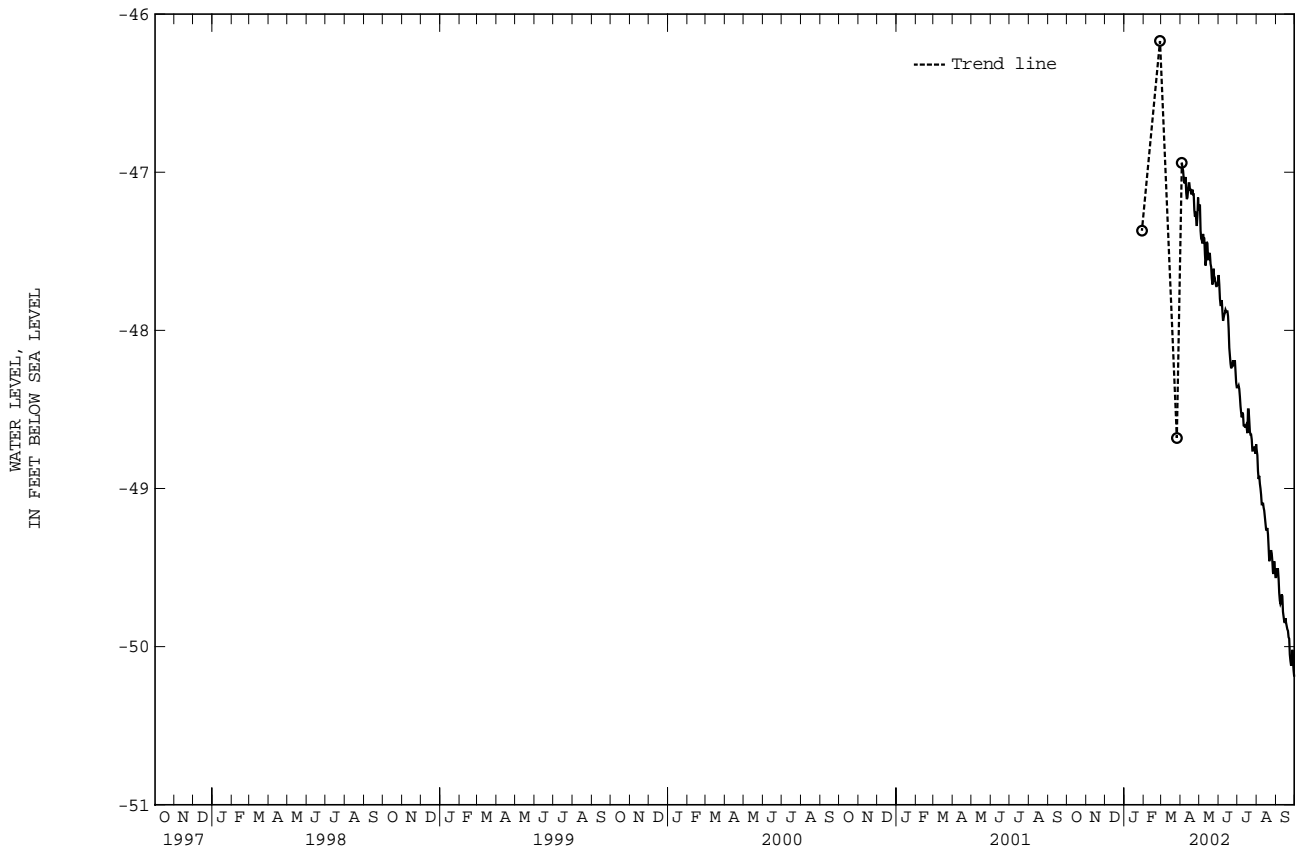
CHARLES COUNTY--Continued

CH Cg 24--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	-47.20	-47.21	-47.64	-47.65	-48.36	-48.36	-48.72	-48.76	-49.49	-49.56
2	---	---	-47.12	-47.21	-47.64	-47.71	-48.35	-48.36	-48.76	-48.79	-49.49	-49.51
3	-46.80	-46.94	-47.15	-47.37	-47.71	-47.80	-48.34	-48.35	-48.79	-48.89	-49.49	-49.51
4	-46.94	-46.97	-47.37	-47.42	-47.80	-47.84	-48.34	-48.37	-48.89	-48.94	-49.49	-49.51
5	-46.97	-46.99	-47.41	-47.43	-47.81	-47.84	-48.37	-48.42	-48.87	-48.92	-49.51	-49.57
6	-46.97	-47.04	-47.39	-47.45	-47.71	-47.81	-48.42	-48.48	-48.87	-48.97	-49.57	-49.66
7	-47.04	-47.07	-47.36	-47.39	-47.75	-47.88	-48.48	-48.52	-48.97	-49.00	-49.66	-49.71
8	-47.01	-47.06	-47.37	-47.42	-47.88	-47.94	-48.52	-48.55	-49.00	-49.04	-49.71	-49.73
9	-47.01	-47.03	-47.37	-47.42	-47.88	-47.92	-48.48	-48.52	-49.04	-49.10	-49.67	-49.72
10	-47.02	-47.13	-47.38	-47.52	-47.88	-47.90	-48.49	-48.53	-49.09	-49.10	-49.56	-49.67
11	-47.13	-47.17	-47.52	-47.59	-47.87	-47.89	-48.53	-48.60	-49.09	-49.09	-49.56	-49.68
12	-47.11	-47.16	-47.44	-47.55	-47.87	-47.87	-48.59	-48.60	-49.09	-49.12	-49.68	-49.78
13	-47.06	-47.11	-47.29	-47.44	-47.87	-47.88	-48.60	-48.61	-49.12	-49.14	-49.78	-49.81
14	-47.04	-47.07	-47.35	-47.45	-47.85	-47.88	-48.60	-48.61	-49.14	-49.18	-49.81	-49.84
15	-47.04	-47.07	-47.45	-47.55	-47.84	-47.88	-48.60	-48.60	-49.18	-49.22	-49.82	-49.85
16	-47.07	-47.11	-47.51	-47.55	-47.88	-47.91	-48.60	-48.62	-49.22	-49.26	-49.79	-49.82
17	-47.11	-47.11	-47.44	-47.51	-47.91	-47.99	-48.49	-48.65	-49.24	-49.26	-49.80	-49.85
18	-47.11	-47.14	-47.37	-47.52	-47.99	-48.11	-48.50	-48.50	-49.23	-49.25	-49.84	-49.87
19	-47.09	-47.13	-47.52	-47.58	-48.11	-48.16	-48.50	-48.50	-49.24	-49.29	-49.87	-49.89
20	-47.09	-47.11	-47.58	-47.60	-48.16	-48.21	-48.50	-48.57	-49.25	-49.37	-49.89	-49.90
21	-47.11	-47.14	-47.60	-47.67	-48.20	-48.24	-48.57	-48.64	-49.37	-49.46	-49.89	-49.94
22	-47.05	-47.14	-47.67	-47.71	-48.21	-48.23	-48.62	-48.66	-49.39	-49.44	-49.94	-49.95
23	-47.14	-47.24	-47.61	-47.68	-48.19	-48.22	-48.65	-48.66	-49.38	-49.41	-49.95	-50.05
24	-47.24	-47.28	-47.57	-47.61	-48.19	-48.19	-48.65	-48.69	-49.34	-49.39	-50.05	-50.09
25	-47.17	-47.25	-47.60	-47.69	-48.19	-48.21	-48.68	-48.76	-49.36	-49.41	-50.09	-50.12
26	-47.24	-47.30	-47.66	-47.68	-48.19	-48.20	-48.75	-48.76	-49.41	-49.46	-50.02	-50.11
27	-47.27	-47.34	-47.67	-47.70	-48.17	-48.19	-48.73	-48.75	-49.46	-49.53	-49.91	-50.02
28	-47.00	-47.27	-47.70	-47.72	-48.17	-48.26	-48.73	-48.74	-49.44	-49.54	-49.91	-50.08
29	-47.01	-47.16	-47.71	-47.72	-48.24	-48.33	-48.74	-48.74	-49.44	-49.46	-50.08	-50.15
30	-47.16	-47.24	-47.69	-47.71	-48.33	-48.36	-48.69	-48.78	-49.46	-49.51	-50.15	-50.19
31	---	---	-47.64	-47.69	---	---	-48.69	-48.72	-49.51	-49.56	---	---
MONTH	---	---	-47.12	-47.72	-47.64	-48.36	-48.34	-48.78	-48.72	-49.56	-49.49	-50.19

Daily Low Water Levels





CHARLES COUNTY--Continued

WELL NUMBER.--CH Da 18. SITE ID.--382654077152501.

LOCATION.--Lat 38°26'54", long 77°15'25", Hydrologic Unit 02070011, nr. Douglas Point.

Owner: U.S. Bureau of Land Management.

AQUIFER.--Upper Patuxent aquifer in the Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled observation, artesian well, depth 740 ft; casing diameter 8 in., to 684 ft; and 694 to 730 ft; screen diameter 8 in. from 684 to 694 ft, and 730 to 740 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Twice yearly water level measurements from September 1976 to April 1996. Equipped with digital water-level recorder--60-minute recorder interval from April 3, 1996 to June 3, 1998.

DATUM.--Elevation of land surface is 89.90 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.--September 1976 to current year.

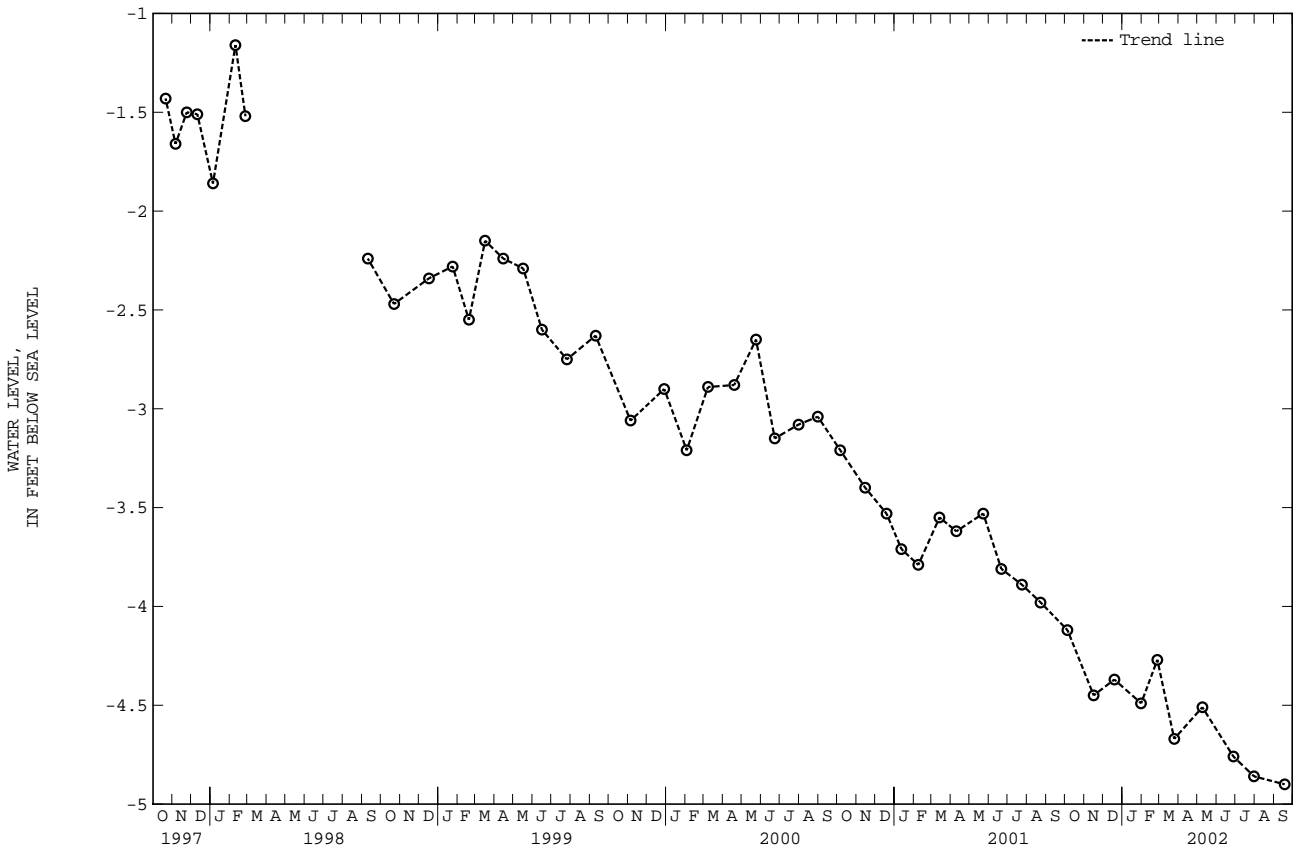
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.79 ft above sea level, Sept. 21, 1976;

lowest measured, 4.90 ft below sea level, Sept. 18, 2002.

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 2001	-4.12	JAN 31, 2002	-4.49	MAY 09, 2002	-4.51	SEP 18, 2002	-4.90
NOV 16	-4.45	FEB 26	-4.27	JUN 28	-4.76		
DEC 19	-4.37	MAR 25	-4.67	JUL 31	-4.86		

WATER YEAR 2002 HIGHEST -4.12 OCT 05, 2001 LOWEST -4.90 SEP 18, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CHARLES COUNTY--Continued

WELL NUMBER.--CH Da 20. SITE ID.--382654077152701.

LOCATION.--Lat 38°26'54", long 77°15'27", Hydrologic Unit 02070011, nr Douglas Point.

Owner: U.S. Bureau of Land Management.

AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.

WELL CHARACTERISTICS.--Drilled observation, artesian well, depth 522 ft; casing diameter 6 in., to 420 ft; 425 to 444 ft;

449 to 481 ft, and 486 to 517 ft; screen diameter 6 in. from 420 to 425 ft, 444 to 449 ft, 481 to 486 ft, and 517 to 522 ft..

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 90 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

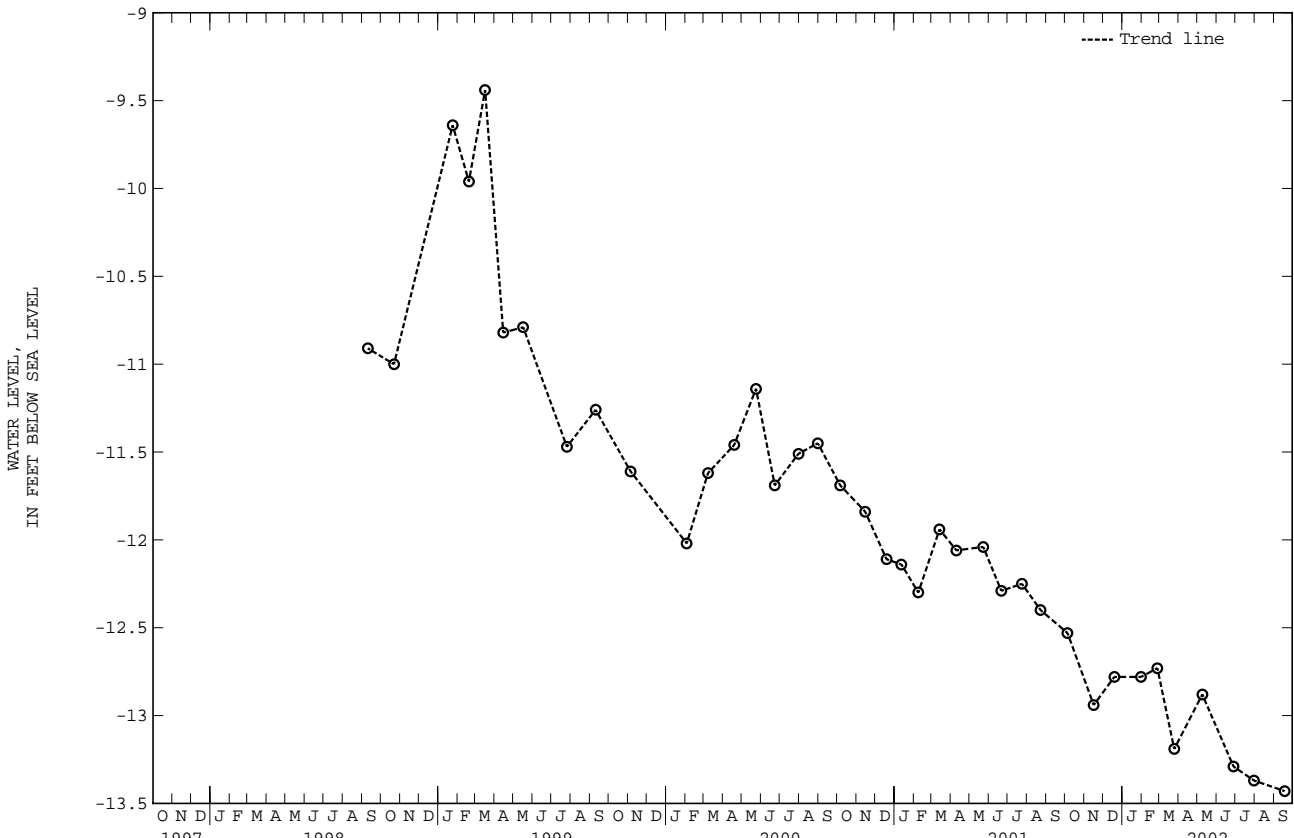
PERIOD OF RECORD.--September 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured .86 ft below sea level, March 22, 1979 and March 25, 1980; lowest measured, 13.43 ft below sea level, Sept. 18, 2002.

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 2001	-12.53	JAN 31, 2002	-12.78	MAY 09, 2002	-12.88	SEP 18, 2002	-13.43
NOV 16	-12.94	FEB 26	-12.73	JUN 28	-13.29		
DEC 19	-12.78	MAR 25	-13.19	JUL 31	-13.37		

WATER YEAR 2002 HIGHEST -12.53 OCT 05, 2001 LOWEST -13.43 SEP 18, 2002



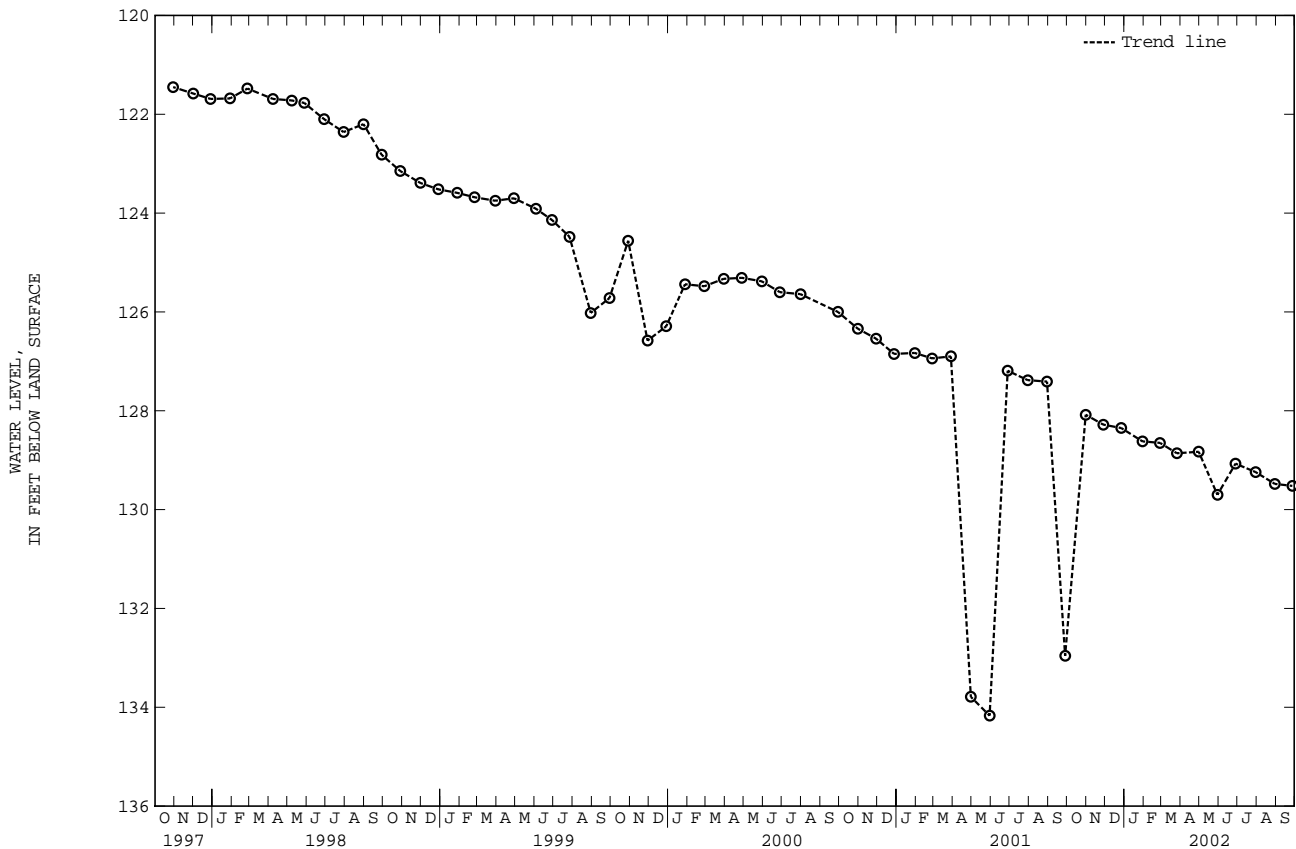
5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CHARLES COUNTY--Continued

WELL NUMBER.--CH Dd 33. SITE ID.--382607077002601. PERMIT NUMBER.--CH-02-6769.  
 LOCATION.--Lat 38°25'09", long 77°00'00", Hydrologic Unit 02070011, 1.8 mi southwest of Faulkner off Popes Creek Rd.  
 Owner: Jesuit Order (Loyola Retreat House).  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, institution, artesian well, depth 694 ft; casing diameter 6 in., to 564 ft;  
 casing diameter 4 in. from 532 to 688 ft; screen diameter 4 in. from 687 to 694 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 99.8 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 1.00 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation and production well. Water level reported 104 ft below land surface, June 27, 1957. Water levels are affected by local and regional ground-water withdrawal. The May 30, 2001, water level of 134.17 ft below land surface resulted from an extended period of ground-water withdrawal from this well.  
 PERIOD OF RECORD.--March 1962 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.28 ft below land surface, March 14, 1962;  
 lowest measured, 129.52 ft below land surface, Sept. 27, 2002 (See REMARKS).

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 2001	128.08	JAN 30, 2002	128.62	APR 30, 2002	128.83	JUL 30, 2002	129.24
NOV 28	128.28	FEB 27	128.65	MAY 30	129.70	AUG 30	129.48
DEC 27	128.35	MAR 26	128.86	JUN 28	129.07	SEP 27	129.52
WATER YEAR 2002		HIGHEST	128.08	OCT 31, 2001	LOWEST	129.70	MAY 30, 2002



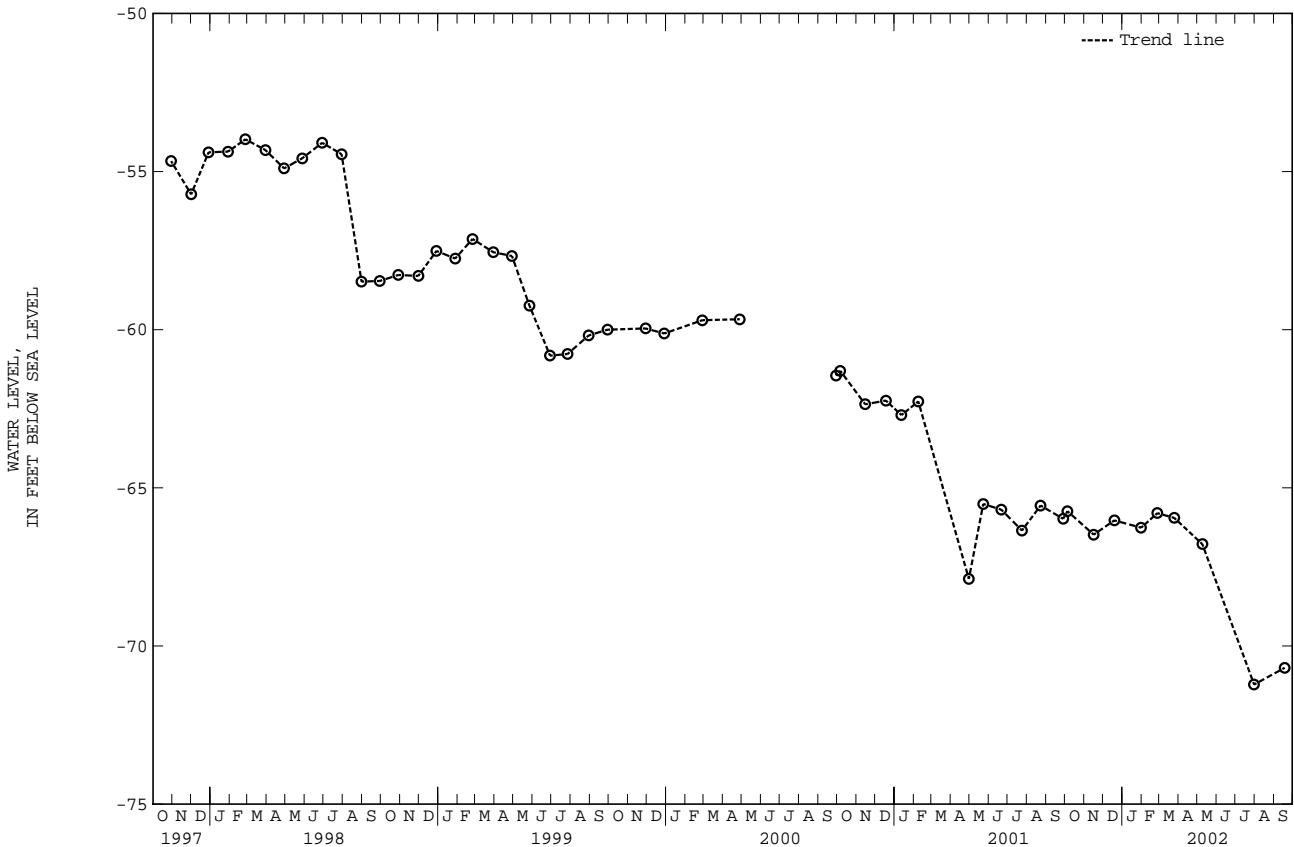
5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CHARLES COUNTY--Continued

WELL NUMBER.--CH Dd 38. SITE ID.--382925077010101. PERMIT NUMBER.--CH-81-0358.  
 LOCATION.--Lat 38°29'25", long 77°01'01", Hydrologic Unit 02070011, 0.8 mi south of Port Tobacco.  
 Owner: Robert W. Snow and Debra L. Snow.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, domestic, artesian well, depth 597 ft; casing diameter 4 in., to 297 ft;  
 casing diameter 2 in. from 297 to 429 ft, 434 to 575 ft, 580 to 585 ft, and 590 to 597 ft;  
 screen diameter 2 in. from 429 to 434 ft, 575 to 580 ft, and 585 to 590 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape from April 1993 to December 1999, and  
 October 2000 to current year by U.S. Geological Survey and Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring Point: Top of casing, 1.00 ft above land surface.  
 REMARKS.--Charles County Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and  
 regional ground-water withdrawal.  
 PERIOD OF RECORD.--April 1993 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.97 ft below sea level, May 5, 1993;  
 lowest measured, 71.22 ft below sea level, July 31, 2002.

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 2001	-65.74	JAN 31, 2002	-66.26	MAY 09, 2002	-66.78
NOV 16	-66.48	FEB 26	-65.80	JUL 31	-71.22
DEC 19	-66.03	MAR 25	-65.95	SEP 18	-70.69
WATER YEAR 2002		HIGHEST -65.74	OCT 05, 2001	LOWEST -71.22	JUL 31, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CHARLES COUNTY--Continued

WELL NUMBER.--CH De 45. SITE ID.--382927076552301. PERMIT NUMBER.--CH-81-0604.

LOCATION.--Lat 38°29'27", long 76°55'23", Hydrologic Unit 02070011, north side of MD Rt. 6, 4.1 mi southeast of La Plata.

Owner: U.S. Geological Survey.

AQUIFER.--Alluvium of Pleistocene age and Nanjemoy Formation of Lower Eocene age. Aquifer codes: 112ALVM, 124NNJM.

WELL CHARACTERISTICS.--Drilled, observation, water-table well; depth 25.5 ft; casing diameter 4 in., to 15.5 ft, casing diameter 2 in. from 20.5 to 25.5 ft; screen diameter 2 in. from 15.5 to 20.5 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 44.77 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.35 ft above land surface.

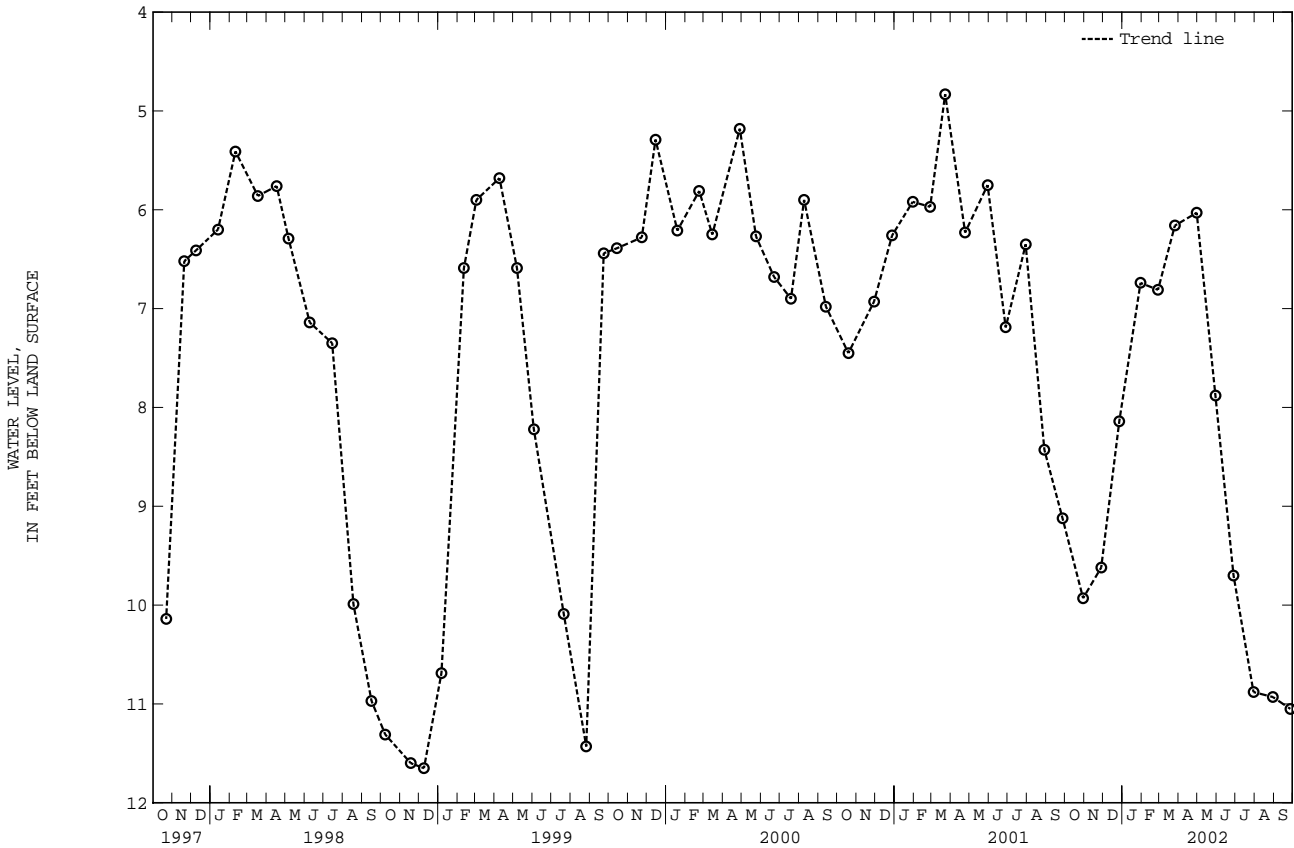
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.

PERIOD OF RECORD.--August 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.83 ft below land surface, May 30, 1990 and March 23, 2001; lowest measured, 11.65 ft below land surface, Dec. 9, 1998.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	9.93	JAN 30, 2002	6.74	APR 30, 2002	6.03	JUL 30, 2002	10.88
NOV 28	9.62	FEB 27	6.81	MAY 30	7.88	AUG 30	10.93
DEC 27	8.14	MAR 26	6.16	JUN 28	9.70	SEP 27	11.05
WATER YEAR 2002		HIGHEST	6.03	APR 30, 2002	LOWEST	11.05	SEP 27, 2002



CHARLES COUNTY--Continued

WELL NUMBER.--CH Ee 16. SITE ID.--382103076560201.

LOCATION.--Lat 38°21'03", long 76°56'02", Hydrologic Unit 02070010, near Wayside.

Owner: Harry Ferris.

AQUIFER.--Ravens Crest Formation of Upper Pliocene age. Aquifer code: 112TLBT.

WELL CHARACTERISTICS.--Dug, unused, water-table well, measured depth 20.7 ft; casing diameter 42 in.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological

Survey personnel. Equipped with water-level recorder from March 29, 1966 to Oct. 11, 1967.

DATUM.--Elevation of land surface is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.80 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well (See Figure 1.) and Maryland Ground-Water-Quality

Network observation well. Water levels respond to natural climatic affects.

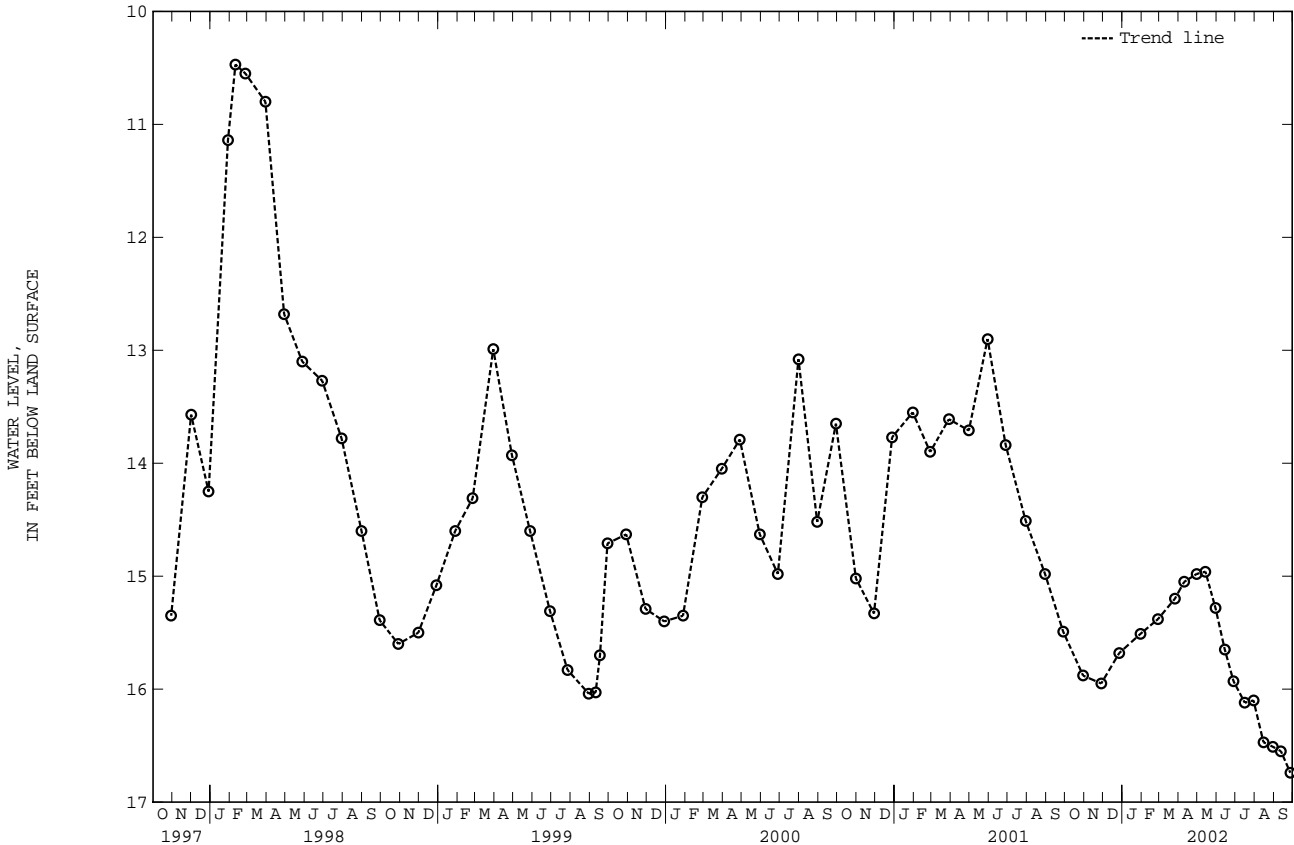
PERIOD OF RECORD.--May 1946, January 1947 to November 1947, March 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.41 ft below land surface, March 30, 1994;

lowest measured, 20.65 ft below land surface, Dec. 20, 1949.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	15.88	MAR 26, 2002	15.20	JUN 14, 2002	15.65	AUG 30, 2002	16.51
NOV 28	15.95	APR 10	15.05	28	15.93	SEP 12	16.55
DEC 27	15.68	30	14.98	JUL 16	16.12	27	16.74
JAN 30, 2002	15.51	MAY 14	14.96	30	16.10		
FEB 27	15.38	30	15.28	AUG 15	16.47		
WATER YEAR 2002		HIGHEST	14.96	MAY 14, 2002	LOWEST	16.74	SEP 27, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

CHARLES COUNTY--Continued

WELL NUMBER.--CH Ee 70. SITE ID.--382154076574801. PERMIT NUMBER.--CH-67-0081.

LOCATION.--Lat 38°21'54", long 76°57'48", Hydrologic Unit 02070011, at the Morgantown Power Plant, 1.5 mi. north of Morgantown. Owner: Mirant.

AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,132 ft; casing diameter 2 in., to 1,090 ft, 1,100 to 1,105 ft, and 1,115 to 1,132 ft; screen diameter 2 in. from 1,090 to 1,100 ft, and 1,105 to 1,115 ft.

INSTRUMENTATION.--Periodic water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Twice yearly water level measurements from April 1993 to May 1995. Equipped with graphic water-level recorder from May 12, 1982 to Jan. 6, 1983. Equipped with digital water-level recorder--15 and 30-minute recorder intervals from June 1, 1978 to October 1986. Equipped with electronic water level recorder (transducer)--15-minute recorder interval from October 1986 to October 1992 and from May 23, 1995 to current year.

DATUM.--Elevation of land surface is 22.83 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 3.43 ft above land surface.

REMARKS.--Southern Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

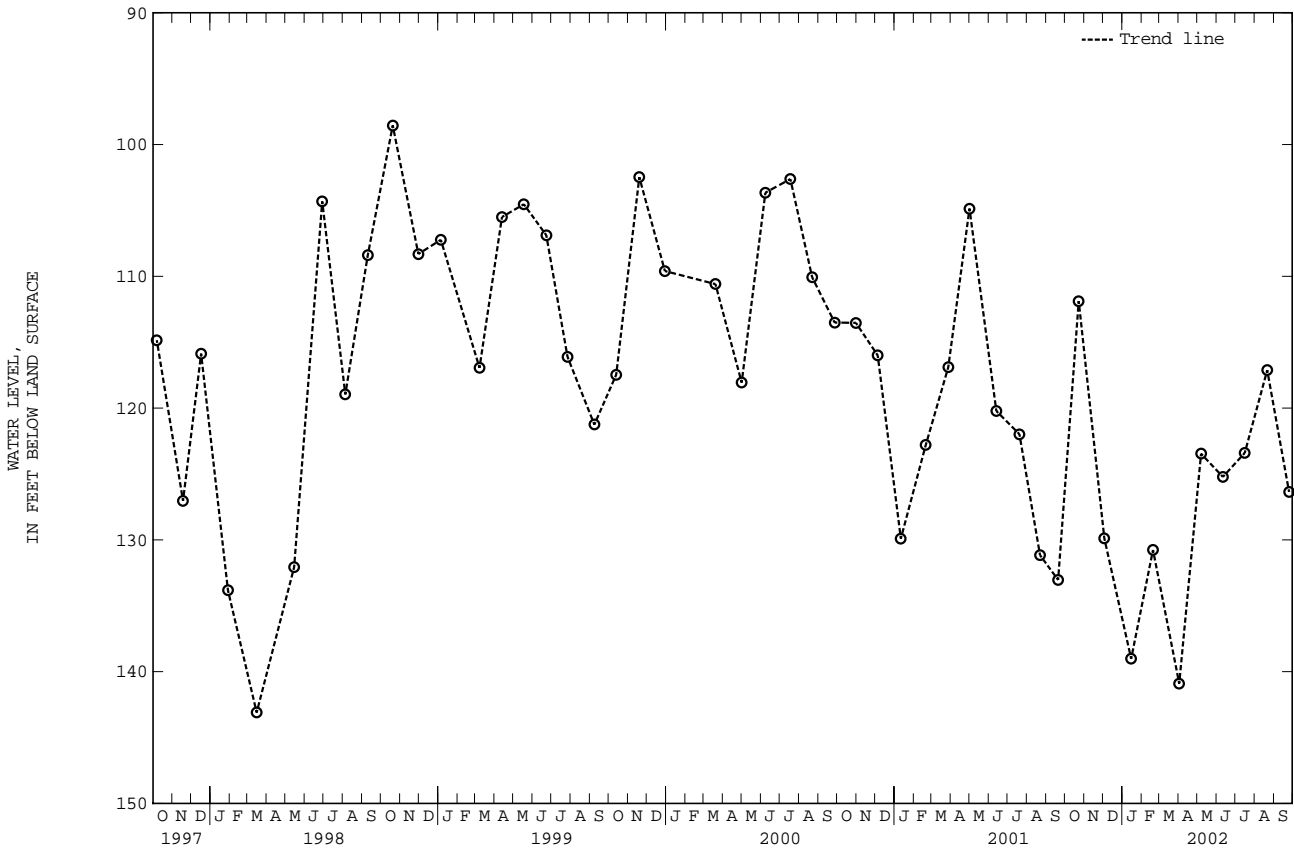
PERIOD OF RECORD.--October 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 72.57 ft below land surface, April 14, 1981; lowest measured, 147.46 ft below land surface, April 4, 1996 (recorder).

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	111.88	FEB 19, 2002	130.77	JUN 11, 2002	125.22	SEP 25, 2002	126.36
DEC 03	129.88	APR 02	140.90	JUL 16	123.40		
JAN 15, 2002	139.02	MAY 07	123.46	AUG 21	117.12		

WATER YEAR 2002      HIGHEST 111.88 OCT 23, 2001      LOWEST 140.90 APR 02, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## CHARLES COUNTY--Continued

WELL NUMBER.--CH Ee 78. SITE ID.--382240076582801. PERMIT NUMBER.--CH-73-1965.

LOCATION.--Lat 38°22'40", long 76°58'28", Hydrologic Unit 02070011, at Clifton on the Potomac, on the east side of Ingleside Road, 0.3 mi north of Clifton Drive.

Owner: Charles County Department of Public Works.

AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.

WELL CHARACTERISTICS.--Drilled, used, artesian well, depth 1,220 ft; casing diameter 6.7 in., to 1,148 ft, and 1,168 to 1,189 ft, and 1,199 to 1,220 ft; screen diameter 7 in. from 1,148 to 1,168 ft, and 1,189 to 1,199 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from August 5, 1993 to current year.

DATUM.--Elevation of land surface is 75 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of recorder platform, 2.60 ft above land surface.

REMARKS.--Southern Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.--August 5, 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.87 ft below sea level, April 3, 1986; lowest measured, 90.74 ft below sea level, Jan. 14, and 15, 2002 (recorder).

## WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-82.52	-83.30	-77.78	-78.44	-80.23	-80.60	-87.52	-88.54	-82.16	-82.62	-82.23	-83.27
2	-82.22	-82.81	-78.28	-78.68	-80.60	-81.30	-88.54	-88.76	-82.46	-82.78	-83.17	-83.53
3	-81.47	-82.22	-77.39	-78.41	-81.15	-81.42	-87.96	-88.66	-81.70	-82.46	-82.63	-83.17
4	-81.85	-82.18	-77.46	-78.00	-81.32	-81.83	-88.37	-88.71	-81.81	-82.50	-82.88	-83.77
5	-81.29	-82.00	-77.11	-77.52	-81.20	-81.57	-88.35	-88.97	-82.50	-82.80	-83.77	-83.97
6	-80.77	-81.42	-77.11	-77.50	-81.40	-81.85	-87.57	-88.35	-82.68	-82.96	-83.92	-84.69
7	-80.62	-81.11	-77.16	-77.59	-81.85	-82.59	-87.57	-87.68	-82.64	-83.06	-84.14	-84.69
8	-80.24	-80.63	-77.18	-77.60	-82.59	-83.11	-87.68	-88.74	-82.17	-82.66	-84.37	-84.62
9	-80.35	-80.78	-77.19	-77.64	-83.11	-83.37	-87.90	-88.74	-82.14	-82.66	-83.87	-84.55
10	-80.78	-81.02	-77.32	-77.94	-83.32	-83.88	-88.22	-88.67	-81.65	-82.38	-83.83	-84.06
11	-81.02	-81.31	-77.33	-77.47	-83.88	-84.61	-87.42	-88.66	-81.44	-81.70	-84.06	-84.43
12	-81.01	-81.39	-77.03	-77.64	-84.18	-84.66	-87.42	-88.58	-80.80	-81.47	-84.13	-84.43
13	-80.51	-81.10	-77.64	-78.23	-84.66	-85.08	-88.58	-89.14	-81.03	-81.38	-83.48	-84.18
14	-79.51	-80.51	-77.84	-78.23	-84.61	-85.08	-89.14	-90.74	-81.38	-82.69	-83.62	-84.14
15	-79.25	-79.56	-77.73	-78.53	-84.94	-85.65	-88.90	-90.74	-82.03	-82.80	-83.16	-84.13
16	-79.29	-79.60	-78.53	-79.14	-84.99	-85.60	-88.06	-88.90	-81.38	-82.03	-83.09	-83.20
17	-78.74	-79.29	-78.96	-79.34	-84.55	-85.05	-86.57	-88.06	-81.34	-81.61	-82.54	-83.09
18	-79.25	-79.57	-78.01	-78.96	-84.94	-86.05	-86.62	-86.84	-80.92	-81.65	-82.54	-82.97
19	-79.26	-79.76	-78.15	-78.74	-85.49	-86.05	-86.72	-86.96	-80.89	-81.71	-82.97	-83.72
20	-78.79	-79.26	-78.74	-79.54	-85.72	-86.91	-85.76	-86.88	-81.44	-82.12	-83.39	-83.80
21	-78.39	-78.87	-79.48	-80.14	-86.91	-87.43	-84.68	-85.76	-80.67	-81.44	-83.55	-84.03
22	-77.85	-78.39	-80.14	-80.50	-86.16	-87.37	-84.68	-84.83	-80.81	-82.15	-84.03	-84.38
23	-78.10	-78.70	-79.68	-80.50	-85.93	-86.22	-83.41	-84.74	-82.15	-82.37	-83.95	-84.38
24	-78.60	-79.03	-78.35	-79.75	-84.89	-85.93	-82.87	-83.42	-82.37	-83.43	-84.25	-84.76
25	-78.63	-79.03	-77.68	-78.35	-84.82	-85.27	-82.91	-83.28	-82.65	-83.42	-84.11	-84.46
26	-78.57	-79.33	-77.68	-78.02	-84.92	-85.41	-82.16	-83.20	-82.50	-82.88	-84.45	-84.85
27	-78.96	-79.45	-77.34	-77.68	-85.41	-86.66	-81.38	-82.16	-82.18	-82.57	-84.15	-84.59
28	-78.47	-78.96	-77.68	-78.83	-86.66	-87.10	-81.44	-81.70	-82.25	-82.45	-84.34	-84.61
29	-78.50	-78.88	-78.82	-79.56	-87.09	-87.63	-81.64	-81.90	---	---	-84.61	-84.88
30	-78.20	-78.69	-79.56	-80.54	-87.02	-87.62	-81.90	-82.68	---	---	-84.51	-85.04
31	-78.34	-78.61	---	---	-86.94	-87.52	-82.02	-82.68	---	---	-84.41	-85.05
MONTH	-77.85	-83.30	-77.03	-80.54	-80.23	-87.63	-81.38	-90.74	-80.67	-83.43	-82.23	-85.05



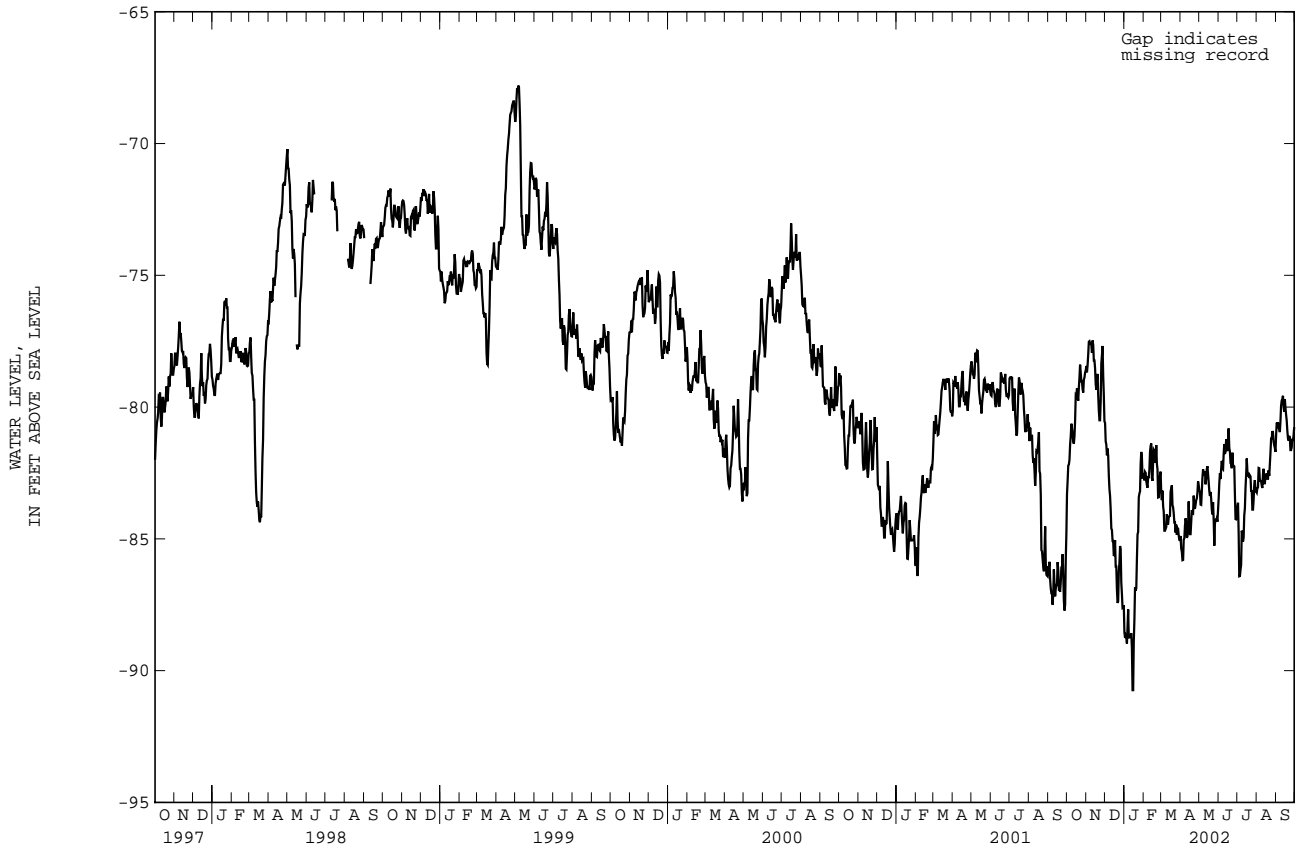
CHARLES COUNTY--Continued

CH Ee 78--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-84.38	-84.89	-82.80	-83.17	-82.89	-83.45	-83.50	-83.79	-82.89	-83.24	-80.56	-81.07
2	-84.89	-85.37	-82.93	-83.21	-82.09	-82.89	-83.35	-83.63	-82.68	-83.07	-80.35	-80.59
3	-84.94	-85.49	-83.04	-83.70	-82.09	-82.51	-83.35	-84.77	-82.31	-83.05	-80.36	-80.64
4	-85.49	-85.81	-83.19	-83.71	-82.30	-82.73	-84.77	-86.42	-82.14	-82.31	-80.24	-80.58
5	-84.66	-85.80	-82.61	-83.19	-81.98	-82.34	-86.09	-86.41	-82.26	-82.32	-80.33	-80.79
6	-84.59	-85.03	-82.10	-82.68	-81.74	-82.04	-85.98	-86.17	-82.32	-82.79	-80.60	-80.83
7	-84.18	-84.98	-82.05	-82.36	-82.04	-82.33	-84.59	-85.99	-82.53	-82.79	-80.53	-80.95
8	-83.94	-84.50	-82.29	-82.53	-81.78	-82.36	-84.35	-84.69	-82.46	-82.81	-79.76	-80.53
9	-83.96	-84.22	-82.15	-82.51	-81.35	-81.78	-84.55	-84.85	-82.63	-82.98	-79.44	-79.95
10	-83.94	-84.38	-82.17	-82.45	-81.18	-81.40	-84.77	-85.10	-82.52	-83.07	-79.57	-79.75
11	-84.38	-84.96	-82.45	-82.93	-81.35	-81.78	-83.91	-84.95	-82.17	-82.52	-79.47	-79.69
12	-84.39	-84.91	-82.14	-82.70	-81.03	-81.69	-83.84	-84.11	-82.05	-82.34	-79.33	-79.57
13	-83.58	-84.57	-81.62	-82.35	-81.07	-81.22	-82.87	-83.84	-82.27	-82.89	-79.56	-79.98
14	-83.21	-83.58	-81.57	-82.24	-81.21	-81.51	-82.55	-83.07	-82.31	-82.89	-79.70	-80.17
15	-83.52	-84.57	-82.17	-82.54	-81.22	-81.67	-81.59	-82.57	-82.35	-82.61	-79.55	-79.70
16	-84.57	-84.82	-82.38	-82.85	-80.45	-81.22	-81.50	-81.95	-82.29	-82.62	-79.65	-80.02
17	-84.15	-84.82	-82.85	-83.19	-80.35	-80.81	-81.95	-82.43	-82.32	-82.51	-80.02	-80.29
18	-83.89	-84.36	-83.17	-83.37	-80.81	-81.55	-82.22	-82.57	-82.47	-82.72	-80.29	-80.51
19	-83.47	-83.91	-82.85	-83.22	-81.48	-81.69	-82.20	-82.55	-82.27	-82.72	-80.51	-80.89
20	-83.65	-84.01	-82.92	-83.48	-81.69	-82.13	-82.20	-82.69	-82.16	-82.40	-80.89	-81.19
21	-83.36	-84.03	-83.48	-83.89	-82.03	-82.15	-82.24	-82.59	-82.17	-82.61	-80.93	-81.27
22	-82.87	-83.36	-83.61	-84.07	-81.73	-82.32	-82.47	-82.63	-81.73	-82.17	-80.51	-81.09
23	-83.25	-83.79	-83.15	-83.61	-81.29	-81.73	-82.60	-83.21	-80.83	-81.73	-80.85	-81.17
24	-83.49	-83.86	-83.12	-84.29	-81.31	-82.21	-82.63	-83.15	-80.84	-81.20	-81.17	-81.63
25	-83.30	-83.70	-84.29	-85.26	-82.03	-82.23	-83.14	-83.89	-80.91	-81.20	-81.20	-81.63
26	-83.38	-83.53	-83.56	-84.42	-82.10	-82.25	-83.35	-83.89	-80.39	-80.91	-81.03	-81.53
27	-83.10	-83.47	-83.62	-84.28	-82.25	-83.29	-82.97	-83.51	-80.56	-80.97	-80.96	-81.20
28	-82.81	-83.24	-83.87	-84.28	-83.29	-84.25	-82.45	-82.97	-80.93	-81.31	-81.07	-81.29
29	-82.44	-82.82	-83.93	-84.22	-83.93	-84.26	-82.41	-82.77	-81.26	-81.45	-80.71	-81.07
30	-82.62	-82.96	-83.84	-84.35	-83.79	-84.19	-82.53	-83.19	-81.26	-81.55	-80.42	-80.76
31	---	---	-83.24	-83.91	---	---	-82.64	-83.19	-81.07	-81.70	---	---
MONTH	-82.44	-85.81	-81.57	-85.26	-80.35	-84.26	-81.50	-86.42	-80.39	-83.24	-79.33	-81.63
YEAR	-77.03	-90.74										

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

DORCHESTER COUNTY

WELL NUMBER.--DO Bg 59. SITE ID.--383708075503801. PERMIT NUMBER.--DO-73-0612.

LOCATION.--Lat 38°37'08" long 75°50'38", Hydrologic Unit 02060008, at Hurlock Sewage Treatment Plant.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 537 ft; casing diameter 6 in., to 65 ft; casing diameter 2 in. from 65 to 527 ft; screen diameter 2 in. from 527 to 537 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Prior to the Nov. 20, 2001 water-level measurement, the Hurlock Water Municipality increased their ground-water withdrawal for a 3 month period. Water levels are affected by local and regional ground-water withdrawal.

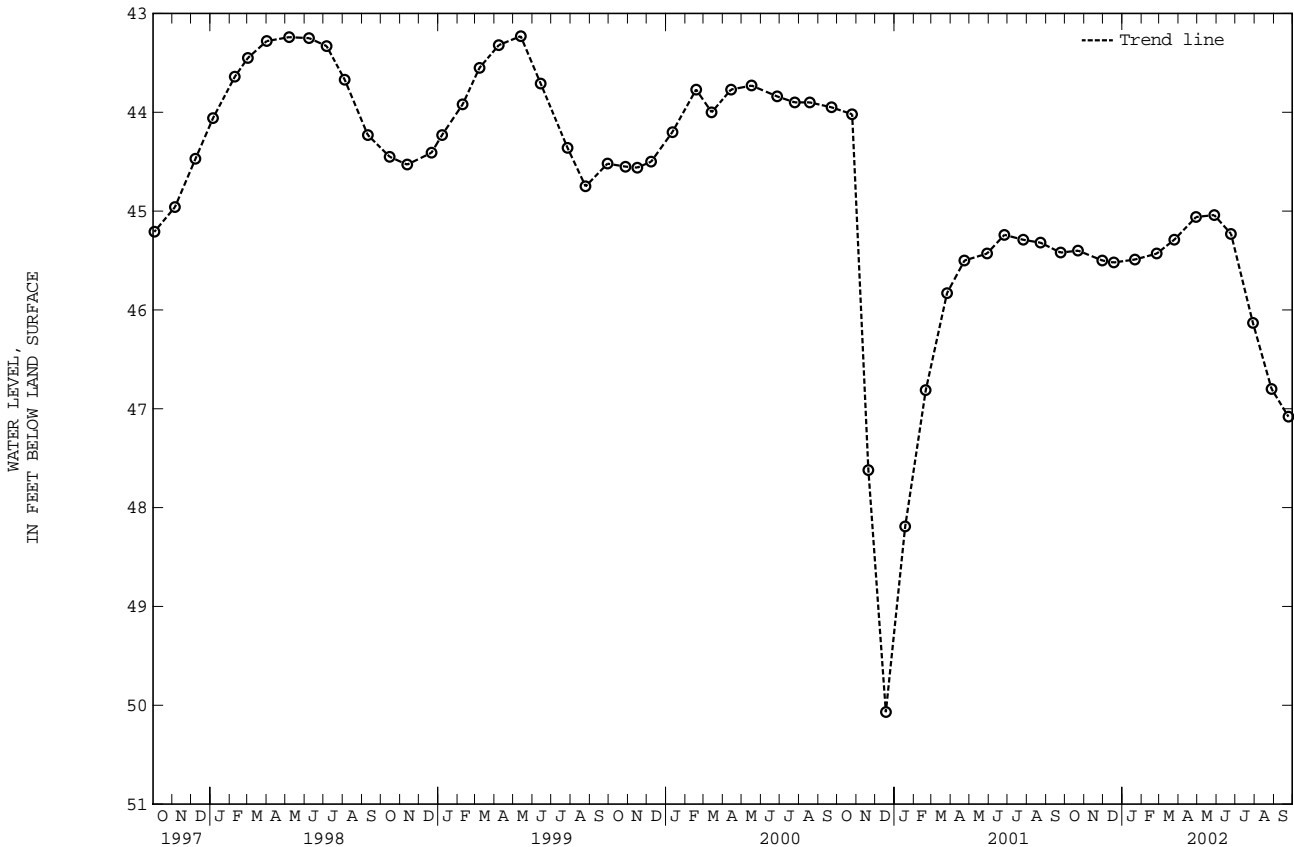
PERIOD OF RECORD.--October 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.79 ft below land surface, Aug. 2, 1978; lowest measured, 47.08 ft below land surface, Sept. 24, 2002 (See REMARKS).

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 2001	45.40	JAN 21, 2002	45.49	APR 29, 2002	45.06	JUL 29, 2002	46.13
NOV 30	45.50	FEB 25	45.43	MAY 28	45.04	AUG 28	46.80
DEC 18	45.52	MAR 25	45.29	JUN 24	45.23	SEP 24	47.08

WATER YEAR 2002      HIGHEST    45.04    MAY 28, 2002      LOWEST    47.08    SEP 24, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Cd 1. SITE ID.--383151076080801.

LOCATION.--Lat 38°31'51", long 76°08'08", Hydrologic Unit 02060005, near Christs Rock, off Pigs Neck Rd.

Owner: Kevin Morgan.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 390 ft; casing diameter 2 in., to unknown depth.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 4 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.35 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

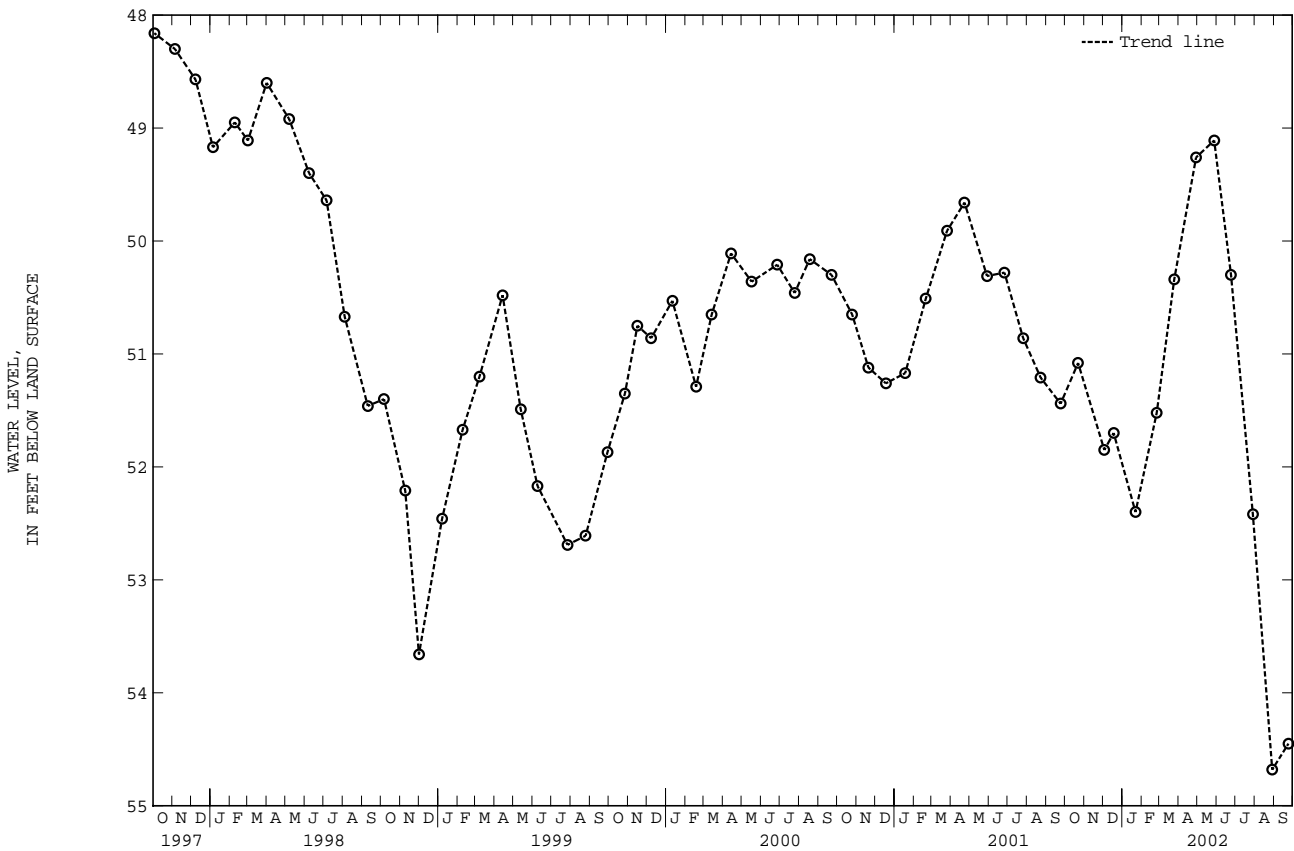
PERIOD OF RECORD.--October 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.07 ft below land surface, Oct. 2, 1990; lowest measured, 80.32 ft below land surface, Oct. 16, 1970.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 2001	51.08	JAN 22, 2002	52.40	APR 29, 2002	49.26	JUL 29, 2002	52.42
DEC 03	51.85	FEB 25	51.52	MAY 28	49.11	AUG 29	54.68
18	51.70	MAR 25	50.34	JUN 24	50.30	SEP 24	54.45

WATER YEAR 2002 HIGHEST 49.11 MAY 28, 2002 LOWEST 54.68 AUG 29, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Ce 5. SITE ID.--383340076041601.

LOCATION.--Lat 38°33'40", long 76°04'16", Hydrologic Unit 02060005, at Cambridge Pumping Station, off Lake St.

Owner: Municipal Utilities Commission.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 405 ft; casing diameter 2 in. to land surface ; casing diameter 12 in., from 0 to 385 ft; open hole

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 18 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. The drop in water levels in July of 1999 is the result of using the municipal production well at Lake Street, just prior to March of 2001. Water levels are affected by local, and regional ground-water withdrawal.

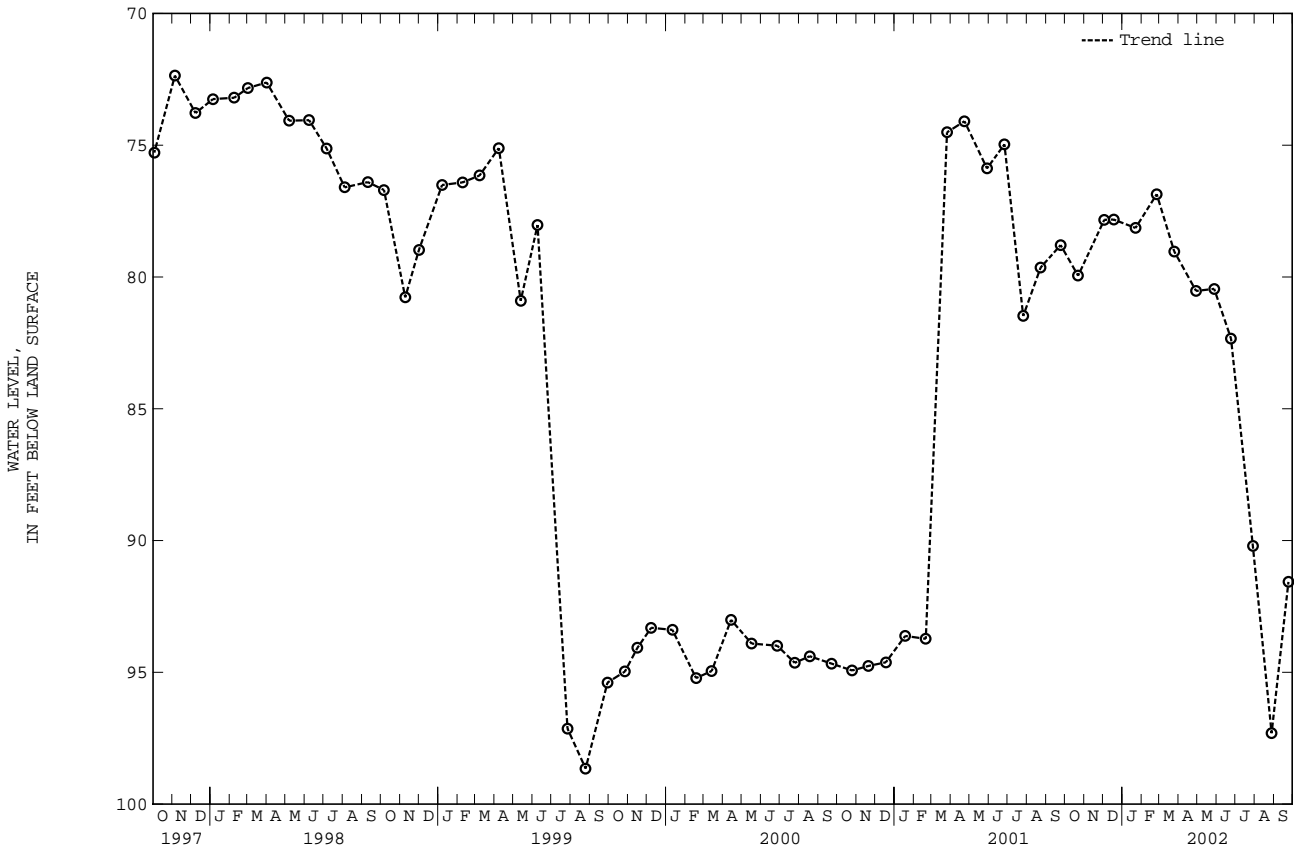
PERIOD OF RECORD.--October 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 66.23 ft below land surface, May 1, 1990; lowest measured, 115.06 ft below land surface, Aug. 29, 1978.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 2001	79.95	JAN 22, 2002	78.14	APR 29, 2002	80.53	JUL 29, 2002	90.21
DEC 03	77.83	FEB 25	76.86	MAY 28	80.45	AUG 28	97.31
18	77.82	MAR 25	79.03	JUN 24	82.34	SEP 24	91.57

WATER YEAR 2002      HIGHEST    76.86    FEB 25, 2002      LOWEST    97.31    AUG 28, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

DORCHESTER COUNTY--Continued

WELL LOCATION.--DO Ce 15. SITE ID.--383408076042402. PERMIT NUMBER.--DO-00-1220.

LOCATION.--Lat 38°34'08", long 76°04'23", Hydrologic Unit 02060005, near Cambridge Creek, near Trenton St., Cambridge.

Owner: Carroll W. Thomas & Sons., Inc.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 970.5 ft; casing diameter 10 in., to 25 ft.; casing diameter 8 in. from +1.5 to 236.5 ft; casing diameter 6 in. from 230 to 513.5 ft; casing diameter 4 in. from 468 to 911.5 ft; casing diameter 3 in. from 902.3 to 950.5 ft; screen diameter 3 in. (?) from 950.5 to 970.5 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.50 ft above land surface.

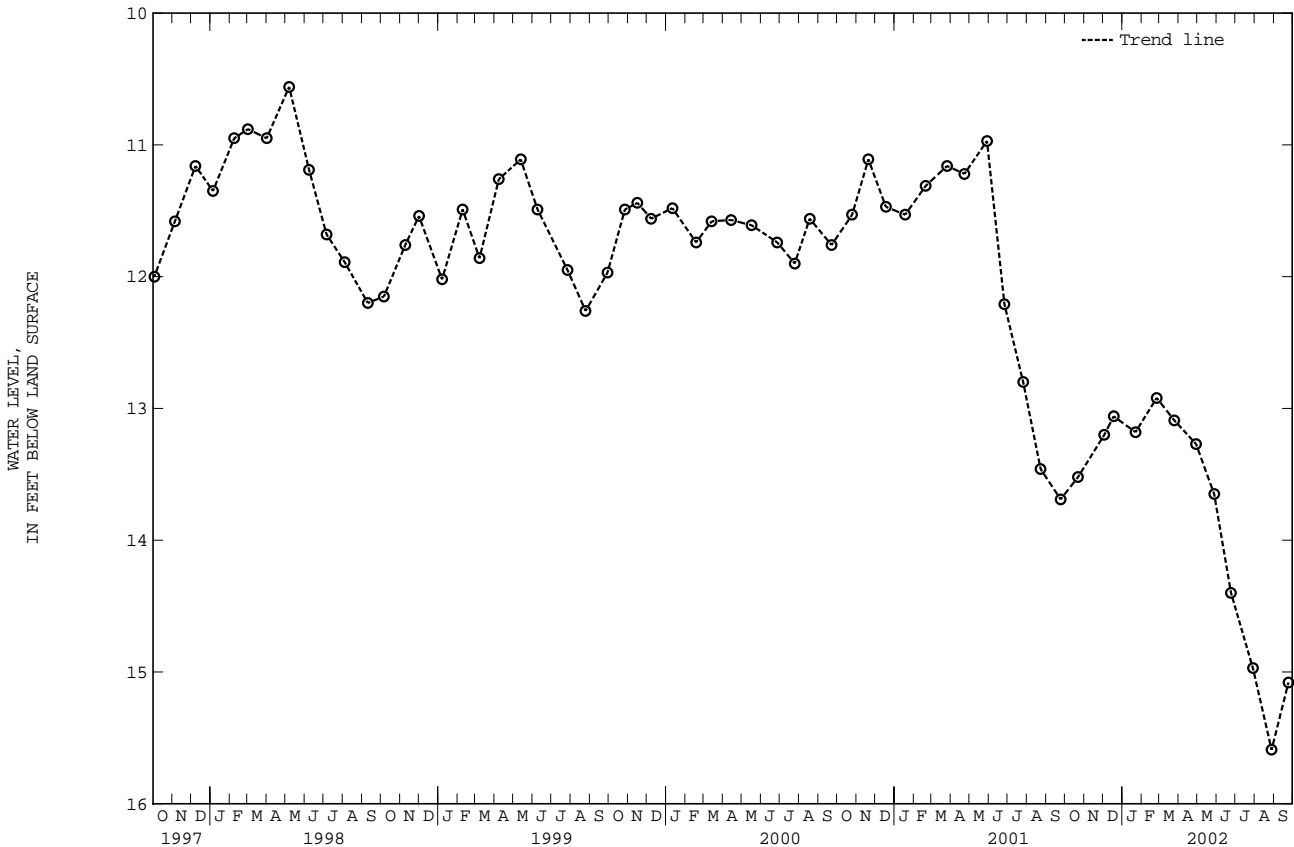
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water level reported 68 ft below land surface Aug. 30, 1947. The drop in water level in June 2001 is the result of increased ground-water withdrawal by Municipal Utilities. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--June 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.41 ft below land surface, March 1, 1960; lowest measured, 41.12 ft below land surface, Aug. 7, 1959.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 2001	13.52	JAN 22, 2002	13.18	APR 29, 2002	13.27	JUL 29, 2002	14.97
DEC 03	13.20	FEB 25	12.92	MAY 28	13.65	AUG 28	15.59
18	13.06	MAR 25	13.09	JUN 24	14.40	SEP 24	15.08
WATER YEAR 2002		HIGHEST	12.92	FEB 25, 2002	LOWEST	15.59	AUG 28, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Ce 85. SITE ID.--383256076035301. PERMIT NUMBER.--DO-73-0281.

LOCATION.--Lat 38°32'56", long 76°03'53", Hydrologic Unit 02060005, at Woods Rd. water tower, Cambridge.

Owner: U.S. Geological Survey.

AQUIFER.--Cheswold aquifer in the Calvert Formation of lower middle Miocene age. Aquifer code: 122CSLD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 230 ft; casing diameter 4 in., to 220 ft; screen diameter 4 in. from 220 to 230 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.10 ft above land surface.

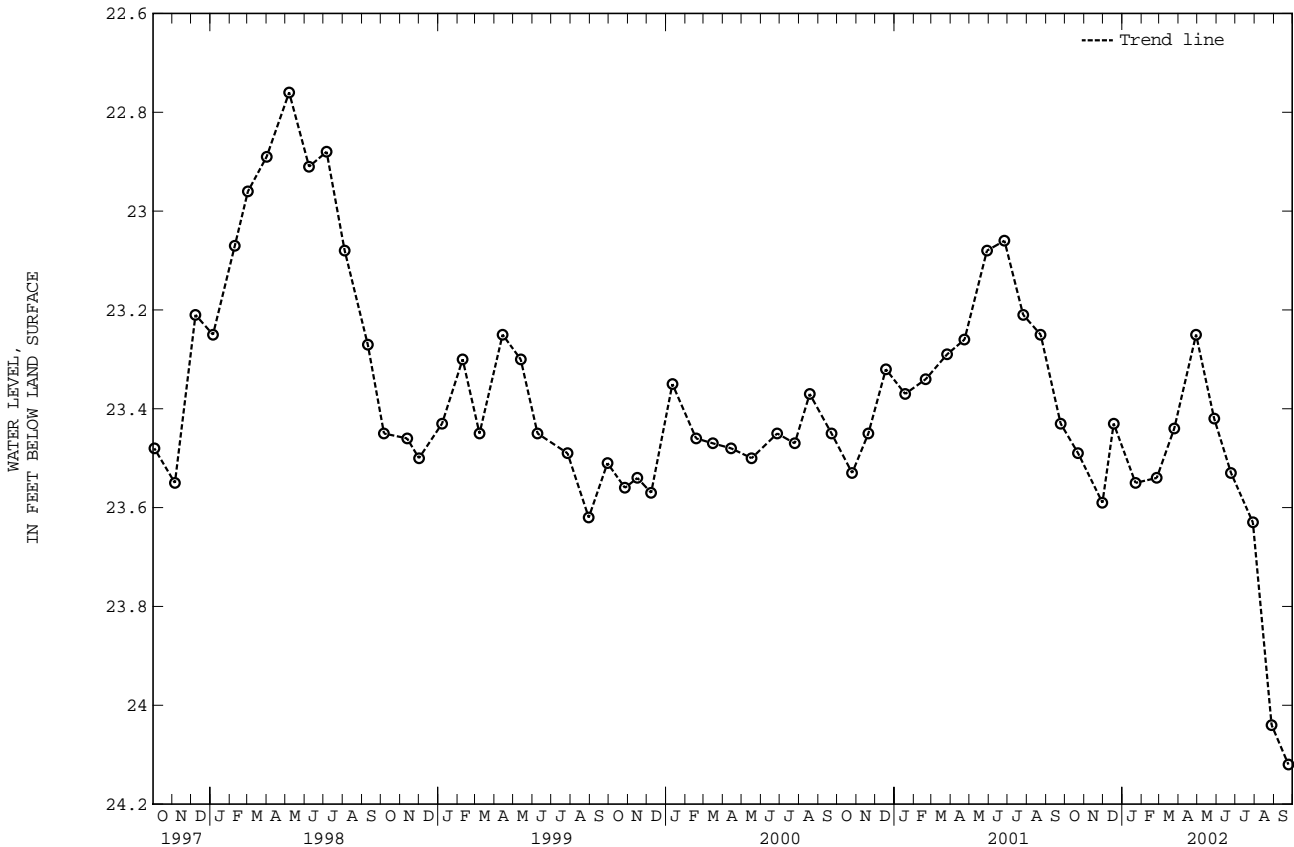
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Reported incorrectly as DO Ce 78 in this series of reports, prior to the 1997 Water Year, Water Resources Data report. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--October 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.74 ft below land surface, June 3, 1993; lowest measured, 26.76 ft below land surface, Sept. 10, 1974.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 2001	23.49	JAN 22, 2002	23.55	APR 29, 2002	23.25	JUL 29, 2002	23.63
NOV 30	23.59	FEB 25	23.54	MAY 28	23.42	AUG 28	24.04
DEC 18	23.43	MAR 25	23.44	JUN 24	23.53	SEP 24	24.12
WATER YEAR 2002		HIGHEST	23.25	APR 29, 2002	LOWEST	24.12	SEP 24, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Db 17. SITE ID.--382800076180701. PERMIT NUMBER.--DO-73-0557.

LOCATION.--Lat 38°28'00", long 76°18'07", Hydrologic Unit 02060005, off MD Rt. 16, nr Old Taylors Island School, Taylor Island.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 320 ft; casing diameter 6 in., to 55 ft; casing diameter 2 in. from 55 to 270 ft; screen diameter 2 in. from 270 to 280 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 4 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.65 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal.

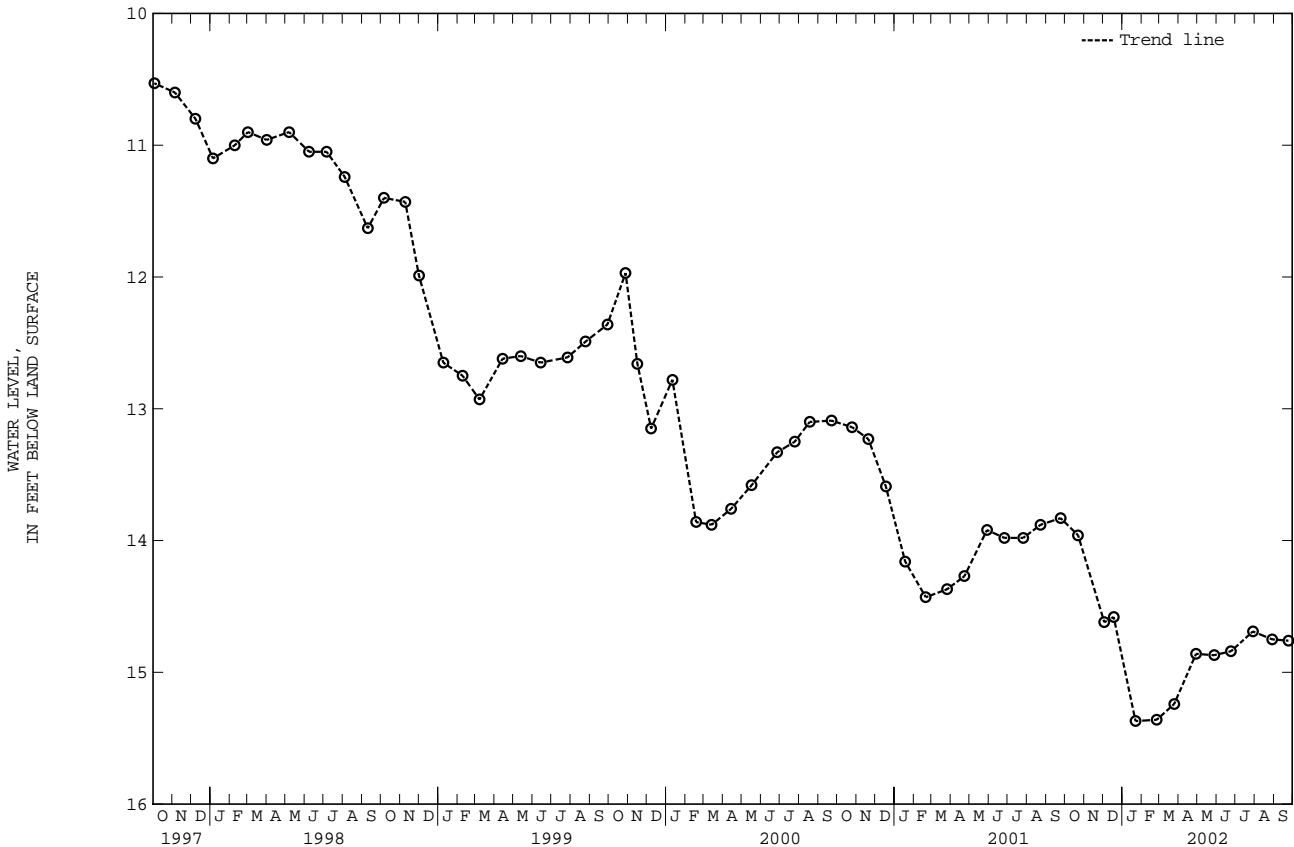
PERIOD OF RECORD.--April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.77 ft below land surface, Oct. 4, 1979; lowest measured, 15.37 ft below land surface, Jan. 22, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 2001	13.96	JAN 22, 2002	15.37	APR 29, 2002	14.86	JUL 29, 2002	14.69
DEC 03	14.62	FEB 25	15.36	MAY 28	14.87	AUG 29	14.75
18	14.58	MAR 25	15.24	JUN 24	14.84	SEP 24	14.76

WATER YEAR 2002      HIGHEST    13.96    OCT 22, 2001      LOWEST    15.37    JAN 22, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Db 19. SITE ID.--382847076190901. PERMIT NUMBER.--DO-81-1164.

LOCATION.--Lat 38°28'47", long 76°19'09", Hydrologic Unit 02060005, Taylors Island, off Bay Shore Road.

Owner: Elmer Wiley.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, depth 540 ft; casing diameter 4 in. to 140 ft; casing diameter 2 in. from 140 to 520 ft; screen diameter 2 in. from 520 to 540 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 4 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.50 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water-levels are affected by local and regional ground-water withdrawal.

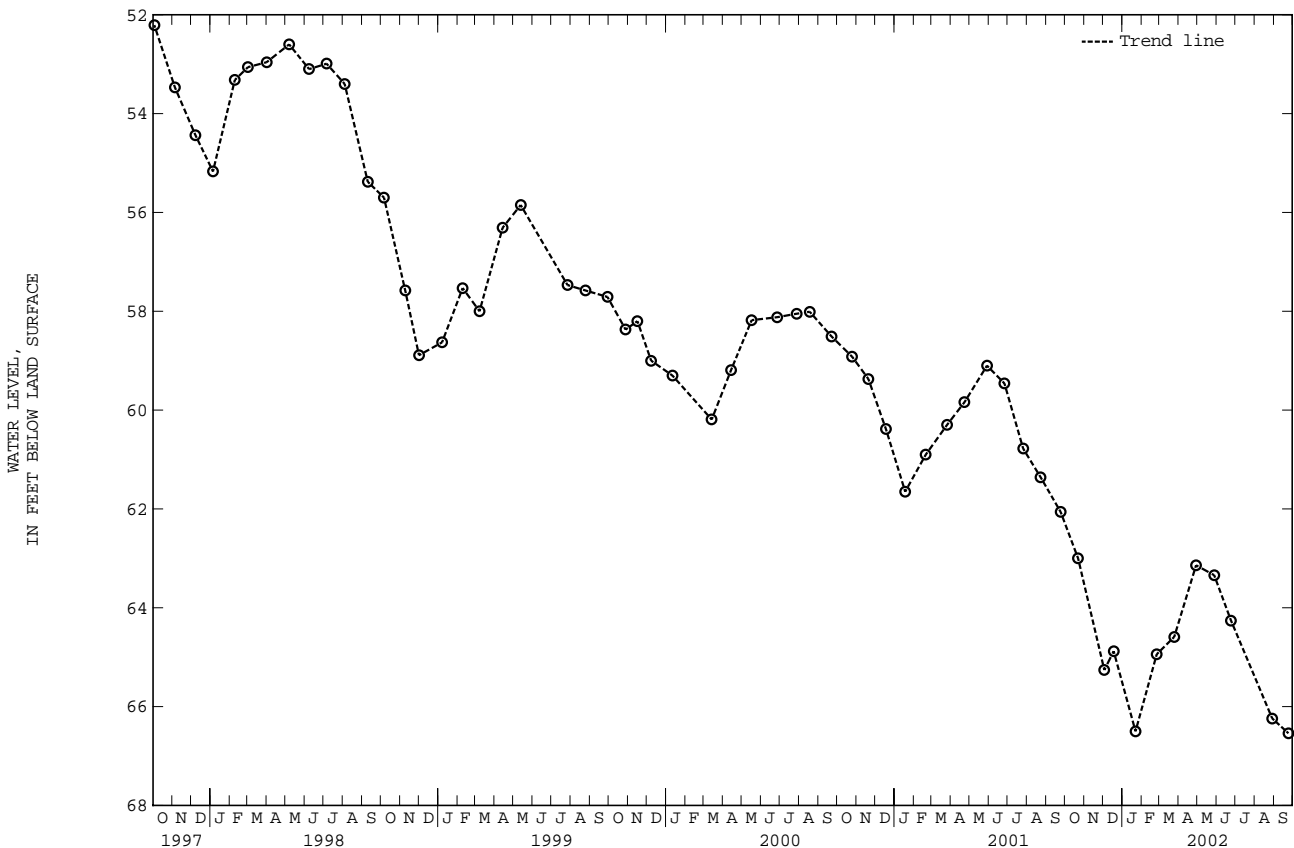
PERIOD OF RECORD.--March 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.50 ft below land surface, Aug. 2, 1989; lowest measured, 66.54 ft below land surface, Sept. 24, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 2001	63.00	JAN 22, 2002	66.50	APR 29, 2002	63.14	AUG 29, 2002	66.24
DEC 03	65.26	FEB 25	64.94	MAY 28	63.34	SEP 24	66.54
18	64.88	MAR 25	64.59	JUN 24	64.26		

WATER YEAR 2002 HIGHEST 63.00 OCT 22, 2001 LOWEST 66.54 SEP 24, 2002





## DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Dh 27. SITE ID.--382916075491702. PERMIT NUMBER.--DO-71-0001.

LOCATION.--Lat 38°29'16", long 75°49'17", Hydrologic Unit 02060008, Vienna power plant.

Owner: Vienna Power LLC.

AQUIFER.--Beaverdam Sand of Pliocene age. Aquifer code: 121BVDM.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 63 ft; casing diameter 12 in., to 20 ft; casing diameter 8 in., to 33 ft; screen diameter 6 in. from 33 to 63 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with digital water-level recorder--30-minute recorder interval from May 1990 to current year.

DATUM.--Elevation of land surface is 9.10 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of shelter platform, 2.69 ft above land surface.

REMARKS.-- Southern Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal at the Vienna power plant. The April 1, 1997 low water level is due to an extended period of pumping to fill the storage tank, which was drained for maintenance. Missing data due to recorder malfunction.

PERIOD OF RECORD.--April 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.34 ft above sea level, February 7, 1998 (recorder)

(See REMARKS); lowest measured, 11.11 ft below sea level, April 1, 1997 (recorder).

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
(READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN	
	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH										
1	2.97	2.34	1.99	-5.92	2.40	1.83	1.16	-6.76	2.55	-3.80	1.71	-4.78				
2	3.30	2.78	1.98	-5.93	2.02	1.44	1.12	-7.06	2.37	1.68	2.08	1.31				
3	3.03	-5.38	2.08	-5.97	1.93	-5.25	1.21	-7.17	2.28	1.65	2.66	1.90				
4	2.49	-5.44	1.73	-5.32	2.13	1.52	0.69	-7.10	2.21	-4.62	2.45	-4.32				
5	2.64	1.86	1.94	-6.02	2.00	-4.44	1.05	-6.26	1.95	1.31	1.88	-4.62				
6	2.80	2.24	1.63	-6.14	2.14	1.54	1.32	-6.10	1.95	-4.76	1.70	-6.29				
7	2.24	1.70	1.85	-5.24	2.08	-4.97	1.34	-5.82	1.74	-4.71	1.29	-6.12				
8	2.10	-5.79	1.84	-5.78	2.17	1.39	1.21	-6.47	1.94	-5.78	1.71	-5.28				
9	1.72	-6.06	1.84	-6.07	2.17	1.57	1.14	-5.73	2.19	1.46	2.37	1.68				
10	2.40	1.51	1.86	-5.34	1.95	-5.37	1.38	-5.96	2.53	1.85	2.64	1.81				
11	2.40	-5.68	2.02	-5.69	2.19	1.60	1.24	-6.16	2.67	-5.26	1.98	-5.60				
12	2.14	-4.67	1.55	-5.74	2.14	-5.57	1.69	0.74	1.90	-5.79	2.02	1.36				
13	2.54	2.03	1.72	-5.69	2.42	1.48	1.91	1.39	2.00	-6.12	2.14	-5.37				
14	2.65	-5.49	1.73	-5.84	2.46	-4.73	1.73	-6.18	2.06	1.22	2.47	1.62				
15	2.67	-5.57	1.67	-6.35	2.30	1.49	1.34	-6.48	2.22	-5.67	2.60	-4.04				
16	2.34	-5.92	1.64	-4.85	2.14	1.48	1.26	-6.66	2.24	1.63	2.57	1.96				
17	2.30	-6.00	1.92	1.32	2.24	-5.11	1.34	-6.17	2.35	1.88	2.31	1.83				
18	2.04	1.46	2.32	1.56	2.53	1.95	1.51	-5.11	1.99	1.51	2.66	-4.83				
19	2.05	-6.18	2.25	-6.11	2.05	-5.51	1.77	1.17	2.21	-5.13	2.56	1.84				
20	2.26	1.38	1.89	-4.91	2.10	-6.29	1.96	1.49	2.72	-3.26	2.63	-4.52				
21	2.41	1.80	1.89	-3.98	1.52	-6.49	1.93	-4.83	2.81	-2.91	2.63	-4.07				
22	2.32	-5.95	2.22	1.74	1.79	0.83	1.92	1.46	2.36	-4.13	2.57	-5.97				
23	1.77	-6.29	2.21	1.77	2.47	1.65	1.62	-4.17	2.35	1.93	2.37	1.54				
24	2.18	-5.49	2.32	1.81	2.52	2.04	1.82	-4.61	2.42	1.85	2.38	1.86				
25	2.25	-5.31	2.49	2.07	2.38	1.94	1.92	-4.99	2.46	-4.76	2.34	-6.04				
26	2.04	-6.10	2.54	-5.00	2.35	-5.79	2.12	1.52	2.57	-5.34	1.90	-5.69				
27	1.60	1.17	2.21	1.70	2.09	-4.52	2.05	1.54	2.36	-6.12	2.34	-4.24				
28	1.68	1.20	2.28	-3.80	2.24	-5.72	1.96	-5.63	1.71	-6.42	2.20	-4.13				
29	1.93	-5.99	2.34	1.80	2.18	1.49	2.28	1.37	---	---	2.55	1.77				
30	1.84	-6.12	2.42	-4.69	1.97	1.48	2.36	-4.04	---	---	2.83	2.18				
31	1.80	-5.78	---	---	1.85	-6.11	2.42	1.80	---	---	2.56	2.01				
MONTH	3.30	-6.29	2.54	-6.35	2.53	-6.49	2.42	-7.17	2.81	-6.42	2.83	-6.29				

GROUND-WATER LEVELS IN MARYLAND--Continued

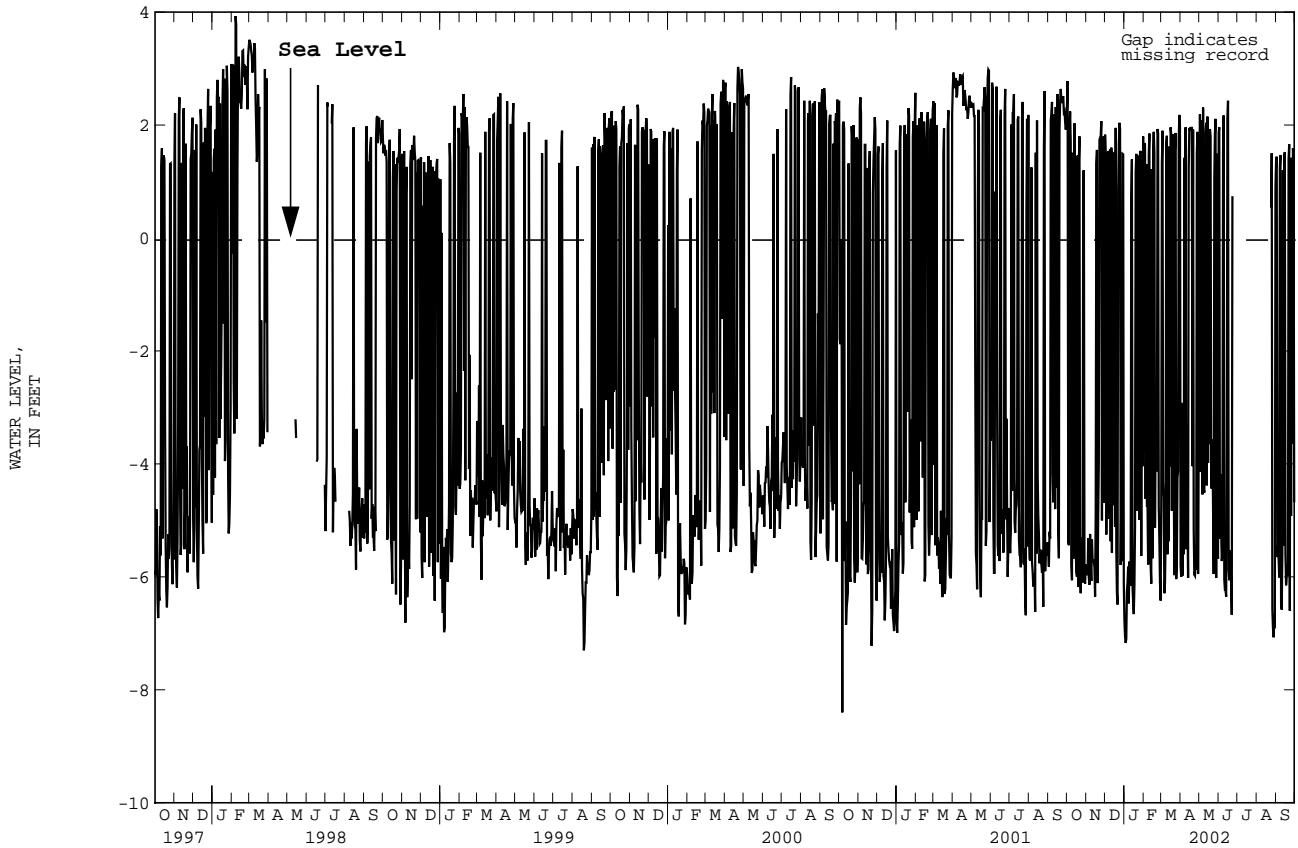
DORCHESTER COUNTY--Continued

DO Dh 27--Continued

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
(READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.64	-5.80	2.64	-2.93	2.34	1.87	---	---	---	---	2.02	1.38
2	2.11	-6.00	3.08	2.19	2.48	1.96	---	---	---	---	2.04	1.44
3	2.22	-2.92	3.06	-4.14	2.28	-5.32	---	---	---	---	2.00	-5.65
4	2.01	-5.98	2.55	2.04	2.30	-4.19	---	---	---	---	2.11	-5.45
5	1.91	-5.26	2.54	2.08	2.46	-5.22	---	---	---	---	1.84	-5.66
6	1.78	-5.60	2.55	-4.54	2.32	-5.72	---	---	---	---	1.85	-6.01
7	2.11	1.42	2.78	2.31	1.96	-5.56	---	---	---	---	1.96	1.25
8	2.42	-5.25	2.70	-4.42	2.49	1.54	---	---	---	---	2.03	1.47
9	2.49	1.96	2.50	-4.51	2.74	2.17	---	---	---	---	2.00	-6.48
10	2.45	-5.51	2.80	-3.08	2.63	-6.04	---	---	---	---	1.68	-6.58
11	1.96	-5.28	2.53	1.87	2.06	-6.23	---	---	---	---	1.63	-5.59
12	2.10	-4.86	2.53	2.04	2.15	-6.23	---	---	---	---	1.83	1.20
13	2.17	-6.02	2.63	-4.38	1.90	-6.35	---	---	---	---	1.82	-5.45
14	2.23	1.26	2.68	2.15	2.34	-3.59	---	---	---	---	2.00	1.47
15	2.46	1.95	2.47	-3.98	2.73	2.11	---	---	---	---	2.01	1.52
16	2.40	1.90	2.31	1.66	2.84	2.43	---	---	---	---	2.00	-5.60
17	2.49	1.95	2.32	-3.65	2.62	-5.87	---	---	---	---	1.70	-6.15
18	2.48	1.95	2.63	1.93	1.92	-6.06	---	---	---	---	1.67	-5.98
19	2.57	1.95	2.50	1.80	1.96	-5.53	---	---	---	---	1.75	-5.78
20	2.66	-4.04	2.50	-4.39	2.03	-5.78	---	---	---	---	1.85	-5.98
21	2.51	1.92	2.29	-4.44	1.90	-6.14	---	---	---	---	2.05	1.40
22	2.54	-5.17	2.24	-3.57	1.75	-6.67	---	---	---	---	2.09	1.66
23	2.16	-5.96	2.36	-4.78	1.72	0.74	---	---	---	---	2.06	-6.60
24	1.93	-5.98	2.44	-5.95	---	---	---	---	1.81	0.54	1.82	0.82
25	2.14	-5.66	2.11	1.07	---	---	---	---	2.00	1.50	1.87	-4.92
26	2.29	-5.87	2.51	1.85	---	---	---	---	1.92	-6.58	2.25	1.42
27	2.31	1.49	2.68	2.11	---	---	---	---	1.47	-6.91	2.58	-3.64
28	2.74	1.88	2.63	-6.02	---	---	---	---	1.30	-7.07	2.56	1.59
29	2.78	-5.95	2.33	1.49	---	---	---	---	1.31	-6.68	1.98	1.39
30	2.57	-3.46	2.22	-5.45	---	---	---	---	1.16	-6.91	2.00	-4.68
31	---	---	2.09	-5.68	---	---	---	---	1.51	0.89	---	---
MONTH	2.78	-6.02	3.08	-6.02	---	---	---	---	---	---	2.58	-6.60

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

FREDERICK COUNTY

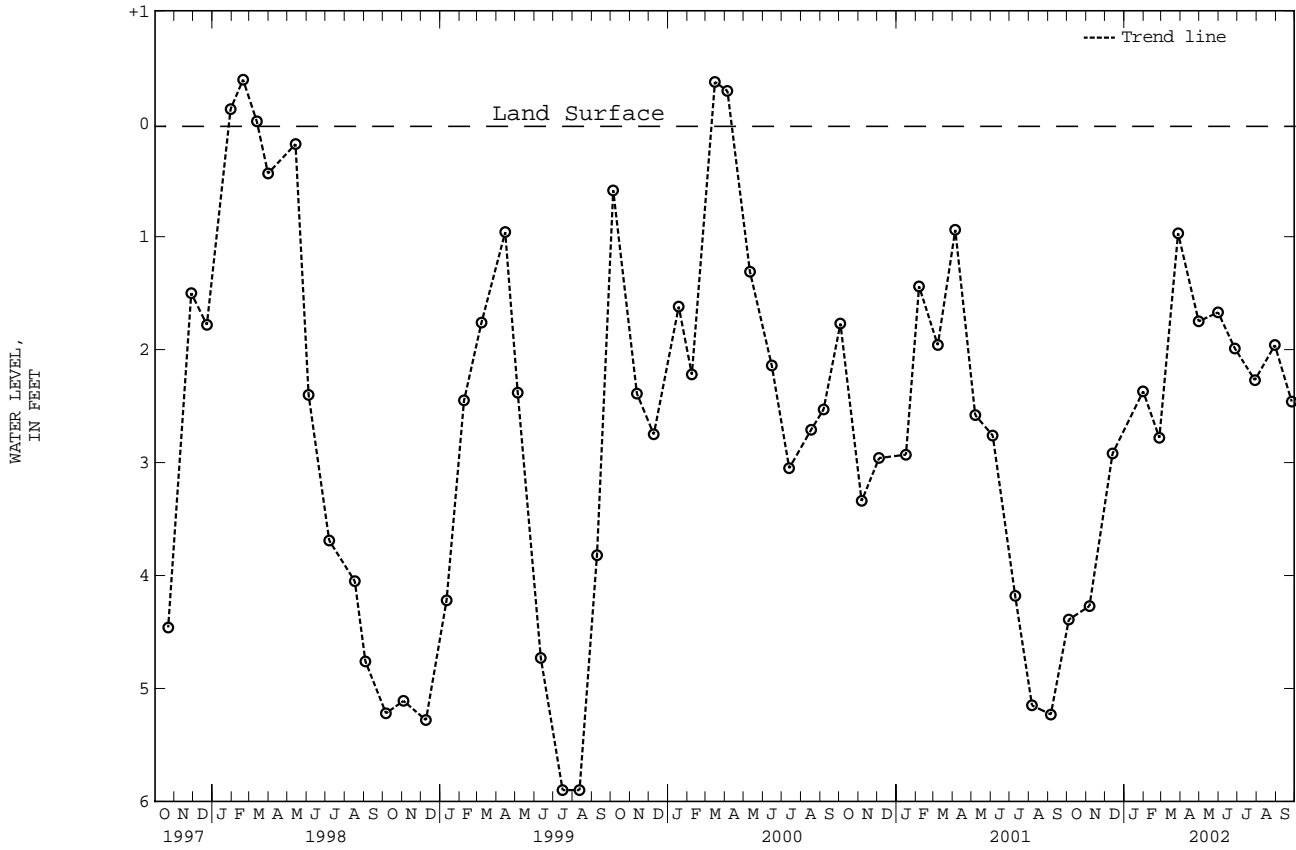
WELL NUMBER.--FR Af 27. SITE ID.--394200077190701. PERMIT NUMBER.--FR-73-7155.  
 LOCATION.--Lat 39°42'00", long 77°19'07", Hydrologic Unit 02070009, 0.3 mi southwest of U.S. Rt. 15 and MD Rt. 140, Emmitsburg.  
 Owner: City of Emmitsburg.

AQUIFER.--Gettysburg Shale of Upper Triassic age. Aquifer code: 231GBRG.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 365 ft; casing diameter 6 in., to 41 ft; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel  
 DATUM.--Elevation of land surface is 385 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.90 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--April 1982 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.69 ft above land surface, July 16, 1996;  
 lowest measured, 5.90 ft below land surface, July 16, 1999, and Aug. 12, 1999.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 2001	4.39	JAN 31, 2002	2.37	APR 30, 2002	1.75	JUL 29, 2002	2.27
NOV 06	4.27	FEB 26	2.78	MAY 31	1.67	AUG 30	1.96
DEC 13	2.92	MAR 28	.97	JUN 27	1.99	SEP 26	2.46
WATER YEAR 2002 HIGHEST .97		MAR 28, 2002		LOWEST 4.39		OCT 04, 2001	



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

FREDERICK COUNTY--Continued

WELL NUMBER.--FR Bd 96. SITE ID.--393733077274801.

LOCATION.--Lat 39°37'33", long 77°27'48", Hydrologic Unit 02070009, 0.4 mi west of Hunting Creek Lake, Cunningham Falls State Park.

Owner: State of Maryland.

AQUIFER.--Catoctin Metabasalt of Precambrian age. Aquifer code: 400CTCN.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 189 ft; casing diameter 6 in., to 22 ft; open hole.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with water-level recorder April 5, 1982 to Feb. 21, 1984. Equipped with a digital water-level recorder--15-minute recorder interval from June 23, 1991 to May 4, 1993.

DATUM.--Elevation of land surface is 1,150 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing at land surface.

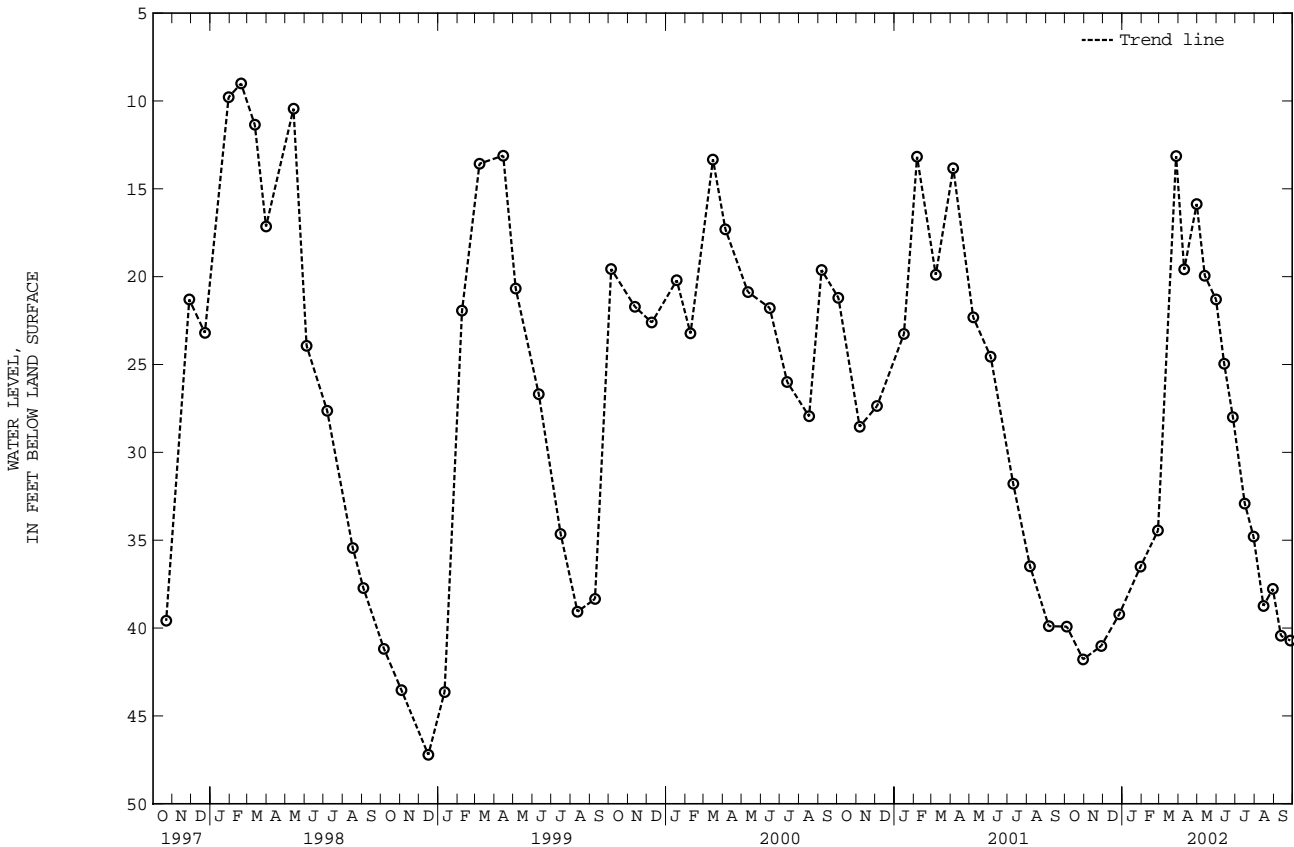
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.

PERIOD OF RECORD.--April 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.54 ft below land surface, May 11, 1989; lowest measured, 47.21 ft below land surface, Dec. 16, 1998.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 2001	39.92	FEB 27, 2002	34.45	MAY 31, 2002	21.30	AUG 15, 2002	38.74
30	41.78	MAR 28	13.14	JUN 13	24.95	30	37.77
NOV 28	41.02	APR 10	19.59	27	27.99	SEP 12	40.44
DEC 27	39.21	30	15.86	JUL 16	32.91	27	40.71
JAN 30, 2002	36.50	MAY 13	19.95	30	34.79		
WATER YEAR 2002		HIGHEST	13.14	MAR 28, 2002	LOWEST	41.78	OCT 30, 2001



FREDERICK COUNTY--Continued

WELL NUMBER.--FR Cg 1. SITE ID.--393156077135701.

LOCATION.--Lat 39°31'56", long 77°13'57", Hydrologic Unit 02070009, at Johnsville.

Owner: Evan B. Evans, Jr.

AQUIFER.--Ijamsville Formation (saprolite) of Paleozoic age. Aquifer code: 300IJMV.

WELL CHARACTERISTICS.--Dug, stone-lined, domestic, water-table well, depth 42.5 ft; diameter 36 in.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 600 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of wooden well cover, 0.60 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Residents use well as their primary water source.

PERIOD OF RECORD.--July 1946 to current year.

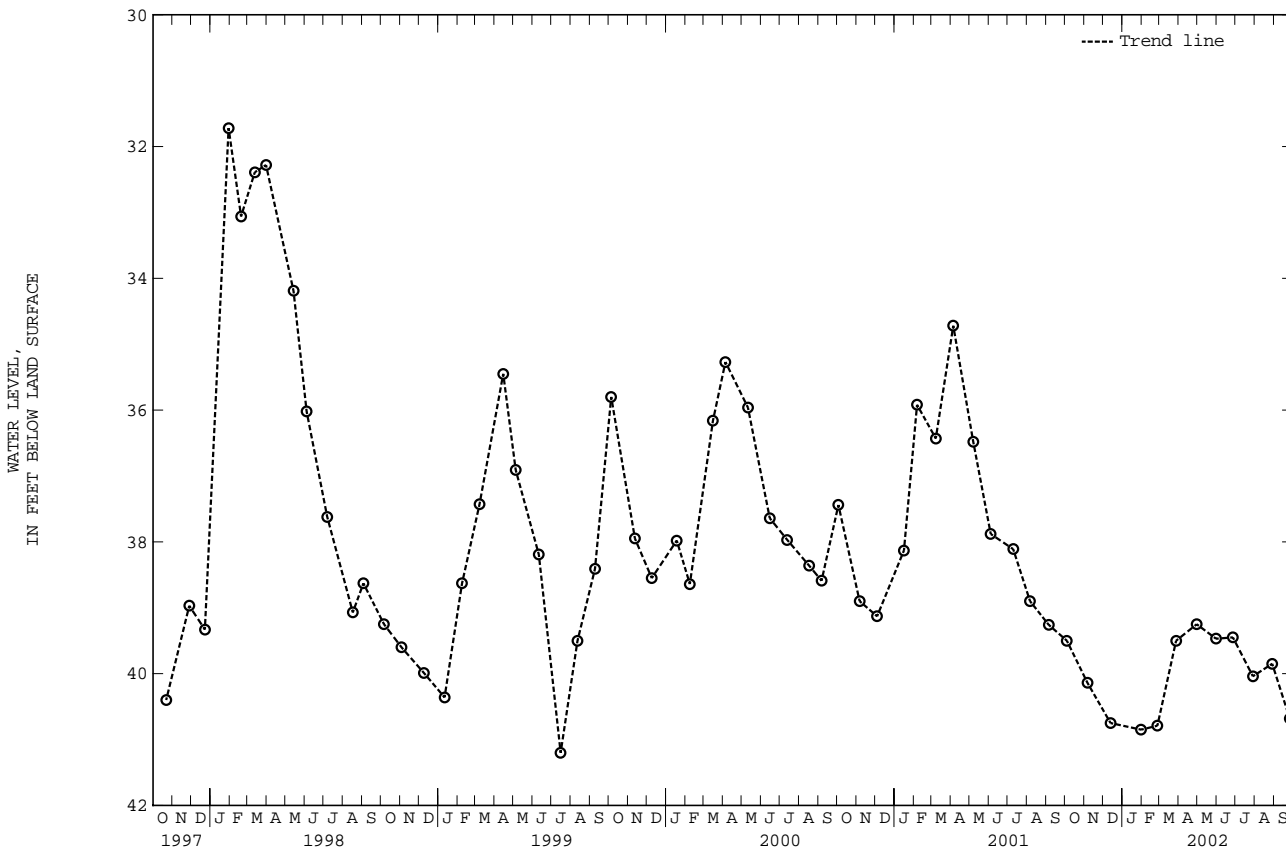
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.63 ft below land surface, Sept. 29, 1975;

lowest measured, 42.02 ft below land surface, Oct. 5, 1982.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 2001	39.50	JAN 31, 2002	40.85	APR 30, 2002	39.25	JUL 29, 2002	40.04
NOV 06	40.14	FEB 26	40.79	MAY 31	39.47	AUG 29	39.85
DEC 13	40.75	MAR 28	39.50	JUN 27	39.45	SEP 26	40.68

WATER YEAR 2002 HIGHEST 39.25 APR 30, 2002 LOWEST 40.85 JAN 31, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

FREDERICK COUNTY--Continued

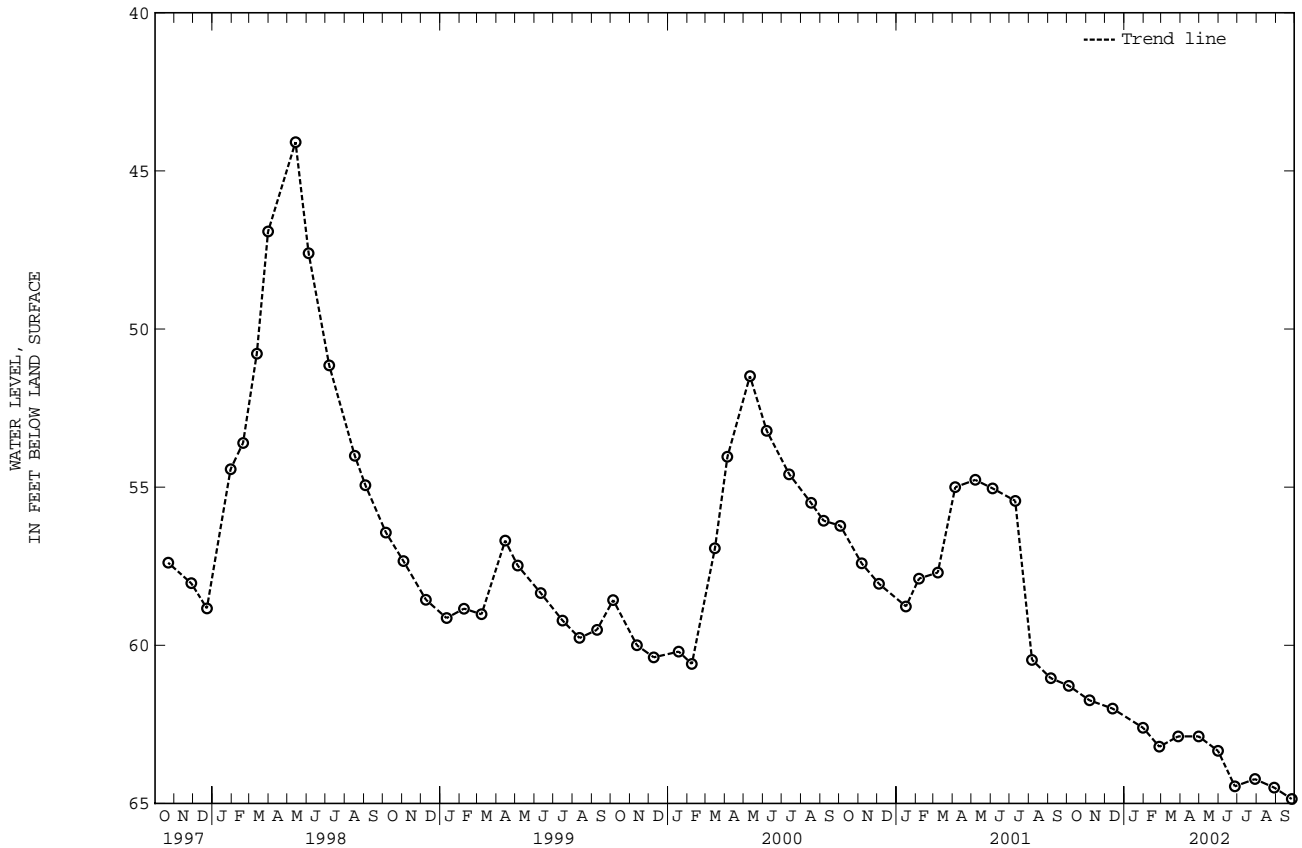
WELL NUMBER.--FR Df 35. SITE ID.--392517077190401. PERMIT NUMBER.--FR-73-0852.  
 LOCATION.--Lat 39°25'17", long 77°19'04", Hydrologic Unit 02070009, north of Eaglehead Drive, near Lake Linganore.  
 Owner: Lake Linganore Association.

AQUIFER.--Urbana Formation of Paleozoic age. Aquifer code: 300URBN.  
 WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 302 ft, casing diameter 6 in., to 26 ft, open hole.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 570 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.00 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--May 1982 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.09 ft below land surface, May 14, 1998;  
 lowest measured, 64.86 ft below land surface, Sept. 26, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 2001	61.28	JAN 31, 2002	62.61	APR 30, 2002	62.88	JUL 29, 2002	64.23
NOV 06	61.74	FEB 26	63.21	MAY 31	63.34	AUG 29	64.50
DEC 13	62.00	MAR 28	62.88	JUN 27	64.46	SEP 26	64.86
WATER YEAR 2002		HIGHEST	61.28	OCT 04, 2001	LOWEST	64.86	SEP 26, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GARRETT COUNTY

WELL NUMBER.--GA Ag 1. SITE ID.--394017078581701.

LOCATION.--Lat 39°40'17", long 78°58'17", Hydrologic Unit 02070002, in the Savage River Valley, 2.5 mi northwest of Frostburg.

Owner: Town of Frostburg.

AQUIFER.--Greenbrier Formation of Upper Mississippian age. Aquifer code: 331GRBR.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, Reported depth 30 ft, measured depth 14 ft; casing diameter 8 in., to unknown depth; open hole.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 2,530 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing at land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels affected by nearby pumping.

PERIOD OF RECORD.--October 1946 to current year.

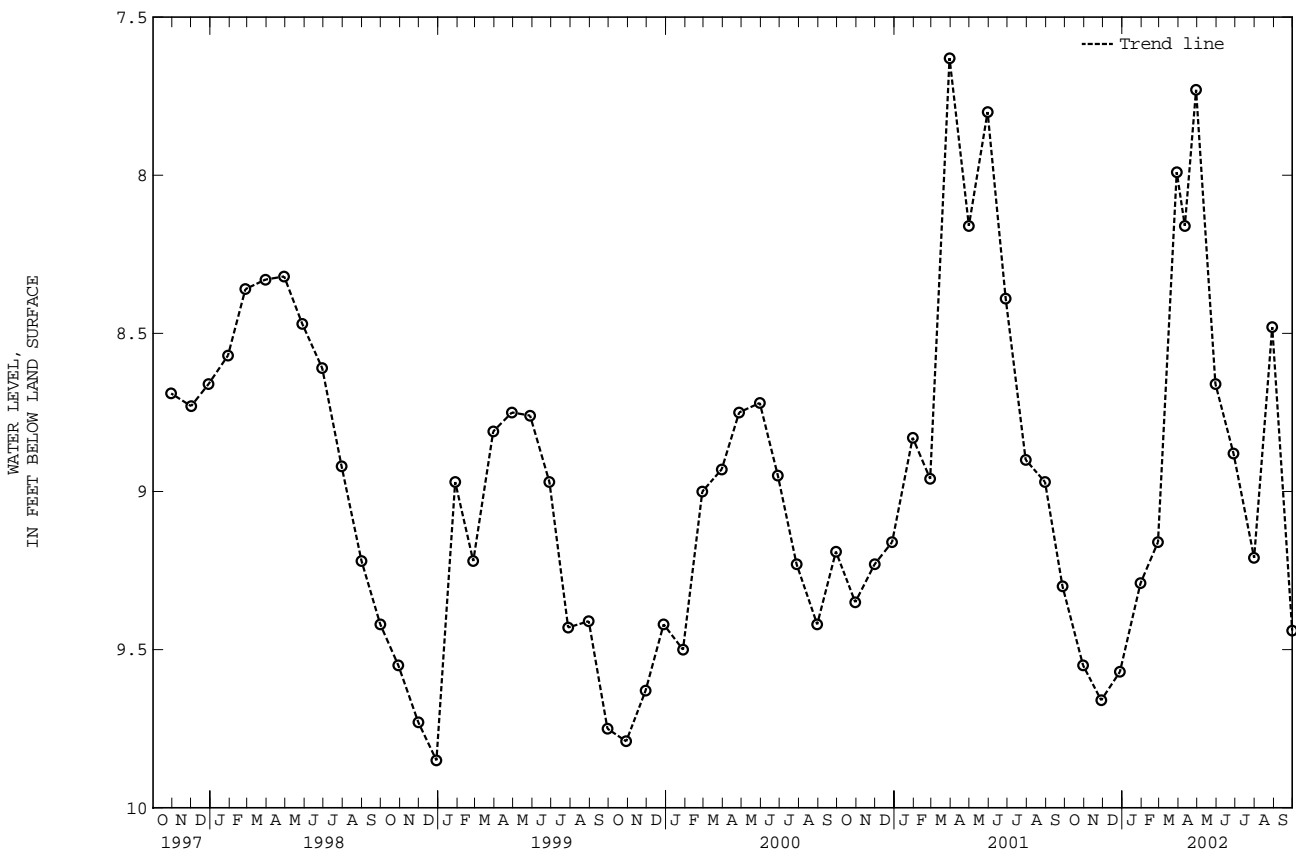
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.71 ft below land surface, Jan. 14, 1950;

lowest measured, 14.59 ft below land surface, Jan. 28, 1985.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	9.55	FEB 27, 2002	9.16	MAY 30, 2002	8.66	SEP 30, 2002	9.44
NOV 28	9.66	MAR 29	7.99	JUN 28	8.88		
DEC 28	9.57	APR 11	8.16	JUL 31	9.21		
JAN 30, 2002	9.29	29	7.73	AUG 29	8.48		

WATER YEAR 2002      HIGHEST    7.73    APR 29, 2002      LOWEST    9.66    NOV 28, 2001



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Bc 1. SITE ID.--393749079190301.

LOCATION.--Lat 39°37'49", long 79°19'03", Hydrologic Unit 05020006, at Accident.

Owner: Mabel A. Georg.

AQUIFER.--Hampshire Formation of Upper Devonian age. Aquifer code: 341HMPR.

WELL CHARACTERISTICS.--Dug, stone-lined, domestic, water-table well, depth 20 ft; diameter 36 in.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 2,415 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of 1 in. board cover, 2.30 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well (See Figure 1.).

PERIOD OF RECORD.--August 1949 to current year.

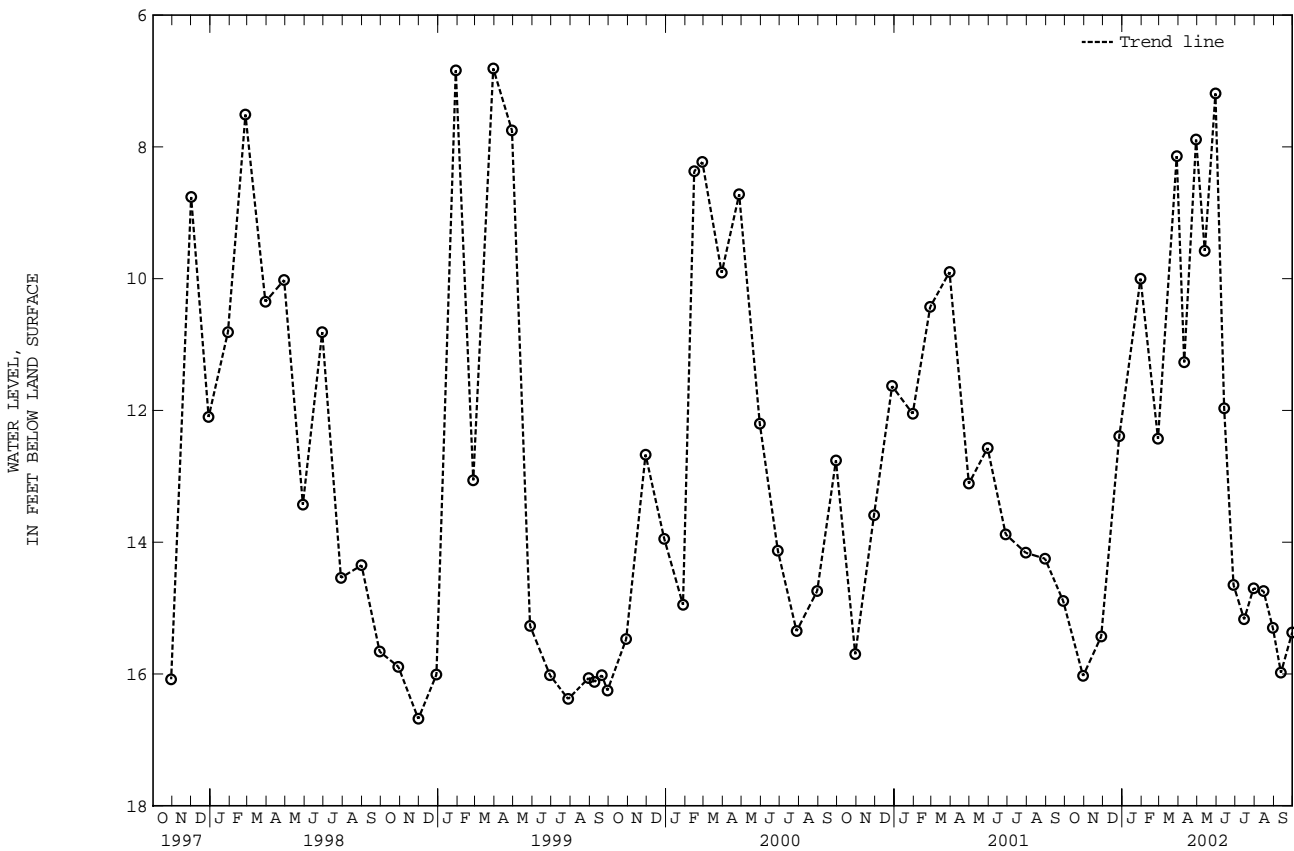
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.25 ft below land surface, March 6, 1979;

lowest measured, 19.65 ft below land surface, Dec. 9, 1953.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	16.03	MAR 29, 2002	8.14	JUN 13, 2002	11.97	AUG 30, 2002	15.30
NOV 28	15.43	APR 10	11.27	28	14.65	SEP 12	15.98
DEC 27	12.39	29	7.89	JUL 15	15.17	30	15.37
JAN 30, 2002	10.00	MAY 13	9.58	30	14.70		
FEB 27	12.43	30	7.19	AUG 15	14.74		

WATER YEAR 2002 HIGHEST 7.19 MAY 30, 2002 LOWEST 16.03 OCT 30, 2001



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



GARRETT COUNTY--Continued

WELL NUMBER.--GA Eb 78. SITE ID.--392439079231801. PERMIT NUMBER.--GA-88-0611.

LOCATION.--Lat 39°24'39", long 79°23'18", Hydrologic Unit 05020006, at Southern Pines, near Broadford Road, and Southern Pines Drive, Mountain Lake Park.

Owner: Jonathan Kessler.

AQUIFER.--Foreknobs Formation of Upper Devonian age. Aquifer code: (code in review).

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 307 ft; casing diameter 6 in., to 40 ft; open hole.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 2,500 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing 1.00 ft above land surface.

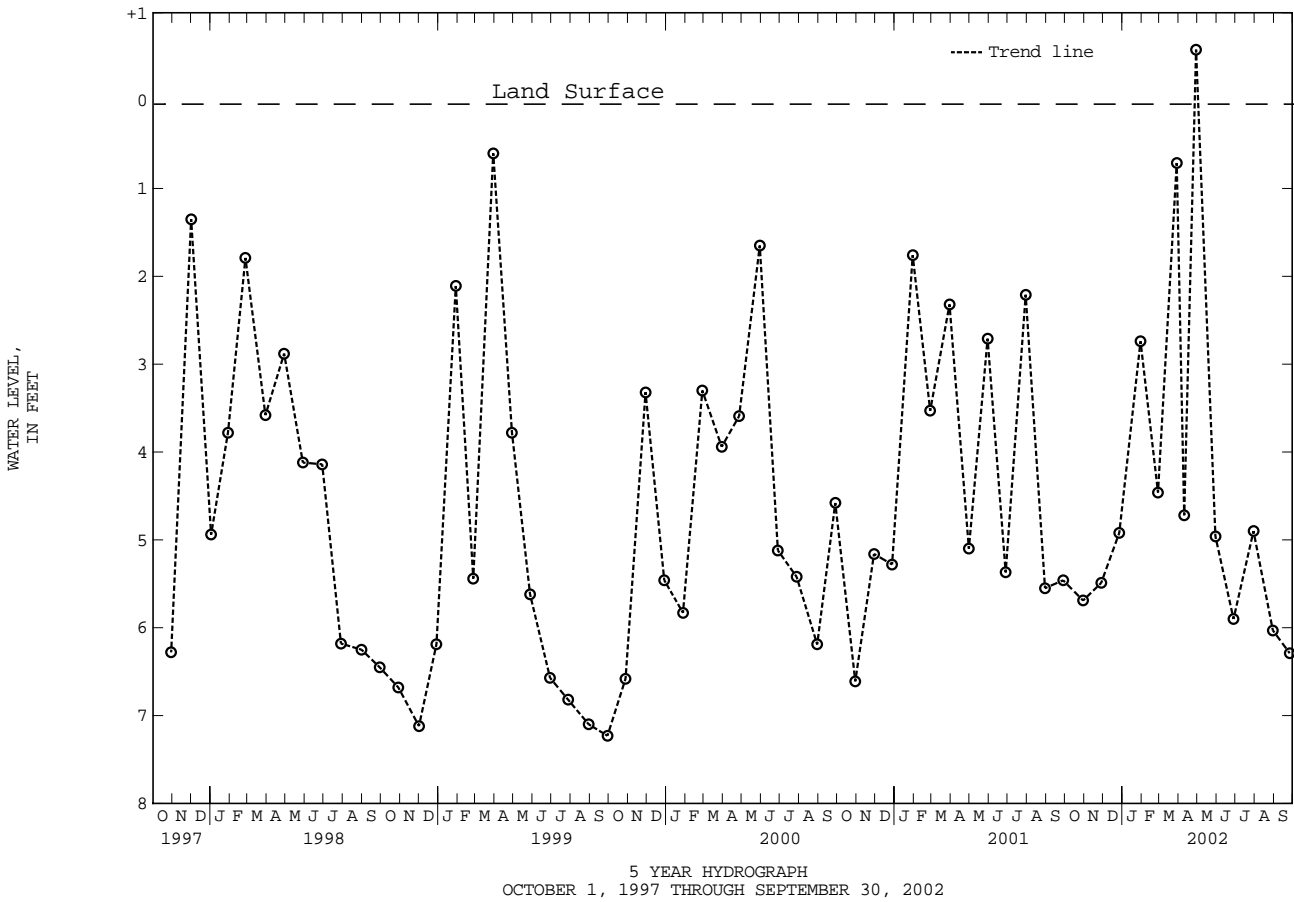
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, flowing on March 29, 1993, and March 30, 1994; lowest measured, 9.12 ft below land surface, Aug. 30, 1993.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
(READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	5.69	FEB 27, 2002	4.46	MAY 30, 2002	4.96	SEP 26, 2002	6.29
NOV 28	5.49	MAR 29	.71	JUN 28	5.90		
DEC 27	4.92	APR 10	4.72	JUL 30	4.90		
JAN 30, 2002	2.74	29	+5.58	AUG 30	6.03		
WATER YEAR 2002		HIGHEST	+5.58 APR 29, 2002	LOWEST	6.29 SEP 26, 2002		



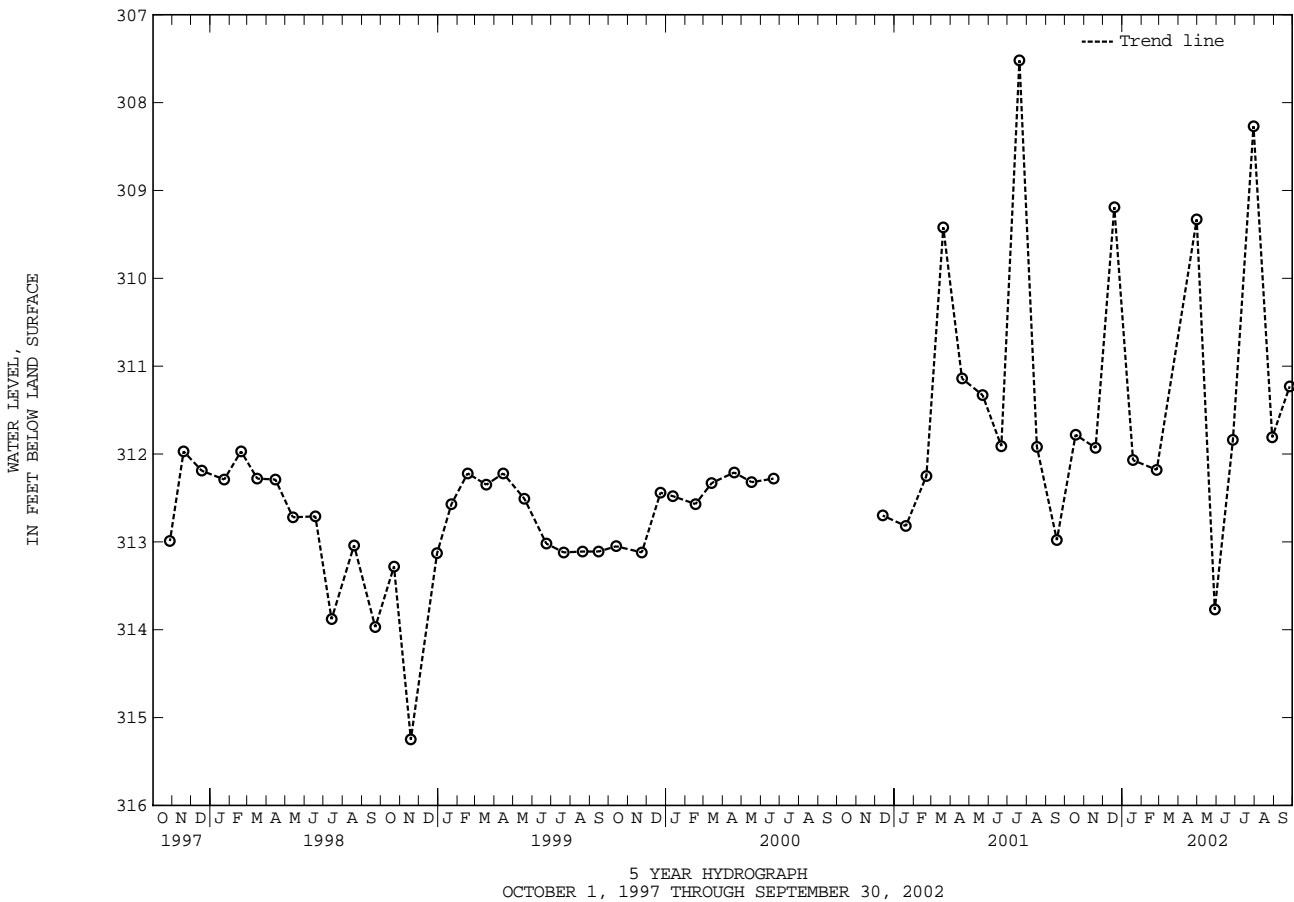
GROUND-WATER LEVELS IN MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 28. SITE ID.--391512079270901. PERMIT NUMBER.--GA-73-1697.  
 LOCATION.--Lat 39°15'12", long 79°27'09", Hydrologic Unit 02070002, on south side of Red Oak Road, 0.6 mi west from the intersection with Kempton Road, 2.6 mi west of Wilson.  
 Owner: Mettiki Coal Corp.  
 AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 341 ft; casing diameter 6 in., to 317 ft; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 2,890 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring Point: Top of casing, 1.50 ft above land surface.  
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels are affected by coal mining operations. Water level measurements could not be measured from July 2000 through November 2000, and March 27, 2002 because of an obstruction in the well. A well depth of 337.35 ft below land surface was measured on April 30, 2002.  
 PERIOD OF RECORD.--June 1978 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 100.60 ft below land surface, Dec. 14, 1978; lowest measured dry at 341.00 ft below land surface, May 16, 1985.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	311.78	JAN 18, 2002	312.07	MAY 29, 2002	313.77	AUG 29, 2002	311.81
NOV 19	311.93	FEB 25	312.18	JUN 27	311.84	SEP 26	311.23
DEC 19	309.19	APR 30	309.33	JUL 30	308.27		
WATER YEAR 2002 HIGHEST 308.27 JUL 30, 2002		LOWEST 313.77 MAY 29, 2002					



GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 29. SITE ID.--391512079270902. PERMIT NUMBER.--GA-73-1698.  
 LOCATION.--Lat 39°15'12", long 79°27'09", Hydrologic Unit 02070002, on south side of Red Oak Road, 0.9 mi west from intersection with Kempton Road, 2.6 mi west of Wilson.  
 Owner: Mettiki Coal Corp.

AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 226 ft; casing diameter 6 in., to 203 ft; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 2,890 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 2.00 ft above land surface.

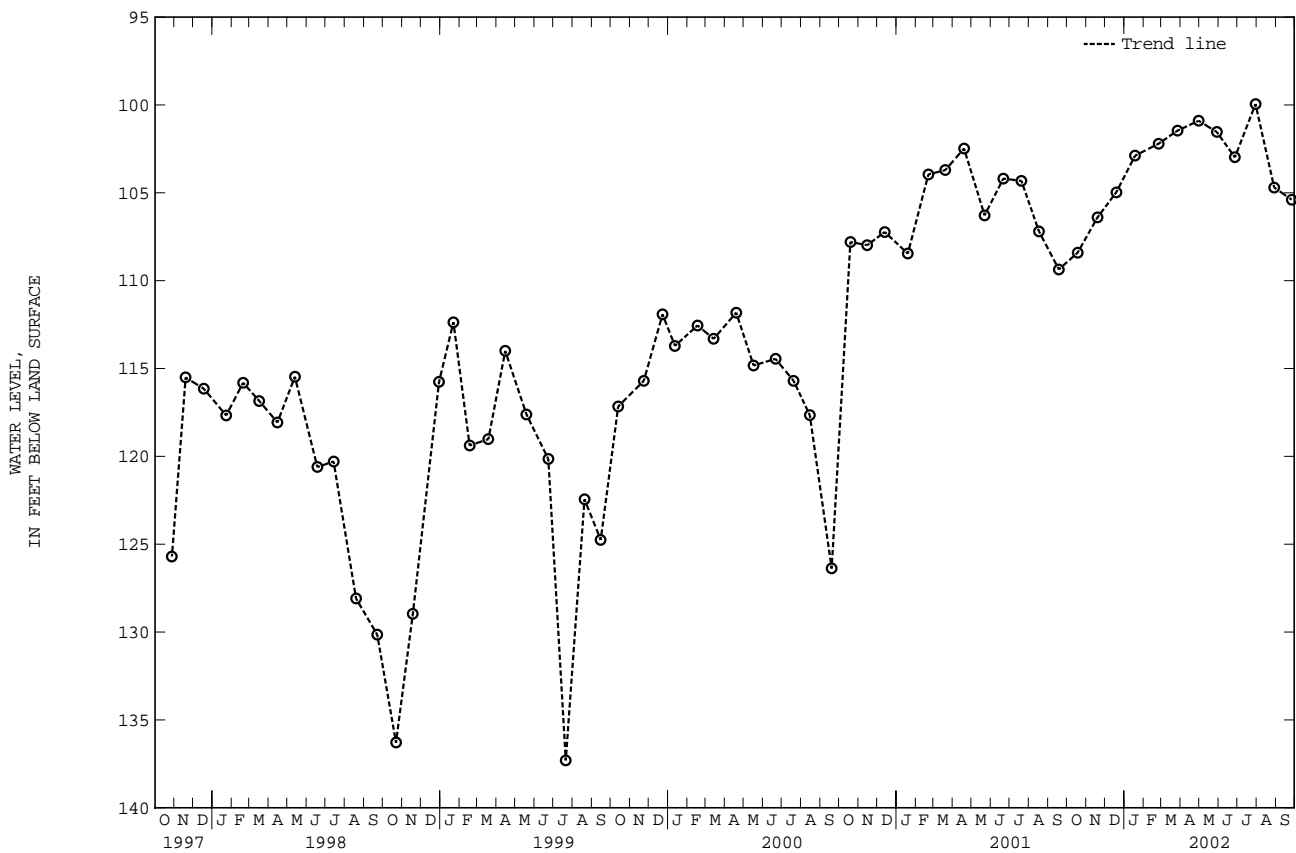
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels are affected by coal mining operations. A well depth of 211.0 ft below land surface was measured on April 30, 2002.  
 PERIOD OF RECORD.--June 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 99.95 ft below land surface, July 30, 2002;  
 lowest water level measured, dry on Nov. 17, 18, 1982, Dec. 28, 1982, Feb. 18, 1983.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	108.41	JAN 18, 2002	102.89	APR 30, 2002	100.90	JUL 30, 2002	99.95
NOV 19	106.39	FEB 25	102.20	MAY 29	101.54	AUG 29	104.70
DEC 19	104.97	MAR 27	101.46	JUN 27	102.98	SEP 26	105.39

WATER YEAR 2002      HIGHEST    99.95    JUL 30, 2002      LOWEST    108.41    OCT 18, 2001



GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 31. SITE ID.--391539079254601. PERMIT NUMBER.--GA-73-2142.  
 LOCATION.--Lat 39°15'37", long 79°25'45", Hydrologic Unit 02070002, on north side of coal conveyor belt, 450 ft west of Table Rock Road, 1.7 mi west of Wilson.

Owner: U.S. Geological Survey.

AQUIFER.--Allegheny Formation of Middle Pennsylvanian age. Aquifer code: 324ALGN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 606 ft; casing diameter 8 in., to 25.5 ft; casing diameter 4 in., to 470 ft; open hole.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval.

DATUM.--Elevation of land surface is 2,618 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.60 ft above land surface.

REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels are affected by coal mining operations.

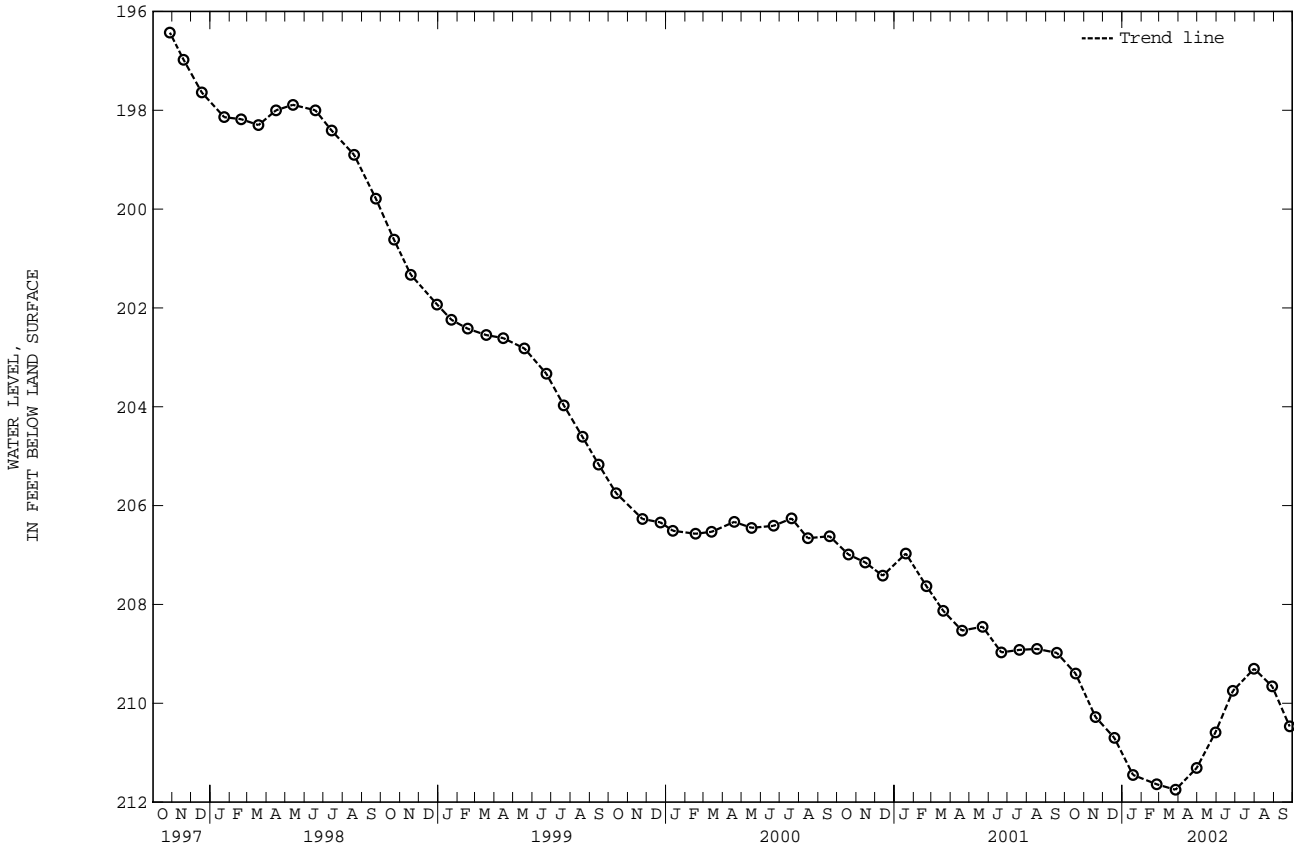
PERIOD OF RECORD.--April 1980 to to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.31 ft below land surface, April 8, 1980; lowest measured, 211.75 ft below land surface, March 27, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	209.40	JAN 18, 2002	211.45	APR 30, 2002	211.31	JUL 31, 2002	209.30
NOV 19	210.28	FEB 25	211.64	MAY 30	210.59	AUG 29	209.66
DEC 19	210.70	MAR 27	211.75	JUN 27	209.75	SEP 26	210.47

WATER YEAR 2002      HIGHEST 209.30 JUL 31, 2002      LOWEST 211.75 MAR 27, 2002



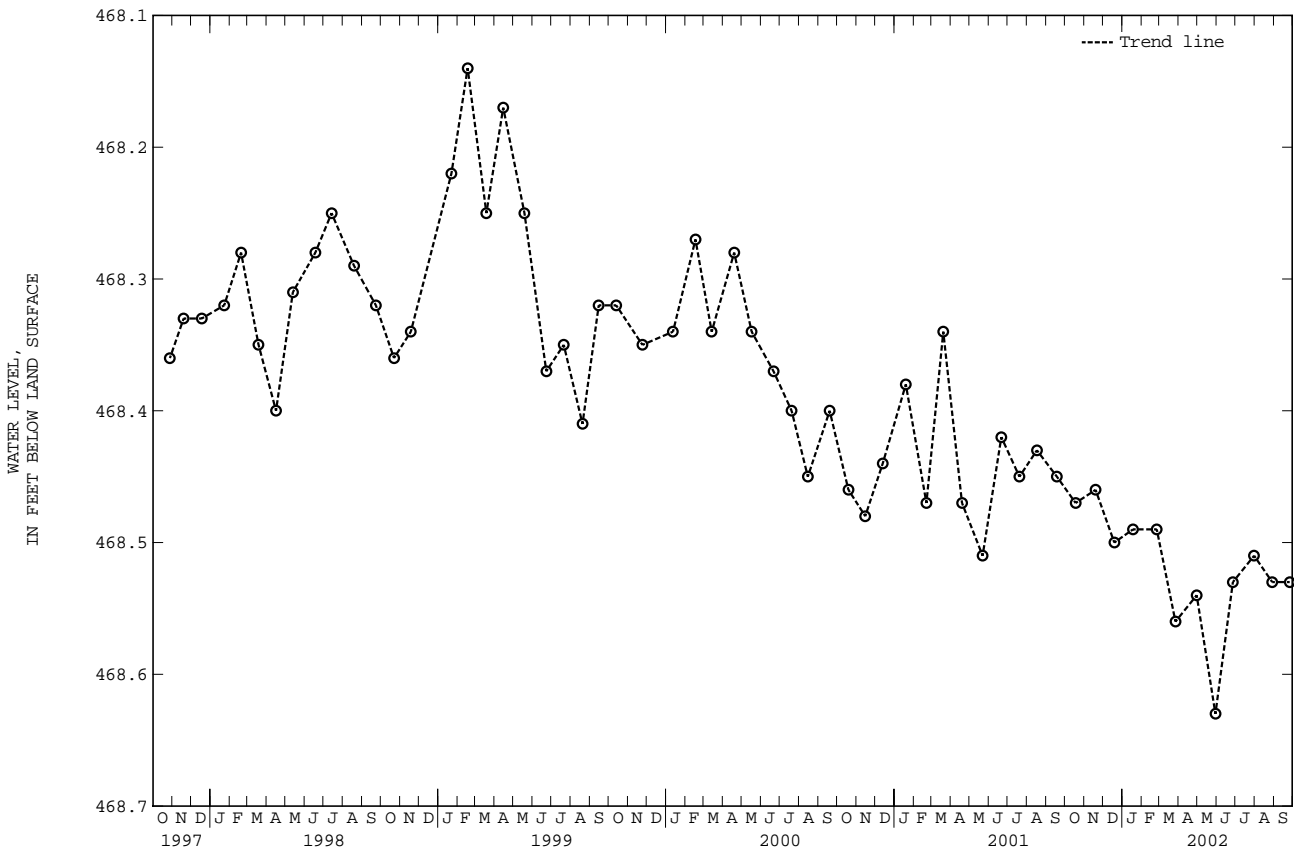
5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 32. SITE ID.--391539079254602. PERMIT NUMBER.--GA-73-2143.  
 LOCATION.--Lat 39°15'39", long 79°25'46", Hydrologic Unit 02070002, on north side of coal conveyor belt, 450 ft west of Table Rock Road, 1.7 mi west of Wilson.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 473 ft; casing diameter 8 in., to 23 ft; casing diameter 4 in., to 430 ft; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from July 21, 1980 to April 8, 1981.  
 DATUM.--Elevation of land surface is 2,618 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 3.15 ft above land surface.  
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels are affected by coal mining operations. A well depth of 470.35 ft below land surface was measured on April 30, 2002.  
 PERIOD OF RECORD.--February 1980 to to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.55 ft below land surface, Feb. 27, 1980; lowest measured, 474.80 ft below land surface, July 16, 1992.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	468.47	JAN 18, 2002	468.49	APR 30, 2002	468.54	JUL 31, 2002	468.51
NOV 19	468.46	FEB 25	468.49	MAY 30	468.63	AUG 29	468.53
DEC 19	468.50	MAR 27	468.56	JUN 27	468.53	SEP 26	468.53
WATER YEAR 2002		HIGHEST	468.46	NOV 19, 2001	LOWEST	468.63	MAY 30, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 33. SITE ID.--391539079254603. PERMIT NUMBER.--GA-73-2144.  
 LOCATION.--Lat 39°15'39", long 79°25'46", Hydrologic Unit 02070002, on north side of coal conveyor belt, 450 ft west of Table Rock Road, 1.7 mi west of Wilson.  
 Owner: U.S. Geological Survey.

AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 391 ft; measured depth of 324 ft on Dec. 15, 1995, (see REMARKS); casing diameter 8 in., to 23 ft; casing diameter 4 in., to 318 ft; open hole.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital recorder--60-minute recorder interval from July 21, 1980 to Oct. 14, 1982.

DATUM.--Elevation of land surface is 2,618 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 3.00 ft above land surface.

REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels are affected by coal mining operations. Prior to Dec. 15, 1995, the well was undermined and collapsed, the depth of the well is now 324 ft.

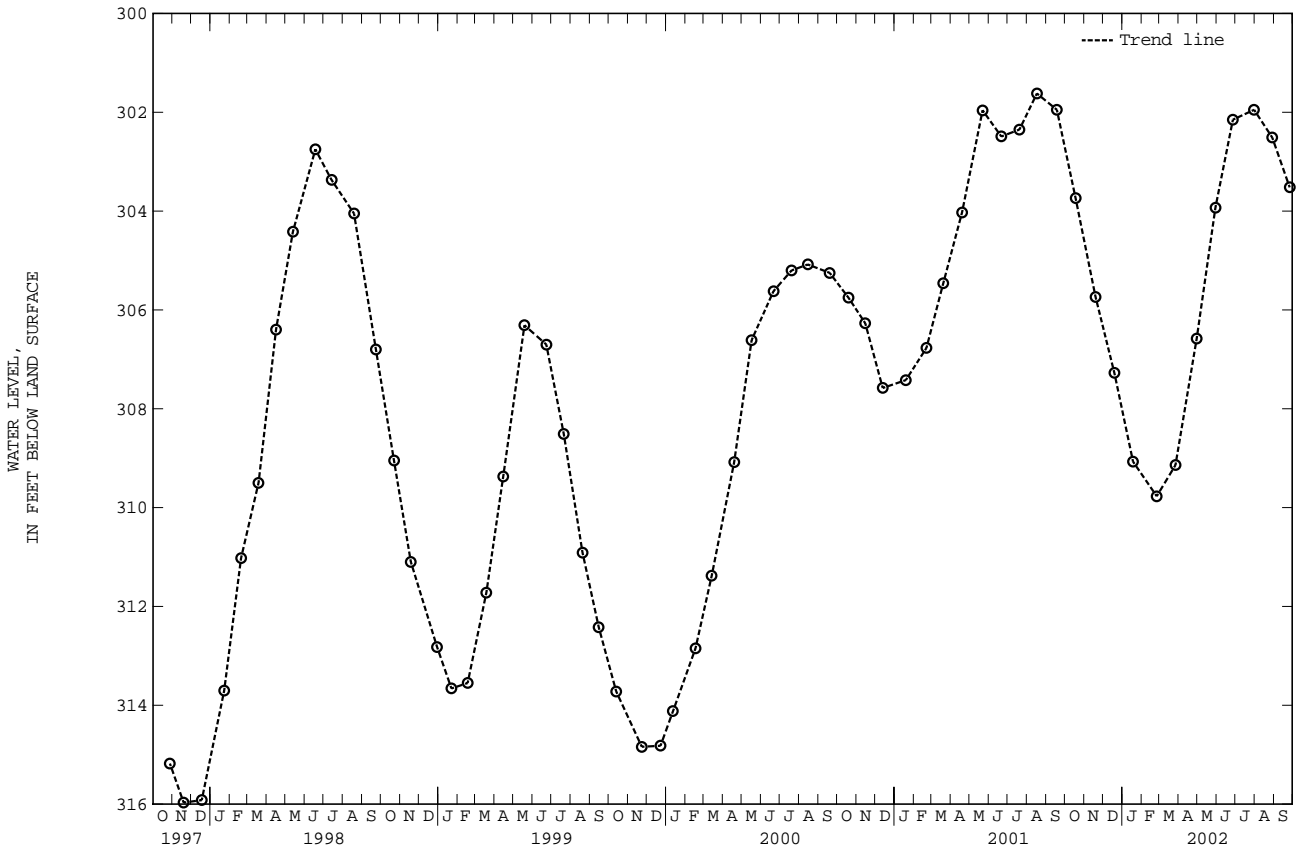
PERIOD OF RECORD.--February 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.31 ft below land surface, Feb. 27, 1978; lowest measured, dry at 324 ft below land surface on Dec. 15, 1995, Jan 18 and June 13, 1996.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	303.74	JAN 18, 2002	309.07	APR 30, 2002	306.58	JUL 31, 2002	301.95
NOV 19	305.74	FEB 25	309.77	MAY 30	303.93	AUG 29	302.51
DEC 19	307.27	MAR 27	309.14	JUN 27	302.15	SEP 26	303.52

WATER YEAR 2002 HIGHEST 301.95 JUL 31, 2002 LOWEST 309.77 FEB 25, 2002



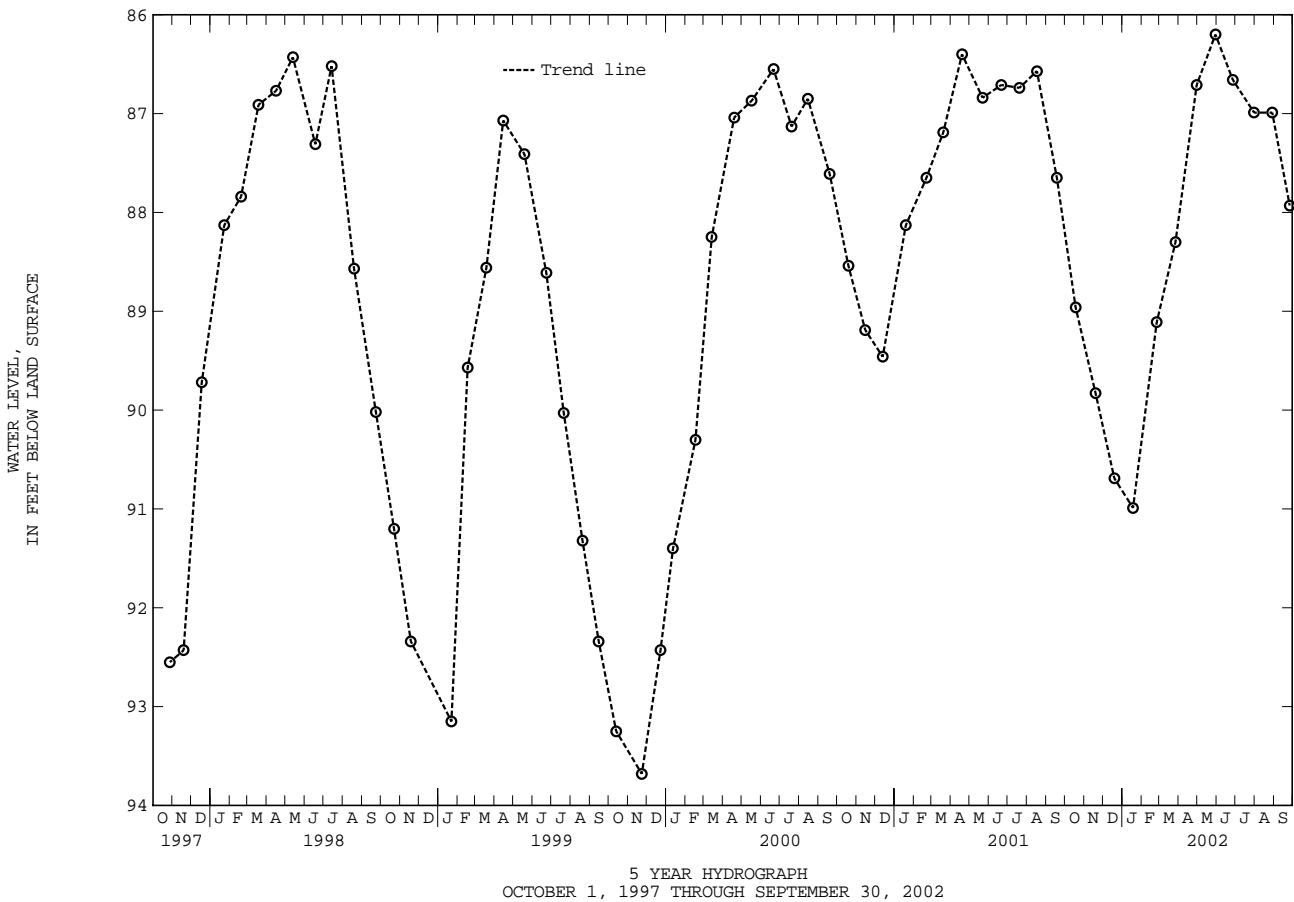
5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 34. SITE ID.--391539079254604. PERMIT NUMBER.--GA-73-2145.  
 LOCATION.--Lat 39°15'39", long 79°25'46", Hydrologic Unit 02070002, on north side of coal conveyor belt, 450 ft west of Table Rock Road, 1.7 mi west of Wilson.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 115 ft; casing diameter 8 in., to 23.5 ft; casing diameter 4 in., to 96 ft; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval, from July 21, 1980 to Oct 19, 1990.  
 DATUM.--Elevation of land surface is 2,618 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 3.00 ft above land surface.  
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well.  
 PERIOD OF RECORD.--February 1980 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.05 ft below land surface, Feb. 26, 1980; lowest measured, 95.25 ft below land surface, Dec. 11, 1991.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	88.96	JAN 18, 2002	90.99	APR 30, 2002	86.71	JUL 31, 2002	86.99
NOV 19	89.83	FEB 25	89.11	MAY 30	86.20	AUG 29	86.99
DEC 19	90.69	MAR 27	88.30	JUN 27	86.66	SEP 26	87.93
WATER YEAR 2002		HIGHEST	86.20	MAY 30, 2002	LOWEST	90.99	JAN 18, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 38. SITE ID.--391501079260001. PERMIT NUMBER.--GA-73-2125.

LOCATION.--Lat 39°15'01", long 79°26'00", Hydrologic Unit 02070002, at intersection of Kempton Road, and Dobbin Road, 3.6 mi south of Table Rock.

Owner: Curtis Glotfelty.

AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.

WELL CHARACTERISTICS.--Drilled, domestic, water-table well, depth 118 ft, casing diameter 6 in., to 39 ft; open hole.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 2,680 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.00 ft above land surface.

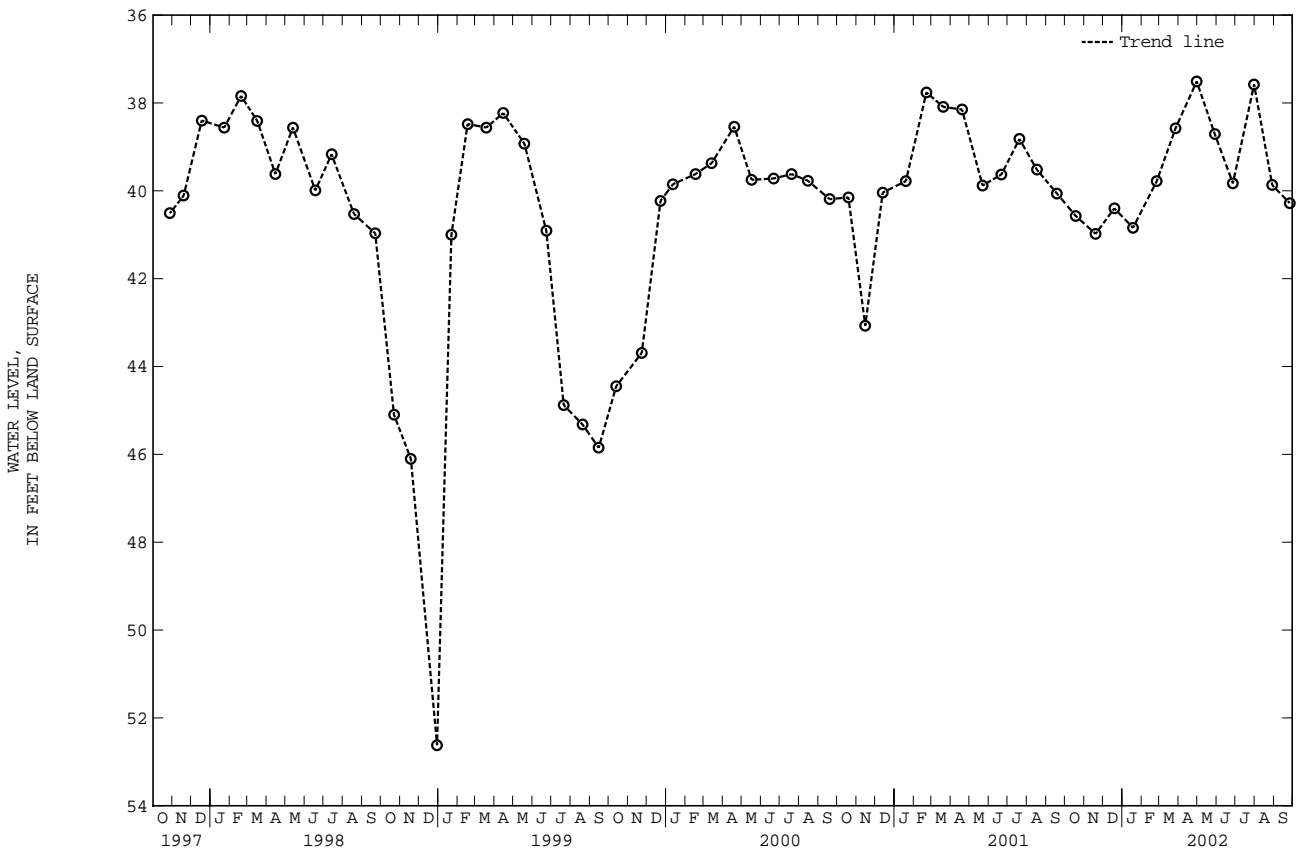
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels are affected by nearby mining operations.

PERIOD OF RECORD.--February 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.46 ft below land surface, March 30, 1993;  
lowest measured, 59.72 ft below land surface, Oct. 14, 1992.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	40.57	JAN 18, 2002	40.84	APR 30, 2002	37.51	JUL 31, 2002	37.58
NOV 19	40.98	FEB 25	39.78	MAY 29	38.71	AUG 29	39.87
DEC 19	40.40	MAR 27	38.58	JUN 27	39.83	SEP 26	40.28
WATER YEAR 2002		HIGHEST	37.51	APR 30, 2002	LOWEST	40.98	NOV 19, 2001



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

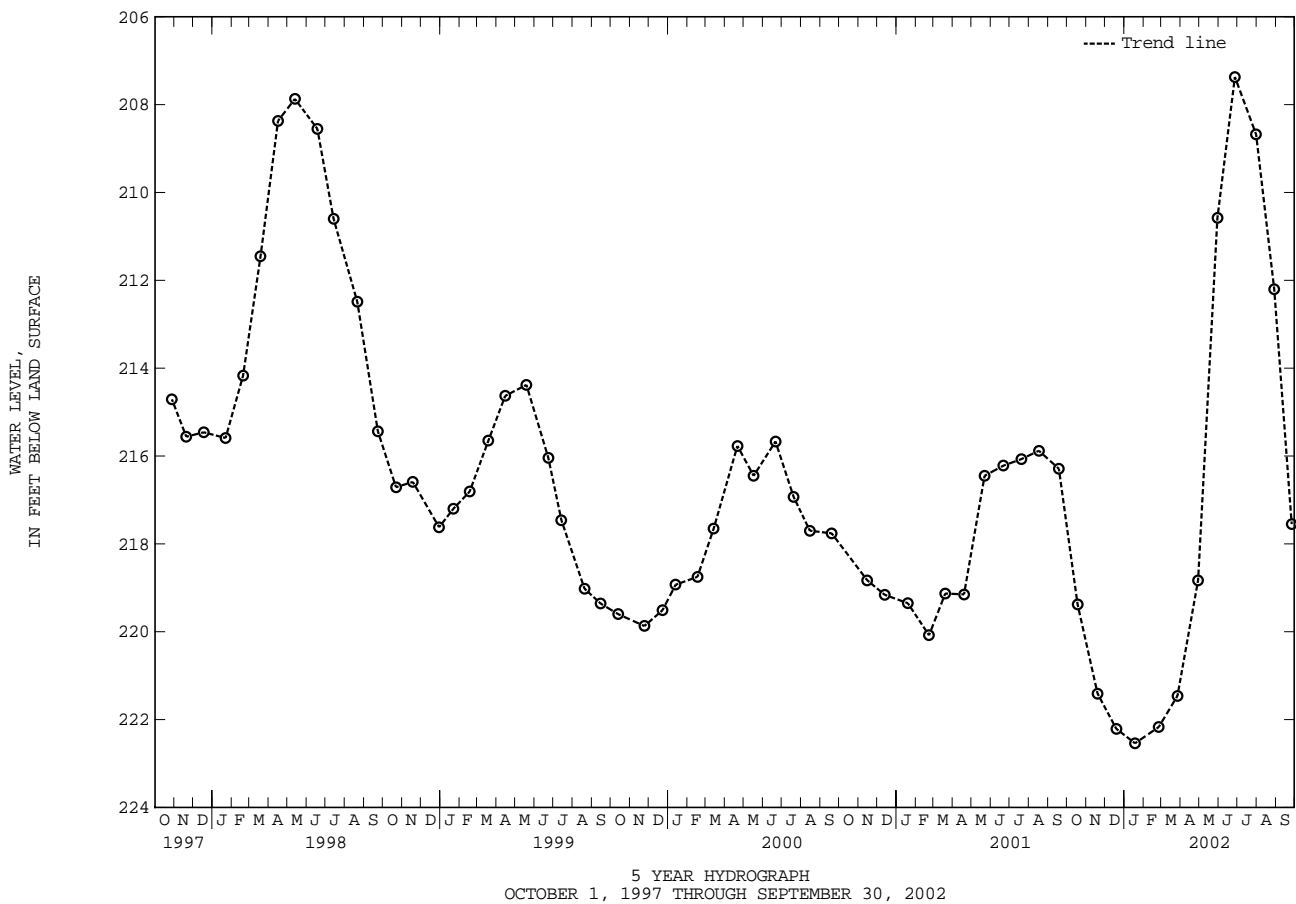


GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 22. SITE ID.--391530079244401. PERMIT NUMBER.--GA-73-2146.  
 LOCATION.--Lat 39°15'30", long 79°24'44", Hydrologic Unit 02070002, south side of Wilson Road, 500 ft west of the intersection with Wilson-Coronna Road, 0.4 mi northwest of Wilson.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Allegheny Formation of Middle Pennsylvanian age. Aquifer code: 324ALGN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 640 ft; casing diameter 4 in., to 517 ft; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval, from May 15, 1980 to October 1990.  
 DATUM.--Elevation of land surface is 2,530 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 3.0 ft above land surface.  
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels are affected by coal mining operations. A well depth of 530 ft below land surface was measured on April 30, 2002.  
 PERIOD OF RECORD.--April 1980 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.59 ft below land surface, April 8, 1980; lowest measured, 253.17 ft below land surface, Oct. 16, 1995.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	219.38	JAN 18, 2002	222.54	APR 29, 2002	218.83	JUL 31, 2002	208.68
NOV 19	221.41	FEB 25	222.17	MAY 30	210.58	AUG 29	212.20
DEC 19	222.21	MAR 27	221.46	JUN 27	207.37	SEP 26	217.55
WATER YEAR 2002 HIGHEST 207.37 JUN 27, 2002		LOWEST 222.54 JAN 18, 2002					



GROUND-WATER LEVELS IN MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 24. SITE ID.--391530079244403. PERMIT NUMBER.--GA-73-2177.

LOCATION.--Lat 39°15'30", long 79°24'44", Hydrologic Unit 02070002, south side of Wilson Road, 500 ft west of the intersection with Wilson-Coronna Road, 0.4 mi northwest of Wilson.

Owner: U.S. Geological Survey.

AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 400 ft; casing diameter 4 in., to 340 ft; open hole.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval, from May 15, 1980, to Oct. 19, 1990.

DATUM.--Elevation of land surface is 2,530 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 3.00 ft above land surface.

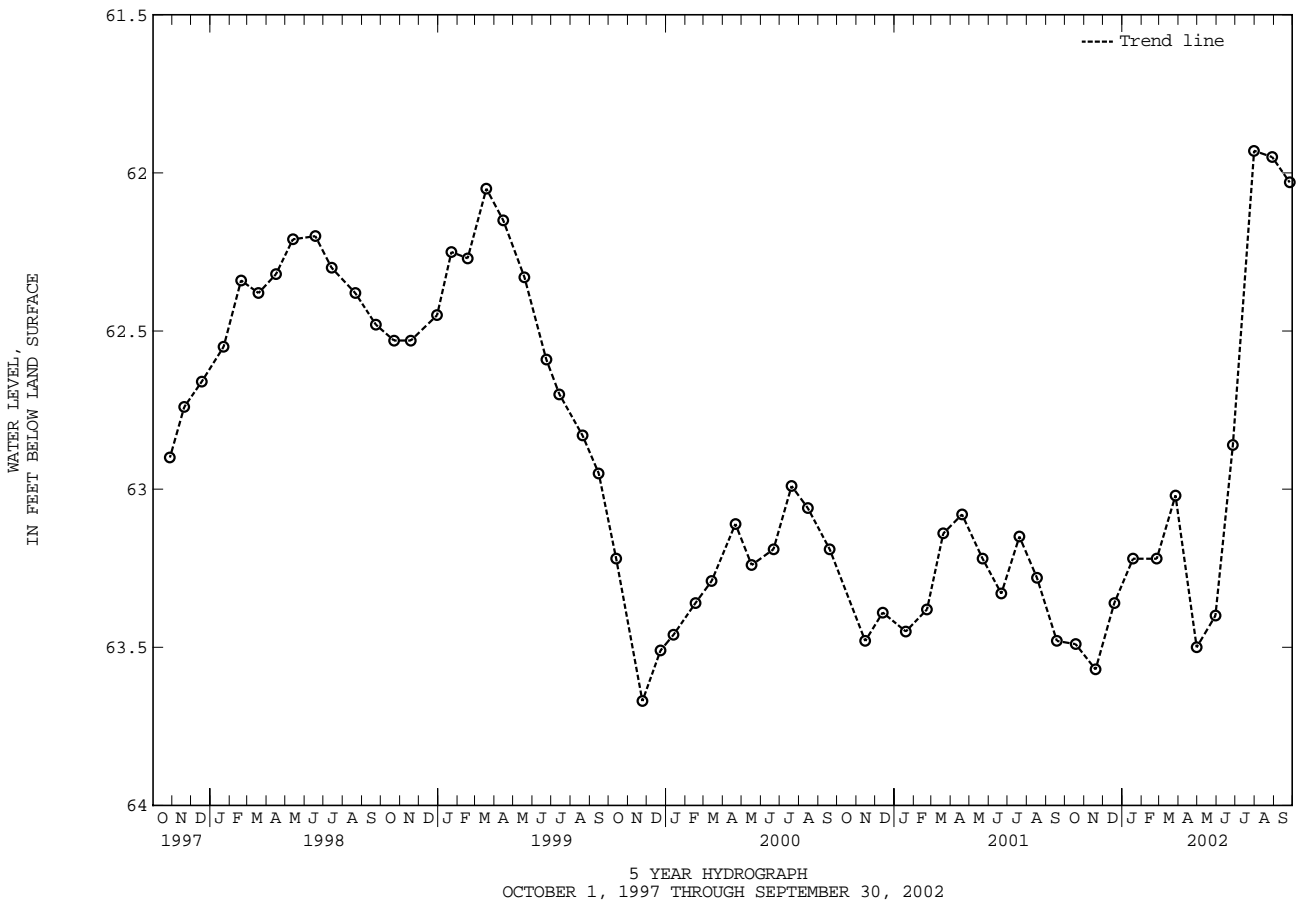
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels are affected by coal mining operations. A well depth of 394 ft below land surface was measured on April 30, 2002.

PERIOD OF RECORD.--April 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.08 ft below land surface, Jan. 12, 1981; lowest measured, 92.29 ft below land surface, April 28, 1981.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	63.49	JAN 18, 2002	63.22	APR 30, 2002	63.50	JUL 31, 2002	61.93
NOV 19	63.57	FEB 25	63.22	MAY 30	63.40	AUG 29	61.95
DEC 19	63.36	MAR 27	63.02	JUN 27	62.86	SEP 26	62.03
WATER YEAR 2002		HIGHEST	61.93	JUL 31, 2002	LOWEST	63.57	NOV 19, 2001



GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 25. SITE ID.--391530079244404. PERMIT NUMBER.--GA-73-2178.

LOCATION.--Lat 39°15'30", long 79°24'44", Hydrologic Unit 02070002, south side of Wilson Road, 500 ft west of the intersection with Wilson-Coronna Road, 0.4 mi northwest of Wilson.

Owner: U.S. Geological Survey.

AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 180 ft; casing diameter 4 in., to 120 ft; open hole

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from June 4, 1980 to Oct. 19, 1990.

DATUM.--Elevation of land surface is 2,530 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 3.00 ft above land surface.

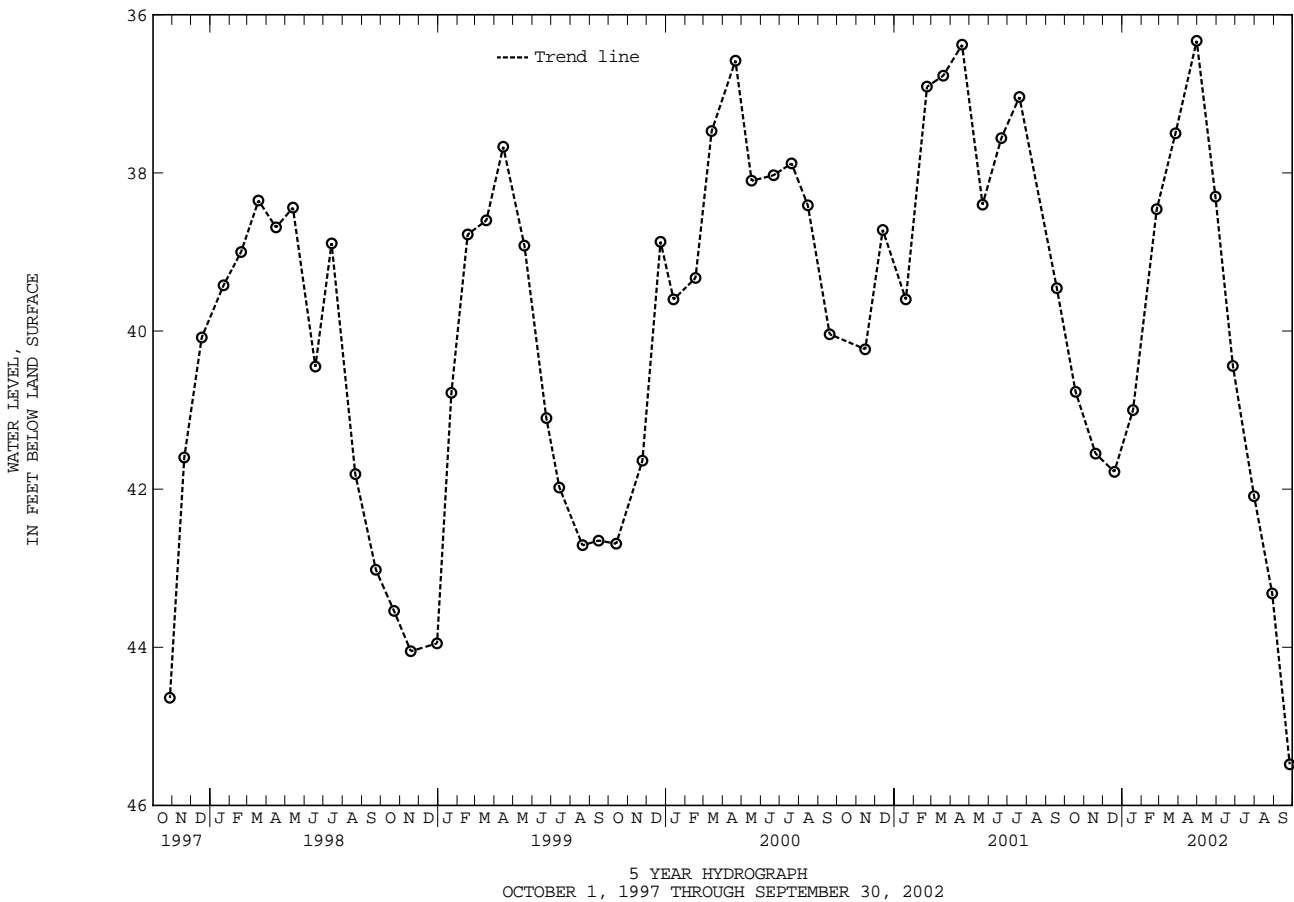
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels are affected by coal mining operations. A well depth of 121 ft below land surface was measured on April 30, 2002.

PERIOD OF RECORD.--April 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.89 ft below land surface, May 11, 1981; lowest measured, 54.18 ft below land surface, May 14, 1985.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	40.77	JAN 18, 2002	41.00	APR 30, 2002	36.33	JUL 31, 2002	42.09
NOV 19	41.55	FEB 25	38.46	MAY 30	38.30	AUG 29	43.32
DEC 19	41.78	MAR 27	37.50	JUN 27	40.44	SEP 26	45.48
WATER YEAR 2002		HIGHEST	36.33	APR 30, 2002	LOWEST	45.48	SEP 26, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

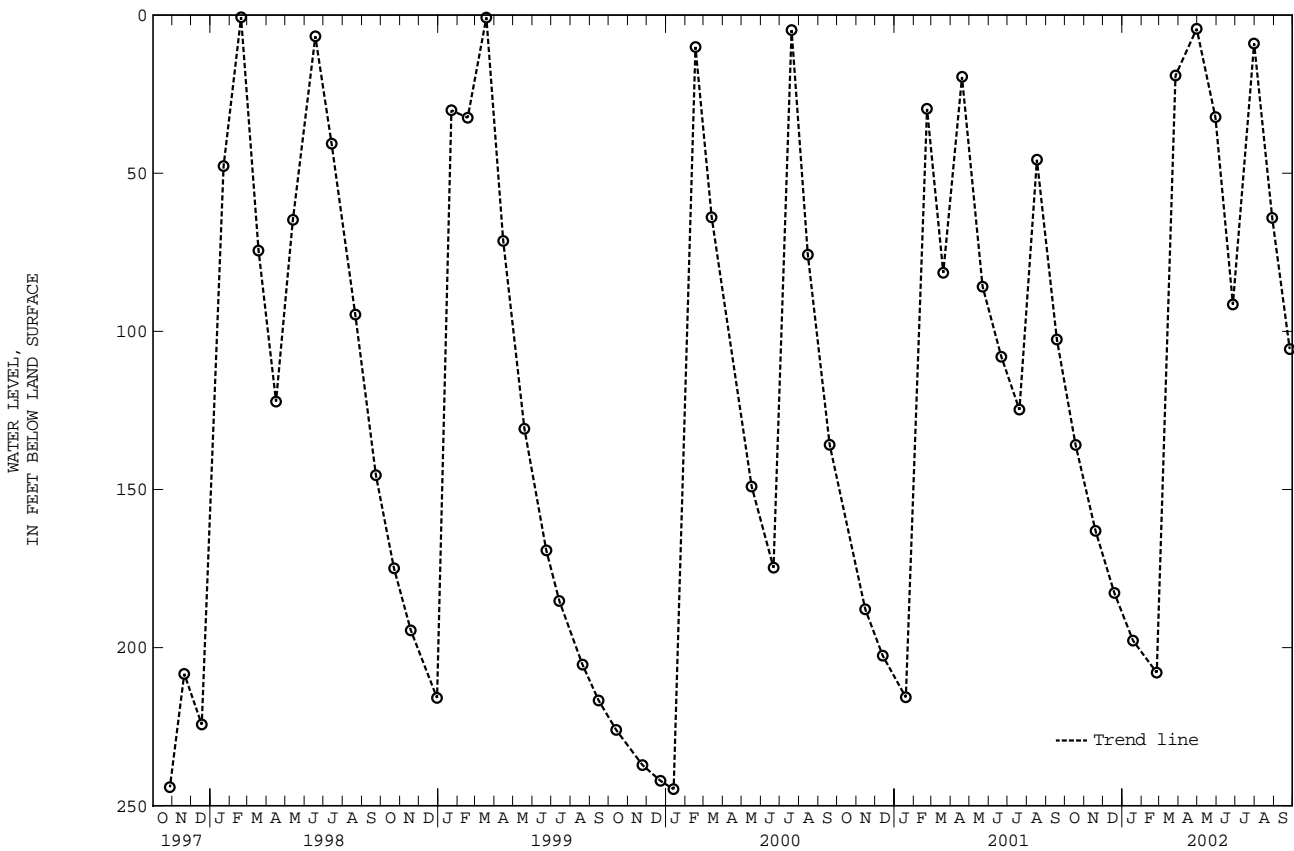
GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 27. SITE ID.--391513079243602. PERMIT NUMBER.--GA-73-2182.  
 LOCATION.--Lat 39°15'13", long 79°24'36", Hydrologic Unit 02070002, 0.6 mi west of Wilson.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 656 ft; casing diameter 4 in., to 590 ft; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from June 11, 1980, to July 26, 1990.  
 DATUM.--Elevation of land surface is 2,755 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 3.00 ft above land surface.  
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels are affected by coal mining operations. A well depth of 610 ft below land surface was measured on April 30, 2002.  
 PERIOD OF RECORD.--June 1980 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.27 ft below land surface, Feb. 9, 1994; lowest measured, 274.12 ft below land surface, Dec. 1, 1993.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	135.92	JAN 18, 2002	197.80	APR 30, 2002	4.29	JUL 31, 2002	8.95
NOV 19	163.13	FEB 25	207.91	MAY 30	32.30	AUG 29	64.12
DEC 19	182.67	MAR 27	19.14	JUN 27	91.50	SEP 26	105.58

WATER YEAR 2002      HIGHEST      4.29      APR 30, 2002      LOWEST      207.91      FEB 25, 2002



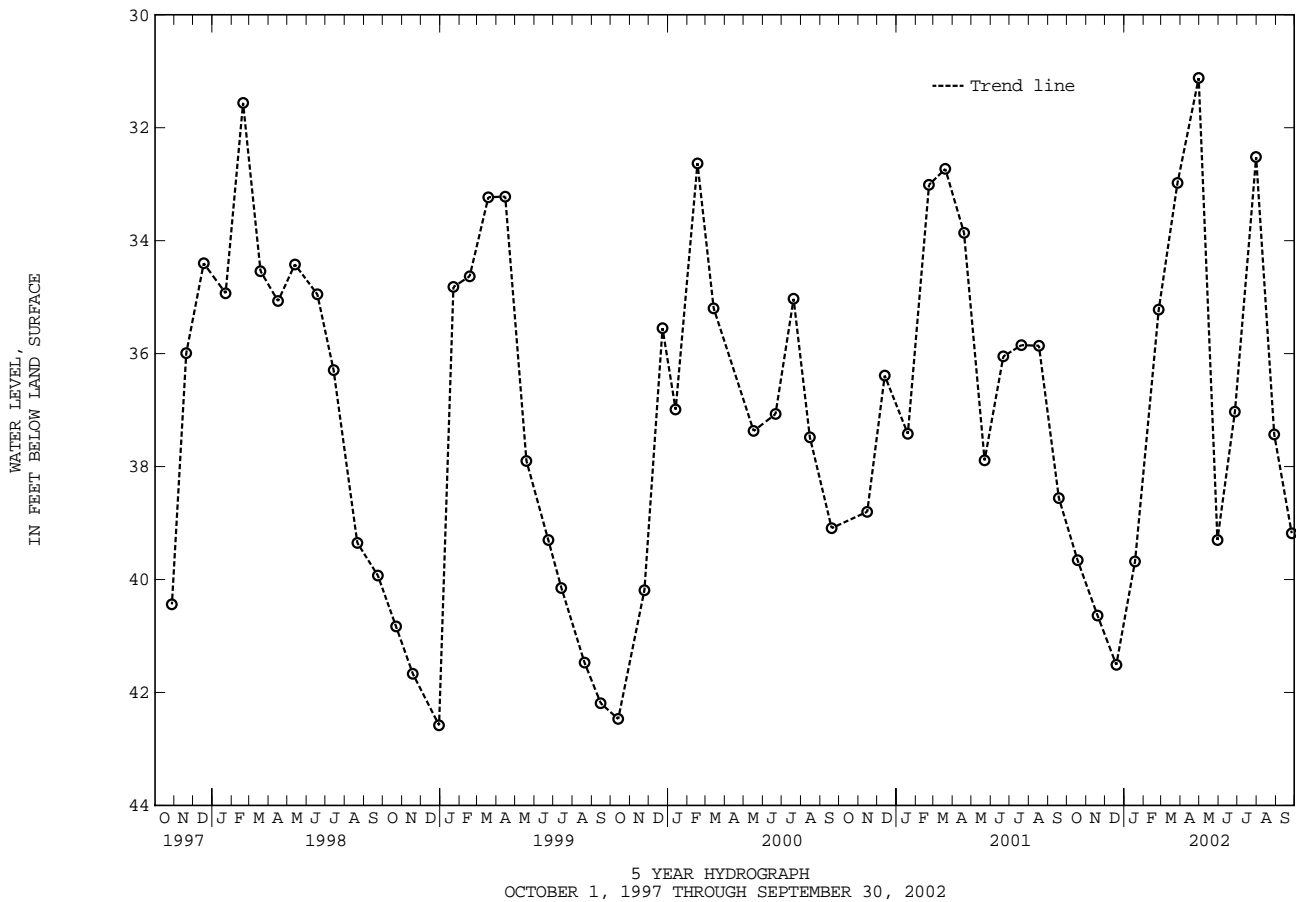
5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 30. SITE ID.--391513079243605. PERMIT NUMBER.--GA-73-2185.  
 LOCATION.--Lat 39°15'13", long 79°24'36", Hydrologic Unit 02070002, 0.6 mi west of Wilson.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 85 ft; casing diameter 4 in., to 82 ft, casing perforated from 77 to 82 ft; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from June 4, 1980 to Oct. 19, 1980.  
 DATUM.--Elevation of land surface is 2,755 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 2.00 ft above land surface.  
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels are affected by coal mining operations.  
 PERIOD OF RECORD.--June 1980 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.58 ft below land surface, April 16, 1981 (recorder); lowest measured, 45.00 ft below land surface, Nov. 6, 1991.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	39.66	JAN 18, 2002	39.68	APR 30, 2002	31.12	JUL 31, 2002	32.52
NOV 19	40.64	FEB 25	35.22	MAY 30	39.30	AUG 29	37.43
DEC 19	41.51	MAR 27	32.98	JUN 27	37.03	SEP 26	39.18
WATER YEAR 2002		HIGHEST	31.12	APR 30, 2002	LOWEST	41.51	DEC 19, 2001



GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 31. SITE ID.--391602079240301. PERMIT NUMBER.--GA-81-1332.

LOCATION.--Lat 39°16'02", long 79°24'03", Hydrologic Unit 02070002, east side of Wilson-Coronna Rd., 500 ft northeast of intersection with Fairview Rd., 1.0 mile north of Wilson.

Owner: Mettiki Coal Corp.

AQUIFER.--Allegheny Formation of Middle Pennsylvanian age. Aquifer code: 324ALGN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 795 ft; casing diameter 6 in., to 760 ft; open hole.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from March 25, 1988 to April 28, 2002.

DATUM.--Elevation of land surface is 2,676.51 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.20 ft above land surface.

REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels are affected by coal mining operations. Well collapsed on or several days after April 29, 2002, due to coal mining through the well.

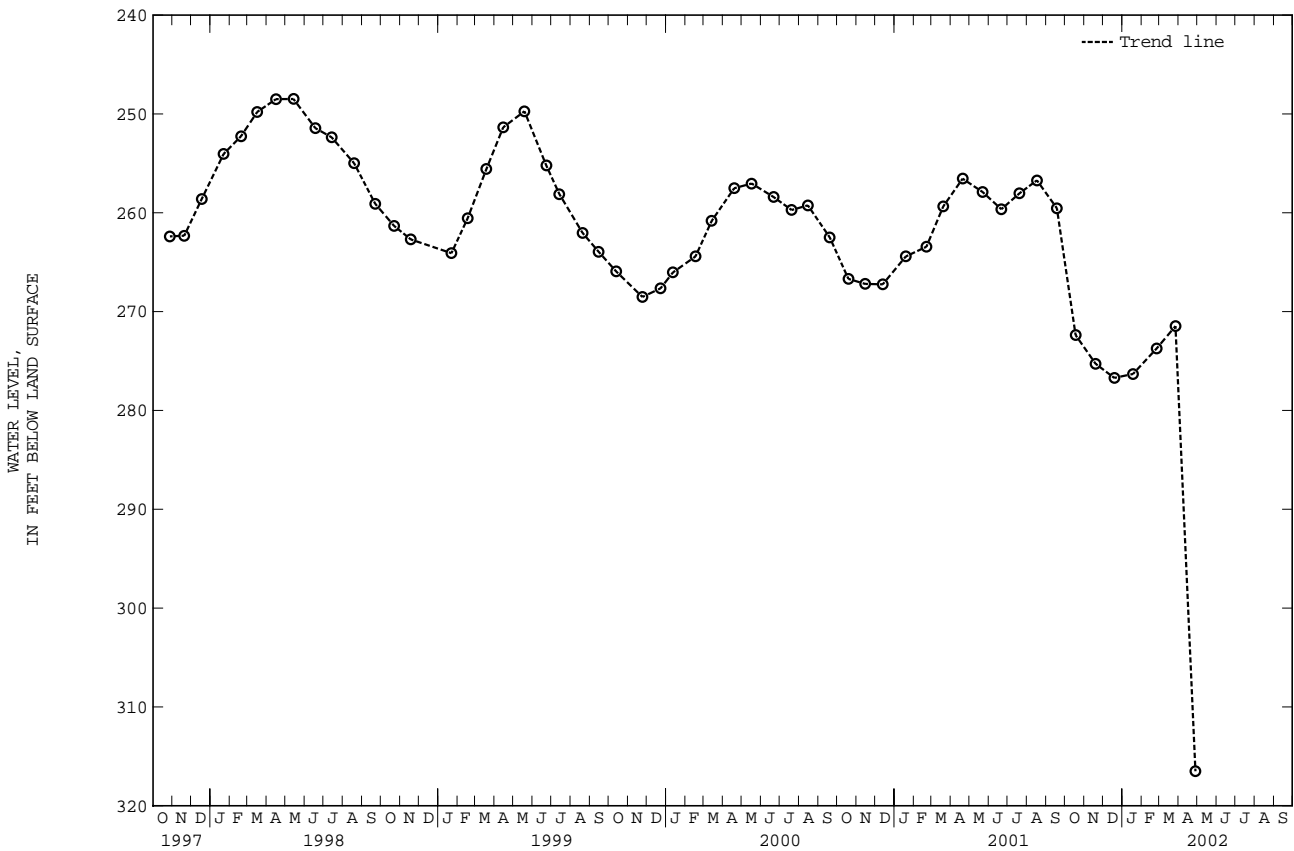
PERIOD OF RECORD.--March 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 215.43 ft below land surface, Feb. 7, 1991; lowest measured, 316.51 ft below land surface, April 28, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	272.38	DEC 19, 2001	276.71	FEB 25, 2002	273.72	APR 28, 2002	316.51
NOV 19	275.28	JAN 18, 2002	276.31	MAR 27	271.47		

WATER YEAR 2002 HIGHEST 271.47 MAR 27, 2002 LOWEST 316.51 APR 28, 2002



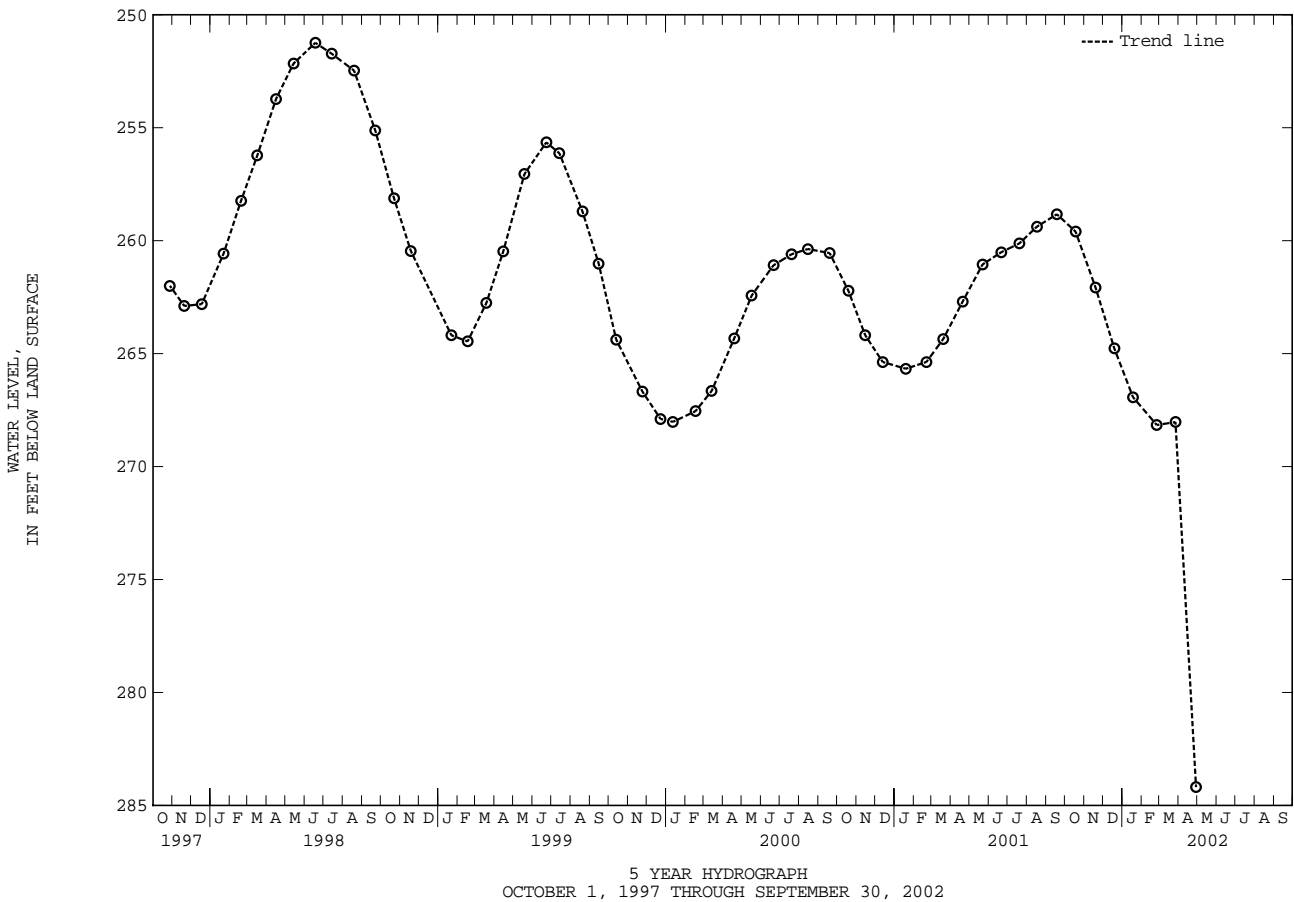
5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 32. SITE ID.--391602079240302. PERMIT NUMBER.--GA-81-1333.  
 LOCATION.--Lat 39°16'02", long 79°24'03", Hydrologic Unit 02070002, east side of Wilson-Coronna Road, 500 ft northeast of intersection with Fairview Road, 1.0 mile north of Wilson.  
 Owner: Mettiki Coal Corp.  
 AQUIFER.-- Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 736 ft; casing diameter 6 in., to 736 ft; perforated casing from 720 to 736 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from March 25, 1988 to April 29, 2002.  
 DATUM.--Elevation of land surface is 2,677.21 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.20 ft above land surface.  
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels are affected by coal mining operations. Well collapsed on or several days after April 29, 2002, due to coal mining through the well.  
 PERIOD OF RECORD.--March 1988 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 206.71 ft below land surface, March 25, 1988; lowest measured, 284.19 ft below land surface, April 29, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	259.60	DEC 19, 2001	264.77	FEB 25, 2002	268.16	APR 29, 2002	284.19
NOV 19	262.08	JAN 18, 2002	266.93	MAR 27	268.03		
WATER YEAR 2002		HIGHEST	259.60	OCT 18, 2001	LOWEST	284.19	APR 29, 2002



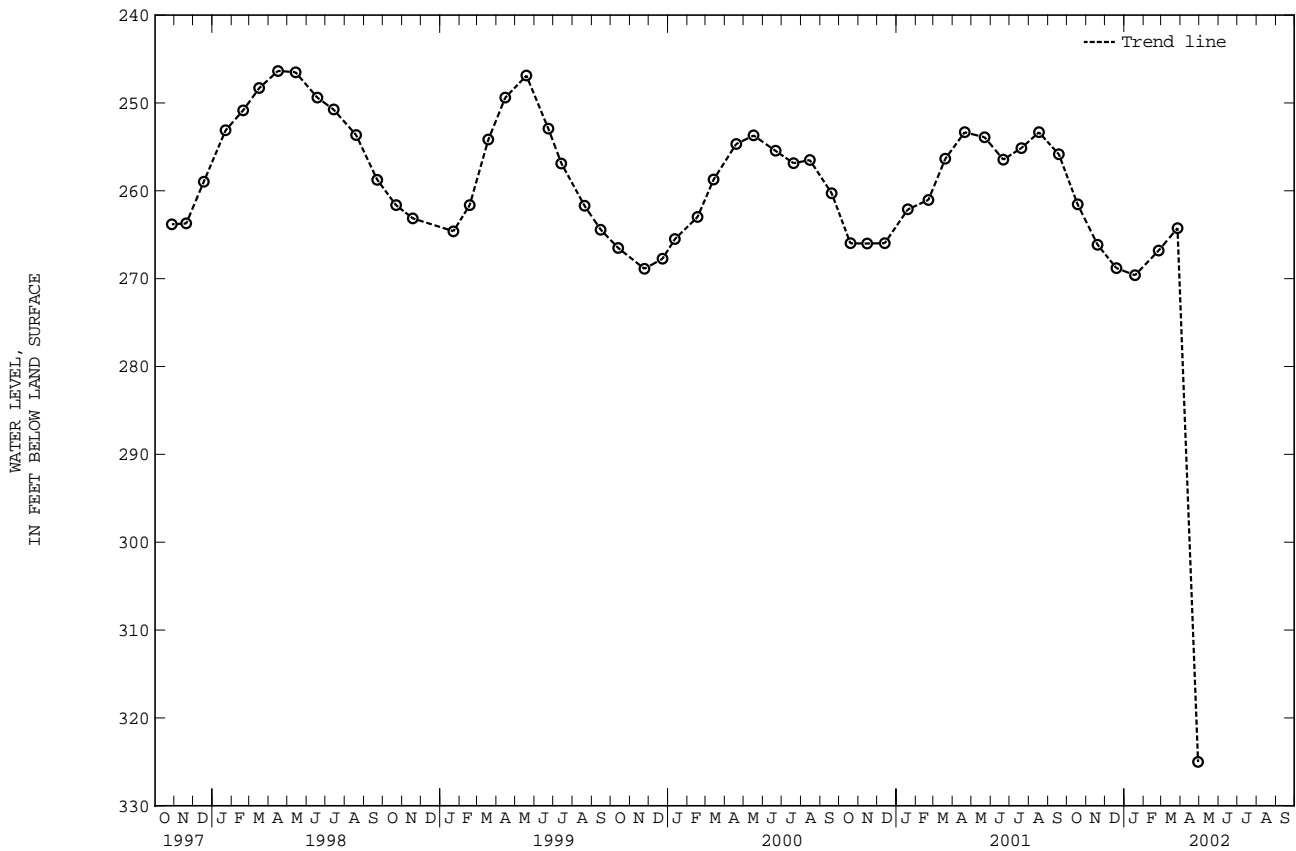
GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 34. SITE ID.--391602079240304. PERMIT NUMBER.--GA-81-1331.  
 LOCATION.--Lat 39°16'02", long 79°24'03", Hydrologic Unit 02070002, east side of Wilson-Coronna Road, 500 ft northeast of intersection with Fairview Road, 1.0 mile north of Wilson.  
 Owner: Mettiki Coal Corp.  
 AQUIFER.-- Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 390 ft; casing diameter 6 in., to 370 ft; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from March 25, 1988 to April 29, 2002.  
 DATUM.--Elevation of land surface is 2,677 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 3.20 ft above land surface.  
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels are affected by coal mining operations. Well collapsed on April 29, 2002, due to coal mining through the well.  
 PERIOD OF RECORD.--March 1988 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 202.64 ft below land surface, March 25, 1989; lowest measured, 325.02 ft below land surface, April 29, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	261.54	DEC 19, 2001	268.79	FEB 25, 2002	266.79	APR 29, 2002	325.02
NOV 19	266.14	JAN 18, 2002	269.61	MAR 27	264.25		

WATER YEAR 2002    HIGHEST 261.54    OCT 18, 2001    LOWEST 325.02    APR 29, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



GARRETT COUNTY--Continued

WELL NUMBER.--GA Ga 16. SITE ID.--391420079264901. PERMIT NUMBER.--GA-81-0953.

LOCATION.--Lat 39°14'20", long 79°26'49", Hydrologic Unit 02070002, east of Kempton Road, 100 ft north of Laurel Run, 2.8 mi southwest of Wilson.

Owner: Mettiki Coal Corp.

AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 147 ft; casing diameter 6 in., to 110 ft, open hole.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from March 25, 1988 to current year.

DATUM.--Elevation of land surface is 2,690 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of shelter floor, 3.20 ft above land surface.

REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels are affected by coal mining operations.

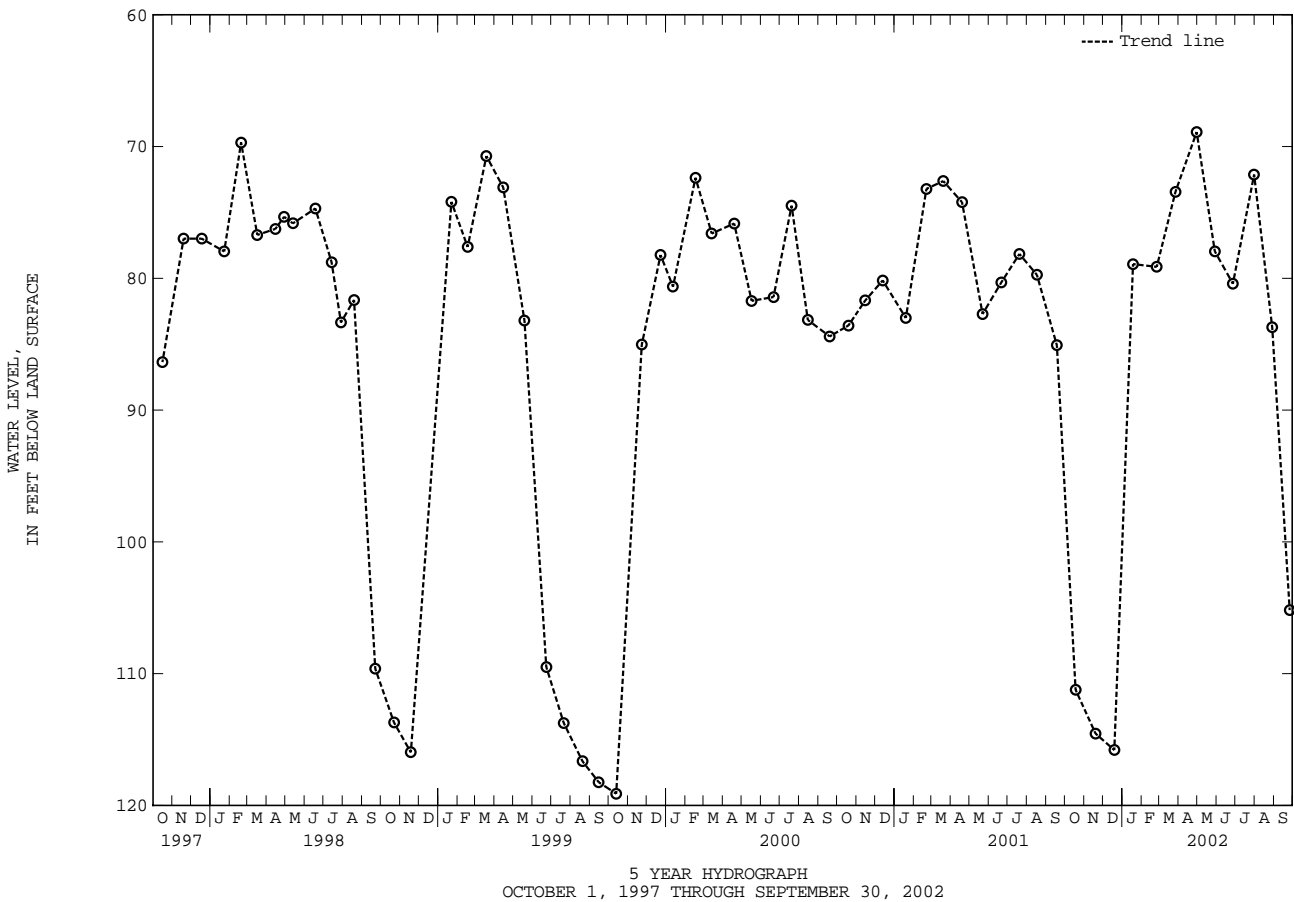
PERIOD OF RECORD.--November 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 68.90 ft below land surface, April 30, 2002; lowest measured, 145.05 ft below land surface, Sept. 22, 1988.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 2001	111.23	JAN 18, 2002	78.92	APR 30, 2002	68.90	JUL 31, 2002	72.13
NOV 19	114.55	FEB 25	79.13	MAY 29	77.95	AUG 29	83.72
DEC 19	115.80	MAR 27	73.43	JUN 27	80.41	SEP 26	105.18

WATER YEAR 2002 HIGHEST 68.90 APR 30, 2002 LOWEST 115.80 DEC 19, 2001



HARFORD COUNTY

WELL NUMBER.--HA Bd 31. SITE ID.--393902076160001.

LOCATION.--Lat 39°39'02", long 76°16'00", Hydrologic Unit 02050306, at Dublin.

Owner: Walter Lee Moody, Sr.

AQUIFER.--Baltimore Gabbro Complex of Paleozoic age. Aquifer code: 300BLMR.

WELL CHARACTERISTICS.--Dug, stone-lined, water-table well, measured depth 25.9 ft; approximate diameter 36 in.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with water-level recorder from July 9, 1954 to Aug. 5, 1958.

DATUM.--Elevation of land surface is 460 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of wood floor, 0.10 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.

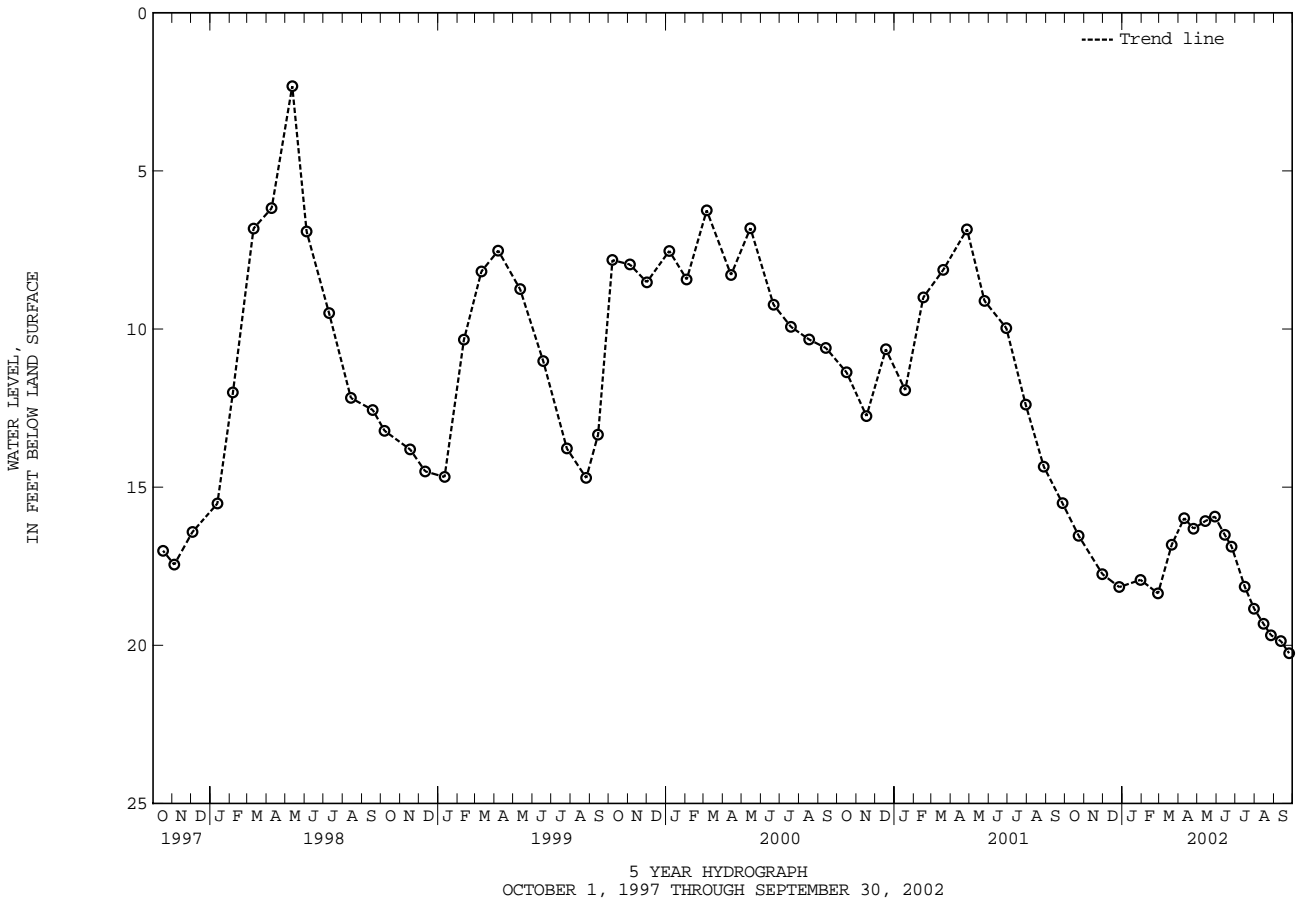
PERIOD OF RECORD.--May 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.00 ft below land surface, March 8, 1979; lowest measured, 20.25 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	16.54	MAR 21, 2002	16.82	JUN 14, 2002	16.51	AUG 27, 2002	19.68
NOV 30	17.75	APR 10	15.98	25	16.88	SEP 12	19.87
DEC 27	18.16	25	16.31	JUL 16	18.15	25	20.25
JAN 30, 2002	17.93	MAY 14	16.07	31	18.84		
FEB 27	18.36	29	15.93	AUG 15	19.32		

WATER YEAR 2002      HIGHEST    15.93    MAY 29, 2002      LOWEST    20.25    SEP 25, 2002



HARFORD COUNTY--Continued

WELL NUMBER.--HA Ca 23. SITE ID.--393158076302601. PERMIT NUMBER.--HA-73-1630.

LOCATION.--Lat 39°31'58", long 76°30'26", Hydrologic Unit 02060003, at Gunpowder State Park, Hess.

Owner: U.S. Geological Survey.

AQUIFER.--Loch Raven Formation of Cambrian age. Aquifer code: 370LCRV.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 200 ft; casing diameter 6 in., to 24 ft; open hole.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with graphic water-level recorder from July 10, 1974 to Sept. 13, 1976.

DATUM.--Elevation of land surface is 470 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.

PERIOD OF RECORD.--July 1974 to current year.

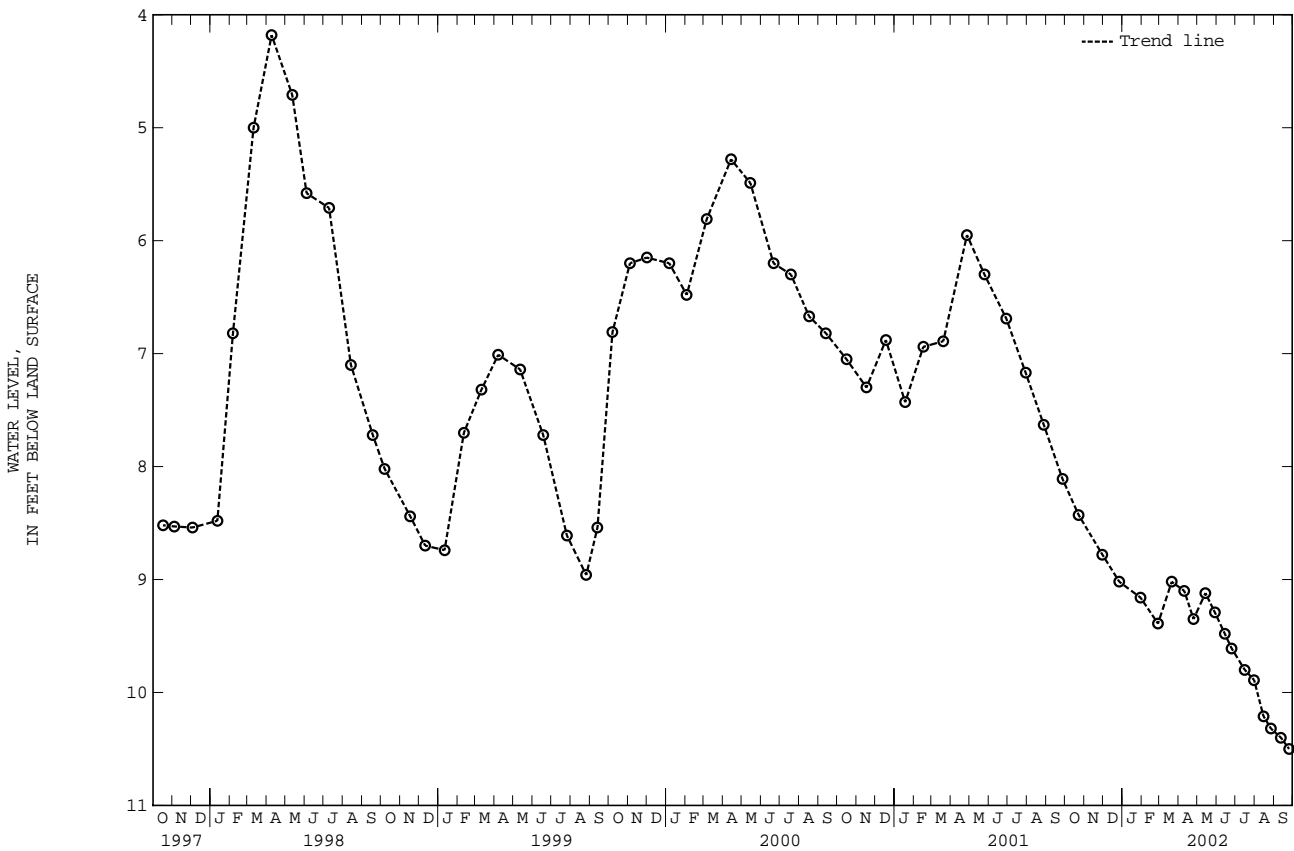
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.59 ft below land surface, Sept. 27, 1975;

lowest measured, 10.50 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	8.43	MAR 21, 2002	9.02	JUN 14, 2002	9.48	AUG 27, 2002	10.32
NOV 30	8.78	APR 10	9.10	25	9.61	SEP 12	10.40
DEC 27	9.02	25	9.35	JUL 16	9.80	25	10.50
JAN 30, 2002	9.16	MAY 14	9.12	31	9.89		
FEB 27	9.39	29	9.29	AUG 15	10.21		

WATER YEAR 2002 HIGHEST 8.43 OCT 23, 2001 LOWEST 10.50 SEP 25, 2002

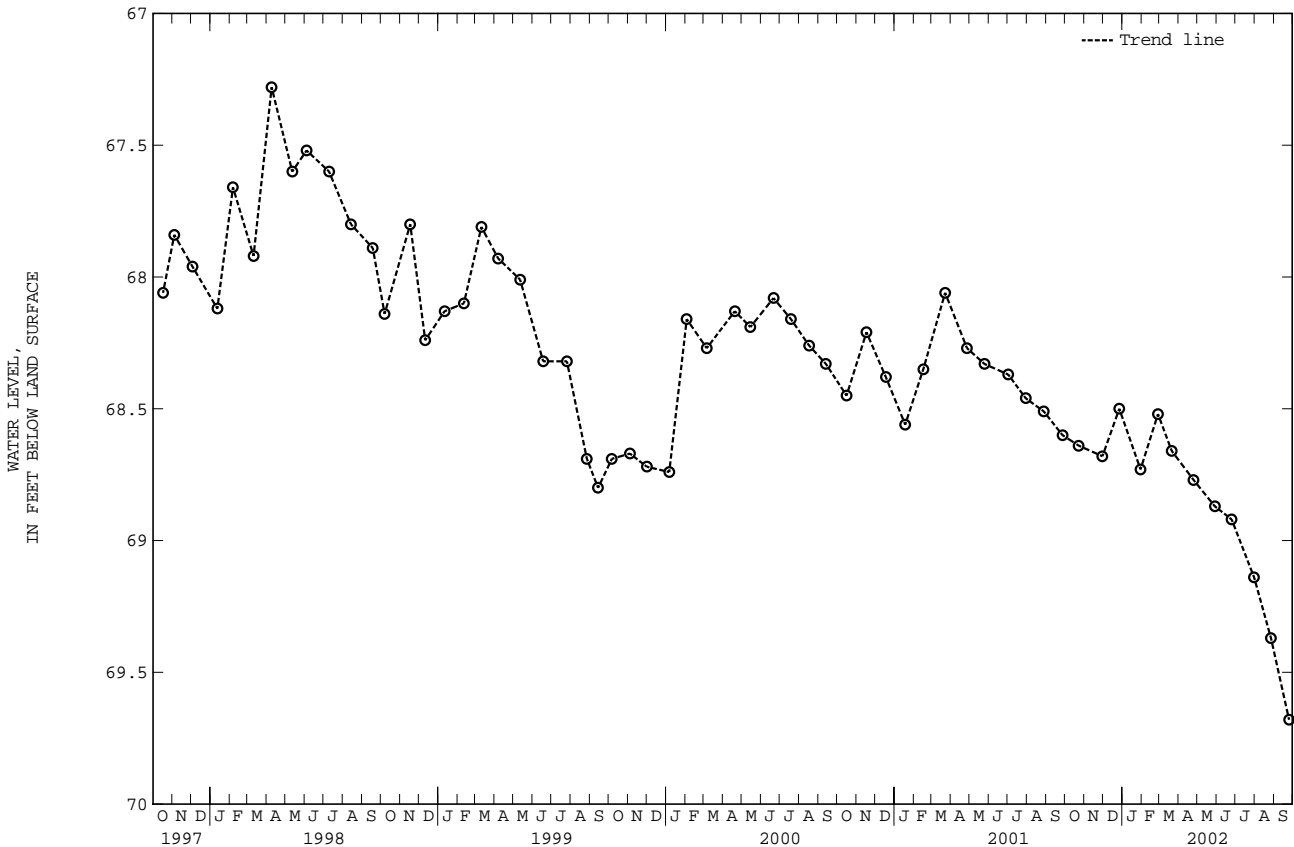


HARFORD COUNTY--Continued

WELL NUMBER.--HA Dd 89. SITE ID.--392529076180901. PERMIT NUMBER.--HA-81-4130.  
 LOCATION.--Lat 39°25'29", long 76°18'09", Hydrologic Unit 02060003, at Edgewood Elementary School on Cedar Drive, Edgewood.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 140 ft; casing diameter 4 in., to 96 ft, and 130 to 140 ft; screen diameter 4 in. from 96 to 106 ft, and 120 to 130 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological personnel. Twice yearly water level measurements with chalked steel tape from October 1990 to January 1996 by U.S. Geological Survey personnel.  
 Equipped with digital water-level recorder--15-minute recorder interval from Jan. 1, 1988 to July 11, 1989.  
 DATUM.--Elevation of land surface is 99.05 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 1.80 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.  
 PERIOD OF RECORD.--January 1988 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 67.28 ft below land surface, April 9, 1998;  
 lowest measured, 69.68 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	68.64	JAN 30, 2002	68.73	APR 25, 2002	68.77	JUL 31, 2002	69.14
NOV 30	68.68	FEB 27	68.52	MAY 29	68.87	AUG 27	69.37
DEC 27	68.50	MAR 21	68.66	JUN 25	68.92	SEP 25	69.68
WATER YEAR 2002		HIGHEST	68.50 DEC 27, 2001	LOWEST	69.68 SEP 25, 2002		



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

HARFORD COUNTY--Continued

WELL NUMBER.--HA Dd 91. SITE ID.--392721076150301. PERMIT NUMBER.--HA-81-4136.

LOCATION.--Lat 39°27'21", long 76°15'03", Hydrologic Unit 02060003, at William Longley Park, near intersection of Long Bar Harbor and Longley Roads, Long Bar Harbor.

Owner: Maryland Geological Survey.

AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.

WELL CHARACTERISTICS.--Drilled, observation, water-table well (semi-confined), depth 78 ft; casing diameter 4 in., to 58 ft, and 68 to 78 ft; screen diameter 4 in. from 58 to 68 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 19.73 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 1.90 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.

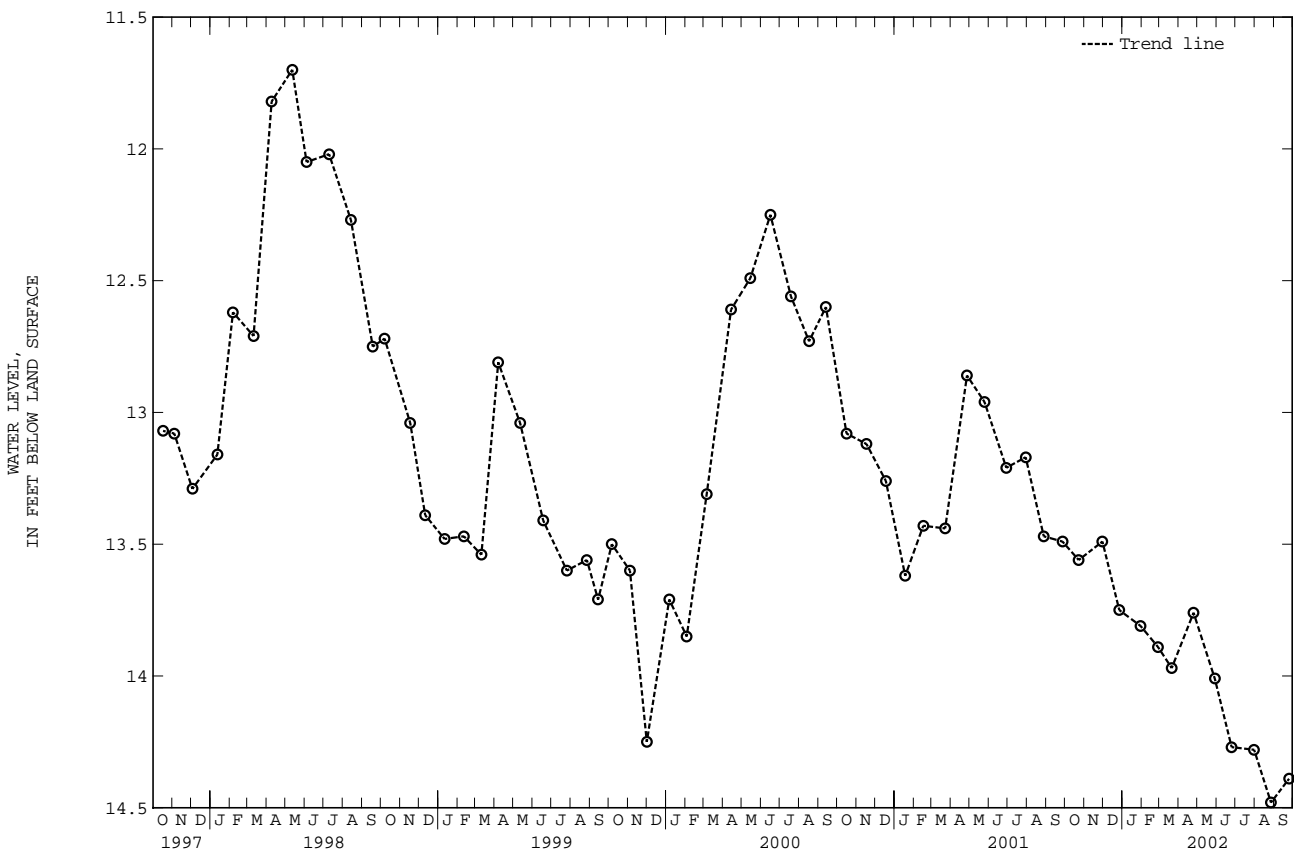
PERIOD OF RECORD.--May 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.34 ft below land surface, May 6, 1997; lowest measured, 14.48 ft below land surface, Aug. 27, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	13.56	JAN 30, 2002	13.81	APR 25, 2002	13.76	JUL 31, 2002	14.28
NOV 30	13.49	FEB 27	13.89	MAY 29	14.01	AUG 27	14.48
DEC 27	13.75	MAR 21	13.97	JUN 25	14.27	SEP 25	14.39

WATER YEAR 2002      HIGHEST    13.49    NOV 30, 2001      LOWEST    14.48    AUG 27, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

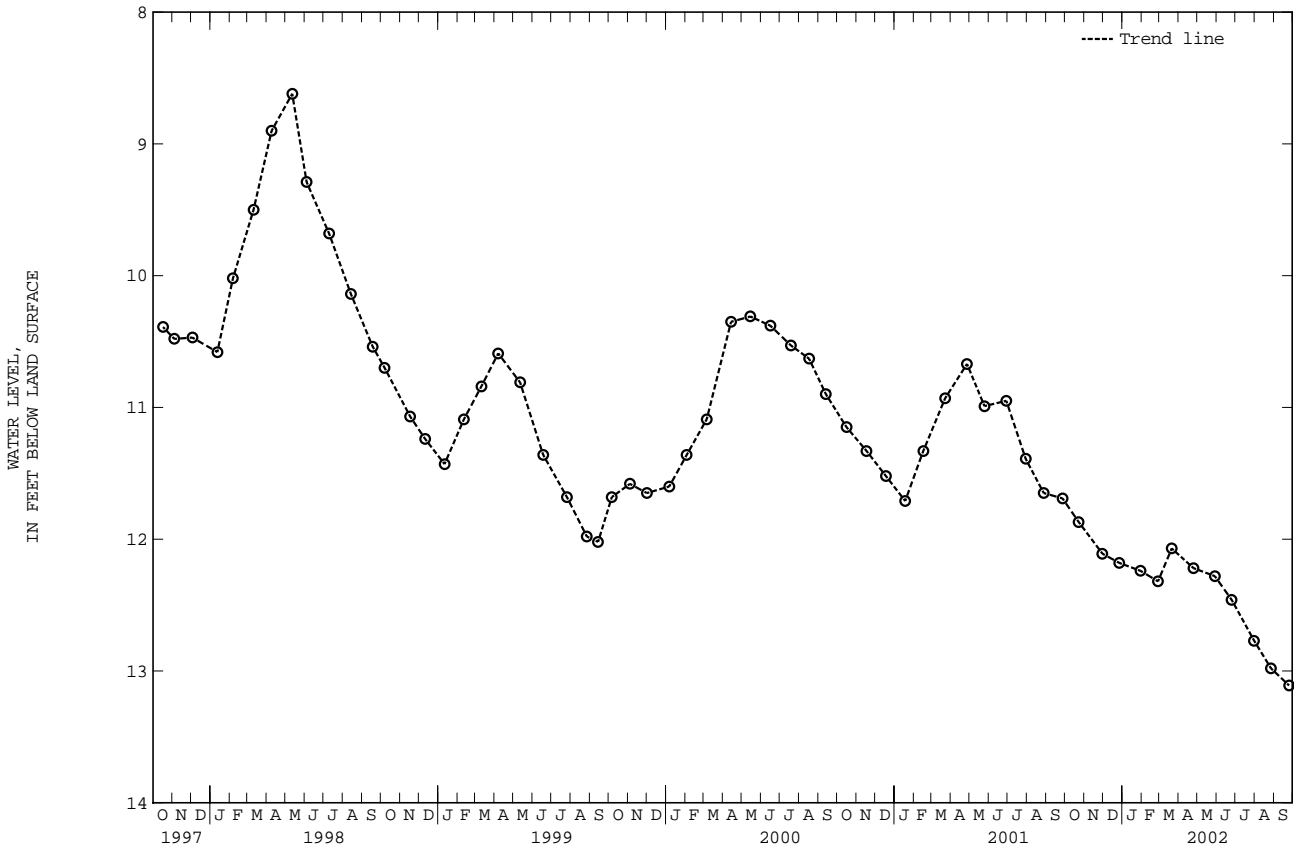
HARFORD COUNTY--Continued

WELL NUMBER.--HA Dd 92. SITE ID.--392721076150302. PERMIT NUMBER.--HA-81-4137.  
 LOCATION.--Lat 39°27'21", long 76°15'03", Hydrologic Unit 02060003, at William Longley Park, near intersection of Long Bar Harbor and Longley Roads, Long Bar Harbor.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 28 ft; casing diameter 4 in., to 18 ft; screen diameter 4 in. from 18 to 28 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 20.06 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 2.12 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--May 1988 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.35 ft below land surface, April 8, 1997.  
 lowest measured, 13.11 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	11.87	JAN 30, 2002	12.24	APR 25, 2002	12.22	JUL 31, 2002	12.77
NOV 30	12.11	FEB 27	12.32	MAY 29	12.28	AUG 27	12.98
DEC 27	12.18	MAR 21	12.07	JUN 25	12.46	SEP 25	13.11

WATER YEAR 2002      HIGHEST 11.87 OCT 23, 2001      LOWEST 13.11 SEP 25, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

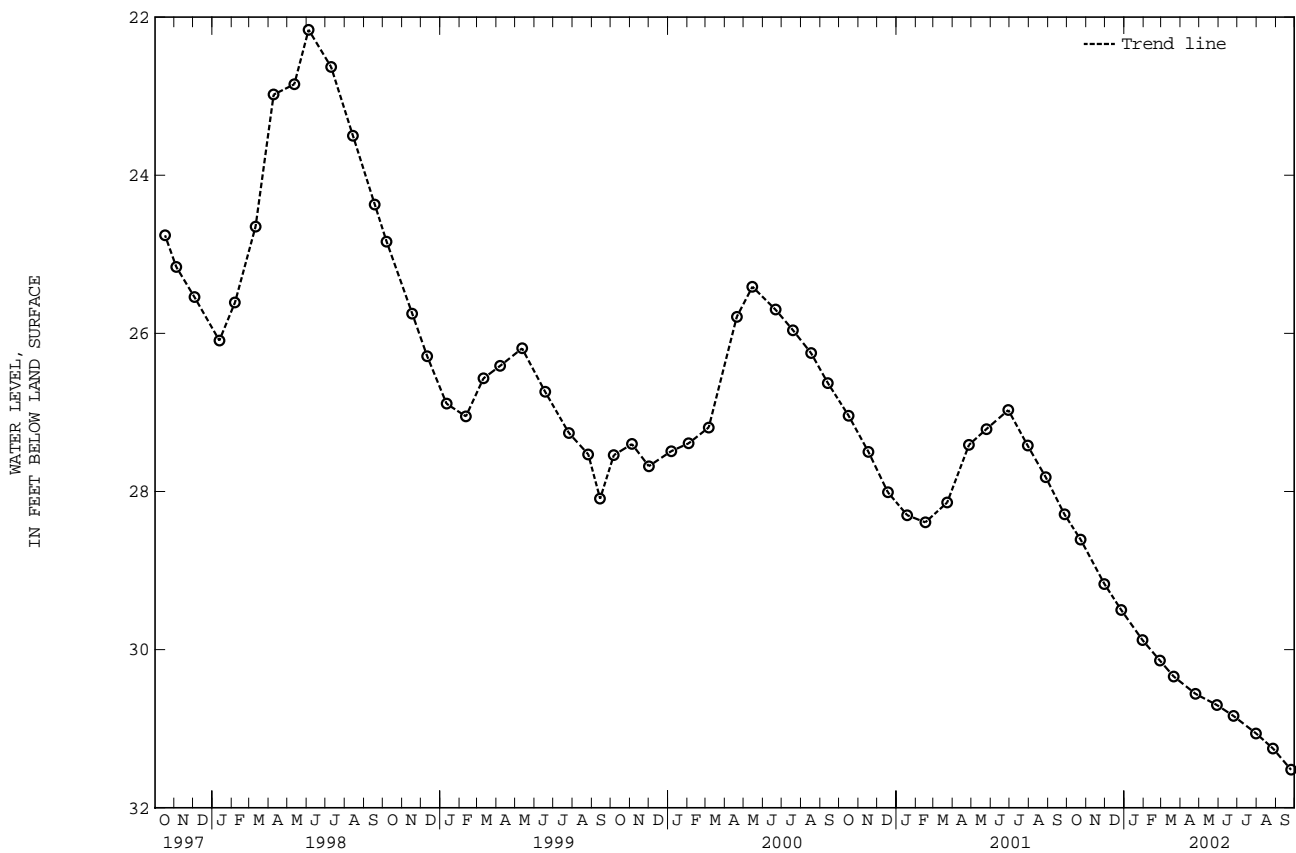
HARFORD COUNTY--Continued

WELL NUMBER.--HA De 66. SITE ID.--392921076100401. PERMIT NUMBER.--HA-69-0394.  
 LOCATION.--Lat 39°29'21", long 76°10'04", Hydrologic Unit 02060003, at Short Lane, near Aberdeen.  
 Owner: Harford County Department of Public Works.  
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.  
 WELL CHARACTERISTICS.--Drilled, unused, water-table well (semi-confined), depth 66 ft; casing diameter 4 in., to 45 ft; screen diameter 4 in. from 45 to 66 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from Dec. 12, 1986 to July 11, 1989.  
 DATUM.--Elevation of land surface is 67.75 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 1.61 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--October 1973 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.31 ft below land surface, July 28, 1975; lowest measured, 31.52 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	28.61	JAN 30, 2002	29.88	APR 25, 2002	30.56	JUL 31, 2002	31.06
NOV 30	29.17	FEB 27	30.14	MAY 29	30.70	AUG 27	31.25
DEC 27	29.50	MAR 21	30.34	JUN 25	30.84	SEP 25	31.52

WATER YEAR 2002      HIGHEST    28.61    OCT 23, 2001      LOWEST    31.52    SEP 25, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

HARFORD COUNTY--Continued

WELL NUMBER.--HA De 181. SITE ID.--392606076145801. PERMIT NUMBER.--HA-81-4134.  
 LOCATION.--Lat 39°26'06", long 76°14'58", Hydrologic Unit 02060003, northeast end of Kennard Ave., at Willoughby Beach, Crestwood.

Owner: Maryland Geological Survey.

AQUIFER.--Patuxent aquifer in the Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 290 ft; casing diameter 4 in., to 264 ft, 269 to 275 ft, and 280 to 290 ft; screen diameter 4 in. from 264 to 269 ft, and 275 to 280 ft.

INSTRUMENTATION.--Twice yearly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--15-minute recorder interval from May 24, 1988 to July 11, 1989.

DATUM.--Elevation of land surface is 12.22 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.10 ft above land surface.

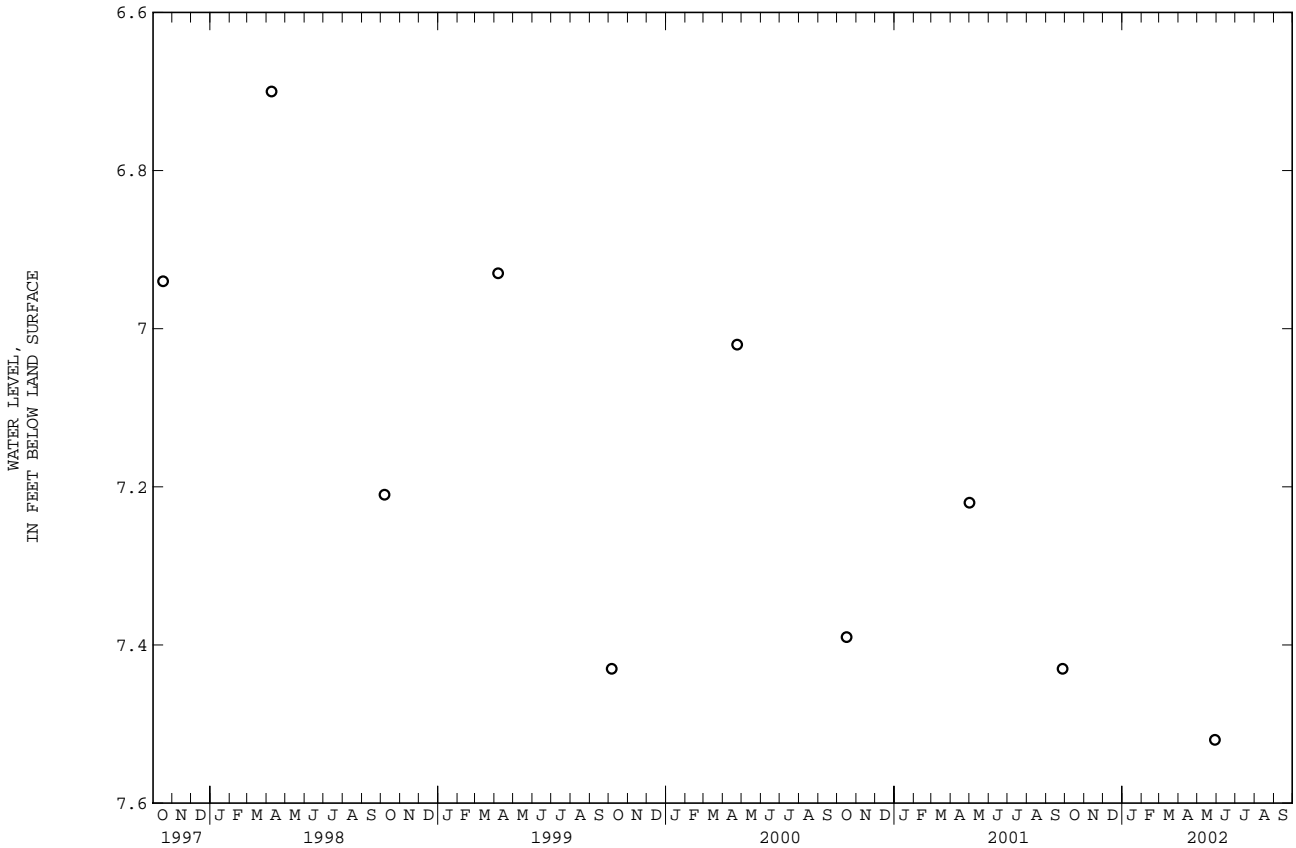
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal.

PERIOD OF RECORD.--May 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.42 ft below land surface, April 8, 1997;  
 lowest measured, 7.93 ft below land surface, Dec. 22, 1988.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL
MAY 29, 2002	7.52



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

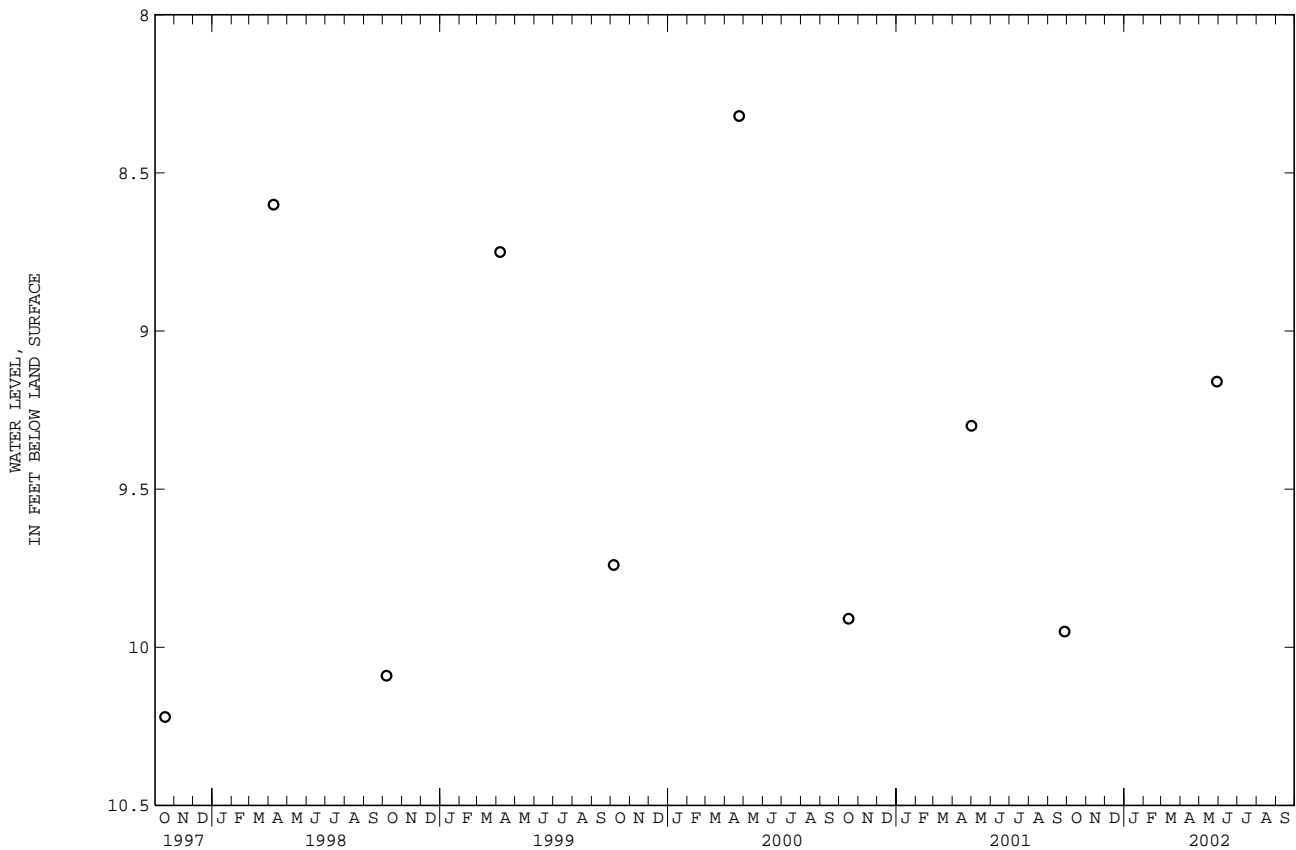


HARFORD COUNTY--Continued

WELL NUMBER.--HA De 182. SITE ID.--392606076145802. PERMIT NUMBER.--HA-81-4135.  
 LOCATION.--Lat 39°26'06", long 76°14'58", Hydrologic Unit 02060003, northeast end of Kennard Ave., at Willoughby Beach, Crestwood.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 50 ft; casing diameter 4 in., to 30 ft, and 40 to 50 ft; screen diameter 4 in. from 30 to 40 ft.  
 INSTRUMENTATION.--Twice yearly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--15-minute recorder interval from July 21, 1988 to July 11, 1989.  
 DATUM.--Elevation of land surface is 12.29 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 2.52 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--May 1988 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.12 ft below land surface, June 7, 1989;  
 lowest measured, 11.04 ft below land surface, Oct. 5, 1993.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL
MAY 29, 2002	9.16



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

HARFORD COUNTY--Continued

WELL NUMBER.--HA De 183. SITE ID.--392606076145803. PERMIT NUMBER.--HA-81-4577.

LOCATION.--Lat 39°26'06", long 76°14'58", Hydrologic Unit 02060003, northeast end of Kennard Ave., at Willoughby Beach, Crestwood.

Owner: Maryland Geological Survey.

AQUIFER.--Patuxent aquifer in the Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 175 ft; casing diameter 4 in., to 155 ft, and 165 to 175 ft; screen diameter 4 in. from 155 to 165 ft.

INSTRUMENTATION.--Twice yearly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--15-minute recorder interval from May 24, 1988 to July 11, 1989.

DATUM.--Elevation of land surface is 12.53 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.54 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal.

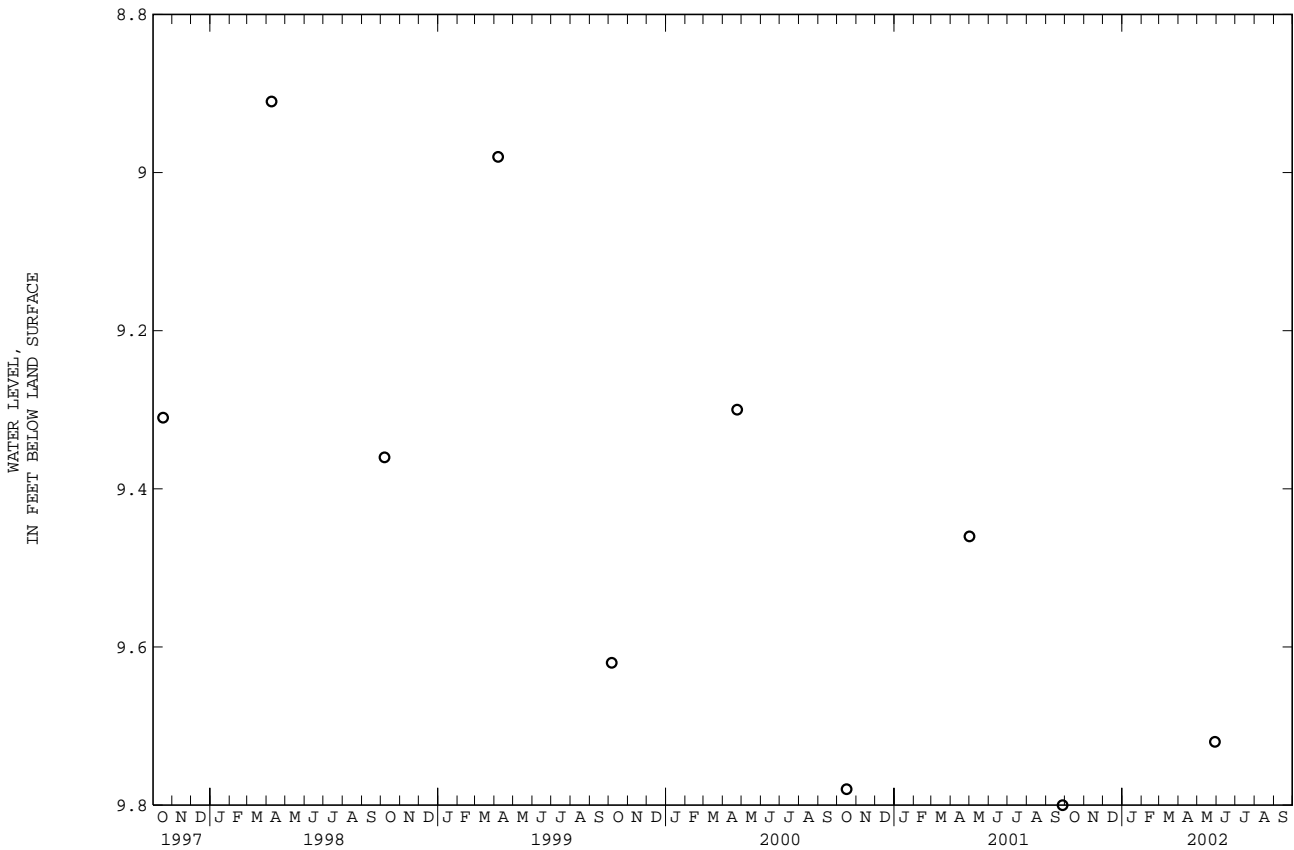
PERIOD OF RECORD.--May 1988 to July 1989, April 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.66 ft below land surface, Oct. 16, 1996;

lowest measured, 10.43 ft below land surface, Nov. 3, 1988.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL
MAY 29, 2002	9.72



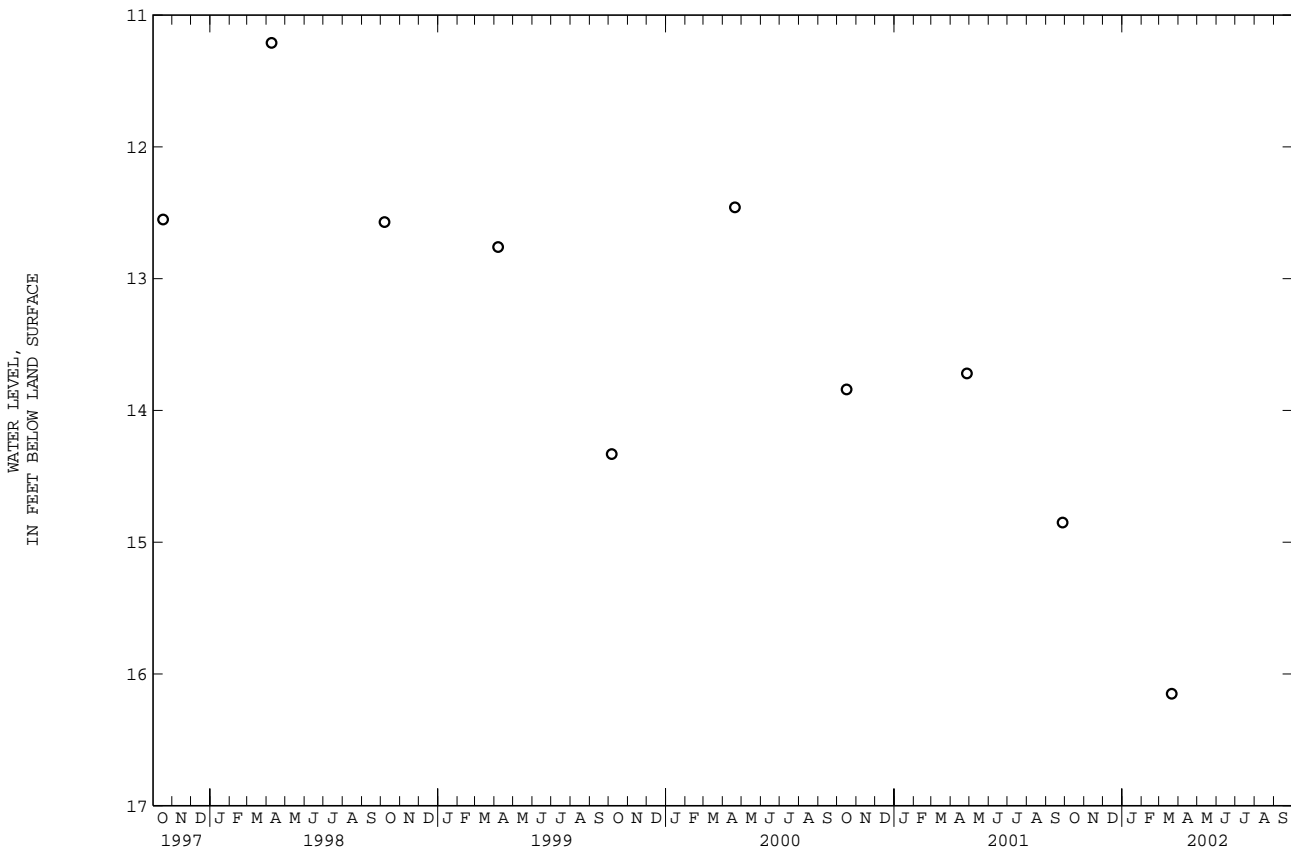
5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

HARFORD COUNTY--Continued

WELL NUMBER.--HA De 195. SITE ID.--392914076110301. PERMIT NUMBER.--HA-81-4142.  
 LOCATION.--Lat 39°29'14", long 76°11'03", Hydrologic Unit 02060003, 0.2 mi east on Cranberry Run Dr., near Perryman.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TBLT.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 55 ft; casing diameter 4 in., to 35 ft; and 45 to 55 ft; screen diameter 4 in. from 35 to 45 ft.  
 INSTRUMENTATION.--Twice yearly water level measurements with electric tape by U.S. Geological Survey personnel. Monthly water level measurements from May 1988 to July 1989.  
 DATUM.--Elevation of land surface is 52.70 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of PVC casing, 1.38 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--May 1988 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.96 ft below land surface, April 8, 1997;  
 lowest measured, 16.15 ft below land surface, March 21, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL
MAR 21, 2002	16.15



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## GROUND-WATER LEVELS IN MARYLAND--Continued

## HARFORD COUNTY--Continued

WELL NUMBER.--HA De 198. SITE ID.--392819076130902. PERMIT NUMBER.--HA-81-4141.  
 LOCATION.--Lat 39°28'19", long 76°13'09", Hydrologic Unit 02060003, northwest end of Fords Lane, Perryman.  
 Owner: Kelly and George Hallgren. (formerly Maryland Geological Survey).  
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 19 ft; casing diameter 4 in., to 9 ft;  
 screen diameter 4 in. from 9 to 19 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with  
 digital water-level recorder--30-minute recorder interval from January 18, 1989 to July 10, 1989 and from Jan. 4, 1991,  
 to current year.  
 DATUM.--Elevation of land surface is 18.92 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 1.50 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Missing data due to recorder malfunction.  
 PERIOD OF RECORD.--May 1988 to August 1989, July 1991 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.57 ft above sea level, Sept. 16, 1999 (recorder);  
 lowest measured, 7.62 ft above sea level. Sept. 26, 2002 (recorder).

## WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.67	9.64	9.31	9.30	9.35	9.30	9.56	9.53	9.36	9.27	8.85	8.82
2	9.64	9.60	9.32	9.31	9.39	9.35	9.57	9.56	9.27	9.24	8.89	8.82
3	9.60	9.58	9.34	9.32	9.41	9.39	9.57	9.56	9.30	9.25	8.94	8.89
4	9.58	9.56	9.35	9.34	9.43	9.41	9.60	9.57	9.30	9.23	8.92	8.91
5	9.56	9.54	9.37	9.35	9.43	9.43	9.62	9.60	9.23	9.19	8.93	8.91
6	9.54	9.50	9.38	9.37	9.45	9.43	9.62	9.42	9.21	9.20	8.95	8.93
7	9.50	9.47	9.39	9.37	9.48	9.45	9.42	9.30	9.21	9.19	8.95	8.93
8	9.47	9.44	9.40	9.39	9.49	9.48	9.31	9.28	9.19	9.14	8.93	8.91
9	9.44	9.43	9.42	9.40	9.51	9.49	9.28	9.25	9.14	9.09	8.96	8.91
10	9.43	9.42	9.42	9.41	9.51	9.50	9.31	9.27	9.17	9.09	8.96	8.91
11	9.42	9.40	9.45	9.42	9.50	9.50	9.31	8.75	9.17	9.07	8.91	8.89
12	9.40	9.38	9.46	9.45	9.50	9.47	9.12	9.03	9.10	9.07	8.93	8.91
13	9.38	9.36	9.46	9.46	9.47	9.44	9.22	9.09	9.08	9.02	9.01	8.93
14	9.37	9.36	9.47	9.46	9.44	9.42	9.24	9.22	9.02	9.01	9.00	8.97
15	9.37	9.34	9.48	9.47	9.45	9.43	9.29	9.22	9.04	9.02	9.01	8.97
16	9.35	9.34	9.49	9.48	9.45	9.44	9.32	9.29	9.04	9.04	9.01	8.95
17	9.34	9.31	9.51	9.48	9.44	9.37	9.34	9.31	9.04	8.98	8.97	8.93
18	9.31	9.29	9.51	9.51	9.37	9.33	9.40	9.34	8.98	8.95	9.10	8.97
19	9.29	9.27	9.51	9.51	9.37	9.33	9.40	9.37	8.96	8.95	9.11	9.10
20	9.27	9.25	9.54	9.51	9.37	9.33	9.44	9.37	8.99	8.96	10.90	9.11
21	9.25	9.24	9.54	9.54	9.42	9.37	9.45	9.43	8.99	8.95	10.05	9.58
22	9.24	9.23	9.56	9.54	9.43	9.42	9.51	9.45	8.95	8.93	9.58	9.52
23	9.23	9.18	9.57	9.56	9.43	9.41	9.51	9.49	8.93	8.91	9.56	9.52
24	9.20	9.19	9.58	9.57	9.42	9.39	9.49	8.81	8.91	8.89	9.52	9.49
25	9.22	9.19	9.58	8.08	9.41	9.39	9.19	9.00	8.91	8.89	9.49	9.43
26	9.24	9.22	9.21	8.69	9.40	9.38	9.20	9.18	8.93	8.91	9.51	9.43
27	9.27	9.24	9.18	9.17	9.42	9.39	9.20	9.18	8.91	8.88	9.65	9.51
28	9.28	9.27	9.23	9.18	9.43	9.42	9.20	9.19	8.88	8.85	9.63	9.61
29	9.28	9.28	9.27	9.23	9.48	9.43	9.23	9.20	---	---	9.63	9.61
30	9.30	9.28	9.30	9.27	9.51	9.48	9.31	9.23	---	---	9.63	9.56
31	9.31	9.30	---	---	9.53	9.51	9.28	9.26	---	---	9.56	9.54
MONTH	9.67	9.18	9.58	8.08	9.53	9.30	9.62	8.75	9.36	8.85	10.90	8.82

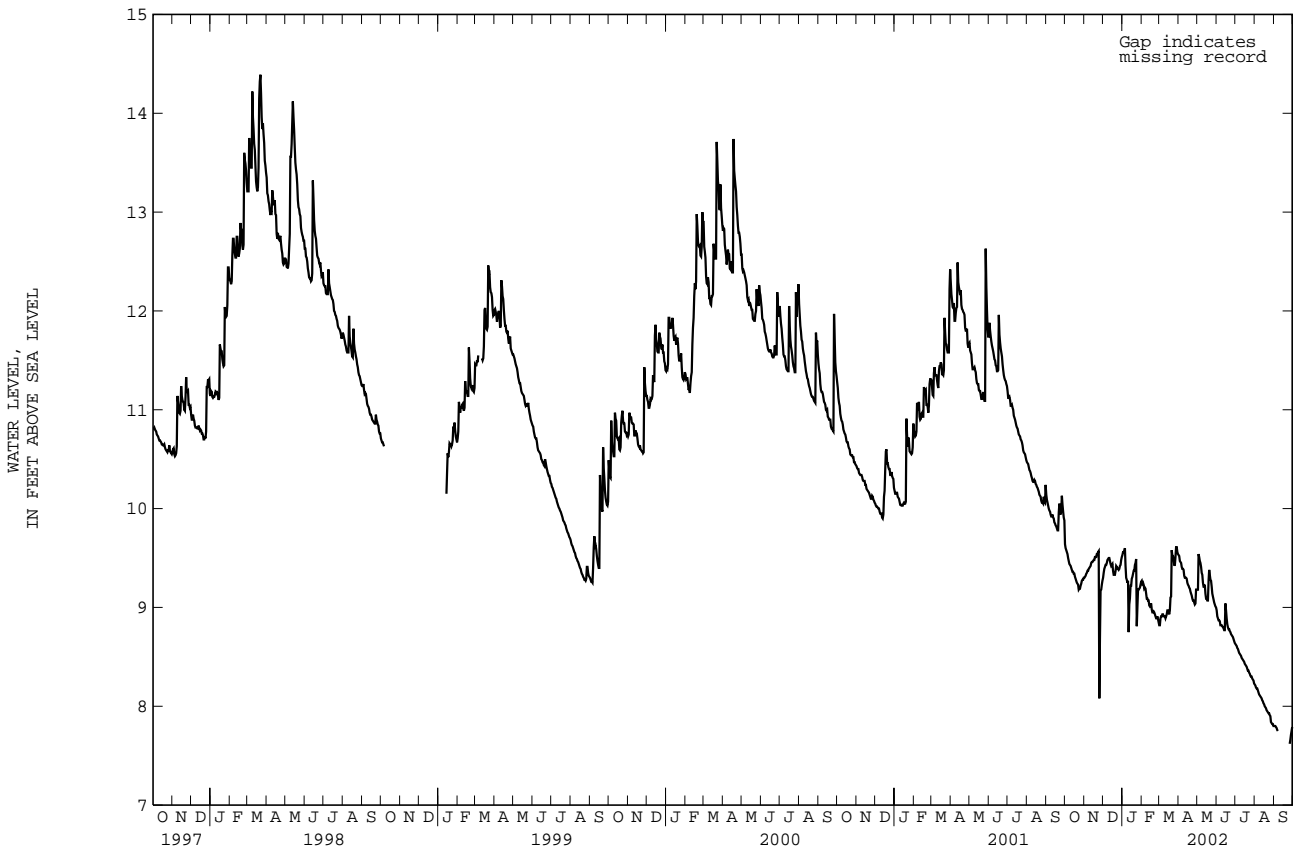
HARFORD COUNTY--Continued

HA De 198--Continued

WATER LEVELS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.56	9.53	9.20	9.18	9.00	8.97	8.64	8.63	8.24	8.22	7.80	7.80
2	9.55	9.52	10.06	9.18	8.97	8.91	8.63	8.62	8.22	8.21	7.80	7.80
3	9.55	9.47	9.79	9.54	8.91	8.89	8.62	8.61	8.21	8.19	7.80	7.80
4	9.47	9.46	9.54	9.51	8.89	8.87	8.61	8.59	8.19	8.18	7.80	7.79
5	9.47	9.45	9.52	9.47	8.88	8.87	8.59	8.58	8.18	8.18	7.79	7.78
6	9.46	9.41	9.47	9.45	8.87	8.86	8.58	8.56	8.18	8.16	7.78	7.76
7	9.41	9.39	9.45	9.41	8.86	8.82	8.56	8.54	8.16	8.14	7.76	7.75
8	9.41	9.39	9.41	9.35	8.82	8.82	8.54	8.53	8.14	8.12	---	---
9	9.40	9.38	9.35	9.33	8.82	8.82	8.53	8.52	8.12	8.11	---	---
10	9.38	9.32	9.33	9.25	8.82	8.81	8.52	8.51	8.11	8.10	---	---
11	9.32	9.30	9.25	9.21	8.81	8.80	8.51	8.49	8.10	8.09	---	---
12	9.31	9.30	9.23	9.21	8.80	8.79	8.49	8.48	8.09	8.08	---	---
13	9.31	9.30	9.25	9.23	8.79	8.77	8.48	8.47	8.08	8.06	---	---
14	9.30	9.29	9.23	9.14	9.04	8.77	8.47	8.46	8.06	8.05	---	---
15	9.30	9.25	9.14	9.09	9.07	9.04	8.46	8.45	8.05	8.03	---	---
16	9.25	9.23	9.09	9.09	9.04	8.97	8.45	8.43	8.03	8.02	---	---
17	9.23	9.22	9.09	9.07	8.97	8.89	8.43	8.42	8.02	8.00	---	---
18	9.22	9.20	9.27	9.07	8.89	8.83	8.42	8.41	8.00	7.99	---	---
19	9.20	9.19	9.40	9.27	8.83	8.80	8.41	8.40	7.99	7.98	---	---
20	9.19	9.16	9.40	9.38	8.80	8.78	8.40	8.38	7.98	7.96	---	---
21	9.16	9.14	9.38	9.33	8.79	8.78	8.38	8.36	7.96	7.95	---	---
22	9.15	9.12	9.33	9.28	8.78	8.76	8.36	8.36	7.95	7.94	---	---
23	9.12	9.09	9.28	9.27	8.76	8.75	8.36	8.34	7.94	7.93	---	---
24	9.09	9.07	9.27	9.21	8.75	8.73	8.34	8.33	7.93	7.93	---	---
25	9.09	9.07	9.21	9.14	8.73	8.72	8.33	8.31	7.93	7.91	---	---
26	9.07	9.05	9.14	9.11	8.72	8.71	8.31	8.30	7.91	7.90	7.66	7.62
27	9.05	9.03	9.11	9.08	8.71	8.70	8.30	8.30	7.90	7.84	7.71	7.66
28	9.19	9.04	9.08	9.05	8.70	8.68	8.30	8.28	7.84	7.83	7.75	7.71
29	9.19	9.18	9.05	9.03	8.68	8.66	8.28	8.27	7.83	7.82	7.79	7.75
30	9.20	9.18	9.03	9.01	8.66	8.64	8.27	8.26	7.82	7.82	7.82	7.79
31	---	---	9.01	9.00	---	---	8.26	8.23	7.82	7.80	---	---
MONTH	9.56	9.03	10.06	9.00	9.07	8.64	8.64	8.23	8.24	7.80	---	---

Daily Low Water Levels



GROUND-WATER LEVELS IN MARYLAND--Continued

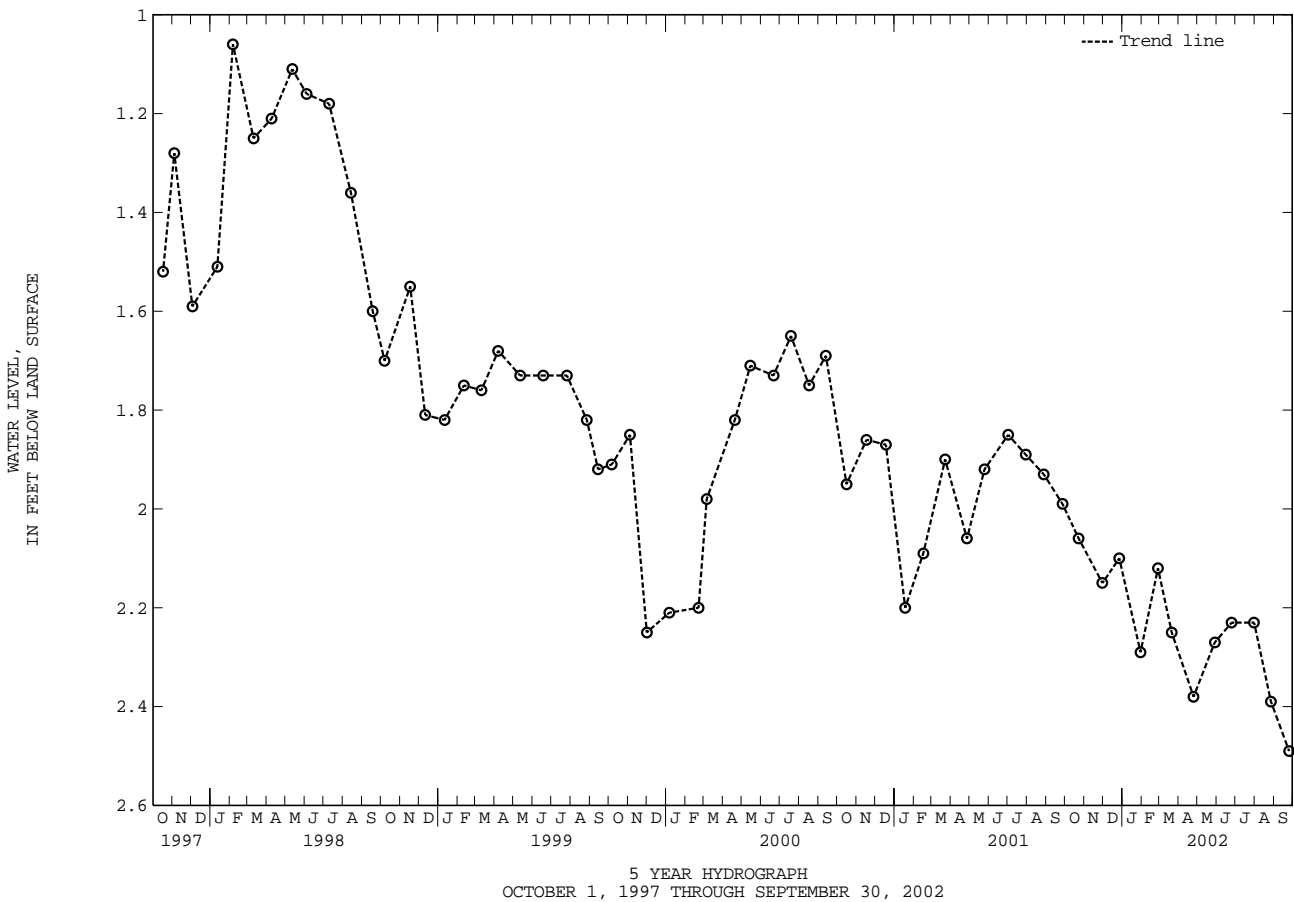
HARFORD COUNTY--Continued

WELL NUMBER.--HA Ec 11. SITE ID.--392435076203301. PERMIT NUMBER.--HA-04-7211.  
 LOCATION.--Lat 39°24'35", long 76°20'33", Hydrologic Unit 02060003, off Trimble Road, Joppatowne.  
 Owner: Harford County Department of Public Works.  
 AQUIFER.--Patuxent aquifer in the Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 68 ft; diameter of casing 6 in., to 63 ft; screen diameter 2 in. from 63 to 68 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with water-level recorder from May 23, 1962 to Dec. 17, 1983.  
 DATUM.--Elevation of land surface is 11.7 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 3.50 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--May 1962 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.13 ft below land surface, May 24, 1962; lowest measured, 12.80 ft below land surface, May 26, 1972.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	2.06	JAN 30, 2002	2.29	APR 25, 2002	2.38	JUL 31, 2002	2.23
NOV 30	2.15	FEB 27	2.12	MAY 29	2.27	AUG 27	2.39
DEC 27	2.10	MAR 21	2.25	JUN 25	2.23	SEP 25	2.49

WATER YEAR 2002 HIGHEST 2.06 OCT 23, 2001 LOWEST 2.49 SEP 25, 2002



HARFORD COUNTY--Continued

WELL NUMBER.--HA Ec 46. SITE ID.--392408076210101. PERMIT NUMBER.--HA-81-4124.

LOCATION.--Lat 39°24'08", long 76°21'01", Hydrologic Unit 02060003, at end of Kearney Dr. Coppenhaven Park, near Joppatowne.

Owner: Maryland Geological Survey.

AQUIFER.--Patuxent aquifer in the Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 85 ft; diameter of casing 4 in., to 65 ft, and 75 to 85 ft; screen diameter 4 in. from 65 to 75 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Twice yearly water level measurements from October 1989 to October 1995.

DATUM.--Elevation of land surface is 23.16 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of PVC casing, 2.17 ft above land surface.

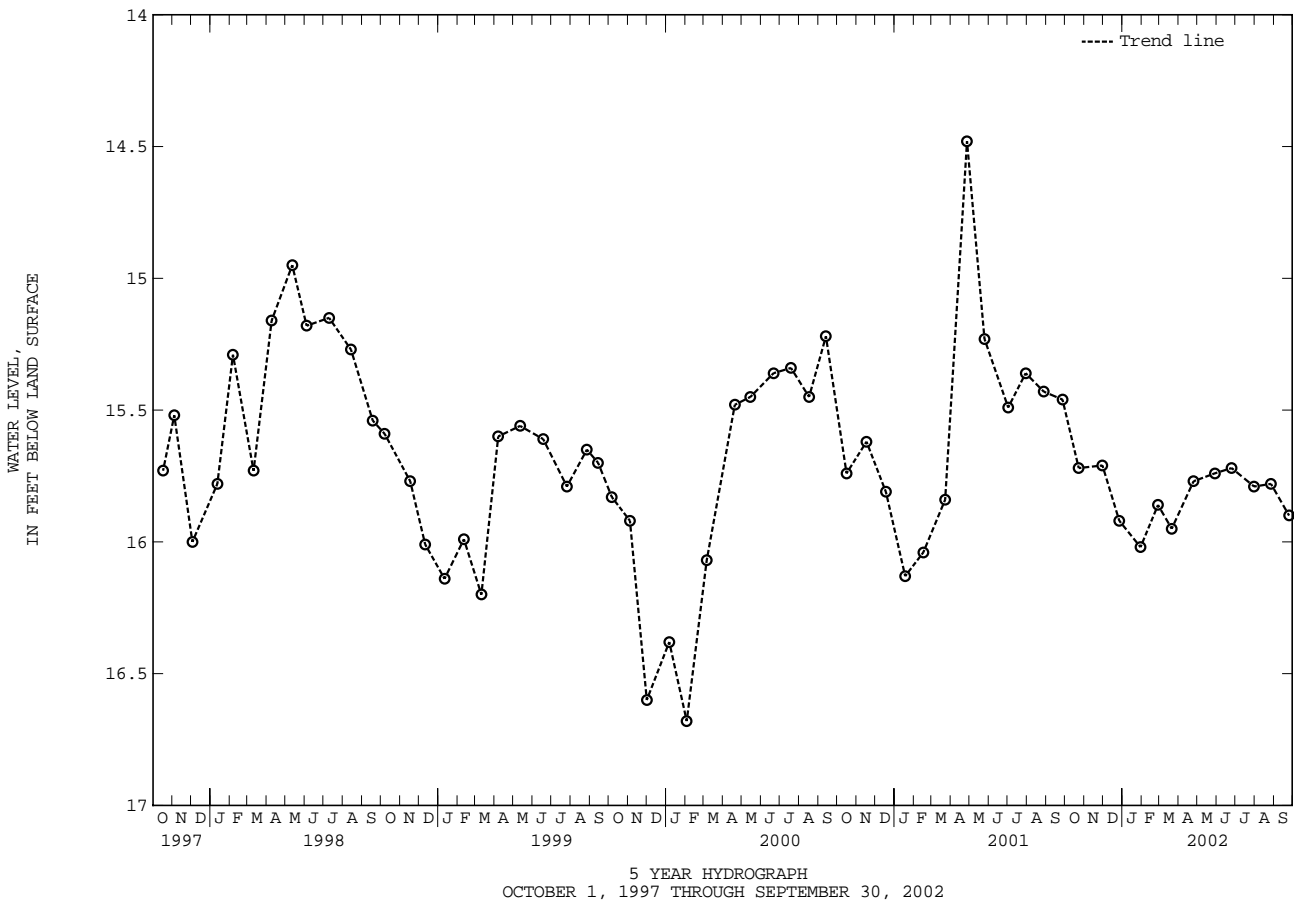
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--May 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.48 ft below land surface, April 27, 2001;  
lowest measured, 16.76 ft below land surface, Feb. 23, 1989.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	15.72	JAN 30, 2002	16.02	APR 25, 2002	15.77	JUL 31, 2002	15.79
NOV 30	15.71	FEB 27	15.86	MAY 29	15.74	AUG 27	15.78
DEC 27	15.92	MAR 21	15.95	JUN 25	15.72	SEP 25	15.90
WATER YEAR 2002 HIGHEST 15.71 NOV 30, 2001		LOWEST 16.02 JAN 30, 2002					



HARFORD COUNTY--Continued

WELL NUMBER.--HA Ed 24. SITE ID.--392343076161901.

LOCATION.--Lat 39°23'43", long 76°16'19", Hydrologic Unit 02060003, at Bush River Road and 29th St., about 2 mi southeast of Edgewood.

Owner: U.S. Army (well 23M).

AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 135 ft; casing diameter 18 in., to 73 ft; casing diameter 10 in. from 65 to 120 ft; screen diameter 10 in. from 120 to 135 ft.

INSTRUMENTATION.--Periodic water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with graphic water-level recorder from Jan. 24, 1950, to June 6, 1961.

DATUM.--Elevation of land surface is 12.83 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.44 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water level measured, 8.24 ft below land surface, April 13, 1944. Water levels are affected by local ground-water withdrawal.

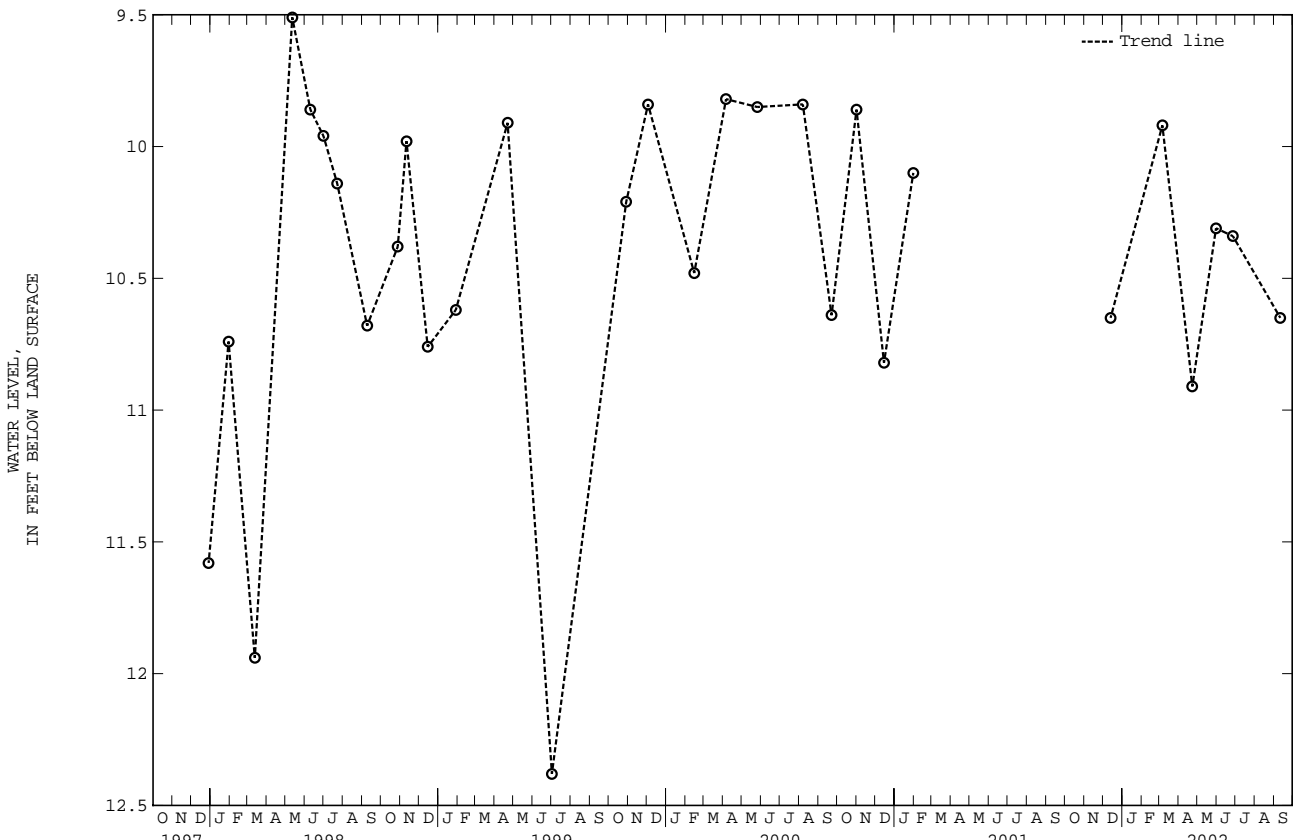
PERIOD OF RECORD.-- September 1949, January 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.41 ft below land surface, Sept. 17, 1984; lowest measured, 42.55 ft below land surface, June 26, 1955.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 13, 2001	10.65	APR 23, 2002	10.91	JUN 27, 2002	10.34
MAR 06, 2002	9.92	MAY 31	10.31	SEP 11	10.65

WATER YEAR 2002 HIGHEST 9.92 MAR 06, 2002 LOWEST 10.91 APR 23, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



HARFORD COUNTY--Continued

WELL NUMBER.--HA Ed 47. SITE ID.--392455076192101. PERMIT NUMBER.--HA-81-4128.

LOCATION.--Lat 39°24'55", long 76°19'21", Hydrologic Unit 02060003, 0.2 mi east of intersection of MD Rt. 152 and Trimble Road, Edgewood Park.

Owner: Maryland Geological Survey.

AQUIFER.--Patuxent aquifer in the Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 210 ft; casing diameter 4 in., to 190 ft, and 200 to 210 ft; screen diameter 4 in. from 190 to 200 ft.

INSTRUMENTATION.--Monthly water level measurement with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 90.50 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.29 ft above land surface.

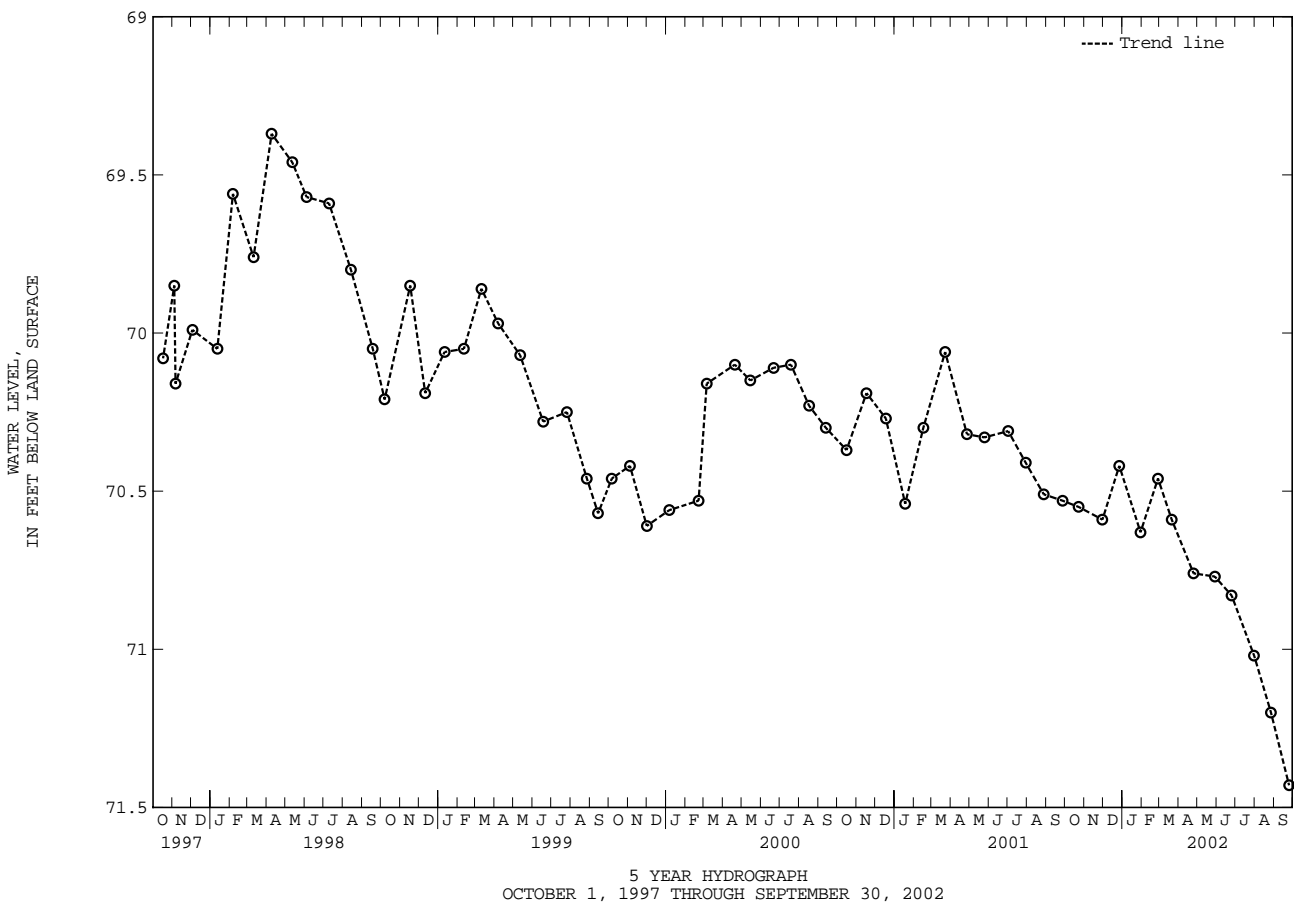
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--May 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 69.34 ft below land surface, Jan. 3, 1997;  
lowest measured, 72.02 ft below land surface, Nov. 9, 1988.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	70.55	JAN 30, 2002	70.63	APR 25, 2002	70.76	JUL 31, 2002	71.02
NOV 30	70.59	FEB 27	70.46	MAY 29	70.77	AUG 27	71.20
DEC 27	70.42	MAR 21	70.59	JUN 25	70.83	SEP 25	71.43
WATER YEAR 2002 HIGHEST 70.42 DEC 27, 2001		LOWEST 71.43		SEP 25, 2002			



GROUND-WATER LEVELS IN MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Ed 48. SITE ID.--392455076192102. PERMIT NUMBER.--HA-81-4578.

LOCATION.--Lat 39°24'55", long 76°19'21", Hydrologic Unit 02060003, 0.2 mi east of intersection of MD Rt. 152 and Trimble Road, Edgewood Park.

Owner: Maryland Geological Survey.

AQUIFER.--Patuxent aquifer in the Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 133 ft; casing diameter 4 in., to 118 ft, and 128 to 133 ft; screen diameter 4 in. from 118 to 128 ft.

INSTRUMENTATION.--Monthly water level measurement with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 91.20 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of PVC casing, 2.58 ft above land surface.

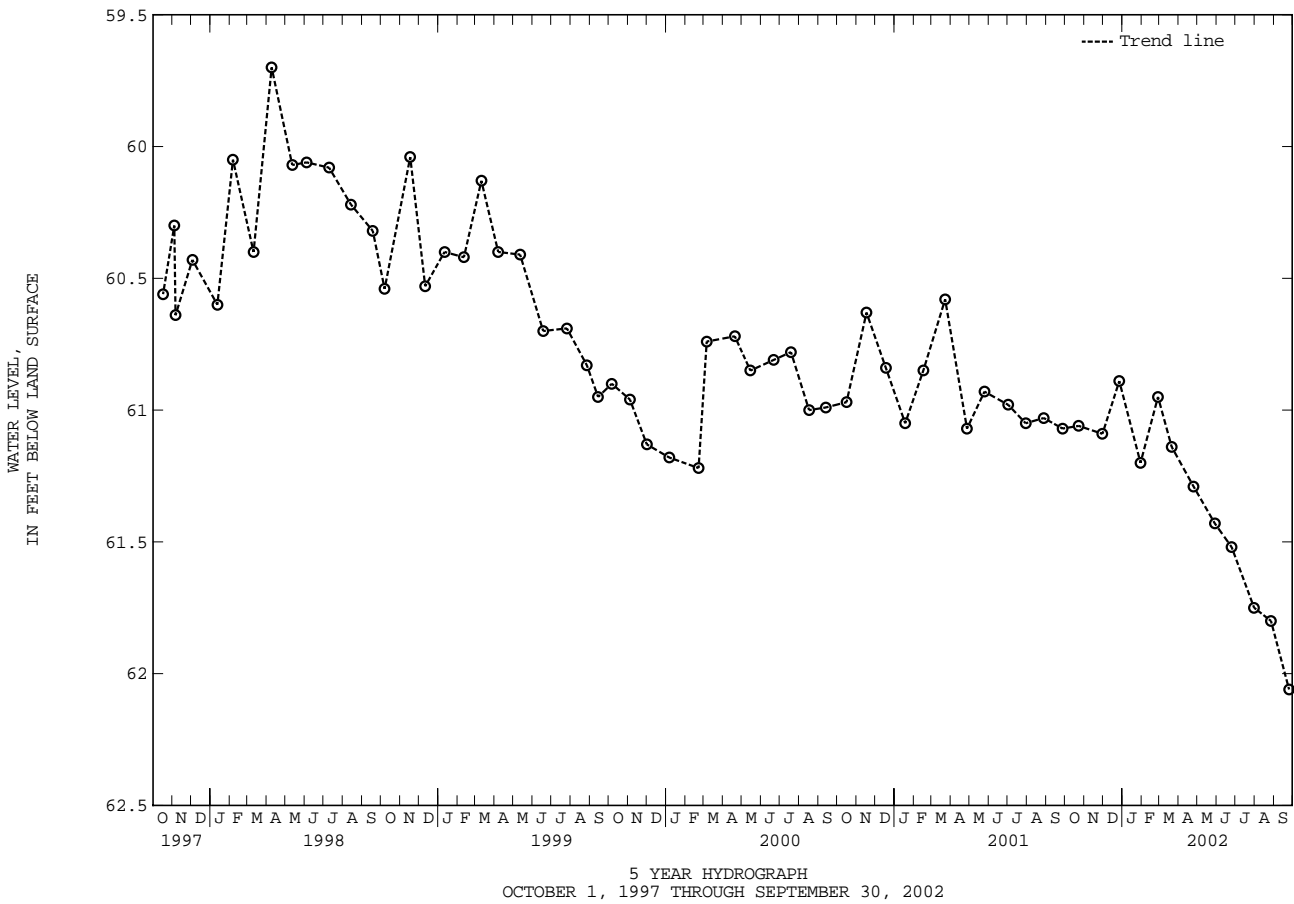
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--May 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 59.70 ft below land surface, April 9, 1998; lowest measured, 63.00 ft below land surface, May 12, 1988.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	61.06	JAN 30, 2002	61.20	APR 25, 2002	61.29	JUL 31, 2002	61.75
NOV 30	61.09	FEB 27	60.95	MAY 29	61.43	AUG 27	61.80
DEC 27	60.89	MAR 21	61.14	JUN 25	61.52	SEP 25	62.06
WATER YEAR 2002 HIGHEST 60.89 DEC 27, 2001		LOWEST 62.06		SEP 25, 2002			



HARFORD COUNTY--Continued

WELL NUMBER.--HA Ed 49. SITE ID.--392455076192103. PERMIT NUMBER.--HA-81-4129.

LOCATION.--Lat 39°24'55", long 76°19'21", Hydrologic Unit 02060003, 0.2 mi east of the intersection of MD Rt. 152 and Trimble Road, Edgewood Park.

Owner: Maryland Geological Survey.

AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 28 ft; casing diameter 4 in., to 13 ft, and 23 to 28 ft; screen diameter 4 in. from 13 to 23 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--15-minute recorder interval from June 3, 1988 to July 11, 1989.

DATUM.--Elevation of land surface is 91.89 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of PVC casing, 2.19 ft above land surface.

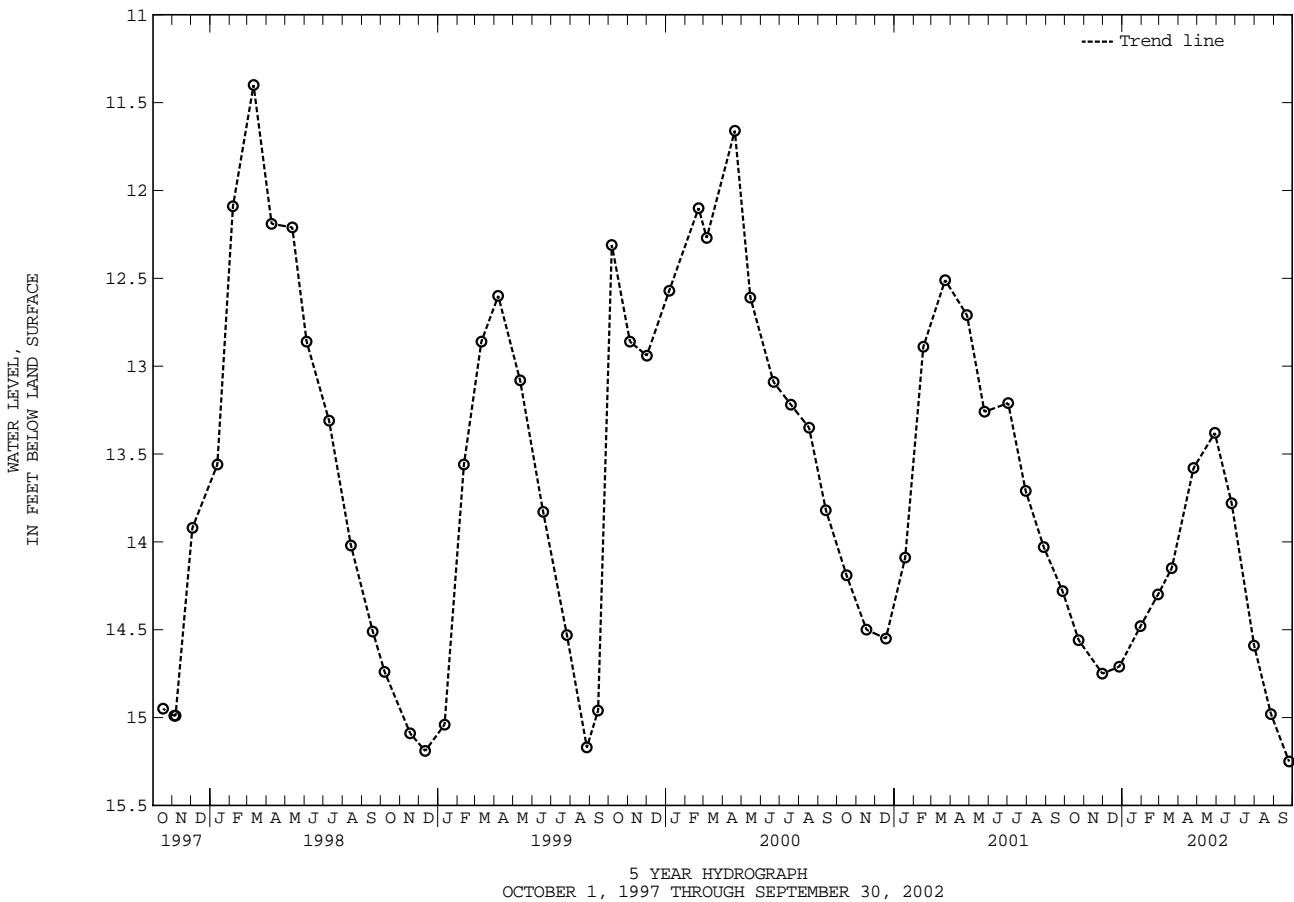
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.

PERIOD OF RECORD.--May 1988 to July 1995, January 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.40 ft below land surface, March 11, 1998;  
lowest measured, 15.25 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	14.56	JAN 30, 2002	14.48	APR 25, 2002	13.58	JUL 31, 2002	14.59
NOV 30	14.75	FEB 27	14.30	MAY 29	13.38	AUG 27	14.98
DEC 27	14.71	MAR 21	14.15	JUN 25	13.78	SEP 25	15.25
WATER YEAR 2002		HIGHEST	13.38	MAY 29, 2002	LOWEST	15.25	SEP 25, 2002

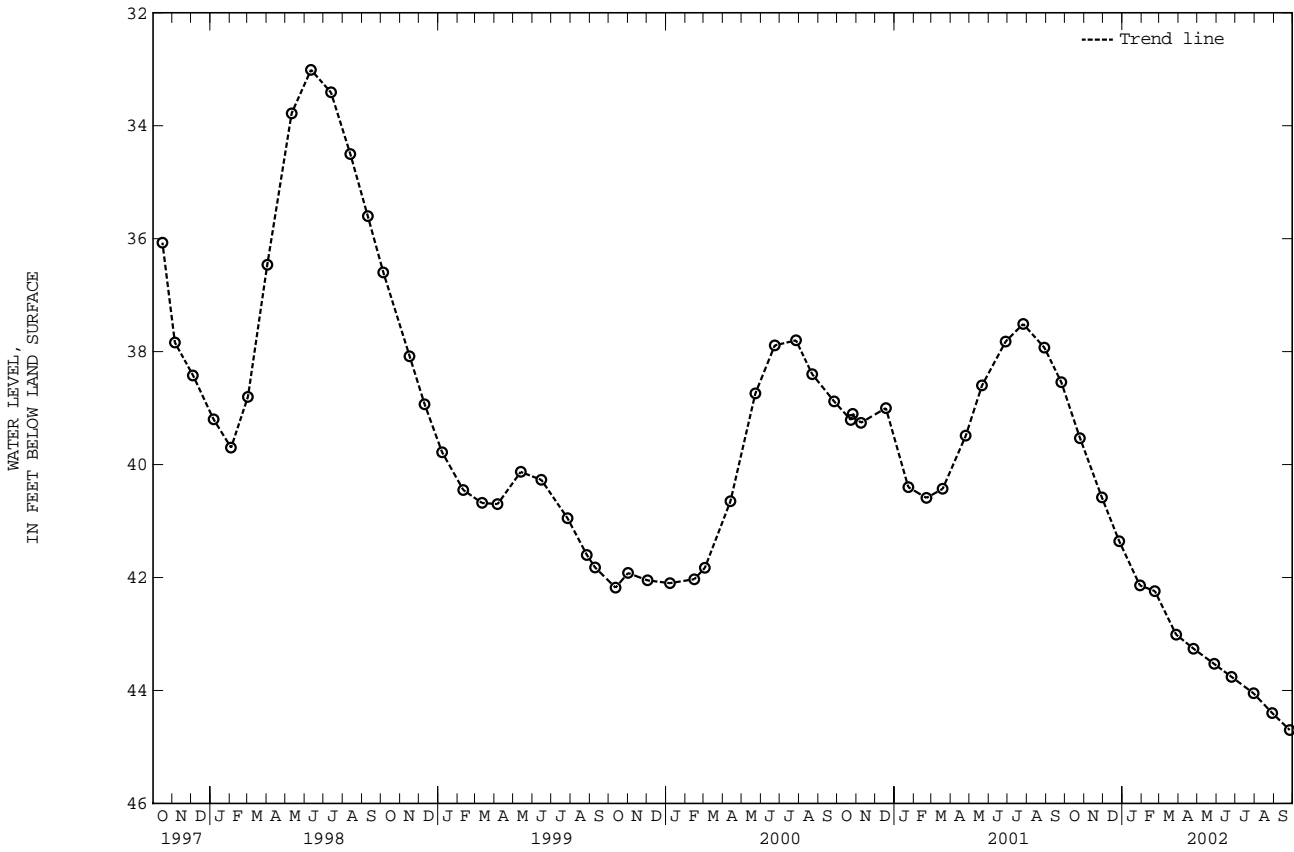


HOWARD COUNTY

WELL NUMBER.--HO Bd 1. SITE ID.--391910076565701.  
 LOCATION.--Lat 39°19'10", long 76°56'57", Hydrologic Unit 02060006, Slacks Corner near MD Rt. 32 and MD Rt. 99.  
 Owner: Maryland State Highway Administration.  
 AQUIFER.--Morgan Run Formation of Ordovician age. Aquifer code: 360MRGR.  
 WELL CHARACTERISTICS.--Dug, stone-lined, observation, water-table well, measured depth 48 ft; diameter 60 in.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 630 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Hole in center of steel plate well cover, 0.40 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--October 1946 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.76 ft below land surface, July 3, 1972;  
 lowest measured, 46.88 ft below land surface, Sept. 10, 1966.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	39.53	JAN 29, 2002	42.14	APR 25, 2002	43.26	JUL 30, 2002	44.05
NOV 29	40.58	FEB 22	42.24	MAY 28	43.53	AUG 29	44.40
DEC 27	41.36	MAR 28	43.01	JUN 25	43.76	SEP 26	44.70
WATER YEAR 2002 HIGHEST 39.53 OCT 25, 2001		LOWEST 44.70		SEP 26, 2002			



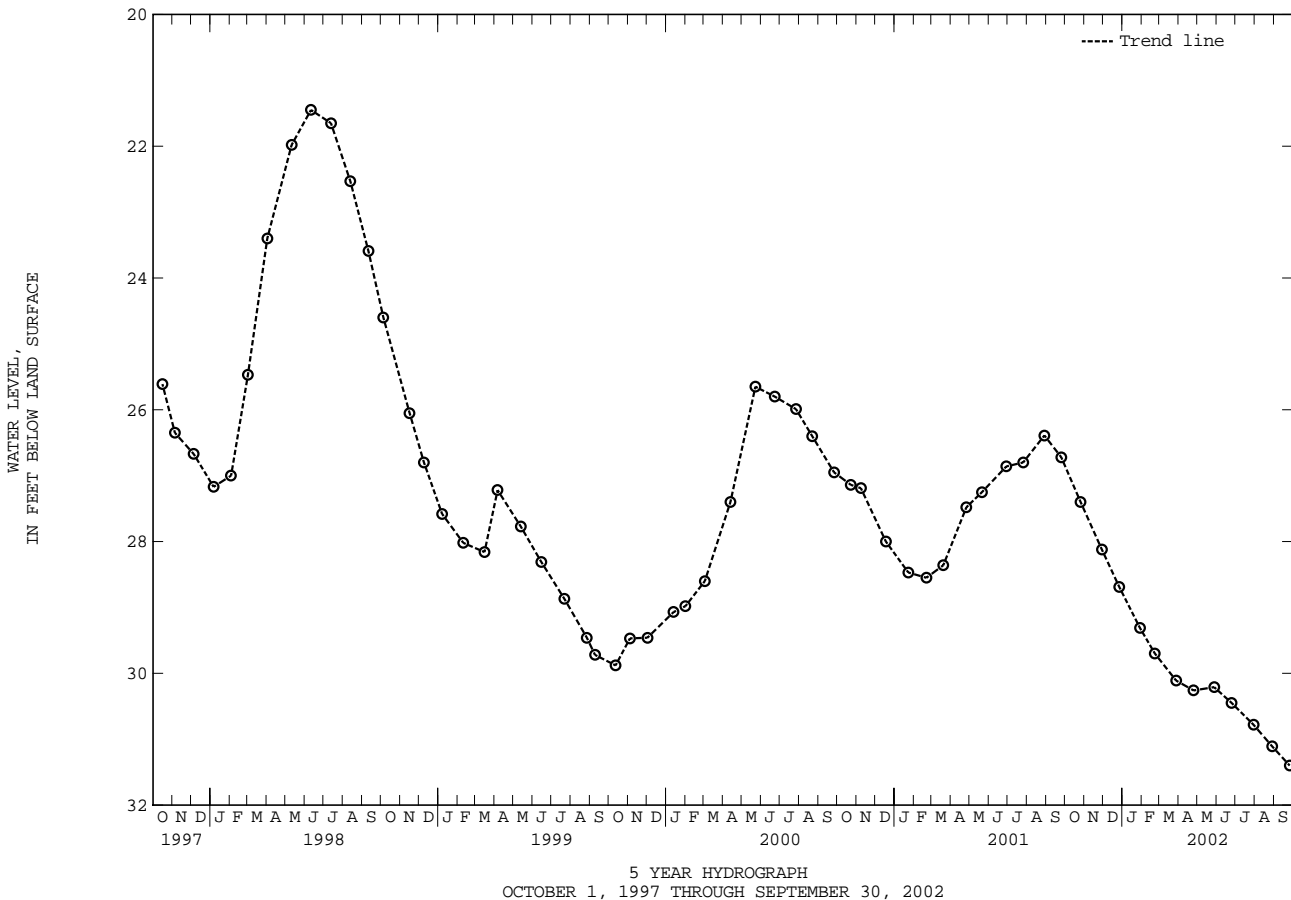
HOWARD COUNTY--Continued

WELL NUMBER.--HO Cd 79. SITE ID.--391445076555101. PERMIT NUMBER.--HO-81-2387.  
 LOCATION.--Lat 39°14'45", long 76°55'51", Hydrologic Unit 02060006, at University of Maryland Central Farm.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Loch Raven Formation (saprolite) of Cambrian age. Aquifer code: 370LCRV.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 54 ft; casing diameter 6 in., to 6 ft; and casing diameter 3.5 in. to 44 ft; screen diameter 3 in. from 44 to 54 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 452.37 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 2.05 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--January 1988 to May 1993, November 1995, January 1996 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.20 ft below land surface, April 10, 1997;  
 lowest measured, 31.40 ft below land surface, Sept. 26, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	27.40	JAN 29, 2002	29.31	APR 25, 2002	30.26	JUL 30, 2002	30.78
NOV 29	28.12	FEB 22	29.70	MAY 28	30.21	AUG 29	31.11
DEC 27	28.69	MAR 28	30.11	JUN 25	30.45	SEP 26	31.40

WATER YEAR 2002      HIGHEST    27.40    OCT 26, 2001      LOWEST    31.40    SEP 26, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

HOWARD COUNTY--Continued

WELL NUMBER.--HO Ce 38. SITE ID.--391001076540001. PERMIT NUMBER.--HO-01-1827.

LOCATION.--Lat 39°10'01", long 76°54'00", Hydrologic Unit 02060006, at Johns Hopkins University Applied Physics Lab, Scaggsville.

Owner: Johns Hopkins University.

AQUIFER.--Sykesville Formation (Sykesville Schist Member) of Ordovician age. Aquifer code: 360SKVL.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 125 ft; casing diameter 6 in., to 51.4 ft; open hole.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with graphic water-level recorder from Dec. 9, 1987 to April 27, 1990.

DATUM.--Elevation of land surface is 430 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.45 ft below land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.

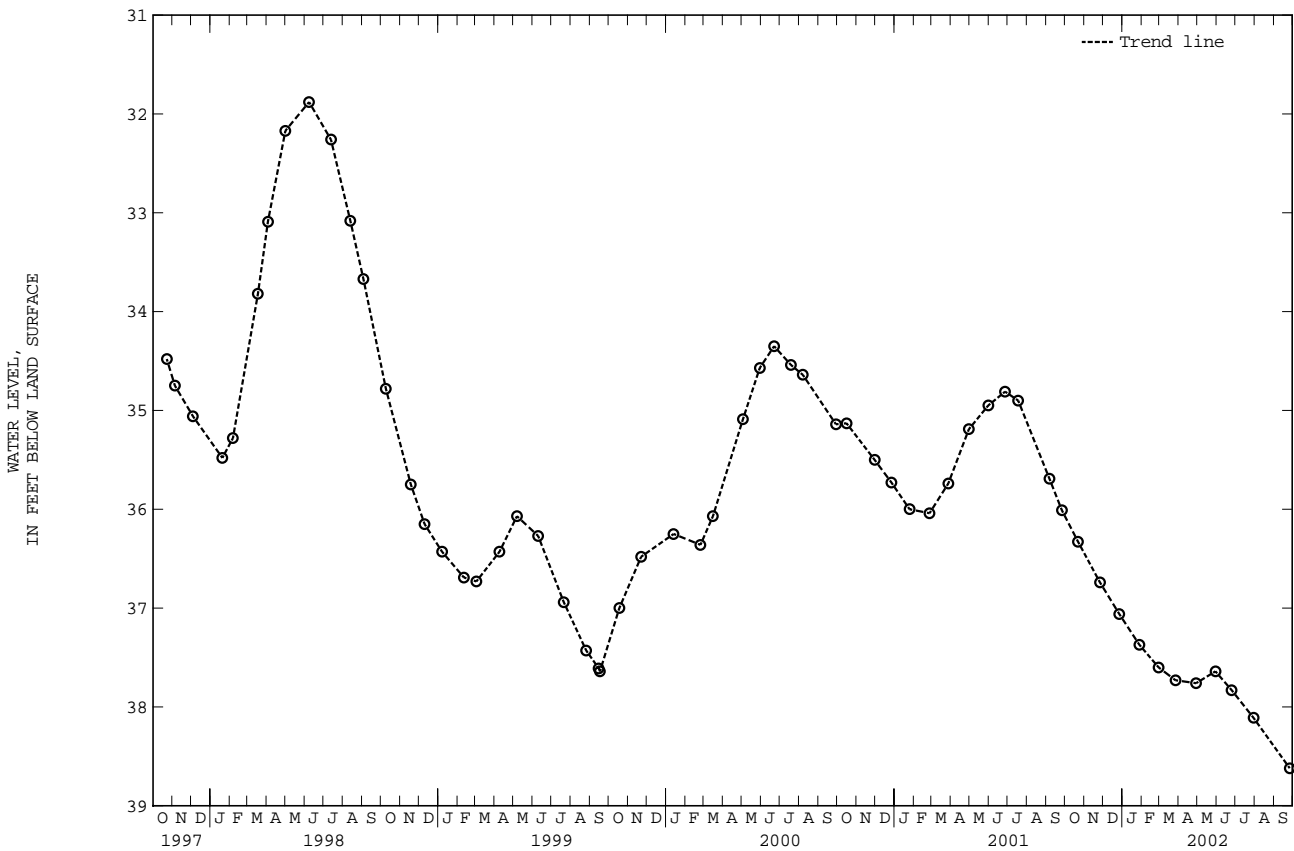
PERIOD OF RECORD.--May 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.84 ft below land surface, May 5, 1972; lowest measured, 38.62 ft below land surface, Sept. 26, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 2001	36.33	JAN 28, 2002	37.37	APR 29, 2002	37.76	JUL 30, 2002	38.11
NOV 26	36.74	FEB 28	37.60	MAY 30	37.64	SEP 26	38.62
DEC 27	37.06	MAR 27	37.73	JUN 25	37.83		

WATER YEAR 2002 HIGHEST 36.33 OCT 22, 2001 LOWEST 38.62 SEP 26, 2002



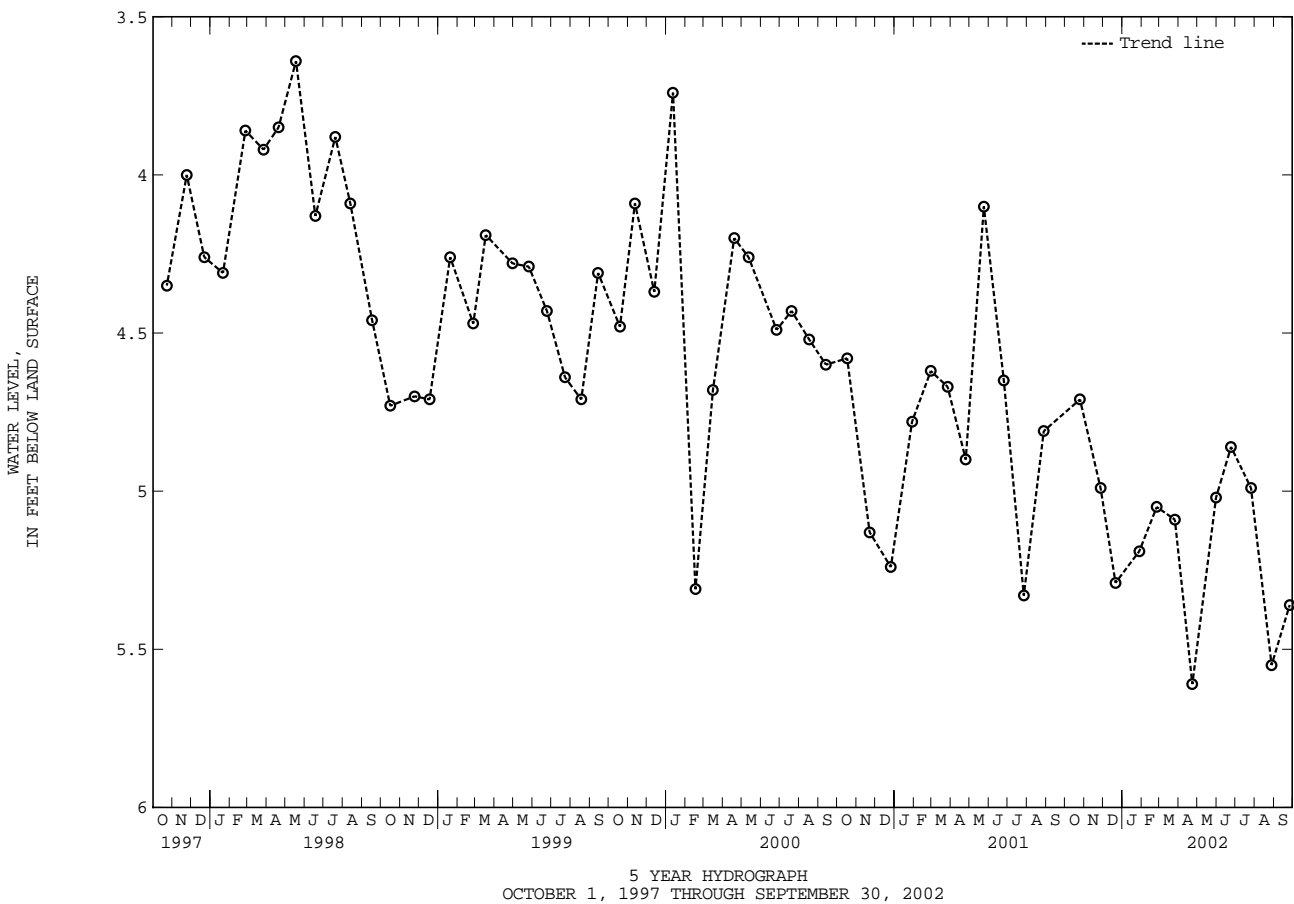
5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

KENT COUNTY

WELL NUMBER.--KE Ac 20. SITE ID.--392007076075501. PERMIT NUMBER.--KE-73-0658.  
 LOCATION.--Lat 39°20'07", long 76°07'55", Hydrologic Unit 02060001, at U.S. Coast Guard Station at end of Still Pond Neck Road.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 582 ft; casing diameter 10 in., to 73 ft; casing diameter 4 in., to 550 ft and 560 to 582 ft; screen diameter 4 in. from 550 to 560 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Measured twice yearly from October 1986 to April 1991.  
 DATUM.--Elevation of land surface is 7 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 3.30 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--December 1977 to December 1978, December 1985, October 1986 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.50 ft below land surface, April 13, 1978, May 5, 1978, and Dec. 11, 1985; lowest measured, 5.61 ft below land surface, April 23, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	4.71	JAN 28, 2002	5.19	APR 23, 2002	5.61	JUL 26, 2002	4.99
NOV 27	4.99	FEB 25	5.05	MAY 31	5.02	AUG 28	5.55
DEC 21	5.29	MAR 26	5.09	JUN 24	4.86	SEP 26	5.36
WATER YEAR 2002 HIGHEST		4.71	OCT 25, 2001	LOWEST		5.61	APR 23, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

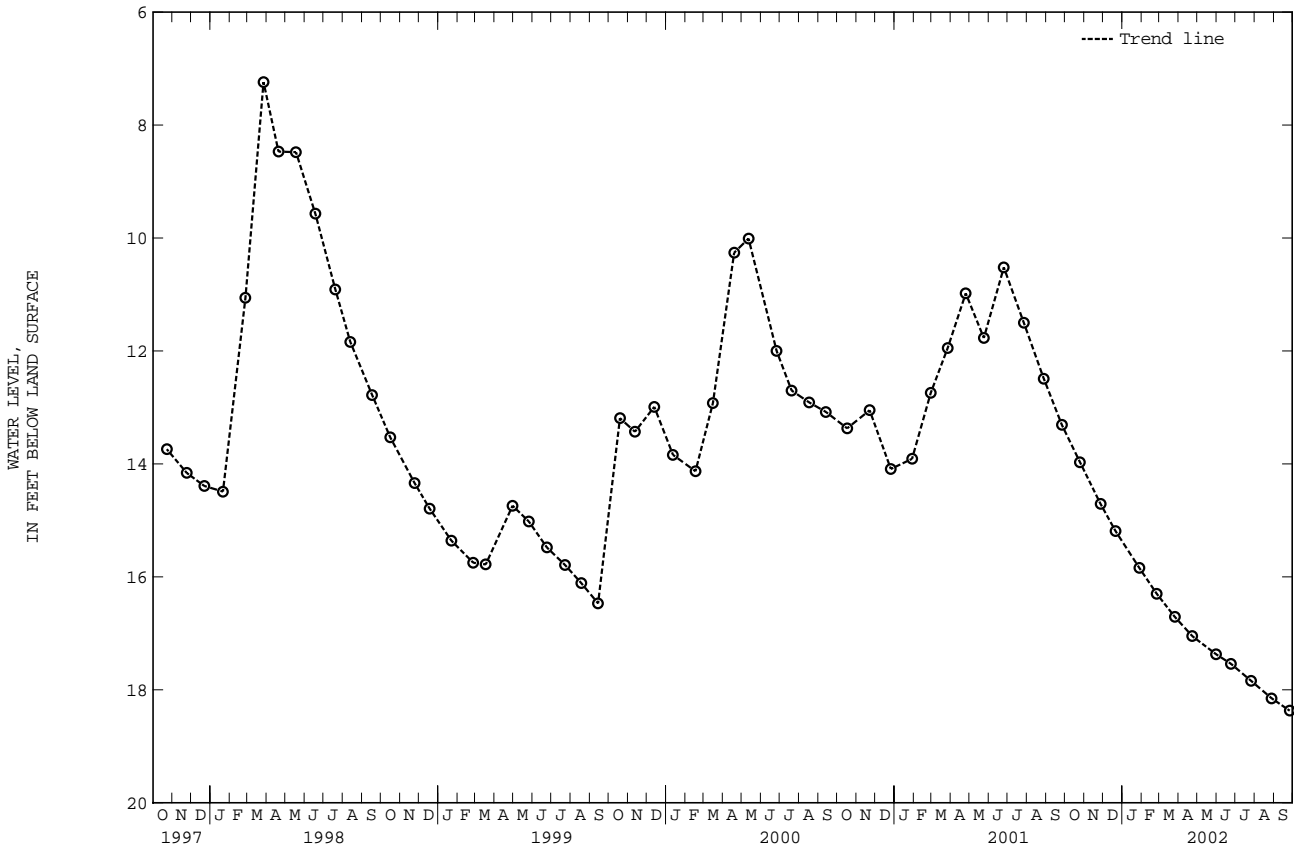
KENT COUNTY--Continued

WELL NUMBER.--KE Bc 185. SITE ID.--391650076050402. PERMIT NUMBER.--KE-88-0255.  
 LOCATION.--Lat 39°16'50", long 76°05'04", Hydrologic Unit 02060002, at Worton Regional Park, Worton.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Pensauken Formation (Columbia aquifer) of Upper Miocene age. Aquifer code: 122PNSK.  
 WELL CHARACTERISTICS.--Drilled, observation well, water-table well, depth 55 ft; casing diameter 4 in., to 40 ft, and 50 to 55 ft; screen diameter 4 in. from 40 to 50 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from February 1992 to October 1993.  
 DATUM.--Elevation of land surface is 82.09 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.41 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well.  
 PERIOD OF RECORD.--October 1991 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.19 ft below land surface, March 18, 1997;  
 lowest measured, 20.23 ft below land surface, Dec. 12-14, 1992 (recorder).

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	13.97	JAN 28, 2002	15.84	APR 23, 2002	17.05	JUL 26, 2002	17.84
NOV 27	14.71	FEB 25	16.30	MAY 31	17.37	AUG 28	18.15
DEC 21	15.19	MAR 26	16.71	JUN 24	17.54	SEP 26	18.37

WATER YEAR 2002      HIGHEST 13.97 OCT 25, 2001      LOWEST 18.37 SEP 26, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



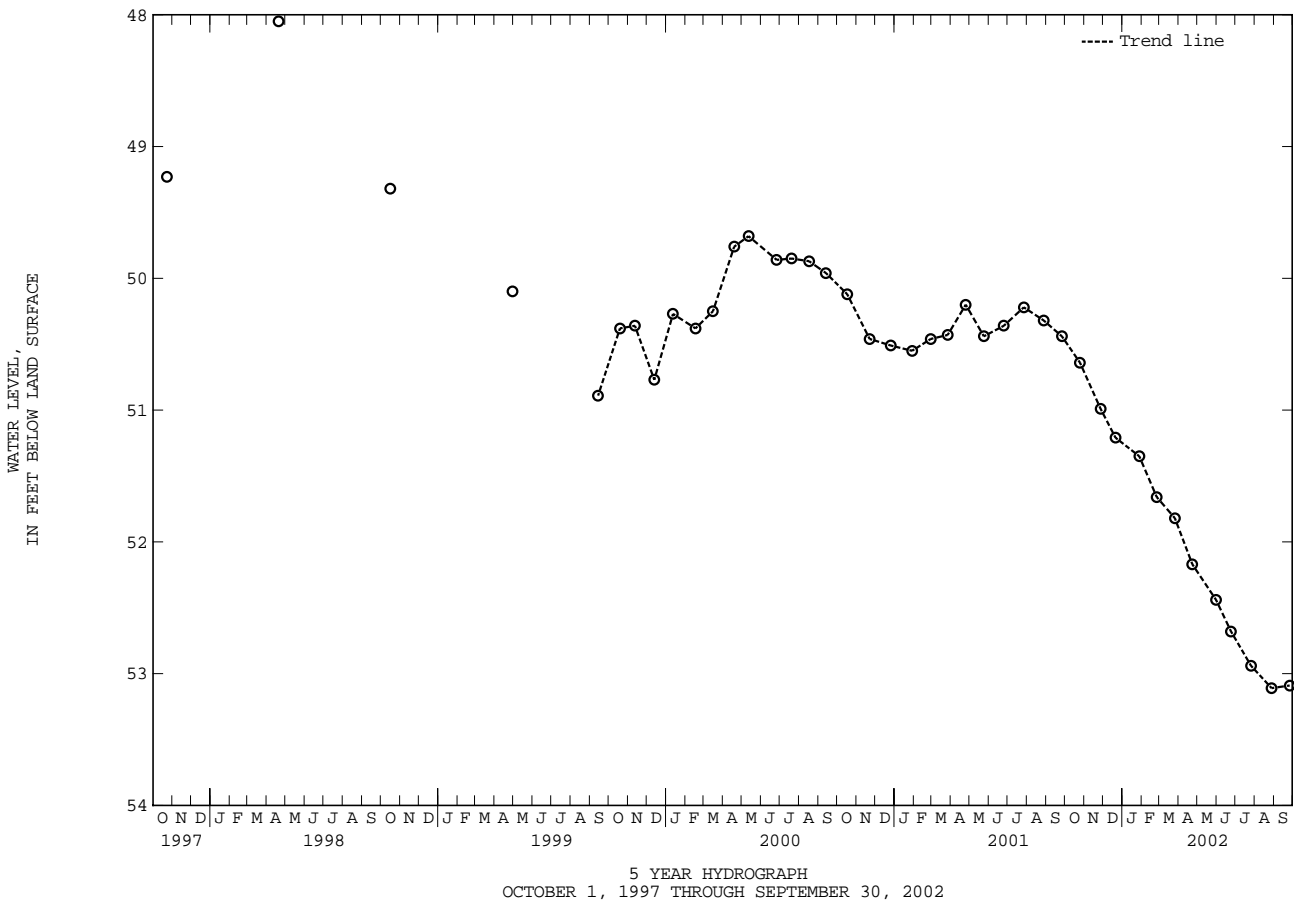
KENT COUNTY--Continued

WELL NUMBER.--KE Bc 186. SITE ID.--391650076050403. PERMIT NUMBER.--KE-88-0286.  
 LOCATION.--Lat 39°16'50", long 76°05'04", Hydrologic Unit 02060002, at Worton Regional Park, Worton  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, observation well, artesian well, depth 270 ft; casing diameter 4 in., to 255 ft and  
 265 to 270 ft; screen diameter 4 in. from 255 to 265 ft.  
 INSTRUMENTATION.--Twice yearly measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital  
 water-level recorder--60-minute recorder interval from February 1992 to October 1993.  
 DATUM.--Elevation of land surface is 82.00 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of metal sleeve, 2.76 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water  
 withdrawal.  
 PERIOD OF RECORD.--February 1992 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.27 below land surface, April 15, 1997;  
 lowest measured, 53.11 ft below land surface, Aug. 28, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	50.64	JAN 28, 2002	51.35	APR 23, 2002	52.17	JUL 26, 2002	52.94
NOV 27	50.99	FEB 25	51.66	MAY 31	52.44	AUG 28	53.11
DEC 21	51.21	MAR 26	51.82	JUN 24	52.68	SEP 26	53.09

WATER YEAR 2002      HIGHEST    50.64    OCT 25, 2001      LOWEST    53.11    AUG 28, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

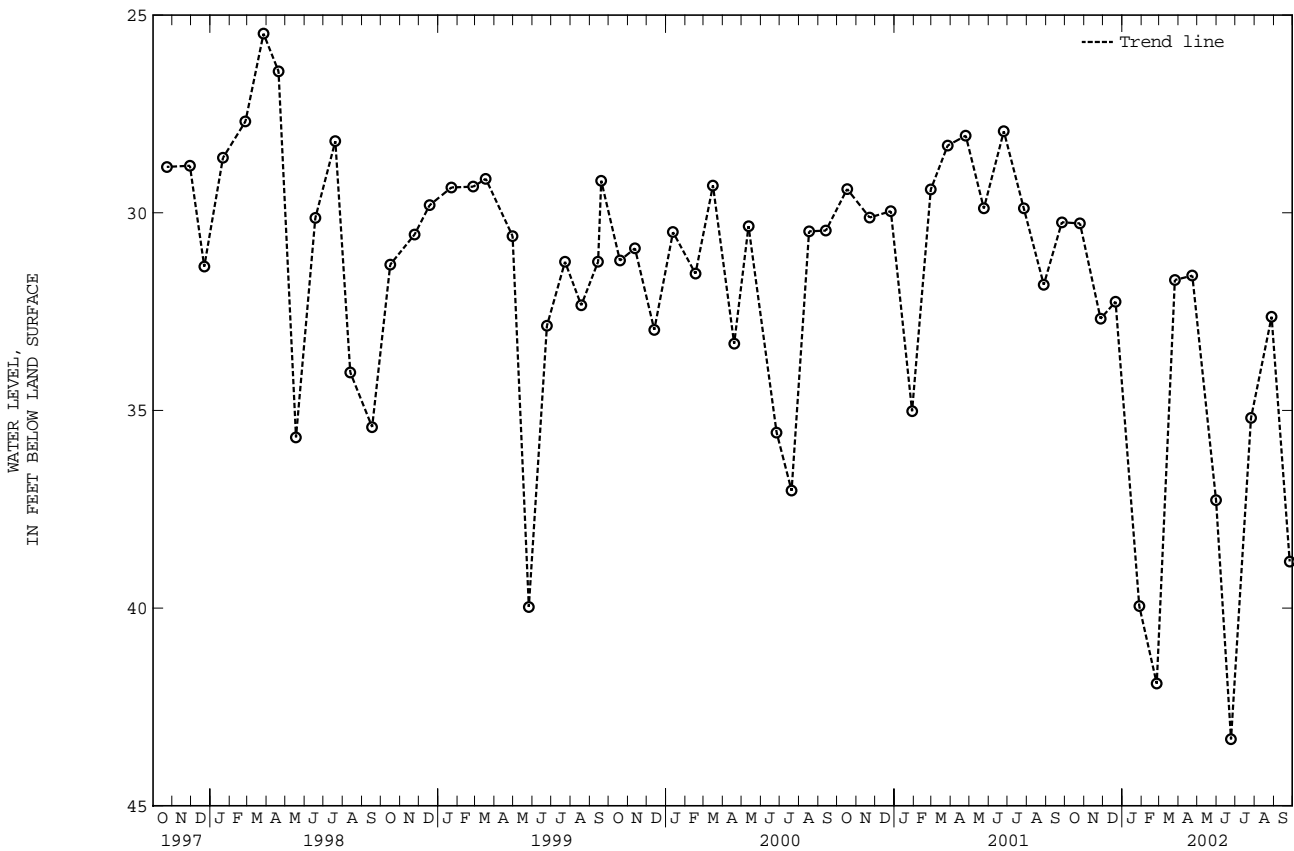
KENT COUNTY--Continued

WELL NUMBER.--KE Be 43. SITE ID.--391823075594701. PERMIT NUMBER.--KE-73-0659.  
 LOCATION.--Lat 39°18'23", long 75°59'45", Hydrologic Unit 02060002, at Kennedyville.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 297 ft; casing diameter 10 in., to 171 ft; casing diameter 4 in. to 275 ft, and 285 to 297 ft; screen diameter 4 in. from 275 to 285 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Twice yearly measurements from October 1986 to April 1991.  
 DATUM.--Elevation of land surface is 65 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 1.60 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local ground-water withdrawal.  
 PERIOD OF RECORD.--February 1979 to July 1979, December 1985, October 1986 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.31 ft below land surface, June 5, 1979; lowest measured, 43.32 ft below land surface, June 24, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	30.27	JAN 28, 2002	39.95	APR 23, 2002	31.59	JUL 26, 2002	35.19
NOV 27	32.68	FEB 25	41.91	MAY 31	37.27	AUG 28	32.63
DEC 21	32.25	MAR 26	31.70	JUN 24	43.32	SEP 26	38.82

WATER YEAR 2002      HIGHEST    30.27    OCT 25, 2001      LOWEST    43.32    JUN 24, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

KENT COUNTY--Continued

WELL NUMBER.--KE Be 171. SITE ID.--391643075550901. PERMIT NUMBER.--KE-88-0257.  
 LOCATION.--Lat 39°16'43", long 75°55'06", Hydrologic Unit 02060002, 0.9 mi south of Chesterville on Rt. 290, at Angelica Nursery.

Owner: Maryland Geological Survey.

AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 440 ft; casing diameter 4 in., to 425 ft; screen diameter 4 in. from 425 to 435 ft.

INSTRUMENTATION.--Twice yearly measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from April 1992 to October 1993.

DATUM.--Elevation of land surface is 41.41 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.30 ft above land surface.

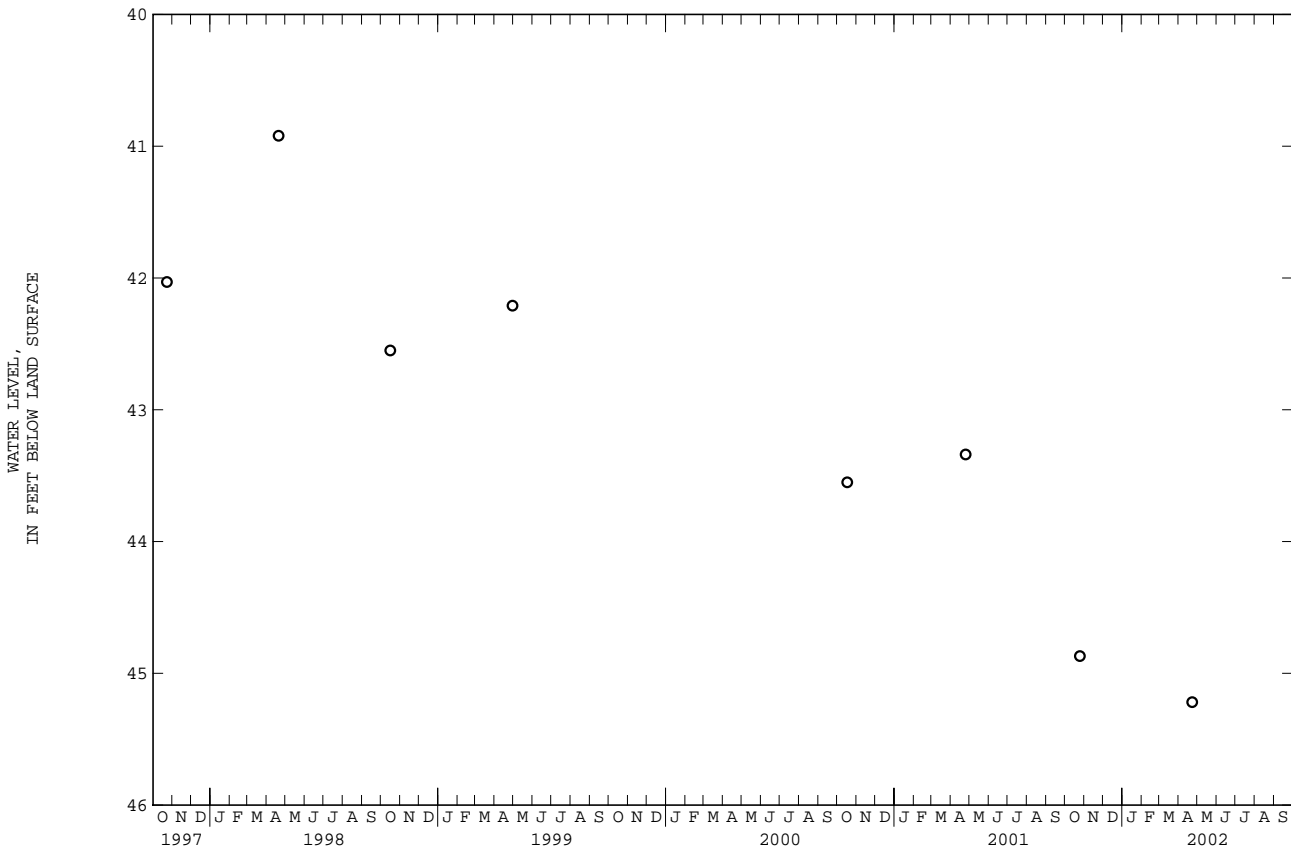
REMARKS.--Maryland Water-Level Network observation well. Water Levels are affected by regional ground-water withdrawal.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.76 ft below land surface, April 2, 1992; lowest measured, 45.22 ft below land surface, April 23, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	44.87	APR 23, 2002	45.22
WATER YEAR 2002 HIGHEST 44.87		OCT 25, 2001 LOWEST 45.22	
		APR 23, 2002	



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1995 THROUGH SEPTEMBER 30, 2000

GROUND-WATER LEVELS IN MARYLAND--Continued

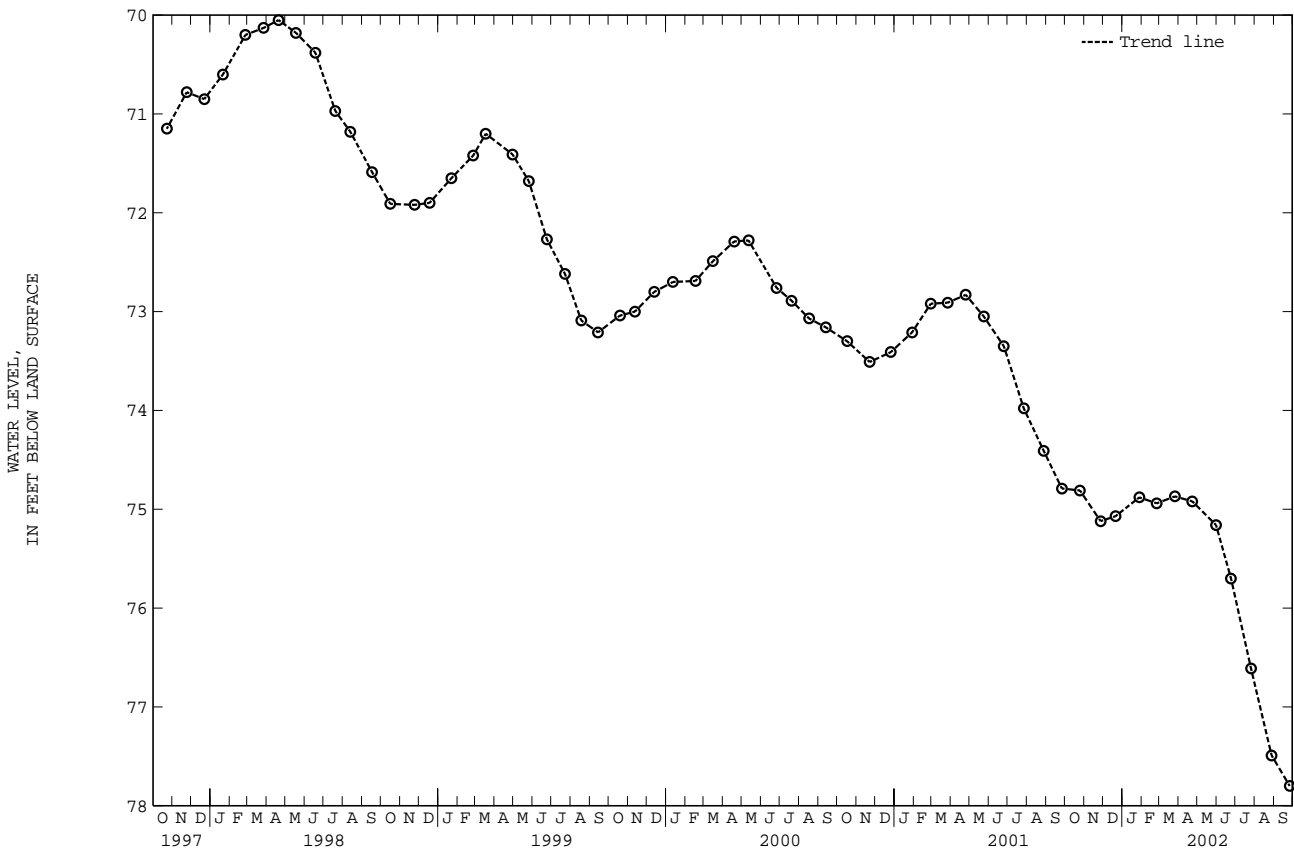
KENT COUNTY--Continued

WELL NUMBER.--KE Bg 33. SITE ID.--391815075472101. PERMIT NUMBER.--KE-73-0670.  
 LOCATION.--Lat 39°18'15", long 75°47'21", Hydrologic Unit 02060002, 2 mi east of Massey at Millington Wildlife Management Area.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 705 ft; casing diameter 4 in., to 695 ft; screen diameter 4 in. from 695 to 705 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Measured twice yearly from October 1986 to April 1994.  
 DATUM.--Elevation of land surface is 65 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 3.50 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by regional ground-water withdrawal.  
 PERIOD OF RECORD.--March 1979 to July 1979, December 1985, October 1986 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.62 ft below land surface, June 5, 1979; lowest measured, 77.80 ft below land surface, Sept. 26, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	74.81	JAN 28, 2002	74.88	APR 23, 2002	74.92	JUL 26, 2002	76.61
NOV 27	75.12	FEB 25	74.94	MAY 31	75.16	AUG 28	77.49
DEC 21	75.07	MAR 26	74.87	JUN 24	75.70	SEP 26	77.80

WATER YEAR 2002      HIGHEST 74.81 OCT 25, 2001      LOWEST 77.80 SEP 26, 2002



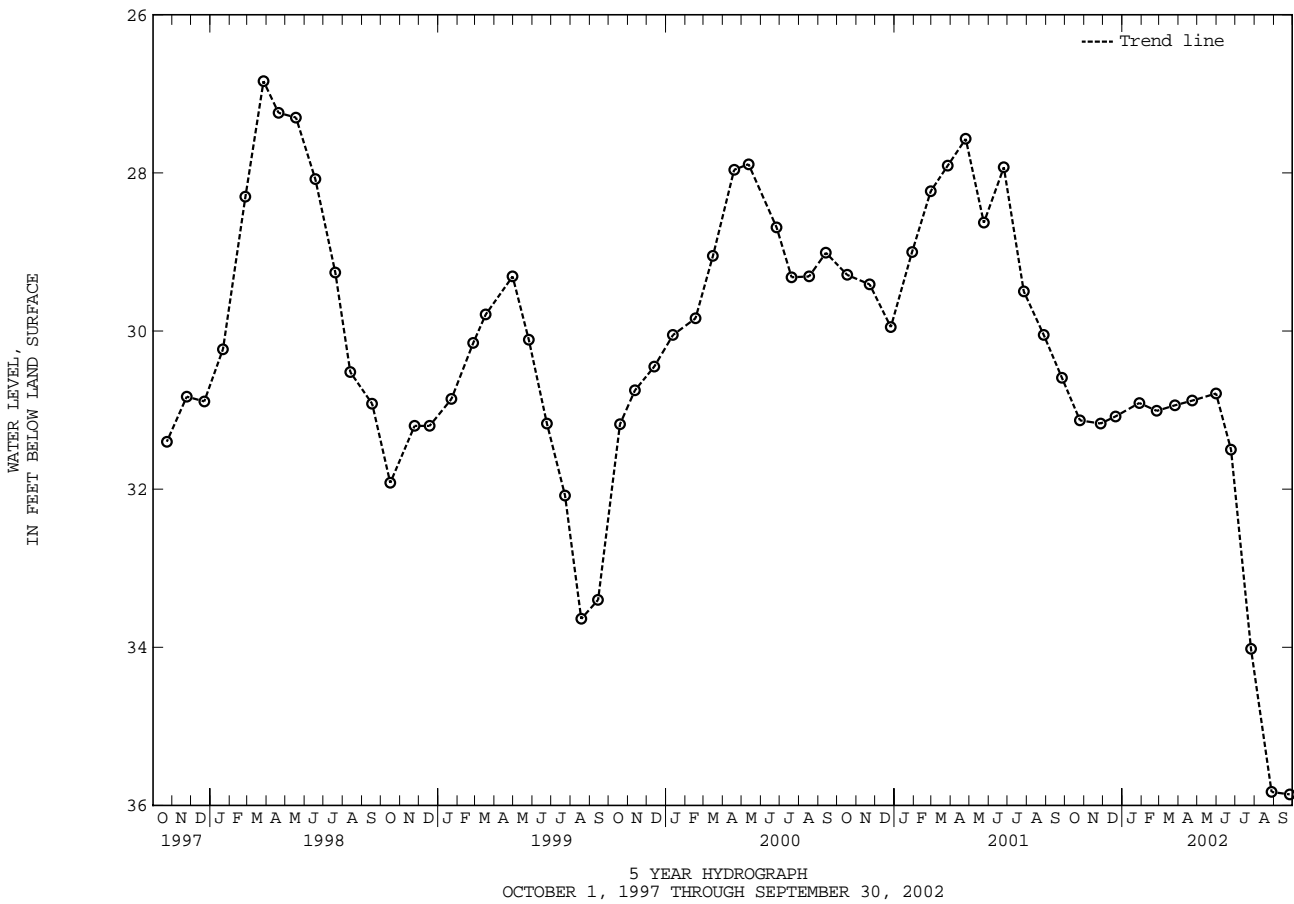
5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

KENT COUNTY--Continued

WELL NUMBER.--KE Bg 34. SITE ID.--391815075472102. PERMIT NUMBER.--KE-73-0686.  
 LOCATION.--Lat 39°18'15", long 75°47'22", Hydrologic Unit 02060002, 2 mi east of Massey, at Millington Wildlife Management Area.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 186 ft; casing diameter 6 in., to 124 ft; screen diameter 6 in. from 124 to 186 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Measured twice yearly from October 1986 to October 1994.  
 DATUM.--Elevation of land surface is 65 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 2.00 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water-levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--April 1979 to July 1979, December 1985, October 1986 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.37 ft below land surface, April 11, 1979; lowest measured, 36.23 ft below land-surface datum, Sept. 2, 1981.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	31.13	JAN 28, 2002	30.91	APR 23, 2002	30.88	JUL 26, 2002	34.02
NOV 27	31.17	FEB 25	31.01	MAY 31	30.79	AUG 28	35.83
DEC 21	31.08	MAR 26	30.94	JUN 24	31.50	SEP 26	35.86
WATER YEAR 2002		HIGHEST	30.79	MAY 31, 2002	LOWEST	35.86	SEP 26, 2002

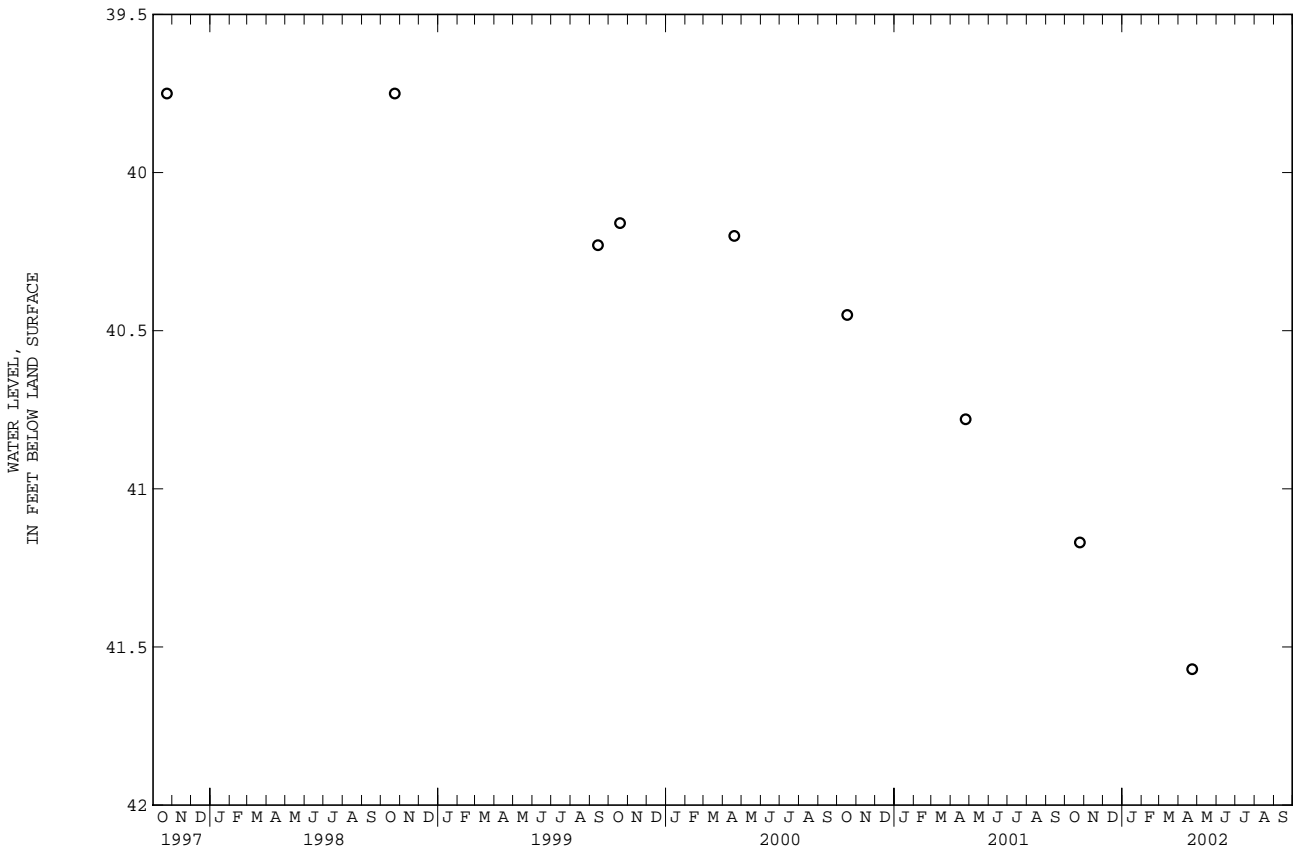


KENT COUNTY--Continued

WELL NUMBER.--KE Cb 36. SITE ID.--391400076101401. PERMIT NUMBER.--KE-73-0660.  
 LOCATION.--Lat 39°14'00", long 76°10'14", Hydrologic Unit 02060002, .75 mi north of Fairlee.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 650 ft; casing diameter 10 in., to 114 ft; casing diameter 4 in., to 595 ft and 605 to 650 ft; screen diameter 4 in. from 595 to 605 ft.  
 INSTRUMENTATION.--Twice yearly measurements with electric tape by U.S. Geological Survey personnel. Measured twice yearly from October 1986 to April 1991. Equipped with digital water-level recorder--30-minute recorder interval from July 16, 1991 to October 1993.  
 DATUM.--Elevation of land surface is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 4.38 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels affected by regional ground-water withdrawal.  
 PERIOD OF RECORD.--June 1978 to July 1979, December 1985, October 1986 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.84 ft below land surface, Sept. 15, 1982; lowest measured, 41.57 ft below land surface, April 23, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	41.17	APR 23, 2002	41.57
WATER YEAR 2002 HIGHEST 41.17		OCT 25, 2001 LOWEST 41.57 APR 23, 2002	



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

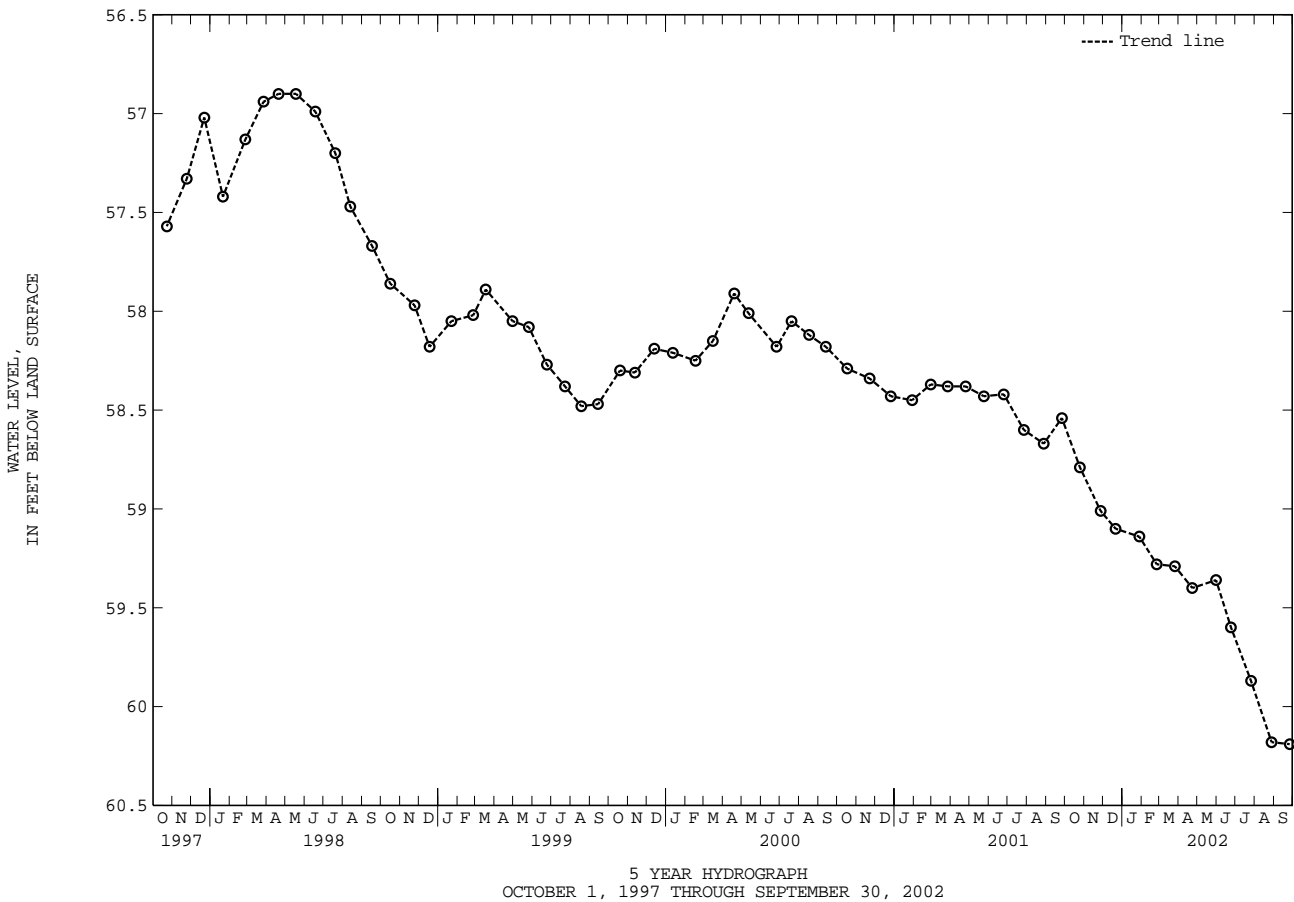
KENT COUNTY--Continued

WELL NUMBER.--KE Cb 97. SITE ID.--391124076101001. PERMIT NUMBER.--KE-88-0251.  
 LOCATION.--Lat 39°11'24", long 76°10'10", Hydrologic Unit 02060002, 1.3 mi southeast of McCleans Corner, at Remington Farms.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Magothy Formation of the Upper Cretaceous age. Aquifer code: 211MGTY.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 285 ft; casing diameter 4 in., to 270 ft;  
 screen diameter 4 in. from 270 to 280 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital  
 water-level recorder--60-minute recorder interval from February 1992 to October 1993.  
 DATUM.--Elevation of land surface is 65.84 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.30 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water  
 withdrawal.  
 PERIOD OF RECORD.--October 1991 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 56.40 ft below land surface, Oct. 24, 1991;  
 lowest measured, 60.19 ft below land surface, Sept. 26, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	58.79	JAN 28, 2002	59.14	APR 23, 2002	59.40	JUL 26, 2002	59.87
NOV 27	59.01	FEB 25	59.28	MAY 31	59.36	AUG 28	60.18
DEC 21	59.10	MAR 26	59.29	JUN 24	59.60	SEP 26	60.19

WATER YEAR 2002    HIGHEST    58.79    OCT 25, 2001    LOWEST    60.19    SEP 26, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Cb 98. SITE ID.--391124076101002. PERMIT NUMBER.--KE-88-0254.

LOCATION.--Lat 39°11'24", long 76°10'10", Hydrologic Unit 02060002, 1.3 mi southeast of McCleans Corner, at Remington Farms.

Owner: Maryland Geological Survey.

AQUIFER.--Mount Laurel Formation (Monmouth aquifer) of Upper Cretaceous age. Aquifer code: 211MLRL.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 225 ft; casing diameter 4 in., to 210 ft and 220 to 225 ft; screen diameter 4 in. from 210 to 220 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from February 1992 to October 1993.

DATUM.--Elevation of land surface is 65.78 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.54 ft above land surface.

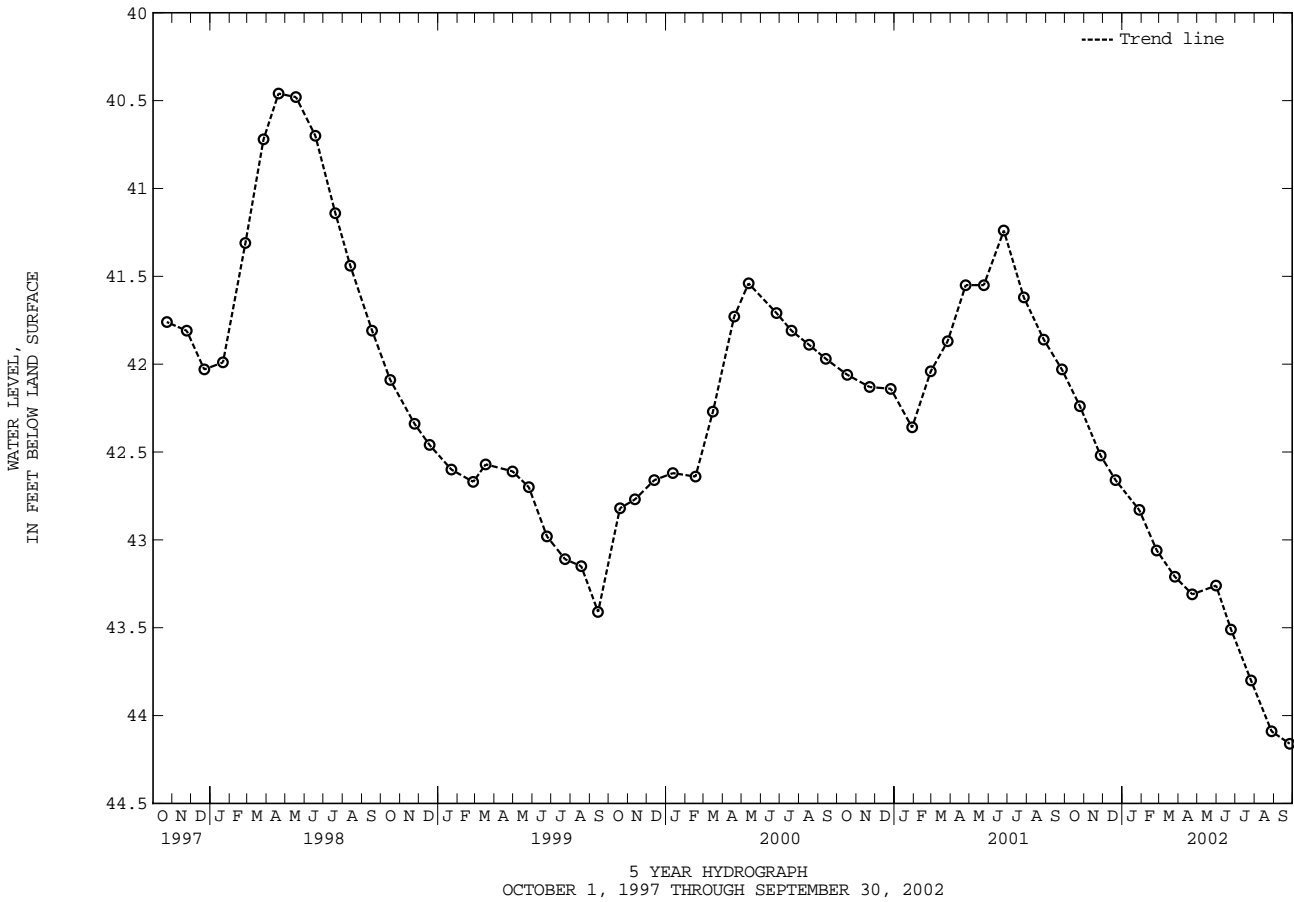
REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water withdrawal.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.96 ft below land surface, April 15, 1997, and May 15, 1997; lowest measured, 44.23 ft below land surface, Sept. 19, 1995.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	42.24	JAN 28, 2002	42.83	APR 23, 2002	43.31	JUL 26, 2002	43.80
NOV 27	42.52	FEB 25	43.06	MAY 31	43.26	AUG 28	44.09
DEC 21	42.66	MAR 26	43.21	JUN 24	43.51	SEP 26	44.16
WATER YEAR 2002 HIGHEST 42.24 OCT 25, 2001		LOWEST 44.16		SEP 26, 2002			





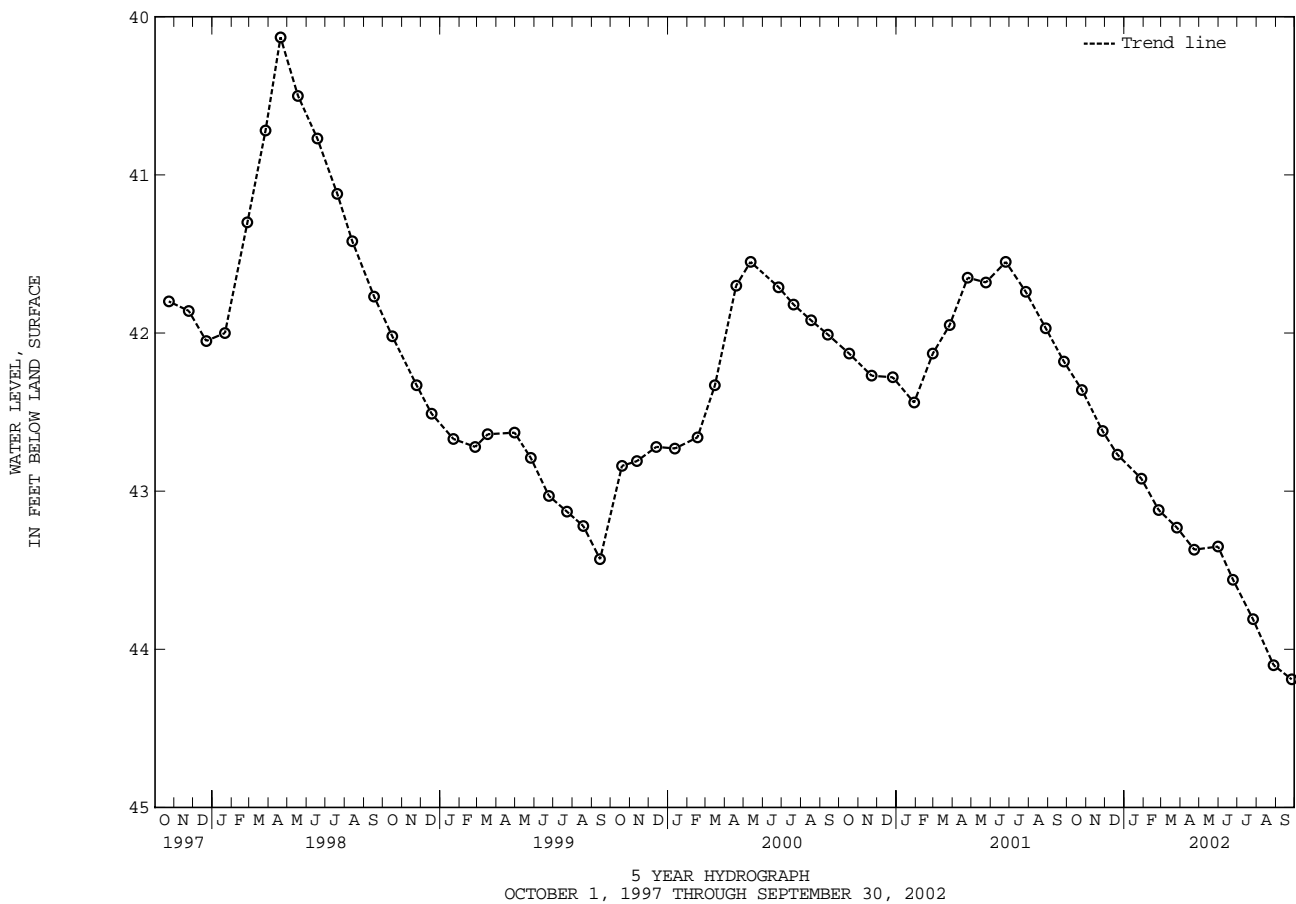
KENT COUNTY--Continued

WELL NUMBER.--KE Cb 99. SITE ID.--391124076101003. PERMIT NUMBER.--KE-88-0252.  
 LOCATION.--Lat 39°11'24", long 76°10'10", Hydrologic Unit 02060002, 1.3 mi southeast of McCleans Corner, at Remington Farms.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 134 ft; casing diameter 4 in., to 118 ft, and 128 to 134 ft; screen diameter 4 in. from 118 to 128 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from February 1992 to October 1993.  
 DATUM.--Elevation of land surface is 65.78 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.53 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--October 1991 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.74 ft below land surface, May 15, 1997;  
 lowest measured, 44.19 ft below land surface, Sept. 26, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	42.36	JAN 28, 2002	42.92	APR 23, 2002	43.37	JUL 26, 2002	43.81
NOV 27	42.62	FEB 25	43.12	MAY 31	43.35	AUG 28	44.10
DEC 21	42.77	MAR 26	43.23	JUN 24	43.56	SEP 26	44.19

WATER YEAR 2002    HIGHEST    42.36    OCT 25, 2001    LOWEST    44.19    SEP 26, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

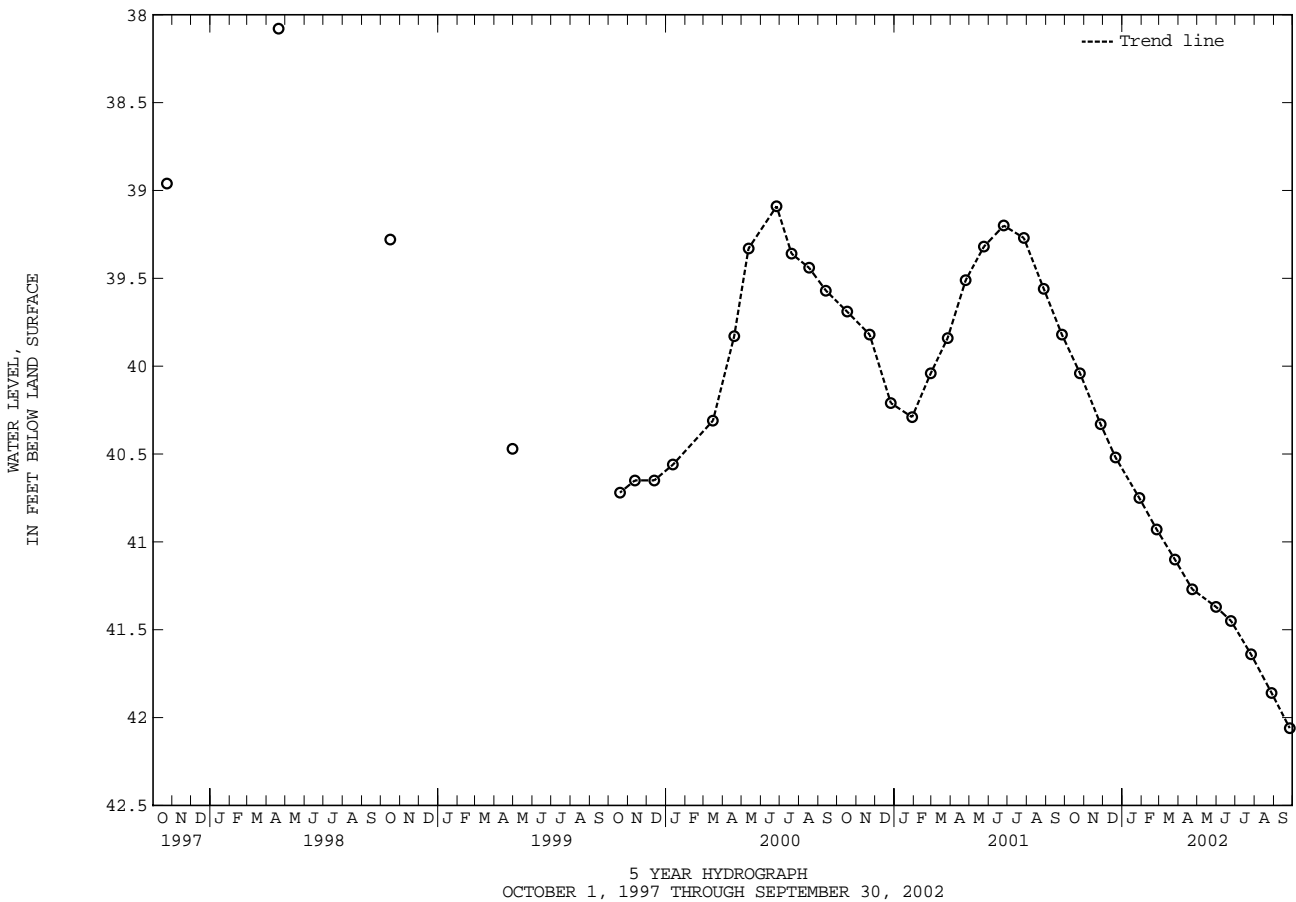
KENT COUNTY--Continued

WELL NUMBER.--KE Cb 100. SITE ID.--391124076101004. PERMIT NUMBER.--KE-88-0253.  
 LOCATION.--Lat 39°11'24", long 76°10'10", Hydrologic Unit 02060002, 1.3 mi southeast of McCleans Corners, at Remington Farms.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 67 ft; casing diameter 4 in., to 52 ft, and 62 to 67 ft;  
 screen diameter 4 in. from 52 to 62 ft.  
 INSTRUMENTATION.--Twice yearly measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital  
 water-level recorder--60-minute recorder interval from February 1992 to October 1993.  
 DATUM.--Elevation of land surface is 65.69 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.56 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water  
 withdrawal.  
 PERIOD OF RECORD.--October 1991 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.63 ft below land surface, April 15, 1997;  
 lowest measured, 42.06 ft below land surface, Sept. 26, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	40.04	JAN 28, 2002	40.75	APR 23, 2002	41.27	JUL 26, 2002	41.64
NOV 27	40.33	FEB 25	40.93	MAY 31	41.37	AUG 28	41.86
DEC 21	40.52	MAR 26	41.10	JUN 24	41.45	SEP 26	42.06

WATER YEAR 2002    HIGHEST    40.04    OCT 25, 2001    LOWEST    42.06    SEP 26, 2002

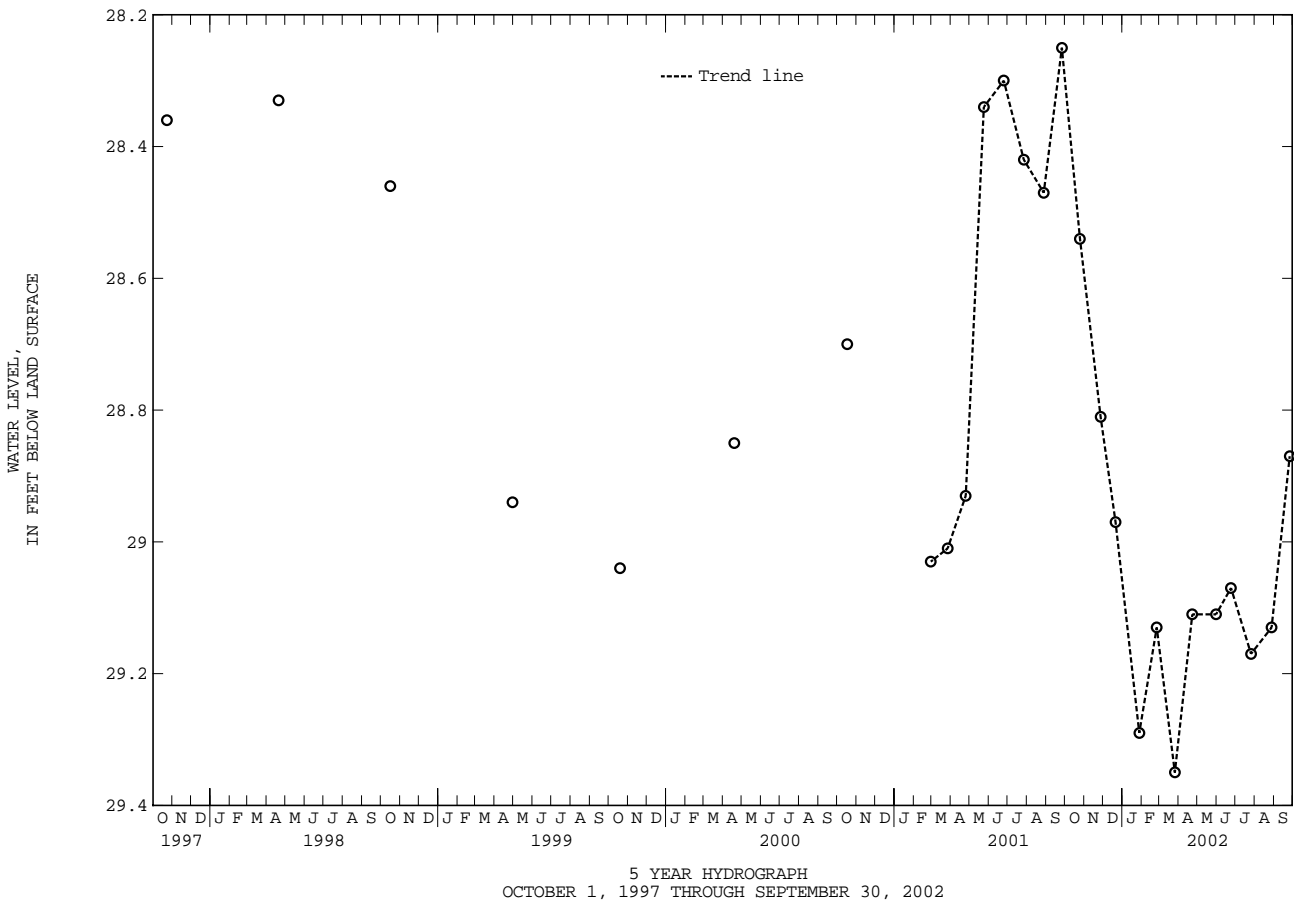


KENT COUNTY--Continued

WELL NUMBER.--KE Cb 101. SITE ID.--391251076142201. PERMIT NUMBER.--KE-88-0250.  
 LOCATION.--Lat 39°12'48", long 76°14'22", Hydrologic Unit 02060002, 0.4 mi east of Tolchester Beach, south of MD Rt. 21.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Kent Island Formation (Columbia aquifer) of Pleistocene age. Aquifer code: 112KILD.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 73 ft; casing diameter 4 in., to 58 ft, and 68 to 73 ft; screen diameter 4 in. from 58 to 68 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Measured twice yearly from October 1995 to February 2001. Equipped with digital water-level recorder--60-minute recorder interval from February 1992 to October 1993.  
 DATUM.--Elevation of land surface is 31.12 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.60 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well.  
 PERIOD OF RECORD.--October 1991 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.12 ft below land surface, Oct. 21, 1996;  
 lowest measured, 29.47 ft below land surface, Dec. 8, 1992.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	28.54	JAN 28, 2002	29.29	APR 23, 2002	29.11	JUL 26, 2002	29.17
NOV 27	28.81	FEB 25	29.13	MAY 31	29.11	AUG 28	29.13
DEC 21	28.97	MAR 26	29.35	JUN 24	29.07	SEP 26	28.87
WATER YEAR 2002		HIGHEST	28.54	OCT 25, 2001	LOWEST	29.35	MAR 26, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

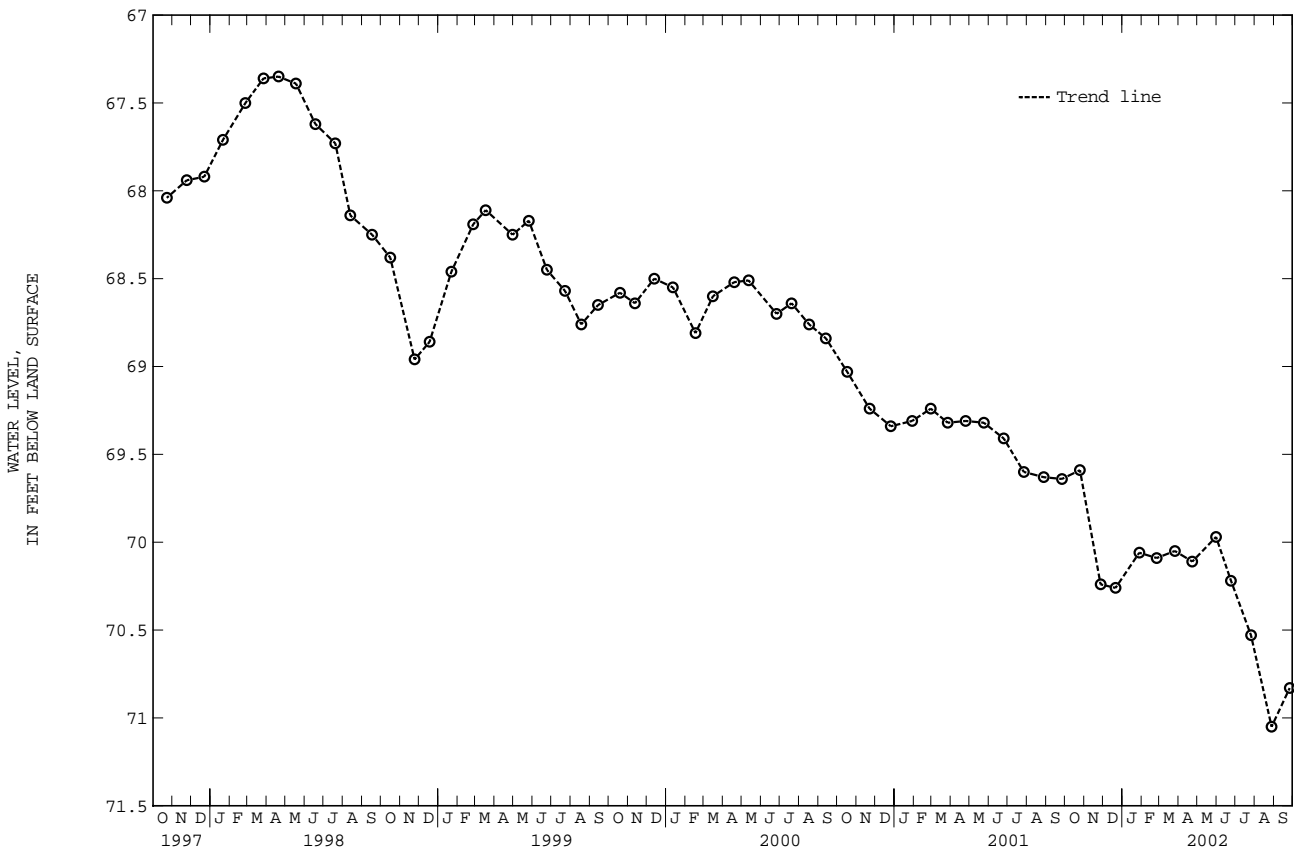
KENT COUNTY--Continued

WELL NUMBER.--KE Cb 103. SITE ID.--391124076101005. PERMIT NUMBER.--KE-88-0288.  
 LOCATION.--Lat 39°11'24", long 76°10'10", Hydrologic Unit 02060002, 1.3 mi southeast of McCleans Corner, at Remington Farms.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 404 ft; casing diameter 4 in., to 389 ft, and 399 to 404 ft; screen diameter 4 in. from 389 to 399 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from February 1992 to October 1993.  
 DATUM.--Elevation of land surface is 65.60 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.54 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by regional ground-water withdrawal.  
 PERIOD OF RECORD.--February 1992 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 65.64 ft below land surface, April 2, 1992; lowest measured, 71.05 ft below land surface, Aug. 28, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	69.59	JAN 28, 2002	70.06	APR 23, 2002	70.11	JUL 26, 2002	70.53
NOV 27	70.24	FEB 25	70.09	MAY 31	69.97	AUG 28	71.05
DEC 21	70.26	MAR 26	70.05	JUN 24	70.22	SEP 26	70.83

WATER YEAR 2002      HIGHEST    69.59    OCT 25, 2001      LOWEST    71.05    AUG 28, 2002



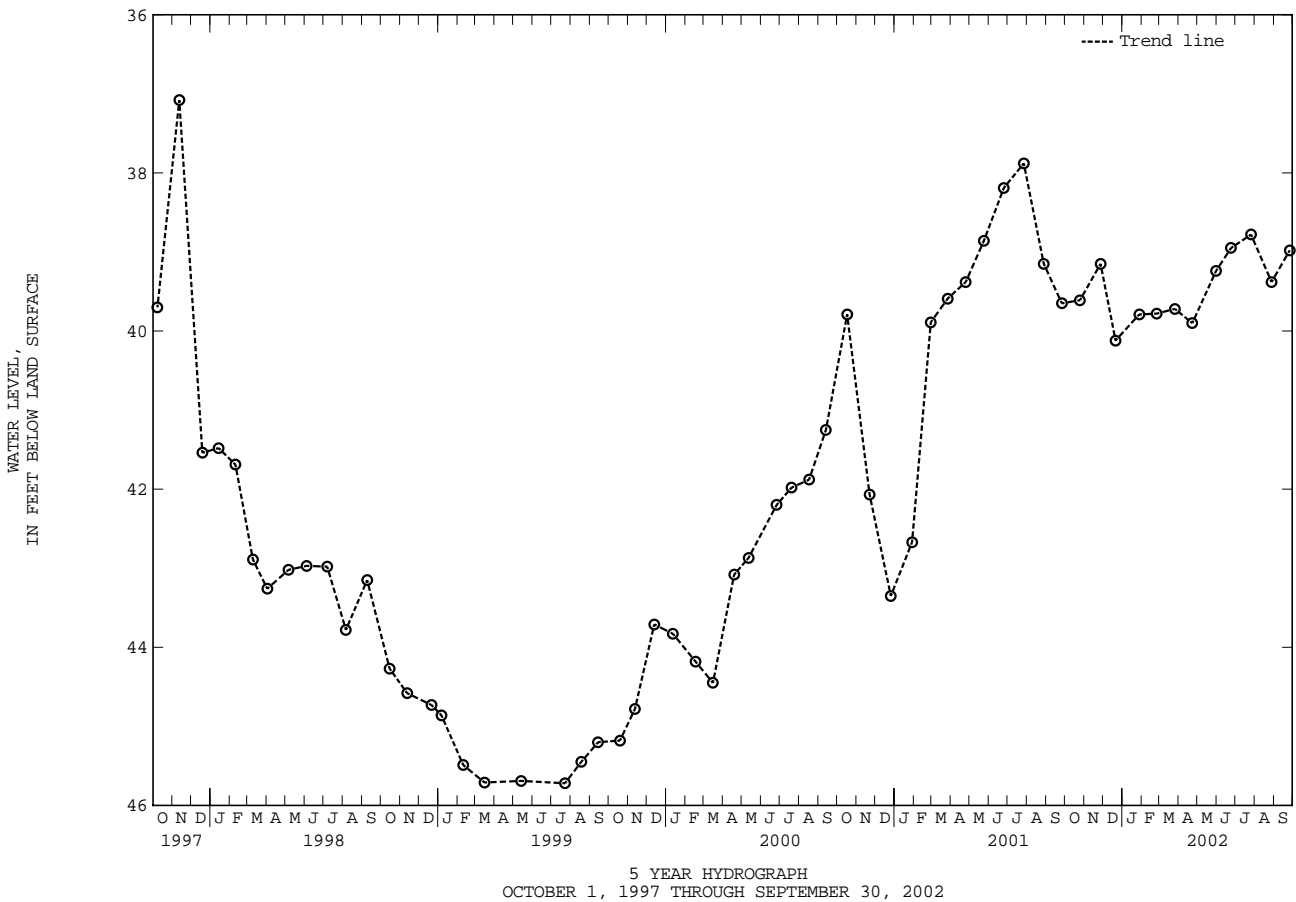
5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

KENT COUNTY--Continued

WELL NUMBER.--KE Cd 44. SITE ID.--391432076015501. PERMIT NUMBER.--KE-03-6139.  
 LOCATION.--Lat 39°14'32", long 76°01'55", Hydrologic Unit 02060002, MD Rt. 291, 2.6 mi northeast of Chestertown.  
 Owner: Chestertown Foods  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 84 ft; casing diameter 4 in., to 79 ft; screen diameter 5 in. from 79 to 84 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 0.20 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels measured by plant personnel with an electric tape, Sept. 18, 1959 to April 18, 1963. Food processing plant closed from Aug. 31, 1995 to Sept. 30, 1996. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--September 1959 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.00 ft below land surface, Sept. 18, 1959; lowest measured, 54.46 ft below land surface, Aug. 4, 1966.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	39.61	JAN 28, 2002	39.79	APR 23, 2002	39.90	JUL 26, 2002	38.78
NOV 27	39.15	FEB 25	39.78	MAY 31	39.24	AUG 28	39.38
DEC 21	40.12	MAR 26	39.72	JUN 24	38.95	SEP 26	38.98
WATER YEAR 2002		HIGHEST	38.78	JUL 26, 2002	LOWEST	40.12	DEC 21, 2001



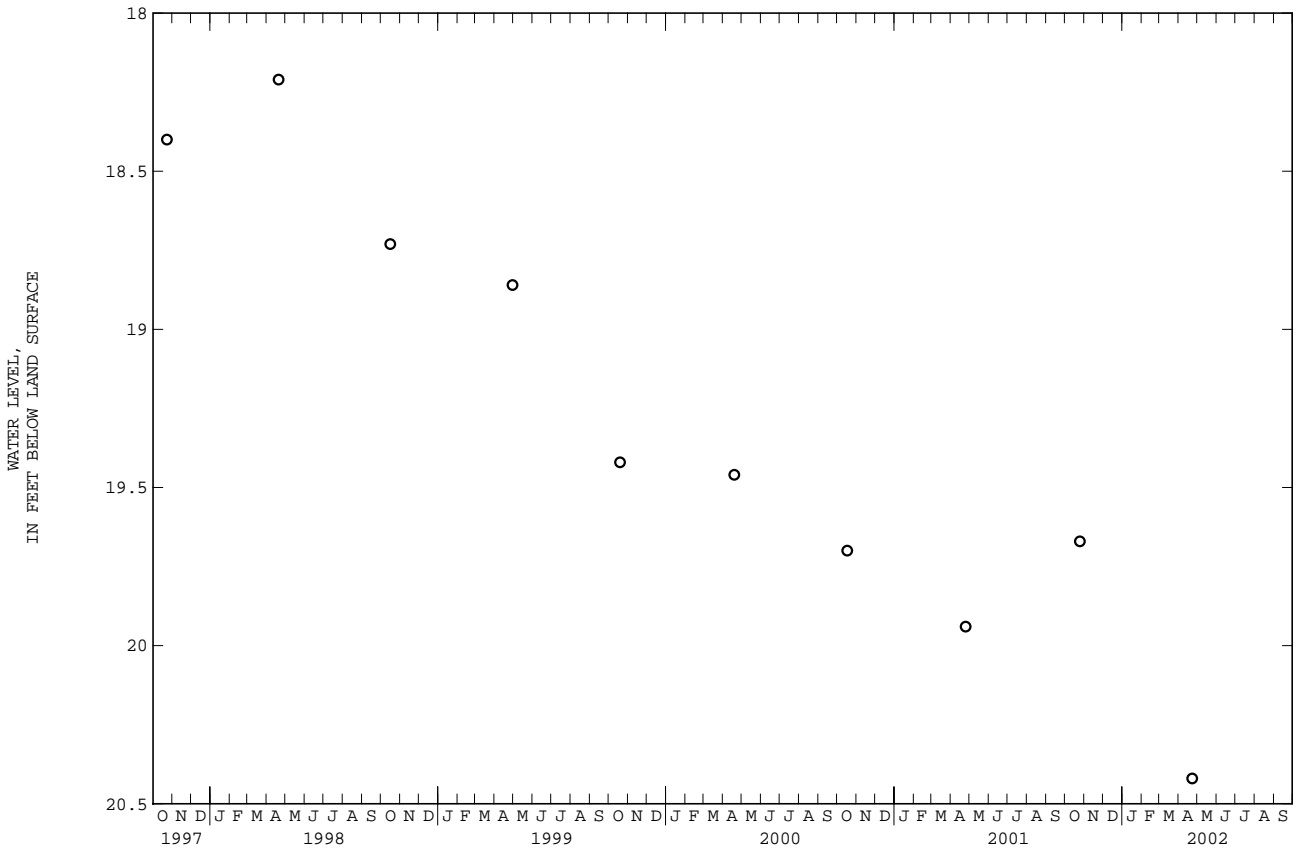
GROUND-WATER LEVELS IN MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Db 40. SITE ID.--390837076140401. PERMIT NUMBER.--KE-73-0805.  
 LOCATION.--Lat 39°08'37", long 76°14'04", Hydrologic Unit 02070002, near Rock Hall.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,030 ft; casing diameter 4 in., to 1,019 ft; screen diameter 4 in. from 1,019 to 1,030 ft.  
 INSTRUMENTATION.--Twice yearly measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 1.65 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by regional ground-water withdrawal.  
 PERIOD OF RECORD.--December 1978 to July 1979, October 1986 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.08 ft below land surface, Oct. 30, 1980;  
 lowest measured, 20.42 ft below land surface, April 23, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	19.67	APR 23, 2002	20.42
WATER YEAR 2002 HIGHEST 19.67		OCT 25, 2001 LOWEST 20.42	



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

KENT COUNTY--Continued

WELL NUMBER.--KE Dc 89. SITE ID.--390626076083301. PERMIT NUMBER.--KE-88-0246.

LOCATION.--Lat 39°06'26", long 76°08'33", Hydrologic Unit 02060002, at the end of Cliffs City Rd.

Owner: Maryland Geological Survey.

AQUIFER.--Kent Island Formation (Columbia aquifer) of Pleistocene age. Aquifer code: 112KILD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 29 ft; casing diameter 4 in., to 14 ft, and 24 to 29 ft; screen diameter 4 in. from 14 to 24 ft.

INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from February 1992 to October 1993.

DATUM.--Elevation of land surface is 4.52 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.44 ft above land surface.

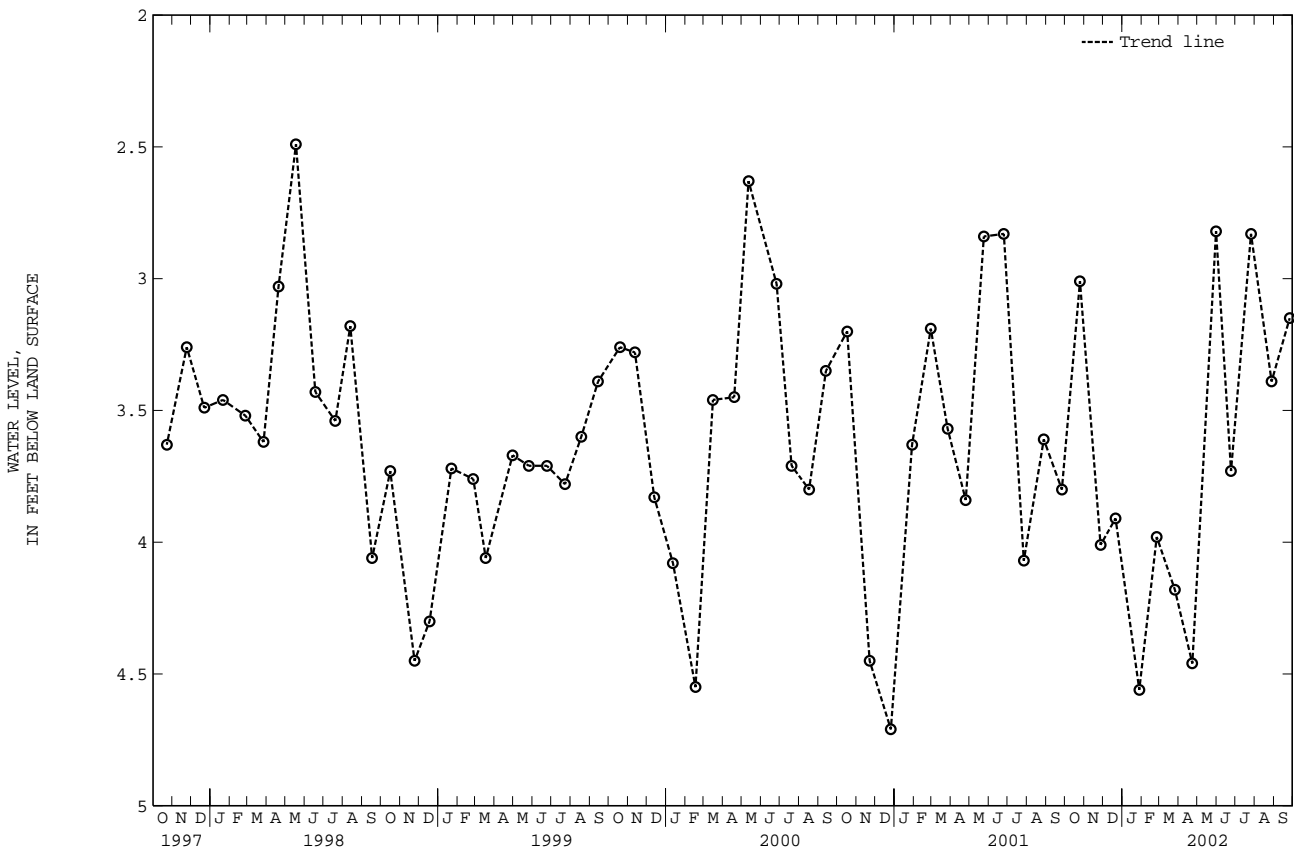
REMARKS.--Maryland Water-Level Network observation well.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.40 ft below land surface, Oct. 21, 1996; lowest measured, 5.14 ft below land surface, Jan. 20, 1993.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	3.01	JAN 28, 2002	4.56	APR 23, 2002	4.46	JUL 26, 2002	2.83
NOV 27	4.01	FEB 25	3.98	MAY 31	2.82	AUG 28	3.39
DEC 21	3.91	MAR 26	4.18	JUN 24	3.73	SEP 26	3.15
WATER YEAR 2002		HIGHEST	2.82	MAY 31, 2002	LOWEST	4.56	JAN 28, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Dc 91. SITE ID.--390626076083302. PERMIT NUMBER.--KE-88-0247.  
 LOCATION.--Lat 39°06'26", long 76°08'33", Hydrologic Unit 02060002, 1.0 mi south of Cliffs City, at Cliffs Wharf.  
 Owner: Maryland Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 155 ft; casing diameter 4 in., to 140 ft, and 150 to 155 ft; screen diameter 4 in. from 140 to 150 ft.

INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from February 1992 to October 1993.

DATUM.--Elevation of land surface is 4.64 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of metal sleeve, 2.46 ft above land surface.

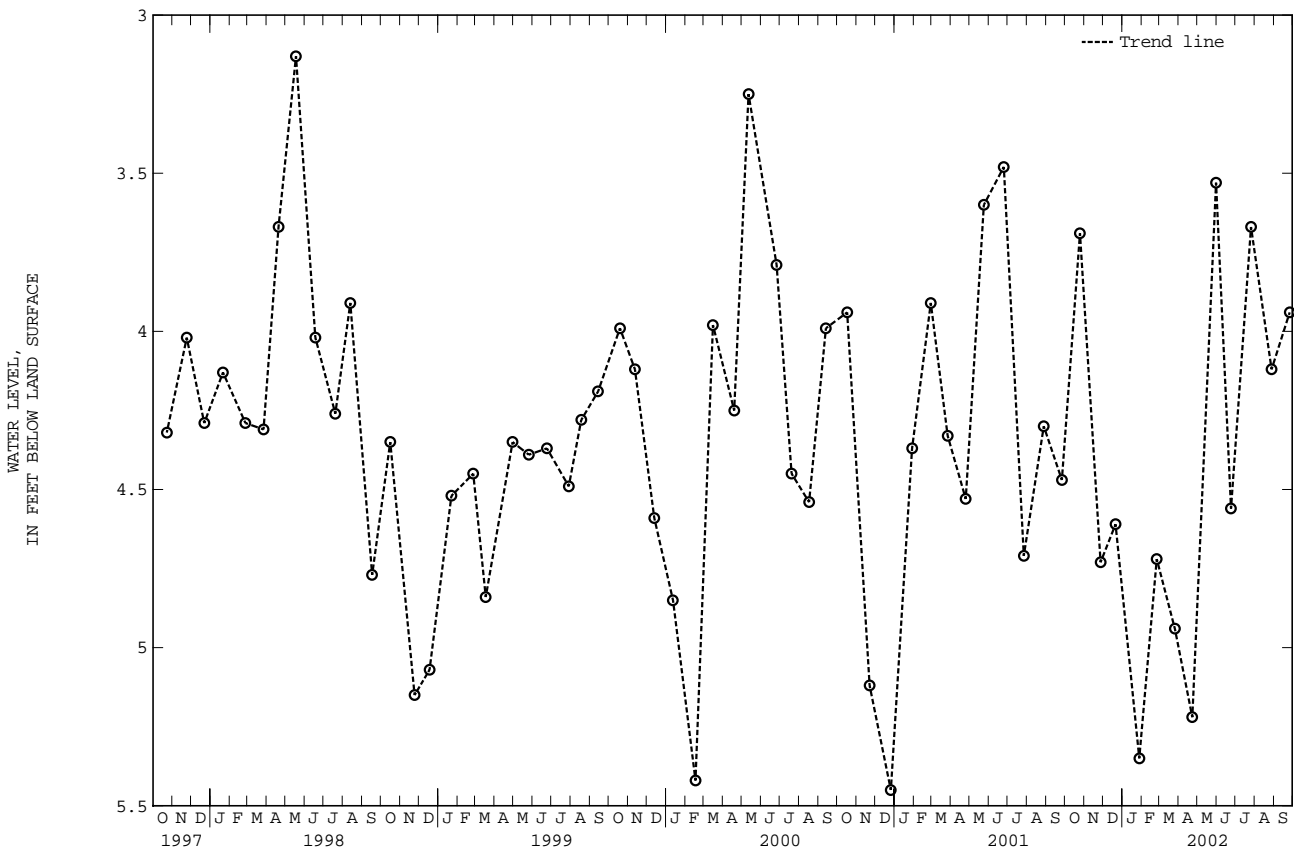
REMARKS.--Maryland Water-Level Network observation well.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.01 ft below land surface, Oct. 21, 1996;  
 lowest measured, 5.81 ft below land surface, Dec. 13, 1994.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	3.69	JAN 28, 2002	5.35	APR 23, 2002	5.22	JUL 26, 2002	3.67
NOV 27	4.73	FEB 25	4.72	MAY 31	3.53	AUG 28	4.12
DEC 21	4.61	MAR 26	4.94	JUN 24	4.56	SEP 26	3.94
WATER YEAR 2002		HIGHEST	3.53	MAY 31, 2002	LOWEST	5.35	JAN 28, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



MONTGOMERY COUNTY

WELL NUMBER.--MO Cb 26. SITE ID.--391142077280601. PERMIT NUMBER.--MO-72-0191.  
 LOCATION.--Lat 39°11'42", long 77°28'06", Hydrologic Unit 02070008, 2 mi southwest of Dickerson, at Dickerson Regional Park.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Manassas Sandstone, Poolsville Member of Upper Triassic age. Aquifer code: 231MNSS.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 885 ft; casing diameter 6 in., to 38 ft; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with electric steel tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 220 ft above National Geodetic Datum of 1929.  
 Measuring point: Top of casing 8.60 ft above land surface.

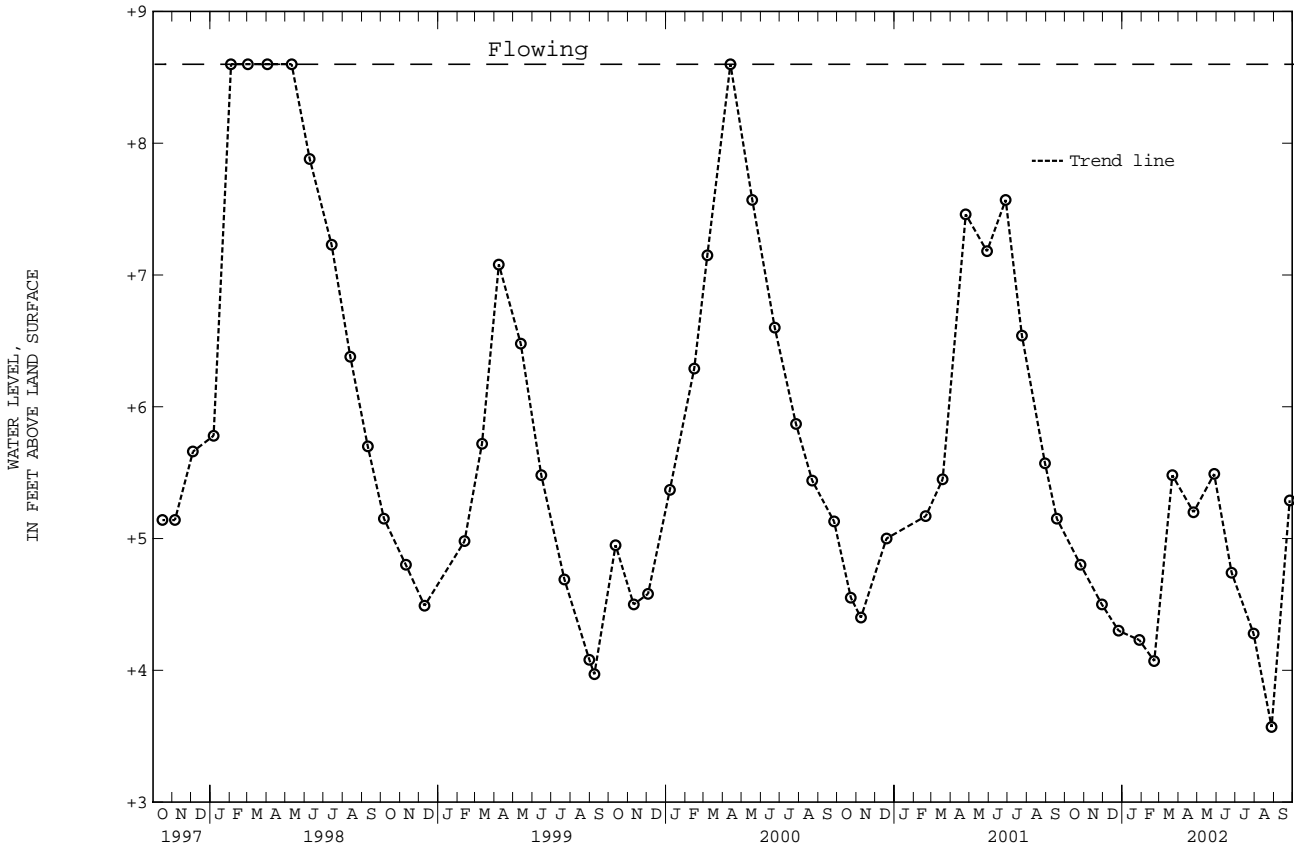
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--February 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, flowing on Jan. 3, 1991, April 3, 1991, April 5, 1993, May 3, 1993, March 7, 1994, April 5, 1994, May 10, 1994, Jan. 29, 1996, Feb. 15, 1996, March 12, 1996, April 11, 1996, May 6, 1996, June 5, 1996, July 2, 1996, Aug. 1, 1996, Oct. 10, 1996, Nov. 4, 1996, Dec. 3, 1996, Jan. 2, 1997, Feb. 3, 1997, March 13, 1997, April 10, 1997, Feb. 3, 1998, March 2, 1998, April 2, 1998, May 11, 1998, and April 13, 2000;  
 lowest measured, 3.57 ft above land surface, Aug. 28, 2002.

WATER LEVELS, IN FEET ABOVE LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	+4.80	JAN 28, 2002	+4.23	APR 25, 2002	+5.20	JUL 30, 2002	+4.28
NOV 29	+4.50	FEB 21	+4.07	MAY 28	+5.49	AUG 28	+3.57
DEC 26	+4.30	MAR 22	+5.48	JUN 25	+4.74	SEP 26	+5.29

WATER YEAR 2002      HIGHEST    +5.49    MAY 28, 2002      LOWEST    +3.57    AUG 28, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

MONTGOMERY COUNTY--Continued

WELL NUMBER.--MO Cc 14. SITE ID.--391314077224201.

LOCATION.--Lat 39°13'14", long 77°22'42", Hydrologic Unit 02070008, at Barnesville.

Owner: Shirley Hayes.

AQUIFER.--Ijamsville Formation of Paleozoic age. Aquifer code: 300IJMV.

WELL CHARACTERISTICS.--Dug, stone-lined, unused, water-table well, depth 46 ft; casing diameter 60 in.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 560 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of wooden well cover, 3.00 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.

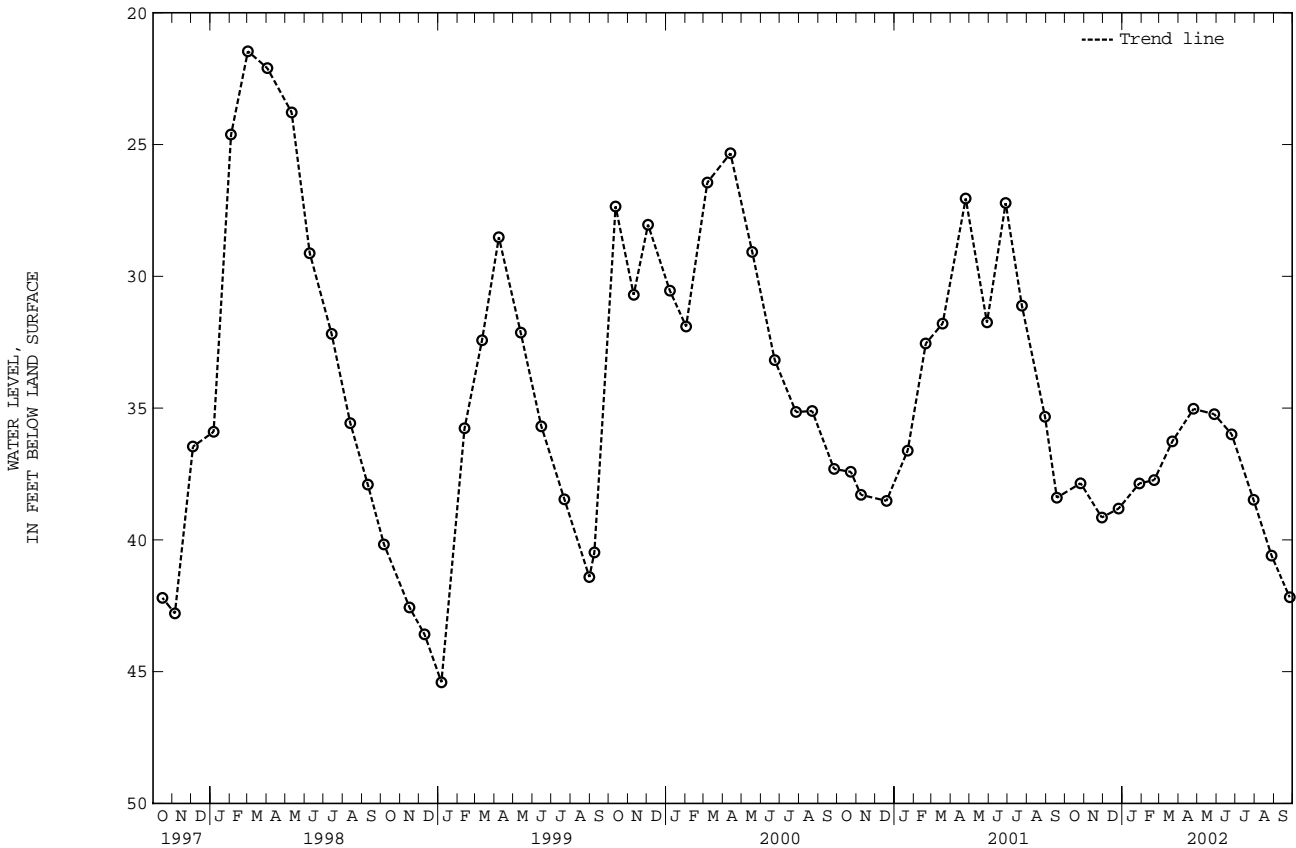
PERIOD OF RECORD.--November 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.00 ft below land surface, April 5, 1993;

lowest measured, dry, on Dec. 2, 1957, Dec. 7, 1964, Dec. 6, 1965, Jan. 3, 1966, Feb. 2, 1966.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	37.85	JAN 28, 2002	37.86	APR 25, 2002	35.03	JUL 30, 2002	38.48
NOV 29	39.15	FEB 21	37.73	MAY 28	35.23	AUG 28	40.60
DEC 26	38.81	MAR 22	36.26	JUN 25	35.99	SEP 26	42.18
WATER YEAR 2002		HIGHEST	35.03	APR 25, 2002	LOWEST	42.18	SEP 26, 2002



## MONTGOMERY COUNTY --Continued

WELL NUMBER.--MO Db 68. SITE ID.--390802077283801. PERMIT NUMBER.--MO-73-1869.

LOCATION.--Lat 39°08'02", long 77°28'38", Hydrologic Unit 0207008, south of Club Hollow Road, at the National Institutes of Health, Animal Center.

Owner: U.S. Geological Survey.

AQUIFER.--Balls Bluff Siltstone of Upper Triassic age. Aquifer code: 231BLEF.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 250 ft; casing diameter 6 in., to 40 ft; open hole.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--15-minute recorder interval from December 24, 1998 to current year.

DATUM.--Elevation of land surface is 260 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of shelter platform, 2.02 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal. Missing data due to recorder malfunction.

PERIOD OF RECORD.--May 1978 to August 1980, June 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.12 ft below land surface, May 12, 1989; lowest measured, 41.76 ft below land surface, Sept. 9, 1999.

## WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	35.33	23.06	35.81	23.98	34.94	25.78	37.68	28.78	38.26	28.55	---	---
2	35.30	23.75	36.30	23.88	34.47	25.60	38.67	28.91	38.26	27.16	---	---
3	34.24	23.96	35.15	24.75	36.94	25.50	38.15	28.35	35.69	25.79	---	---
4	34.67	24.07	34.65	24.64	37.59	26.15	38.39	28.07	37.16	25.22	---	---
5	35.21	24.74	37.26	24.94	36.95	26.93	36.86	27.76	38.11	26.75	---	---
6	32.75	23.84	37.11	27.51	35.98	26.22	36.07	27.13	37.75	27.48	---	---
7	33.79	23.59	37.05	26.29	36.32	25.72	38.20	26.80	37.21	27.38	---	---
8	31.88	23.22	36.75	26.31	34.34	25.48	38.70	29.24	37.78	27.05	---	---
9	34.14	22.94	36.83	26.33	35.10	25.25	38.39	28.90	37.90	27.39	---	---
10	34.42	23.46	35.15	26.12	37.20	25.12	39.03	28.77	36.40	26.50	---	---
11	36.53	23.66	34.74	25.50	36.87	26.57	39.43	30.87	36.98	26.14	---	---
12	36.60	25.89	34.68	25.38	36.66	25.96	39.60	29.15	36.53	26.49	---	---
13	33.83	24.36	37.15	25.11	37.64	25.65	36.51	27.37	37.37	26.28	---	---
14	34.03	23.79	37.51	26.08	37.79	27.27	38.38	27.31	37.68	27.42	---	---
15	35.58	23.65	37.83	26.30	36.49	26.18	39.00	28.55	38.04	29.83	---	---
16	35.53	24.29	37.73	26.68	35.53	25.38	39.20	28.75	38.46	28.58	---	---
17	36.22	24.37	35.96	25.81	36.77	25.09	38.70	27.35	37.50	28.01	---	---
18	36.19	24.68	35.76	25.47	37.44	26.07	37.50	25.79	37.01	28.03	---	---
19	36.60	24.38	36.59	25.27	37.08	27.32	25.79	22.60	37.53	27.35	---	---
20	33.61	24.35	37.27	25.48	37.07	26.80	30.35	21.80	37.85	28.90	---	---
21	32.93	23.77	37.26	25.90	37.68	27.07	36.30	24.21	38.75	29.87	---	---
22	36.29	23.40	36.21	25.73	36.53	27.17	37.63	23.46	38.89	28.75	---	---
23	36.31	25.23	37.52	25.92	36.66	27.48	37.91	27.86	38.03	28.64	---	---
24	35.24	24.83	36.01	26.29	37.64	27.30	38.11	27.75	37.70	27.95	---	---
25	36.11	24.24	35.62	25.79	37.75	28.46	39.06	38.11	38.28	27.33	---	---
26	36.49	24.49	36.40	25.62	38.72	28.45	39.11	29.18	---	---	---	---
27	32.95	23.40	37.59	25.67	39.20	31.52	37.56	27.09	---	---	---	---
28	33.06	22.54	38.23	27.26	39.20	29.87	37.77	27.50	---	---	---	---
29	34.96	22.94	38.27	27.13	38.07	29.11	38.44	28.20	---	---	38.08	27.19
30	35.21	23.50	37.25	26.22	37.38	28.59	37.80	27.51	---	---	36.51	26.28
31	35.80	23.68	---	---	38.21	28.60	37.90	27.15	---	---	34.96	25.64
MONTH	36.60	22.54	38.27	23.88	39.20	25.09	39.60	21.80	---	---	---	---

GROUND-WATER LEVELS IN MARYLAND--Continued

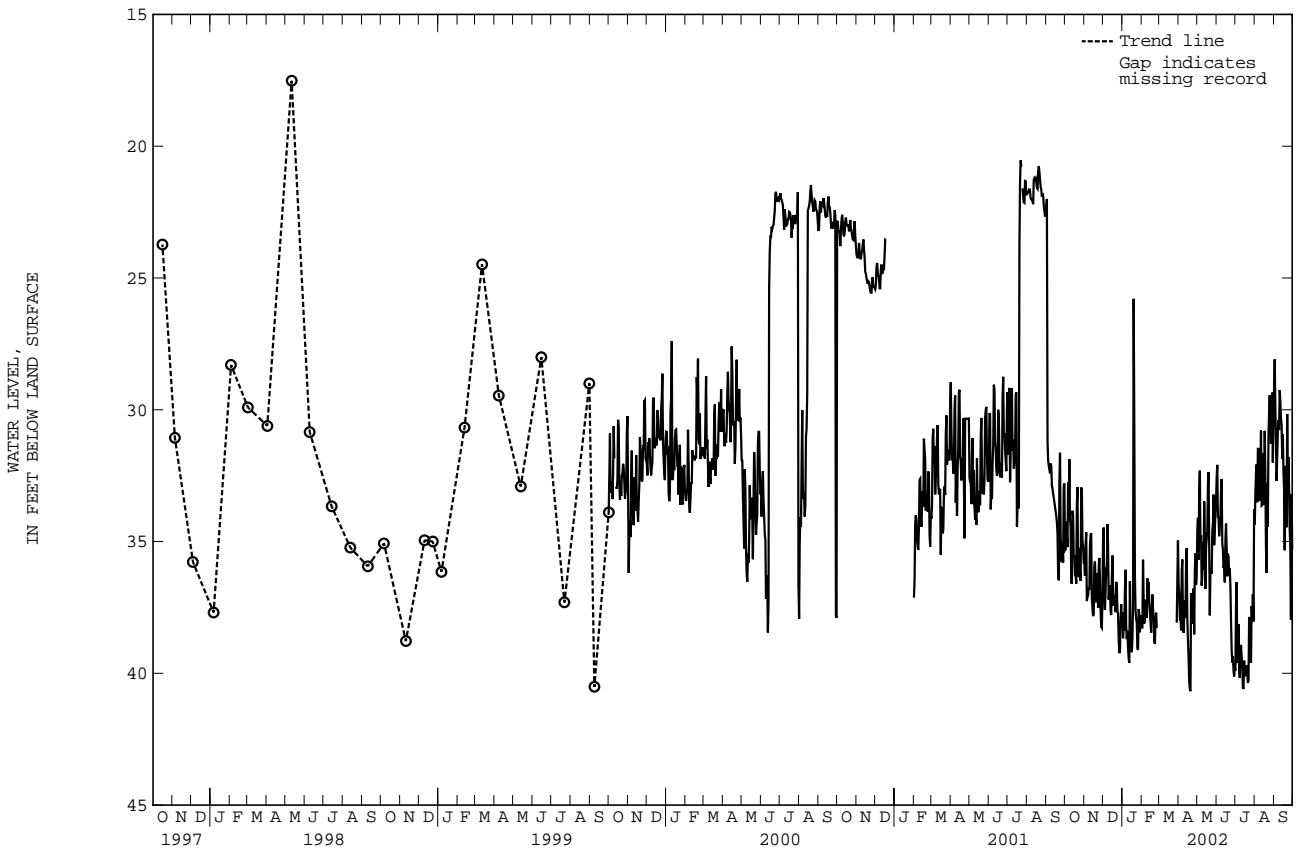
MONTGOMERY COUNTY --Continued

MO Db 68--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	36.60	25.46	34.56	24.82	32.55	24.57	39.90	28.28	34.36	24.23	29.19	20.74
2	36.98	26.00	34.10	24.49	32.09	24.03	37.42	26.32	33.16	24.11	28.09	20.35
3	37.88	26.35	35.70	24.53	34.07	24.05	36.54	26.59	32.43	23.70	29.95	20.31
4	37.84	26.80	33.11	24.49	34.10	24.45	38.93	30.27	32.07	23.51	31.21	21.34
5	38.37	26.69	32.31	24.18	34.80	25.26	39.61	30.36	33.51	23.16	32.70	22.37
6	36.10	26.61	34.99	23.81	34.42	25.01	38.14	26.88	31.51	22.73	31.79	22.19
7	35.68	25.87	34.77	24.39	34.12	24.82	39.76	31.36	31.53	22.50	30.81	21.67
8	37.98	25.74	36.67	24.41	33.05	24.56	40.18	28.34	31.45	23.12	30.40	21.41
9	38.46	27.81	36.30	25.57	32.63	24.26	39.29	27.80	33.45	23.28	30.77	21.26
10	37.84	27.47	35.02	25.47	35.05	24.76	38.92	29.53	32.48	23.18	29.25	21.10
11	37.22	26.83	36.05	25.17	35.33	25.17	39.35	29.84	30.79	22.91	29.71	20.96
12	37.90	26.99	33.48	25.35	36.00	26.87	39.68	30.83	33.64	22.76	30.32	21.55
13	35.75	26.60	34.73	25.19	35.89	27.01	40.54	32.35	33.62	23.88	30.59	21.61
14	35.25	26.08	36.79	25.20	36.55	26.56	40.59	32.42	32.76	23.47	31.87	21.78
15	37.99	26.42	35.24	25.72	34.95	26.53	39.52	30.36	31.64	22.62	30.94	22.74
16	38.74	27.29	34.88	25.48	34.32	25.05	40.11	30.90	33.59	23.50	32.33	22.43
17	39.41	29.29	34.60	25.25	35.30	24.87	40.06	30.54	30.80	22.55	33.01	22.90
18	40.29	39.41	32.87	24.70	36.32	25.36	39.92	30.33	32.63	23.25	35.33	22.68
19	40.60	40.29	32.36	24.34	35.46	25.55	39.69	30.14	35.27	22.66	32.13	23.22
20	40.68	29.38	35.12	24.24	35.58	25.80	39.99	31.88	36.19	25.02	32.74	23.33
21	36.96	27.63	37.80	27.44	36.25	25.88	40.36	32.30	32.80	23.90	34.46	22.88
22	37.42	27.00	36.11	26.52	36.02	27.70	40.28	27.44	34.44	23.08	30.16	22.51
23	38.12	26.94	36.15	26.11	36.70	28.50	37.86	27.70	31.01	22.88	32.86	22.88
24	37.82	27.41	36.22	26.22	38.01	27.05	38.95	30.27	30.12	22.40	31.79	23.02
25	36.78	27.06	34.62	26.01	39.12	26.07	39.30	30.31	29.44	21.87	33.05	23.39
26	38.52	28.42	34.32	25.66	39.59	29.24	39.60	29.42	30.55	21.83	34.53	23.46
27	36.12	26.23	33.22	24.76	39.36	28.62	37.45	27.64	31.29	22.36	35.23	26.52
28	35.45	25.32	35.14	24.77	39.90	29.88	38.05	29.60	30.93	20.94	37.96	26.40
29	36.65	24.69	34.57	24.53	40.12	29.75	37.01	26.81	29.35	20.68	33.19	25.60
30	36.28	25.51	33.91	24.12	39.78	30.67	38.03	24.84	32.00	21.18	35.30	25.31
31	---	---	33.51	24.04	---	---	33.77	24.16	30.27	21.52	---	---
MONTH	40.68	24.69	37.80	23.81	40.12	24.03	40.59	24.16	36.19	20.68	37.96	20.31

Daily Low Water Levels



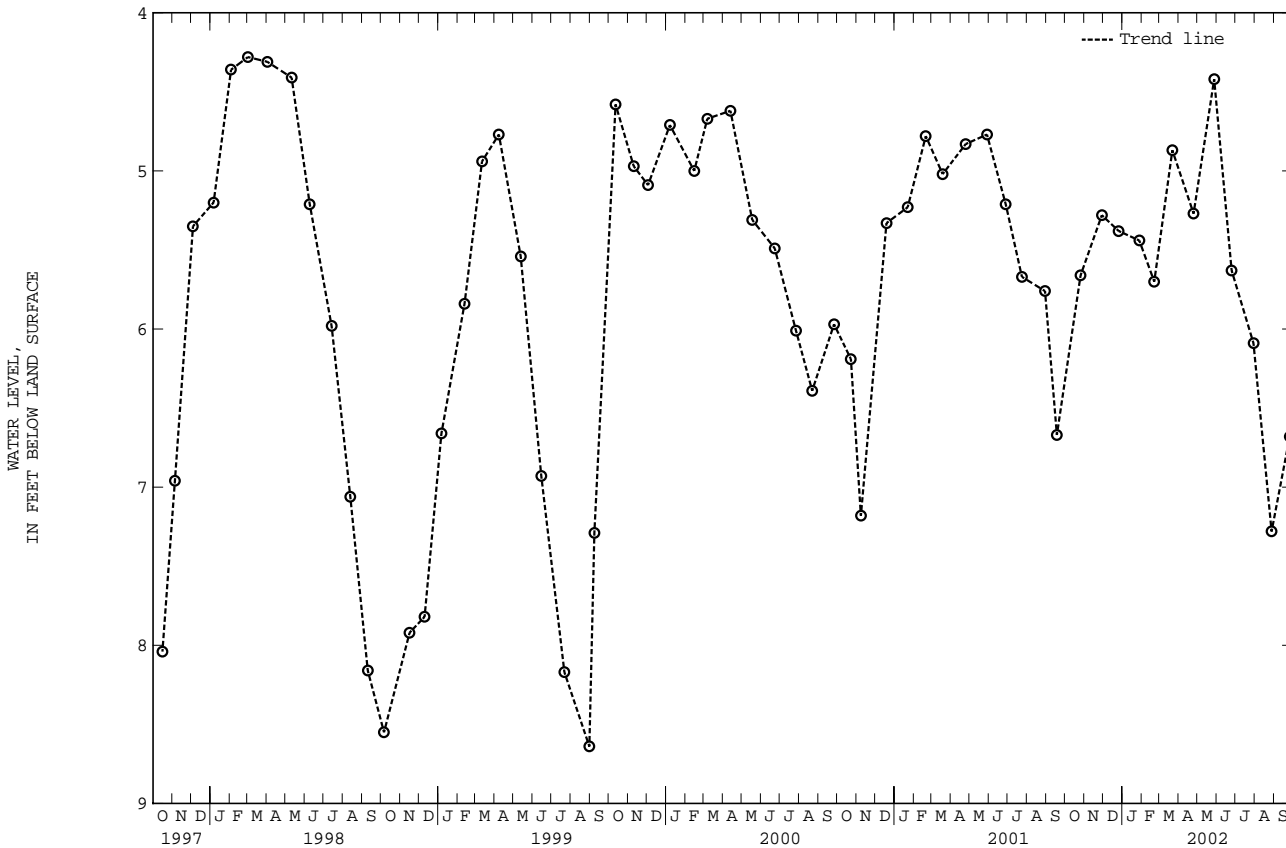
5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

MONTGOMERY COUNTY--Continued

WELL NUMBER.--MO Dc 59. SITE ID.--390917077244401. PERMIT NUMBER.--MO-73-1896.  
 LOCATION.--Lat 39°09'17", long 77°24'44", Hydrologic Unit 02070008, 1 mi north of Poolesville, near Jerusalem Road.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Manassas Sandstone, Poolesville Member of Upper Triassic age. Aquifer code: 231MNSS.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 260 ft; casing diameter 6 in., to 42 ft; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 370 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 3.94 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--June 1990 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.10 ft below land surface, March 7, 1994;  
 lowest measured, 10.70 ft below land surface, Sept. 8, 1993.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	5.66	JAN 28, 2002	5.44	APR 25, 2002	5.27	JUL 30, 2002	6.09
NOV 29	5.28	FEB 21	5.70	MAY 28	4.42	AUG 28	7.28
DEC 26	5.38	MAR 22	4.87	JUN 25	5.63	SEP 26	6.68
WATER YEAR 2002		HIGHEST	4.42	MAY 28, 2002	LOWEST	7.28	AUG 28, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

MONTGOMERY COUNTY--Continued

WELL NUMBER.--MO Ec 10. SITE ID.--390451077245901. PERMIT NUMBER.--MO-73-2833.

LOCATION.--Lat 39°04'51", long 77°24'59", Hydrologic Unit 02070008, 3 mi southeast of Poolesville nr Sycamore Landing Road at McKee Beshler Wildlife Management Area.

Owner: U.S. Geological Survey.

AQUIFER.--Balls Bluff Siltstone of Upper Triassic age. Aquifer code: 231BLEF.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 855 ft; casing diameter 8 in., to 26 ft; open hole.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 200 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.70 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well,

PERIOD OF RECORD.--August 1990 to current year.

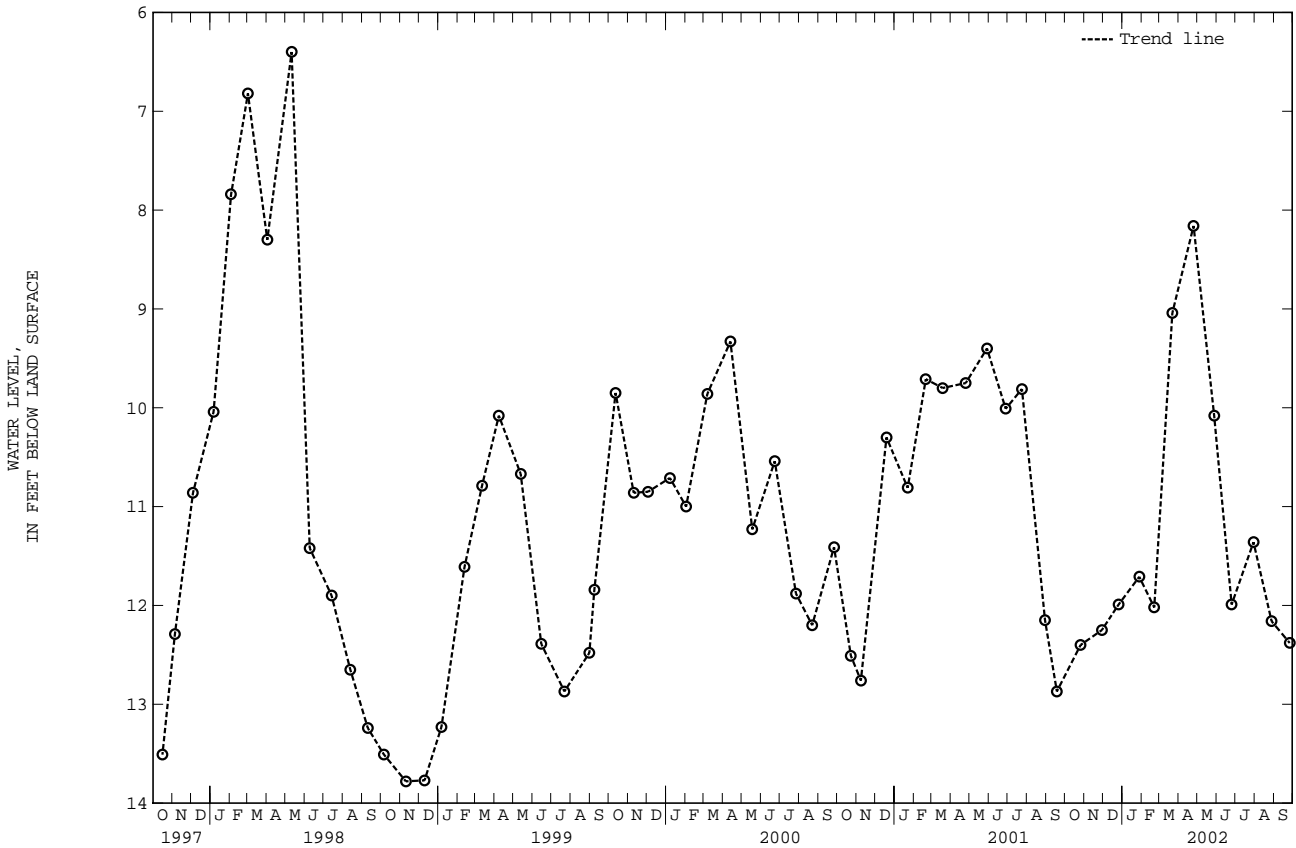
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.70 ft below land surface, Jan. 29, 1996.

lowest measured, 14.52 ft below land surface, July 8, 1992.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	12.40	JAN 28, 2002	11.71	APR 25, 2002	8.16	JUL 30, 2002	11.36
NOV 29	12.25	FEB 21	12.02	MAY 28	10.08	AUG 28	12.16
DEC 26	11.99	MAR 22	9.04	JUN 25	11.99	SEP 26	12.38

WATER YEAR 2002 HIGHEST 8.16 APR 25, 2002 LOWEST 12.40 OCT 26, 2001



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

MONTGOMERY COUNTY--Continued

WELL NUMBER.--MO Eh 20. SITE ID.--390434076573002.

LOCATION.--Lat 39°04'34", long 76°57'30", Hydrologic Unit 02070010, at MD Rt. 196 and Fairland Rd., Fairland.

Owner: Liberty, Fairland Auto Service.

AQUIFER.--Loch Raven Formation of Cambrian age. Aquifer code: 370LCRV.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 102.9 ft; casing diameter 6 in., to 50 ft; open hole.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 405 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing at land-surface datum.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well (See Figure 1.).

PERIOD OF RECORD.--March 1955 to current year.

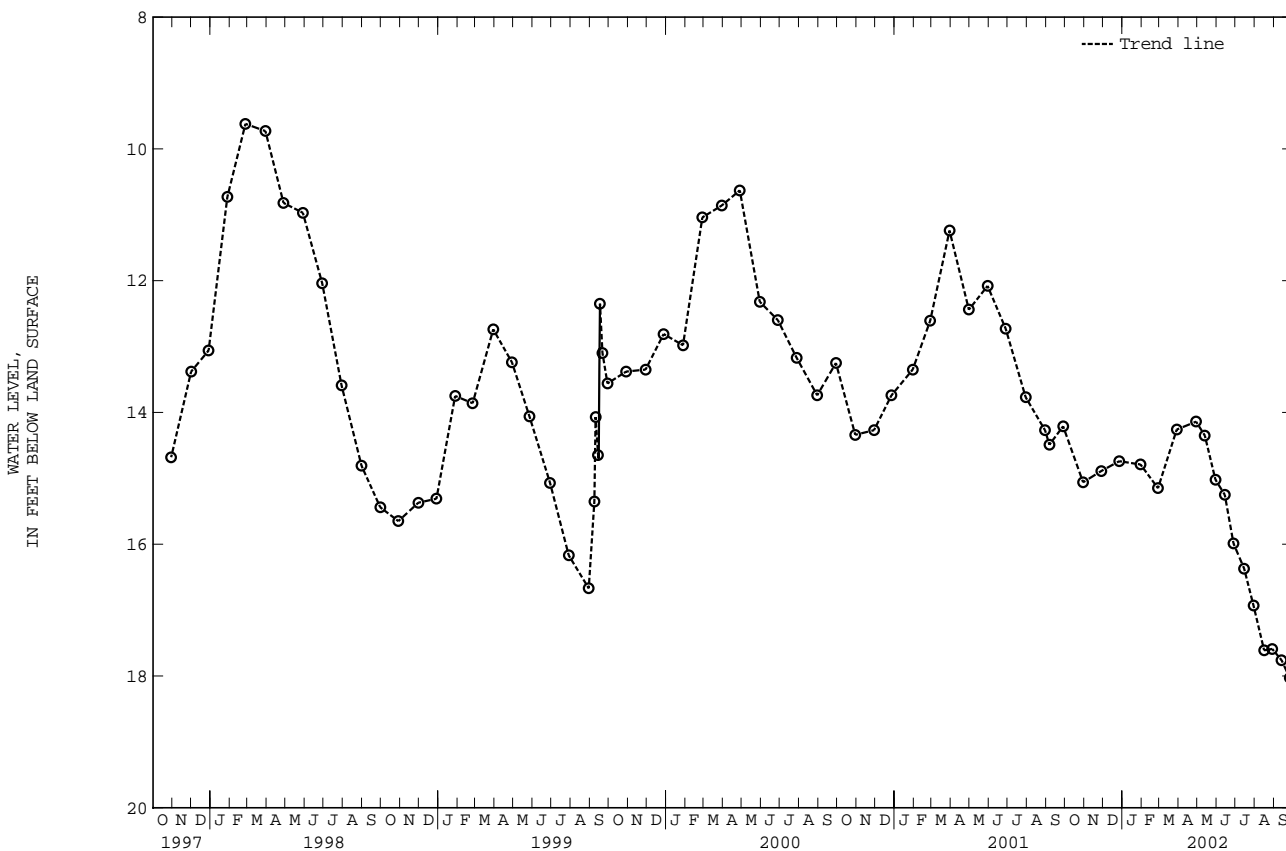
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.39 ft below land surface, June 25, 1972;

lowest measured, 18.03 ft below land surface, Sept. 26, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	15.06	MAR 29, 2002	14.26	JUN 28, 2002	15.99	SEP 13, 2002	17.76
NOV 28	14.89	APR 29	14.14	JUL 15	16.37	26	18.03
DEC 27	14.74	MAY 13	14.35	30	16.93		
JAN 30, 2002	14.79	30	15.02	AUG 16	17.61		
FEB 27	15.15	JUN 14	15.25	29	17.59		

WATER YEAR 2002 HIGHEST 14.26 MAR 29, 2002 LOWEST 18.03 SEP 26, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

PRINCE GEORGES COUNTY

WELL NUMBER.--PG Bc 16. SITE ID.--390151076561501.

LOCATION.--Lat 39°01'51", long 76°56'15", Hydrologic Unit 02070010, at National Agricultural Research Center, Beltsville.

Owner: U.S. Department of Agriculture.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Dug brick-lined, unused, water-table well, measured depth 27.4 ft; casing diameter 40 in.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with water-level recorder from Oct. 31, 1962 to Feb. 9, 1965.

DATUM.--Elevation of land surface is 190 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of steel cover, 0.10 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by natural climatic response.

PERIOD OF RECORD.--September 1962 to current year.

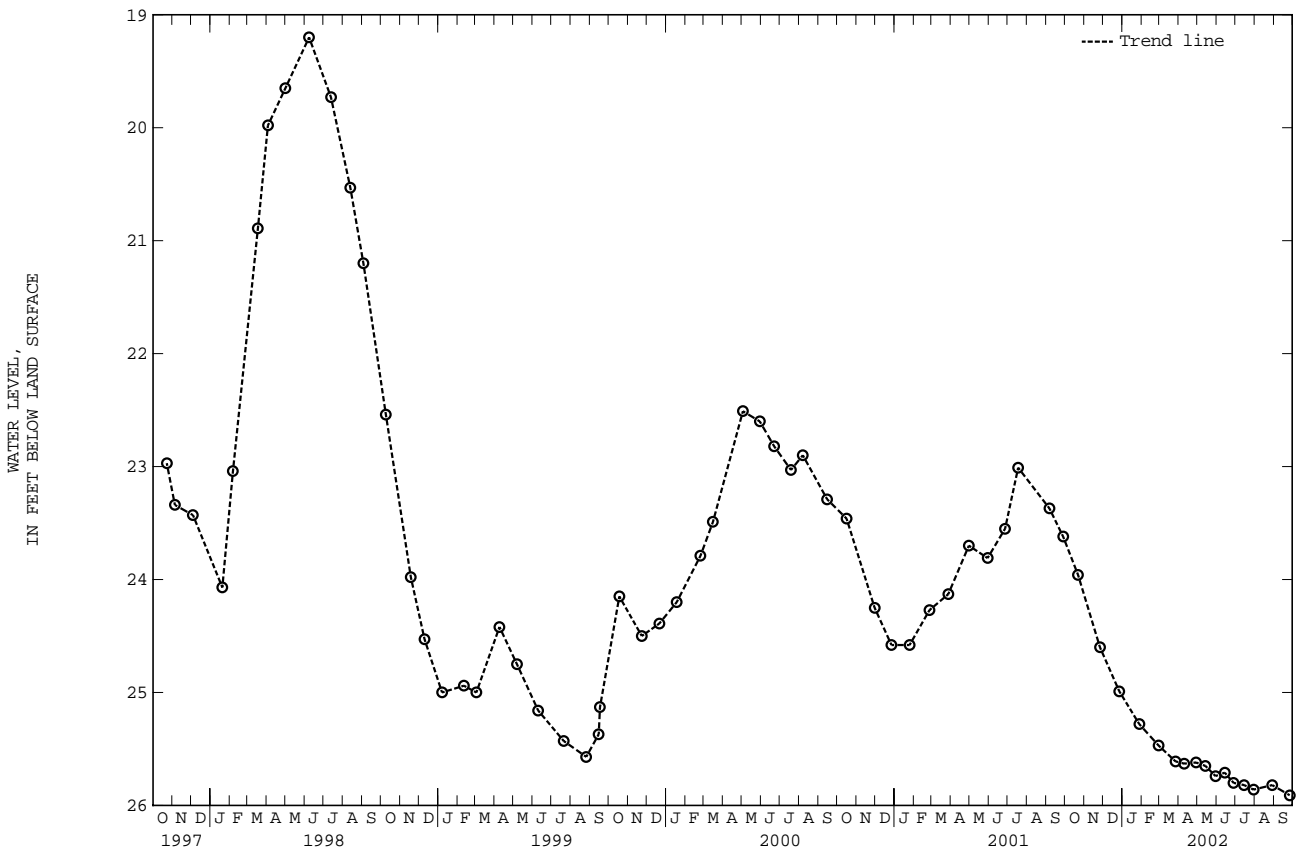
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.26 ft below land surface, July 6, 1972;

lowest measured, 26.46 ft below land surface, July 8, 1981.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 2001	23.96	FEB 28, 2002	25.47	MAY 14, 2002	25.65	JUL 15, 2002	25.82
NOV 26	24.60	MAR 27	25.61	MAY 30	25.74	JUL 30	25.86
DEC 27	24.99	APR 10	25.63	JUN 14	25.71	AUG 29	25.82
JAN 28, 2002	25.28	APR 29	25.62	JUN 28	25.80	SEP 26	25.91

WATER YEAR 2002 HIGHEST 23.96 OCT 22, 2001 LOWEST 25.91 SEP 26, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



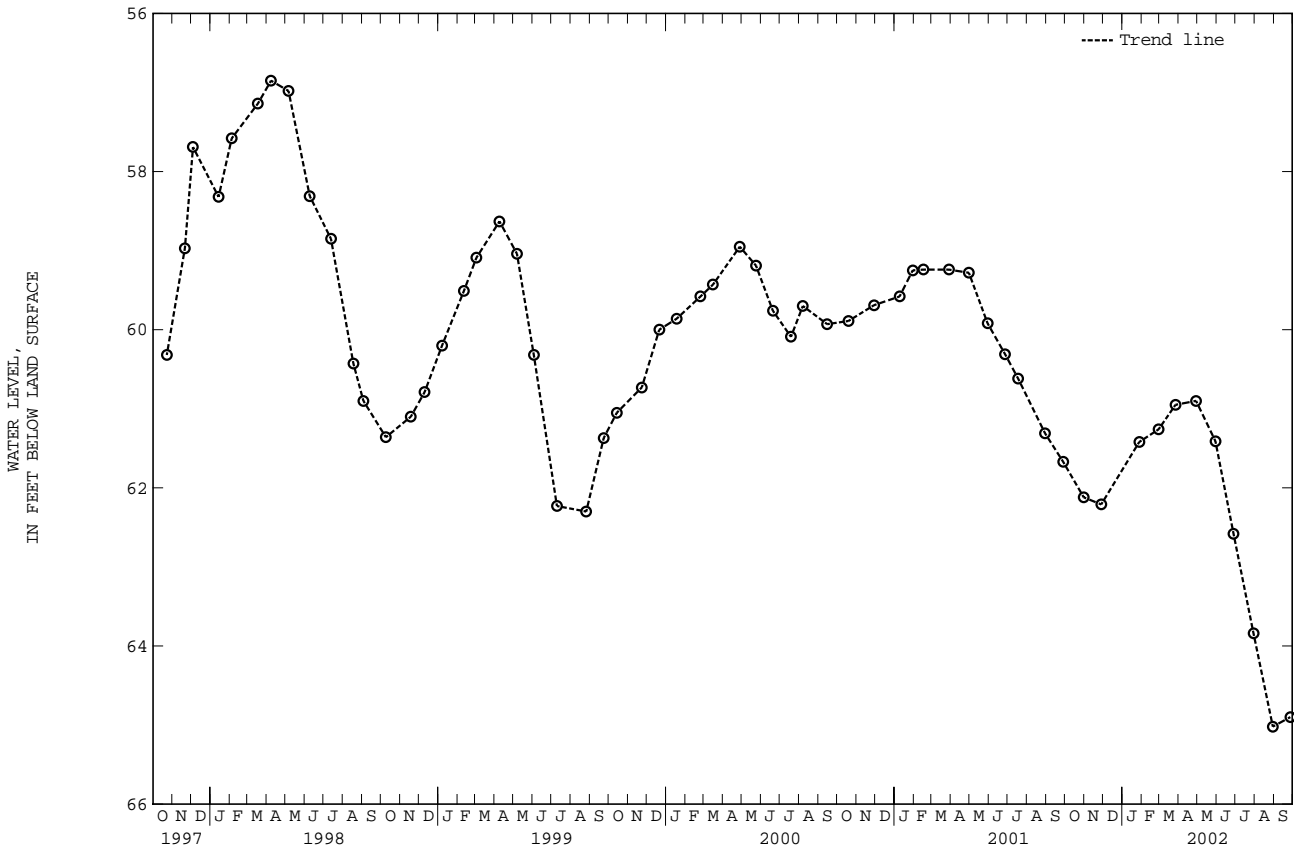
PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG De 21. SITE ID.--385130076465501. PERMIT NUMBER.--PG-02-2875.  
 LOCATION.--Lat 38°51'30", long 76°46'55", Hydrologic Unit 02060006, Agricultural Experiment Station, Southern Maryland Research and Educational Facility, at Oak Grove.  
 Owner: University of Maryland.  
 AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 155 ft; casing diameter 6 in., to 150 ft; screen diameter 6 in. from 150 to 155 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with graphic water-level recorder from May 26, 1958 to Jan. 27, 1965.  
 DATUM.--Elevation of land surface is 95.76 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 0.90 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--May 1958 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.39 ft below land surface, May 26, and 29, 1958; lowest measured, 65.02 ft below land surface, Aug. 30, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 2001	62.12	FEB 28, 2002	61.26	MAY 30, 2002	61.41	AUG 30, 2002	65.02
NOV 28	62.21	MAR 27	60.95	JUN 28	62.58	SEP 27	64.90
JAN 28, 2002	61.42	APR 29	60.90	JUL 30	63.84		

WATER YEAR 2002      HIGHEST    60.90    APR 29, 2002      LOWEST    65.02    AUG 30, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Df 2. SITE ID.--385152076431301.

LOCATION.--Lat 38°51'52", long 76°43'13", Hydrologic Unit 02060006, near Leeland.

Owner: A. R. Rogers.

AQUIFER.--Nanjemoy Formation of Lower Eocene age. Aquifer code: 124NNJM.

WELL CHARACTERISTICS.--Dug, unused, artesian well, depth 81.5 ft; diameter of concrete-ring lining 48 in.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 145 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Edge of steel cover, 3.00 ft below land surface.

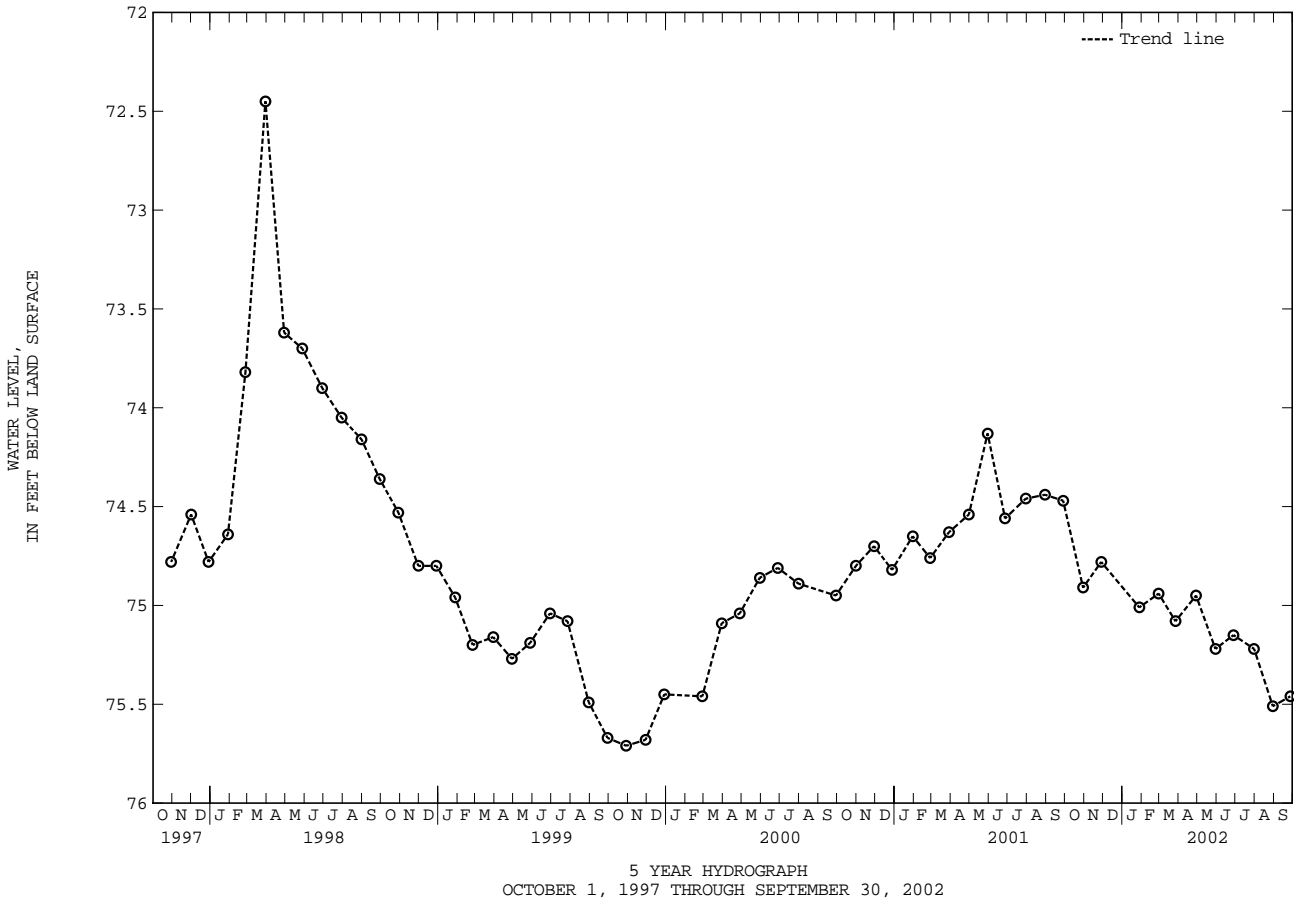
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. The water level measurement on Sept. 7, 1990 of 67.78 ft below land surface was due to a leaking water storage tank above the well.

PERIOD OF RECORD.--November 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 69.87 ft below land surface, Dec. 17, 1979, (See Remarks); lowest measured, 75.96 ft below land surface, Nov. 19, 1951.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	74.91	FEB 28, 2002	74.94	MAY 30, 2002	75.22	AUG 30, 2002	75.51
NOV 28	74.78	MAR 27	75.08	JUN 28	75.15	SEP 27	75.46
JAN 28, 2002	75.01	APR 29	74.95	JUL 31	75.22		
WATER YEAR 2002		HIGHEST 74.78	NOV 28, 2001	LOWEST 75.51	AUG 30, 2002		



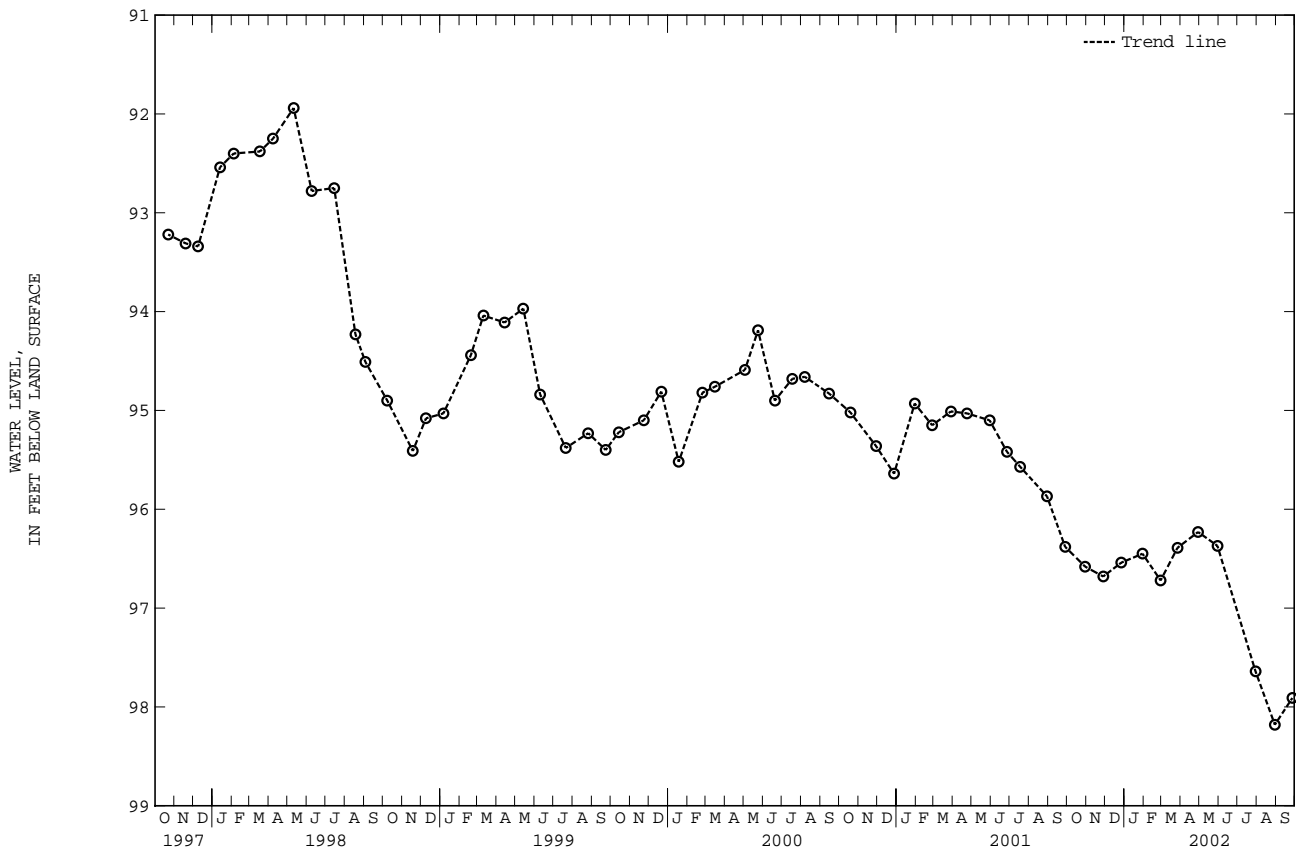
PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Fb 36. SITE ID.--384423077004501. PERMIT NUMBER.--PG-02-4834.  
 LOCATION.--Lat 38°44'23", long 77°00'45", Hydrologic Unit 02070010, at Broadwater Estates.  
 Owner: Broadwater Citizens Association.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 284 ft; casing diameter 8 in., to 271.5 ft; screen diameter 8 in. from 267.5 to 284 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 78 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 3.46 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal. A water level was reported 62 ft below land surface, on May 29, 1957.  
 PERIOD OF RECORD.--July 1961, March 1962 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 68.99 ft below land surface, Oct. 3, 1979; lowest measured, 98.18 ft below land surface, Aug. 30, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	96.58	JAN 30, 2002	96.45	APR 29, 2002	96.23	AUG 30, 2002	98.18
NOV 28	96.68	FEB 28	96.72	MAY 30	96.37	SEP 27	97.91
DEC 27	96.54	MAR 27	96.39	JUL 30	97.64		

WATER YEAR 2002      HIGHEST    96.23    APR 29, 2002      LOWEST    98.18    AUG 30, 2002



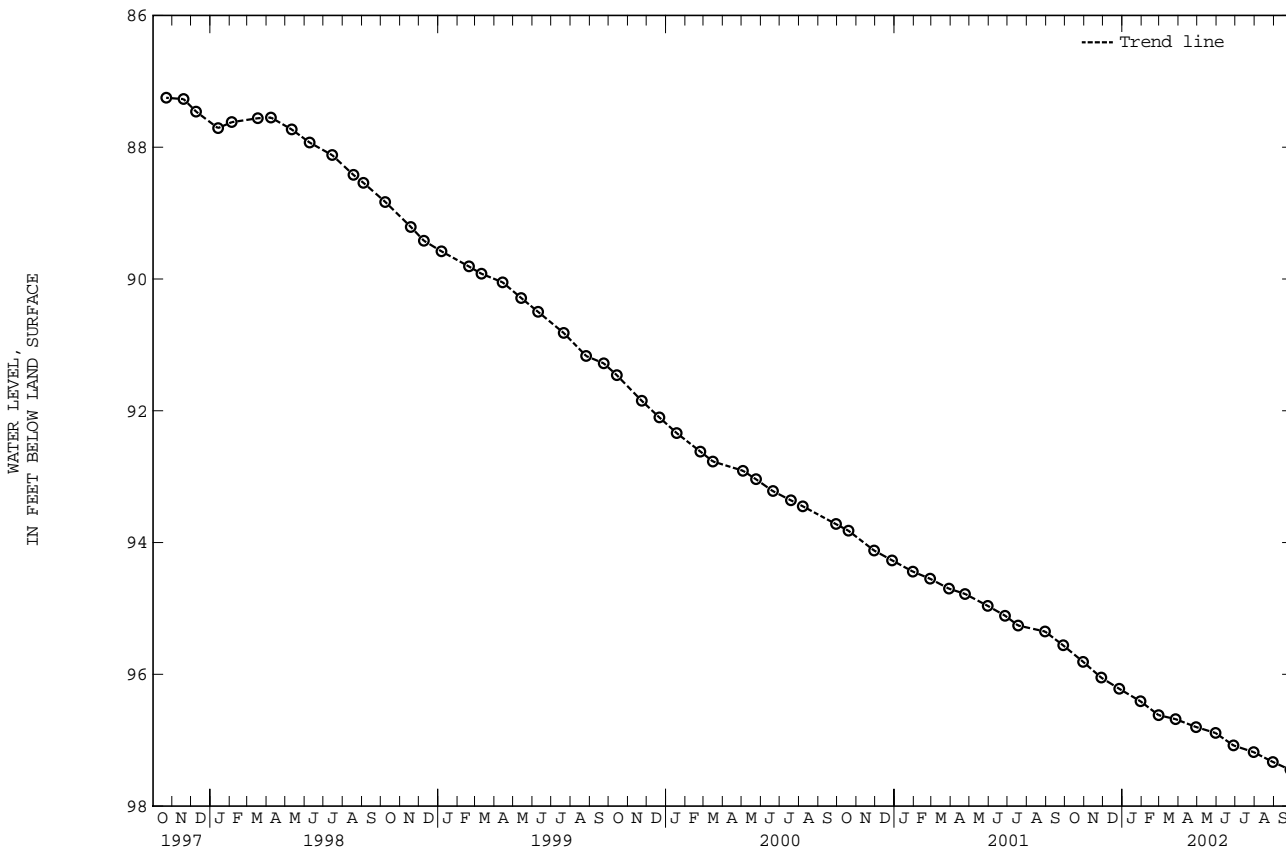
5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Fc 17. SITE ID.--384230076555501.  
 LOCATION.--Lat 38°42'30", long 76°55'55", Hydrologic Unit 02070010, 75 ft south of Floral Park Rd., 3 mi west of the intersection with MD Rt. 5, Piscataway.  
 Owner: Potomac Edison Power Company, formerly Washington Gas Light Co.  
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 750 ft; casing diameter 5.6 in.; casing perforated from 712 to 716 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with water-level recorder from Oct. 27, 1955 to Sept. 4, 1956.  
 DATUM.--Elevation of land surface is 58.6 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 0.50 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal.  
 PERIOD OF RECORD.--October 1955 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.62 ft below land surface, Oct. 27, 1955; lowest measured, 97.45 ft below land surface, Sept. 27, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	95.81	JAN 30, 2002	96.41	APR 29, 2002	96.80	JUL 30, 2002	97.18
NOV 28	96.05	FEB 28	96.62	MAY 30	96.89	AUG 30	97.33
DEC 27	96.22	MAR 27	96.68	JUN 28	97.08	SEP 27	97.45
WATER YEAR 2002		HIGHEST	95.81	OCT 30, 2001	LOWEST	97.45	SEP 27, 2002



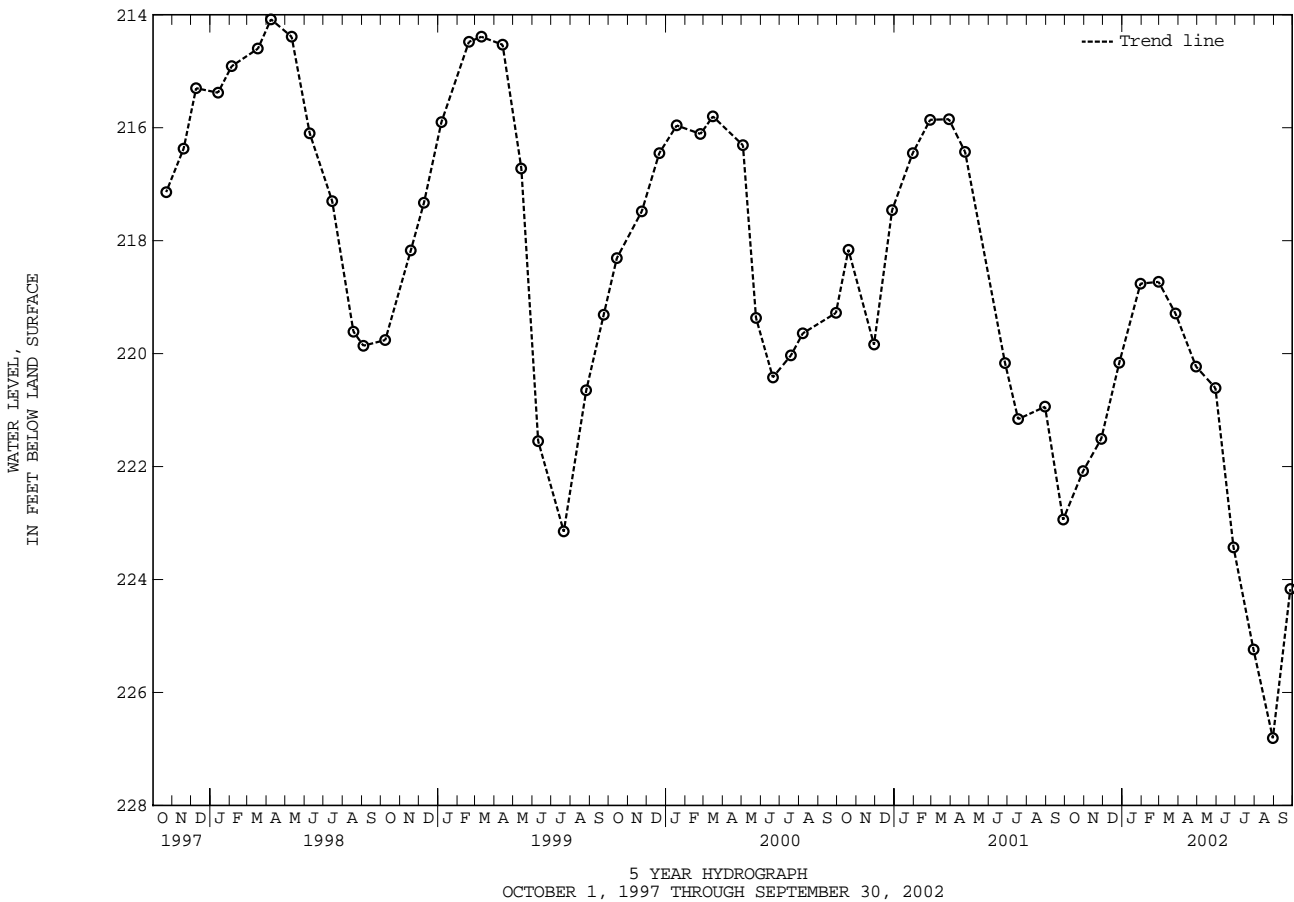
5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Fd 41. SITE ID.--384131076533301. PERMIT NUMBER.--PG-01-8058.  
 LOCATION.--Lat 38°41'31", long. 76°53'33", Hydrologic Unit 02070010, south side of MD Rt. 373, 1.14 mi west of intersection with MD Rt. 5, near T.B.  
 Owner: Colonial Investment Corp.  
 AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 362 ft; casing diameter 4 in., to 352 ft; screen diameter 2.5 in. from 352 to 362 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 196.92 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 2.80 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. A water level was reported as 146 ft below land surface on March 11, 1955. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--May 1967 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 157.24 ft below land surface, March 4, 1968; lowest measured, 226.81 ft below land surface, Aug.30, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	222.08	JAN 30, 2002	218.76	APR 29, 2002	220.23	JUL 30, 2002	225.24
NOV 28	221.51	FEB 28	218.73	MAY 30	220.61	AUG 30	226.81
DEC 27	220.16	MAR 27	219.29	JUN 28	223.43	SEP 27	224.17
WATER YEAR 2002		HIGHEST 218.73	FEB 28, 2002	LOWEST 226.81	AUG 30, 2002		



PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Gd 5. SITE ID.--383957076520601. PERMIT NUMBER.--PG-88-2866.  
 LOCATION.--Lat 38°39'57", long 76°52'06", Hydrologic Unit 02070011, nr northeast corner of intersection with US Rt. 301 and Cedarville Rd., 4 mi northeast of Waldorf.  
 Owner: PANDA Brandywine Power Station.  
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.  
 WELL CHARACTERISTICS.--Drilled, production, artesian well, depth 1,360 ft; casing diameter 10 in., to 800 ft; casing diameter 8 in. from 800 to 948 ft, 1,028 to 1,155 ft, 1,170 to 1,188 ft, 1,208 to 1,240 ft, 1,290 to 1,305 ft, and 1350 to 1360 ft; screen diameter 8 in. from 948 to 1,028 ft, 1,155 to 1,170 ft, 1,188 to 1,208 ft, 1,240 to 1,290 ft and 1,305 to 1,350 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--30-minute recorder interval from Dec. 10, 1994 to April 24, 1995, Nov. 7, 1996 to Feb. 27, 1997, and Oct. 8, 1997 to June 11, 2002 (See REMARKS).  
 DATUM.--Elevation of land surface is 216.43 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.65 ft above land surface.  
 REMARKS.--Southern Maryland Ground-Water Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal. Missing data due to recorder malfunction. On June 11, 2002, the pressure transducer line was accidentally cut, while the well was being serviced.  
 PERIOD OF RECORD.--September 1994 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.40 ft below sea level, Nov. 5, 1998 (recorder); lowest measured, 181.30 ft below sea level, Jan. 5, 2001 (recorder).

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-81.10	-82.80	-81.20	-169.80	-78.90	-85.40	-77.50	-93.70	-81.50	-83.70	-77.30	-91.10
2	-78.20	-91.50	-79.10	-170.80	-79.50	-169.70	-79.70	-82.10	-79.20	-83.90	-81.30	-83.10
3	-79.60	-91.40	-81.80	-170.70	-78.50	-87.80	-77.00	-81.80	-77.20	-81.50	-77.00	-82.30
4	-78.00	-92.00	-81.40	-170.20	-78.40	-83.70	-78.20	-92.60	-75.20	-90.70	-78.90	-93.10
5	-79.70	-90.40	-83.90	-169.20	-82.00	-170.00	-79.90	-84.50	-72.60	-80.50	-77.70	-83.10
6	-76.80	-90.70	-78.50	-169.00	-78.20	-84.60	-79.10	-94.90	-71.30	-88.30	-77.70	-83.40
7	-76.10	-89.90	-81.50	-85.80	-78.70	-169.50	-80.40	-82.40	-74.40	-79.10	-81.00	-92.10
8	-80.10	-89.30	-81.60	-85.40	-79.10	-85.70	-78.80	-82.00	-74.10	-88.90	-79.80	-83.40
9	-79.70	-89.80	-79.90	-170.30	-79.00	-170.70	-78.40	-92.50	-80.40	-91.80	-79.70	-82.10
10	-80.50	-90.30	-79.80	-85.40	-69.30	-80.50	-77.50	-177.40	-81.90	-83.70	-79.60	-83.60
11	-80.50	-92.50	-79.50	-84.30	-69.80	-170.20	-79.90	-93.30	-82.20	-92.90	-78.70	-93.90
12	-80.80	-174.90	-81.30	-171.60	-73.80	-168.10	-79.60	-85.00	-73.70	-93.60	-74.70	-88.80
13	-81.90	-174.30	-82.40	-85.40	-72.00	-78.30	-81.20	-84.50	-78.30	-89.80	-75.80	-79.20
14	-83.90	-174.00	-83.00	-170.40	-69.30	-82.40	-79.50	-92.50	-77.40	-83.40	-77.50	-82.10
15	-79.90	-85.90	-83.40	-171.20	-77.70	-169.50	-79.20	-84.30	-79.00	-93.30	-79.20	-82.10
16	-81.10	-172.30	-83.10	-86.40	-72.90	-82.00	-80.10	-83.00	-78.50	-83.20	-79.00	-81.40
17	-82.10	-85.20	-81.80	-86.10	-77.00	-81.00	-81.30	-94.60	-80.40	-82.80	-74.20	-88.40
18	-79.70	-174.00	-82.30	-85.20	-77.40	-80.60	-76.30	-83.20	-80.60	-84.20	-76.50	-81.00
19	-81.90	-85.60	-81.00	-84.40	-73.90	-81.10	-75.80	-82.20	-79.90	-92.60	-75.20	-89.30
20	-81.40	-85.30	-81.40	-168.90	-75.20	-168.60	-76.50	-90.70	-78.40	-81.50	-76.50	-87.70
21	-83.00	-85.40	-80.30	-84.60	-73.90	-89.60	-76.70	-81.60	-78.50	-82.90	-76.80	-89.20
22	-82.40	-172.00	-82.70	-169.50	-65.10	-83.70	-80.00	-93.30	-79.00	-83.10	-74.90	-82.00
23	-80.80	-86.70	-82.40	-85.40	-76.30	-81.50	-79.70	-92.00	-80.30	-92.10	-74.40	-172.00
24	-78.30	-171.10	-81.50	-84.40	-76.70	-81.90	-79.20	-82.00	-79.10	-83.40	-76.70	-84.10
25	-77.70	-170.50	-82.40	-83.90	-73.80	-89.80	-79.90	-83.50	-79.70	-82.60	-81.00	-83.80
26	-79.00	-173.40	-80.60	-84.10	-78.50	-81.30	-77.20	-83.40	-78.50	-92.80	-79.90	-92.00
27	-78.80	-173.30	-81.40	-170.40	-79.30	-83.10	-82.00	-84.40	-78.80	-82.90	-79.00	-81.90
28	-81.30	-174.00	-81.40	-85.40	-79.30	-93.00	-79.50	-94.60	-78.30	-82.20	-80.10	-94.10
29	-81.80	-173.80	-80.10	-82.10	-78.30	-82.00	-75.50	-83.70	---	---	-78.30	-83.00
30	-83.80	-178.80	-77.20	-81.40	-73.20	-82.20	-78.10	-91.20	---	---	-76.60	-83.00
31	-83.20	-171.50	---	---	-74.60	-82.20	-81.80	-94.50	---	---	-79.50	-82.00
MONTH	-76.10	-178.80	-77.20	-171.60	-65.10	-170.70	-75.50	-177.40	-71.30	-93.60	-74.20	-172.00

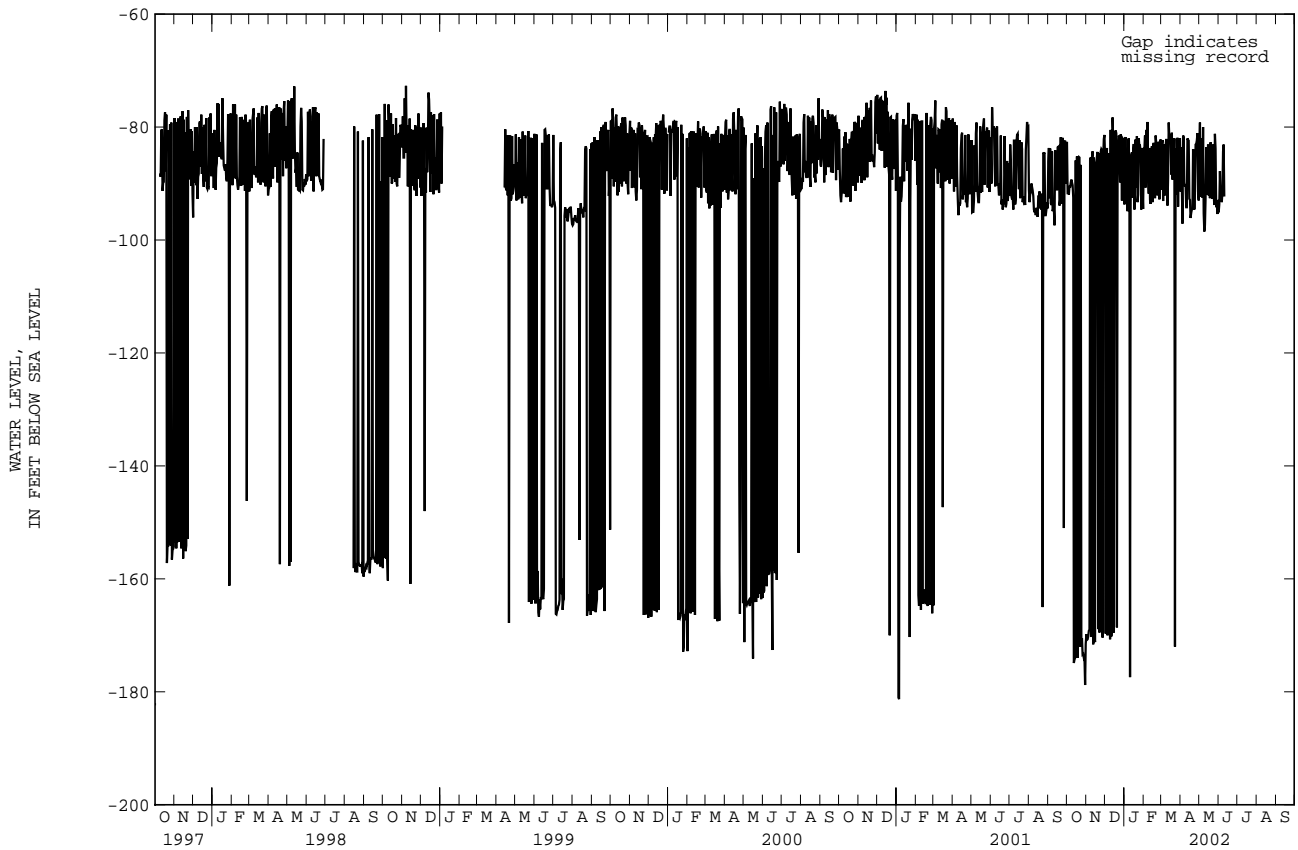
PRINCE GEORGES COUNTY--Continued

PG Gd 5--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-79.60	-91.40	-79.00	-83.70	-80.00	-95.10	---	---	---	---	---	---
2	-80.30	-83.60	-73.20	-79.20	-81.40	-93.70	---	---	---	---	---	---
3	-79.10	-90.50	-77.50	-92.30	-78.40	-87.80	---	---	---	---	---	---
4	-77.20	-97.10	-77.00	-83.10	-78.70	-92.60	---	---	---	---	---	---
5	-73.50	-81.50	-77.40	-82.00	-79.90	-91.10	---	---	---	---	---	---
6	-73.70	-81.80	-79.00	-92.50	-81.30	-93.30	---	---	---	---	---	---
7	-77.80	-89.80	-77.60	-80.00	-80.80	-91.60	---	---	---	---	---	---
8	-76.20	-90.50	-78.30	-95.30	-78.30	-84.30	---	---	---	---	---	---
9	-76.20	-90.20	-85.00	-98.50	-75.10	-83.10	---	---	---	---	---	---
10	-74.40	-94.20	-82.20	-97.40	-80.30	-92.30	---	---	---	---	---	---
11	-78.70	-94.20	-81.30	-92.70	---	---	---	---	---	---	---	---
12	-78.20	-82.00	-79.70	-83.60	---	---	---	---	---	---	---	---
13	-76.50	-82.30	-80.40	-92.00	---	---	---	---	---	---	---	---
14	-76.90	-82.40	-78.80	-91.40	---	---	---	---	---	---	---	---
15	-80.00	-92.70	-80.40	-83.10	---	---	---	---	---	---	---	---
16	-81.20	-92.90	-78.40	-92.10	---	---	---	---	---	---	---	---
17	-81.00	-96.10	-79.00	-83.70	---	---	---	---	---	---	---	---
18	-83.00	-95.20	-76.80	-92.60	---	---	---	---	---	---	---	---
19	-80.80	-94.60	-76.00	-82.70	---	---	---	---	---	---	---	---
20	-81.30	-94.50	-76.20	-91.50	---	---	---	---	---	---	---	---
21	-80.30	-83.90	-78.90	-83.40	---	---	---	---	---	---	---	---
22	-81.90	-91.20	-76.90	-92.70	---	---	---	---	---	---	---	---
23	-80.70	-94.60	-80.60	-83.10	---	---	---	---	---	---	---	---
24	-78.50	-91.80	-81.30	-92.00	---	---	---	---	---	---	---	---
25	-76.50	-83.10	-80.60	-93.80	---	---	---	---	---	---	---	---
26	-79.70	-83.00	-76.00	-81.20	---	---	---	---	---	---	---	---
27	-79.50	-82.40	-76.60	-83.80	---	---	---	---	---	---	---	---
28	-78.30	-81.10	-79.60	-94.20	---	---	---	---	---	---	---	---
29	-78.30	-91.40	-81.00	-93.30	---	---	---	---	---	---	---	---
30	-78.40	-93.00	-80.80	-95.40	---	---	---	---	---	---	---	---
31	---	---	-81.80	-92.90	---	---	---	---	---	---	---	---
MONTH	-73.50	-97.10	-73.20	-98.50	---	---	---	---	---	---	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

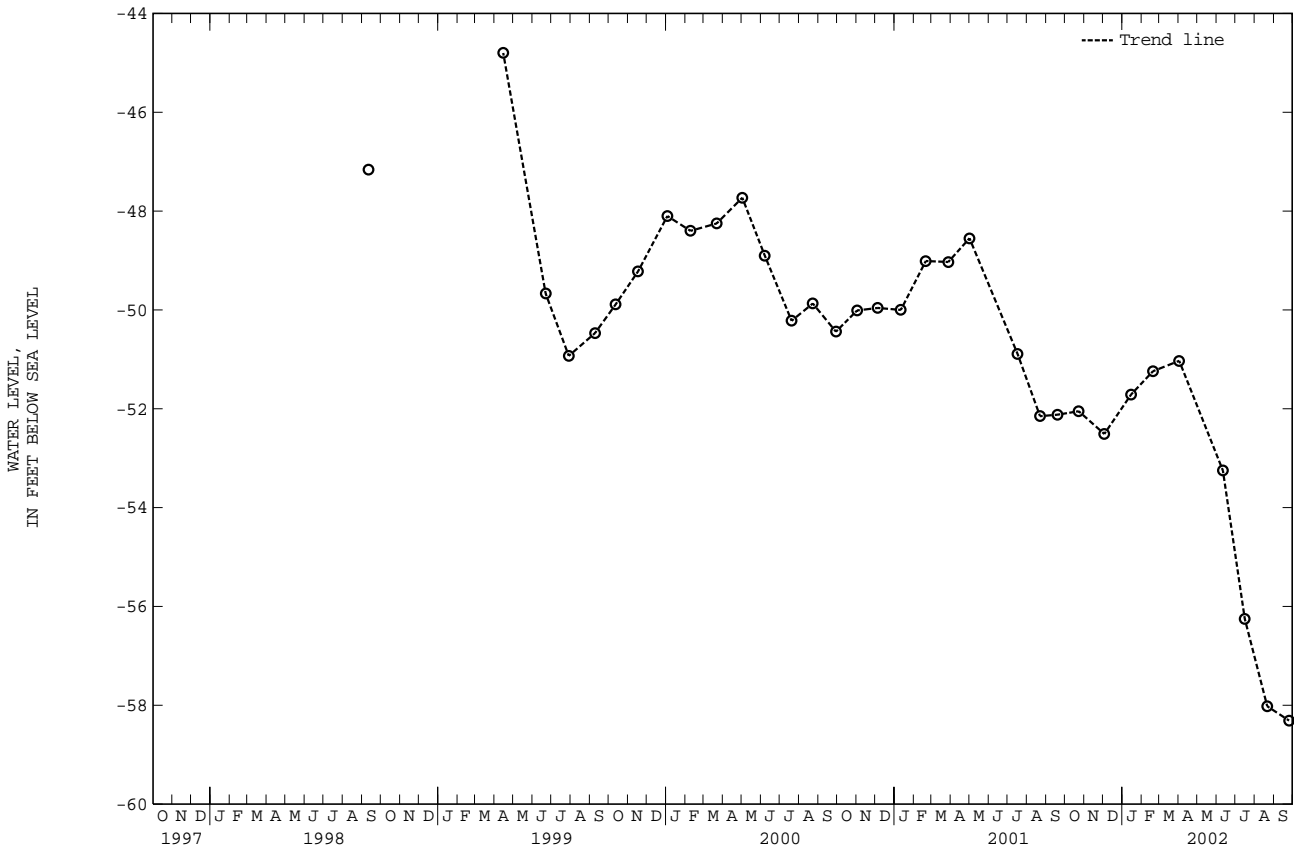
PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Hf 35. SITE ID.--383228076410601. PERMIT NUMBER.--PG-72-0086.  
 LOCATION.--Lat 38°32'28", long 76°41'06", Hydrologic Unit 02060006, at Chalk Point Power Plant, 1.8 mi. south of Eagle Harbor.  
 Owner: Mirant Corp.  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 430 ft; casing diameter 6 in., to 401 ft; casing diameter 4 in. from 389 to 399 ft; screen diameter 4 in. from 399 to 430 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Periodic water level measurements prior to June 1999. Equipped with graphic water-level recorder from May 1, 1974 to July 8, 1976. Equipped with digital water-level recorder--60-minute recorder interval from July 8, 1976 to Nov. 8, 1993.  
 DATUM.--Elevation of land surface is 11.22 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 2.22 ft above land surface.  
 REMARKS.--Southern Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal.  
 PERIOD OF RECORD.--May 1974 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.81 ft above sea level, June 10, 1974; lowest measured, 58.31 ft below sea level, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	-52.05	FEB 19, 2002	-51.24	JUL 16, 2002	-56.25
DEC 03	-52.51	APR 02	-51.03	AUG 21	-58.02
JAN 15, 2002	-51.71	JUN 11	-53.25	SEP 25	-58.31

WATER YEAR 2002      HIGHEST    -51.03    APR 02, 2002      LOWEST    -58.31    SEP 25, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



## PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Hf 40. SITE ID.--383348076411301. PERMIT NUMBER.--PG-73-0298.

LOCATION.--Lat 38°33'48", long 76°41'13", Hydrologic Unit 02060006, at Chalk Point Power Plant, 0.4 mi. south of Eagle Harbor.

Owner: Maryland Geological Survey.

AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 870 ft; casing diameter 6 in., to 150 ft; casing diameter 4 in. from 150 to 860 ft; screen diameter 4 in. from 860 to 870 ft.

INSTRUMENTATION.--Periodic water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with graphic water-level recorder from Dec. 16, 1974 to July 8, 1976. Equipped with digital water-level recorder--60-minute recorder interval from July 8, 1976 to current year.

DATUM.--Elevation of land surface is 27.98 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.59 ft above land surface.

REMARKS.--Southern Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.--December 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.64 ft below sea level, Jan. 11, 1975 (recorder); lowest measured, 38.69 ft below sea level, Sept. 29, 2002 (recorder).

## WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-36.00	-36.30	-36.30	-36.59	-35.89	-36.32	-36.09	-36.42	-36.06	-36.50	-36.54	-36.88
2	-35.89	-36.39	-36.28	-36.62	-36.16	-36.45	-36.15	-36.47	-36.46	-36.82	-36.36	-36.87
3	-36.19	-36.50	-36.30	-36.63	-35.98	-36.40	-36.07	-36.34	-36.28	-36.73	-35.98	-36.36
4	-36.25	-36.53	-36.30	-36.67	-35.98	-36.32	-36.27	-36.62	-36.20	-36.58	-36.30	-36.63
5	-36.20	-36.52	-36.32	-36.58	-35.98	-36.29	-36.42	-36.66	-36.46	-36.88	-36.48	-36.80
6	-36.18	-36.65	-36.30	-36.60	-35.87	-36.25	-36.11	-36.64	-36.23	-36.50	-36.44	-36.67
7	-36.55	-36.84	-36.20	-36.48	-35.88	-36.20	-36.11	-36.42	-36.09	-36.37	-36.53	-36.74
8	-36.65	-36.86	-36.14	-36.45	-35.79	-36.24	-36.37	-36.67	-36.18	-36.39	-36.44	-36.74
9	-36.58	-36.88	-36.14	-36.54	-35.79	-36.24	-36.20	-36.47	-36.22	-36.56	-36.20	-36.57
10	-36.42	-36.74	-35.99	-36.41	-35.93	-36.24	-36.34	-36.71	-36.10	-36.50	-36.14	-36.68
11	-36.43	-36.66	-35.99	-36.51	-35.94	-36.28	-36.44	-36.69	-35.93	-36.56	-36.54	-36.82
12	-36.26	-36.60	-36.27	-36.54	-36.05	-36.34	-36.30	-36.68	-36.00	-36.56	-36.33	-36.63
13	-36.22	-36.47	-36.24	-36.54	-35.83	-36.20	-36.22	-36.65	-36.12	-36.54	-36.06	-36.50
14	-36.02	-36.40	-36.15	-36.47	-35.75	-36.15	-36.38	-36.70	-36.30	-36.58	-36.03	-36.33
15	-35.98	-36.46	-36.14	-36.45	-35.89	-36.47	-36.42	-36.82	-36.17	-36.51	-35.97	-36.28
16	-35.97	-36.41	-36.05	-36.40	-36.03	-36.47	-36.51	-36.82	-36.13	-36.40	-35.97	-36.45
17	-36.14	-36.59	-36.20	-36.52	-35.64	-36.21	-36.38	-36.68	-36.15	-36.56	-36.18	-36.47
18	-36.42	-36.78	-36.07	-36.46	-35.50	-36.11	-36.43	-36.69	-36.49	-36.75	-35.93	-36.31
19	-36.26	-36.70	-36.01	-36.33	-35.69	-36.16	-36.33	-36.71	-36.18	-36.50	-36.12	-36.33
20	-36.21	-36.49	-36.16	-36.51	-35.74	-36.13	-36.38	-36.69	-36.00	-36.32	-35.84	-36.27
21	-36.15	-36.50	-36.18	-36.59	-36.03	-36.33	-36.28	-36.53	-36.00	-36.30	-35.96	-36.20
22	-36.09	-36.33	-36.18	-36.30	-36.06	-36.46	-36.38	-36.82	-36.21	-36.41	-36.18	-36.60
23	-35.90	-36.29	-36.21	-36.40	-35.69	-36.11	-36.54	-36.88	-36.26	-36.50	-36.25	-36.50
24	-35.78	-36.06	-36.04	-36.39	-35.69	-35.96	-36.29	-36.66	-36.32	-36.53	-36.25	-36.50
25	-35.78	-36.06	-35.90	-36.21	-35.86	-36.11	-36.29	-36.72	-36.18	-36.51	-36.28	-36.50
26	-35.94	-36.28	-35.89	-36.25	-35.82	-36.00	-36.41	-36.66	-35.91	-36.29	-36.04	-36.38
27	-36.18	-36.38	-35.97	-36.25	-35.69	-35.90	-36.45	-36.73	-36.03	-36.51	-35.99	-36.58
28	-36.24	-36.47	-35.97	-36.29	-35.66	-35.92	-36.32	-36.68	-36.36	-36.74	-36.30	-36.66
29	-36.02	-36.29	-35.95	-36.28	-35.70	-36.14	-36.23	-36.54	---	---	-36.21	-36.52
30	-36.12	-36.67	-35.78	-36.14	-35.97	-36.29	-36.23	-36.60	---	---	-36.31	-36.92
31	-36.32	-36.66	---	---	-35.92	-36.26	-36.30	-36.65	---	---	-36.57	-36.98
MONTH	-35.78	-36.88	-35.78	-36.67	-35.50	-36.47	-36.07	-36.88	-35.91	-36.88	-35.84	-36.98

GROUND-WATER LEVELS IN MARYLAND--Continued

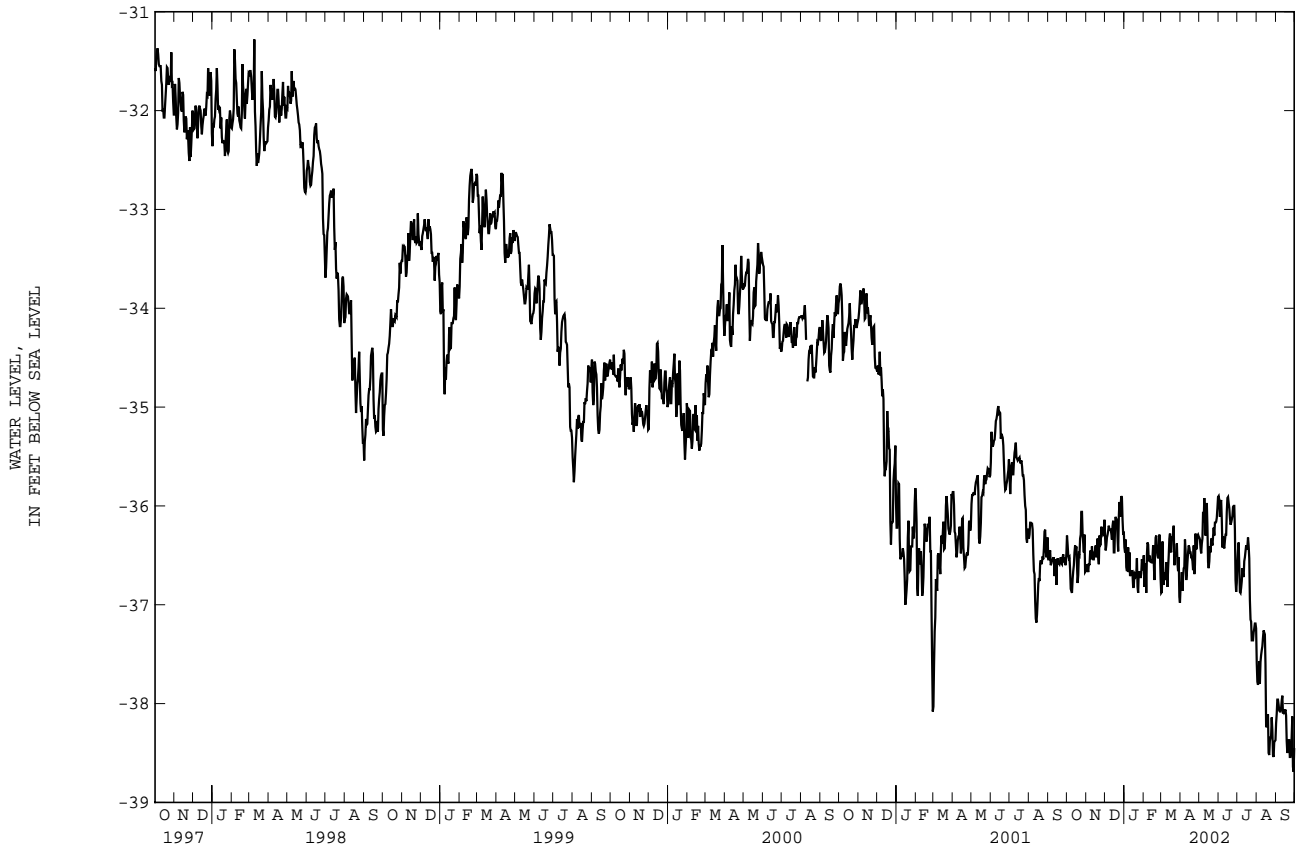
PRINCE GEORGES COUNTY--Continued

PG Hf 40--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-36.46	-36.81	-35.88	-36.32	-35.67	-35.90	-36.30	-36.58	-37.15	-37.59	-37.94	-38.20
2	-36.40	-36.81	-35.91	-36.34	-35.69	-35.94	-36.22	-36.45	-37.45	-37.78	-37.88	-38.10
3	-36.26	-36.67	-36.02	-36.43	-35.84	-36.11	-36.18	-36.37	-37.45	-37.81	-37.63	-37.96
4	-36.58	-36.86	-36.21	-36.48	-35.75	-35.97	-36.18	-36.60	-37.43	-37.78	-37.54	-37.96
5	-36.44	-36.72	-36.18	-36.38	-35.75	-35.94	-36.46	-36.87	-37.32	-37.57	-37.70	-38.01
6	-36.41	-36.63	-35.94	-36.33	-35.79	-36.14	-36.64	-36.88	-37.27	-37.80	-37.79	-38.07
7	-36.30	-36.62	-35.86	-36.06	-35.88	-36.42	-36.59	-36.83	-37.32	-37.58	-37.80	-38.08
8	-36.15	-36.34	-35.89	-36.16	-36.13	-36.31	-36.52	-36.76	-37.25	-37.51	-37.80	-38.08
9	-36.18	-36.45	-35.70	-35.92	-36.13	-36.40	-36.35	-36.63	-37.23	-37.46	-37.61	-38.05
10	-36.26	-36.75	-35.67	-36.13	-36.13	-36.43	-36.33	-36.69	-37.14	-37.42	-37.46	-37.97
11	-36.40	-36.68	-35.91	-36.30	-36.02	-36.35	-36.38	-36.72	-37.07	-37.33	-37.42	-37.92
12	-36.26	-36.57	-35.82	-36.14	-35.90	-36.29	-36.25	-36.56	-37.04	-37.26	-37.83	-38.10
13	-36.19	-36.47	-35.62	-35.97	-35.90	-36.29	-36.22	-36.52	-37.08	-37.28	-37.82	-38.06
14	-36.14	-36.40	-35.72	-36.21	-35.70	-36.06	-36.16	-36.46	-37.12	-37.30	-37.83	-38.09
15	-36.09	-36.42	-36.02	-36.57	-35.72	-35.92	-36.11	-36.40	-37.18	-37.60	-37.87	-38.08
16	-36.19	-36.47	-36.40	-36.63	-35.70	-35.91	-36.15	-36.44	-37.54	-38.22	-37.86	-38.06
17	-36.21	-36.47	-36.26	-36.56	-35.75	-35.97	-36.04	-36.41	-38.02	-38.24	-37.85	-38.12
18	-36.26	-36.52	-36.00	-36.41	-35.79	-36.02	-36.04	-36.32	-37.92	-38.15	-37.97	-38.38
19	-36.27	-36.52	-36.09	-36.47	-35.82	-36.12	-36.04	-36.40	-37.88	-38.11	-38.23	-38.50
20	-36.32	-36.56	-36.12	-36.33	-35.88	-36.19	-36.12	-36.53	-37.93	-38.50	-38.23	-38.45
21	-36.35	-36.65	-36.13	-36.36	-35.90	-36.17	-36.28	-36.95	-38.28	-38.52	-38.17	-38.37
22	-36.15	-36.40	-36.14	-36.40	-35.85	-36.14	-36.76	-37.15	-38.18	-38.38	-38.18	-38.37
23	-36.33	-36.69	-35.98	-36.31	-35.83	-36.10	-36.95	-37.17	-38.07	-38.34	-38.19	-38.54
24	-36.28	-36.60	-35.88	-36.22	-35.71	-36.01	-37.00	-37.36	-37.94	-38.33	-38.26	-38.54
25	-35.91	-36.28	-35.91	-36.30	-35.71	-36.00	-37.20	-37.36	-37.92	-38.14	-38.17	-38.49
26	-36.12	-36.44	-35.88	-36.17	-35.74	-36.00	-37.14	-37.36	-37.97	-38.27	-37.97	-38.33
27	-36.09	-36.42	-35.84	-36.17	-35.74	-36.24	-37.06	-37.28	-38.22	-38.52	-37.97	-38.13
28	-35.74	-36.30	-35.82	-36.16	-36.13	-36.75	-37.04	-37.24	-38.30	-38.54	-38.09	-38.64
29	-35.75	-36.29	-35.81	-36.12	-36.56	-36.87	-36.96	-37.19	-38.21	-38.39	-38.34	-38.69
30	-35.85	-36.31	-35.71	-36.02	-36.42	-36.78	-36.98	-37.19	-38.22	-38.38	-38.23	-38.45
31	---	---	-35.61	-35.91	---	---	-37.08	-37.24	-38.19	-38.37	---	---
MONTH	-35.74	-36.86	-35.61	-36.63	-35.67	-36.87	-36.04	-37.36	-37.04	-38.54	-37.42	-38.69
YEAR	-35.50	-38.69										

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Hf 41. SITE ID.--383348076411302. PERMIT NUMBER.--PG-73-0297.

LOCATION.--Lat 38°33'48", long 76°41'13", Hydrologic Unit 02060006, at Chalk Point Power Plant, 0.4 mi. south of Eagle Harbor.

Owner: Maryland Geological Survey.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 654 ft; casing diameter 6 in., to 150 ft; casing diameter 4 in. from 150 to 644 ft, and 654 to 665 ft; screen diameter 4 in. from 644 to 654 ft.

INSTRUMENTATION.--Periodic water level measurements with electric tape by U.S. Geological Survey personnel.

Equipped with graphic water-level recorder from Dec. 16, 1974 to July 8, 1976. Equipped with digital

water-level recorder--60-minute recorder interval from July 8, 1976 to current year.

DATUM.--Elevation of land surface is 28.30 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.65 ft above land surface.

REMARKS.--Southern Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.--December 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.85 ft below sea level, Jan. 1, 1975 (recorder); lowest measured, 50.99 ft below sea level, May 28, 1999 (recorder).

## WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-44.34	-44.74	-44.14	-44.16	-43.23	-43.29	-42.89	-43.12	-42.21	-42.53	-42.20	-42.41
2	-44.17	-44.34	-44.16	-44.29	-43.29	-43.42	-43.12	-43.30	-42.22	-42.50	-42.23	-42.43
3	-44.31	-44.57	-44.29	-44.42	-43.23	-43.42	-43.22	-43.28	-42.33	-42.50	-41.77	-42.23
4	-44.57	-44.74	-44.42	-44.68	-43.03	-43.23	-43.26	-43.50	-42.22	-42.38	-41.78	-42.12
5	-44.74	-44.90	-44.49	-44.60	-42.99	-43.11	-43.19	-43.40	-42.38	-42.64	-42.12	-42.36
6	-44.90	-45.11	-44.41	-44.49	-42.77	-43.01	-43.12	-43.25	-42.36	-42.58	-42.34	-42.37
7	-45.11	-45.48	-44.23	-44.41	-42.65	-42.77	-43.08	-43.20	-42.27	-42.36	-42.36	-42.50
8	-45.48	-45.64	-44.21	-44.26	-42.65	-42.73	-43.20	-43.51	-42.28	-42.30	-42.50	-42.66
9	-45.60	-45.61	-44.21	-44.42	-42.62	-42.77	-43.30	-43.50	-42.28	-42.41	-42.66	-42.84
10	-45.49	-45.60	-44.19	-44.42	-42.77	-42.80	-43.30	-43.50	-42.23	-42.41	-42.82	-43.06
11	-45.38	-45.49	-44.15	-44.39	-42.77	-42.89	-43.49	-43.60	-42.14	-42.41	-43.06	-43.25
12	-45.19	-45.38	-44.39	-44.50	-42.89	-43.06	-43.48	-43.60	-42.20	-42.41	-43.08	-43.25
13	-45.01	-45.19	-44.24	-44.46	-43.02	-43.10	-43.36	-43.48	-42.18	-42.44	-42.78	-43.10
14	-44.84	-45.02	-44.13	-44.24	-42.91	-43.03	-43.22	-43.39	-42.44	-42.58	-42.61	-42.78
15	-44.67	-44.84	-44.10	-44.15	-42.86	-43.06	-43.12	-43.22	-42.49	-42.63	-42.44	-42.63
16	-44.57	-44.69	-44.11	-44.16	-42.87	-43.06	-43.13	-43.17	-42.34	-42.50	-42.31	-42.45
17	-44.59	-44.69	-44.16	-44.34	-42.49	-42.87	-43.09	-43.16	-42.27	-42.36	-42.29	-42.43
18	-44.69	-44.82	-44.20	-44.34	-42.33	-42.53	-43.11	-43.15	-42.36	-42.56	-42.03	-42.29
19	-44.64	-44.80	-44.16	-44.22	-42.46	-42.58	-43.00	-43.17	-42.08	-42.50	-42.04	-42.10
20	-44.35	-44.64	-44.16	-44.36	-42.46	-42.80	-42.95	-43.03	-41.81	-42.08	-41.88	-42.08
21	-44.04	-44.35	-44.17	-44.42	-42.80	-43.15	-42.59	-42.95	-41.81	-41.93	-41.89	-42.00
22	-43.79	-44.04	-44.05	-44.17	-43.15	-43.28	-42.59	-42.85	-41.93	-42.07	-41.96	-42.44
23	-43.55	-43.79	-44.02	-44.06	-42.77	-43.18	-42.85	-42.96	-42.07	-42.18	-42.33	-42.45
24	-43.26	-43.55	-43.61	-44.02	-42.68	-42.77	-42.70	-42.93	-42.16	-42.18	-42.32	-42.46
25	-43.26	-43.28	-43.28	-43.61	-42.65	-42.79	-42.63	-42.80	-41.97	-42.17	-42.42	-42.48
26	-43.28	-43.60	-43.25	-43.32	-42.48	-42.65	-42.72	-42.80	-41.75	-41.97	-42.04	-42.42
27	-43.60	-43.78	-43.28	-43.37	-42.27	-42.48	-42.72	-42.82	-41.76	-41.97	-41.88	-42.04
28	-43.78	-44.03	-43.31	-43.39	-42.20	-42.27	-42.74	-42.84	-41.97	-42.20	-41.96	-42.08
29	-43.93	-44.03	-43.32	-43.41	-42.21	-42.45	-42.64	-42.75	---	---	-42.00	-42.07
30	-43.89	-44.06	-43.23	-43.34	-42.45	-42.85	-42.57	-42.66	---	---	-41.96	-42.13
31	-44.06	-44.16	---	---	-42.85	-42.89	-42.53	-42.64	---	---	-42.13	-42.21
MONTH	-43.26	-45.64	-43.23	-44.68	-42.20	-43.42	-42.53	-43.60	-41.75	-42.64	-41.77	-43.25

GROUND-WATER LEVELS IN MARYLAND--Continued

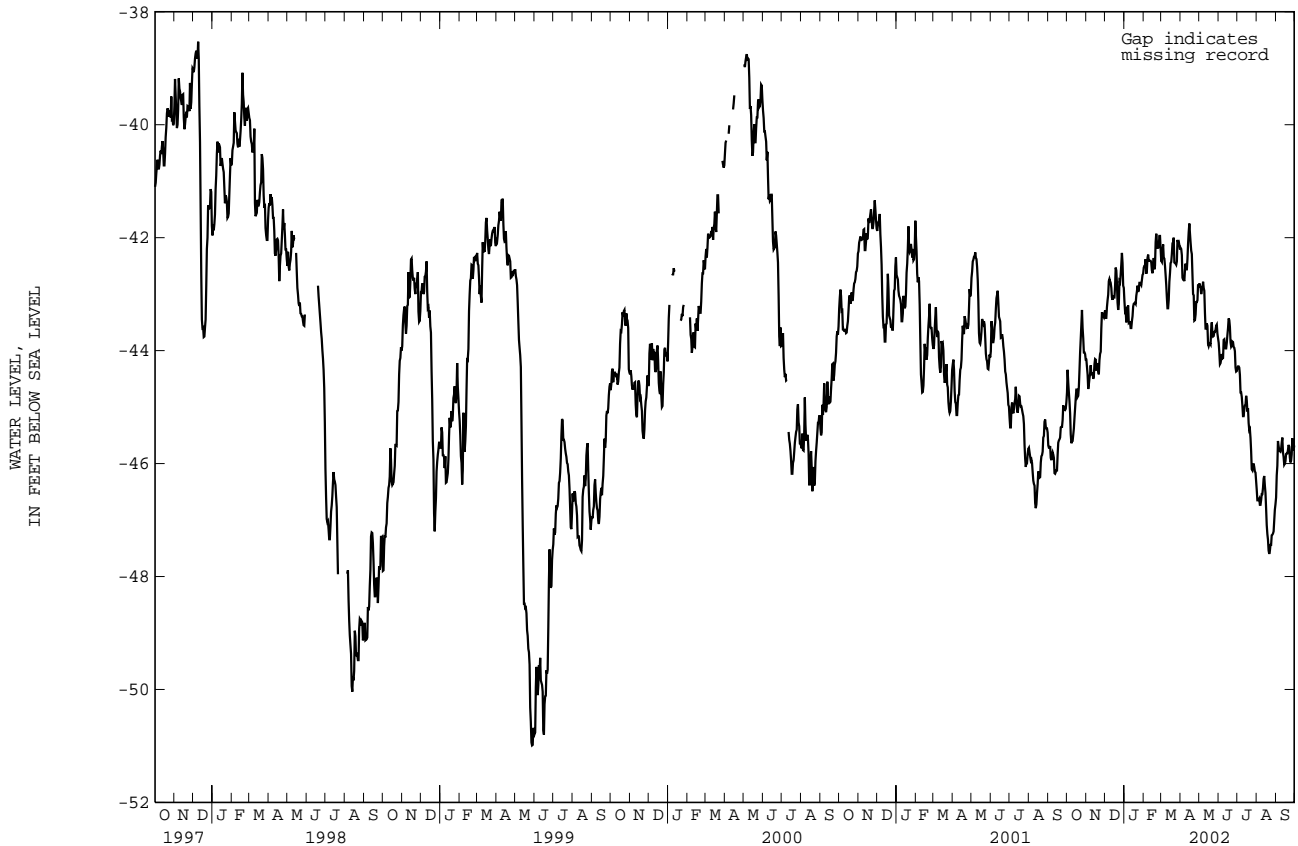
PRINCE GEORGES COUNTY--Continued

PG Hf 41--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN									
	APRIL				MAY				JUNE				JULY				AUGUST				SEPTEMBER			
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN				
1	-42.08	-42.18	-42.68	-42.81	-43.74	-43.86	-44.24	-44.31	-46.30	-46.47	-46.21	-46.60												
2	-42.14	-42.20	-42.68	-42.84	-43.86	-44.02	-44.24	-44.28	-46.47	-46.65	-46.04	-46.21												
3	-42.16	-42.31	-42.68	-42.88	-44.02	-44.24	-44.24	-44.28	-46.64	-46.65	-45.60	-46.04												
4	-42.31	-42.71	-42.88	-43.00	-44.15	-44.22	-44.22	-44.30	-46.60	-46.64	-45.52	-45.60												
5	-42.69	-42.74	-42.90	-42.93	-44.01	-44.15	-44.28	-44.43	-46.57	-46.62	-45.55	-45.69												
6	-42.70	-42.74	-42.78	-42.90	-43.97	-44.06	-44.43	-44.74	-46.49	-46.73	-45.63	-45.76												
7	-42.57	-42.77	-42.61	-42.78	-44.03	-44.14	-44.71	-44.74	-46.65	-46.73	-45.68	-45.78												
8	-42.37	-42.57	-42.64	-42.89	-43.81	-44.13	-44.67	-44.82	-46.49	-46.65	-45.70	-45.79												
9	-42.38	-42.46	-42.88	-42.94	-43.72	-43.81	-44.76	-44.97	-46.52	-46.54	-45.60	-45.75												
10	-42.44	-42.56	-42.93	-43.33	-43.68	-43.80	-44.97	-45.16	-46.41	-46.54	-45.52	-45.63												
11	-42.38	-42.56	-43.33	-43.61	-43.79	-43.92	-45.05	-45.16	-46.26	-46.43	-45.46	-45.54												
12	-42.10	-42.38	-43.51	-43.61	-43.86	-43.96	-44.90	-45.05	-46.07	-46.27	-45.54	-45.80												
13	-41.89	-42.10	-43.28	-43.52	-43.86	-43.96	-44.90	-44.97	-46.08	-46.22	-45.78	-45.88												
14	-41.73	-41.90	-43.28	-43.56	-43.70	-43.86	-44.79	-44.96	-46.22	-46.39	-45.86	-46.02												
15	-41.66	-41.75	-43.56	-43.88	-43.59	-43.72	-44.61	-44.80	-46.37	-46.52	-45.96	-46.00												
16	-41.73	-41.92	-43.85	-43.92	-43.40	-43.60	-44.61	-44.88	-46.52	-46.80	-45.80	-45.96												
17	-41.92	-42.08	-43.82	-43.88	-43.37	-43.43	-44.88	-45.08	-46.80	-47.09	-45.75	-45.83												
18	-42.08	-42.23	-43.76	-43.87	-43.40	-43.46	-44.94	-45.02	-47.09	-47.25	-45.80	-45.82												
19	-42.23	-42.29	-43.62	-43.89	-43.43	-43.58	-45.00	-45.28	-47.22	-47.35	-45.73	-45.82												
20	-42.27	-42.66	-43.49	-43.62	-43.58	-43.85	-45.26	-45.41	-47.34	-47.54	-45.62	-45.76												
21	-42.66	-43.00	-43.44	-43.50	-43.84	-43.93	-45.30	-45.39	-47.54	-47.60	-45.59	-45.67												
22	-42.93	-43.02	-43.48	-43.71	-43.82	-43.91	-45.34	-45.55	-47.37	-47.55	-45.63	-45.70												
23	-43.02	-43.47	-43.70	-43.75	-43.74	-43.84	-45.54	-45.78	-47.35	-47.44	-45.69	-45.89												
24	-43.36	-43.46	-43.61	-43.74	-43.68	-43.85	-45.78	-46.10	-47.26	-47.44	-45.89	-45.98												
25	-43.00	-43.36	-43.58	-43.67	-43.82	-43.94	-46.04	-46.12	-47.21	-47.27	-45.84	-45.95												
26	-43.00	-43.14	-43.59	-43.67	-43.79	-43.95	-45.94	-46.05	-47.19	-47.26	-45.55	-45.84												
27	-43.05	-43.14	-43.50	-43.63	-43.79	-44.01	-45.92	-46.00	-47.19	-47.24	-45.33	-45.55												
28	-42.74	-43.11	-43.48	-43.56	-44.01	-44.30	-45.94	-46.06	-47.01	-47.20	-45.33	-45.69												
29	-42.62	-42.83	-43.49	-43.54	-44.30	-44.37	-46.06	-46.14	-46.81	-47.01	-45.68	-45.77												
30	-42.76	-42.88	-43.53	-43.70	-44.29	-44.36	-46.09	-46.16	-46.72	-46.82	-45.56	-45.68												
31	---	---	-43.70	-43.78	---	---	-46.15	-46.31	-46.60	-46.72	---	---												
MONTH	-41.66	-43.47	-42.61	-43.92	-43.37	-44.37	-44.22	-46.31	-46.07	-47.60	-45.33	-46.60												
YEAR	-41.66	-47.60																						

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Hf 42. SITE ID.--383348076411303. PERMIT NUMBER.--PG-73-0294.

LOCATION.--Lat 38°33'48", long 76°41'13", Hydrologic Unit 02060006, at Chalk Point Power Plant, 0.4 mi. south of Eagle Harbor.

Owner: Maryland Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 386 ft; casing diameter 6 in., to 150 ft; casing diameter 4 in. from 150 to 366 ft and 376 to 386 ft; screen diameter 4 in. from 366 to 376 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Periodic water level measurements from January 1975 to Oct. 1999. Equipped with graphic water-level recorder from Jan. 2, 1975 to July 8, 1976. Equipped with digital water-level recorder--60-minute recorder interval from July 8, 1976 to Sept. 18, 1999.

DATUM.--Elevation of land surface is 27.76 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.71 ft above land surface.

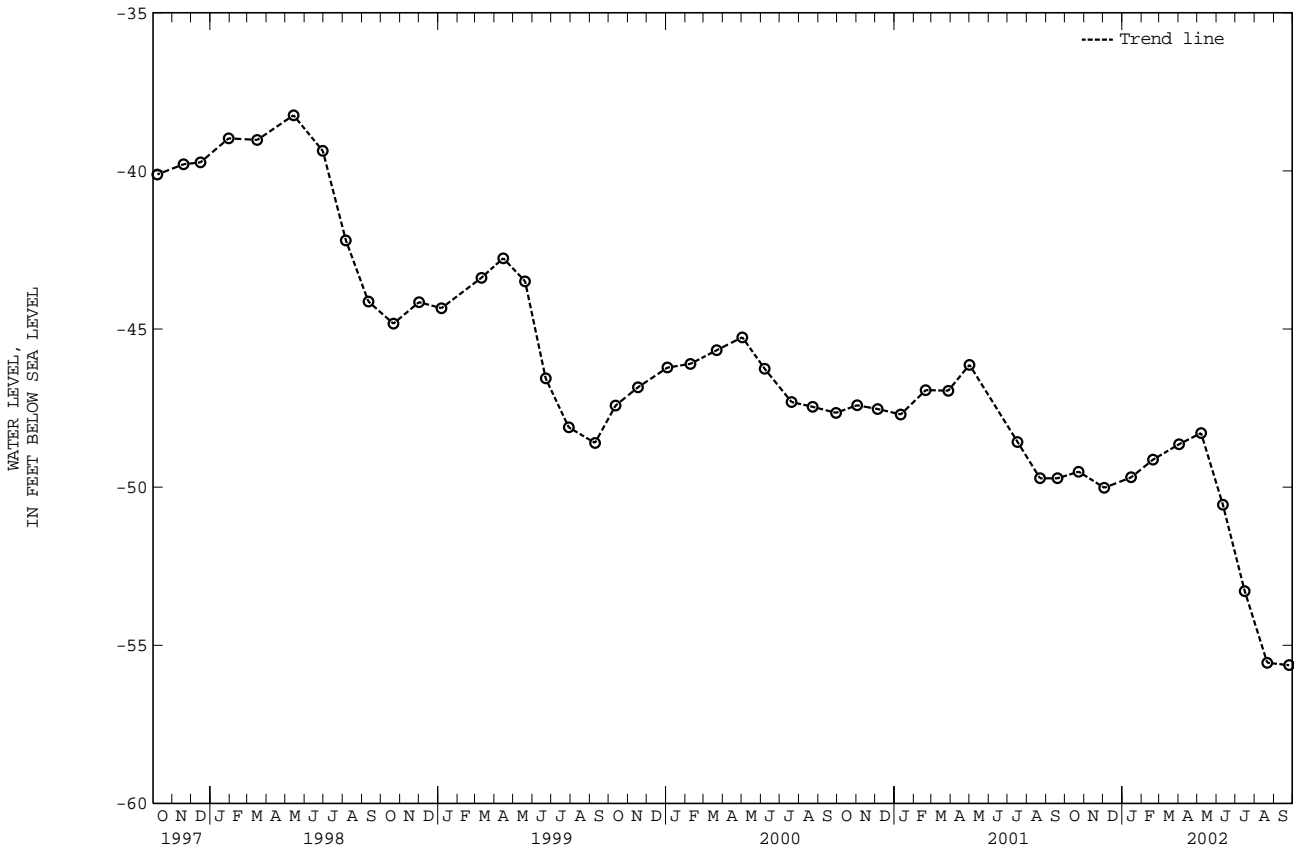
REMARKS.--Southern Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.--January 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.84 ft above sea level, April 22, 1975; lowest measured, 55.63 ft below sea level, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	-49.51	FEB 19, 2002	-49.13	JUN 11, 2002	-50.56	SEP 25, 2002	-55.63
DEC 03	-50.02	APR 02	-48.64	JUL 16	-53.29		
JAN 15, 2002	-49.69	MAY 07	-48.29	AUG 21	-55.55		
WATER YEAR 2002		HIGHEST	-48.29	MAY 07, 2002	LOWEST	-55.63	SEP 25, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Hf 44. SITE ID.--383250076405304. PERMIT NUMBER.--PG-73-0065.  
 LOCATION.--Lat 38°32'50", long 76°40'53", Hydrologic Unit 02060006, at Chalk Point Power Plant, on east side of canal.  
 Owner: Mirant Corp.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,545 ft; casing diameter 3 in., to 1,025 ft; screen diameter 3 in. from 1,025 to 1,030 ft.  
 INSTRUMENTATION.--Periodic water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--15-minute recorder interval from June 1995 to current year.  
 DATUM.--Elevation of land surface is 10.48 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of casing, 5.10 ft above land surface.  
 REMARKS.--Southern Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal. This well has a 1 in. diameter well inside the 3 in. casing, separated by a packer and screened in the Lower Patapsco Formation as well PG Hf 32.  
 PERIOD OF RECORD.--June 1973, July 1975 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.85 ft above sea level, June 24, 1973; lowest measured, 57.38 ft below sea level, Feb. 27, 2001 (recorder).

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-41.62	-45.50	-45.62	-46.39	-38.66	-42.91	-43.66	-47.17	-40.56	-45.50	-48.06	-49.70
2	-40.24	-45.59	-42.69	-45.85	-41.31	-44.55	-43.58	-46.68	-43.32	-46.68	-41.74	-48.12
3	-40.85	-45.44	-42.60	-45.73	-37.88	-41.54	-40.73	-46.85	-39.21	-43.32	-40.30	-46.08
4	-41.33	-46.11	-39.61	-42.60	-39.32	-45.73	-40.96	-44.38	-40.30	-43.75	-43.40	-47.54
5	-40.70	-45.36	-40.01	-42.86	-38.98	-45.73	-44.09	-45.82	-41.62	-45.27	-44.12	-48.46
6	-40.24	-45.67	-41.97	-45.24	-39.61	-42.66	-44.47	-47.23	-45.24	-47.06	-44.15	-48.87
7	-41.02	-44.64	-38.77	-42.57	-42.66	-45.22	-46.25	-47.60	-41.54	-46.83	-41.94	-49.07
8	-40.87	-44.32	-39.64	-44.18	-40.50	-44.61	-46.08	-47.08	-43.29	-46.36	-39.18	-41.94
9	-42.69	-46.05	-37.91	-40.61	-39.47	-44.75	-46.60	-48.03	-39.24	-43.29	-39.24	-45.33
10	-39.61	-43.89	-37.83	-42.05	-44.75	-45.88	-47.57	-48.58	-38.11	-42.43	-42.86	-46.74
11	-40.01	-44.32	-42.05	-45.39	-42.11	-45.79	-40.27	-48.12	-42.43	-46.48	-41.16	-44.44
12	-39.24	-44.04	-39.01	-44.58	-43.23	-46.08	-40.30	-46.25	-46.34	-47.03	-40.99	-47.03
13	-41.33	-45.22	-39.75	-44.61	-39.98	-43.23	-45.88	-47.69	-46.97	-47.69	-41.22	-46.02
14	-39.58	-41.39	-40.85	-43.15	-38.57	-41.76	-45.99	-47.20	-43.46	-47.92	-39.81	-41.82
15	-40.85	-45.50	-43.15	-46.08	-39.18	-41.22	-47.20	-48.55	-46.25	-47.31	-39.41	-43.98
16	-41.74	-46.54	-42.86	-46.16	-40.85	-44.90	-45.85	-48.78	-43.89	-47.83	-43.98	-47.08
17	-40.70	-43.89	-41.71	-45.50	-38.77	-44.78	-42.17	-46.25	-47.69	-48.58	-47.03	-48.49
18	-43.75	-45.88	-42.37	-45.76	-39.09	-45.27	-43.92	-46.91	-40.87	-48.84	-47.40	-48.32
19	-40.64	-43.75	-42.60	-46.16	-45.27	-45.91	-46.91	-47.57	-41.13	-47.52	-45.42	-48.87
20	-39.47	-40.70	-41.79	-44.99	-41.94	-46.36	-43.46	-47.00	-46.34	-47.66	-47.60	-48.72
21	-39.69	-43.69	-41.54	-45.19	-39.78	-45.13	-45.85	-47.06	-41.22	-47.23	-42.89	-48.87
22	-39.21	-41.48	-39.75	-45.82	-41.51	-46.19	-46.05	-47.43	-41.25	-46.97	-44.99	-48.38
23	-38.72	-40.07	-39.12	-41.31	-40.01	-44.18	-45.30	-48.09	-45.42	-47.89	-43.81	-48.64
24	-38.57	-41.71	-37.80	-41.02	-39.55	-44.70	-42.22	-45.30	-44.07	-47.49	-41.65	-49.64
25	-38.92	-41.48	-39.06	-43.63	-38.37	-41.62	-41.22	-45.36	-47.17	-48.29	-41.62	-48.69
26	-38.66	-39.55	-39.90	-44.73	-38.37	-44.18	-45.33	-46.71	-41.68	-48.29	-47.00	-50.53
27	-39.55	-44.24	-42.66	-45.53	-38.92	-44.15	-41.39	-46.22	-43.09	-48.98	-44.78	-50.51
28	-40.33	-43.72	-41.33	-44.87	-39.12	-45.04	-44.52	-47.23	-46.39	-49.01	-43.06	-48.43
29	-40.27	-45.33	-44.44	-45.82	-45.04	-46.45	-41.48	-47.28	---	---	-47.14	-51.40
30	-45.33	-46.54	-39.95	-44.44	-44.18	-46.45	-42.00	-47.20	---	---	-41.42	-47.20
31	-43.58	-46.36	---	---	-45.16	-46.54	-40.39	-47.28	---	---	-45.39	-49.12
MONTH	-38.57	-46.54	-37.80	-46.39	-37.88	-46.54	-40.27	-48.78	-38.11	-49.01	-38.92	-51.40

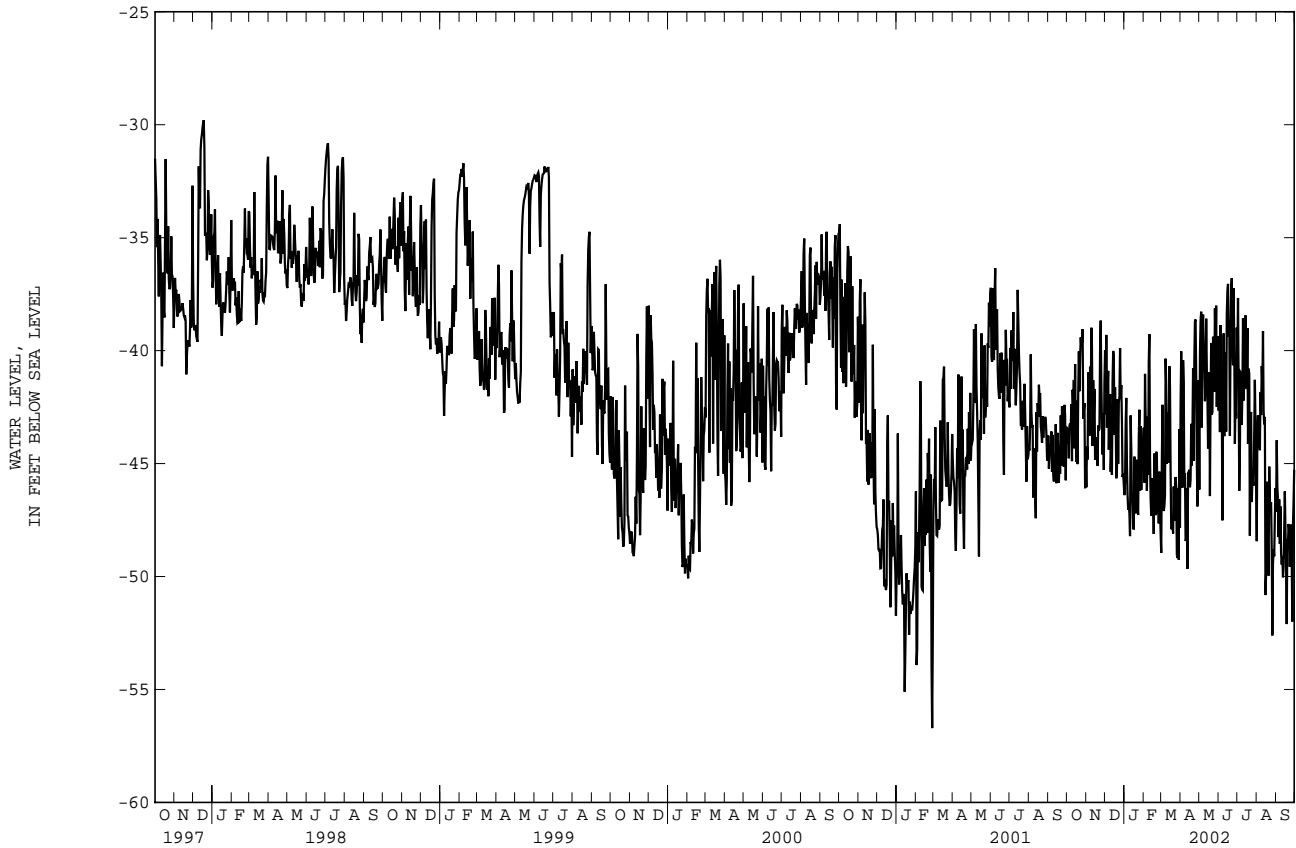
PRINCE GEORGES COUNTY--Continued

PG Hf 44--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN										
	APRIL				MAY				JUNE				JULY				AUGUST				SEPTEMBER				
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	-40.33	-46.54	-42.40	-48.61	-39.87	-44.04	-38.40	-42.02	-47.08	-50.16	-43.43	-49.70													
2	-38.95	-41.65	-38.69	-42.45	-38.54	-43.46	-36.96	-38.69	-40.79	-47.80	-41.74	-46.02													
3	-39.29	-48.18	-38.23	-39.24	-39.98	-45.42	-36.96	-46.74	-40.56	-44.70	-42.02	-48.09													
4	-41.62	-48.78	-37.71	-40.07	-37.60	-40.41	-44.50	-48.78	-41.71	-45.44	-42.22	-47.80													
5	-39.18	-41.68	-40.07	-44.78	-39.64	-45.27	-42.57	-45.16	-40.90	-45.27	-46.25	-49.21													
6	-38.60	-45.99	-38.03	-41.45	-39.67	-45.50	-38.69	-44.29	-41.62	-46.05	-43.09	-49.04													
7	-41.62	-48.00	-37.28	-40.21	-40.33	-50.76	-38.34	-43.52	-40.13	-43.98	-45.56	-49.67													
8	-41.13	-48.43	-38.20	-41.05	-39.69	-49.58	-41.79	-44.12	-40.73	-45.47	-44.24	-49.24													
9	-47.37	-49.35	-38.75	-43.32	-38.17	-42.28	-39.38	-44.50	-39.32	-43.17	-47.34	-49.90													
10	-45.67	-49.73	-41.05	-44.24	-42.22	-44.93	-37.88	-39.67	-39.58	-43.92	-48.67	-50.36													
11	-42.54	-49.30	-39.75	-42.05	-38.75	-44.27	-39.67	-44.70	-38.03	-40.79	-46.42	-50.07													
12	-48.95	-50.19	-37.42	-40.24	-38.09	-44.67	-37.85	-42.20	-40.56	-44.81	-48.98	-50.51													
13	-41.65	-49.67	-39.64	-41.71	-40.07	-45.93	-38.54	-42.97	-40.24	-45.16	-48.35	-50.73													
14	-42.60	-48.29	-41.19	-46.16	-37.34	-40.76	-37.37	-41.42	-39.29	-48.23	-44.96	-50.10													
15	-43.84	-47.37	-41.54	-46.19	-36.65	-38.57	-39.18	-43.20	-48.23	-51.86	-43.29	-49.50													
16	-42.94	-47.92	-40.18	-42.48	-36.47	-38.29	-38.83	-43.92	-47.95	-52.55	-44.38	-49.35													
17	-42.89	-48.35	-38.75	-45.27	-36.94	-42.31	-37.65	-42.17	-43.52	-48.26	-45.56	-52.92													
18	-41.13	-46.54	-45.27	-47.26	-37.05	-42.37	-42.17	-44.90	-43.32	-46.83	-49.61	-53.58													
19	-43.52	-47.28	-39.03	-47.54	-41.48	-45.07	-39.24	-43.40	-46.28	-52.17	-45.76	-51.68													
20	-41.54	-45.24	-38.06	-41.94	-37.60	-42.28	-38.34	-46.42	-44.99	-52.83	-46.28	-49.90													
21	-39.47	-43.12	-38.66	-44.73	-36.68	-37.88	-46.11	-49.53	-42.89	-47.06	-45.22	-49.73													
22	-41.62	-46.71	-39.24	-46.25	-36.25	-37.34	-40.59	-46.11	-43.55	-48.41	-45.50	-49.53													
23	-38.98	-41.76	-38.34	-41.31	-36.19	-43.52	-40.47	-45.24	-44.61	-47.60	-46.97	-50.65													
24	-38.14	-39.64	-37.85	-43.55	-38.11	-43.55	-40.30	-49.70	-44.12	-48.15	-45.91	-49.99													
25	-37.45	-40.24	-39.26	-44.58	-36.70	-38.11	-42.97	-47.34	-48.09	-50.25	-44.44	-49.82													
26	-40.04	-42.45	-37.42	-39.29	-36.47	-42.86	-42.37	-48.12	-50.25	-54.33	-45.01	-53.52													
27	-41.36	-46.80	-37.68	-42.17	-42.60	-45.42	-42.83	-47.11	-47.46	-50.39	-46.83	-54.87													
28	-45.36	-47.89	-37.25	-39.78	-39.41	-43.89	-40.82	-46.83	-44.35	-51.11	-45.33	-49.53													
29	-39.52	-45.36	-39.78	-43.84	-39.87	-44.87	-39.84	-43.72	-44.90	-50.39	-43.66	-50.76													
30	-39.52	-43.95	-38.06	-43.92	-37.74	-41.16	-40.47	-45.91	-43.09	-50.79	-42.43	-48.35													
31	---	---	-36.94	-42.25	---	---	-40.73	-48.18	-42.31	-49.01	---	---													
MONTH	-37.45	-50.19	-36.94	-48.61	-36.19	-50.76	-36.96	-49.70	-38.03	-54.33	-41.74	-54.87													
YEAR	-36.19	-54.87																							

Daily Low Water Levels



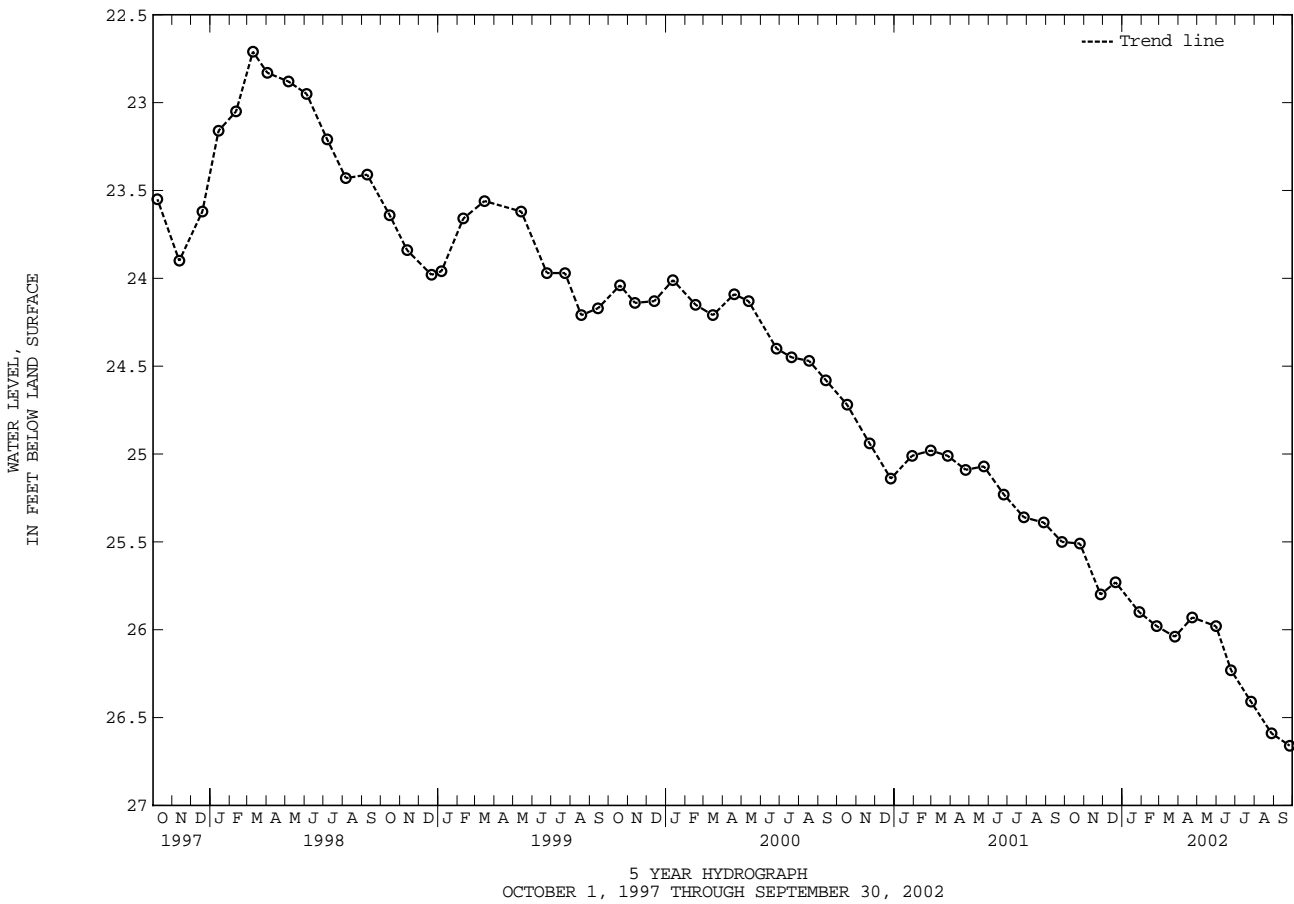
5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

QUEEN ANNES COUNTY

WELL NUMBER.--QA Be 15. SITE ID.--391203076024301. PERMIT NUMBER.--QA-70-0130.  
 LOCATION.--Lat 39°12'03", long 76°02'43", Hydrologic Unit 02060002, at Kingstown off MD Rt. 213.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,171 ft; casing diameter 4 in., to 1,161 ft; screen diameter 4 in. from 1,161 to 1,171 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Measured twice yearly from February 1988 to April 1991.  
 DATUM.--Elevation of land surface is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 2.52 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by regional ground-water withdrawal.  
 PERIOD OF RECORD.--March 1971 to October 1972, July 1977 to December 1978, March 1981 to September 1982, and October 1986 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.52 ft below land surface, Oct. 10, 1971; lowest measured, 26.66 ft below land surface, Sept. 26, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	25.51	JAN 28, 2002	25.90	APR 23, 2002	25.93	JUL 26, 2002	26.41
NOV 27	25.80	FEB 25	25.98	MAY 31	25.98	AUG 28	26.59
DEC 21	25.73	MAR 26	26.04	JUN 24	26.23	SEP 26	26.66
WATER YEAR 2002		HIGHEST	25.51	OCT 25, 2001	LOWEST	26.66	SEP 26, 2002





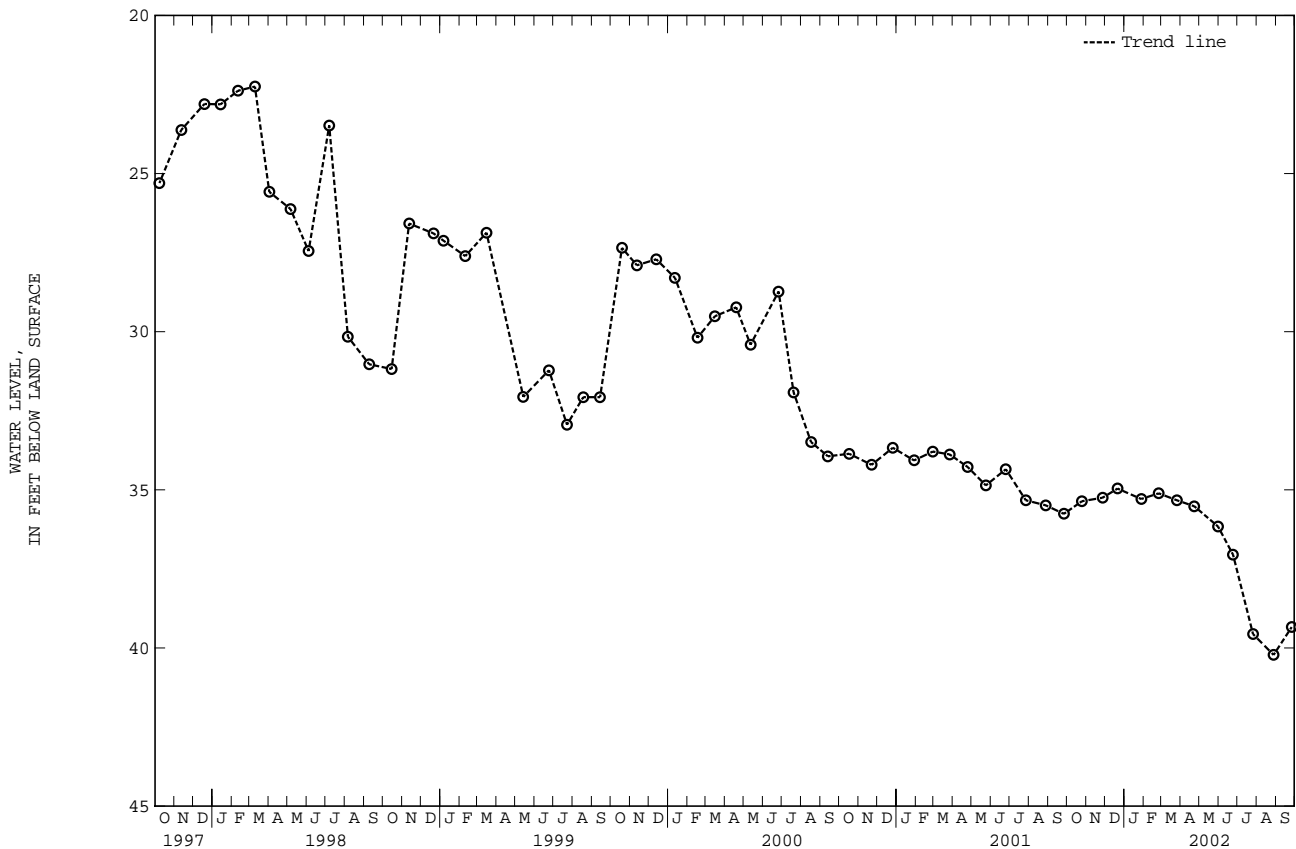
QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Be 16. SITE ID.--391203076024302. PERMIT NUMBER.--QA-70-0130.  
 LOCATION.--Lat 39°12'03", long 76°02'43", Hydrologic Unit 02060002, at Kingstown off MD Rt. 213.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 495 ft; casing diameter 6 in., to 475 ft; screen diameter 6 in. from 475 to 495 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Measured twice yearly from February 1988 to April 1991.  
 DATUM.--Elevation of land surface is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 2.70 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--March 1971 to September 1972, July 1977 to May 1979, January 1981 to September 1982, and October 1986 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.41 ft below land surface, Sept. 11, 1971; lowest measured, 40.22 ft below land surface, Aug. 28, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	35.36	JAN 28, 2002	35.29	APR 23, 2002	35.52	JUL 26, 2002	39.56
NOV 27	35.25	FEB 25	35.11	MAY 31	36.16	AUG 28	40.22
DEC 21	34.96	MAR 26	35.33	JUN 24	37.05	SEP 26	39.34

WATER YEAR 2002 HIGHEST 34.96 DEC 21, 2001 LOWEST 40.22 AUG 28, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Be 17. SITE ID.--391203076024303.

LOCATION.--Lat 39°12'03", long 76°02'43", Hydrologic Unit 02060002, at Kingstown off MD Rt. 213.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 120 ft; casing diameter 6 in., to 100 ft; screen diameter 6 in. from 100 to 120 ft.

INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Measured twice yearly from February 1988 to April 1991.

DATUM.--Elevation of land surface is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.50 ft above land surface.

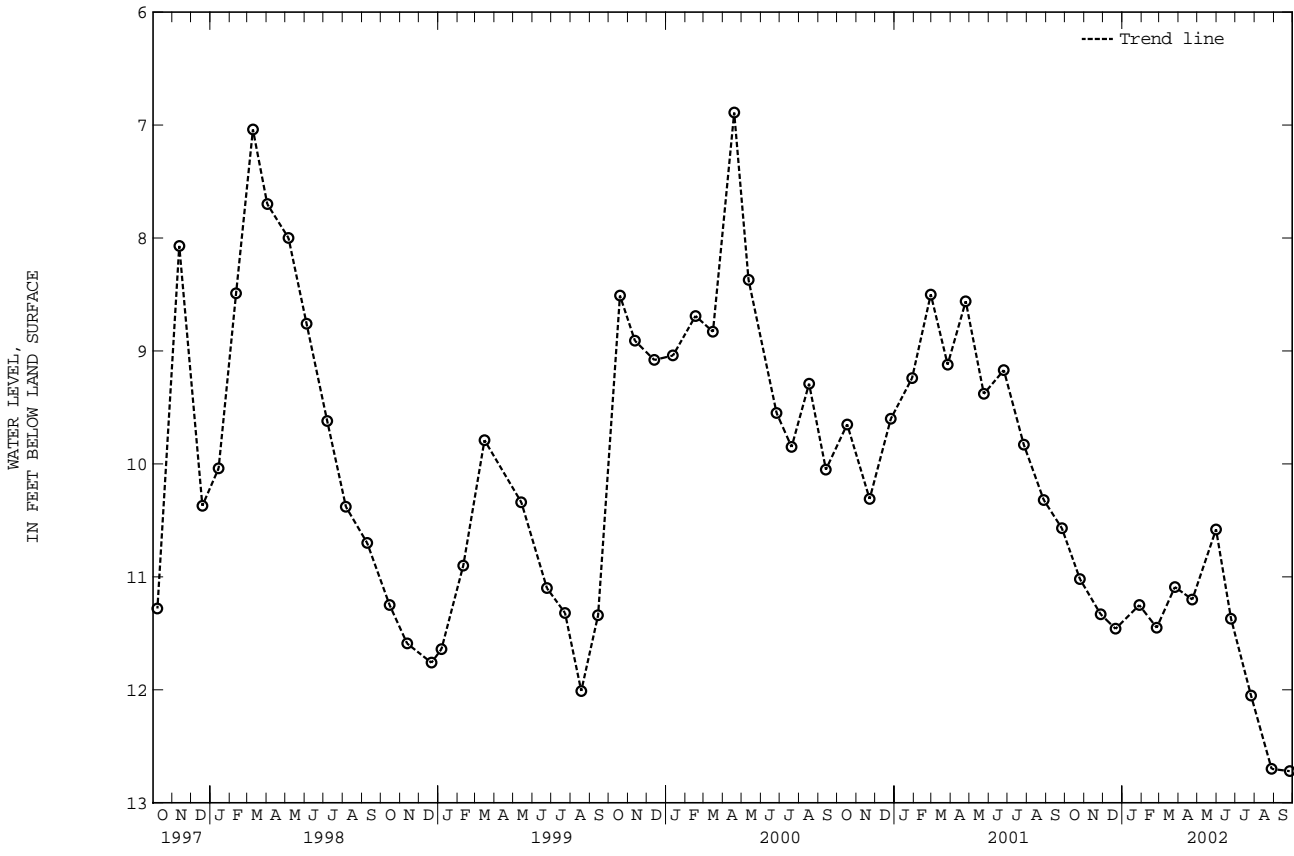
REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--July 1977 to July 1979, March 1981 to January 1982, and October 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.89 ft below land surface, April 19, 2000; lowest measured, 13.00 ft below land surface, Sept. 30, 1977.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 2001	11.02	JAN 28, 2002	11.25	APR 23, 2002	11.20	JUL 26, 2002	12.05
NOV 27	11.33	FEB 25	11.45	MAY 31	10.58	AUG 28	12.70
DEC 21	11.46	MAR 26	11.09	JUN 24	11.37	SEP 26	12.72
WATER YEAR 2002		HIGHEST	10.58	MAY 31, 2002	LOWEST	12.72	SEP 26, 2002



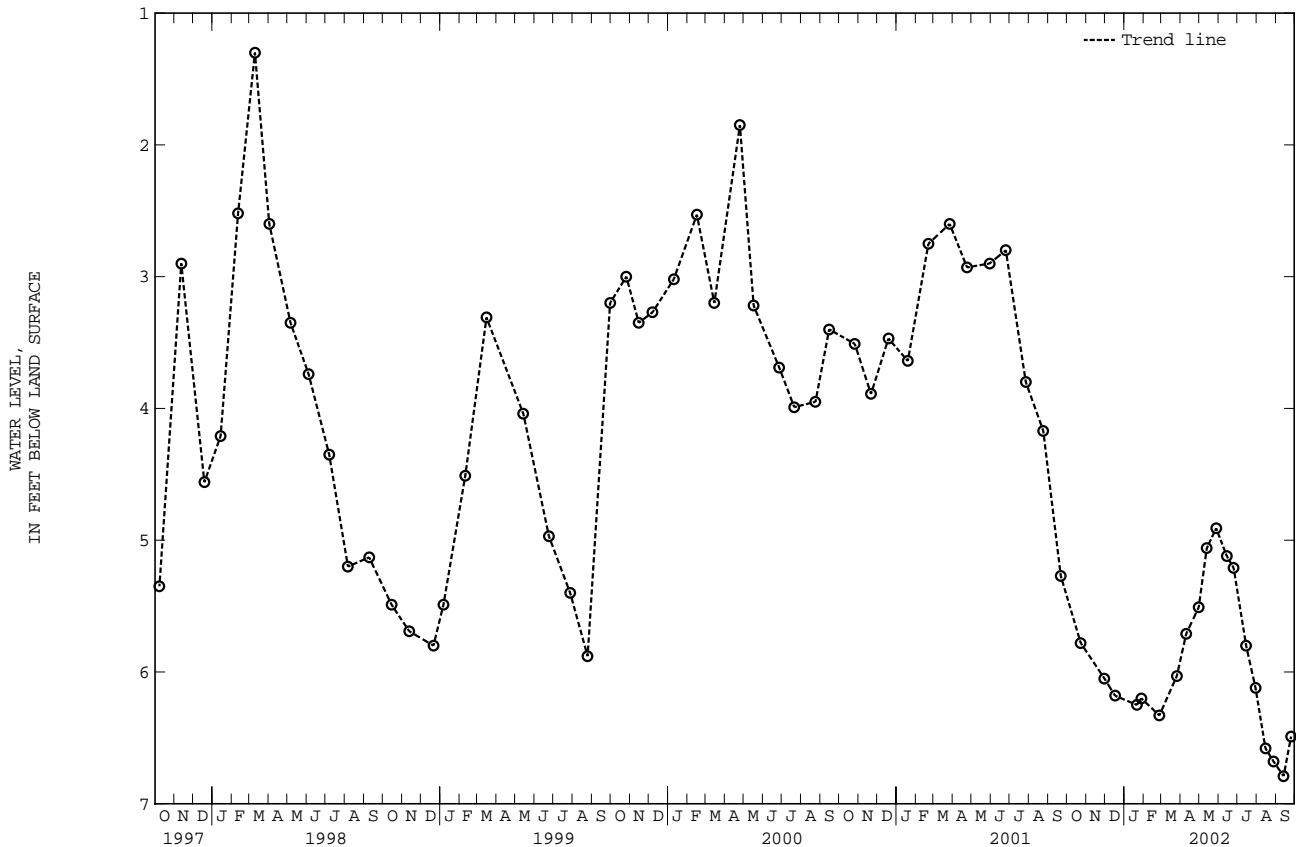
QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Cg 1. SITE ID.--390841075515201. PERMIT NUMBER.--QA-00-3949.  
 LOCATION.--Lat 39°08'41", long 75°51'52", Hydrologic Unit 02060002, at Barclay.  
 Owner: Town of Barclay.  
 AQUIFER.--Pensauken Formation (Columbia aquifer) of Upper Miocene age. Aquifer code: 122PNSK.  
 WELL CHARACTERISTICS.--Drilled, unused, water-table well, reported depth 60 ft; casing diameter 4 in. to 50 ft; screened from 50 to 60 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 69 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Lip of hose connector, 1.90 ft above land surface.  
 REMARKS.--Climatic Response Network (CRN) observation well (See Figure 3.).  
 Reported water level 4.0 ft below land surface, June 10, 1949.  
 PERIOD OF RECORD.--July 1953, May 1956 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.30 ft below land surface, March 10, 1998;  
 lowest measured, 6.79 ft below land surface, Sept. 13, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	5.78	FEB 26, 2002	6.33	MAY 28, 2002	4.91	AUG 15, 2002	6.58
NOV 30	6.05	MAR 26	6.03	JUN 14	5.12	28	6.68
DEC 17	6.18	APR 10	5.71	25	5.21	SEP 13	6.79
JAN 21, 2002	6.25	30	5.51	JUL 15	5.80	25	6.49
28	6.20	MAY 13	5.06	30	6.12		

WATER YEAR 2002 HIGHEST 4.91 MAY 28, 2002 LOWEST 6.79 SEP 13, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Db 30. SITE ID.--390201076182701. PERMIT NUMBER.--QA-81-0473.  
 LOCATION.--Lat 39°02'01", long 76°18'27", Hydrologic Unit 02060002, north side of Pier Avenue, 0.5 mi south of Love Point.  
 Owner: Maryland Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 220 ft; casing diameter 4 in., to 210 ft; screen diameter 4 in. from 210 to 220 ft.

INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 17.80 ft above National Geodetic Vertical Datum of 1929.

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

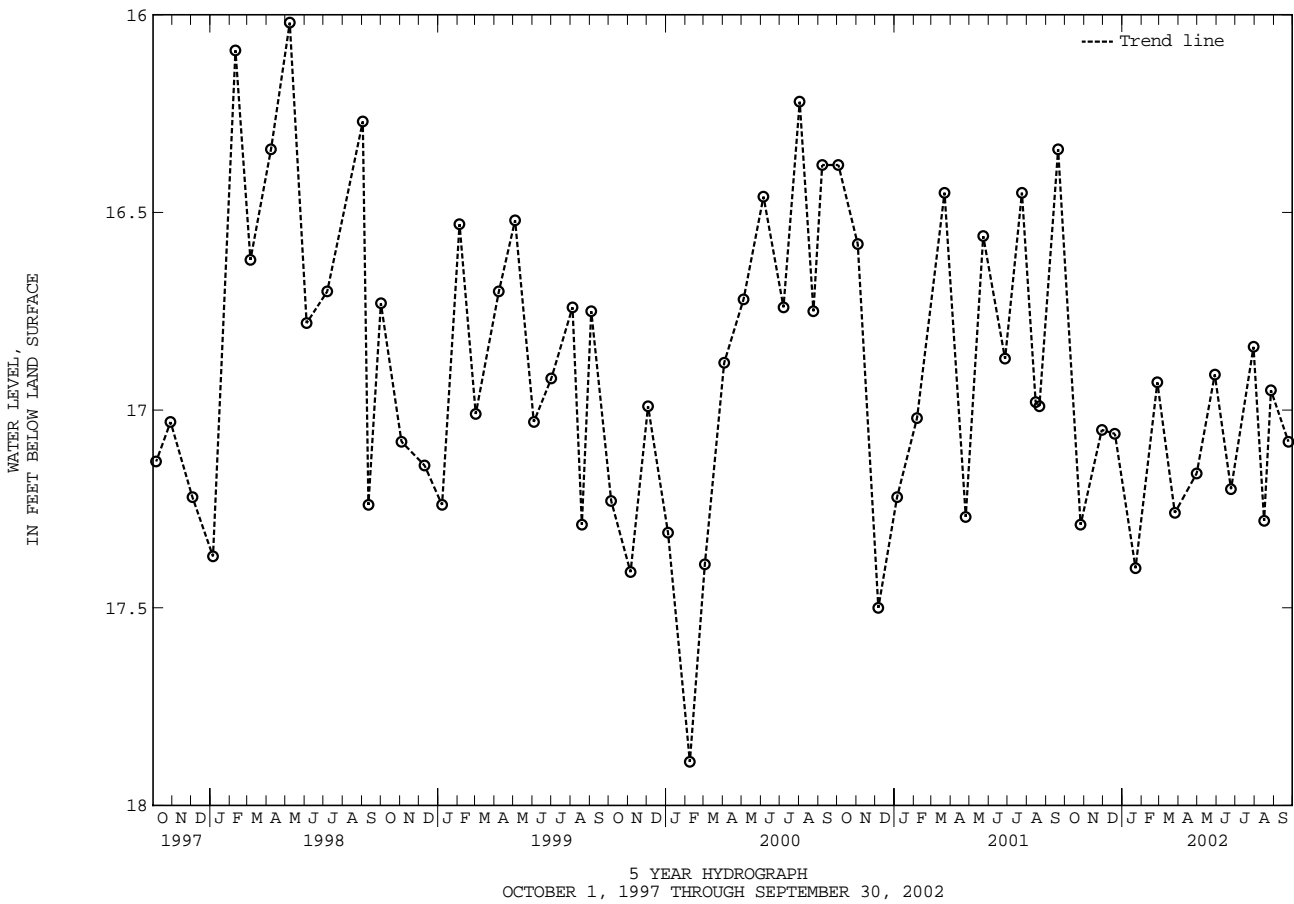
REMARKS.--Kent Island ground-water monitoring network observation well. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--April 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.59 ft below land surface, April 9, 1993;  
 lowest measured, 18.37 ft below land surface, March 3, 1995.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	17.29	FEB 26, 2002	16.93	JUN 24, 2002	17.20	SEP 24, 2002	17.08
NOV 29	17.05	MAR 26	17.26	JUL 30	16.84		
DEC 20	17.06	APR 30	17.16	AUG 16	17.28		
JAN 22, 2002	17.40	MAY 29	16.91	MAY 27	16.95		
WATER YEAR 2002		HIGHEST	16.84	JUL 30, 2002	LOWEST	17.40	JAN 22, 2002

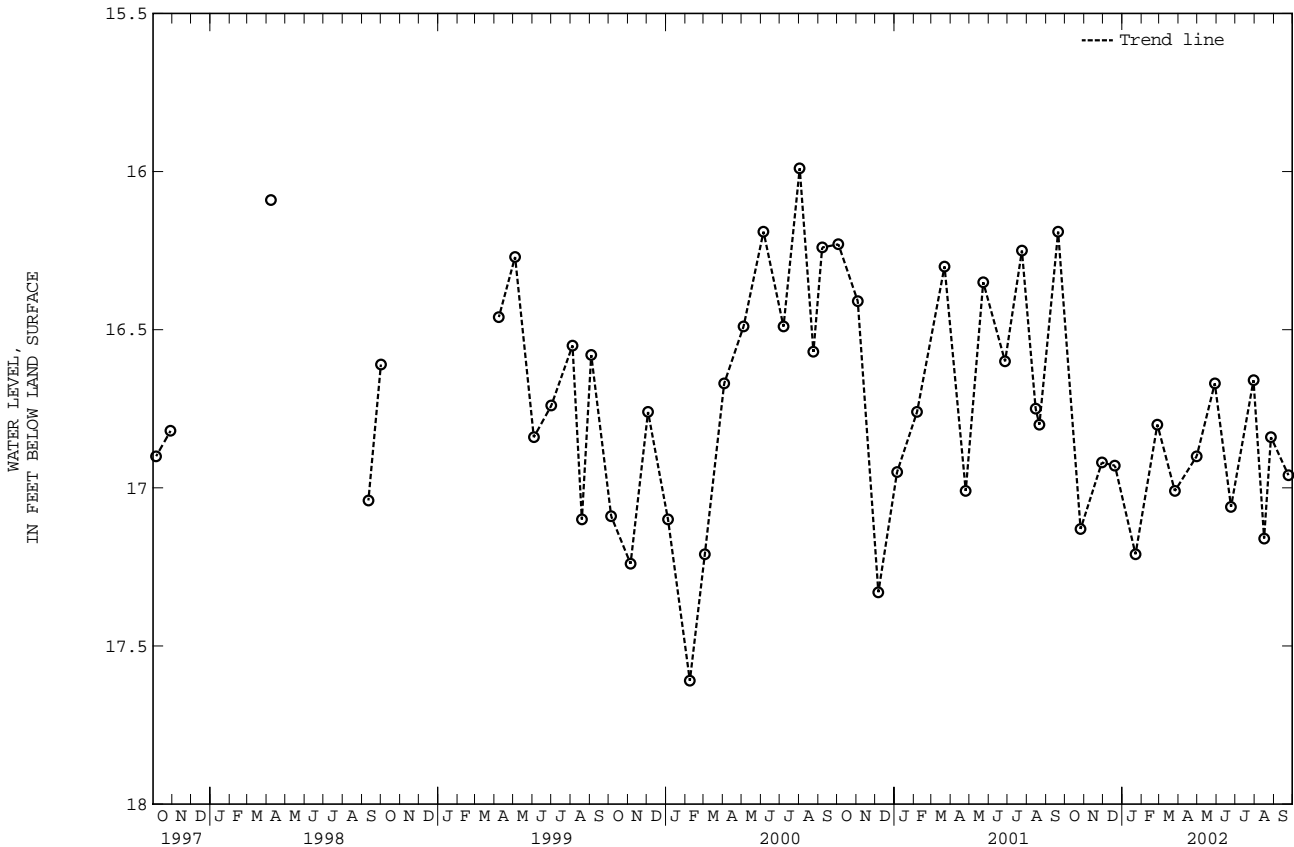


QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Db 32. SITE ID.--390201076182703. PERMIT NUMBER.--QA-81-0473.  
 LOCATION.--Lat 39°02'01", long 76°18'27", Hydrologic Unit 02060002, north side of Pier Avenue, 0.5 mi south of Love Point.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 116 ft; casing diameter 4 in., to 106 ft; screen diameter 4 in. from 106 to 116 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Measured twice yearly from May 1985 to February 1999.  
 DATUM.--Elevation of land surface is 18.00 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 2.10 ft above land surface.  
 REMARKS.--Kent Island ground-water monitoring network observation well. Water levels are affected by local ground-water withdrawal.  
 PERIOD OF RECORD.--May 1985 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.80 ft below land surface, Dec. 2, 1985; lowest measured, 17.83 ft below land surface, Dec. 8, 1992.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	17.13	FEB 26, 2002	16.80	JUN 24, 2002	17.06	SEP 24, 2002	16.96
NOV 29	16.92	MAR 26	17.01	JUL 30	16.66		
DEC 20	16.93	APR 30	16.90	AUG 16	17.16		
JAN 22, 2002	17.21	MAY 29	16.67	27	16.84		
WATER YEAR 2002 HIGHEST 16.66		JUL 30, 2002		LOWEST 17.21		JAN 22, 2002	



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

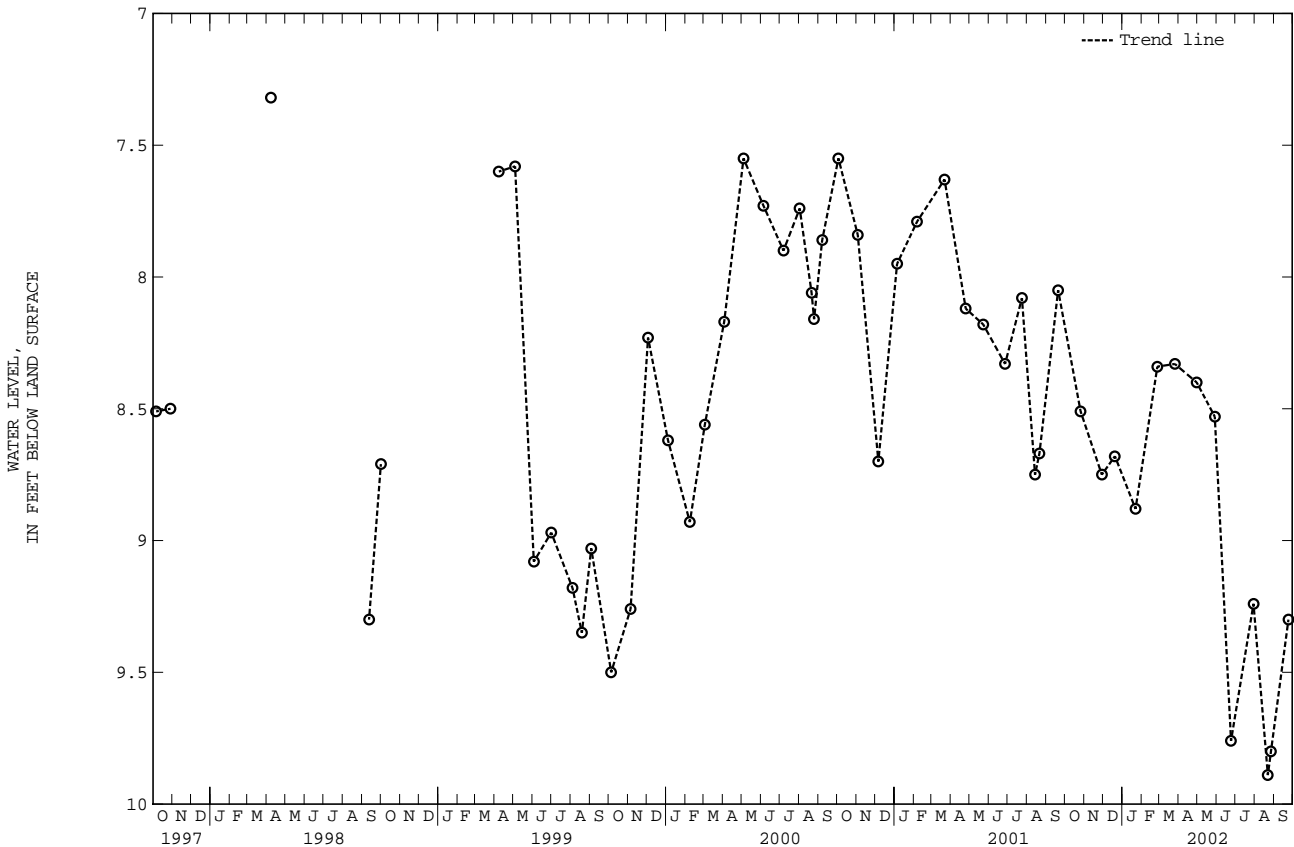
GROUND-WATER LEVELS IN MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Db 34. SITE ID.--390023076174301. PERMIT NUMBER.--QA-81-0471.  
 LOCATION.--Lat 39°00'23", long 76°17'43", Hydrologic Unit 02060002, near Cloverfields community park, Kent Island.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 180 ft; casing diameter 4 in., to 170 ft;  
 screen diameter 4 in. from 170 to 180 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 Measured twice yearly from April 1985 to February 1999.  
 DATUM.--Elevation of land surface is 7.40 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 2.50 ft above land surface.  
 REMARKS.--Kent Island ground-water monitoring network observation well. Water levels are affected by local ground-water  
 withdrawal.  
 PERIOD OF RECORD.--April 1985 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.15 ft below land surface, April 7, 1997;  
 lowest measured, 9.89 ft below land surface, Aug. 22, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	8.51	FEB 26, 2002	8.34	JUN 24, 2002	9.76	SEP 24, 2002	9.30
NOV 29	8.75	MAR 26	8.33	JUL 30	9.24		
DEC 20	8.68	APR 30	8.40	AUG 22	9.89		
JAN 22, 2002	8.88	MAY 29	8.53	27	9.80		
WATER YEAR 2002		HIGHEST	8.33	MAR 26, 2002	LOWEST	9.89	AUG 22, 2002



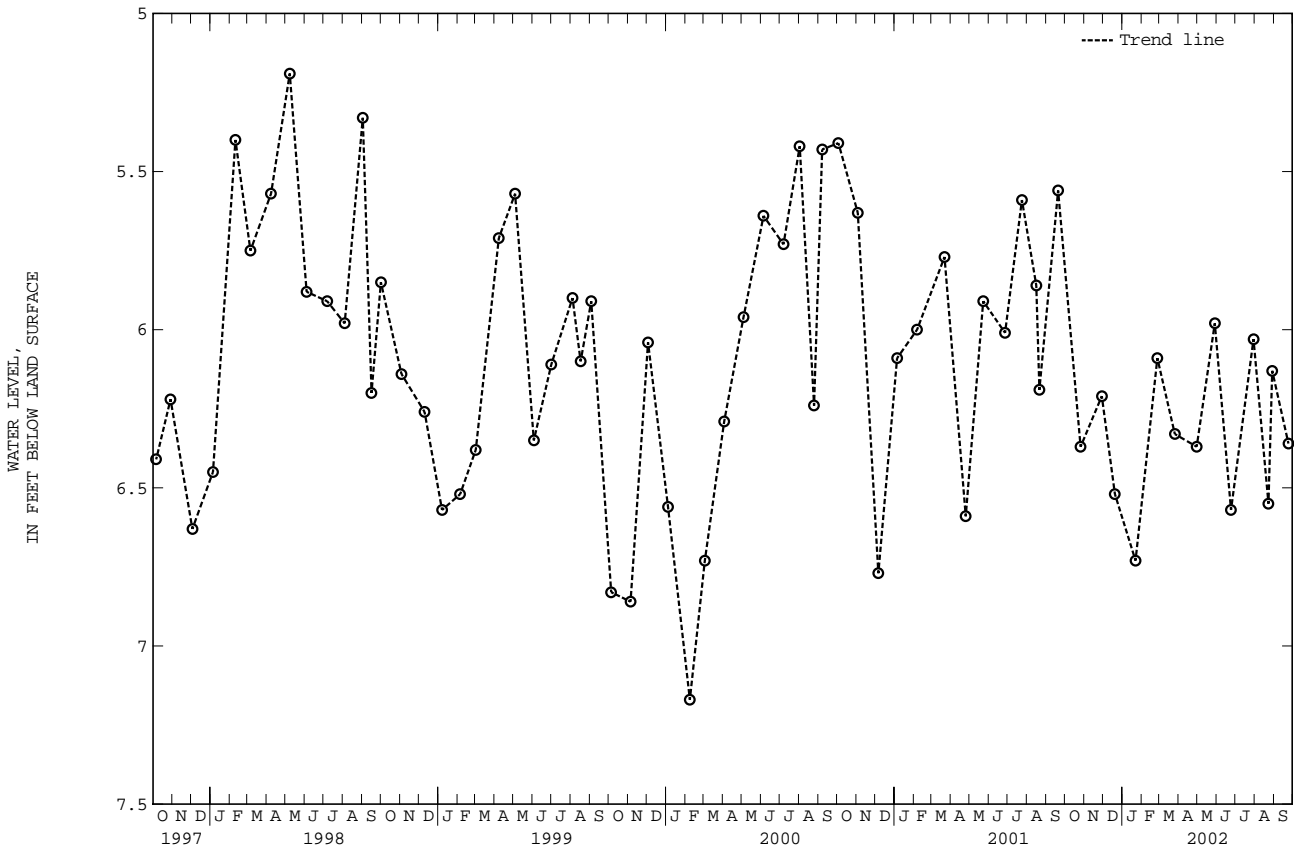
5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Db 35. SITE ID.--390119076191001. PERMIT NUMBER.--QA-81-0472.  
 LOCATION.--Lat 39°01'19", long 76°19'10", Hydrologic Unit 02060002, 0.5 mi west of MD Rt. 18, at Mylander Farms, Kent Island.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 200 ft; casing diameter 4 in., to 190 ft; screen diameter 4 in. from 190 to 200 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Measured twice yearly from April 1987 to April 1989.  
 DATUM.--Elevation of land surface is 7.50 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 2.20 ft above land surface.  
 REMARKS.--Kent Island ground-water monitoring network observation well. Water levels are affected by local ground-water withdrawal.  
 PERIOD OF RECORD.--August 1984 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.93 ft below land surface, Dec. 16, 1996;  
 lowest measured, 7.65 ft below land surface, Dec. 8, 1992.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	6.37	FEB 26, 2002	6.09	JUN 24, 2002	6.57	SEP 24, 2002	6.36
NOV 29	6.21	MAR 26	6.33	JUL 30	6.03		
DEC 20	6.52	APR 30	6.37	AUG 23	6.55		
JAN 22, 2002	6.73	MAY 29	5.98	29	6.13		
WATER YEAR 2002		HIGHEST	5.98	MAY 29, 2002	LOWEST	6.73	JAN 22, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

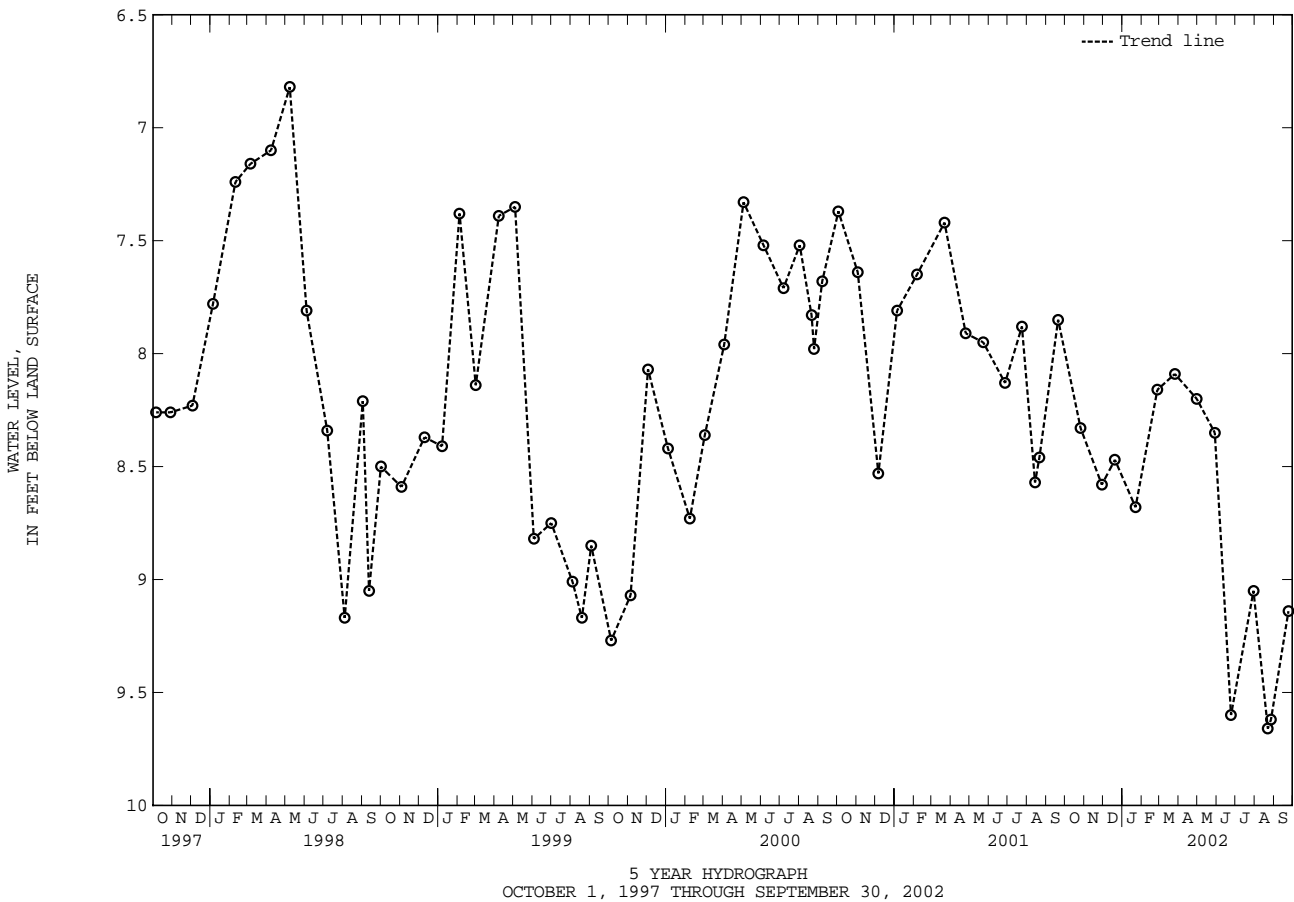
GROUND-WATER LEVELS IN MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Db 37. SITE ID.--390023076174302. PERMIT NUMBER.--QA-81-0471.  
 LOCATION.--Lat 39°00'23", long 76°17'43", Hydrologic Unit 02060002, near Cloverfield community park, Kent Island.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 250 ft; casing diameter 4 in., to 240 ft; screen diameter 4 in. from 240 to 250 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 7.10 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 2.50 ft above land surface.  
 REMARKS.--Kent Island ground-water monitoring network observation well. Water levels are affected by local ground-water withdrawal.  
 PERIOD OF RECORD.--April 1985 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.28 ft below land surface, April 9, 1993, and Dec. 16, 1996; lowest measured, 9.74 ft below land surface, Jan. 11, 1994.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	8.33	FEB 26, 2002	8.16	JUN 24, 2002	9.60	SEP 24, 2002	9.14
NOV 29	8.58	MAR 26	8.09	JUL 30	9.05		
DEC 20	8.47	APR 30	8.20	AUG 22	9.66		
JAN 22, 2002	8.68	MAY 29	8.35		9.62		
WATER YEAR 2002		HIGHEST	8.09	MAR 26, 2002	LOWEST	9.66	AUG 22, 2002





QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA De 27. SITE ID.--390251076034401.

LOCATION.--Lat 39°02'51", long 76°03'44", Hydrologic Unit 02060002, at Sheriff's Office, Centreville.

Owner: Town of Centreville.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, artesian well, depth 665 ft, measured depth 380 ft; casing diameter 8 in., to 170 ft; screen depth unknown.

INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

Equipped with digital water-level recorder--15-minute recording interval, September 1999 to July 2000.

DATUM.--Elevation of land surface is 10.19 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of concrete base, 1.44 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local ground-water withdrawal.

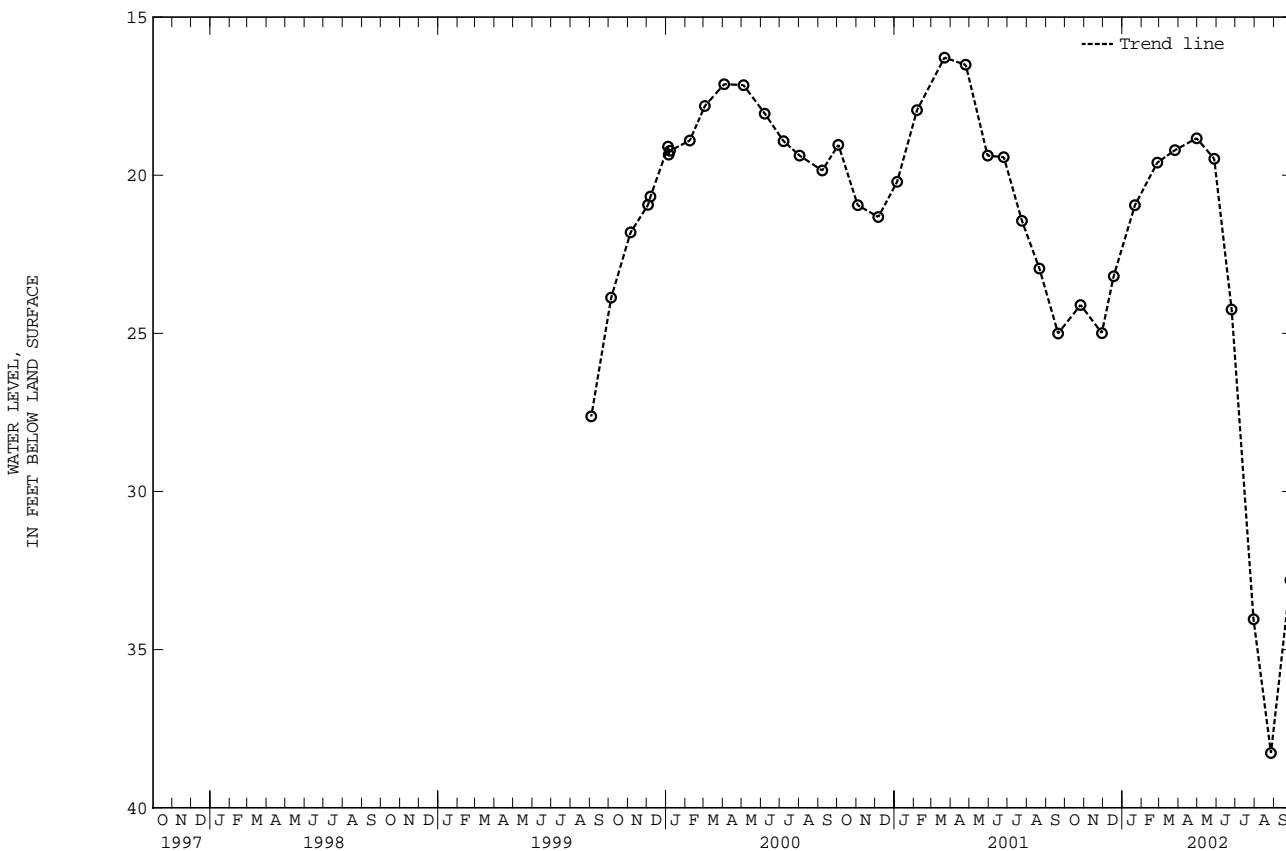
PERIOD OF RECORD.--September 1999 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.28 ft below land surface, March 22, 2001; lowest measured, 38.27 ft below land surface, Aug. 27, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	24.10	JAN 21, 2002	20.95	APR 30, 2002	18.83	JUL 30, 2002	34.04
NOV 29	24.99	FEB 26	19.60	MAY 28	19.48	AUG 27	38.27
DEC 18	23.19	MAR 26	19.21	JUN 25	24.25	SEP 27	32.81

WATER YEAR 2002 HIGHEST 18.83 APR 30, 2002 LOWEST 38.27 AUG 27, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

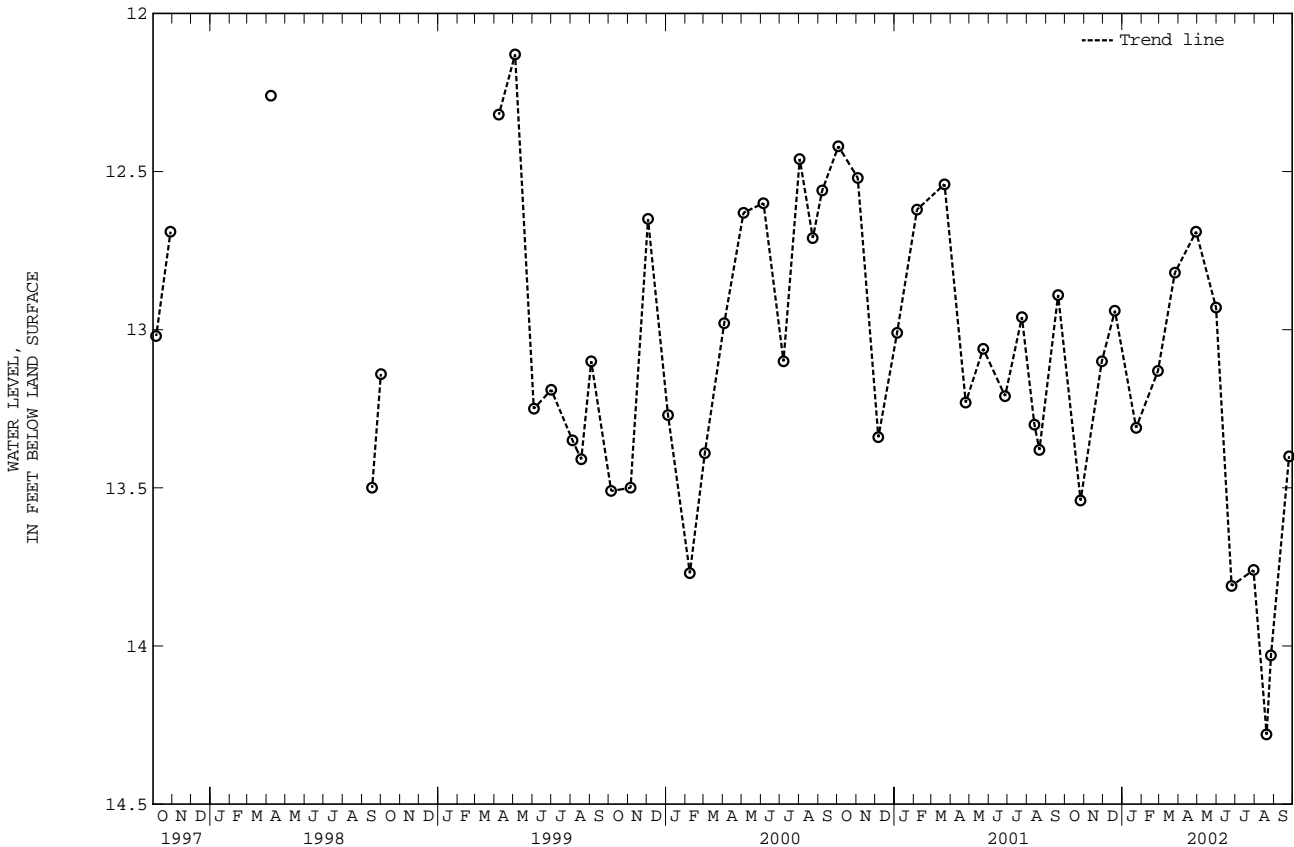
QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Ea 77. SITE ID.--385718076211501. PERMIT NUMBER.--QA-81-0474.  
 LOCATION.--Lat 38°57'18", long 76°21'15", Hydrologic Unit 02060002, at Matapeake State Park.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 205 ft; casing diameter 4 in., to 195 ft; screen diameter 4 in. from 195 to 205 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Measured twice yearly from April 1985 to February 1999.  
 DATUM.--Elevation of land surface is 10.80 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 2.24 ft above land surface.  
 REMARKS.--Kent Island ground-water monitoring network observation well. Water levels are affected by local ground-water withdrawal.  
 PERIOD OF RECORD.--April 1985 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.07 ft below land surface, Dec. 2, 1985; lowest measured, 14.28 ft below land surface, Aug. 20, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	13.54	FEB 27, 2002	13.13	JUN 25, 2002	13.81	SEP 25, 2002	13.40
NOV 29	13.10	MAR 26	12.82	JUL 30	13.76		
DEC 20	12.94	APR 29	12.69	AUG 20	14.28		
JAN 23, 2002	13.31	MAY 31	12.93	27	14.03		

WATER YEAR 2002      HIGHEST    12.69    APR 29, 2002      LOWEST    14.28    AUG 20, 2002



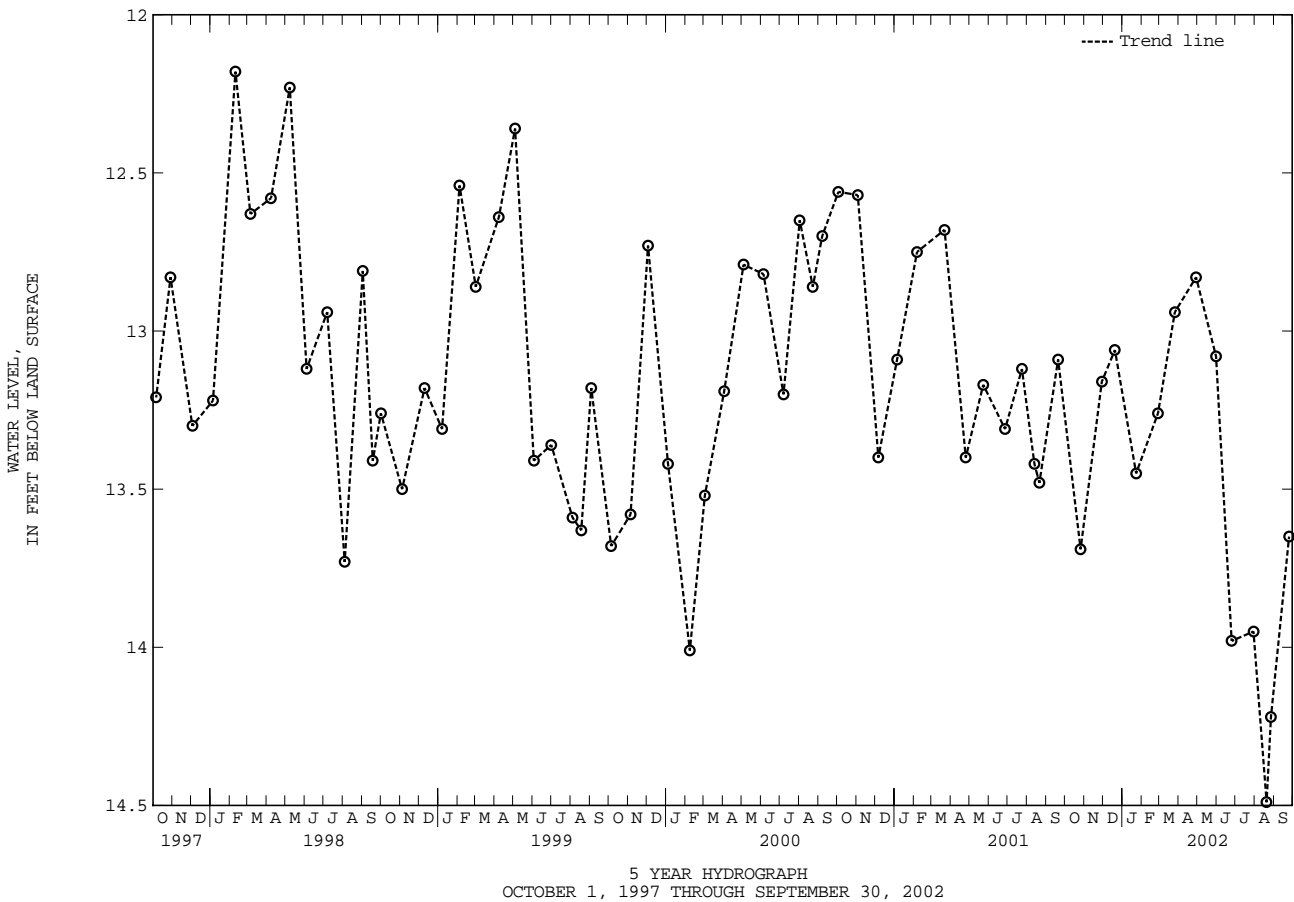
QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Ea 78. SITE ID.--385718076211502 . PERMIT NUMBER.--QA-81-0474.  
 LOCATION.--Lat 38°57'18", long 76°21'15", Hydrologic Unit 02060002, at Matapeake State Park.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 135 ft; casing diameter 4 in., to 125 ft;  
 screen diameter 4 in. from 125 to 135 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 11.80 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 1.91 ft above land surface.  
 REMARKS.--Kent Island ground-water monitoring network observation well. Water levels are affected by local ground-water  
 withdrawal.  
 PERIOD OF RECORD.--April 1985 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.45 ft below land surface, June 4, 1992;  
 lowest measured, 14.49 ft below land surface, Aug. 20, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	13.69	FEB 27, 2002	13.26	JUN 25, 2002	13.98	SEP 25, 2002	13.65
NOV 29	13.16	MAR 26	12.94	JUL 30	13.95		
DEC 20	13.06	APR 29	12.83	AUG 20	14.49		
JAN 23, 2002	13.45	MAY 31	13.08		14.22		

WATER YEAR 2002      HIGHEST    12.83    APR 29, 2002      LOWEST    14.49    AUG 20, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Ea 79. SITE ID.--385757076200101. PERMIT NUMBER.--QA-81-0469.

LOCATION.--Lat 38°57'57", long 76°20'01", Hydrologic Unit 02060002, at Mowbray Park, Kent Island.

Owner: Maryland Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 298 ft; casing diameter 4 in., to 288 ft; screen diameter 4 in. from 288 to 298 ft.

INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Measured twice yearly from October 1986 to April 1989.

DATUM.--Elevation of land surface is 8.30 ft above National Geodetic Vertical Datum of 1929.

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

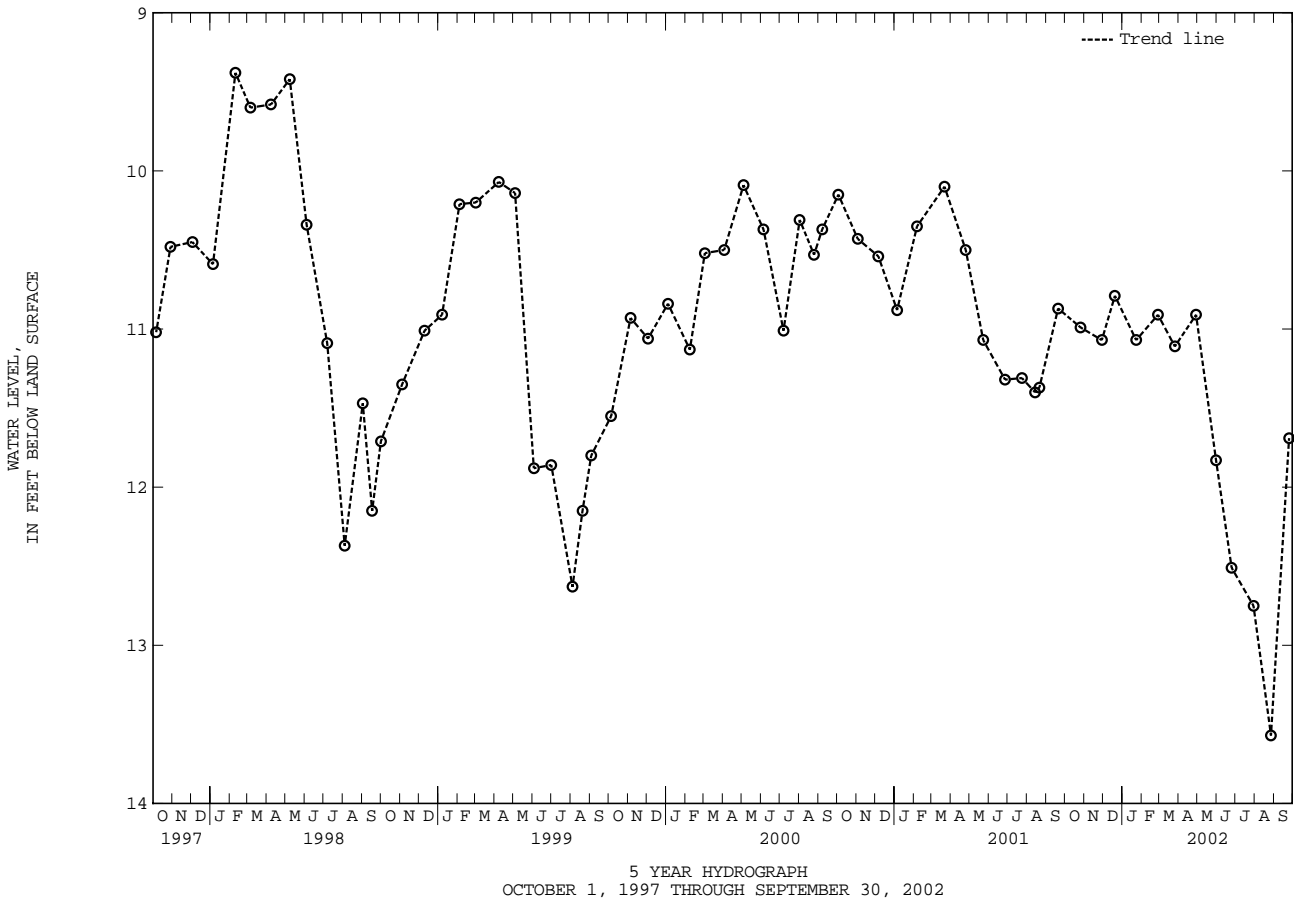
REMARKS.--Kent Island ground-water monitoring network observation well. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--April 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.30 ft below land surface, Dec. 2, 1985; lowest measured, 13.57 ft below land surface, Aug. 27, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	10.99	JAN 23, 2002	11.07	APR 29, 2002	10.91	JUL 30, 2002	12.75
NOV 29	11.07	FEB 27	10.91	MAY 31	11.83	AUG 27	13.57
DEC 20	10.79	MAR 26	11.11	JUN 25	12.51	SEP 25	11.69
WATER YEAR 2002 HIGHEST 10.79 DEC 20, 2001		LOWEST 13.57		AUG 27, 2002			

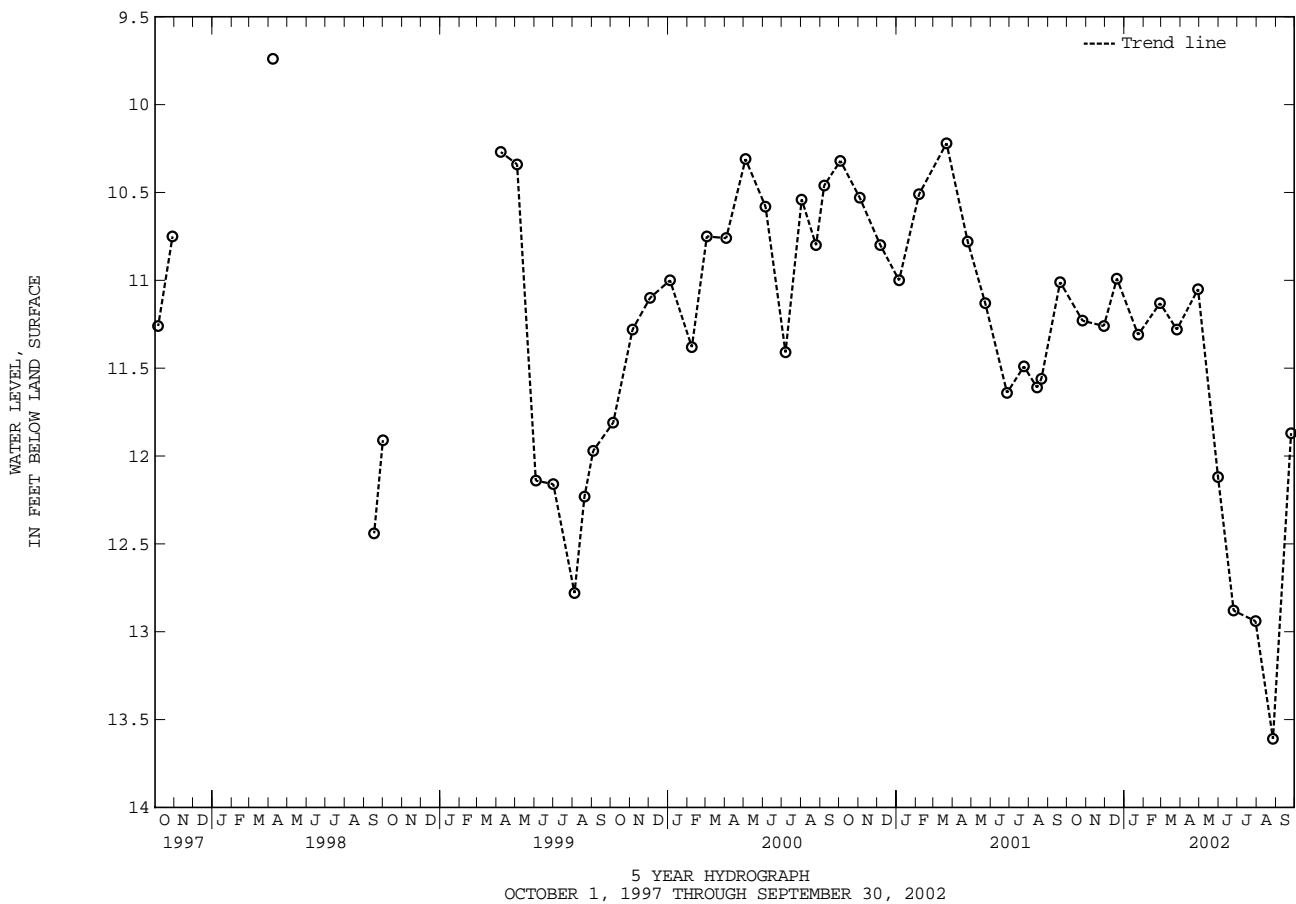


QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Ea 80. SITE ID.--385757076200102. PERMIT NUMBER.--QA-81-0469.  
 LOCATION.--Lat 38°57'57", long 76°20'01", Hydrologic Unit 02060002, at Mowbray Park, Kent Island.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 130 ft; casing diameter 4 in., to 120 ft; screen diameter 4 in. from 120 to 130 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Measured twice yearly from October 1986 to February 1999.  
 DATUM.--Elevation of land surface is 8.50 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 2.51 ft above land surface.  
 REMARKS.--Kent Island ground-water monitoring network observation well. Water levels are affected by local ground-water withdrawal.  
 PERIOD OF RECORD.--April 1985 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.45 ft below land surface, Dec. 2, 1985; lowest measured, 13.61 ft below land surface, Aug. 27, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	11.23	JAN 23, 2002	11.31	APR 29, 2002	11.05	JUL 30, 2002	12.94
NOV 29	11.26	FEB 27	11.13	MAY 31	12.12	AUG 27	13.61
DEC 20	10.99	MAR 26	11.28	JUN 25	12.88	SEP 25	11.87
WATER YEAR 2002 HIGHEST 10.99 DEC 20, 2001		LOWEST 13.61		AUG 27, 2002			



GROUND-WATER LEVELS IN MARYLAND--Continued

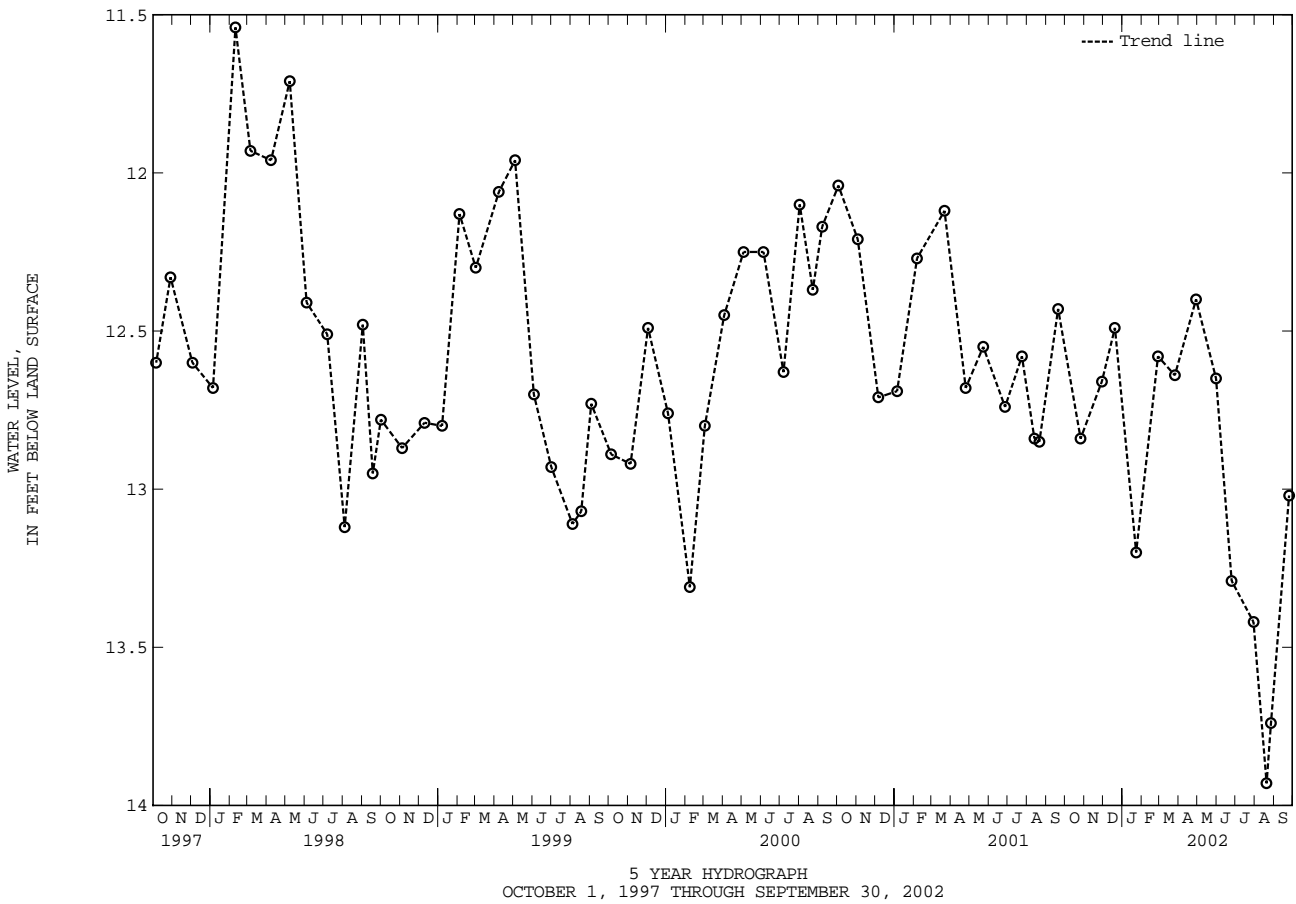
QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Ea 81. SITE ID.--385718076211503. PERMIT NUMBER.--QA-81-0474.  
 LOCATION.--Lat 38°57'18", long 76°21'15", Hydrologic Unit 02060002, at Matapeake State Park.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 310 ft; casing diameter 4 in., to 300 ft;  
 screen diameter 4 in. from 300 to 310 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 12.40 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 2.16 ft above land surface.  
 REMARKS.--Kent Island ground-water monitoring network observation well. Water levels are affected by local ground-water  
 withdrawal.  
 PERIOD OF RECORD.--April 1985 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.54 ft below land surface, Dec. 2, 1985;  
 lowest measured, 13.93 ft below land surface, Aug. 20, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	12.84	FEB 27, 2002	12.58	JUN 25, 2002	13.29	SEP 25, 2002	13.02
NOV 29	12.66	MAR 26	12.64	JUL 30	13.42		
DEC 20	12.49	APR 29	12.40	AUG 20	13.93		
JAN 23, 2002	13.20	MAY 31	12.65		27		13.74

WATER YEAR 2002      HIGHEST    12.40    APR 29, 2002      LOWEST    13.93    AUG 20, 2002



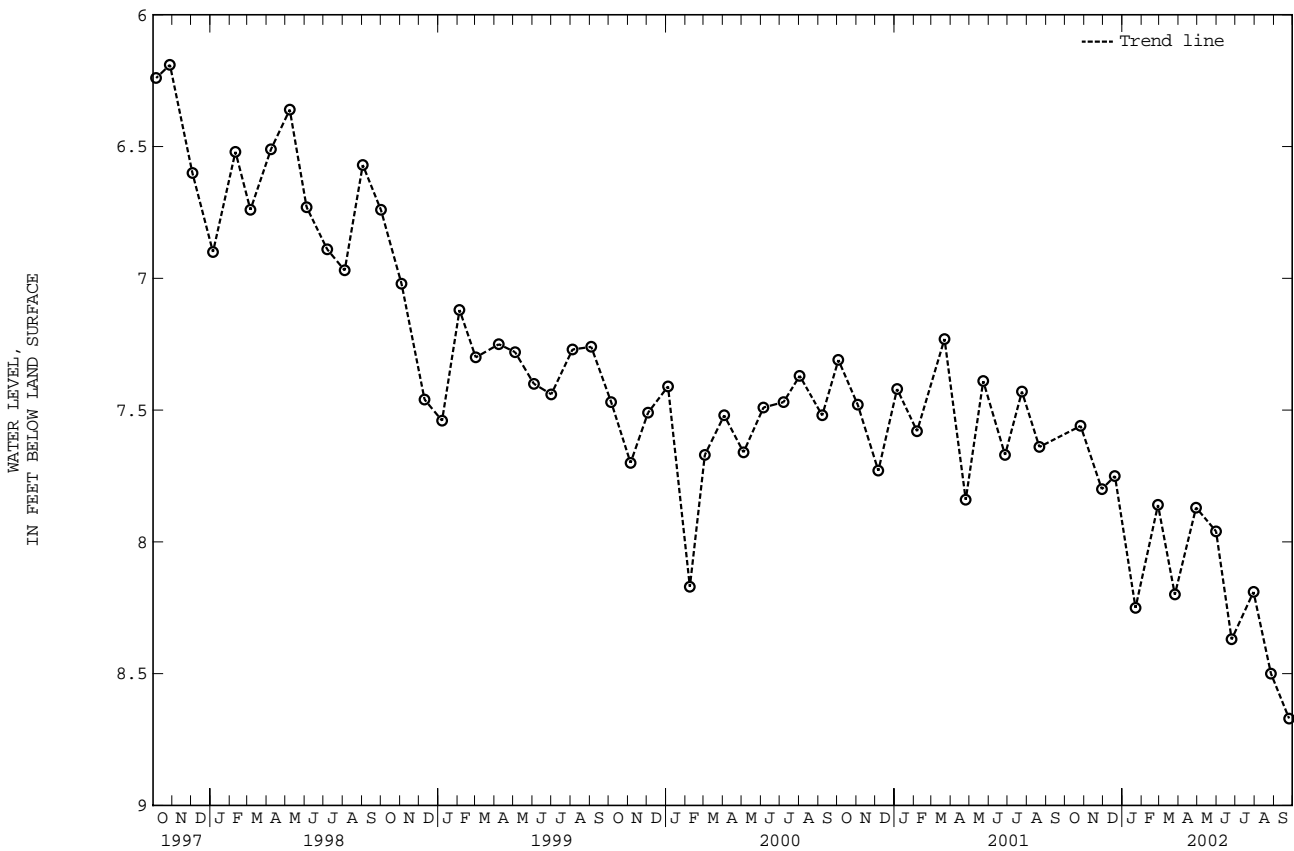
QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Eb 110. SITE ID.--385751076171603. PERMIT NUMBER.--QA-73-2979.  
 LOCATION.--Lat 38°57'51", long 76°17'16", Hydrologic Unit 02060002, near Chester, Kent Island.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 2,485 ft; casing diameter 4 in., to 2,413 ft, 2,423 to 2,465 ft and 2,475 to 2,485 ft; screen diameter 4 in., from 2,413 to 2,423 ft, and 2,465 to 2,475 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Measured twice yearly from January 1980 to October 1989.  
 DATUM.--Elevation of land surface is 13.98 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 3.36 ft above land surface.  
 REMARKS.--Kent Island ground-water monitoring network observation well. Water levels are affected by regional ground-water withdrawal.  
 PERIOD OF RECORD.--January 1980 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.99 ft above land surface, Jan. 21, 1980; lowest measured, 8.67 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	7.56	JAN 22, 2002	8.25	APR 29, 2002	7.87	JUL 30, 2002	8.19
NOV 29	7.80	FEB 27	7.86	MAY 31	7.96	AUG 27	8.50
DEC 20	7.75	MAR 26	8.20	JUN 25	8.37	SEP 25	8.67

WATER YEAR 2002 HIGHEST 7.56 OCT 26, 2001 LOWEST 8.67 SEP 25, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

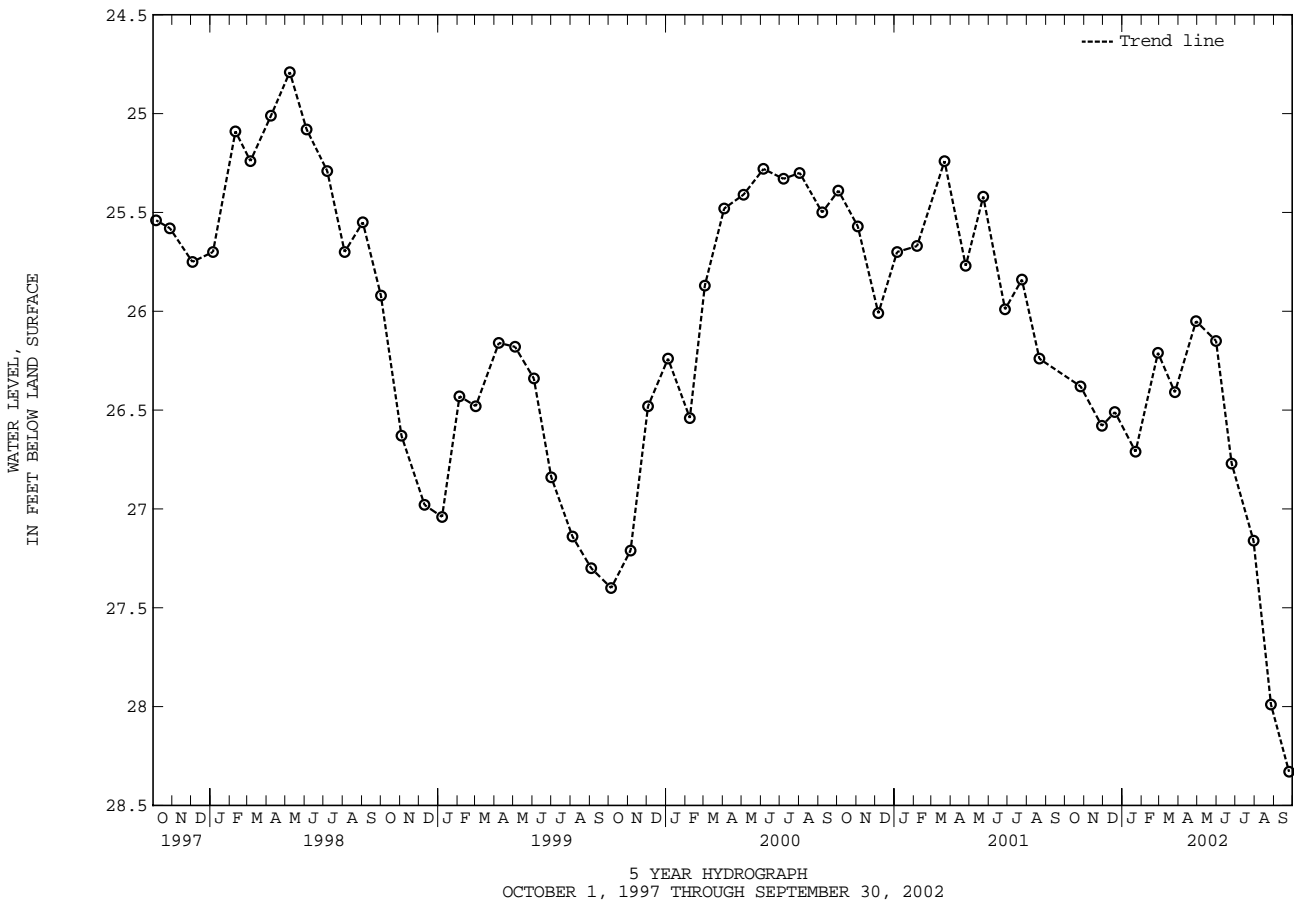
QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Eb 111. SITE ID.--385751076171601. PERMIT NUMBER.--QA-73-3122.  
 LOCATION.--Lat 38°57'51", long 76°17'16", Hydrologic Unit 02060002, near Chester, Kent Island.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 985 ft; casing diameter 4 in., to 955 ft, and 965 to 975 ft; screen diameter 4 in., from 955 to 965 ft, and 975 to 985 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 Twice yearly measurements from April 1984 to September 1989.  
 DATUM.--Elevation of land surface is 14.03 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 1.41 ft above land surface.  
 REMARKS.--Kent Island ground-water monitoring network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--December 1979 to April 1984, March 1985 to April 1989, and September 1989 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.02 ft below land surface, Jan. 21, 1980;  
 lowest measured, 28.33 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	26.38	JAN 22, 2002	26.71	APR 29, 2002	26.05	JUL 30, 2002	27.16
NOV 29	26.58	FEB 27	26.21	MAY 31	26.15	AUG 27	27.99
DEC 20	26.51	MAR 26	26.41	JUN 25	26.77	SEP 25	28.33

WATER YEAR 2002    HIGHEST    26.05    APR 29, 2002    LOWEST    28.33    SEP 25, 2002





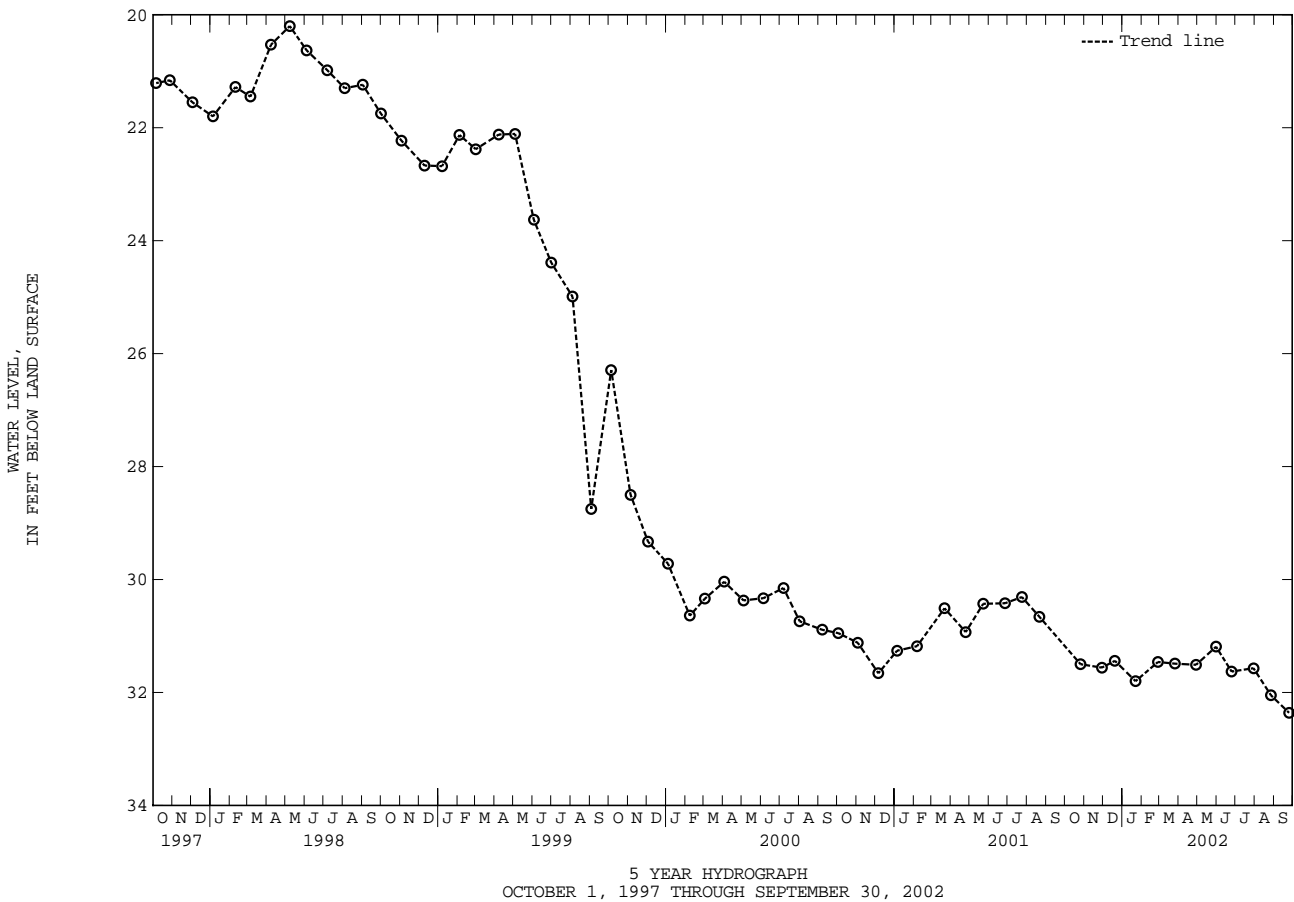
QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Eb 112. SITE ID.--385751076171602. PERMIT NUMBER.--QA-73-3123.  
 LOCATION.--Lat 38°57'51", long 76°17'16", Hydrologic Unit 02060002, near Chester, Kent Island.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,679 ft; casing diameter 4 in., to 1,652 ft, and 1,662 to 1,669 ft; screen diameter 4 in., from 1,652 to 1,662 ft, and 1,669 to 1,679 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 Twice yearly measurements from January 1980 to September 1980.  
 DATUM.--Elevation of land surface is 13.92 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 1.36 ft above land surface.  
 REMARKS.--Kent Island ground-water monitoring network observation well. Water levels are affected by local and regional ground-water withdrawals.  
 PERIOD OF RECORD.--January 1980 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.69 ft below land surface, Jan. 21, 1980;  
 lowest measured, 32.36 ft below land surface, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	31.50	JAN 22, 2002	31.80	APR 29, 2002	31.51	JUL 30, 2002	31.57
NOV 29	31.56	FEB 27	31.46	MAY 31	31.19	AUG 27	32.05
DEC 20	31.44	MAR 26	31.49	JUN 25	31.63	SEP 25	32.36

WATER YEAR 2002      HIGHEST    31.19    MAY 31, 2002      LOWEST    32.36    SEP 25, 2002



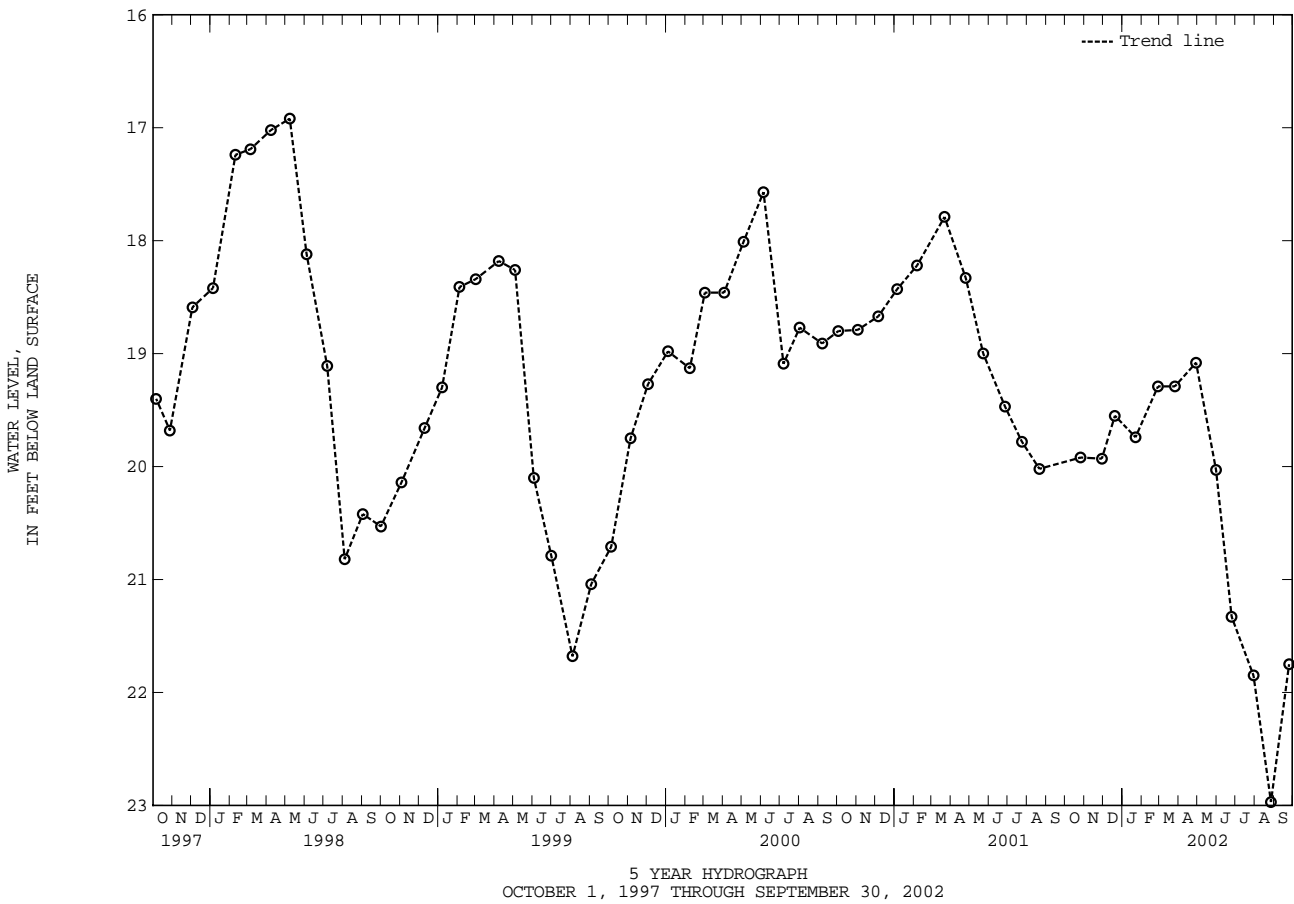
GROUND-WATER LEVELS IN MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Eb 113. SITE ID.--385748076172001. PERMIT NUMBER.--QA-73-3172.  
 LOCATION.--Lat 38°57'48", long 76°17'20", Hydrologic Unit 02060001, near Chester, Kent Island.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 216 ft; casing diameter 6 in., to 176 ft; screen diameter 6 in. from 176 to 216 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Equipped with graphic water-level recorder from June 30, 1986 to October 2, 1994.  
 DATUM.--Elevation of land surface is 11.34 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of shelter platform, 2.60 ft above land surface.  
 REMARKS.--Kent Island ground-water monitoring network observation well. Water levels are affected by local ground-water withdrawal.  
 PERIOD OF RECORD.--October 1982 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.28 ft below land surface, April 1, 1983; lowest measured, 22.97 ft below land surface, Aug. 27, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	19.92	JAN 22, 2002	19.74	APR 29, 2002	19.08	JUL 30, 2002	21.85
NOV 29	19.93	FEB 27	19.29	MAY 31	20.03	AUG 27	22.97
DEC 20	19.55	MAR 26	19.29	JUN 25	21.33	SEP 25	21.75
WATER YEAR 2002		HIGHEST	19.08	APR 29, 2002	LOWEST	22.97	AUG 27, 2002



QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Eb 155. SITE ID.--385843076155302. PERMIT NUMBER.--QA-81-0470.  
 LOCATION.--Lat 38°58'43", long 76°15'53", Hydrologic Unit 02060002, at north end of Piney Creek Rd., Kent Island.  
 Owner: Maryland Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 245 ft; casing diameter 4 in., to 235 ft; screen diameter 4 in. from 235 to 245 ft.

INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Measured twice yearly from June 1986 to April 1989.

DATUM.--Elevation of land surface is 3.90 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.50 ft above land surface.

REMARKS.--Kent Island ground-water monitoring network observation well. Water levels are affected by local ground-water withdrawal.

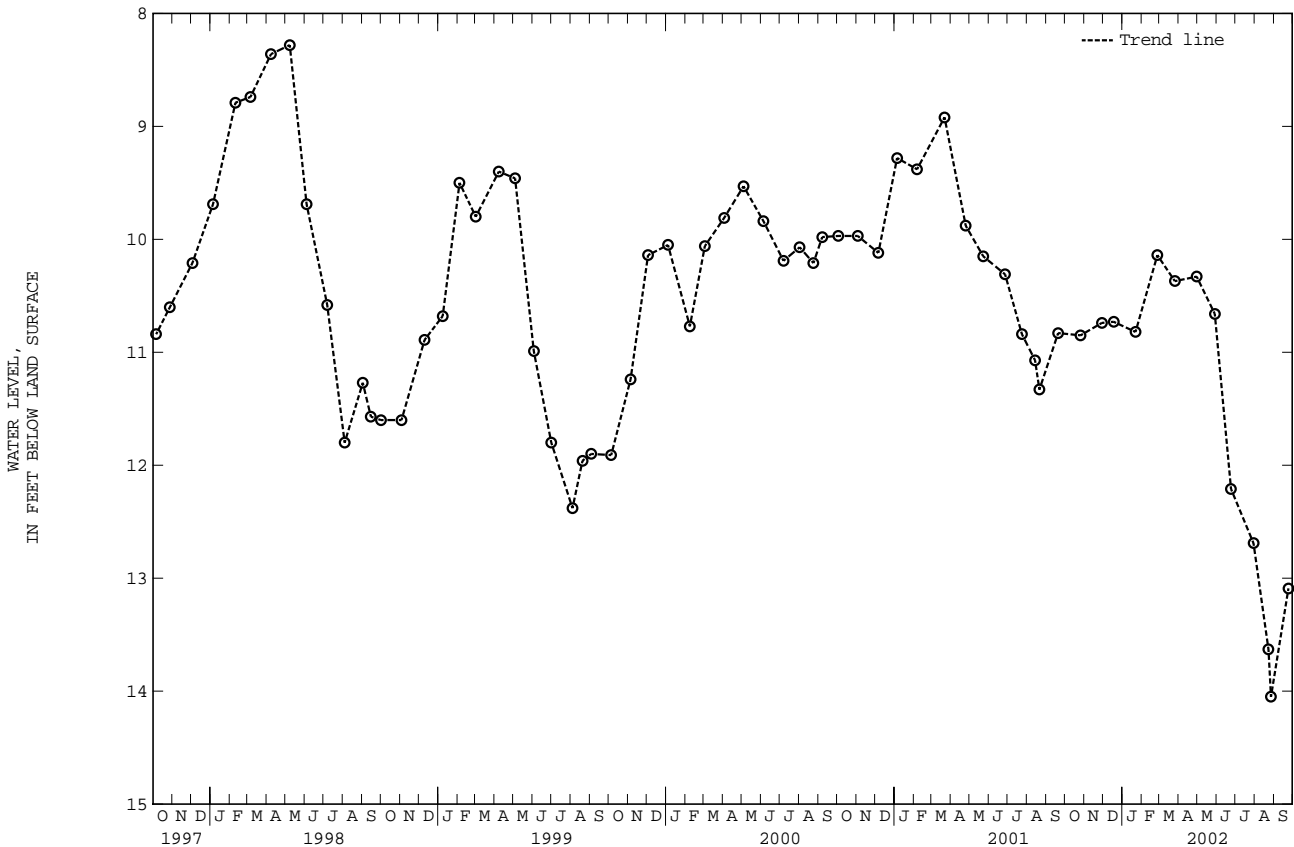
PERIOD OF RECORD.--October 1984, April 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.60 ft below land surface, Dec. 2, 1985; lowest measured, 14.05 ft below land surface, Aug. 27, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	10.85	FEB 26, 2002	10.14	JUN 24, 2002	12.21	SEP 24, 2002	13.09
NOV 29	10.74	MAR 26	10.37	JUL 30	12.69		
DEC 18	10.73	APR 30	10.33	AUG 23	13.63		
JAN 22, 2002	10.82	MAY 29	10.66	27	14.05		

WATER YEAR 2002      HIGHEST    10.14    FEB 26, 2002      LOWEST    14.05    AUG 27, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

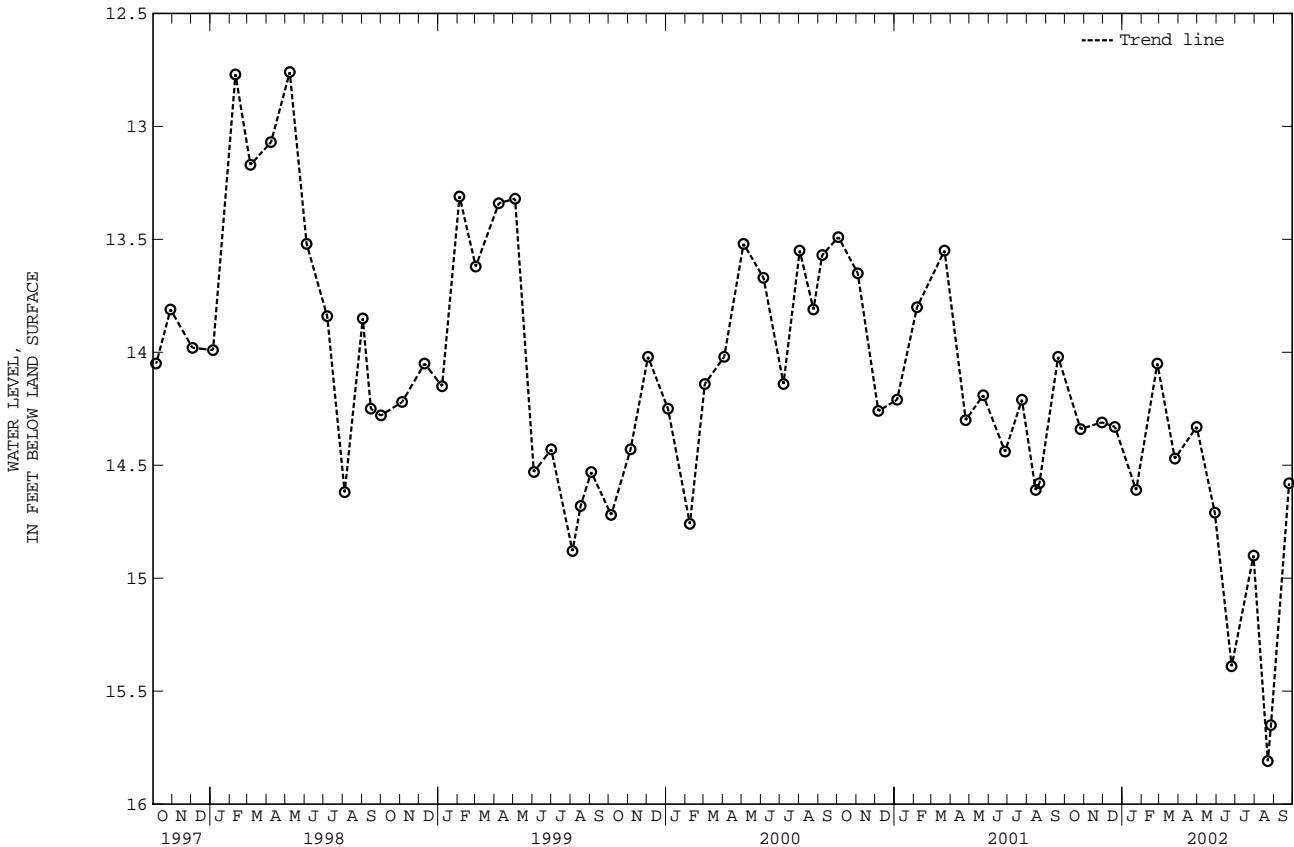
GROUND-WATER LEVELS IN MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Eb 156. SITE ID.--385852076195201. PERMIT NUMBER.--QA-81-0475.  
 LOCATION.--Lat 38°58'52", long 76°19'52", Hydrologic Unit 02060002, north of US Rt. 50, at Terrapin Beach Park, Kent Island.  
 Owner: Maryland Geological Survey.  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 220 ft; casing diameter 4 in., to 210 ft; screen diameter 4 in. from 210 to 220 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel. Measured twice yearly from September 1987 to April 1989.  
 DATUM.--Elevation of land surface is 12.01 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 2.20 ft above land surface.  
 REMARKS.--Kent Island ground-water monitoring network observation well. Water levels are affected by local ground-water withdrawal.  
 PERIOD OF RECORD.--October 1984, April 1985 to June 1986, September 1987 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.97 ft below land surface, Aug. 1, 1990; lowest measured, 15.81 ft below land surface, Aug. 22, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	14.34	FEB 26, 2002	14.05	JUN 25, 2002	15.39	SEP 25, 2002	14.58
NOV 29	14.31	MAR 26	14.47	JUL 30	14.90		
DEC 20	14.33	APR 30	14.33	AUG 22	15.81		
JAN 23, 2002	14.61	MAY 29	14.71	27	15.65		
WATER YEAR 2002		HIGHEST	14.05 FEB 26, 2002	LOWEST	15.81	AUG 22, 2002	



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Eb 157. SITE ID.--385852076195202. PERMIT NUMBER.--QA-81-0475.  
 LOCATION.--Lat 38°58'52", long 76°19'52", Hydrologic Unit 02060002, north of US Rt. 50, Terrapin Beach Park, Kent Island.  
 Owner: Maryland Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 120 ft; casing diameter 4 in., to 110 ft; screen diameter 4 in. from 110 to 120 ft.

INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel from May 1989 to November 1991, March 1999 to current year. Measured twice yearly from March 1988 to April 1989, April 1992 to February 1999.

DATUM.--Elevation of land surface is 11.92 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.50 ft above land surface.

REMARKS.--Kent Island ground-water monitoring network observation well. Water levels are affected by local ground-water withdrawal.

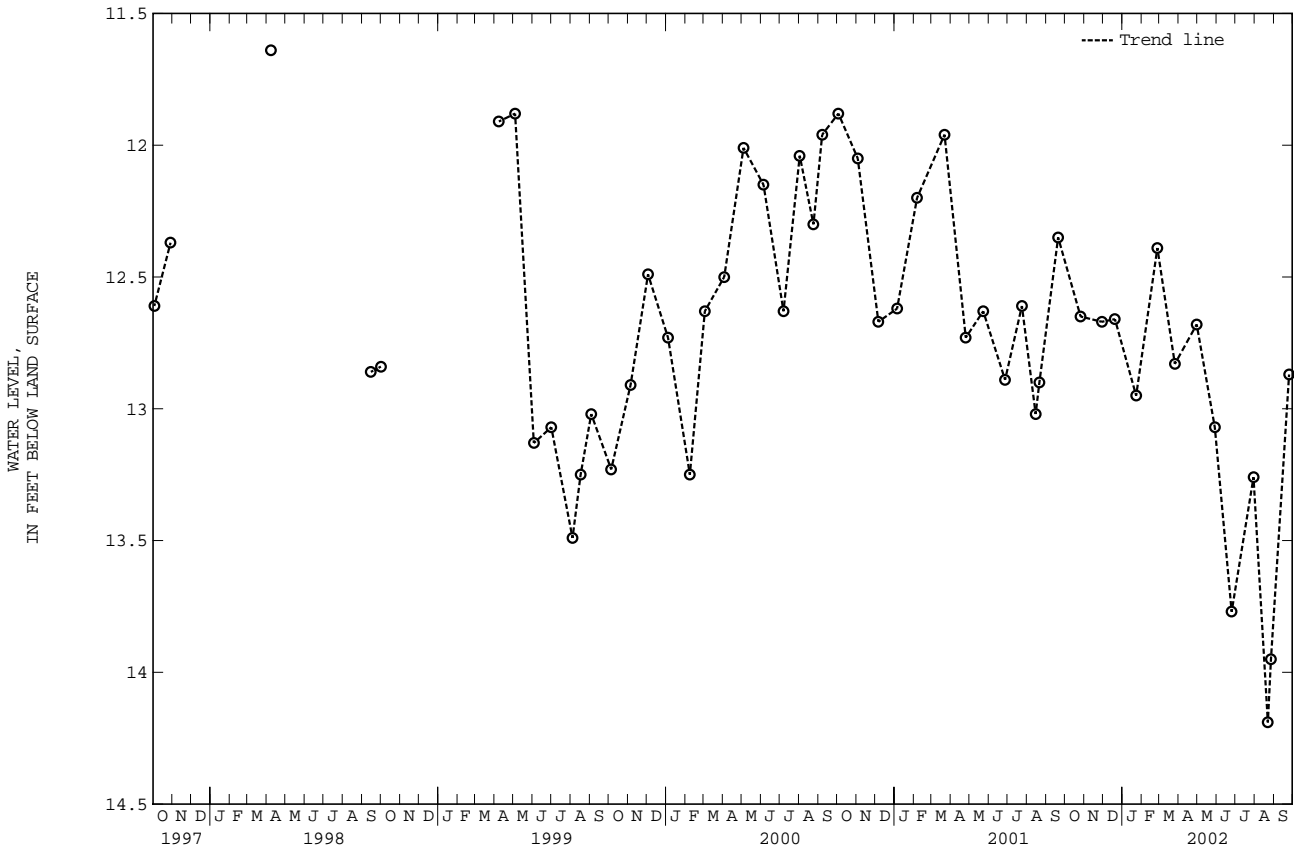
PERIOD OF RECORD.--October 1984, April 1985 to June 1986, March 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.40 ft below land surface, Dec. 2, 1985; lowest measured, 14.19 ft below land surface, Aug. 22, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	12.65	FEB 26, 2002	12.39	JUN 25, 2002	13.77	SEP 25, 2002	12.87
NOV 29	12.67	MAR 26	12.83	JUL 30	13.26		
DEC 20	12.66	APR 30	12.68	AUG 22	14.19		
JAN 23, 2002	12.95	MAY 29	13.07	27	13.95		

WATER YEAR 2002      HIGHEST    12.39    FEB 26, 2002      LOWEST    14.19    AUG 22, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Ec 1. SITE ID.--385756076105301.

LOCATION.--Lat 38°57'56", long 76°10'53", Hydrologic Unit 02060002, near Grasonville, south side of MD Rt. 18, .1 mi. northeast of intersection with Nesbit Rd.

Owner: Maryland State Highway Administration.

AQUIFER.--Kent Island Formation (Columbia aquifer) of Pleistocene age. Aquifer code: 112KILD.

WELL CHARACTERISTICS.--Drilled, unused, water-table driven well, depth 21 ft; casing diameter 1.25 in., to 21 ft.

INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of 2 in. coupling, 0.27 ft above land surface.

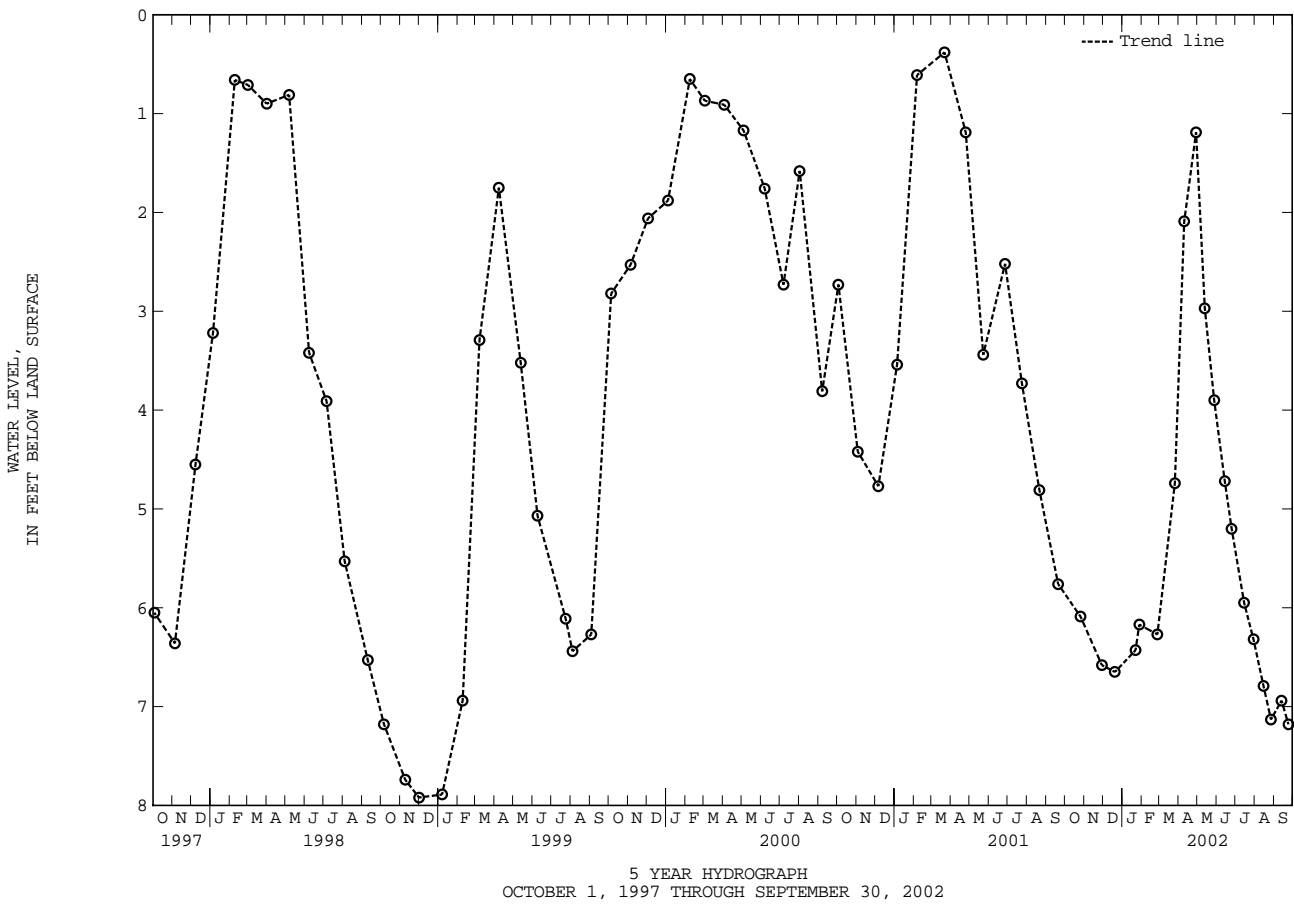
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--September 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.03 ft below land surface, Aug. 2, 1996; lowest measured, 8.46 ft below land surface, Jan. 7, 1988.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	6.09	FEB 26, 2002	6.27	MAY 28, 2002	3.90	AUG 15, 2002	6.79
NOV 29	6.58	MAR 26	4.74	JUN 14	4.72	27	7.13
DEC 20	6.65	APR 10	2.09	25	5.20	SEP 13	6.94
JAN 22, 2002	6.43	29	1.19	JUL 15	5.95	24	7.18
28	6.17	MAY 13	2.97	30	6.32		
WATER YEAR 2002		HIGHEST	1.19	APR 29, 2002	LOWEST	7.18	SEP 24, 2002



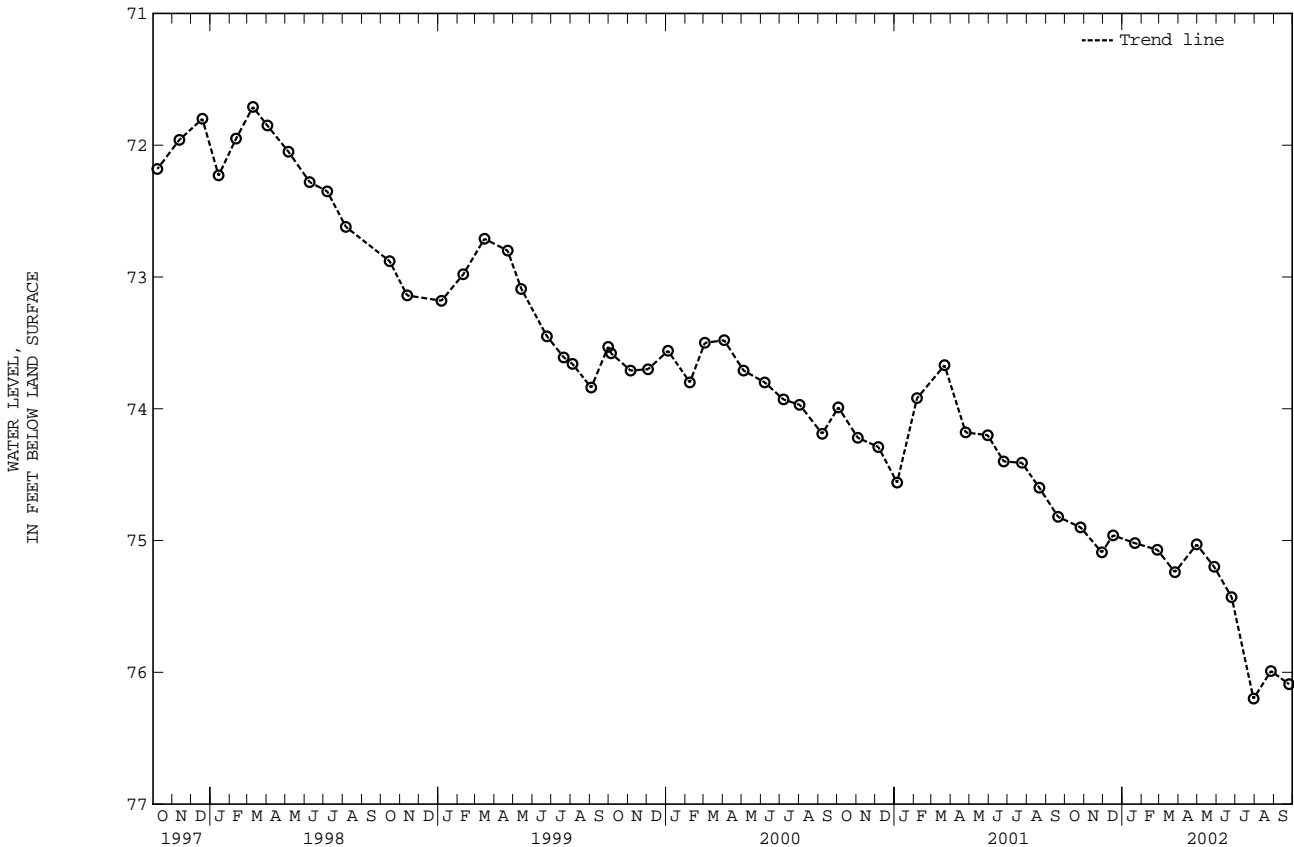
QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Ef 29. SITE ID.--385534075573601. PERMIT NUMBER.--QA-81-1593.  
 LOCATION.--Lat 38°55'38", long 75°57'40", Hydrologic Unit 02060005, off east side of MD Rt 309, .2 mi. north of intersection with MD Rt 404, Tuckahoe State Park.  
 Owner: Md. Dept. of Natural Resources, Fisheries Division.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,325 ft; casing diameter 14 in., to 500 ft, and 8 in. from 500 to 1,110 ft, 1,120 to 1,135 ft, 1,180 to 1,195 ft, 1,210 to 1,230 ft, 1,270 to 1,285 ft, and 1,315 to 1,325 ft; screen diameter 8 in., from 1,110 to 1,120 ft, 1,135 to 1,180 ft, 1,195 to 1,210 ft, 1,230 to 1,270 ft, and 1,285 to 1,315 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 61.69 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of 2 in. pipe, 3.80 ft above land surface.  
 REMARKS.--Maryland Water-level Network observation well. Water levels are affected by regional ground-water withdrawal.  
 PERIOD OF RECORD.-- June 1986 to December 1986, November 1990 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.30 ft below land surface, Aug. 27, 1986; lowest measured, 76.20 ft below land surface, July 30, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	74.90	JAN 21, 2002	75.02	APR 30, 2002	75.03	JUL 30, 2002	76.20
NOV 29	75.09	FEB 26	75.07	MAY 28	75.20	AUG 27	75.99
DEC 17	74.96	MAR 26	75.24	JUN 25	75.43	SEP 25	76.09

WATER YEAR 2002      HIGHEST    74.90    OCT 26, 2001      LOWEST    76.20    JUL 30, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

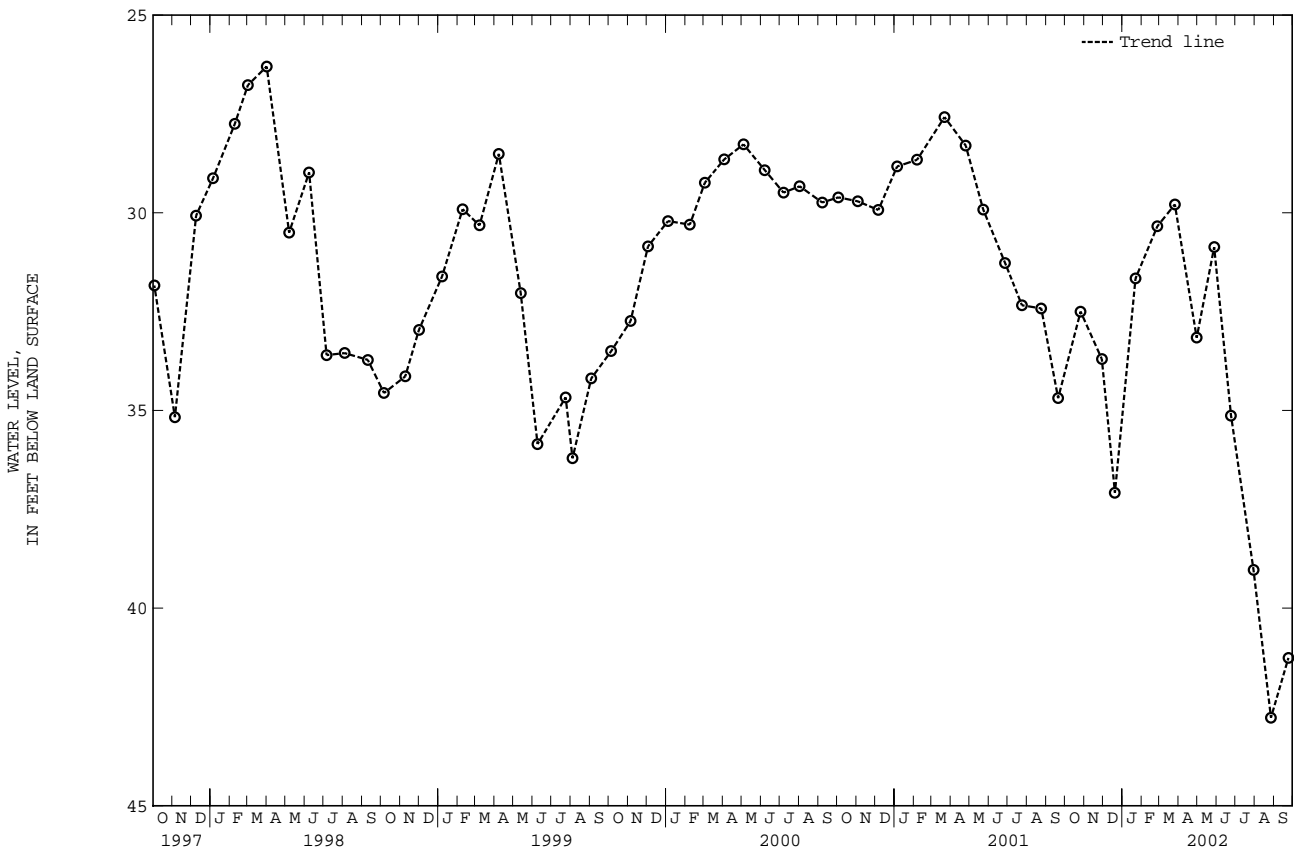
QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Fc 7. SITE ID.--385429076120201. PERMIT NUMBER.--QA-73-2191.  
 LOCATION.--Lat 38°54'29", long 76°12'02", Hydrologic Unit 02060002, off Greenwood Shoals, at Prospect Plantation.  
 Owner: Maryland Community Developers Incorporated.  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 356 ft; casing diameter 4 in., to 336 ft;  
 screen diameter 2 in. from 336 to 356 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing at land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water  
 withdrawals.  
 PERIOD OF RECORD.--February 1980 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.77 ft below land surface, March 3, 1983;  
 lowest measured, 42.77 ft below land surface, Aug. 27, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 2001	32.50	JAN 22, 2002	31.66	APR 30, 2002	33.16	JUL 30, 2002	39.03
NOV 29	33.70	FEB 26	30.34	MAY 28	30.87	AUG 27	42.77
DEC 20	37.08	MAR 26	29.79	JUN 24	35.13	SEP 24	41.26

WATER YEAR 2002      HIGHEST    29.79    MAR 26, 2002      LOWEST    42.77    AUG 27, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



ST. MARYS COUNTY

WELL NUMBER.--SM Bb 15. SITE ID.--382838076470101. PERMIT NUMBER.--SM-73-3430.

LOCATION.--Lat 38°28'38", long 76°47'01", Hydrologic Unit 02070011, at Charlotte Hall Veterans Home.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 460 ft; casing diameter 4 in., to 441 ft; casing diameter 2 in. from 441 to 450 ft; screen diameter 2 in. from 450 to 460 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 165.40 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.10 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

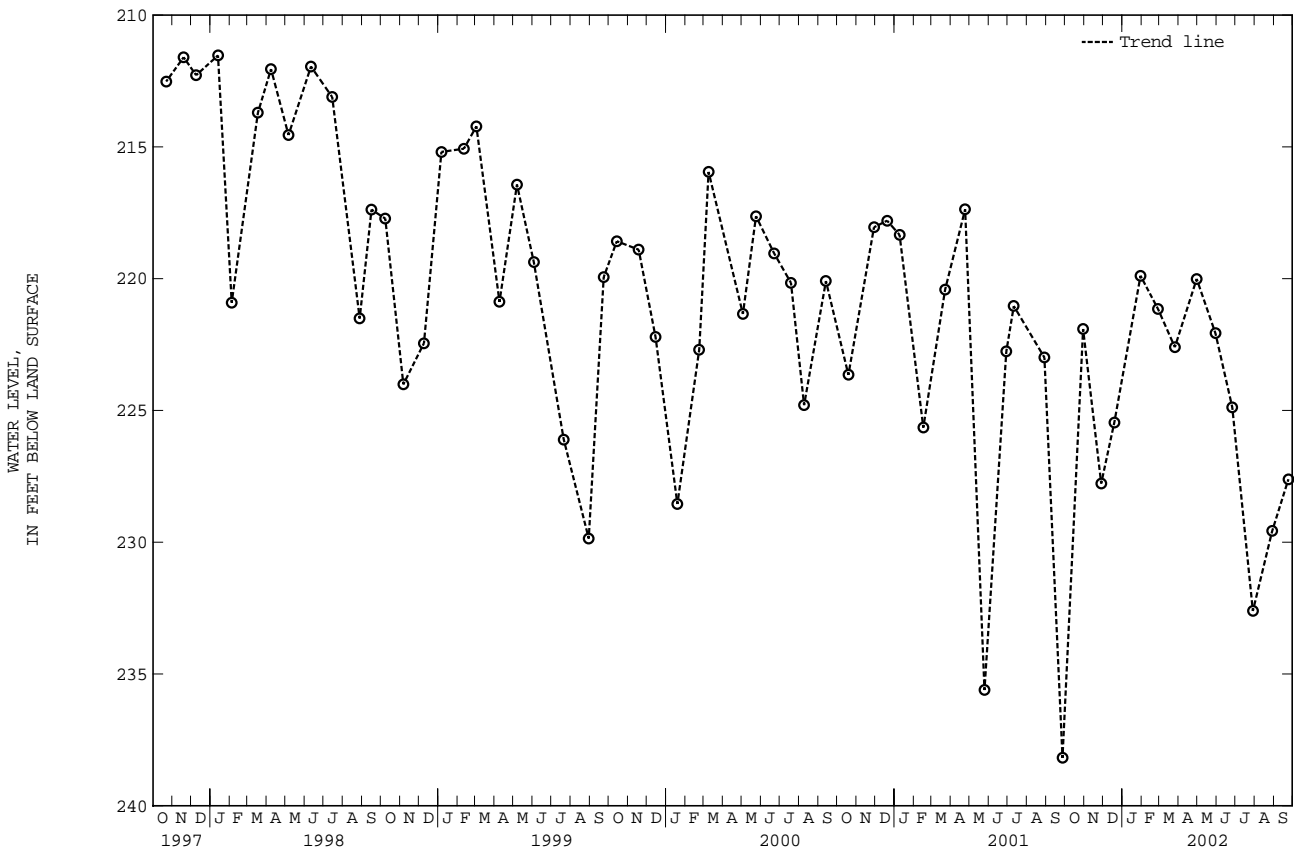
PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 159.76 ft below land surface, Aug. 10, 1979, and Aug. 31, 1979; lowest measured, 238.18 ft below land surface, Sept. 27, 2001.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	221.91	JAN 30, 2002	219.89	APR 30, 2002	220.01	JUL 29, 2002	232.61
NOV 28	227.77	FEB 27	221.15	MAY 30	222.07	AUG 29	229.57
DEC 19	225.46	MAR 26	222.60	JUN 26	224.88	SEP 24	227.61

WATER YEAR 2002 HIGHEST 219.89 JAN 30, 2002 LOWEST 232.61 JUL 29, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Bb 22. SITE ID.--382838076470102. PERMIT NUMBER.--SM-73-3787.

LOCATION.--Lat 38°28'38", long 76°47'01", Hydrologic Unit 02070011, at Charlotte Hall Veterans Home.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 218 ft; casing diameter 4 in., to 210 ft; screen diameter 2 in. from 210 to 218 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 165.21 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.55 ft above land surface.

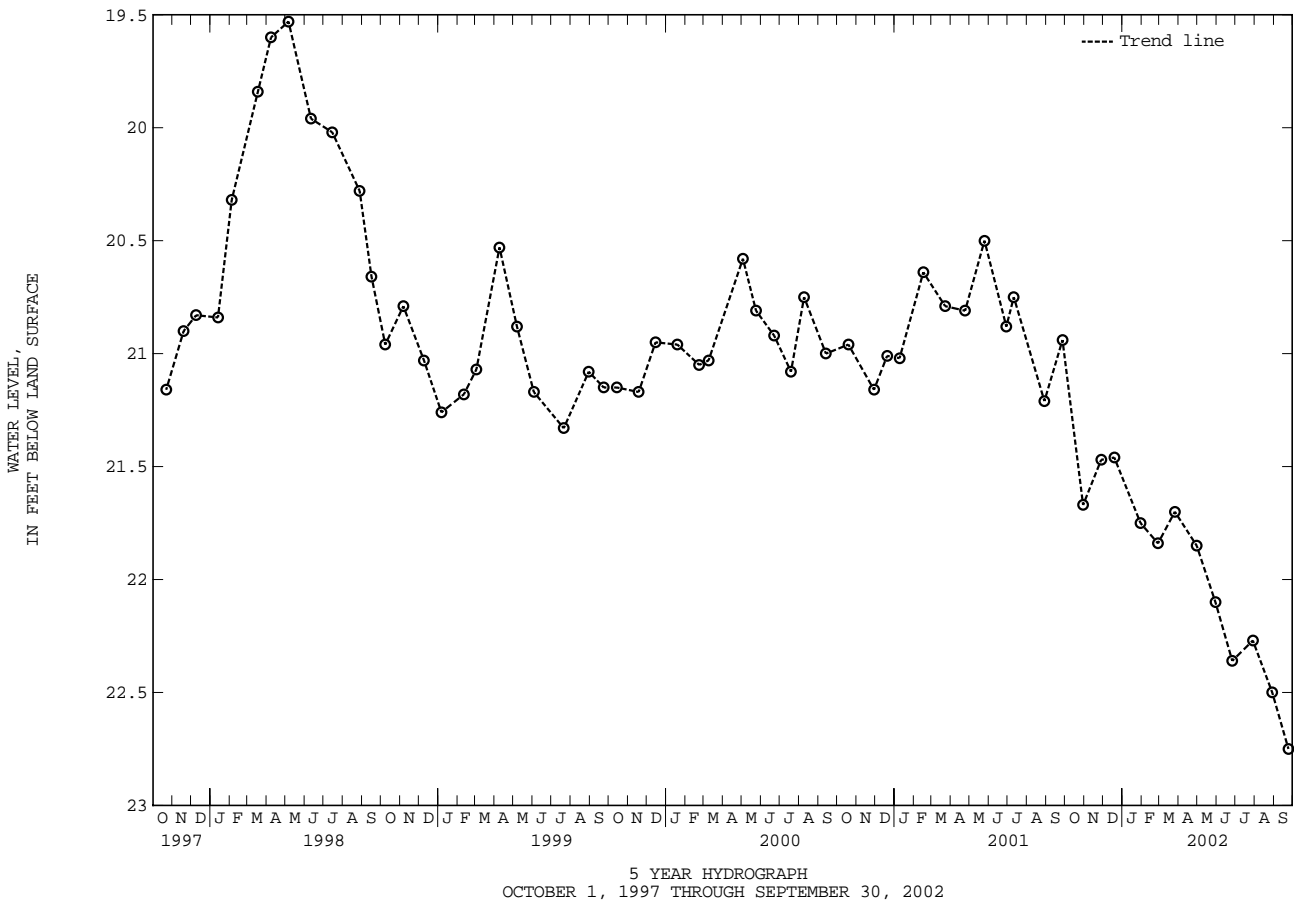
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal. On July 12, 1989, the water-level measured 27.95 ft below land surface; this decline was due to a nearby production well pump test.

PERIOD OF RECORD.--July 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.27 ft below land surface, July 9, 1980; lowest measured, 22.75 ft below land surface, Sept. 24, 2002--See Remarks.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	21.67	JAN 30, 2002	21.75	APR 30, 2002	21.85	JUL 29, 2002	22.27
NOV 28	21.47	FEB 27	21.84	MAY 30	22.10	AUG 29	22.5
DEC 19	21.46	MAR 26	21.70	JUN 26	22.36	SEP 24	22.75
WATER YEAR 2002		HIGHEST	21.46	DEC 19, 2001	LOWEST	22.75	SEP 24, 2002





GROUND-WATER LEVELS IN MARYLAND--Continued

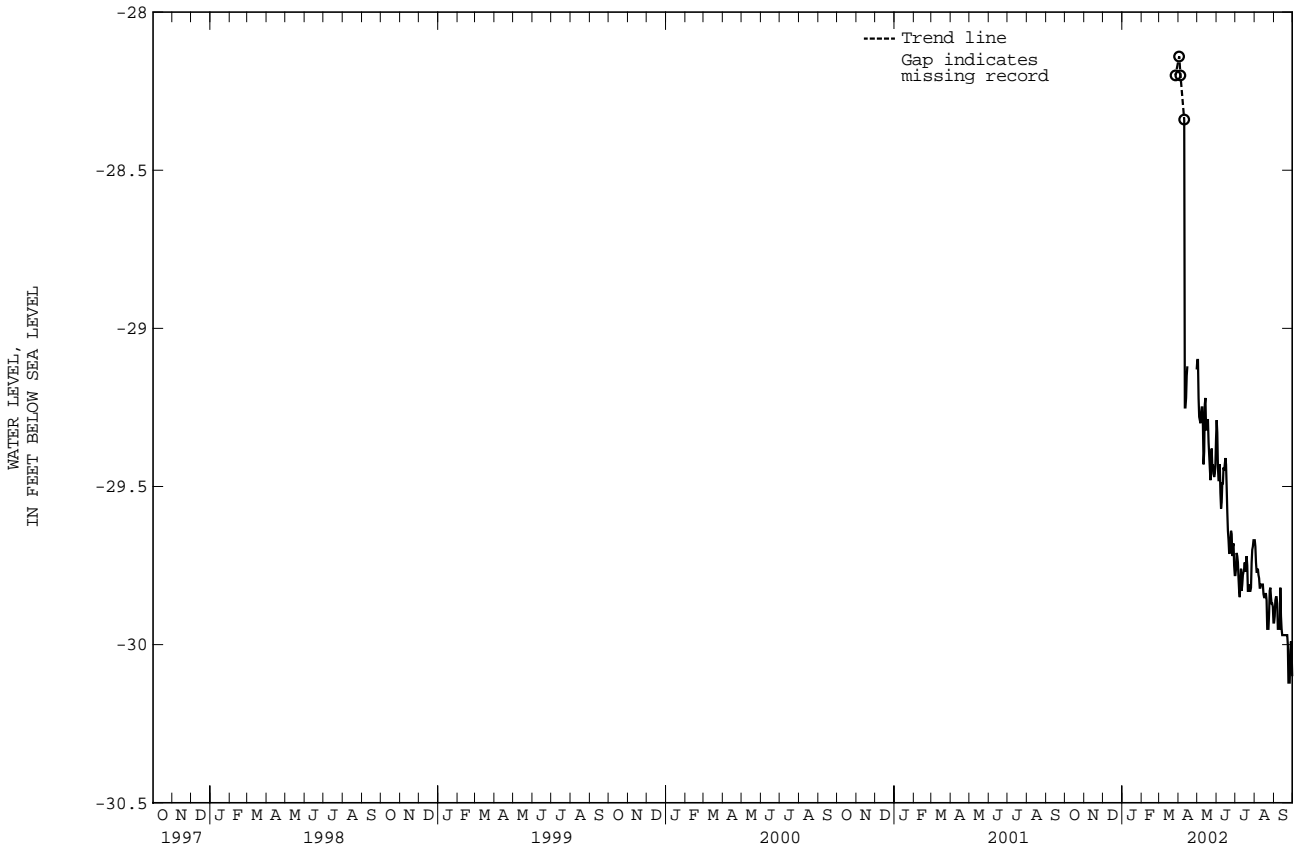
ST. MARYS COUNTY--Continued

SM Bc 39--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	-29.09	-29.10	-29.27	-29.29	-29.76	-29.78	-29.67	-29.67	-29.91	-29.93
2	---	---	-28.99	-29.10	-29.28	-29.33	-29.71	-29.76	-29.67	-29.69	-29.86	-29.91
3	---	---	-29.00	-29.22	-29.33	-29.44	-29.69	-29.71	-29.69	-29.74	-29.85	-29.86
4	---	---	-29.22	-29.28	-29.44	-29.48	-29.69	-29.72	-29.74	-29.77	-29.85	-29.85
5	---	---	-29.27	-29.29	-29.42	-29.48	-29.70	-29.74	-29.76	-29.77	-29.85	-29.85
6	---	---	-29.27	-29.30	-29.36	-29.43	-29.74	-29.79	-29.76	-29.76	-29.85	-29.87
7	---	---	-29.21	-29.27	-29.38	-29.52	-29.79	-29.83	-29.76	-29.78	-29.87	-29.95
8	---	---	-29.21	-29.25	-29.52	-29.57	-29.79	-29.85	-29.78	-29.79	-29.95	-29.95
9	---	---	-29.21	-29.25	-29.49	-29.55	-29.74	-29.80	-29.79	-29.82	-29.95	-29.95
10	---	---	-29.21	-29.31	-29.49	-29.49	-29.73	-29.76	-29.81	-29.82	-29.81	-29.95
11	-29.22	-29.25	-29.31	-29.43	-29.42	-29.49	-29.75	-29.83	-29.81	-29.81	-29.81	-29.82
12	-29.22	-29.25	-29.24	-29.39	-29.41	-29.44	-29.77	-29.81	-29.81	-29.81	-29.82	-29.91
13	-29.15	-29.22	-29.05	-29.24	-29.41	-29.45	-29.77	-29.78	-29.81	-29.81	-29.91	-29.95
14	-29.07	-29.15	-29.08	-29.22	-29.38	-29.43	-29.76	-29.77	-29.81	-29.81	-29.95	-29.97
15	-29.07	-29.12	-29.22	-29.32	-29.38	-29.41	-29.74	-29.76	-29.81	-29.84	-29.97	-29.97
16	---	---	-29.29	-29.32	-29.40	-29.43	-29.74	-29.74	-29.84	-29.85	-29.97	-29.97
17	---	---	-29.21	-29.29	-29.43	-29.50	-29.74	-29.77	-29.84	-29.85	-29.97	-29.97
18	---	---	-29.13	-29.29	-29.50	-29.58	-29.72	-29.75	-29.84	-29.84	-29.97	-29.97
19	---	---	-29.29	-29.36	-29.58	-29.64	-29.71	-29.72	-29.84	-29.84	-29.97	-29.97
20	---	---	-29.36	-29.40	-29.64	-29.67	-29.70	-29.75	-29.84	-29.86	-29.97	-29.97
21	---	---	-29.40	-29.44	-29.66	-29.71	-29.74	-29.83	-29.86	-29.95	-29.97	-29.97
22	---	---	-29.44	-29.48	-29.65	-29.71	-29.78	-29.83	-29.95	-29.95	-29.97	-29.97
23	---	---	-29.38	-29.46	-29.62	-29.67	-29.74	-29.81	-29.90	-29.95	-29.97	-30.00
24	---	---	-29.31	-29.38	-29.61	-29.64	-29.78	-29.83	-29.83	-29.90	-30.00	-30.12
25	---	---	-29.33	-29.44	-29.61	-29.65	-29.80	-29.83	-29.82	-29.83	-30.12	-30.12
26	---	---	-29.40	-29.43	-29.62	-29.72	-29.74	-29.82	-29.82	-29.82	-30.02	-30.12
27	---	---	-29.42	-29.46	-29.65	-29.69	-29.70	-29.74	-29.82	-29.85	-29.93	-30.02
28	---	---	-29.44	-29.47	-29.65	-29.68	-29.69	-29.70	-29.85	-29.87	-29.93	-29.99
29	---	---	-29.43	-29.46	-29.68	-29.75	-29.67	-29.69	-29.87	-29.87	-29.99	-30.02
30	-29.07	-29.13	-29.35	-29.43	-29.74	-29.78	-29.67	-29.67	-29.87	-29.88	-30.02	-30.10
31	---	---	-29.27	-29.35	---	---	-29.67	-29.67	-29.88	-29.93	---	---
MONTH	---	---	-28.99	-29.48	-29.27	-29.78	-29.67	-29.85	-29.67	-29.95	-29.81	-30.12

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Dd 46. SITE ID.--381616076364701. PERMIT NUMBER.--SM-73-1990.

LOCATION.--Lat 38°16'16", long 76°36'47", Hydrologic Unit 02070011, at Leonardtown Senior High School, Redgate.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 296 ft; casing diameter 6 in., to 150 ft; casing diameter 2 in. from 150 to 286 ft; screen diameter 2 in. from 286 to 296 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 118.84 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.90 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

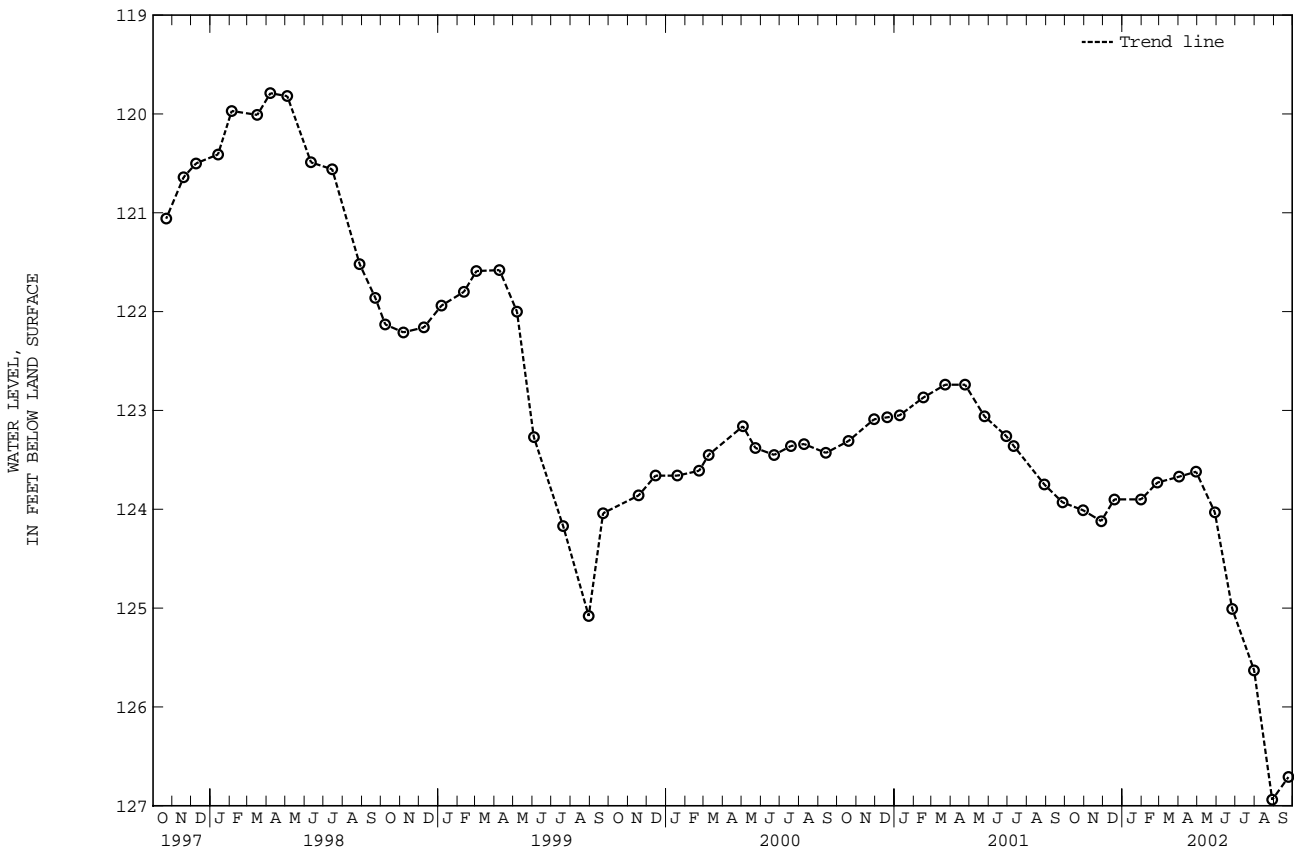
PERIOD OF RECORD.--October 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 109.36 ft below land surface, July 9, 1979; lowest measured, 126.94 ft below land surface, Aug. 29, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	124.01	JAN 31, 2002	123.90	APR 29, 2002	123.62	JUL 31, 2002	125.63
NOV 28	124.12	FEB 26	123.73	MAY 29	124.03	AUG 29	126.94
DEC 19	123.90	APR 02	123.67	JUN 26	125.01	SEP 24	126.71

WATER YEAR 2002 HIGHEST 123.62 APR 29, 2002 LOWEST 126.94 AUG 29, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

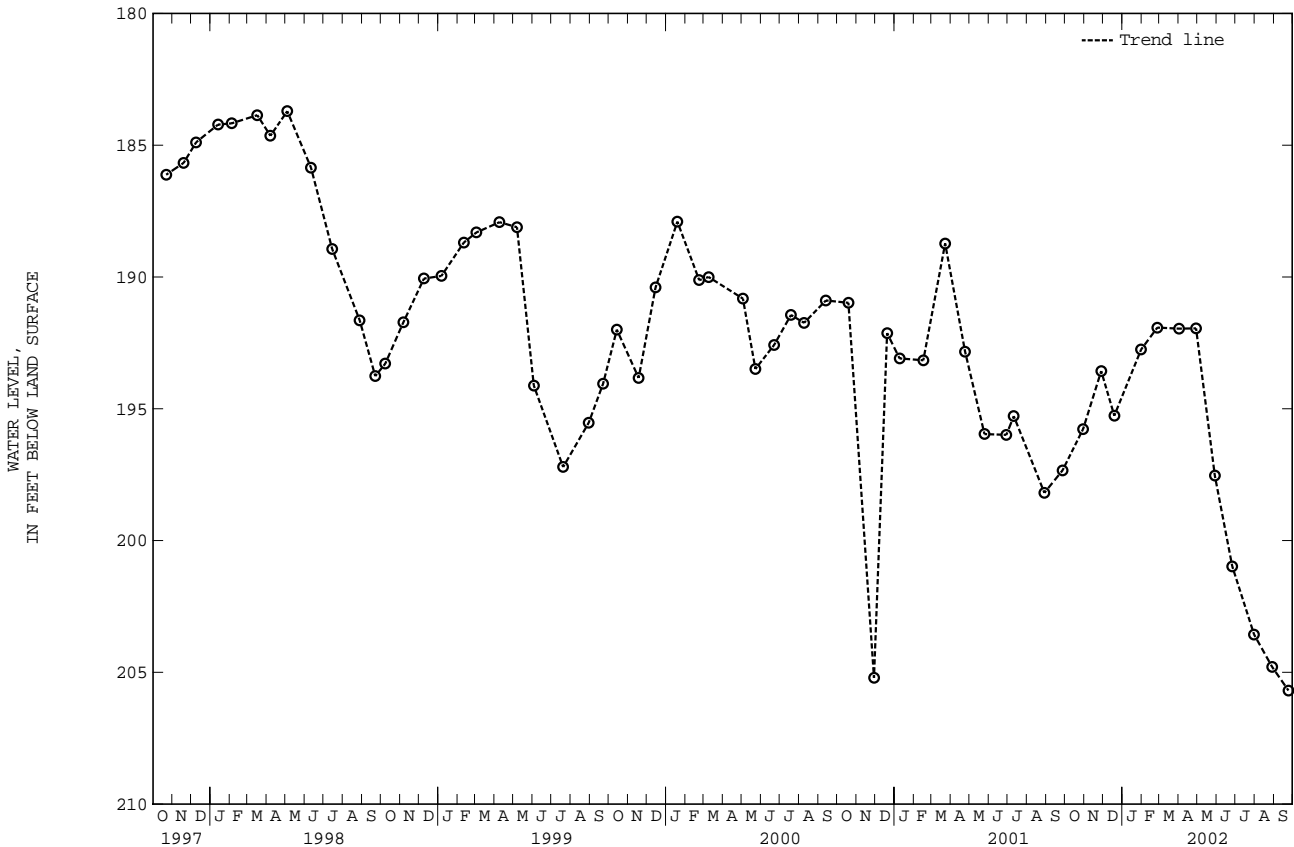
GROUND-WATER LEVELS IN MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Dd 49. SITE ID.--381616076364702. PERMIT NUMBER.--SM-73-3081.  
 LOCATION.--Lat 38°16'16", long 76°36'47", Hydrologic Unit 02070011, at Leonardtown Senior High School, Redgate.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 619 ft; casing diameter 6 in., to 46 ft; casing diameter 4 in., to 279 ft; casing diameter 1.5 in. from 279 to 534 ft and 544 to 619 ft; screen diameter 3 in. from 534 to 544 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 118.94 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 0.40 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal. The Nov. 29, 2000, water level measured at 205.21 ft below land surface was the result of a nearby production well pumping for more than 24 hours.  
 PERIOD OF RECORD.--December 1978 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 138.95 ft below land surface, April 5, 1979; lowest measured, 205.69 ft below land surface, Sept. 24, 2002 (See REMARKS).

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	195.77	JAN 31, 2002	192.75	APR 29, 2002	191.95	JUL 31, 2002	203.57
NOV 28	193.57	FEB 26	191.92	MAY 29	197.53	AUG 29	204.80
DEC 19	195.26	APR 02	191.96	JUN 26	200.98	SEP 24	205.69
WATER YEAR 2002		HIGHEST	191.92	FEB 26, 2002	LOWEST	205.69	SEP 24, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Dd 50. SITE ID.--381807076380001. PERMIT NUMBER.--SM-73-3082.  
 LOCATION.--Lat 38°18'07", long 76°38'00", Hydrologic Unit 02070011, at Leonard Hall Junior Naval Academy, Leonardtown.  
 Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 515 ft; casing diameter 4 in., to 270 ft;  
 casing diameter 2 in. from 270 to 505 ft; screen diameter 3 in. from 505 to 515 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 99.40 ft above National Geodetic Vertical Datum of 1929.

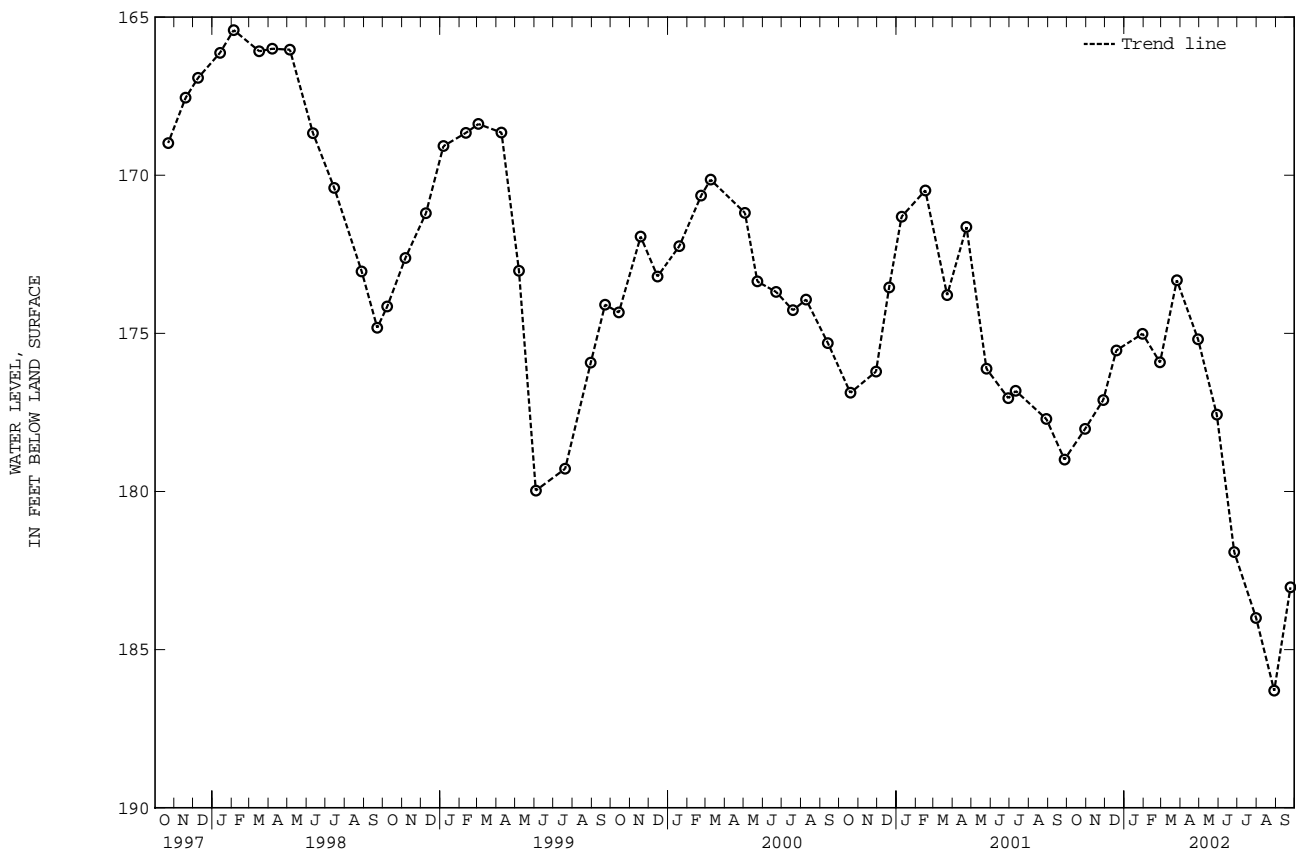
Measuring point: Top of casing, 1.86 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.--December 1978 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 119.05 ft below land surface, Feb. 2, 1979;  
 lowest measured, 186.30 ft below land surface, Aug. 29, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	178.02	JAN 30, 2002	175.01	APR 29, 2002	175.19	JUL 31, 2002	184.00
NOV 28	177.11	FEB 27	175.92	MAY 29	177.57	AUG 29	186.30
DEC 19	175.54	MAR 26	173.32	JUN 26	181.92	SEP 24	183.03

WATER YEAR 2002 HIGHEST 173.32 MAR 26, 2002 LOWEST 186.30 AUG 29, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

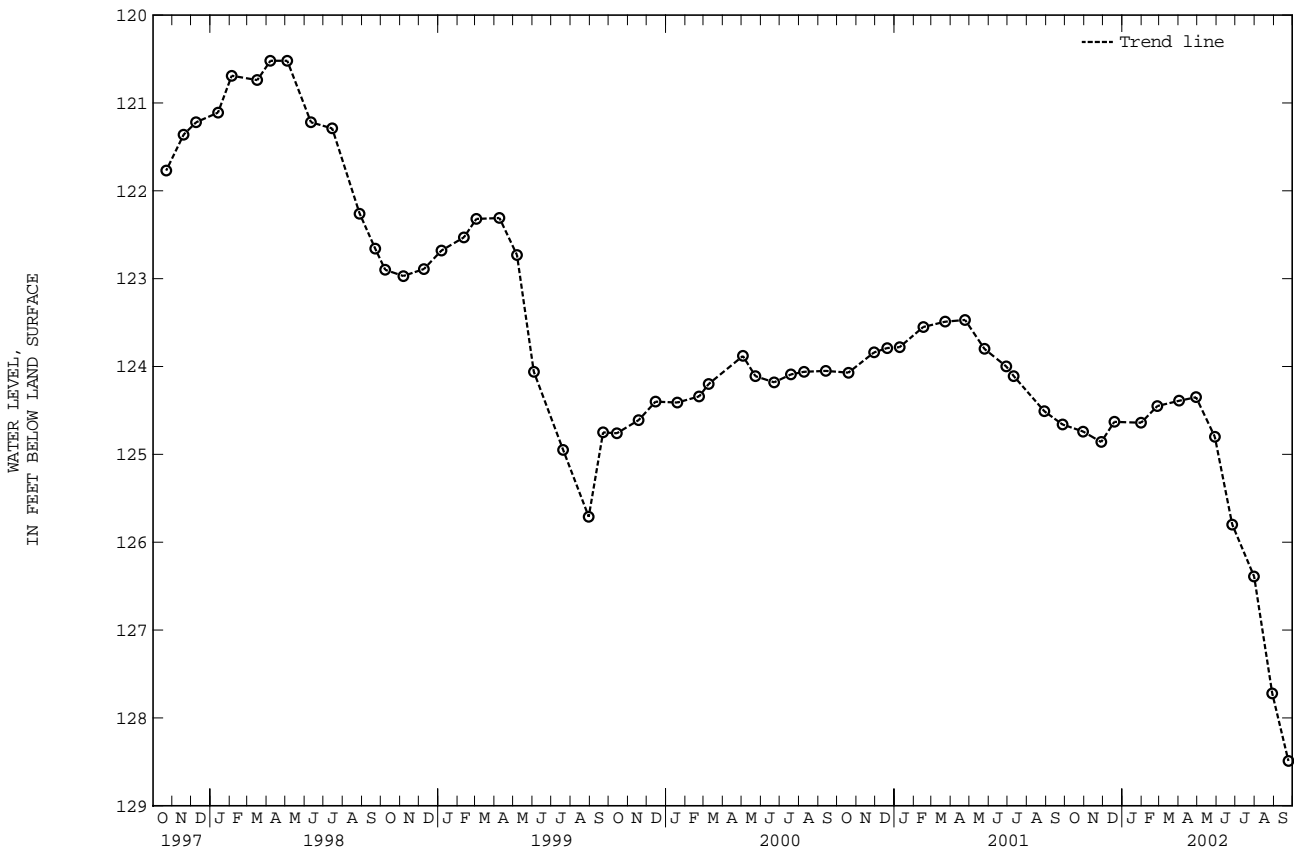
ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Dd 62. SITE ID.--381616076364703. PERMIT NUMBER.--SM-73-3786.  
 LOCATION.--Lat 38°16'16", 76°36'47", Hydrologic Unit 02070011, at Leonardtown Senior High School, Redgate.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 358 ft; casing diameter 4 in., to 210 ft; casing diameter 2 in. from 210 to 348 ft; screen diameter 2 in. from 348 to 358 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 119.30 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 0.70 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--July 1980 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 111.06 ft below land surface, Oct. 30, 1980; lowest measured, 128.49 ft below land surface, Sept. 24, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	124.74	JAN 31, 2002	124.64	APR 29, 2002	124.35	JUL 31, 2002	126.39
NOV 28	124.86	FEB 26	124.45	MAY 29	124.80	AUG 29	127.72
DEC 19	124.63	APR 02	124.39	JUN 26	125.80	SEP 24	128.49

WATER YEAR 2002      HIGHEST 124.35 APR 29, 2002      LOWEST 128.49 SEP 24, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

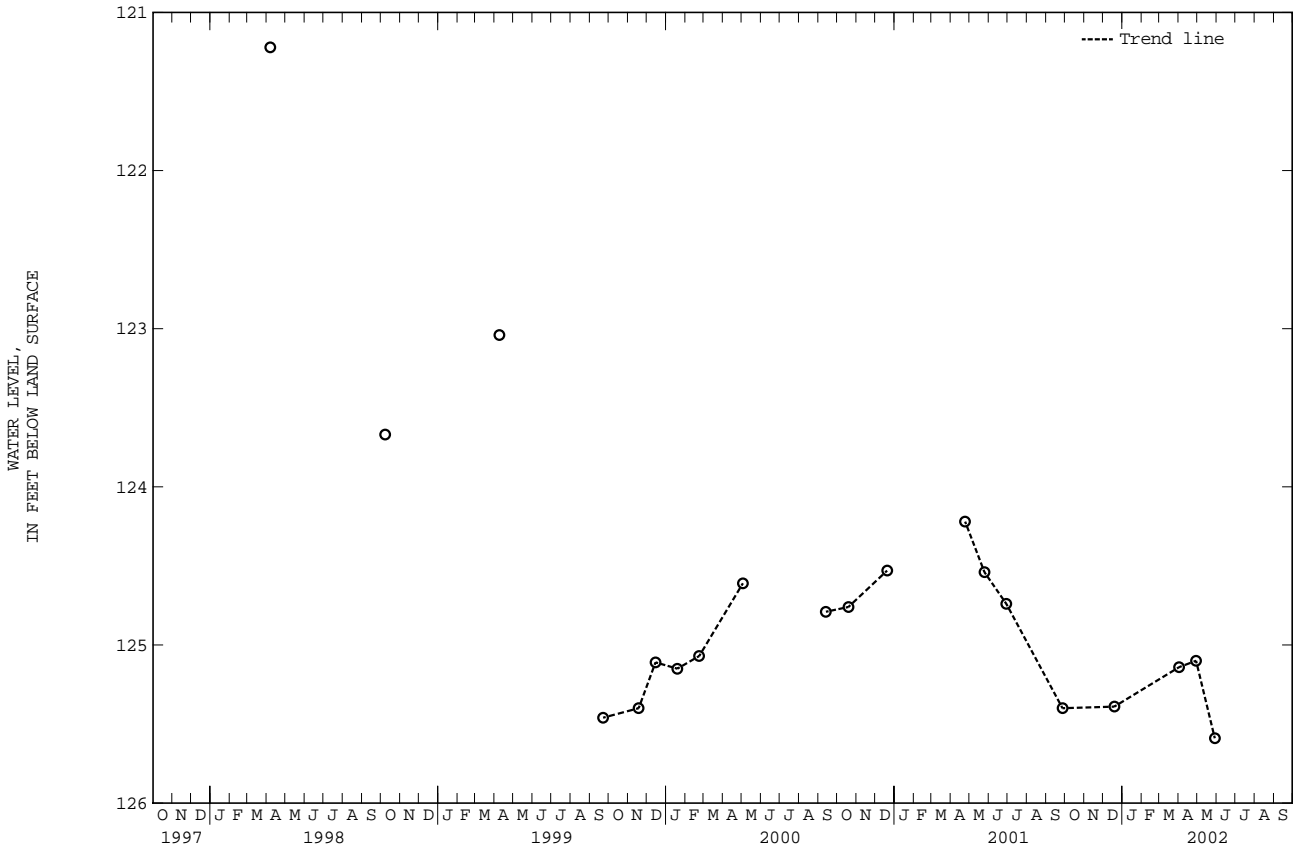


ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Dd 63. SITE ID.--381615076364701. PERMIT NUMBER.--SM-73-3785.  
 LOCATION.--Lat 38°16'15", long 76°36'47", Hydrologic Unit 02070011, at Leonardtown Senior High School, Redgate.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.  
 WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 356 ft; casing diameter 4 in., to 327 ft; casing diameter 2 in. from 327 to 346 ft; screen diameter 2 in. from 346 to 356 ft.  
 INSTRUMENTATION.--Twice yearly water level measurements with electric tape by U.S. Geological Survey personnel. Monthly water level measurements from October 1977 to October 1986.  
 DATUM.--Elevation of land surface is 119.72 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 1.00 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--July 1980 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 113.15 ft below land surface, March 2, 1981; lowest measured, 125.59 ft below land surface, May 29, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 19, 2001	125.39	APR 02, 2002	125.14	APR 29, 2002	125.10	MAY 29, 2002	125.59
WATER YEAR 2002		HIGHEST	125.10	APR 29, 2002	LOWEST	125.59	MAY 29, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

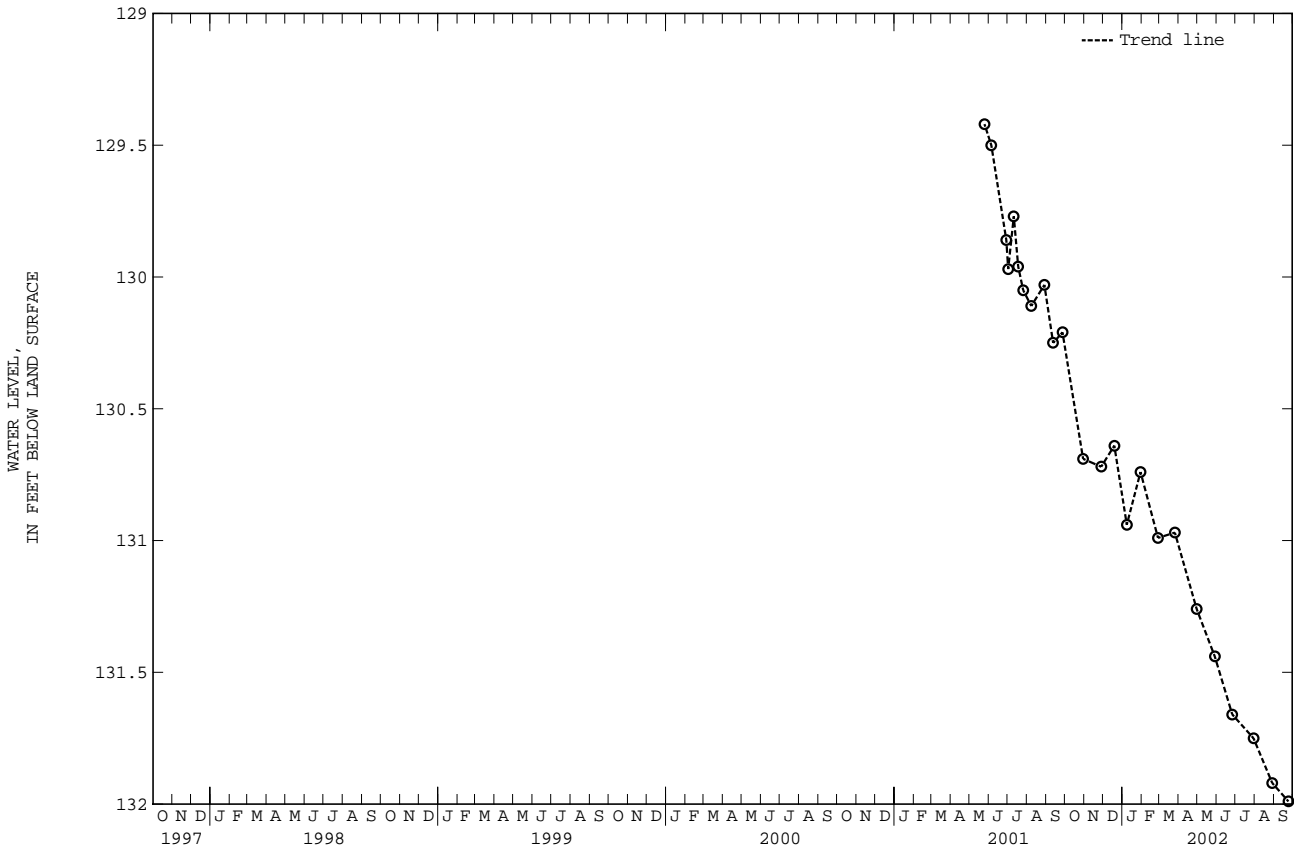
ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Dd 72. SITE ID.--381626076393401. PERMIT NUMBER.--SM-94-3616.  
 LOCATION.--Lat 38°16'26", long 76°39'34", Hydrologic Unit 02070011, at Paw Paw Hollow Lane, 1.5 mi southwest of Leonardtown.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,340 ft; casing diameter 8 in., to 60 ft; casing diameter 4 in. from +2.52 to 1,300 ft, and 1,330 to 1,340 ft; screen diameter 4 in. from 1,300 to 1,330 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from July 27, 2001 to current year.  
 DATUM.--Elevation of land surface is 109.99 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of shelter platform, 2.69 ft above land surface.  
 REMARKS.--Southern Maryland Patapsco Aquifer Well Drilling Project observation well. Water levels are affected by regional ground-water withdrawal.  
 PERIOD OF RECORD.--May 2001 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 129.42 ft below land surface, May 25, 2001; lowest measured, 132.11 ft below land surface, Sept. 29, 2002 (recorder).

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	130.69	JAN 30, 2002	130.74	MAY 29, 2002	131.44	SEP 24, 2002	131.99
NOV 28	130.72	FEB 27	130.99	JUN 26	131.66		
DEC 19	130.64	MAR 26	130.97	JUL 30	131.75		
JAN 08, 2002	130.94	APR 30	131.26	AUG 29	131.92		

WATER YEAR 2002      HIGHEST 130.64 DEC 19, 2001      LOWEST 131.99 SEP 24, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Df 14. SITE ID.--381719076264801.

LOCATION.--Lat 38°17'20", long 76°26'48", Hydrologic Unit 02060006, at Patuxent River Naval Air Test Station.

Owner: U.S. Navy.

AQUIFER.--Piney Point Formation of Upper Eocene age and the Nanjemoy Formation of Lower Eocene age.

Aquifer code: 124PNPN,124NNJM.

WELL CHARACTERISTICS.--Drilled, artesian well, depth 262 ft; casing diameter 8 in., to 247 ft; screen diameter 8 in. from 247 to 262 ft.

INSTRUMENTATION.--Periodic water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recording interval, Feb. 24, 2000 to current year.

DATUM.--Elevation of land surface is 19 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of shelter platform, 3.00 ft above land surface.

REMARKS.--Naval Air Station Patuxent River Ground Water Hydrogeology project observation well. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--September 1996, February 1998 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.71 ft below sea level, Sept. 20, 2002 (recorder);

lowest measured, 27.66 ft below sea level, September 24, 1996.

## WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN	
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH					
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-23.21	-23.46	-23.53	-23.81	-22.58	-23.15	-21.61	-22.00	-20.68	-21.29	-20.18	-21.82				
2	-23.08	-23.60	-23.61	-23.88	-22.85	-23.23	-21.66	-22.41	-21.16	-21.61	-21.06	-21.63				
3	-23.41	-23.73	-23.60	-23.93	-22.65	-23.03	-21.26	-21.97	-20.89	-21.43	-20.48	-21.06				
4	-23.49	-23.78	-23.67	-24.03	-22.65	-23.02	-21.51	-21.94	-20.02	-21.08	-20.79	-21.25				
5	-23.50	-23.78	-23.56	-23.92	-22.74	-23.02	-21.15	-21.66	-20.94	-21.30	-21.02	-21.34				
6	-23.50	-23.91	-23.76	-24.00	-22.74	-23.03	-20.91	-22.25	-20.65	-20.95	-20.89	-21.17				
7	-23.82	-24.08	-23.52	-23.90	-22.76	-23.03	-22.22	-22.43	-20.50	-20.82	-20.97	-21.20				
8	-23.81	-24.01	-23.54	-23.82	-22.30	-23.01	-21.98	-22.63	-20.50	-20.79	-20.80	-21.21				
9	-23.76	-24.02	-23.56	-23.98	-22.31	-22.83	-21.71	-22.04	-20.48	-20.83	-20.54	-20.91				
10	-23.54	-23.85	-23.43	-23.82	-22.45	-22.85	-21.82	-22.07	-20.36	-20.74	-20.50	-20.66				
11	-23.54	-23.82	-23.44	-24.00	-22.19	-22.80	-21.63	-21.92	-20.28	-21.06	-20.50	-21.01				
12	-23.47	-23.74	-23.68	-23.91	-22.24	-22.58	-21.54	-21.90	-20.12	-21.06	-20.50	-20.84				
13	-23.35	-23.63	-23.62	-23.94	-22.01	-22.55	-21.44	-21.74	-20.48	-21.06	-20.17	-20.58				
14	-23.14	-23.57	-23.55	-23.89	-21.90	-22.54	-21.50	-21.82	-20.56	-20.84	-19.53	-21.52				
15	-23.08	-23.66	-23.53	-23.89	-21.97	-22.54	-21.46	-21.84	-20.34	-20.77	-21.12	-21.44				
16	-23.23	-23.61	-23.42	-23.75	-22.21	-22.65	-21.43	-21.74	-20.36	-20.63	-21.10	-21.50				
17	-23.30	-23.79	-23.50	-23.88	-21.59	-22.44	-21.19	-21.74	-19.95	-21.22	-21.02	-21.50				
18	-23.71	-24.02	-23.24	-23.69	-21.54	-22.22	-21.04	-21.41	-20.24	-20.87	-20.68	-21.14				
19	-23.52	-23.95	-23.15	-23.53	-21.69	-22.22	-20.95	-21.31	-19.93	-20.95	-20.81	-21.14				
20	-23.49	-23.70	-23.20	-23.75	-21.66	-22.22	-20.98	-21.27	-20.50	-20.80	-20.56	-21.13				
21	-23.40	-23.74	-23.17	-23.75	-21.99	-22.59	-20.76	-21.08	-20.46	-20.83	-20.65	-20.92				
22	-23.38	-23.62	-23.11	-23.31	-22.01	-22.74	-20.53	-21.73	-20.65	-20.99	-20.67	-21.39				
23	-23.23	-23.60	-23.20	-23.50	-21.36	-22.01	-21.31	-21.88	-20.55	-20.95	-20.54	-21.12				
24	-23.10	-23.31	-23.06	-23.42	-21.36	-21.90	-20.96	-21.48	-20.38	-20.65	-20.55	-20.83				
25	-23.12	-23.50	-23.05	-23.26	-21.33	-21.92	-20.82	-21.23	-20.18	-20.57	-20.46	-20.77				
26	-23.42	-23.76	-23.05	-23.27	-21.30	-21.93	-20.70	-21.61	-19.94	-20.48	-20.02	-20.46				
27	-23.76	-23.92	-22.89	-23.26	-21.43	-21.86	-21.18	-21.73	-20.17	-20.60	-19.96	-20.40				
28	-23.77	-24.03	-22.88	-23.15	-21.53	-21.82	-20.70	-21.18	-20.41	-20.88	-20.18	-20.50				
29	-23.58	-23.78	-22.90	-23.16	-21.50	-22.04	-20.52	-20.90	---	---	-19.93	-21.15				
30	-23.58	-23.96	-22.48	-22.95	-21.80	-22.33	-20.13	-21.21	---	---	-19.61	-20.33				
31	-23.60	-23.91	---	---	-21.70	-22.04	-20.47	-20.91	---	---	-19.42	-19.87				
MONTH	-23.08	-24.08	-22.48	-24.03	-21.30	-23.23	-20.13	-22.63	-19.93	-21.61	-19.42	-21.82				

GROUND-WATER LEVELS IN MARYLAND--Continued

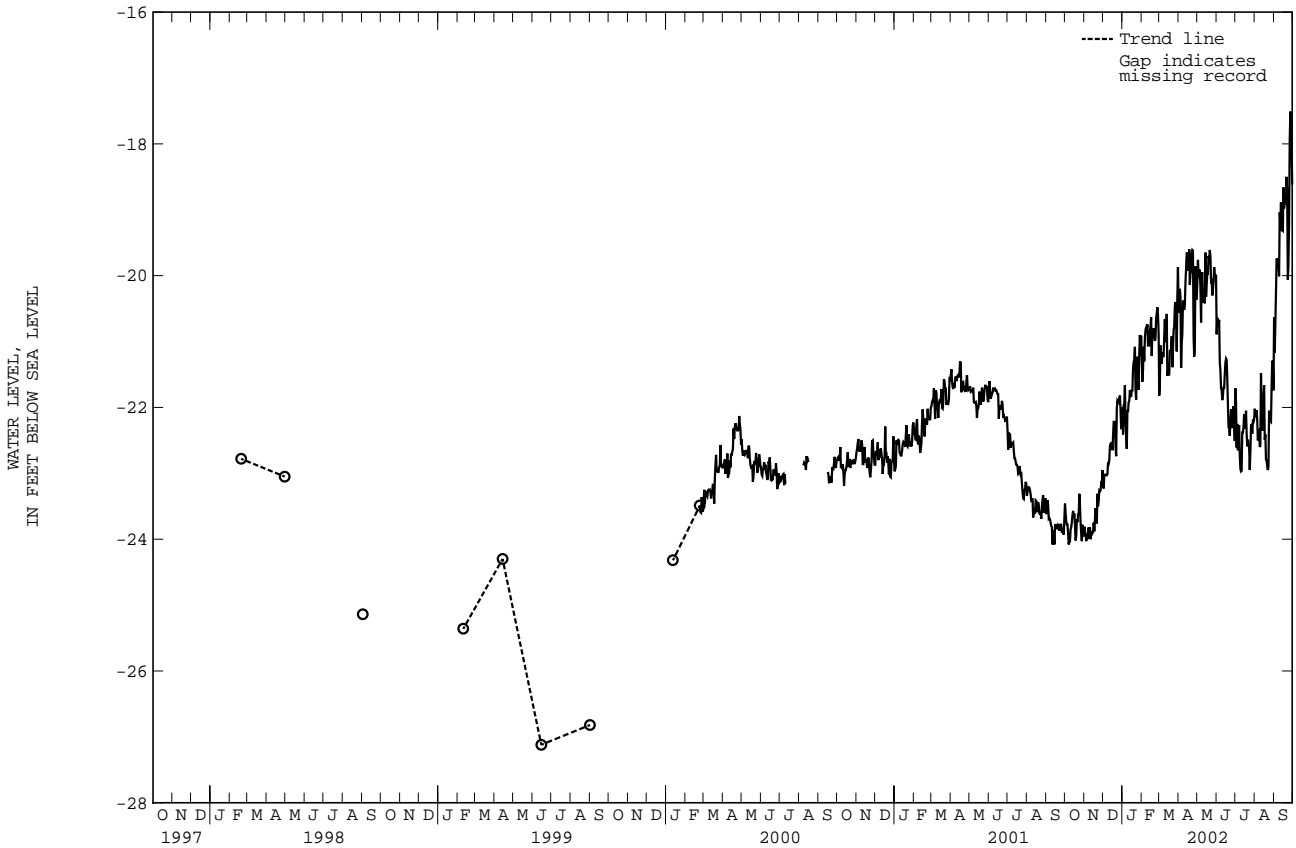
ST. MARYS COUNTY--Continued

SM Df 14--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-19.26	-20.55	-19.22	-20.11	-18.92	-20.89	-20.65	-21.71	-21.81	-22.02	-20.33	-20.63
2	-19.84	-20.55	-19.27	-19.76	-20.22	-20.65	-21.52	-21.90	-21.67	-22.10	-20.33	-21.17
3	-19.54	-20.20	-19.58	-19.99	-19.48	-20.66	-21.62	-22.61	-21.72	-22.12	-18.19	-20.74
4	-19.90	-20.33	-19.67	-20.01	-19.68	-20.75	-21.86	-22.25	-21.81	-22.04	-18.17	-20.27
5	-19.85	-21.40	-19.53	-19.91	-19.68	-20.67	-21.48	-22.65	-21.82	-22.19	-18.17	-19.74
6	-20.68	-21.02	-19.49	-20.18	-20.04	-21.32	-21.78	-22.37	-21.71	-22.50	-19.56	-19.76
7	-20.38	-20.89	-19.24	-20.71	-20.93	-21.44	-21.96	-22.27	-22.17	-22.36	-19.14	-19.89
8	-20.13	-20.38	-19.55	-20.01	-18.59	-21.71	-21.97	-22.72	-21.94	-22.35	-19.29	-19.81
9	-20.22	-20.48	-18.77	-19.95	-21.42	-21.74	-22.25	-22.93	-22.05	-22.60	-18.64	-20.01
10	-20.16	-20.52	-19.68	-20.39	-21.43	-21.89	-22.26	-22.97	-20.60	-22.58	-17.50	-19.04
11	-19.96	-20.45	-20.07	-20.41	-21.47	-21.81	-22.15	-22.96	-21.02	-21.48	-17.40	-19.23
12	-19.83	-20.11	-19.82	-20.30	-21.28	-21.70	-21.92	-22.38	-21.32	-22.03	-17.19	-18.89
13	-19.43	-19.89	-19.28	-20.42	-21.33	-21.70	-22.08	-22.38	-21.57	-22.35	-18.01	-19.31
14	-19.31	-19.66	-18.99	-19.65	-21.03	-21.49	-21.44	-22.30	-21.63	-22.31	-17.95	-19.31
15	-19.27	-19.66	-19.61	-20.32	-20.72	-21.32	-21.74	-22.10	-21.00	-21.87	-18.10	-19.32
16	-19.33	-19.91	-19.68	-20.13	-20.80	-21.26	-21.95	-22.24	-21.12	-21.66	-18.05	-18.66
17	-19.33	-19.91	-19.48	-19.97	-20.98	-21.28	-20.95	-22.32	-21.42	-22.49	-17.89	-18.98
18	-19.33	-19.60	-19.32	-19.97	-21.04	-21.57	-21.00	-22.05	-21.89	-22.41	-17.81	-18.77
19	-19.27	-20.14	-19.41	-19.70	-21.39	-21.95	-21.63	-22.39	-21.80	-22.79	-18.43	-18.89
20	-19.33	-19.97	-19.21	-19.76	-21.51	-22.30	-21.76	-22.59	-22.42	-22.81	-15.71	-18.90
21	-19.66	-19.94	-19.21	-19.61	-21.52	-22.30	-22.09	-22.49	-22.31	-22.90	-17.70	-18.50
22	-19.21	-19.67	-19.41	-19.71	-21.59	-22.43	-21.96	-22.56	-22.52	-22.95	-18.42	-18.75
23	-19.21	-19.61	-19.52	-20.09	-21.97	-22.21	-22.08	-22.61	-22.05	-22.90	-18.49	-20.06
24	-19.28	-19.62	-19.15	-20.08	-21.70	-22.03	-22.24	-22.95	-21.38	-22.05	-19.10	-19.84
25	-18.88	-20.92	-18.80	-20.30	-21.54	-22.10	-22.10	-22.68	-20.70	-22.21	-17.69	-19.19
26	-20.73	-21.23	-19.38	-20.22	-21.75	-22.30	-22.00	-22.30	-21.85	-22.21	-17.32	-17.98
27	-19.79	-21.10	-19.40	-20.10	-21.18	-22.30	-22.00	-22.25	-20.53	-22.22	-17.26	-17.51
28	-19.26	-19.86	-19.43	-19.87	-21.09	-21.98	-22.01	-22.40	-21.28	-21.68	-17.44	-17.99
29	-19.08	-20.06	-19.61	-19.99	-21.60	-22.24	-21.95	-22.21	-20.64	-21.29	-17.59	-18.02
30	-19.72	-20.36	-19.65	-20.00	-21.47	-22.51	-21.93	-22.22	-20.92	-21.31	-18.02	-18.62
31	---	---	-18.66	-20.00	---	---	-21.73	-22.18	-20.63	-21.74	---	---
MONTH	-18.88	-21.40	-18.66	-20.71	-18.59	-22.51	-20.65	-22.97	-20.53	-22.95	-15.71	-21.17
YEAR	-15.71	-24.08										

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Df 61. SITE ID.--381604076271701. PERMIT NUMBER.--SM-05-5823.

LOCATION.--Lat 38°16'05", long 76°27'13", Hydrologic Unit 02060006, at Patuxent River Naval Air Test Station.  
Owner: U.S. Navy.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, artesian well, depth 600 ft; casing diameter 8 in., to 559 ft;  
casing diameter 6 in. from 540 to 580 ft; screen diameter 6 in. from 580 to 600 ft.INSTRUMENTATION.--Monthly water level measurements with steel tape by U.S. Geological Survey personnel. Periodic water level  
measurements from September 1984 to September 1999. Equipped with digital water-level recorder--60-minute recording  
interval, Sept. 22, 1999 to current year.

DATUM.--Elevation of land surface is 110 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of shelter platform, 1.70 ft above land surface.

REMARKS.--Naval Air Station Patuxent River Ground Water Hydrogeology project observation/production well.

The water-level on March 3, 1964 was reported as 47 ft below sea level. Water levels are affected by well being pumped  
and regional ground-water withdrawal. Missing data due to recorder malfunction.

PERIOD OF RECORD.--September 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 66.77 ft below sea level, Sept. 21, 1984;  
lowest measured, 200.40 ft below sea level, Aug. 16, and 22, 2002 (recorder).

## WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-145.48	-146.59	-147.56	-185.79	-146.60	-184.24	-142.68	-182.14	-141.28	-180.99	-138.92	-139.92
2	-146.29	-185.44	-147.06	-148.33	-146.00	-147.33	-143.07	-143.84	-141.51	-143.34	-139.38	-178.37
3	-147.01	-147.68	-147.50	-185.06	-146.92	-185.19	-143.50	-182.38	-142.16	-180.84	-137.88	-140.02
4	-146.54	-185.53	-146.44	-148.29	-146.32	-147.85	-143.66	-144.49	-139.19	-143.08	-138.15	-177.89
5	-146.77	-148.66	-147.27	-179.15	-146.82	-184.52	-142.92	-182.03	-138.42	-178.25	-138.91	-140.16
6	-146.44	-184.59	-147.49	-148.44	-145.78	-147.15	-140.82	-142.92	-139.25	-140.60	-140.09	-179.92
7	-145.25	-147.72	-147.89	-186.56	-146.49	-184.53	-141.26	-179.93	-139.50	-179.12	-138.67	-141.47
8	-145.17	-146.22	-147.84	-149.37	-145.17	-147.09	-141.84	-181.65	-140.14	-141.70	-138.26	-177.74
9	-145.50	-146.82	-147.88	-186.26	-144.95	-183.15	-142.01	-143.19	-139.39	-179.20	-135.78	-138.26
10	-146.75	-147.30	-148.00	-149.37	-145.78	-146.83	-141.77	-182.44	-137.78	-139.39	-135.72	-175.36
11	-147.15	-147.61	-147.28	-148.71	-144.71	-182.95	-138.81	-141.77	-137.16	-177.85	-135.54	-139.22
12	-147.31	-148.53	-148.41	-186.03	-142.98	-144.94	-140.95	-180.17	-136.06	-137.16	-139.22	-179.58
13	-148.21	-149.00	-147.77	-148.98	-142.88	-181.89	-141.71	-142.53	-136.08	-176.77	-141.26	-141.93
14	-148.50	-149.25	-148.43	-186.87	-143.03	-144.50	-142.11	-182.18	-139.60	-140.85	-140.25	-179.97
15	-148.77	-149.29	-147.63	-149.03	-142.31	-144.47	-140.93	-144.16	-140.84	-180.34	-137.17	-145.50
16	---	---	-148.49	-187.03	-142.65	-181.29	-140.02	-180.11	-138.99	-141.25	-139.95	-179.08
17	-148.12	-148.97	-147.58	-149.35	-142.47	-181.45	-143.16	-143.88	-138.93	-177.95	-138.76	-139.98
18	-148.12	-148.89	-148.83	-186.62	-142.52	-144.36	-142.92	-181.70	-138.01	-139.12	-138.97	-178.31
19	-148.25	-149.07	-147.96	-149.32	-142.28	-182.04	-140.74	-142.93	-137.97	-177.87	-139.14	-140.29
20	-147.89	-149.10	-148.39	-186.53	-142.82	-181.50	-140.86	-180.00	-139.75	-140.87	-139.49	-179.57
21	-147.93	-148.64	-148.30	-149.35	-143.23	-144.11	-138.19	-141.08	-140.78	-180.17	-140.97	-142.39
22	-146.85	-148.54	-147.41	-148.57	-143.46	-182.60	-136.80	-177.69	-138.01	-141.80	-139.03	-179.51
23	-148.40	-148.93	-147.58	-187.58	-143.35	-144.42	-139.95	-140.93	-137.72	-177.47	-136.56	-139.03
24	-148.52	-148.94	-146.98	-148.70	-142.72	-181.77	-139.35	-180.15	-137.43	-175.32	-136.07	-176.26
25	-148.16	-148.92	-146.39	-147.39	-142.18	-143.82	-136.95	-139.55	-137.58	-140.63	-135.56	-139.41
26	-147.95	-148.78	-147.39	-185.62	-141.93	-182.61	-139.55	-179.10	-140.46	-179.28	-139.41	-178.69
27	-147.76	-148.45	---	---	-141.35	-143.12	-139.24	-140.30	-139.45	-141.19	-139.30	-140.80
28	-147.09	-148.00	---	---	-142.13	-181.67	-139.28	-178.31	-139.92	-179.26	-140.80	-180.98
29	-147.22	-147.89	-147.26	-184.94	-142.82	-143.25	-138.03	-141.60	---	---	-141.25	-143.20
30	-147.01	-148.15	-146.50	-147.85	-143.07	-181.99	-140.58	-180.53	---	---	-137.83	-179.97
31	-147.20	-148.13	---	---	-142.24	-143.87	-138.80	-141.28	---	---	-135.88	-175.18
MONTH	---	---	---	---	-141.35	-185.19	-136.80	-182.44	-136.06	-180.99	-135.54	-180.98

GROUND-WATER LEVELS IN MARYLAND--Continued

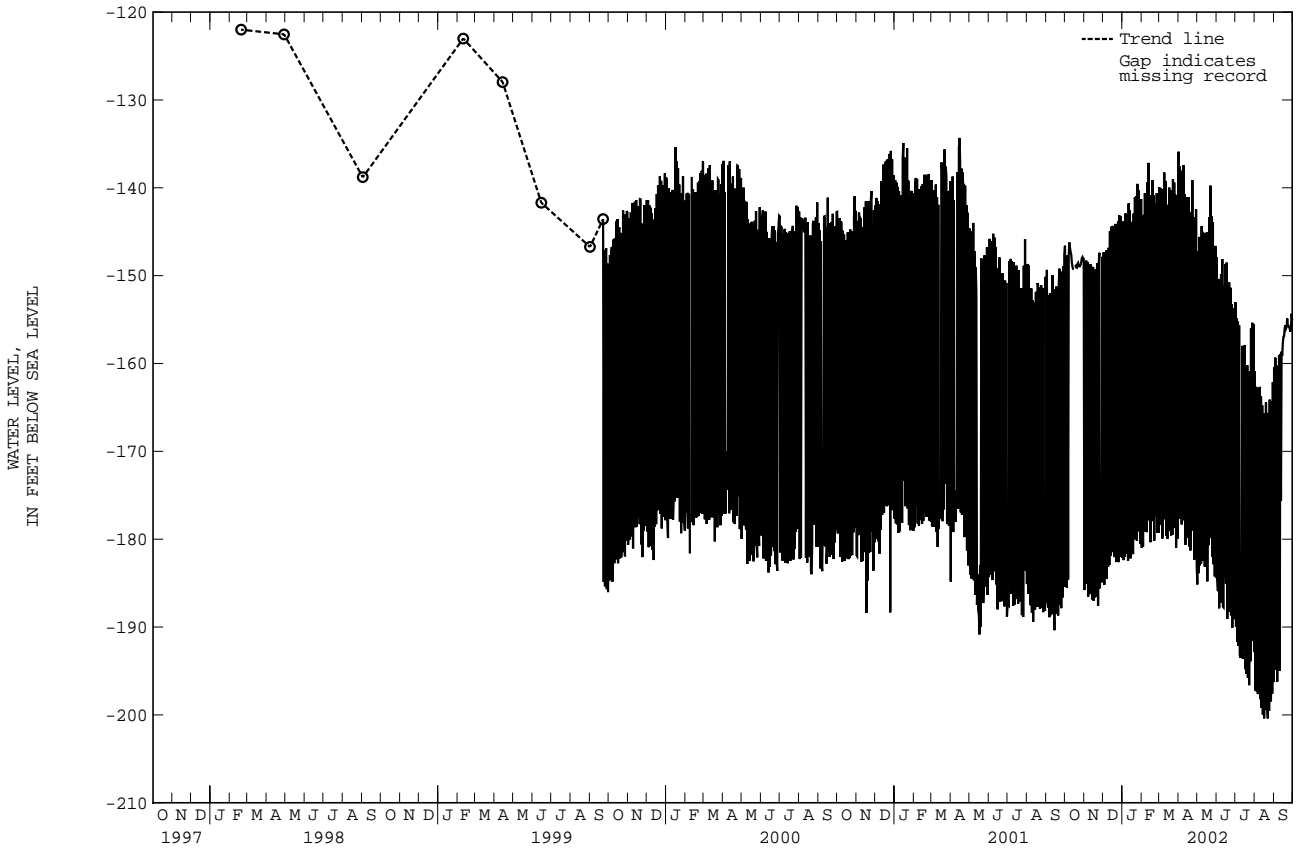
ST. MARYS COUNTY--Continued

SM Df 61--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-134.09	-135.89	-143.94	-185.15	-145.84	-147.88	-152.10	-153.02	-159.62	-160.90	-159.13	-160.41
2	-133.95	-174.23	-144.39	-147.21	-146.29	-184.52	-152.89	-189.94	-160.89	-197.23	-158.99	-194.73
3	-134.72	-137.58	-144.39	-183.87	-147.72	-185.92	-153.54	-154.83	-160.99	-162.65	-158.53	-159.33
4	-137.58	-177.68	-144.22	-145.59	-149.28	-150.37	-154.80	-191.67	-161.10	-197.31	-158.83	-194.84
5	-138.29	-139.33	-144.83	-182.98	-150.36	-187.87	-153.90	-155.23	-161.95	-162.76	-159.24	-160.26
6	-138.05	-178.32	-142.29	-146.26	-150.24	-151.26	-155.23	-192.14	-161.29	-197.63	-159.92	-196.23
7	-137.24	-138.05	-142.12	-182.78	-149.84	-187.24	-154.84	-155.66	-158.73	-189.98	-157.82	-160.27
8	-137.42	-177.85	-142.97	-144.37	-147.86	-149.84	-155.61	-193.15	-162.63	-197.50	-157.73	-193.91
9	-135.75	-137.42	-143.55	-182.46	-147.91	-185.06	-155.66	-193.49	-161.72	-162.66	-157.38	-159.06
10	-135.85	-176.53	-143.36	-182.18	-147.09	-148.11	-154.02	-192.55	-162.36	-198.22	-158.91	-194.97
11	-140.26	-140.72	-143.64	-145.20	-148.07	-187.66	-156.82	-192.92	-162.82	-163.76	-156.40	-158.91
12	-140.72	-180.64	-143.78	-145.28	-151.06	-187.75	-156.73	-157.99	-163.44	-199.21	-157.68	-175.62
13	-140.71	-142.94	-144.04	-183.16	-148.20	-151.09	-157.70	-193.64	-163.88	-164.77	-157.41	-158.64
14	-140.99	-179.82	-142.89	-145.31	-148.02	-184.36	-156.49	-158.16	-164.44	-199.97	-157.63	-159.12
15	-139.56	-141.08	-141.60	-182.83	-147.22	-148.69	-156.44	-192.65	-164.44	-165.67	-156.25	-157.64
16	-140.00	-178.72	-140.88	-145.08	-147.22	-185.05	-157.48	-157.89	-165.32	-200.40	-156.03	-156.94
17	-139.96	-141.08	-144.85	-184.80	-147.18	-148.51	-157.88	-194.81	-163.50	-165.90	-155.91	-156.90
18	-141.06	-180.82	-143.34	-145.85	-148.51	-189.06	-158.88	-192.83	-163.64	-199.04	-154.98	-155.98
19	-141.05	-142.80	-142.56	-180.68	-149.19	-151.09	-158.88	-195.33	-163.86	-164.42	-154.62	-155.65
20	-142.11	-181.28	-140.68	-143.34	-148.93	-187.24	-159.09	-160.19	-164.32	-199.43	-153.87	-156.03
21	-140.06	-142.77	-139.75	-178.61	-148.13	-150.77	-159.27	-195.76	-164.43	-199.24	-153.41	-155.85
22	-139.13	-179.01	-139.24	-139.75	-150.77	-188.24	-160.07	-160.89	-165.55	-200.40	-153.69	-154.88
23	-137.09	-139.13	-139.42	-179.87	-150.53	-151.38	-160.85	-196.62	-164.04	-165.61	-153.92	-155.66
24	-136.99	-178.20	-140.78	-143.26	-150.97	-188.67	-159.07	-161.04	-164.11	-199.54	-153.76	-155.70
25	-141.76	-143.32	-143.26	-182.02	-151.78	-153.27	-156.02	-193.90	-161.95	-164.11	-153.93	-155.89
26	-141.96	-182.32	-142.65	-143.90	-153.27	-190.09	-154.61	-156.02	-162.35	-198.47	-155.13	-155.94
27	-142.50	-144.22	-143.49	-182.85	-150.80	-154.36	-154.63	-191.56	-163.23	-198.33	-155.37	-156.37
28	-142.21	-180.66	-146.18	-147.13	-150.26	-188.79	-153.94	-155.36	-161.65	-164.36	-154.26	-155.97
29	-138.96	-142.45	-146.61	-184.23	-151.92	-153.72	-154.01	-191.31	-161.75	-197.58	-153.69	-154.34
30	-142.20	-182.96	-145.78	-146.61	-152.26	-189.10	-155.03	-155.50	-160.70	-162.11	-154.00	-155.08
31	---	---	-146.04	-184.39	---	---	-155.40	-192.85	-160.41	-196.26	---	---
MONTH	-133.95	-182.96	-139.24	-185.15	-145.84	-190.09	-152.10	-196.62	-158.73	-200.40	-153.41	-196.23

Daily Low Water Levels



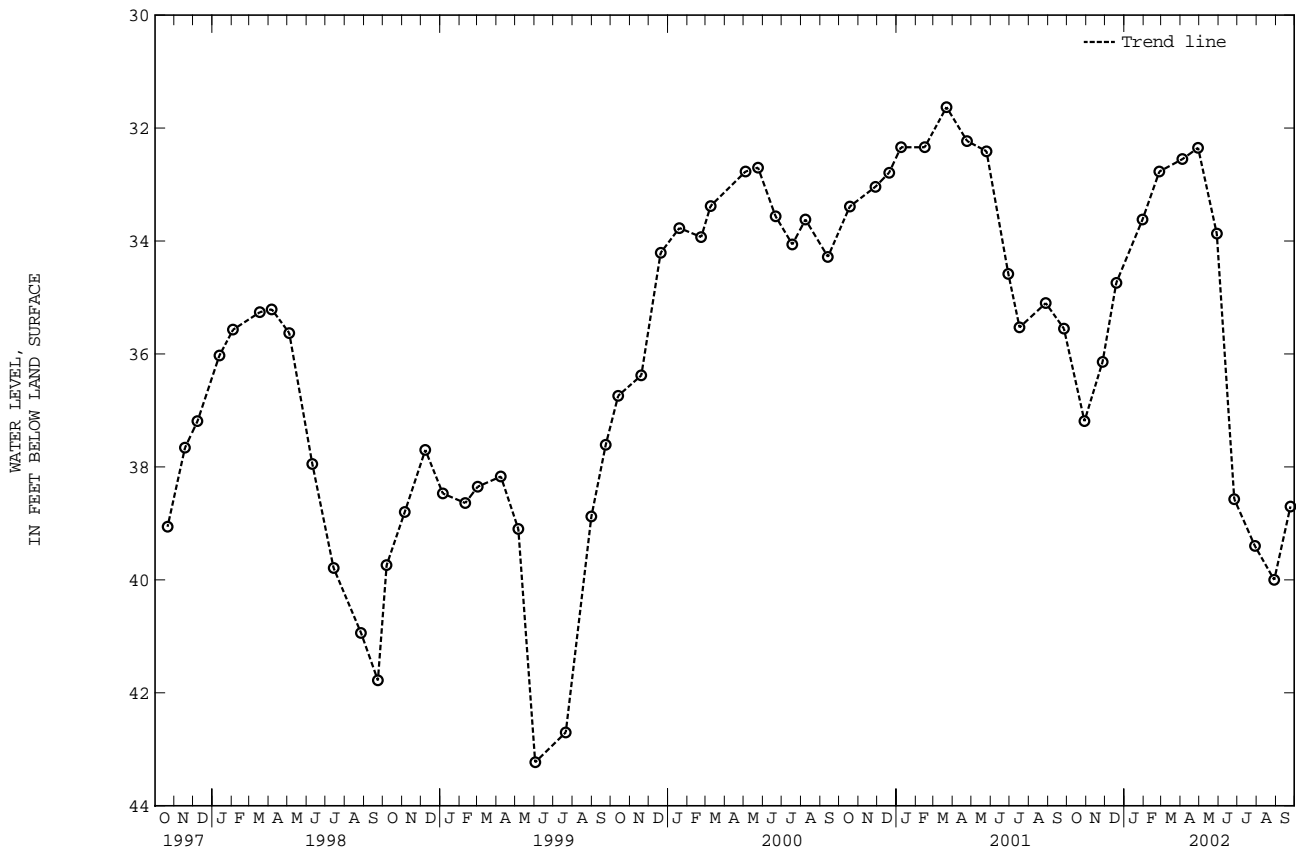
5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Df 66. SITE ID.--381841076284401. PERMIT NUMBER.--SM-73-1990.  
 LOCATION.--Lat 38°18'41", long 76°28'44", Hydrologic Unit 02060006, 0.8 mi south of Town Point.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 258 ft; casing diameter 6 in., to 84 ft;  
 casing diameter 2 in. from 84 to 248 ft; screen diameter 2 in. from 248 to 258 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 3.00 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local  
 ground-water withdrawal.  
 PERIOD OF RECORD.--July 1976 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.79 ft below land surface, April 5, 1979;  
 lowest measured, 49.66 ft below land surface, July 9, 1986.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 2001	37.19	JAN 30, 2002	33.62	APR 29, 2002	32.35	JUL 29, 2002	39.40
NOV 27	36.14	FEB 26	32.77	MAY 29	33.87	AUG 29	40.00
DEC 19	34.74	APR 04	32.55	JUN 26	38.57	SEP 24	38.70
WATER YEAR 2002 HIGHEST 32.35		APR 29, 2002		LOWEST 40.00		AUG 29, 2002	



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Df 71. SITE ID.--381527076283101. PERMIT NUMBER.--SM-73-3431.  
 LOCATION.--Lat 38°15'27", long 76°28'31", Hydrologic Unit 02070011, at Cheryl Dr. and Great Mills Rd., Lexington Park.  
 Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 560 ft; casing diameter 4 in., to 420 ft; casing diameter 2 in. from 420 to 550 ft; screen diameter 2 in. from 550 to 560 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 69.15 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 0.80 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

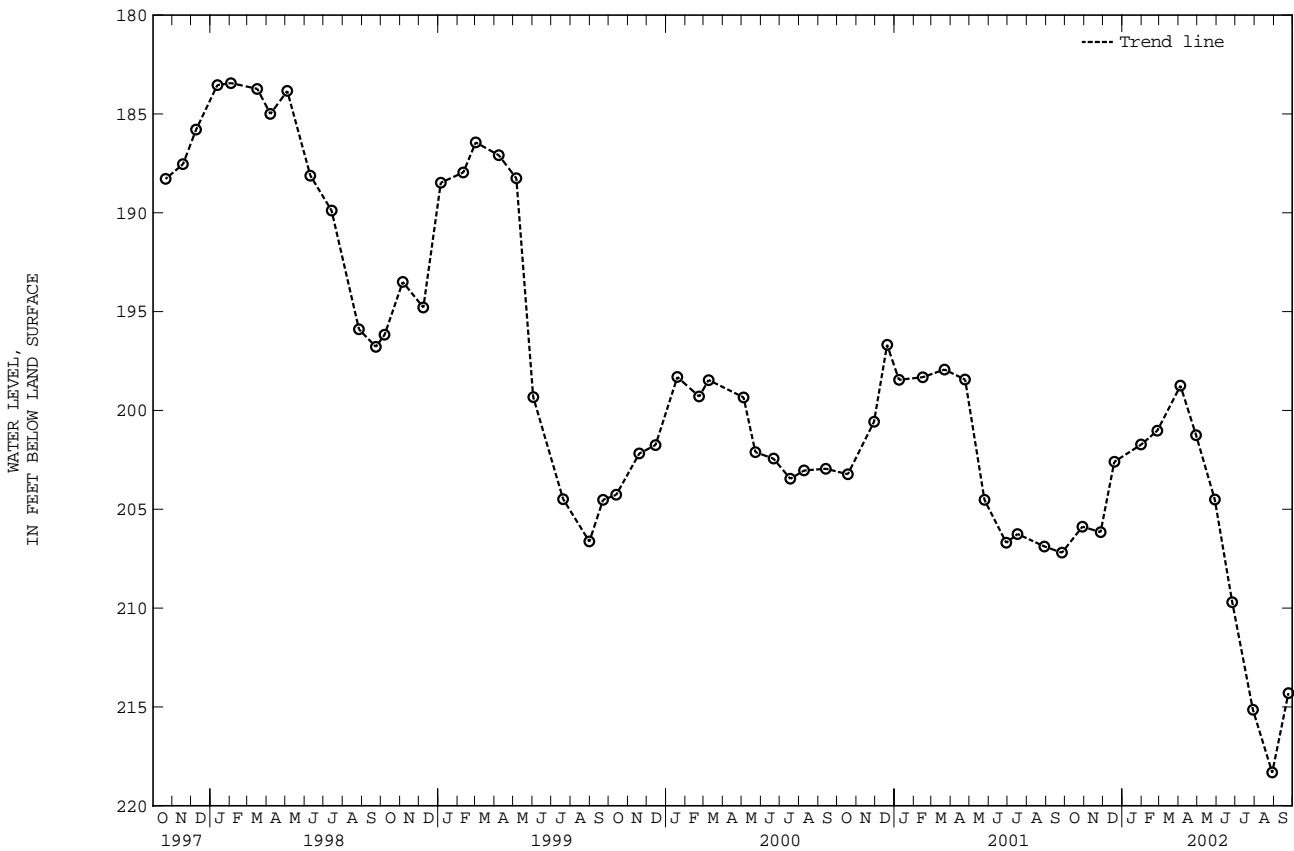
PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 119.19 ft below land surface, May 1, 1980; lowest measured, 218.32 ft below land surface, Aug. 29, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 2001	205.88	JAN 31, 2002	201.73	APR 29, 2002	201.25	JUL 29, 2002	215.14
NOV 27	206.16	FEB 26	201.02	MAY 29	204.51	AUG 29	218.32
DEC 19	202.60	APR 04	198.75	JUN 26	209.71	SEP 24	214.30

WATER YEAR 2002 HIGHEST 198.75 APR 04, 2002 LOWEST 218.32 AUG 29, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



## ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Df 84. SITE ID.--381548076272102. PERMIT NUMBER.--SM-81-0119.

LOCATION.--Lat 38°15'48", long 76°27'21", Hydrologic Unit 0207011, at Lexington Park.

Owner: Maryland Geological Survey.

AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 912 ft; casing diameter 6 in., to 246 ft; casing diameter 4 in. from 246 ft to 831 ft, 856 to 862 ft, and 867 to 897; screen diameter 4 in. from 831 to 856 ft, 862 to 867 ft, and 897 to 912 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60 minute recorder interval from Feb. 24, 2000 to current year.

DATUM.--Elevation of land surface is 108.39 ft above National Geodetic Vertical Datum of 1929.

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

REMARKS.--Maryland Ground-Water-Level Monitoring Network and Naval Air Station Patuxent River Ground Water Hydrology project observation well. Water levels are affected by regional ground-water withdrawal.

PERIOD OF RECORD.--January 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.29 ft below sea level, Feb. 3, 1983;

lowest measured, 41.68 ft below sea level, Sept. 24, and 25, 2002 (recorder).

## WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-40.28	-40.34	-40.62	-40.70	-40.55	-40.59	-40.48	-40.53	-40.34	-40.50	-40.58	-40.64
2	-40.28	-40.36	-40.61	-40.65	-40.59	-40.62	-40.50	-40.56	-40.48	-40.56	-40.35	-40.60
3	-40.33	-40.36	-40.60	-40.66	-40.61	-40.62	-40.36	-40.51	-40.44	-40.56	-40.34	-40.40
4	-40.31	-40.36	-40.60	-40.69	-40.62	-40.65	-40.41	-40.46	-40.42	-40.54	-40.40	-40.52
5	-40.31	-40.37	-40.57	-40.63	-40.64	-40.67	-40.46	-40.50	-40.54	-40.64	-40.52	-40.56
6	-40.29	-40.37	-40.59	-40.63	-40.56	-40.65	-40.18	-40.48	-40.56	-40.59	-40.52	-40.55
7	-40.37	-40.46	-40.58	-40.63	-40.56	-40.62	-40.24	-40.36	-40.41	-40.56	-40.54	-40.60
8	-40.46	-40.56	-40.58	-40.63	-40.55	-40.65	-40.34	-40.38	-40.42	-40.50	-40.57	-40.60
9	-40.54	-40.60	-40.59	-40.66	-40.55	-40.64	-40.28	-40.37	-40.48	-40.64	-40.54	-40.60
10	-40.54	-40.55	-40.52	-40.66	-40.64	-40.70	-40.28	-40.37	-40.40	-40.64	-40.52	-40.61
11	-40.49	-40.54	-40.55	-40.66	-40.59	-40.67	-40.28	-40.36	-40.38	-40.52	-40.59	-40.68
12	-40.44	-40.50	-40.66	-40.72	-40.60	-40.65	-40.28	-40.36	-40.41	-40.52	-40.54	-40.59
13	-40.44	-40.48	-40.69	-40.75	-40.52	-40.62	-40.22	-40.40	-40.44	-40.55	-40.44	-40.54
14	-40.38	-40.48	-40.66	-40.75	-40.40	-40.52	-40.34	-40.40	-40.53	-40.57	-40.49	-40.59
15	-40.39	-40.50	-40.59	-40.66	-40.51	-40.67	-40.34	-40.48	-40.47	-40.54	-40.45	-40.62
16	-40.36	-40.50	-40.58	-40.68	-40.64	-40.67	-40.44	-40.50	-40.42	-40.47	-40.46	-40.62
17	-40.43	-40.53	-40.67	-40.72	-40.35	-40.64	-40.40	-40.46	-40.40	-40.50	-40.62	-40.65
18	-40.52	-40.53	-40.68	-40.75	-40.28	-40.48	-40.44	-40.50	-40.50	-40.62	-40.52	-40.63
19	-40.48	-40.53	-40.57	-40.71	-40.43	-40.48	-40.34	-40.50	-40.50	-40.62	-40.53	-40.58
20	-40.48	-40.52	-40.56	-40.63	-40.43	-40.50	-40.35	-40.47	-40.41	-40.50	-40.39	-40.57
21	-40.50	-40.56	-40.60	-40.65	-40.48	-40.60	-40.38	-40.47	-40.41	-40.42	-40.38	-40.44
22	-40.48	-40.54	-40.60	-40.64	-40.60	-40.61	-40.46	-40.54	-40.41	-40.50	-40.44	-40.51
23	-40.45	-40.51	-40.62	-40.64	-40.45	-40.60	-40.43	-40.51	-40.48	-40.52	-40.47	-40.51
24	-40.42	-40.46	-40.64	-40.68	-40.41	-40.45	-40.34	-40.43	-40.51	-40.58	-40.48	-40.51
25	-40.42	-40.47	-40.57	-40.67	-40.45	-40.49	-40.38	-40.52	-40.46	-40.54	-40.50	-40.54
26	-40.47	-40.52	-40.58	-40.61	-40.34	-40.46	-40.51	-40.52	-40.31	-40.47	-40.41	-40.53
27	-40.52	-40.62	-40.59	-40.61	-40.32	-40.40	-40.52	-40.52	-40.34	-40.42	-40.39	-40.48
28	-40.62	-40.74	-40.60	-40.61	-40.30	-40.36	-40.47	-40.52	-40.42	-40.58	-40.45	-40.48
29	-40.68	-40.74	-40.57	-40.61	-40.30	-40.42	-40.44	-40.50	---	---	-40.40	-40.51
30	-40.68	-40.72	-40.54	-40.59	-40.42	-40.49	-40.45	-40.53	---	---	-40.37	-40.49
31	-40.67	-40.72	---	---	-40.48	-40.49	-40.50	-40.55	---	---	-40.38	-40.49
MONTH	-40.28	-40.74	-40.52	-40.75	-40.28	-40.70	-40.18	-40.56	-40.31	-40.64	-40.34	-40.68

GROUND-WATER LEVELS IN MARYLAND--Continued

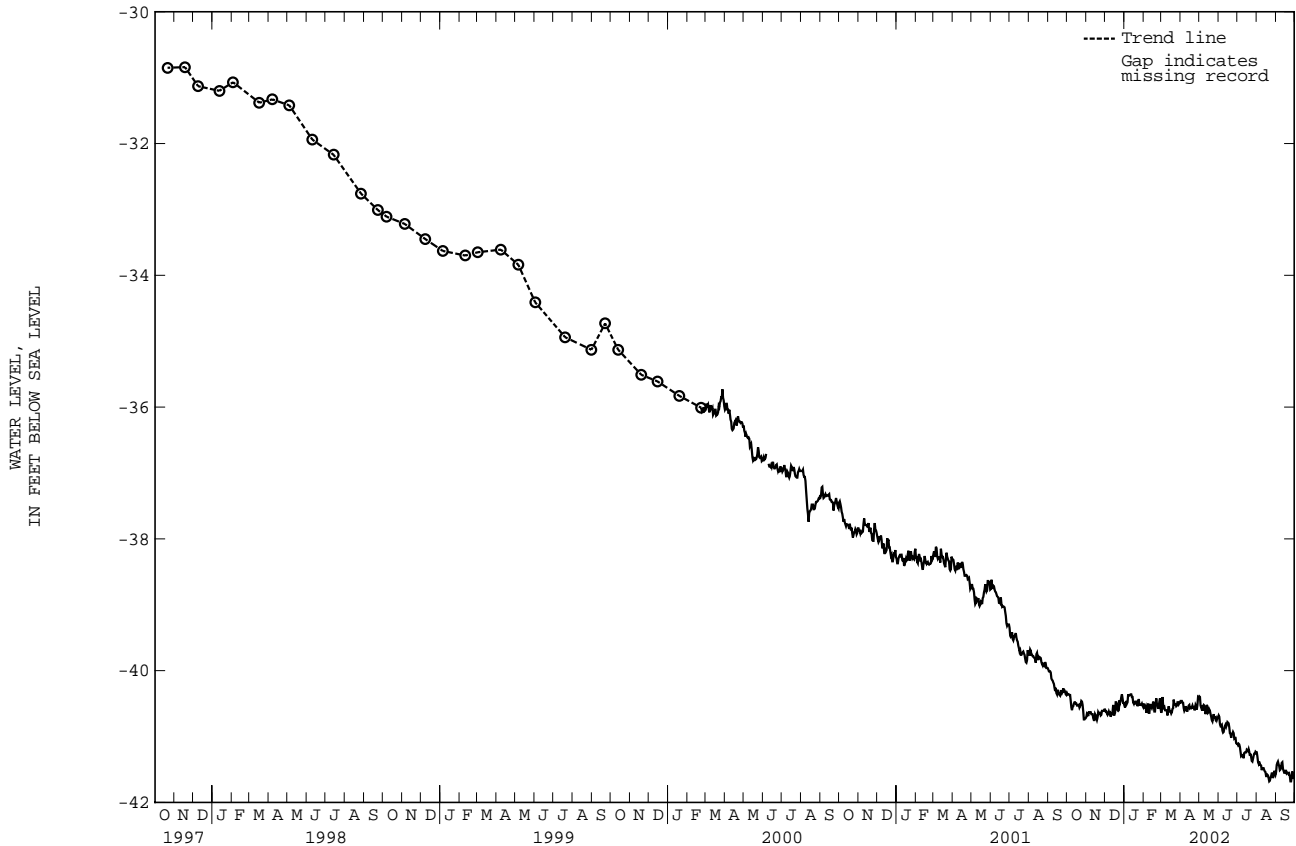
ST. MARYS COUNTY--Continued

SM Df 84--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-40.38	-40.46	-40.39	-40.39	-40.60	-40.68	-41.11	-41.11	-41.23	-41.24	-41.41	-41.54
2	-40.40	-40.46	-40.29	-40.40	-40.63	-40.70	-41.10	-41.13	-41.24	-41.30	-41.37	-41.43
3	-40.29	-40.46	-40.33	-40.53	-40.70	-40.81	-41.08	-41.11	-41.30	-41.38	-41.38	-41.40
4	-40.46	-40.49	-40.52	-40.56	-40.81	-40.84	-41.08	-41.12	-41.36	-41.41	-41.35	-41.38
5	-40.48	-40.49	-40.51	-40.53	-40.82	-40.83	-41.12	-41.16	-41.33	-41.38	-41.36	-41.42
6	-40.48	-40.57	-40.53	-40.61	-40.77	-40.82	-41.15	-41.23	-41.31	-41.43	-41.38	-41.45
7	-40.57	-40.61	-40.44	-40.54	-40.78	-40.91	-41.19	-41.30	-41.40	-41.43	-41.45	-41.51
8	-40.52	-40.59	-40.48	-40.52	-40.91	-40.94	-41.24	-41.29	-41.41	-41.44	-41.46	-41.50
9	-40.51	-40.54	-40.49	-40.53	-40.88	-40.93	-41.25	-41.28	-41.44	-41.51	-41.39	-41.46
10	-40.52	-40.57	-40.50	-40.59	-40.83	-40.88	-41.25	-41.28	-41.47	-41.48	-41.34	-41.40
11	-40.54	-40.61	-40.59	-40.66	-40.79	-40.84	-41.24	-41.33	-41.47	-41.48	-41.33	-41.39
12	-40.54	-40.61	-40.52	-40.62	-40.79	-40.82	-41.24	-41.25	-41.47	-41.48	-41.39	-41.49
13	-40.53	-40.56	-40.40	-40.52	-40.81	-40.85	-41.24	-41.24	-41.48	-41.51	-41.46	-41.52
14	-40.49	-40.53	-40.43	-40.54	-40.75	-40.82	-41.24	-41.24	-41.51	-41.53	-41.48	-41.55
15	-40.50	-40.52	-40.54	-40.64	-40.73	-40.78	-41.18	-41.24	-41.53	-41.54	-41.52	-41.55
16	-40.52	-40.57	-40.57	-40.63	-40.77	-40.79	-41.18	-41.20	-41.54	-41.60	-41.45	-41.52
17	-40.48	-40.56	-40.54	-40.59	-40.78	-40.80	-41.19	-41.21	-41.55	-41.60	-41.45	-41.52
18	-40.48	-40.57	-40.48	-40.61	-40.80	-40.86	-41.19	-41.22	-41.54	-41.58	-41.51	-41.56
19	-40.49	-40.56	-40.61	-40.66	-40.86	-40.95	-41.16	-41.19	-41.54	-41.59	-41.51	-41.55
20	-40.49	-40.53	-40.66	-40.70	-40.95	-40.96	-41.18	-41.23	-41.56	-41.63	-41.54	-41.55
21	-40.52	-40.56	-40.70	-40.75	-40.92	-41.02	-41.23	-41.29	-41.63	-41.68	-41.54	-41.57
22	-40.43	-40.56	-40.72	-40.77	-40.92	-40.96	-41.25	-41.26	-41.62	-41.67	-41.56	-41.56
23	-40.52	-40.59	-40.65	-40.72	-40.93	-40.96	-41.26	-41.31	-41.59	-41.63	-41.56	-41.60
24	-40.50	-40.59	-40.59	-40.66	-40.92	-40.93	-41.28	-41.37	-41.50	-41.60	-41.60	-41.68
25	-40.44	-40.52	-40.61	-40.71	-40.93	-40.95	-41.32	-41.38	-41.51	-41.56	-41.60	-41.68
26	-40.49	-40.54	-40.67	-40.71	-40.94	-41.03	-41.29	-41.34	-41.55	-41.56	-41.53	-41.61
27	-40.52	-40.59	-40.68	-40.74	-40.97	-41.02	-41.26	-41.29	-41.56	-41.63	-41.46	-41.53
28	-40.27	-40.52	-40.69	-40.72	-40.99	-41.02	-41.26	-41.26	-41.52	-41.60	-41.47	-41.60
29	-40.33	-40.40	-40.70	-40.75	-41.00	-41.10	-41.23	-41.26	-41.52	-41.52	-41.60	-41.63
30	-40.36	-40.41	-40.71	-40.72	-41.10	-41.11	-41.23	-41.23	-41.52	-41.55	-41.63	-41.63
31	---	---	-40.60	-40.71	---	---	-41.23	-41.24	-41.54	-41.58	---	---
MONTH	-40.27	-40.61	-40.29	-40.77	-40.60	-41.11	-41.08	-41.38	-41.23	-41.68	-41.33	-41.68
YEAR	-40.18	-41.68										

Daily Low Water Levels



## ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Df 100. SITE ID.--381721076264801. PERMIT NUMBER.--SM-94-3113.  
 LOCATION.--Lat 38°17'21", long 76°26'49", Hydrologic Unit 0206006, at Patuxent River Naval Air Test Station.  
 Owner: U.S. Navy.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 910 ft; casing diameter 10 in., to 706 ft; casing diameter 8 in. from 716 ft to 744 ft, 754 to 835 ft, 860 to 882 ft; 892 to 900 ft; and 905 to 910 ft; screen diameter 8 in. from 706 to 716 ft, 744 to 754 ft, 835 to 860 ft, 882 to 892 ft and 900 to 905 ft.  
 INSTRUMENTATION.--Monthly water level measurements with steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--15-minute recording interval, Feb. 7, 2001 to current year.  
 DATUM.--Elevation of land surface is 21.9 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of pump base, 2.05 ft above land surface.  
 REMARKS.--Naval Air Station Patuxent River Ground Water Hydrology project observation/production well. Water levels are affected by this well being pumped as a production well, and regional ground-water withdrawal. Two aquifer tests on November 6, 7, 2001 and January 25, 2002 created significant drawdowns. Missing data due to recorder malfunction.  
 PERIOD OF RECORD.--September 2000 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.10 ft below sea level, March 5, 2001 (recorder); lowest measured, 41.12 ft below sea level, Aug. 16, 2002 (recorder, **See Remarks**).

## WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-38.53	-38.89	-38.95	-39.54	-39.08	-39.42	-38.73	-39.15	-38.72	-39.46	-38.82	-39.82
2	-38.43	-39.17	-39.12	-39.63	-39.18	-39.52	-38.79	-39.24	-38.87	-39.45	-38.88	-39.61
3	-38.84	-39.56	-39.13	-39.60	-39.09	-39.50	-38.67	-39.14	-38.65	-39.38	-38.82	-39.22
4	-38.94	-39.62	-38.98	-39.71	-38.92	-39.61	-38.65	-39.37	-38.64	-39.24	-38.71	-39.30
5	-38.96	-39.70	-38.92	-39.52	-39.15	-39.86	-38.46	-39.38	-38.81	-39.47	-38.82	-39.63
6	-38.92	-39.36	-38.95	-41.94	-39.13	-39.75	-38.45	-39.04	-38.58	-39.27	-38.98	-39.73
7	-39.11	-39.71	-38.87	-41.70	-39.13	-39.59	-38.57	-38.90	-38.60	-39.05	-39.24	-39.81
8	-39.07	-39.61	-38.85	-39.64	-38.88	-39.49	-38.58	-39.22	-38.66	-39.25	-39.12	-39.71
9	-38.89	-39.78	-38.91	-39.57	-38.86	-39.40	-38.53	-39.09	-38.74	-39.33	-39.15	-39.48
10	-38.97	-39.71	-38.81	-39.53	-38.94	-39.33	-38.86	-39.33	-38.87	-39.22	-39.14	-39.50
11	-39.18	-39.80	-39.07	-39.51	-38.85	-39.30	-38.72	-39.12	-38.82	-39.27	-39.19	-39.56
12	-39.00	-39.63	-38.77	-39.39	-38.94	-39.34	-38.62	-39.15	-38.79	-39.28	-39.10	-39.55
13	-38.98	-39.52	-38.80	-39.46	-38.93	-39.28	-38.62	-39.06	-38.82	-39.30	-39.00	-39.34
14	-38.70	-39.32	-38.95	-39.48	-38.87	-39.35	-38.61	-39.33	-38.91	-39.50	-39.04	-39.48
15	-38.73	-39.38	-39.01	-39.55	-38.99	-39.53	-38.84	-39.51	-38.83	-39.48	-38.92	-39.61
16	---	---	-38.98	-39.58	-39.05	-39.35	-38.84	-39.42	-38.90	-39.51	-39.16	-39.77
17	-38.64	-39.39	-39.12	-39.59	-38.85	-39.22	-38.74	-39.14	-38.73	-39.35	-38.98	-39.46
18	-38.93	-39.66	-38.84	-39.58	-38.67	-39.27	-38.81	-39.29	-38.85	-39.53	-38.80	-39.30
19	-38.91	-39.74	-38.93	-39.60	-38.73	-39.30	-38.56	-39.05	-38.49	-39.34	-38.94	-39.41
20	-38.95	-39.67	-39.03	-39.44	-38.70	-39.26	-38.63	-39.21	-38.75	-39.20	-38.70	-39.17
21	-39.04	-39.78	-38.79	-39.53	-38.87	-39.41	-38.58	-38.97	-38.75	-39.44	-38.78	-39.35
22	-39.01	-39.70	-38.51	-39.42	-38.75	-39.49	-38.65	-39.56	-38.69	-39.25	-38.80	-39.49
23	-38.96	-39.60	-38.76	-39.55	-38.67	-39.20	-39.05	-39.47	-38.73	-39.27	-38.75	-39.48
24	-38.81	-39.45	-38.99	-39.40	-38.68	-39.10	-39.02	-39.30	-38.74	-39.30	-39.03	-39.70
25	-38.91	-39.46	-38.98	-39.32	-38.59	-39.09	-38.76	-54.91	-38.71	-39.23	-39.08	-39.59
26	-39.07	-39.46	-38.94	-39.44	-38.51	-38.95	-38.80	-39.33	-38.73	-39.18	-38.80	-39.24
27	-39.07	-39.45	---	---	-38.37	-38.83	-38.85	-39.40	-38.73	-39.00	-38.79	-39.30
28	-39.04	-39.50	---	---	-38.42	-38.96	-38.98	-39.43	-38.67	-39.41	-38.84	-39.31
29	-38.84	-39.42	-39.07	-39.39	-38.56	-39.02	-38.97	-39.44	---	---	-38.76	-39.41
30	-38.81	-39.51	-38.98	-39.35	-38.72	-39.08	-39.03	-39.49	---	---	-38.88	-39.47
31	-39.01	-39.37	---	---	-38.66	-39.07	-38.81	-39.29	---	---	-38.96	-39.44
MONTH	---	---	---	---	-38.37	-39.86	-38.45	-54.91	-38.49	-39.53	-38.70	-39.82

GROUND-WATER LEVELS IN MARYLAND--Continued

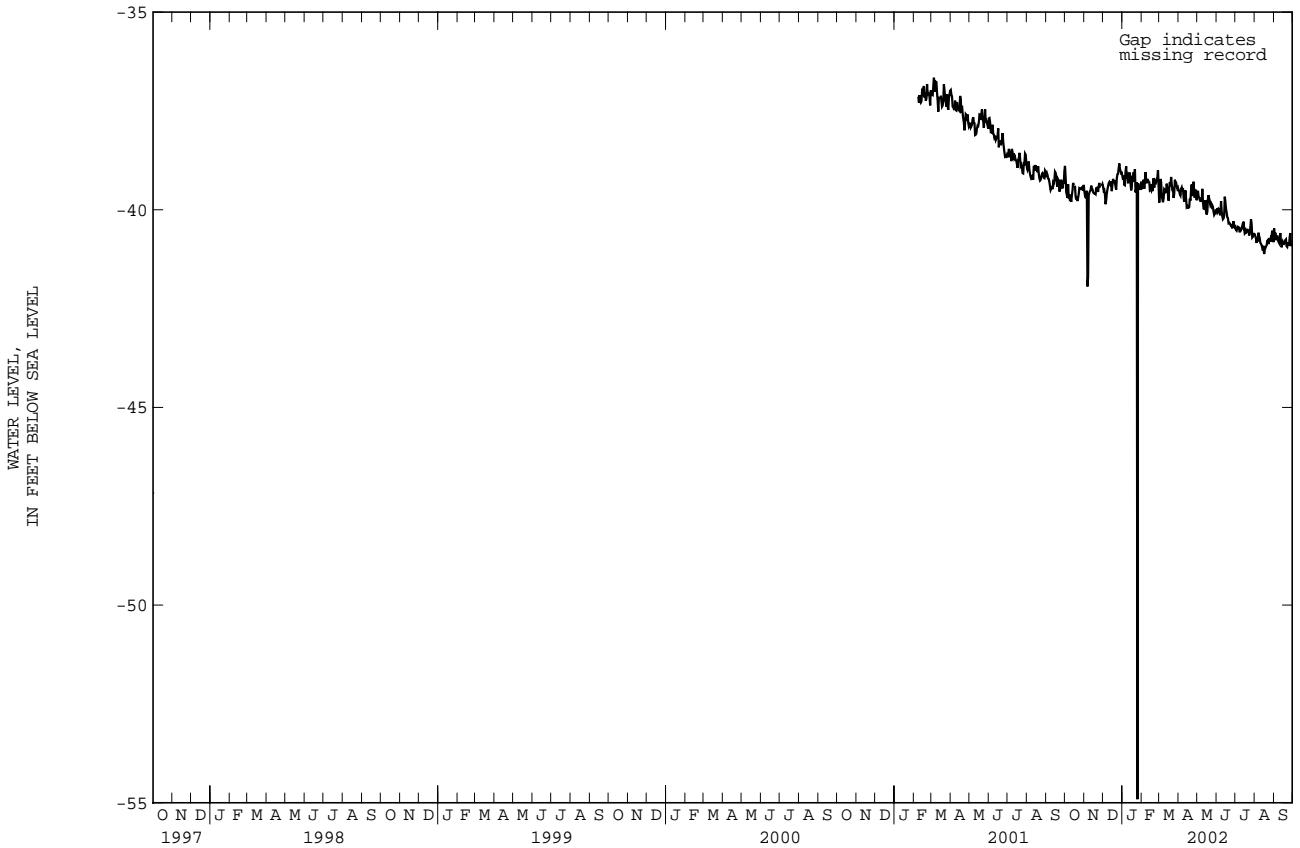
ST. MARYS COUNTY--Continued

SM Df 100--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-38.74	-39.51	-38.83	-39.57	-39.36	-40.05	-39.81	-40.43	-40.07	-40.62	-40.05	-40.47
2	-38.77	-39.52	-38.89	-39.52	-39.47	-39.96	-39.91	-40.51	-40.12	-40.67	-40.17	-40.68
3	-39.01	-39.61	-39.02	-39.66	-39.49	-40.03	-39.98	-40.53	-40.17	-40.73	-40.11	-40.58
4	-39.04	-39.64	-39.12	-39.70	-39.49	-39.98	-39.99	-40.47	-40.21	-40.84	-40.11	-40.77
5	-38.98	-39.48	-39.15	-39.75	-39.49	-40.00	-39.99	-40.43	-40.19	-40.69	-40.21	-40.67
6	-38.89	-39.44	-39.23	-39.73	-39.53	-40.10	-40.00	-40.44	-40.17	-40.80	-40.13	-40.67
7	-39.06	-39.52	-39.23	-39.75	-39.57	-40.14	-39.94	-40.47	-40.18	-40.58	-40.14	-40.74
8	-38.94	-39.45	-39.31	-39.80	-39.41	-39.78	-39.84	-40.57	-39.98	-40.66	-40.22	-40.81
9	-39.10	-39.68	-39.11	-39.47	-39.28	-40.03	-39.93	-40.49	-40.03	-40.72	-40.18	-40.84
10	-39.30	-39.80	-39.07	-39.79	-39.47	-40.16	-40.00	-40.51	-40.08	-40.84	-40.17	-40.68
11	-39.13	-39.72	-39.35	-39.97	-39.53	-40.24	-39.89	-40.48	-40.06	-40.86	-39.97	-40.59
12	-39.15	-39.51	-39.33	-39.98	-39.49	-40.22	-39.62	-40.41	-40.13	-40.90	-40.26	-40.80
13	-39.17	-39.73	-39.31	-39.97	-39.44	-40.15	-39.74	-40.44	-40.24	-40.96	-40.22	-40.95
14	-39.22	-39.93	-39.08	-39.76	-39.16	-39.67	-39.79	-40.30	-40.35	-41.03	-40.40	-40.88
15	-39.27	-39.91	-39.25	-40.05	-39.25	-39.81	-39.76	-40.47	-40.34	-40.91	-40.46	-40.81
16	-39.24	-39.95	-39.35	-40.12	-39.20	-39.98	-39.95	-40.60	-40.44	-41.12	-40.37	-40.85
17	-39.21	-39.95	-39.38	-40.05	-39.46	-40.07	-39.91	-40.58	-40.50	-41.02	-40.34	-40.86
18	-39.32	-39.93	-39.14	-39.73	-39.61	-40.19	-39.91	-40.52	-40.43	-40.97	-40.28	-40.83
19	-39.22	-39.72	-39.17	-39.63	-39.69	-40.21	-39.97	-40.56	-40.37	-40.93	-40.30	-40.77
20	-39.18	-39.77	-39.14	-39.72	-39.75	-40.34	-39.99	-40.54	-40.36	-40.90	-40.25	-40.75
21	-39.01	-39.50	-39.27	-39.77	-39.74	-40.33	-40.00	-40.51	-40.34	-40.79	-40.24	-40.92
22	-38.84	-39.36	-39.21	-39.88	-39.67	-40.34	-39.90	-40.52	-40.31	-40.77	-40.33	-40.94
23	-39.07	-39.65	-39.20	-39.85	-39.69	-40.38	-40.01	-40.65	-40.32	-40.87	-40.36	-40.83
24	-39.09	-39.61	-39.19	-39.92	-39.73	-40.41	-39.96	-40.60	-40.37	-40.73	-40.42	-40.89
25	-38.83	-39.29	-39.31	-39.89	-39.74	-40.41	-40.08	-40.43	-40.15	-40.77	-40.37	-40.89
26	-38.89	-39.55	-39.29	-39.93	-39.79	-40.47	-39.82	-40.24	-40.29	-40.73	-40.06	-40.69
27	-38.92	-39.70	-39.27	-40.05	-39.69	-40.36	-39.86	-40.36	-40.34	-40.81	-40.05	-40.59
28	-38.95	-39.49	-39.28	-40.13	-39.72	-40.29	-40.02	-40.70	-40.18	-40.67	-40.27	-40.92
29	-38.93	-39.57	-39.34	-40.10	-39.80	-40.43	-40.06	-40.68	-40.09	-40.53	-40.42	-40.88
30	-39.08	-39.76	-39.32	-40.02	-39.83	-40.45	-40.06	-40.63	-40.34	-40.72	-40.27	-40.88
31	---	---	-39.32	-40.01	---	---	-40.13	-40.61	-40.39	-40.82	---	---
MONTH	-38.74	-39.95	-38.83	-40.13	-39.16	-40.47	-39.62	-40.70	-39.98	-41.12	-39.97	-40.95

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Dg 14. SITE ID.--381813076232501. PERMIT NUMBER.--SM-92-0370.

LOCATION.--Lat 38°18'11", long 76°23'27", Hydrologic Unit 02060006, at Patuxent River Naval Air Test Station.

Owner: U.S. Navy.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, artesian well, depth 542 ft; casing diameter 8 in., to 490 ft, and casing diameter 6 in. from 540 to 542 ft; screen diameter 6 in. from 490 to 540 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--15-minute recording interval, Sept. 22, 1999 to current year.

DATUM.--Elevation of land surface is 19.00 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of shelter platform, 2.20 ft above land surface.

REMARKS.--Naval Air Station Patuxent River Ground Water Hydrogeology project observation/production well.

The water-level on April 22, 1994 was reported at 71 ft below sea level. Water levels are affected by this well being pumped as a production well and regional ground-water withdrawal. Missing data due to recorder malfunction.

PERIOD OF RECORD.--September 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 95.30 ft below sea level, April 29, 1996;

lowest measured, 194.52 ft below sea level, July 23, 2002 (recorder).

## WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	-126.40	-183.22	-125.60	-189.91	-125.04	-170.20	-122.65	-167.63	-120.59	-165.48	-120.41	-165.05
2	-126.20	-172.05	-125.71	-174.24	-125.82	-176.03	-122.53	-170.96	-120.89	-164.34	-120.54	-165.62
3	-126.57	-172.18	-127.81	-174.35	-125.41	-174.07	-122.37	-167.00	-120.70	-173.68	-119.92	-162.43
4	-126.64	-172.09	-127.15	-173.03	-125.08	-172.49	-122.21	-164.75	-120.47	-163.12	-119.98	-164.83
5	-126.62	-172.88	-126.73	-171.55	-125.11	-169.45	-121.85	-164.35	-120.91	-174.31	-120.30	-166.73
6	-126.53	-168.85	-126.25	-171.34	-125.28	-177.83	-121.65	-176.99	-120.57	-165.16	-120.33	-165.03
7	-126.76	-170.02	-125.84	-169.89	-125.15	-167.47	-121.73	-165.66	-120.50	-164.31	-120.75	-167.63
8	-126.50	-171.41	-125.99	-173.58	-124.68	-167.21	-121.92	-166.69	-120.48	-165.09	-126.35	-171.48
9	-126.26	-172.14	-127.47	-174.43	-124.61	-169.40	-121.79	-174.49	-120.44	-163.09	-122.85	-170.02
10	-126.02	-170.13	-126.91	-172.25	-124.58	-171.53	-122.05	-166.37	-120.43	-164.90	-122.56	-168.21
11	-126.01	-170.98	-130.00	-174.60	-124.53	-170.67	-122.10	-167.33	-120.27	-163.43	-121.87	-175.61
12	-125.99	-173.49	-127.59	-174.69	-124.38	-166.30	-122.00	-166.71	-120.45	-166.05	-121.31	-166.18
13	-127.37	-174.02	-126.87	-175.67	-124.28	-168.29	-121.81	-164.25	-120.33	-164.52	-120.87	-164.26
14	-126.44	-176.56	-126.48	-169.04	-124.15	-173.75	-121.94	-165.52	-120.57	-163.41	-120.70	-169.09
15	-125.95	-182.11	-126.29	-171.89	-124.17	-170.76	-121.99	-166.49	-120.42	-163.55	-120.81	-163.71
16	---	---	-126.22	-168.84	-124.68	-170.47	-121.99	-174.61	-120.66	-163.21	-120.65	-165.13
17	-126.06	-168.95	-126.16	-170.12	-124.52	-170.29	-121.75	-166.07	-120.47	-173.86	-120.32	-165.01
18	-126.49	-171.30	-125.69	-168.09	-123.95	-168.44	-121.64	-164.11	-120.68	-166.47	-119.86	-166.17
19	-126.50	-174.35	-125.71	-173.11	-123.94	-166.40	-121.24	-163.57	-120.12	-168.00	-120.13	-164.66
20	-128.27	-174.48	-125.97	-170.73	-123.65	-167.97	-121.28	-163.91	-120.01	-162.98	-119.83	-169.13
21	-128.10	-175.10	-125.38	-169.21	-123.88	-170.53	-121.02	-166.01	-119.89	-163.61	-119.85	-174.07
22	-128.69	-175.44	-125.40	-182.37	-123.54	-168.16	-121.26	-165.50	-120.09	-167.42	-120.02	-165.04
23	-127.30	-173.90	-125.46	-172.84	-123.05	-165.18	-121.85	-173.20	-120.29	-164.69	-120.17	-164.94
24	-126.55	-168.73	-125.89	-192.39	-122.88	-164.98	-121.38	-163.99	-120.27	-179.62	-120.46	-166.09
25	-126.53	-172.93	-126.88	-173.95	-122.68	-172.93	-121.38	-163.85	-120.16	-179.78	-120.80	-168.39
26	-126.64	-169.32	-125.91	-170.20	-122.58	-170.89	-121.33	-163.45	-120.03	-174.60	-121.41	-168.69
27	-126.59	-169.91	---	---	-122.46	-164.66	-121.31	-166.07	-119.92	-167.44	-120.92	-167.54
28	-126.14	-169.61	---	---	-122.53	-166.74	-121.27	-164.26	-120.21	-175.38	-120.78	-178.45
29	-125.76	-177.49	-125.25	-169.62	-122.58	-167.87	-121.09	-173.16	---	---	-120.52	-173.54
30	-125.75	-170.07	-125.01	-167.11	-122.87	-165.84	-121.02	-165.96	---	---	-120.33	-163.76
31	-125.69	-168.31	---	---	-122.72	-165.77	-120.95	-171.88	---	---	-120.44	-163.48
MONTH	---	---	---	---	-122.46	-177.83	-120.95	-176.99	-119.89	-179.78	-119.83	-178.45

GROUND-WATER LEVELS IN MARYLAND--Continued

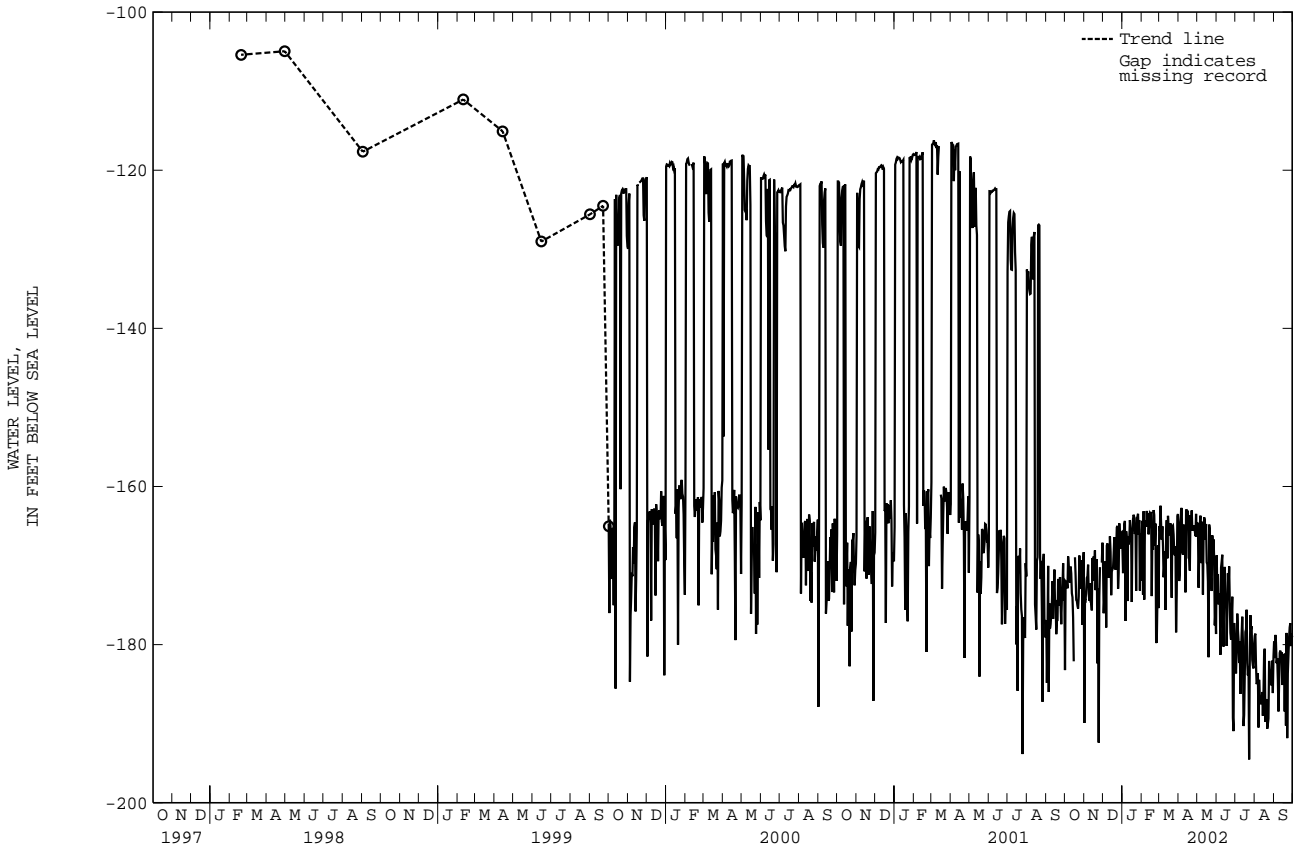
ST. MARYS COUNTY--Continued

SM Dg 14--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-120.05	-164.75	-120.44	-164.57	-125.23	-168.70	-137.63	-182.01	-135.62	-178.89	-138.62	-179.61
2	-120.06	-171.96	-120.63	-165.07	-124.89	-172.92	-138.32	-183.64	-135.30	-178.61	-138.59	-181.70
3	-120.11	-170.76	-120.71	-172.80	-124.70	-171.12	-132.84	-180.86	-135.38	-182.49	-138.31	-178.77
4	-120.64	-165.60	-121.15	-168.69	-124.75	-174.90	-131.63	-176.08	-142.05	-185.00	-138.31	-179.71
5	-120.40	-162.92	-121.13	-164.88	-131.10	-173.51	-131.67	-178.07	-143.21	-184.75	-138.52	-182.35
6	-120.33	-162.71	-120.80	-163.69	-127.16	-174.13	-137.78	-179.37	-138.68	-183.63	-138.42	-181.72
7	-120.35	-168.27	-120.80	-169.69	-126.44	-181.29	-138.96	-182.33	-137.21	-190.48	-138.29	-184.41
8	-120.24	-168.62	-122.56	-168.70	-125.58	-170.26	-135.53	-179.62	-136.97	-184.45	-144.89	-188.45
9	-120.20	-164.82	-121.43	-164.46	-125.52	-169.52	-139.31	-186.24	-143.33	-186.48	-140.04	-185.19
10	-120.31	-167.72	-121.27	-173.67	-125.57	-168.63	-134.86	-181.07	-144.61	-187.55	-138.85	-181.05
11	-120.32	-165.06	-121.49	-166.33	-125.75	-176.85	-133.79	-178.63	-145.22	-186.79	-138.37	-180.76
12	-120.22	-173.39	-121.57	-163.91	-125.65	-180.25	-133.26	-176.47	-145.62	-187.29	-138.26	-182.02
13	-120.06	-163.00	-121.34	-164.29	-126.02	-172.70	-133.15	-179.52	-146.10	-185.99	-137.91	-180.97
14	-119.98	-162.99	-121.10	-166.72	-125.63	-170.17	-139.57	-190.30	-146.62	-189.00	-138.01	-185.11
15	-119.99	-163.46	-121.54	-164.74	-125.92	-174.03	-140.84	-188.90	-141.10	-186.30	-139.09	-183.87
16	-120.12	-163.36	-121.75	-169.60	-128.65	-173.63	-136.71	-183.85	-139.96	-181.22	-138.24	-181.32
17	-120.21	-168.98	-121.85	-169.84	-133.19	-180.17	-134.93	-178.40	-139.38	-180.52	-137.91	-181.27
18	-122.56	-168.98	-123.42	-172.02	-129.78	-176.03	-134.31	-178.08	-139.39	-189.75	-137.74	-188.46
19	-121.43	-170.63	-122.47	-181.59	-128.38	-170.97	-133.94	-175.59	-145.35	-187.44	-137.55	-181.66
20	-121.18	-163.64	-122.33	-164.82	-127.95	-173.10	-133.94	-182.31	-146.54	-186.88	-137.40	-190.24
21	-120.95	-165.12	-122.36	-165.49	-127.69	-170.11	-140.31	-183.88	-147.43	-190.64	-137.25	-178.52
22	-120.78	-163.03	-122.36	-170.15	-127.66	-174.52	-136.65	-182.78	-147.90	-190.06	-137.28	-191.83
23	-120.88	-165.59	-124.17	-172.00	-133.67	-178.53	-135.75	-194.52	-143.16	-189.36	-138.52	-183.63
24	-121.03	-164.92	-123.95	-173.22	-134.72	-179.35	-135.48	-182.39	-141.38	-182.06	-137.82	-181.39
25	-120.71	-165.34	-123.27	-166.18	-130.55	-176.40	-135.14	-176.27	-140.98	-183.49	-137.31	-179.12
26	-120.68	-164.91	-122.91	-168.02	-129.78	-173.94	-134.72	-178.05	-140.44	-183.36	-136.45	-177.81
27	-120.63	-165.65	-122.56	-166.69	-129.40	-189.28	-134.63	-177.68	-140.20	-183.39	-136.14	-177.28
28	-120.71	-166.28	-122.46	-169.12	-129.36	-190.94	-134.95	-181.94	-139.84	-185.17	-136.16	-180.19
29	-120.38	-163.46	-122.61	-177.56	-129.78	-177.26	-141.59	-182.64	-139.51	-182.03	-136.31	-178.63
30	-120.76	-166.37	-129.51	-175.62	-136.57	-179.74	-137.06	-183.01	-139.50	-186.13	-136.16	-179.07
31	---	---	-126.35	-178.66	---	---	-136.01	-179.95	-139.24	-181.54	---	---
MONTH	-119.98	-173.39	-120.44	-181.59	-124.70	-190.94	-131.63	-194.52	-135.30	-190.64	-136.14	-191.83

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Dg 21. SITE ID.--381810076244601. PERMIT NUMBER.--SM-94-0074.  
 LOCATION.--Lat 38°18'10", long 76°24'44", Hydrologic Unit 02060006, at Patuxent River Naval Air Test Station.  
 Owner: U.S. Navy.  
 AQUIFER.--Piney Point Formation of Upper Eocene age and the Nanjemoy Formation of Lower Eocene age.  
 Aquifer code: 124PNPN,124NNJM.  
 WELL CHARACTERISTICS.--Drilled, artesian well, depth 315 ft; casing diameter 4 in., to 295 ft;  
 screen diameter 4 in. from 295 to 315 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 Equipped with digital water-level recorder--15-minute recording interval, Feb. 24, 2000 to current year.  
 DATUM.--Elevation of land surface is 3 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of shelter platform, 1.70 ft above land surface.  
 REMARKS.--Naval Air Station Patuxent River Ground Water Hydrogeology project observation/production well.  
 Water levels are affected by this well being used as a production well, and regional ground-water withdrawal.  
 Missing data due to recorder malfunction.  
 PERIOD OF RECORD.--Feb. 26, 1998 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.14 ft below sea level, March 5, 2001 (recorder);  
 lowest measured, 27.71 ft below sea level, July 28, 2002 (recorder).

## WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-18.82	-20.03	-19.23	-20.49	-19.24	-20.47	-19.02	-20.22	-18.59	-20.04	-18.79	-20.45
2	-18.54	-20.20	-19.42	-20.64	-19.46	-20.98	-19.16	-20.49	-18.79	-20.33	-18.93	-20.16
3	-19.18	-20.70	-19.47	-21.02	-19.33	-21.45	-19.00	-20.09	-18.68	-19.94	-18.61	-19.70
4	-19.38	-21.06	-19.39	-20.97	-19.12	-20.71	-18.99	-20.44	-18.62	-19.80	-18.63	-19.87
5	-19.42	-20.97	-19.28	-21.24	-19.43	-20.79	-18.68	-20.25	-18.92	-20.23	-18.84	-20.81
6	-19.49	-20.94	-19.45	-20.77	-19.39	-22.17	-18.72	-19.84	-18.57	-19.70	-19.00	-20.31
7	-19.75	-20.99	-19.23	-20.81	-19.35	-20.47	-18.88	-19.83	-18.55	-19.59	-19.29	-20.44
8	-19.68	-20.86	-19.22	-20.68	-19.14	-20.47	-18.94	-20.26	-18.55	-20.33	-19.10	-20.51
9	-19.44	-21.08	-19.30	-20.73	-19.01	-20.31	-18.88	-20.08	-18.57	-20.10	-18.92	-20.00
10	-19.40	-20.87	-19.21	-21.64	-19.08	-20.17	-19.23	-20.41	-18.75	-19.71	-18.94	-19.91
11	-19.62	-21.17	-19.43	-20.61	-18.99	-20.17	-19.20	-20.27	-18.63	-19.95	-19.14	-20.90
12	-19.44	-21.79	-19.13	-20.48	-19.09	-21.83	-18.96	-20.13	-18.85	-20.56	-19.14	-20.20
13	-19.30	-20.60	-19.14	-21.82	-19.01	-20.09	-18.90	-20.04	-18.76	-20.10	-18.84	-20.07
14	-18.98	-20.23	-19.34	-22.05	-18.96	-20.30	-18.96	-20.47	-18.85	-20.19	-18.83	-19.84
15	-18.82	-20.42	-19.44	-21.38	-19.04	-20.48	-19.21	-20.97	-18.73	-20.01	-18.64	-20.22
16	---	---	-19.43	-20.75	-19.16	-20.27	-19.23	-20.45	-18.88	-20.13	-18.93	-20.33
17	-18.88	-20.74	-19.52	-20.80	-18.88	-20.75	-19.07	-20.08	-18.70	-19.97	-18.69	-19.87
18	-19.44	-21.14	-19.10	-20.64	-18.71	-20.17	-19.02	-20.16	-18.87	-20.24	-18.38	-19.70
19	-19.44	-20.87	-19.21	-20.92	-18.78	-20.77	-18.76	-19.91	-18.37	-19.70	-18.65	-19.71
20	-19.27	-21.21	-19.36	-20.64	-18.77	-20.72	-18.81	-20.05	-18.48	-19.55	-18.30	-19.50
21	-19.41	-20.74	-19.14	-20.72	-19.13	-20.39	-18.69	-19.78	-18.50	-20.06	-18.36	-20.04
22	-19.36	-20.83	-18.78	-20.50	-18.89	-20.46	-18.85	-20.49	-18.65	-21.33	-18.59	-20.44
23	-19.28	-20.69	-19.12	-22.06	-18.71	-19.90	-19.36	-20.43	-18.75	-20.69	-18.64	-19.80
24	-19.10	-21.18	-19.19	-20.35	-18.73	-19.88	-19.19	-20.28	-18.61	-19.79	-18.92	-20.11
25	-19.24	-20.52	-19.16	-20.28	-18.71	-19.84	-19.03	-20.19	-18.51	-20.47	-18.86	-19.99
26	-19.52	-22.39	-19.19	-20.43	-18.65	-19.71	-19.01	-19.93	-18.50	-19.79	-18.37	-20.24
27	-19.65	-20.78	---	---	-18.47	-19.57	-18.97	-20.26	-18.49	-19.56	-18.34	-19.66
28	-19.47	-20.62	---	---	-18.50	-19.84	-19.13	-20.30	-18.61	-20.08	-18.55	-20.64
29	-19.17	-20.38	-19.34	-22.30	-18.71	-20.06	-18.98	-20.14	---	---	-18.36	-19.65
30	-19.13	-20.53	-19.11	-20.74	-19.01	-20.07	-18.98	-20.10	---	---	-18.44	-19.74
31	-19.31	-20.54	---	---	-18.93	-20.52	-18.79	-19.90	---	---	-18.57	-20.06
MONTH	---	---	---	---	-18.47	-22.17	-18.68	-20.97	-18.37	-21.33	-18.30	-20.90

GROUND-WATER LEVELS IN MARYLAND--Continued

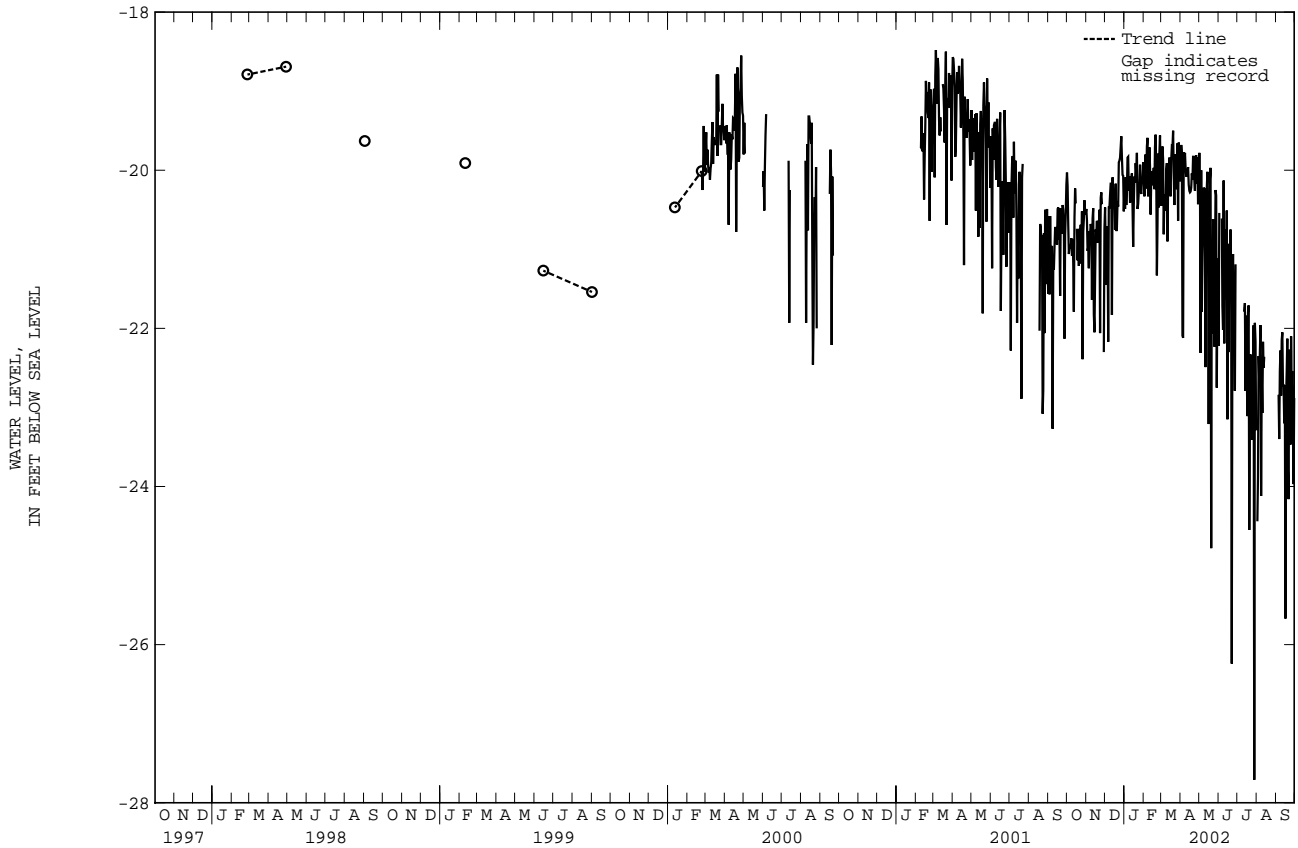
ST. MARYS COUNTY--Continued

SM Dg 21--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-18.33	-20.14	-18.36	-19.78	-19.03	-22.22	---	---	---	---	---	---
2	-18.43	-19.68	-18.45	-20.11	-19.27	-20.54	---	---	-20.85	-24.44	---	---
3	-18.59	-19.80	-18.49	-22.31	---	---	---	---	-20.88	-23.88	---	---
4	-19.07	-22.09	-18.71	-20.00	---	---	---	---	-20.87	-22.35	---	---
5	-18.91	-22.12	-18.72	-21.79	---	---	---	---	-20.92	-22.67	-21.21	-22.84
6	-18.66	-19.77	-19.73	-21.09	-19.08	-20.61	---	---	-20.89	-22.31	-21.06	-23.40
7	-18.71	-19.99	-18.95	-20.64	-19.23	-21.72	---	---	-21.10	-21.96	-21.04	-22.54
8	-18.53	-19.78	-18.91	-20.22	-19.65	-22.02	---	---	-20.71	-24.12	-21.09	-22.28
9	-18.75	-19.97	-18.69	-20.24	-18.94	-20.13	---	---	-20.81	-22.62	-21.06	-22.85
10	-18.97	-20.08	-18.49	-21.03	-18.72	-22.19	---	---	-20.83	-23.07	-20.99	-22.15
11	-18.90	-19.99	-19.31	-22.49	-19.24	-20.75	---	---	-20.78	-22.17	-20.80	-22.05
12	-18.76	-20.03	-18.89	-20.24	-19.25	-20.80	-20.32	-21.79	-20.84	-22.50	-21.11	-22.72
13	-18.77	-19.96	-18.96	-20.22	-19.16	-21.64	-20.37	-21.68	-21.05	-22.36	-21.07	-22.72
14	-18.77	-20.18	-18.64	-20.02	-19.19	-20.51	-20.35	-22.79	---	---	-21.16	-23.20
15	-18.88	-20.26	-18.90	-21.00	-18.81	-23.15	-20.49	-21.84	---	---	-21.24	-22.72
16	-18.87	-20.28	-19.08	-23.21	-19.98	-21.29	-20.47	-22.54	---	---	-21.16	-25.67
17	-18.83	-20.27	-19.07	-21.14	-19.35	-22.30	-20.49	-23.11	---	---	-21.15	-22.88
18	-18.95	-20.22	-18.71	-20.11	-19.53	-20.93	-20.51	-21.80	---	---	-21.05	-22.55
19	-18.80	-20.04	-18.57	-19.97	-19.60	-21.38	-20.65	-21.71	---	---	-20.94	-22.13
20	-18.73	-20.12	-18.69	-24.78	-19.53	-20.75	-20.57	-24.55	---	---	-20.83	-23.79
21	-18.55	-19.83	-18.85	-20.87	-19.51	-21.34	-20.55	-23.04	---	---	-20.81	-24.16
22	-18.33	-19.83	-18.82	-22.07	-19.48	-26.24	-20.62	-22.33	---	---	-20.91	-22.37
23	-18.59	-20.12	-18.75	-20.62	-19.49	-21.63	-20.88	-23.29	---	---	-20.94	-22.27
24	-18.72	-20.26	-18.74	-21.12	-19.47	-21.06	-20.93	-23.10	---	---	-21.05	-23.47
25	-18.34	-19.85	-18.87	-22.23	-19.67	-21.75	-20.59	-23.41	---	---	-20.91	-22.10
26	-18.48	-19.81	-19.25	-21.28	-19.73	-21.82	-20.53	-23.36	---	---	-20.51	-22.75
27	-18.46	-20.17	-18.76	-20.25	-19.68	-22.79	-20.64	-21.96	---	---	-20.40	-22.54
28	-18.53	-19.84	-18.84	-20.32	-19.56	-21.19	-20.79	-27.71	---	---	-20.68	-22.78
29	-18.49	-20.43	-18.91	-22.75	---	---	-20.83	-21.93	---	---	-20.98	-23.97
30	-18.75	-20.09	-19.93	-21.50	---	---	-20.89	-22.16	---	---	-20.74	-22.88
31	---	---	-19.42	-21.12	---	---	-20.77	-23.29	---	---	---	---
MONTH	-18.33	-22.12	-18.36	-24.78	---	---	---	---	---	---	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Eg 27. SITE ID.--381213076222801. PERMIT NUMBER.--SM-73-1993.

LOCATION.--Lat 38°12'13", long 76°22'28", Hydrologic Unit 02060004, 1.6 miles east of St. James, at the St. Marys Co. Environmental Studies Area.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 320 ft; casing diameter 6 in., to 70 ft; casing diameter 2 in. from 70 to 310 ft; screen diameter 2 in. from 310 to 320 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.50 ft above land surface.

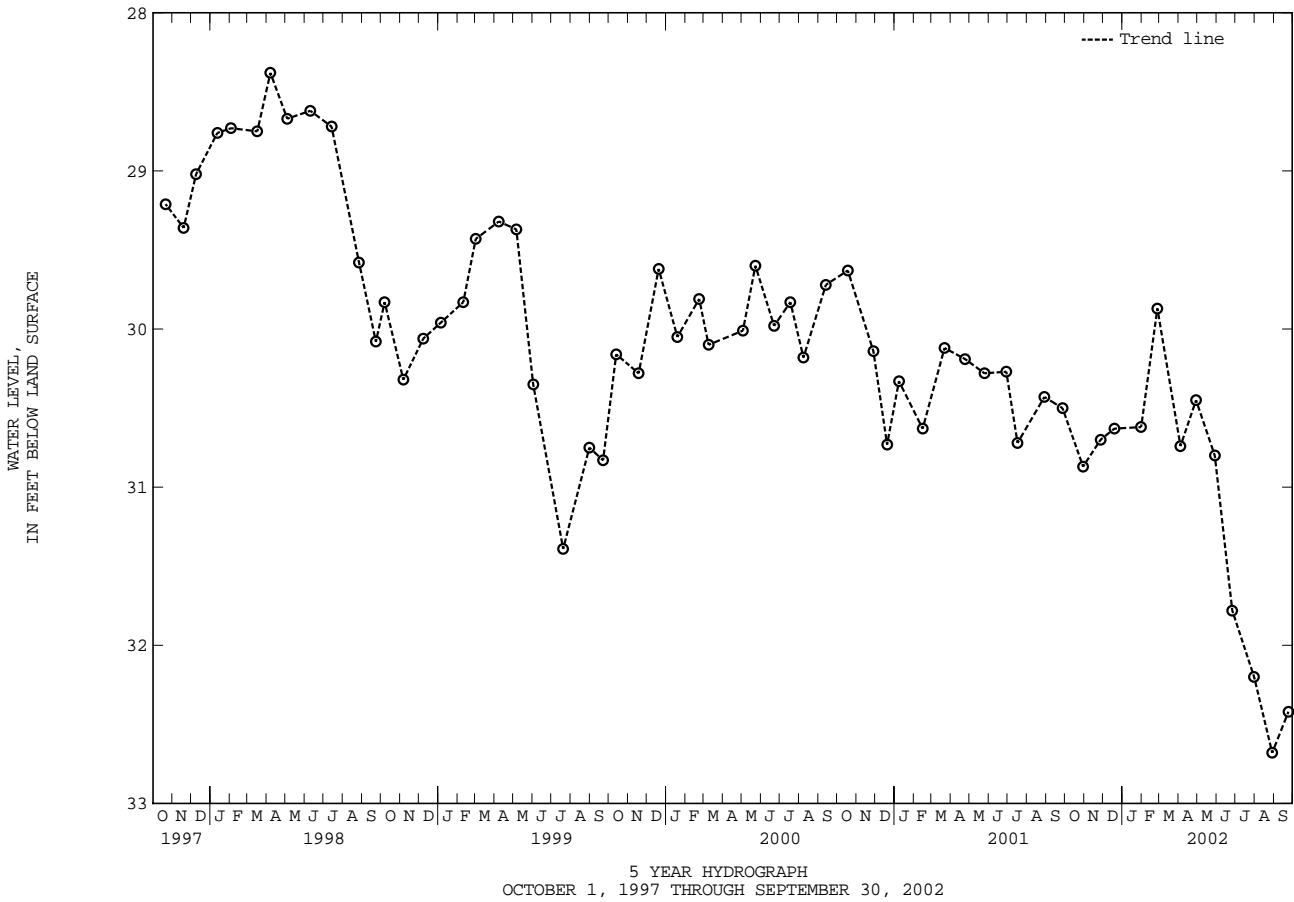
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.--August 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.84 ft below land surface, May 12, 1978;  
lowest measured, 32.68 ft below land surface, Aug. 29, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	30.87	JAN 31, 2002	30.62	APR 29, 2002	30.45	JUL 31, 2002	32.20
NOV 27	30.70	FEB 26	29.87	MAY 29	30.80	AUG 29	32.68
DEC 19	30.63	APR 04	30.74	JUN 26	31.78	SEP 24	32.42
WATER YEAR 2002		HIGHEST	29.87 FEB 26, 2002	LOWEST	32.68 AUG 29, 2002		



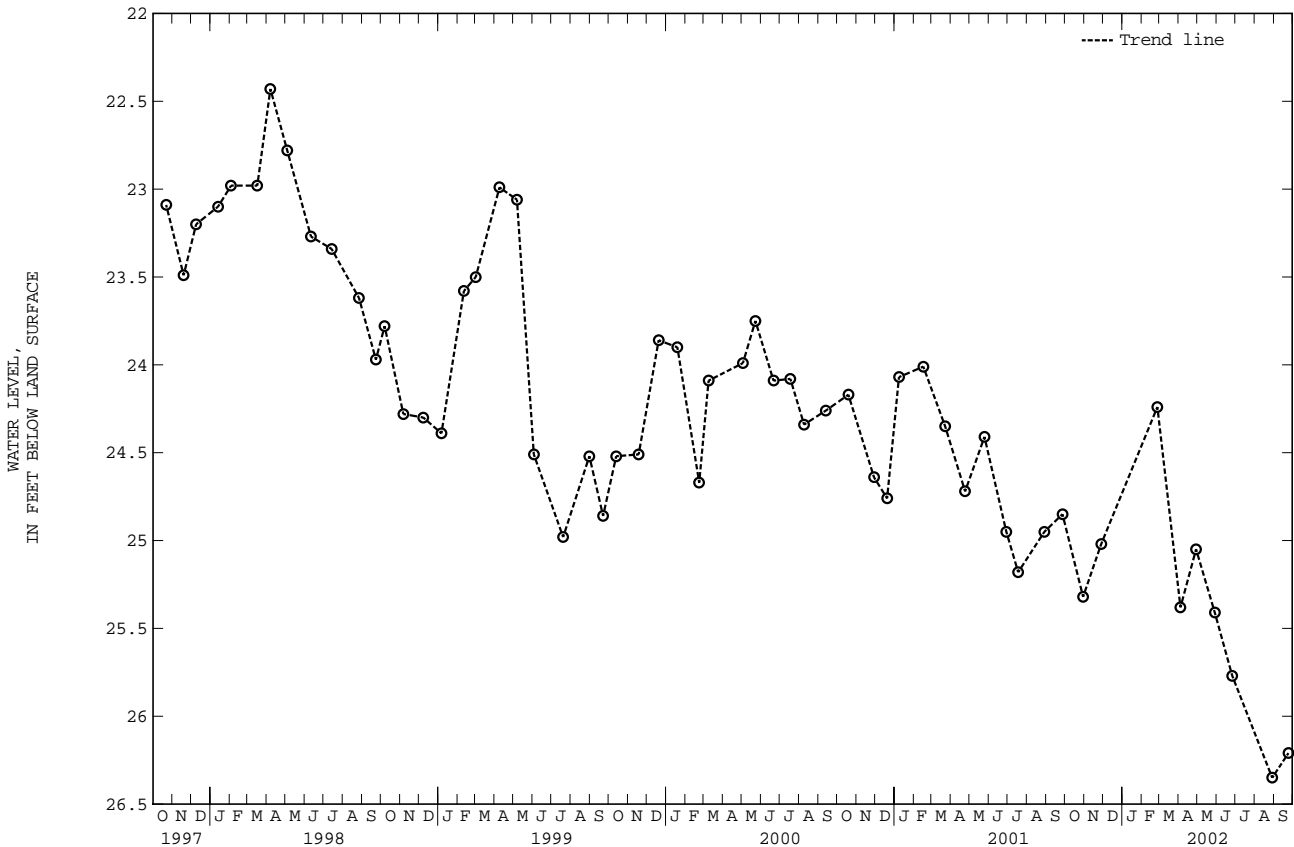
ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Fe 30. SITE ID.--380834076303401. PERMIT NUMBER.--SM-73-1917.  
 LOCATION.--Lat 38°08'34", long 76°30'34", Hydrologic Unit 02070011, St. Mary's Co. Metropolitan Commission Facility, Piney Point.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 270 ft; casing diameter 6 in., to 67 ft; casing diameter 2 in. from 67 to 260 ft; screen diameter 2 in. from 260 to 270 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with graphic water-level recorder from Oct. 12, 1988 to Oct. 12, 1994.  
 DATUM.--Elevation of land surface is 9 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.7 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--August 1976 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.24 ft below land surface, Oct. 6, 1976; lowest measured, 26.35 ft below land surface, Aug. 29, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	25.32	APR 04, 2002	25.38	JUN 26, 2002	25.77
NOV 28	25.02	29	25.05	AUG 29	26.35
FEB 26, 2002	24.24	MAY 29	25.41	SEP 24	26.21

WATER YEAR 2002      HIGHEST    24.24    FEB 26, 2002      LOWEST    26.35    AUG 29, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

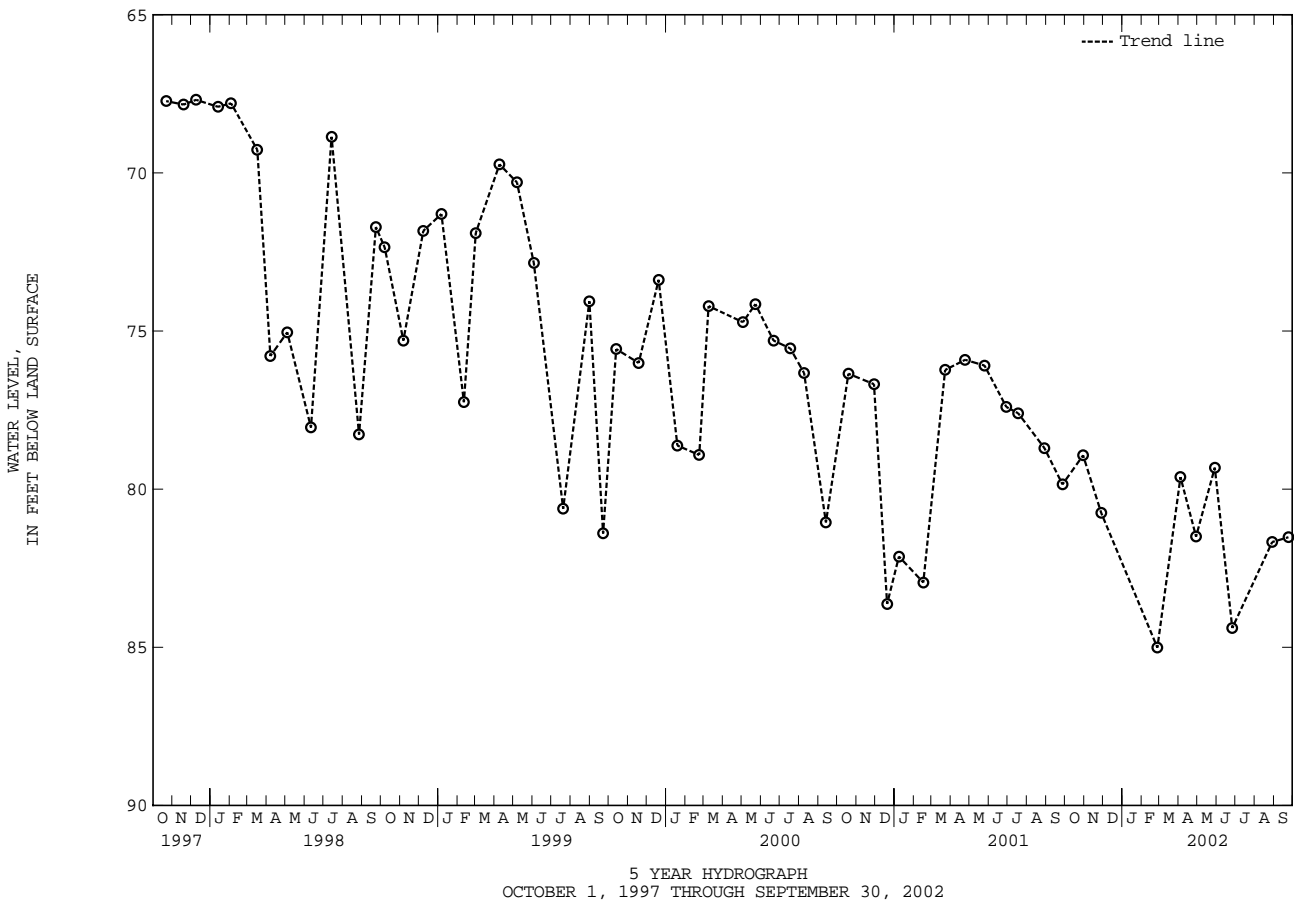
ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Fe 31. SITE ID.--380834076303402. PERMIT NUMBER.--SM-73-3088.  
 LOCATION.--Lat 38°08'34", long 76°30'34", Hydrologic Unit 02070011, St. Mary's Co. Metropolitan Commission Facility, Piney Point.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 639 ft; casing diameter 4 in., to 171 ft; casing diameter 2 in. from 171 to 451 ft; screen diameter 3 in. from 451 to 461 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 8 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 1.60 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--October 1978 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.77 ft below land surface, Dec. 5, 1978; lowest measured, 85.01 ft below land surface, Feb. 26, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	78.93	APR 04, 2002	79.62	JUN 26, 2002	84.39
NOV 28	80.75	29	81.50	AUG 29	81.67
FEB 26, 2002	85.01	MAY 29	79.32	SEP 24	81.52

WATER YEAR 2002 HIGHEST 78.93 OCT 30, 2001 LOWEST 85.01 FEB 26, 2002



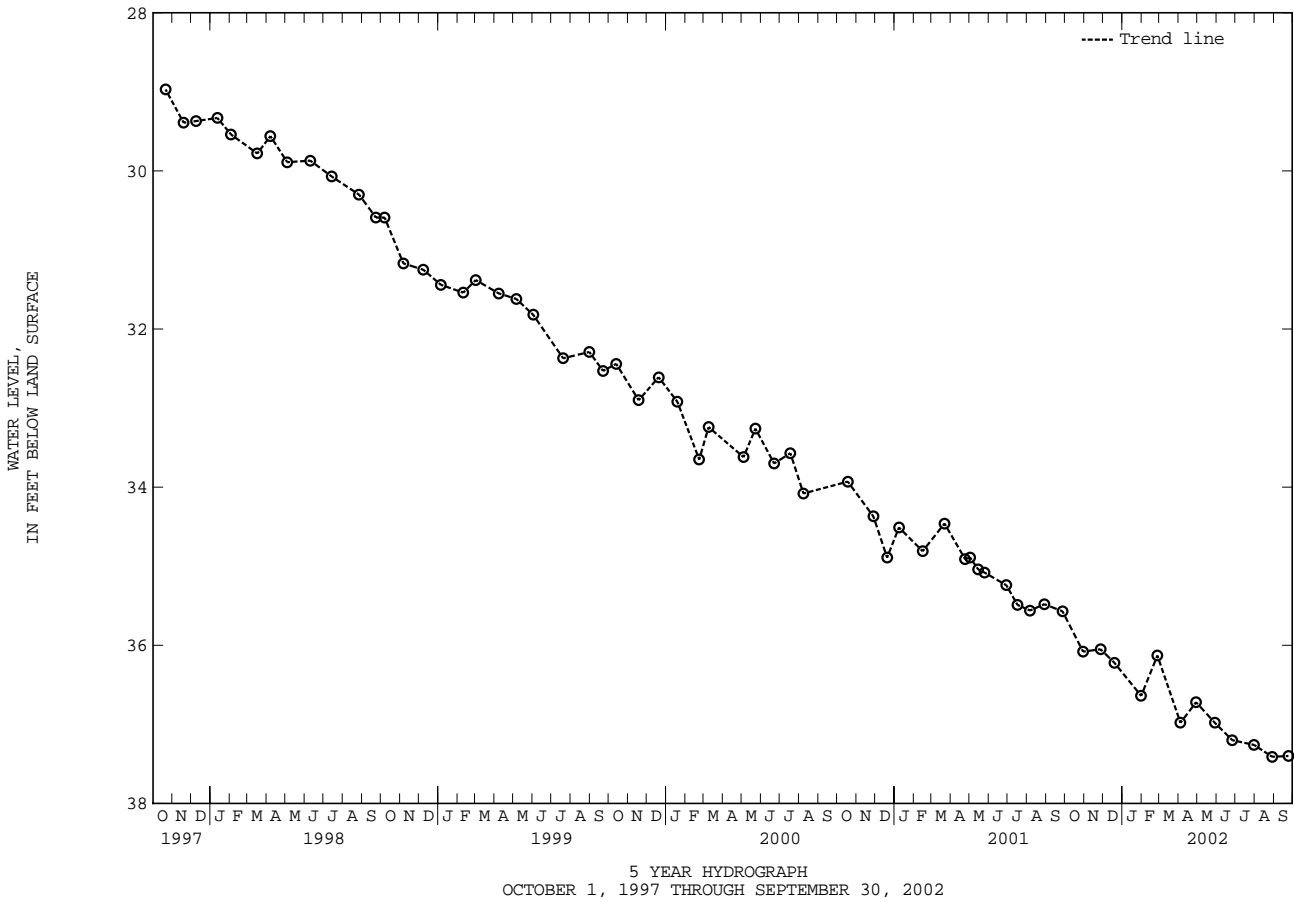
GROUND-WATER LEVELS IN MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Ff 36. SITE ID.--380724076251901. PERMIT NUMBER.--SM-73-1478.  
 LOCATION.--Lat 38°07'23", long 76°25'20", Hydrologic Unit 02070011, nr Kitts Point.  
 Owner: Jesuit Order.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, irrigation, artesian well, depth 618 ft; casing diameter 8 in., to 545 ft, and casing diameter 6 in. from 545 to 594 ft; screen diameter 6 in. from 594 to 618 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 Twice yearly water level measurements from September 1982 to September 1996.  
 DATUM.--Elevation of land surface is 5.50 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 1.5 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal.  
 PERIOD OF RECORD.--November 1978, September 1982 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.80 ft below land surface, Nov. 14, 1978; lowest measured, 37.41 ft below land surface, Aug. 29, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	36.08	JAN 31, 2002	36.64	APR 29, 2002	36.72	JUL 31, 2002	37.26
NOV 27	36.05	FEB 26	36.13	MAY 29	36.98	AUG 29	37.41
DEC 19	36.22	APR 04	36.98	JUN 26	37.20	SEP 24	37.40
WATER YEAR 2002 HIGHEST		36.05 NOV 27, 2001	LOWEST		37.41 AUG 29, 2002		



## ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Ff 64. SITE ID.--380821076255501.

LOCATION.--Lat 38°08'21", long 76°25'55", Hydrologic Unit 02070007, at Webster Field.

Owner: U.S. Navy.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, artesian well, depth 534 ft; casing depth unknown.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--30-minute recording interval, September 21, 1999 to current year.

DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of shelter platform, 3.00 ft above land surface.

REMARKS.--Naval Air Station Patuxent River Ground Water Hydrogeology project observation well.

Water levels are affected by nearby production well and regional ground-water withdrawal. Missing data due to recorder malfunction.

PERIOD OF RECORD.--September 1998 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 76.64 ft below sea level, Sept. 3, 1998; lowest measured, 155.15 ft below sea level, Sept. 30, 2002.

## WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-87.56	-146.08	-84.94	-89.94	-84.91	-89.69	---	---	-84.99	-140.57	---	---
2	---	---	-84.88	-142.59	-83.80	-84.91	-85.54	-103.76	-83.05	-84.99	-83.96	-88.14
3	---	---	-84.43	-86.75	-83.45	-144.94	-83.92	-131.99	-82.70	-146.10	-83.96	-145.77
4	---	---	-84.09	-143.44	-85.24	-96.65	-84.81	-147.48	-83.27	-86.79	-83.60	-146.34
5	-91.00	-146.66	-84.26	-87.15	-84.34	-143.50	-83.96	-88.55	---	---	-84.70	-98.10
6	---	---	-83.92	-143.13	-85.44	-146.71	-83.23	-146.10	---	---	-83.88	-147.51
7	---	---	-87.27	-141.75	-85.51	-95.27	-83.60	-87.20	-83.42	-141.14	-85.20	-145.17
8	---	---	-85.21	-145.65	-83.67	-143.25	---	---	---	---	-84.93	-108.10
9	-90.56	-138.22	-85.47	-94.48	-85.83	-142.04	-84.50	-98.25	-84.90	-102.00	-83.49	-142.14
10	---	---	-83.68	-85.47	-83.92	-87.41	-82.94	-84.50	-82.49	-84.90	-84.88	-122.77
11	---	---	-83.68	-143.72	-83.90	-145.13	---	---	---	---	---	---
12	-87.64	-146.12	-84.17	-86.82	-84.34	-138.49	-85.82	-144.15	-84.63	-146.12	-84.97	-91.65
13	-86.40	-141.77	-83.57	-141.96	-84.51	-147.85	-83.52	-88.30	-84.10	-92.64	---	---
14	-86.00	-98.20	-84.83	-92.14	-85.26	-109.84	-83.18	-128.08	---	---	-84.41	-90.42
15	-85.30	-146.94	-84.43	-141.94	-83.90	-85.26	-84.43	-135.89	-84.41	-97.62	-83.79	-136.17
16	-87.13	-143.14	-85.52	-99.31	-83.56	-123.08	-83.19	-85.57	-82.47	-84.41	-84.59	-142.21
17	-86.15	-101.44	-83.93	-85.52	-83.96	-144.64	---	---	-82.07	-144.50	-83.30	-86.84
18	-85.45	-143.17	-83.54	-145.48	-84.73	-143.56	-84.21	-146.15	-83.21	-87.03	-85.12	-147.93
19	-87.34	-145.40	-84.04	-87.45	-84.95	-96.90	-84.15	-98.36	-82.08	-83.43	-84.25	-143.77
20	-85.24	-89.11	-83.77	-146.59	-84.12	-146.69	-82.56	-84.15	---	---	-82.96	-147.04
21	-83.91	-138.04	-84.98	-126.32	-85.62	-96.79	-82.00	-145.30	-85.77	-110.84	-84.48	-145.27
22	-85.83	-145.40	-86.26	-144.17	-83.73	-120.20	-83.79	-136.15	-84.51	-127.12	-83.66	-146.34
23	-84.50	-143.54	-86.36	-146.00	-85.13	-141.69	-83.10	-86.46	-84.92	-141.29	-84.18	-94.28
24	-84.90	-93.72	-84.76	-104.91	-83.17	-85.13	-82.30	-147.28	-84.29	-146.71	-82.50	-84.18
25	-84.61	-146.39	-86.36	-143.16	-82.92	-143.22	-83.82	-93.07	-84.58	-147.99	---	---
26	-85.47	-127.42	-85.21	-120.81	-84.04	-143.94	-82.13	-83.82	-84.50	-126.02	-83.48	-96.17
27	-86.18	-144.70	-84.87	-143.66	-83.90	-91.80	-81.54	-82.13	-83.07	-84.50	-82.24	-104.47
28	-85.07	-89.09	-85.48	-143.22	-83.46	-144.04	-81.48	-146.12	---	---	-83.08	-144.40
29	-85.07	-144.73	-85.76	-106.95	-83.83	-87.97	---	---	---	---	---	---
30	-85.16	-125.18	-84.74	-146.23	-82.85	-83.83	-85.27	-111.32	---	---	-84.01	-95.75
31	-85.41	-146.42	---	---	-82.66	-145.81	-82.99	-145.48	---	---	-82.05	-84.01
MONTH	---	---	-83.54	-146.59	-82.66	-147.85	---	---	---	---	---	---

GROUND-WATER LEVELS IN MARYLAND--Continued

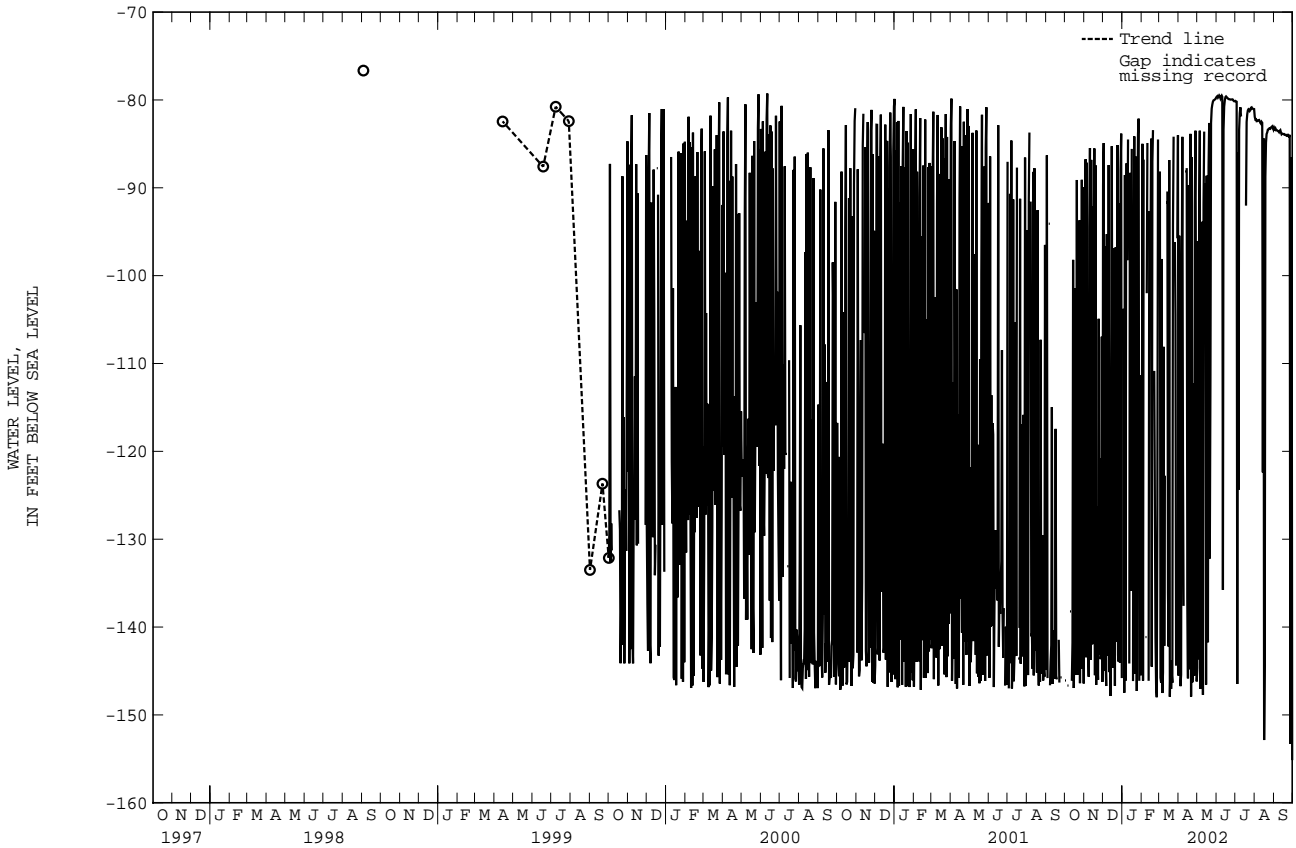
ST. MARYS COUNTY--Continued

SM Ff 64--Continued

WATER LEVELS, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-81.40	-145.53	-82.99	-144.66	-79.40	-79.64	-79.75	-80.11	-80.90	-81.93	-82.64	-83.14
2	-83.15	-95.45	-83.42	-96.11	-79.39	-79.57	-79.98	-80.16	-81.71	-82.23	-82.75	-83.30
3	-82.14	-109.49	-82.38	-143.66	-79.52	-79.73	-80.02	-80.20	-81.65	-82.20	-82.77	-83.22
4	-85.50	-146.73	-83.50	-92.93	-79.28	-79.61	-80.04	-146.48	-81.71	-82.42	-82.82	-83.44
5	-83.17	-145.43	-82.00	-83.50	-79.19	-79.48	-81.82	-85.93	-81.81	-82.41	-82.92	-83.42
6	-84.20	-101.56	-81.46	-147.05	-79.32	-79.59	-81.44	-124.37	-81.80	-82.33	-82.95	-83.47
7	-82.22	-84.20	-84.60	-110.84	-79.46	-79.81	-81.49	-83.39	-81.84	-82.30	-82.98	-83.54
8	-81.50	-121.35	-83.22	-145.27	-79.14	-79.59	-80.71	-81.49	-81.73	-82.28	-83.04	-83.57
9	-82.65	-137.59	-83.31	-93.87	-79.19	-79.49	-80.64	-80.84	-81.83	-82.44	-83.11	-83.67
10	---	---	-82.57	-147.72	-79.29	-79.64	-80.45	-81.88	-81.88	-82.61	-83.09	-83.50
11	---	---	-83.60	-91.79	-79.40	-135.77	---	---	-81.99	-82.71	-82.93	-83.43
12	-84.06	-88.14	-82.09	-83.60	-80.60	-83.37	---	---	-81.76	-82.50	-83.18	-83.70
13	---	---	---	---	-79.85	-80.77	---	---	-82.08	-82.60	-83.17	-83.91
14	-83.36	-87.76	-83.63	-89.53	-79.53	-80.07	---	---	-82.23	-122.39	-83.34	-83.84
15	-82.72	-136.60	-82.98	-146.55	-79.39	-79.68	---	---	-83.01	-84.37	-83.50	-83.86
16	-85.04	-145.84	-83.37	-88.62	-79.13	-79.60	---	---	-83.08	-152.86	-83.40	-83.89
17	-83.79	-89.70	-82.54	-136.40	-79.44	-79.68	---	---	-85.68	-144.27	-83.39	-83.88
18	-82.98	-144.80	-83.81	-141.73	-79.47	-79.75	-82.50	-92.03	-84.86	-88.74	-83.35	-83.97
19	-83.86	-93.43	-82.62	-87.62	-79.61	-79.83	-81.50	-82.50	-83.75	-84.86	-83.48	-83.97
20	-82.16	-83.86	-81.46	-82.62	-79.57	-79.90	-81.01	-81.61	-83.44	-83.88	-83.48	-83.97
21	-81.86	-147.91	-81.15	-132.19	-79.67	-79.91	-80.89	-81.18	-83.10	-83.69	-83.45	-84.08
22	-82.34	-86.50	-82.61	-111.69	-79.66	-79.93	-80.62	-81.05	-82.93	-83.38	-83.61	-84.06
23	-82.17	-146.29	-80.80	-82.61	-79.68	-79.96	-80.64	-81.10	-82.87	-83.35	-83.68	-83.99
24	-83.26	-143.88	-80.40	-80.99	-79.56	-79.95	-80.84	-81.25	-82.86	-83.25	-83.66	-84.13
25	-83.91	-112.26	-80.18	-80.53	-79.67	-79.95	-80.57	-81.15	-82.69	-83.23	-83.63	-84.18
26	-82.59	-145.52	-79.92	-80.19	-79.52	-79.93	-80.66	-80.88	-82.67	-83.27	-83.45	-83.96
27	-83.50	-92.09	-79.76	-80.04	-79.57	-79.96	-80.26	-80.84	-82.86	-83.13	-83.38	-153.27
28	-81.73	-83.50	-79.75	-80.01	-79.62	-80.09	-80.61	-80.98	-82.69	-83.07	-86.50	-100.49
29	-81.30	-106.11	-79.46	-79.95	-79.79	-80.15	-80.80	-81.01	-82.64	-83.00	-85.02	-86.50
30	-81.91	-146.19	-79.58	-79.90	-79.94	-80.15	-80.55	-81.02	-82.66	-83.18	-84.84	-155.15
31	---	---	-79.17	-79.75	---	---	-80.84	-81.04	-82.97	-83.37	---	---
MONTH	---	---	---	---	-79.13	-135.77	---	---	-80.90	-152.86	-82.64	-155.15

Daily Low Water Levels



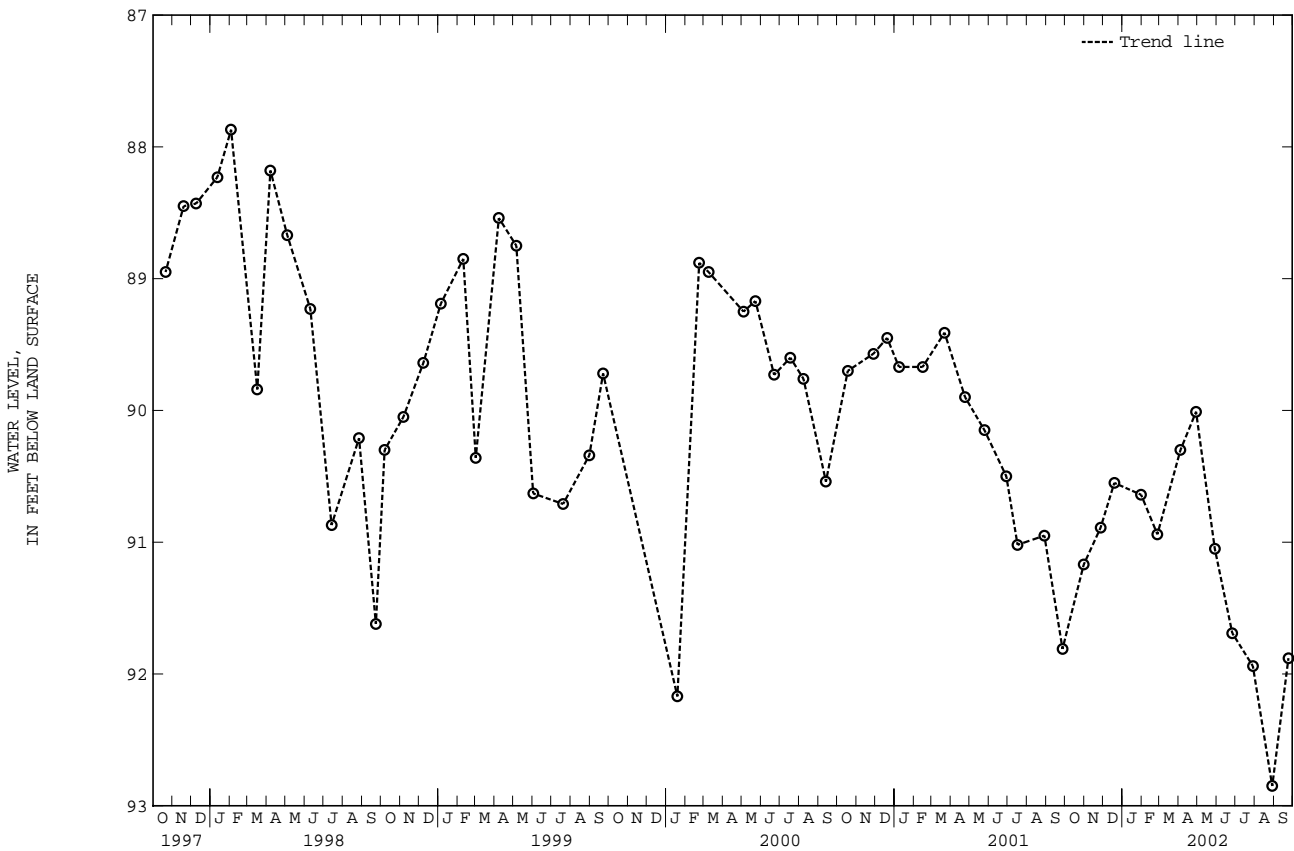
5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Fg 45. SITE ID.--38071107622201. PERMIT NUMBER.--SM-04-5190.  
 LOCATION.--Lat 38°07'11", long 76°22'22", Hydrologic Unit 02070011, in Ridge Volunteer Fire Department pumphouse, at Ridge.  
 Owner: Ridge Volunteer Fire Department.  
 AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 436 ft; casing diameter 6 in., to 386 ft;  
 casing diameter 4 in. from 415 to 436 ft; screen diameter 5 in. from 386 to 415 ft.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 65 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Hole in sanitary seal, 0.55 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional  
 ground-water withdrawal.  
 PERIOD OF RECORD.--May 1966 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 74.83 ft below land surface, May 16, 1967;  
 lowest measured, 92.85 ft below land surface, Aug. 29, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 2001	91.17	JAN 31, 2002	90.64	APR 29, 2002	90.01	JUL 29, 2002	91.94
NOV 27	90.89	FEB 26	90.94	MAY 29	91.05	AUG 29	92.85
DEC 19	90.55	APR 04	90.30	JUN 26	91.69	SEP 24	91.88
WATER YEAR 2002		HIGHEST	90.01	APR 29, 2002	LOWEST	92.85	AUG 29, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

SOMERSET COUNTY

WELL NUMBER.--SO Be 42. SITE ID.--381156075412501.

LOCATION.--Lat 38°11'56", long 75°41'25", Hydrologic Unit 02060009, .1 mi northeast of US Rt. 13 and Hampton Ave., Princess Anne.

Owner: E. Mace Smith.

AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, measured depth 184 ft; casing diameter 2 in., to unknown depth.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 17 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.28 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

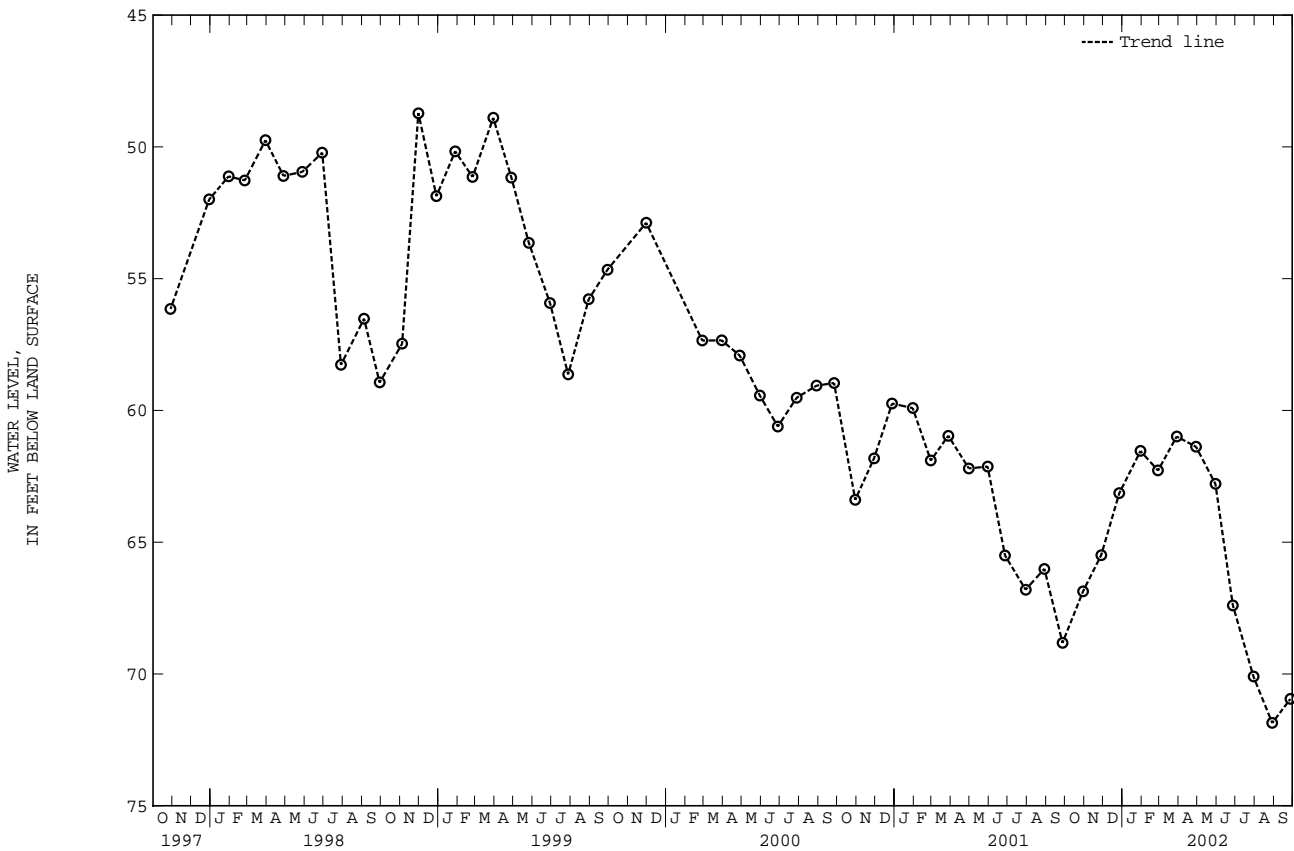
PERIOD OF RECORD.--August 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.15 ft below land surface, May 1, 1953; lowest measured, 71.86 ft below land surface, Aug. 29, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	66.86	JAN 30, 2002	61.54	APR 29, 2002	61.38	JUL 30, 2002	70.10
NOV 28	65.49	FEB 27	62.28	MAY 30	62.79	AUG 29	71.86
DEC 27	63.14	MAR 29	60.99	JUN 27	67.40	SEP 27	70.95

WATER YEAR 2002      HIGHEST    60.99    MAR 29, 2002      LOWEST    71.86    AUG 29, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



## SOMERSET COUNTY--Continued

WELL NUMBER.--SO Ce 42. SITE ID.--380927075423701. PERMIT NUMBER.--SO-81-0394.

LOCATION.--Lat 38°09'30", Long 75°41'56", Hydrologic Unit 02060009, at Eastern Shore Correctional Institution.

Owner: Maryland Department of Correction.

AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 215 ft; casing diameter 4 in., to 185 ft; screen diameter 4 in. from 185 to 215 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recording interval, from Jan. 2, 1986 to current year.

DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of recorder shelf, 2.10 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal. Missing data due to recorder malfunction.

PERIOD OF RECORD.--January 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.32 ft below land surface, Aug. 27, 1984; lowest measured, 51.90 ft below land surface, Aug. 7, 1991 (recorder).

## WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	43.04	42.73	43.53	43.35	42.60	42.45	41.94	41.80	40.80	40.54	40.49	40.40
2	43.50	42.91	43.42	43.22	42.58	42.48	41.94	41.83	40.83	40.73	40.49	40.32
3	43.73	43.41	43.29	43.09	42.55	42.38	41.86	41.69	40.82	40.65	40.32	40.14
4	43.75	43.60	43.20	42.99	42.51	42.35	41.74	41.64	40.68	40.53	40.36	40.25
5	43.70	43.43	43.07	42.96	42.77	42.51	41.68	41.55	40.67	40.57	40.40	40.36
6	43.50	43.29	43.05	42.91	43.20	42.77	41.59	41.30	40.63	40.53	40.39	40.33
7	43.36	43.21	42.97	42.83	43.52	43.20	41.40	41.31	40.57	40.43	40.41	40.35
8	43.25	43.13	42.93	42.78	43.60	43.40	41.42	41.35	40.51	40.43	40.41	40.37
9	43.16	43.07	42.88	42.79	43.44	43.34	41.35	41.22	40.58	40.43	40.41	40.29
10	43.35	43.15	42.85	42.61	43.35	43.05	41.32	41.26	40.55	40.38	40.42	40.26
11	43.45	43.35	42.82	42.61	43.06	42.86	41.28	41.18	40.52	40.30	40.46	40.41
12	43.39	43.14	42.83	42.71	42.91	42.73	41.26	41.13	40.52	40.32	40.43	40.35
13	43.22	42.99	42.78	42.66	42.73	42.49	41.18	41.01	40.48	40.36	40.37	40.21
14	43.03	42.74	42.75	42.61	42.59	42.36	41.18	41.08	40.49	40.40	40.33	40.23
15	42.85	42.64	42.70	42.57	42.54	42.40	41.13	41.03	40.47	40.33	40.32	40.21
16	42.90	42.69	42.67	42.53	42.54	42.34	41.11	41.01	40.42	40.34	40.38	40.21
17	43.05	42.79	42.68	42.58	42.39	42.08	41.06	40.92	40.40	40.30	40.41	40.33
18	43.06	42.94	42.66	42.46	42.15	41.96	40.98	40.91	40.46	40.40	40.33	40.18
19	42.99	42.76	42.60	42.44	42.17	41.99	40.98	40.78	40.45	40.30	40.31	40.23
20	43.00	42.75	42.56	42.43	42.06	41.95	40.87	40.78	40.37	40.24	40.30	40.05
21	43.05	42.93	42.57	42.45	42.07	42.02	40.84	40.71	40.35	40.21	40.21	40.12
22	43.00	42.82	42.51	42.41	42.11	41.99	40.88	40.76	40.38	40.29	40.28	40.17
23	42.89	42.71	42.50	42.43	42.01	41.78	41.10	40.88	40.42	40.34	40.29	40.21
24	42.98	42.77	42.47	42.36	41.81	41.72	41.17	41.10	40.43	40.33	40.30	40.25
25	43.35	42.98	42.44	42.28	41.83	41.70	41.22	41.13	40.42	40.25	40.34	40.26
26	43.47	43.35	42.39	42.28	41.75	41.65	41.17	41.03	40.34	40.15	40.30	40.12
27	43.45	43.33	42.53	42.32	41.69	41.49	41.09	40.98	40.35	40.20	40.24	40.04
28	43.35	43.22	42.75	42.50	41.67	41.51	41.01	40.87	40.46	40.27	40.27	40.16
29	43.28	43.14	42.75	42.59	41.65	41.51	40.92	40.76	---	---	40.25	40.10
30	43.53	43.21	42.64	42.44	41.67	41.57	40.86	40.71	---	---	40.21	40.02
31	43.58	43.47	---	---	41.81	41.64	40.86	40.70	---	---	40.21	40.07
MONTH	43.75	42.64	43.53	42.28	43.60	41.49	41.94	40.70	40.83	40.15	40.49	40.02

GROUND-WATER LEVELS IN MARYLAND--Continued

SOMERSET COUNTY--Continued

SO Ce 42--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	40.11	39.94	40.65	40.54	40.91	40.80	42.54	42.45	45.17	44.84	46.09	45.79
2	40.12	40.02	40.63	40.36	40.91	40.79	42.72	42.50	45.32	45.16	45.92	45.72
3	40.10	39.94	40.57	40.41	40.97	40.87	42.93	42.72	45.25	45.10	45.94	45.72
4	40.16	40.10	40.61	40.53	40.96	40.86	43.16	42.89	45.18	45.00	46.28	45.84
5	40.13	40.09	40.55	40.48	40.95	40.82	43.58	43.15	45.21	45.00	46.59	46.20
6	40.16	40.07	40.50	40.36	40.99	40.85	43.74	43.58	45.42	45.09	46.63	46.47
7	40.19	40.11	40.40	40.32	41.26	40.85	43.70	43.58	45.39	45.25	46.51	46.33
8	40.16	40.04	40.42	40.33	41.64	41.22	43.62	43.47	45.31	45.15	46.48	46.27
9	40.16	40.06	40.39	40.27	42.06	41.58	43.52	43.37	45.46	45.13	46.51	46.33
10	40.23	40.08	40.43	40.22	42.15	41.97	43.70	43.42	45.51	45.33	46.46	46.14
11	40.24	40.20	40.47	40.36	42.09	41.93	43.84	43.65	45.49	45.27	46.64	46.11
12	40.23	40.12	40.47	40.37	41.96	41.79	43.80	43.65	45.37	45.16	46.91	46.64
13	40.20	40.12	40.41	40.26	41.90	41.78	43.84	43.69	45.26	45.11	46.96	46.76
14	40.19	40.10	40.65	40.18	41.83	41.55	44.08	43.78	45.34	45.12	46.98	46.81
15	40.18	40.06	41.11	40.65	41.85	41.57	44.15	44.01	45.68	45.34	47.25	46.90
16	40.17	40.08	41.17	41.09	42.01	41.80	44.13	44.01	45.84	45.68	47.33	47.05
17	40.17	40.07	41.14	41.02	42.05	41.90	44.09	43.91	45.84	45.65	47.22	47.05
18	40.18	40.09	41.06	40.87	41.99	41.84	44.18	43.92	45.69	45.52	47.17	47.04
19	40.22	40.12	41.02	40.88	41.94	41.81	44.57	44.12	45.58	45.45	47.15	46.98
20	40.59	40.22	40.91	40.82	41.92	41.78	44.82	44.51	45.71	45.43	47.22	47.08
21	40.76	40.59	40.86	40.78	41.89	41.76	44.77	44.62	46.07	45.70	47.21	47.02
22	40.69	40.53	40.84	40.72	41.87	41.75	44.67	44.54	46.13	45.98	47.21	47.05
23	40.69	40.59	40.91	40.71	41.85	41.71	44.58	44.45	46.06	45.92	47.12	46.92
24	40.66	40.58	41.24	40.86	42.11	41.74	44.77	44.45	46.04	45.79	46.96	46.74
25	40.81	40.55	41.38	41.18	42.26	42.05	44.87	44.70	45.98	45.74	47.14	46.85
26	41.03	40.76	41.34	41.18	42.25	42.11	44.86	44.66	46.26	45.94	47.22	47.04
27	41.05	40.90	41.24	41.07	42.45	42.08	44.89	44.64	46.34	46.21	47.14	46.82
28	40.98	40.65	41.16	41.01	42.61	42.41	44.93	44.81	46.31	46.06	46.97	46.86
29	40.77	40.56	41.08	40.95	42.64	42.55	44.89	44.70	46.06	45.84	46.93	46.67
30	40.77	40.58	41.03	40.86	42.60	42.49	44.77	44.63	46.11	45.94	46.70	46.55
31	---	---	40.93	40.79	---	---	44.84	44.67	46.20	46.08	---	---
MONTH	41.05	39.94	41.38	40.18	42.64	40.79	44.93	42.45	46.34	44.84	47.33	45.72
YEAR	47.33	39.94										

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

SOMERSET COUNTY--Continued

WELL NUMBER.--SO Cf 2. SITE ID.--380616075380701.

LOCATION.--Lat 38°06'16", long 75°38'07", Hydrologic Unit 02060009, on U.S. Rt. 13, 4.5 mi west of intersection of U.S. Rt. 13, and MD Rt. 364, near Costen.

Owner: Maryland State Highway Administration.

AQUIFER.--Kent Island Formation (Columbia aquifer) of Pleistocene age. Aquifer code: 112KILD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 15 ft; casing diameter 1.25 in., to unknown depth.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.00 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by natural climatic response.

PERIOD OF RECORD.--August 1949 to current year.

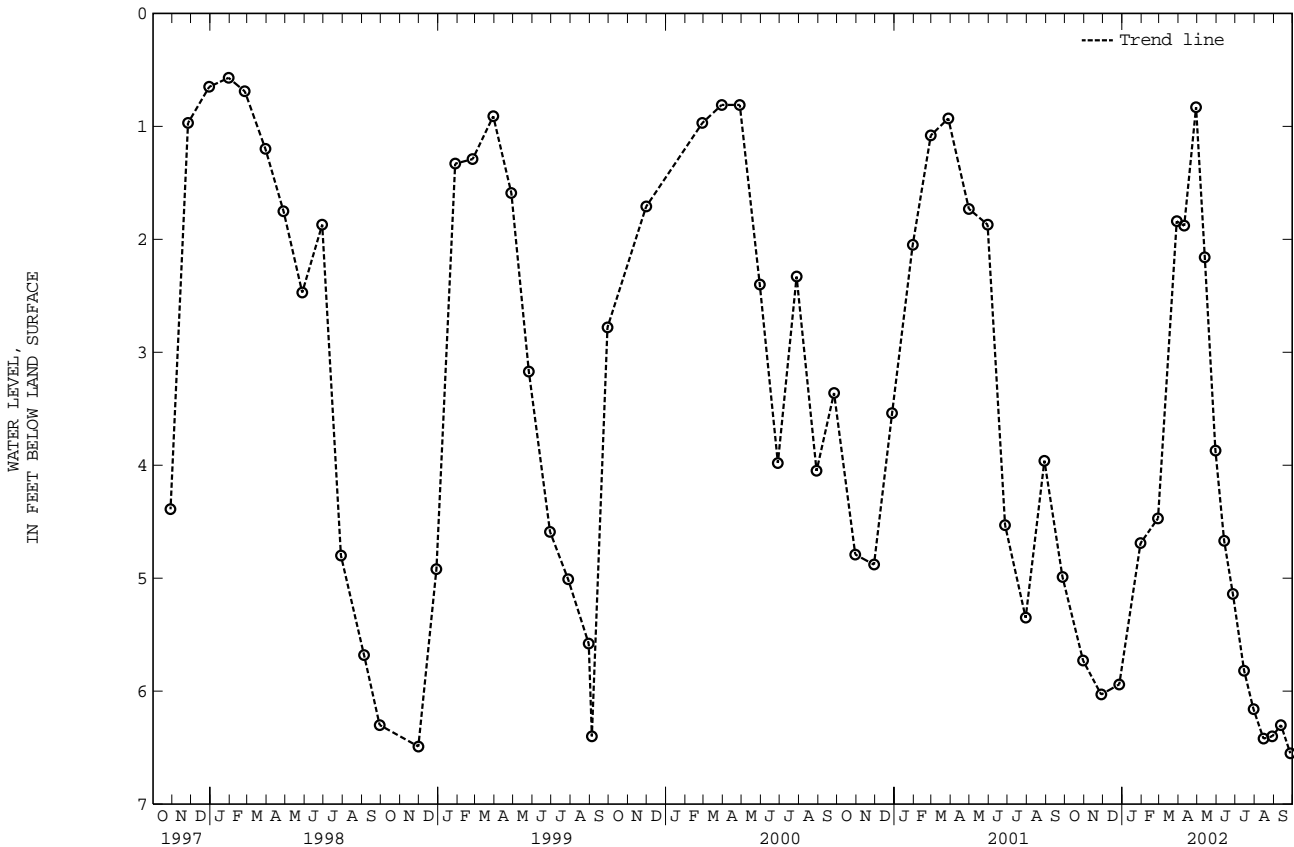
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.28 ft below land surface, May 9, 1958;

lowest measured, 6.55 ft below land surface, Sept. 27, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	5.73	MAR 29, 2002	1.84	JUN 13, 2002	4.67	AUG 29, 2002	6.40
NOV 28	6.03	APR 10	1.88	27	5.14	SEP 12	6.30
DEC 27	5.94	29	.83	JUL 15	5.82	27	6.55
JAN 30, 2002	4.69	MAY 13	2.16	30	6.16		
FEB 27	4.47	30	3.87	AUG 15	6.42		

WATER YEAR 2002      HIGHEST      .83      APR 29, 2002      LOWEST      6.55      SEP 27, 2002



TALBOT COUNTY

WELL NUMBER.--TA Bf 73. SITE ID.--385242075593101. PERMIT NUMBER.--TA-02-1641.

LOCATION.--Lat 38°52'42", long 75°59'31", Hydrologic Unit 02060005, in Cordova.

Owner: Allen Foods.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 288 ft; casing diameter 4 in., to 276 ft; casing diameter 2 in. from 276 to 283 ft; screen diameter 3 in. from 283 to 288 ft.

INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 42 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.50 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well. A water level was reported by the driller as 26 ft below land surface on Dec. 16, 1955. A water level was measured at 26.64 ft below land surface on March 10, 1956. Water levels are affected by local ground-water withdrawal.

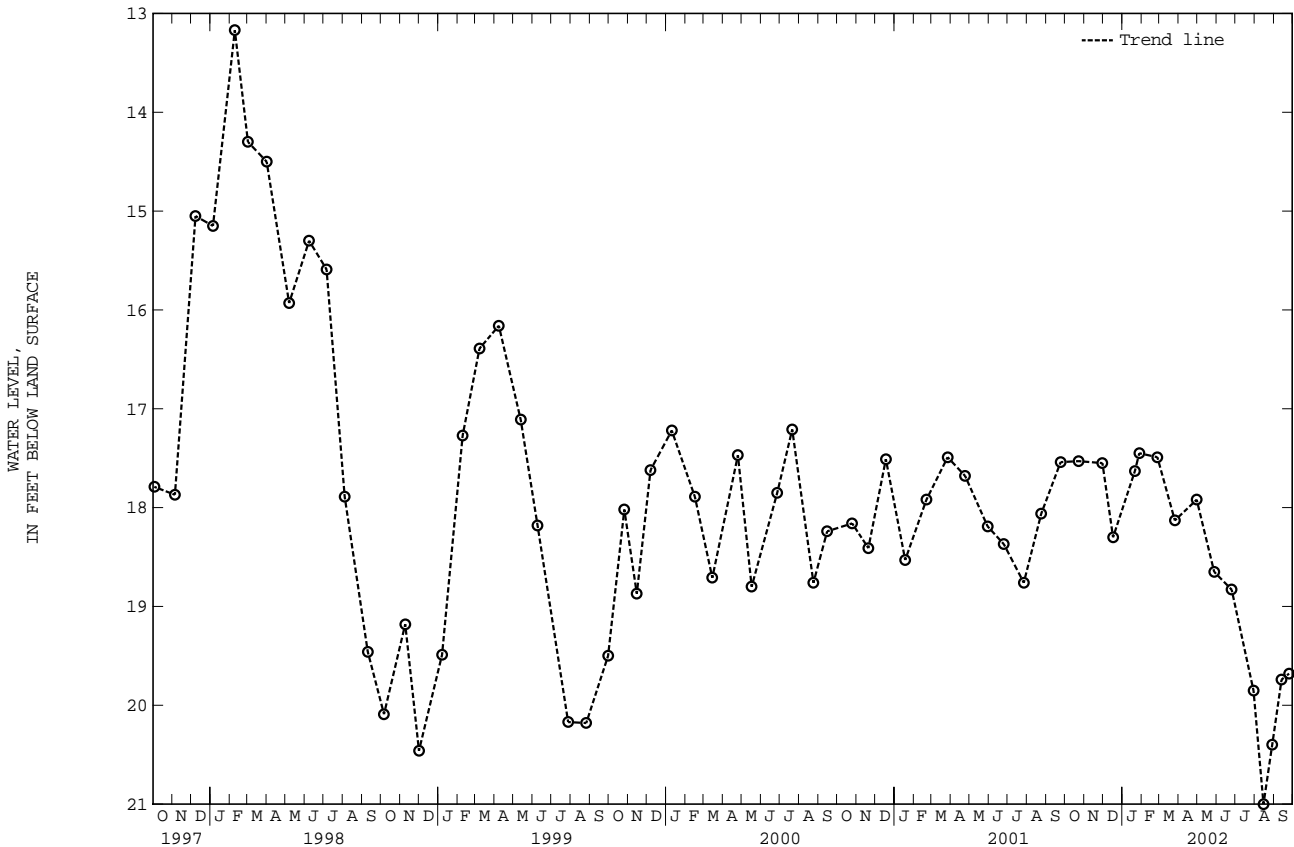
PERIOD OF RECORD.--March 1956, December 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.29 ft below land surface, May 4, 1961; lowest measured, 76.57 ft below land surface, Dec. 6, 1974.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	17.53	JAN 28, 2002	17.45	MAY 28, 2002	18.65	AUG 29, 2002	20.40
NOV 30	17.55	FEB 26	17.49	JUN 25	18.83	SEP 13	19.74
DEC 17	18.30	MAR 26	18.13	JUL 30	19.85	25	19.68
JAN 21, 2002	17.63	APR 30	17.92	AUG 15	21.00		

WATER YEAR 2002      HIGHEST    17.45    JAN 28, 2002      LOWEST    21.00    AUG 15, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

TALBOT COUNTY--Continued

WELL NUMBER.--TA Bf 74. SITE ID.--385242075593102. PERMIT NUMBER.--TA-02-1805.

LOCATION.--Lat 38°52'42", long 75°59'31", Hydrologic Unit 02060005, in Cordova.

Owner: Allen Foods.

AQUIFER.--Pensauken Formation (Columbia aquifer) of Upper Miocene age. Aquifer code: 122PNSK.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 48.4 ft; casing diameter 4 in., to 42.5 ft; screen diameter 3 in. from 43.2 to 48.4 ft.

INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 42 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.96 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local ground-water withdrawal.

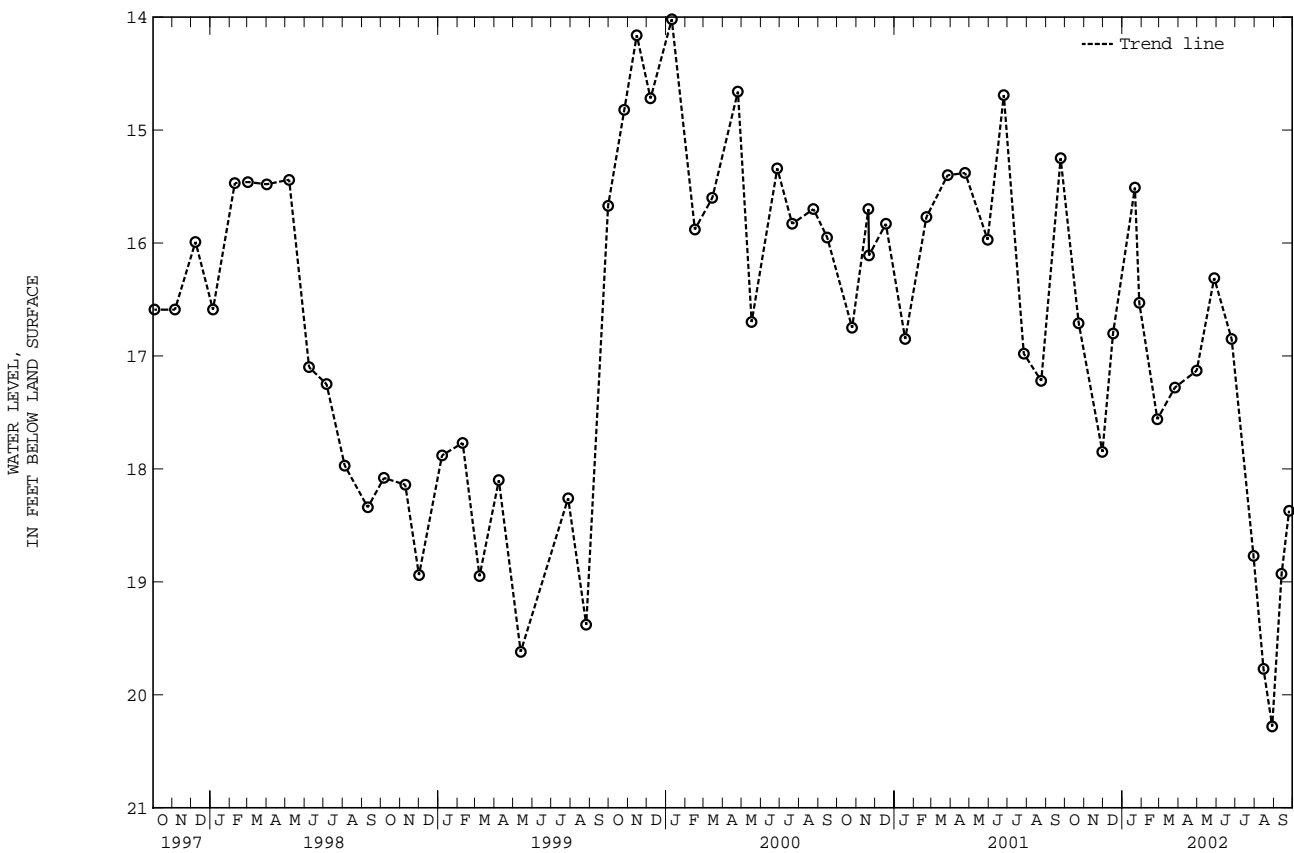
PERIOD OF RECORD.--April 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.48 ft below land surface, Dec. 14, 1971; lowest measured, 21.36 ft below land surface, November 2, 1993.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	16.71	JAN 28, 2002	16.53	MAY 28, 2002	16.31	AUG 29, 2002	20.28
NOV 30	17.85	FEB 26	17.56	JUN 25	16.85	SEP 13	18.93
DEC 17	16.80	MAR 26	17.28	JUL 30	18.77	25	18.37
JAN 21, 2002	15.51	APR 30	17.13	AUG 15	19.77		

WATER YEAR 2002      HIGHEST    15.51    JAN 21, 2002      LOWEST    20.28    AUG 29, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

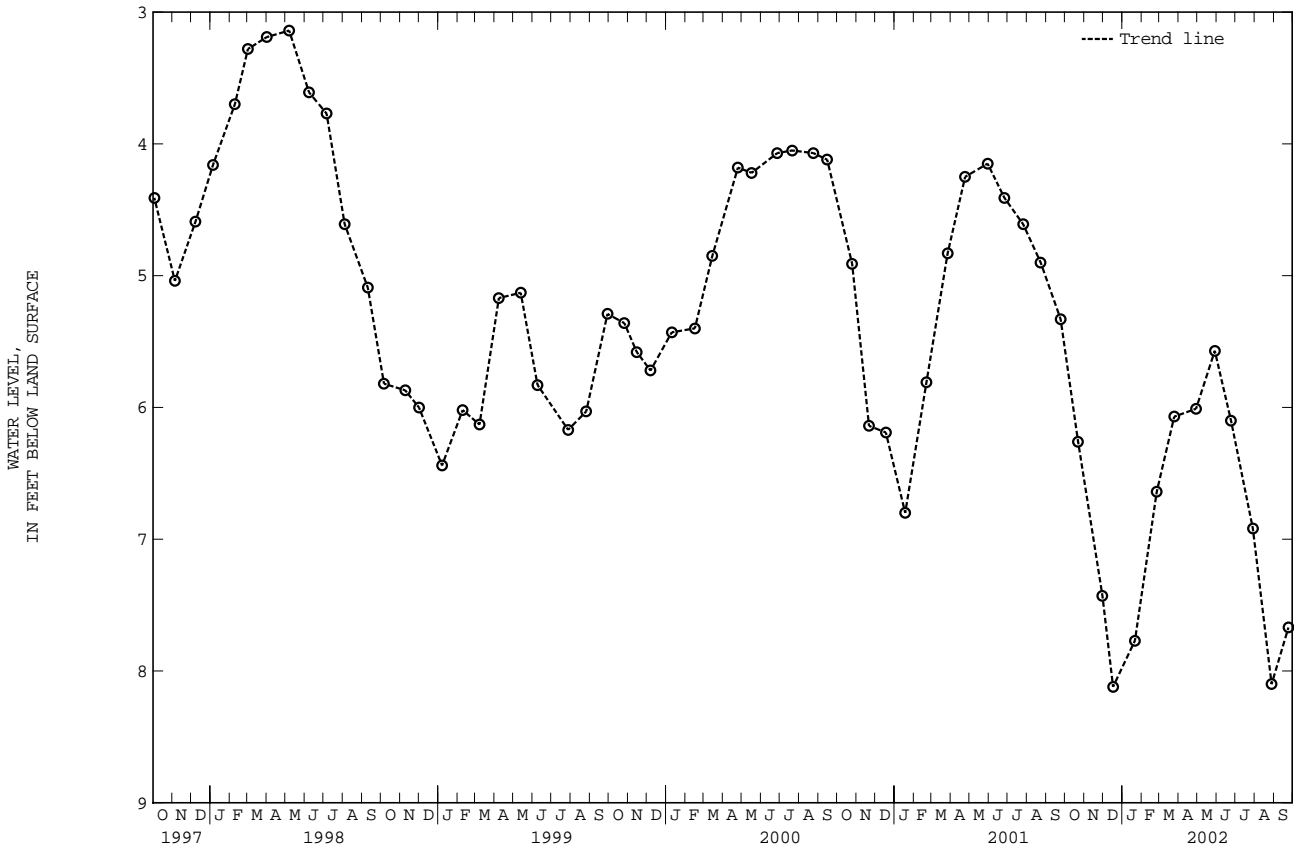
GROUND-WATER LEVELS IN MARYLAND--Continued

TALBOT COUNTY--Continued

WELL NUMBER.--TA Cc 35. SITE ID.--384923076100601. PERMIT NUMBER.--TA-73-0767.  
 LOCATION.--Lat 38°49'23", long 76°10'06", Hydrologic Unit 02060002, in Tunis Mills.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 180 ft; casing diameter 6 to 2 in.;  
 screened from 170 to 180 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 1.28 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water  
 withdrawal.  
 PERIOD OF RECORD.--August 1976 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.97 ft below land surface, April 2, 1980;  
 lowest measured, 8.12 ft below land surface, Dec. 17, 2001.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 2001	6.26	JAN 21, 2002	7.77	APR 29, 2002	6.01	JUL 29, 2002	6.92
NOV 30	7.43	FEB 25	6.64	MAY 29	5.57	AUG 28	8.10
DEC 17	8.12	MAR 25	6.07	JUN 24	6.10	SEP 24	7.67
WATER YEAR 2002		HIGHEST	5.57	MAY 29, 2002	LOWEST	8.12	DEC 17, 2001



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

TALBOT COUNTY--Continued

WELL NUMBER.--TA Cc 36. SITE ID.--384514076103701. PERMIT NUMBER.--TA-73-0751.

LOCATION.--Lat 38°45'14", long 76°10'37", Hydrologic Unit 02060002, in Newcomb.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 241 ft; casing diameter 6 in., to 51 ft; casing diameter 2 in. from 51 to 231 ft; screen diameter 2 in. from 231 to 241 ft.

INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 7 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.40 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.--October 1976 to current year.

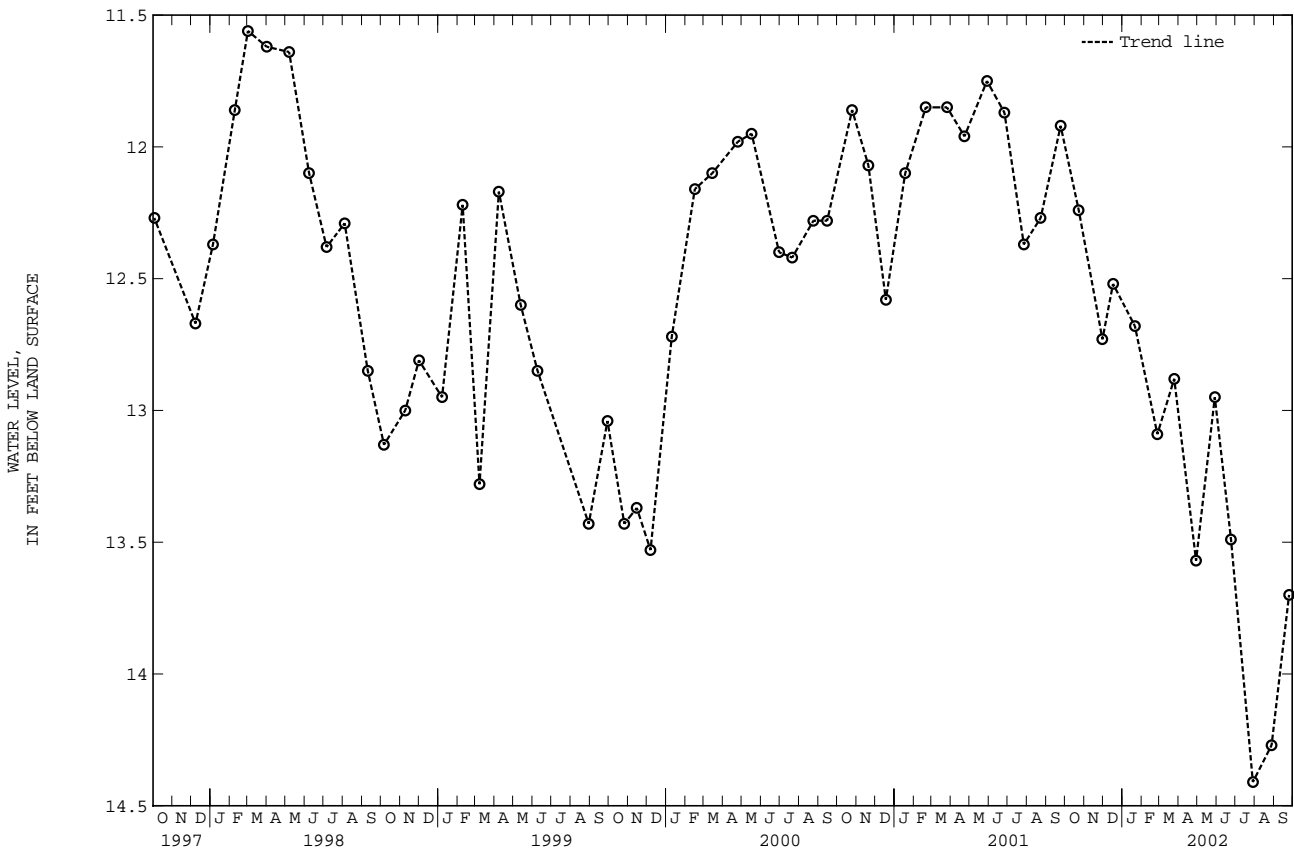
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.89 ft below land surface, April 2, 1980;

lowest measured, 14.41 ft below land surface, July 29, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 2001	12.24	JAN 21, 2002	12.68	APR 29, 2002	13.57	JUL 29, 2002	14.41
NOV 30	12.73	FEB 26	13.09	MAY 29	12.95	AUG 28	14.27
DEC 17	12.52	MAR 25	12.88	JUN 24	13.49	SEP 25	13.70

WATER YEAR 2002      HIGHEST    12.24    OCT 23, 2001      LOWEST    14.41    JUL 29, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

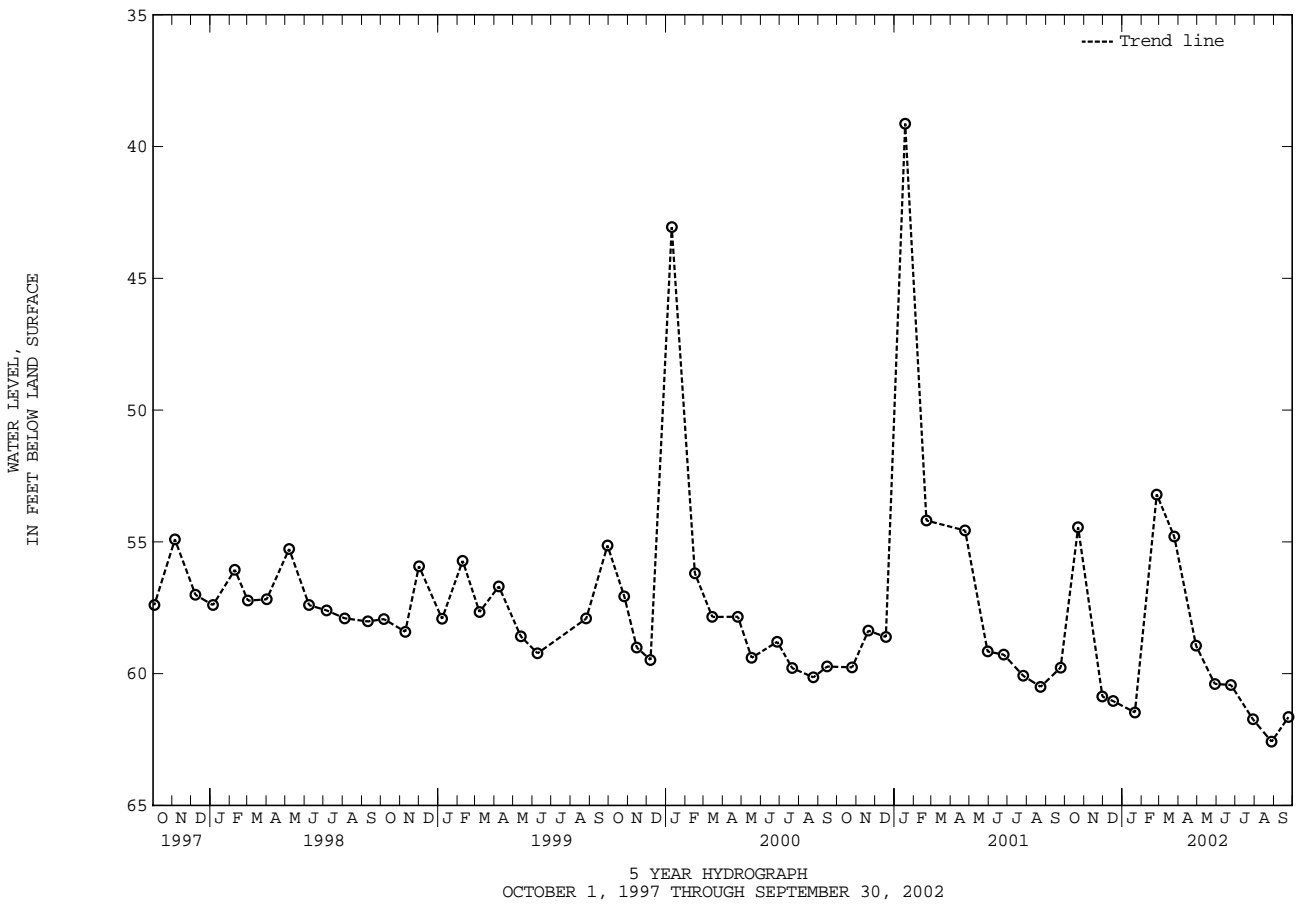
GROUND-WATER LEVELS IN MARYLAND--Continued

TALBOT COUNTY--Continued

WELL NUMBER.--TA Cd 57. SITE ID.--384709076050301. PERMIT NUMBER.--TA-88-1328.  
 LOCATION.--Lat 38°47'09", long 076°05'03", Hydrologic Unit 02060005, in Easton, 0.3 mi southwest of the intersection with Glebe Rd and Commerce Drive..  
 Owner: Easton Utilities Commission.  
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.  
 WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 1,198 ft; casing diameter 4 in., to 295 ft; casing diameter 2 in. from 260 to 1,137 ft, and 1,158 to 1,198 ft; screen diameter 2 in. from 1,137 to 1,158 ft.  
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.  
 DATUM.--Elevation of land surface is 12 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 3.78 ft above land surface.  
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--October 1995 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.42 ft below land surface, March 4, 1996; lowest measured, 62.58 ft below land surface, Aug. 28, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 2001	54.45	JAN 21, 2002	61.47	APR 29, 2002	58.94	JUL 29, 2002	61.73
NOV 30	60.87	FEB 25	53.20	MAY 29	60.39	AUG 28	62.58
DEC 17	61.04	MAR 25	54.80	JUN 24	60.43	SEP 24	61.65
WATER YEAR 2002 HIGHEST		53.20 FEB 25, 2002	LOWEST		62.58	AUG 28, 2002	





TALBOT COUNTY--Continued

WELL NUMBER.--TA Ce 7. SITE ID.--384643076043801.

LOCATION.--Lat 38°46'43", long 76°04'38", Hydrologic Unit 02060005, off Washington St., in Easton.

Owner: Easton Utilities Commission.

AQUIFER.--Cheswold aquifer in the Calvert Formation of Lower Miocene age. Aquifer code: 122CSLD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, measured depth 104 ft; casing diameter 4 in., to 95 ft; screen diameter 4 in. from 95 to 102 ft.

INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey or Maryland Geological Survey personnel.

DATUM.--Elevation of land surface is 13 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.40 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well. A water level was reported as 43.43 ft below land surface on

Oct. 7, 1948. Water levels are affected by local ground-water withdrawal.

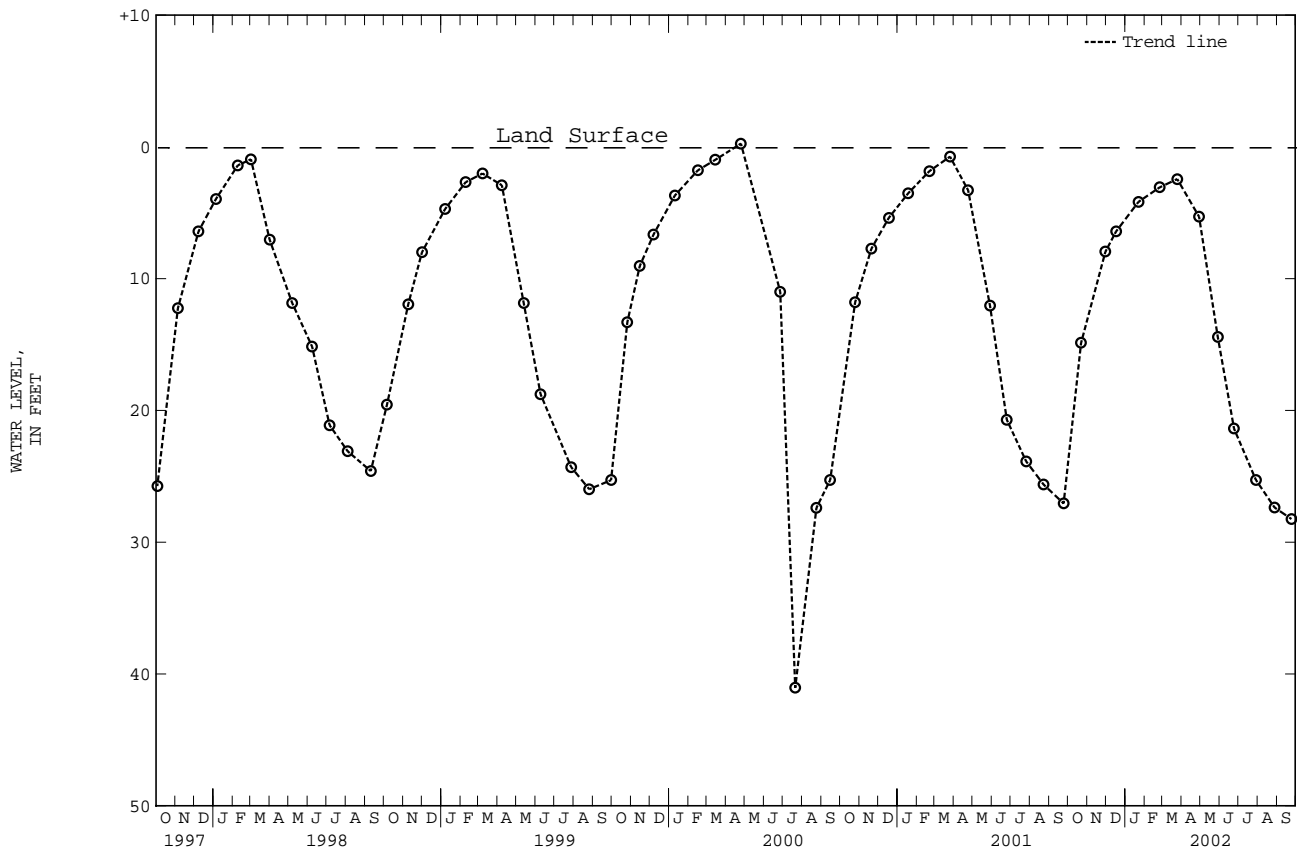
PERIOD OF RECORDS.--April 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, +.25 ft above land surface, April 25, 2000;

lowest measured 75.36 ft below land surface, Aug. 2, 1966.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 2001	14.87	JAN 22, 2002	4.17	APR 29, 2002	5.30	JUL 29, 2002	25.27
NOV 30	7.95	FEB 25	3.07	MAY 29	14.43	AUG 28	27.37
DEC 17	6.42	MAR 25	2.44	JUN 24	21.38	SEP 24	28.24
WATER YEAR 2002		HIGHEST	2.44	MAR 25, 2002	LOWEST	28.24	SEP 24, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

WASHINGTON COUNTY

WELL NUMBER.--WA Ac 1. SITE ID.--394154078103501.

LOCATION.--Lat 39°41'54", long 78°10'35", Hydrologic Unit 02070004, in Hancock.

Owner: Harry R. Barker.

AQUIFER.--Mahantango Formation of Middle-Lower Devonian age. Aquifer code: 344MNNG.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 83 ft; casing diameter 4 in., to unknown depth; open hole.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land-surface is 440 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Removable plug in base of hand pump, 0.60 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.

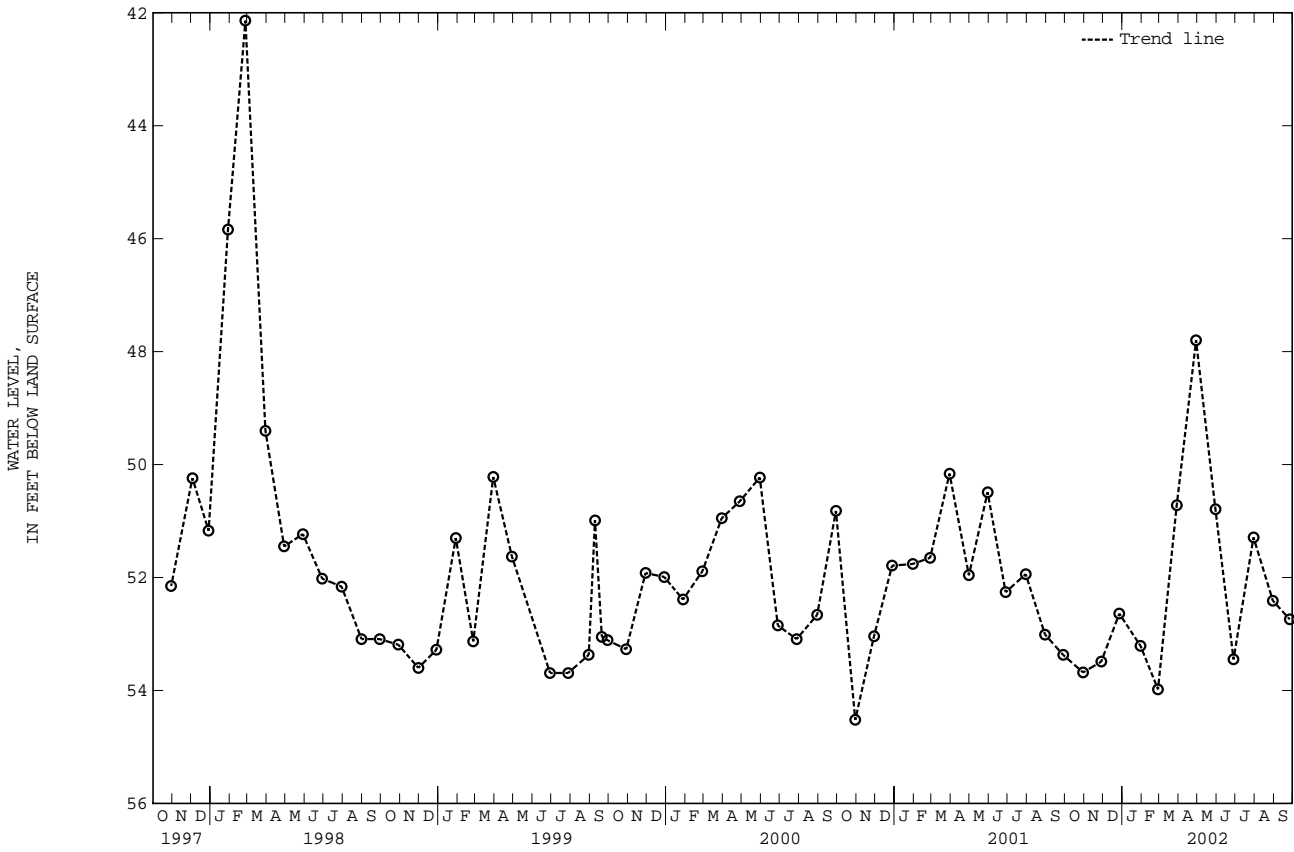
PERIOD OF RECORD.--October 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.65 ft below land surface, Jan. 2, 1976;

lowest measured, 58.18 ft below land surface, Nov. 23, 1992.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	53.68	JAN 30, 2002	53.21	APR 29, 2002	47.80	JUL 30, 2002	51.29
NOV 28	53.49	FEB 27	53.98	MAY 30	50.79	AUG 30	52.41
DEC 27	52.64	MAR 29	50.72	JUN 28	53.45	SEP 26	52.74
WATER YEAR 2002		HIGHEST	47.80	APR 29, 2002	LOWEST	53.98	FEB 27, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

WASHINGTON COUNTY--Continued

WELL NUMBER.--WA Be 2. SITE ID.--393638078001301.

LOCATION.--Lat 39°36'38", long 78°00'13", Hydrologic Unit 02070004, about 1.2 mi southeast of Big Pool, at Fort Frederick State Park (inside Fort).

Owner: State of Maryland.

AQUIFER.--Marcelles-Needmore Shale of Middle Devonian age. Aquifer code: 344MRCL and 344NDR.

WELL CHARACTERISTICS.--Dug, stone-lined, unused, water-table well, depth 41 ft; casing diameter 42 in.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 470 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of inside edge of wooden access hatch, 0.90 ft above land surface.

REMARKS.--Climatic Response Network (CRN) observation well (See Figures 1., and 3.).

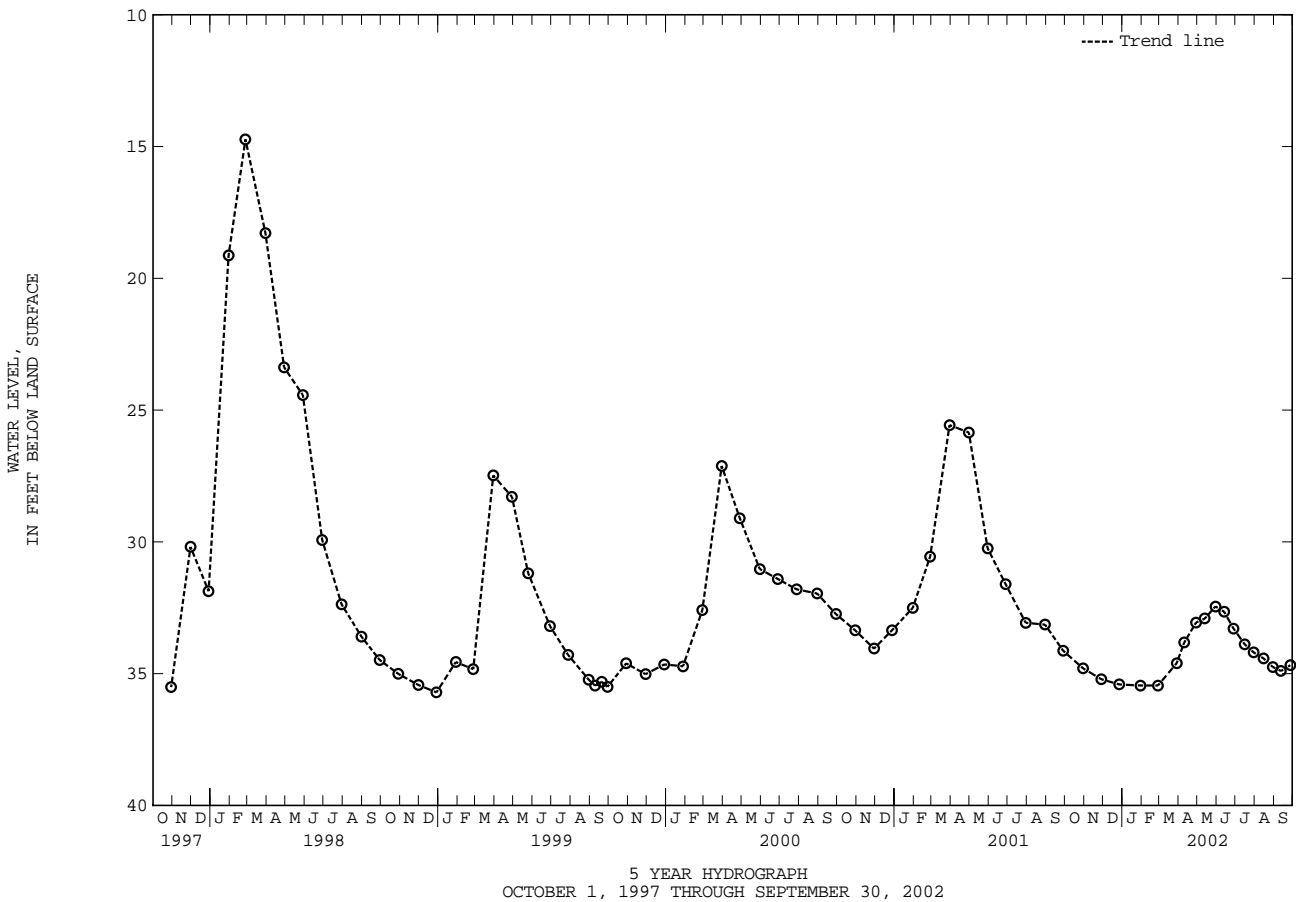
PERIOD OF RECORD.--December 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.72 ft below land surface, April 28, 1993; lowest measured, 36.92 ft below land surface, Jan. 11, 1965.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	34.80	MAR 29, 2002	34.60	JUN 13, 2002	32.65	AUG 30, 2002	34.75
NOV 28	35.21	APR 10	33.82	28	33.29	SEP 12	34.90
DEC 27	35.41	29	33.06	JUL 16	33.89	27	34.68
JAN 30, 2002	35.45	MAY 13	32.91	30	34.19		
FEB 27	35.45	30	32.45	AUG 15	34.42		

WATER YEAR 2002    HIGHEST    32.45    MAY 30, 2002    LOWEST    35.45    JAN 30, 2002    FEB 27, 2002



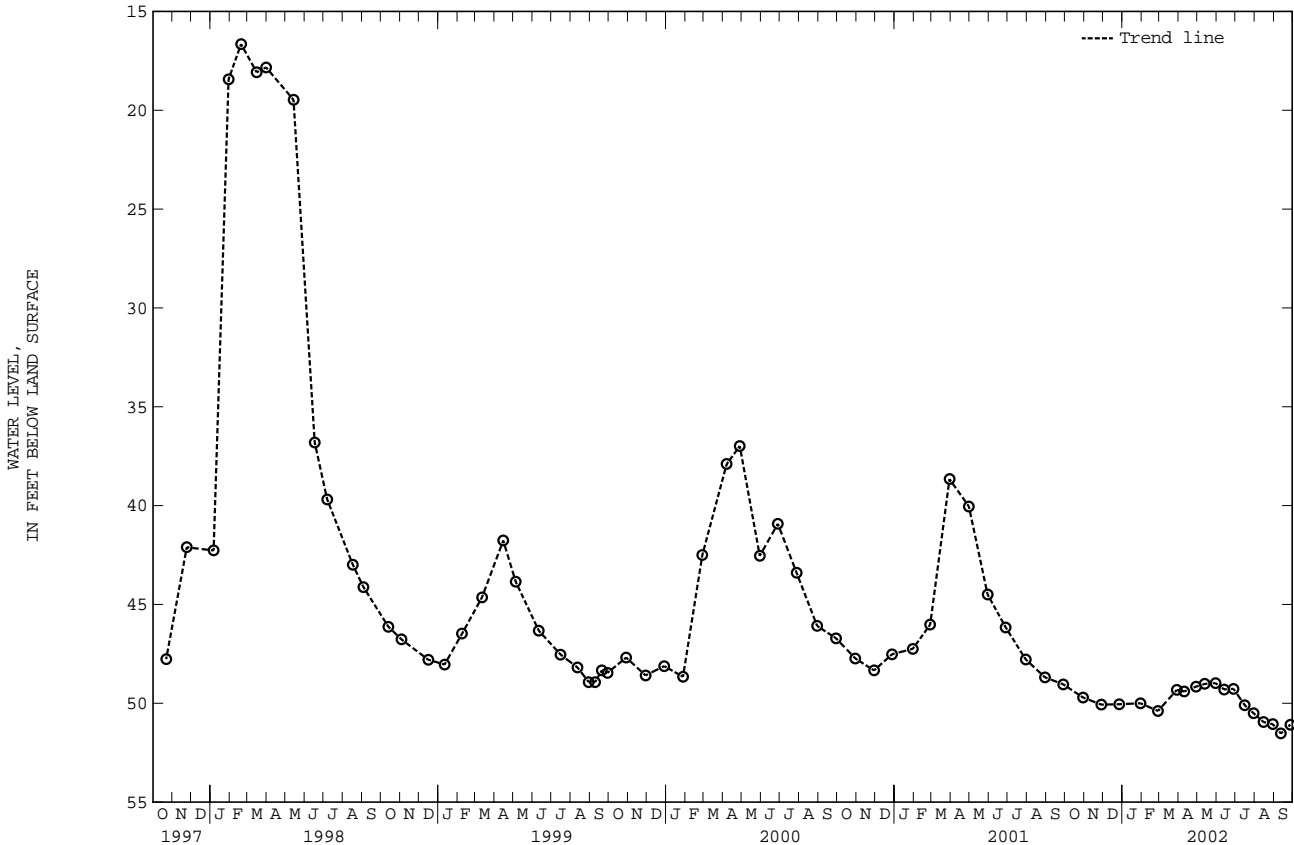
GROUND-WATER LEVELS IN MARYLAND--Continued

WASHINGTON COUNTY--Continued

WELL NUMBER.--WA Bk 25. SITE ID.--393851077343001. PERMIT NUMBER.--WA-70-0235.  
 LOCATION.--Lat 39°38'51", long 77°34'30", Hydrologic Unit 02070004, 0.5 mi south of Smithsburg, at William M. Breichner Water Treatment Plant.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Tomstown Formation of Lower Cambrian age. Aquifer code: 377TMSN.  
 WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 200 ft; casing diameter 6 in., to 128 ft; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.  
 Equipped with graphic water-level recorder from April 27, 1970 to current year.  
 DATUM.--Elevation of land surface is 790 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of shelter platform, 3.50 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--April 1970 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.74 ft below land surface, April 6, 1993;  
 lowest measured, 51.53 ft below land surface Sept. 12, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	49.71	MAR 29, 2002	49.33	JUN 13, 2002	49.30	AUG 30, 2002	51.06
NOV 28	50.07	APR 10	49.40	28	49.27	SEP 12	51.53
DEC 27	50.05	29	49.16	JUL 16	50.10	27	51.08
JAN 30, 2002	50.00	MAY 13	49.02	30	50.50		
FEB 27	50.39	30	48.98	AUG 15	50.95		
WATER YEAR 2002	HIGHEST	48.98	MAY 30, 2002	LOWEST	51.53	SEP 12, 2002	



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

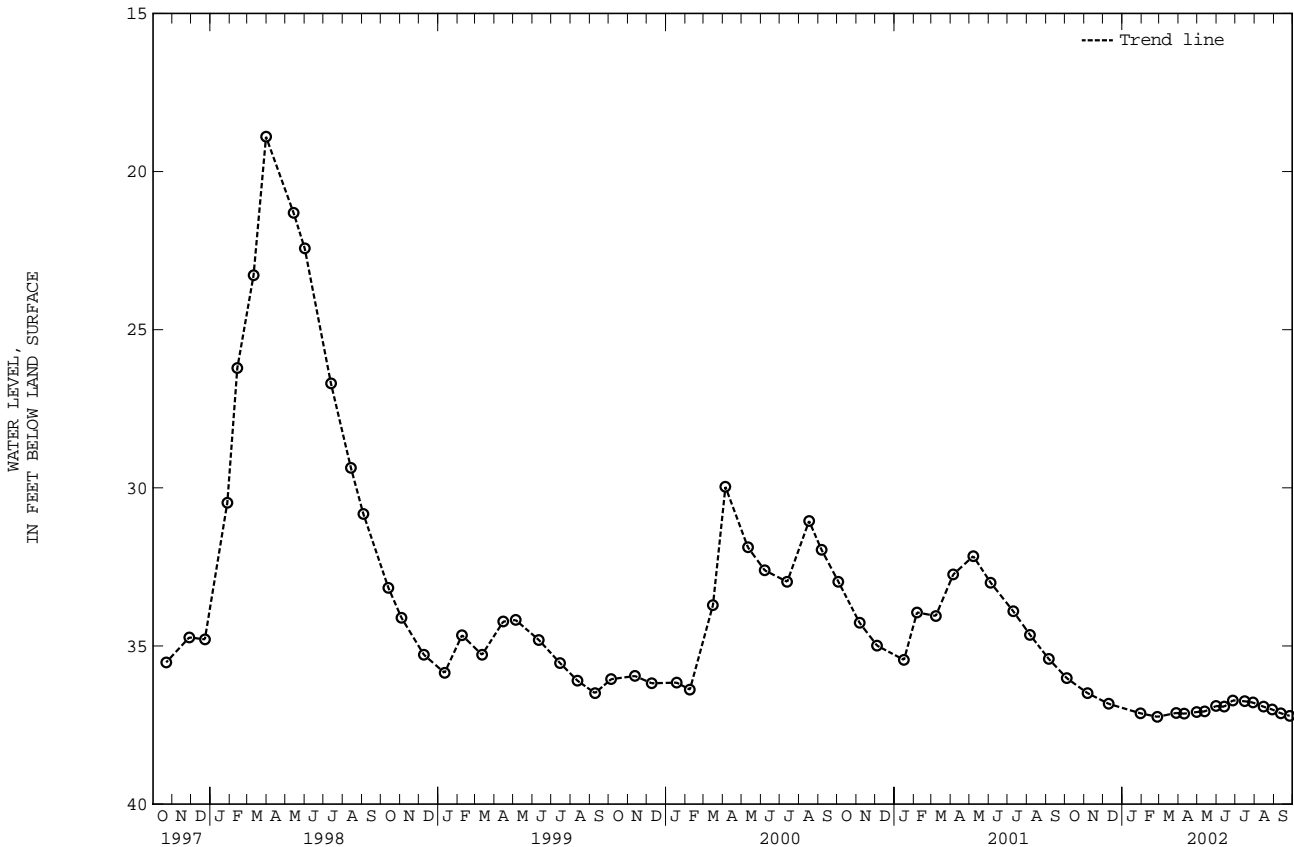
WASHINGTON COUNTY--Continued

WELL NUMBER.--WA Ch 106. SITE ID.--393414077461801. PERMIT NUMBER.--WA-73-2095.  
 LOCATION.--Lat 39°34'14", long 77°46'18", Hydrologic Unit 02070004, at Fountain Rock School.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Conococheague Limestone (middle member) of Upper Cambrian age. Aquifer code: 371CCCG.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 69 ft; casing diameter 6 in., to 41 ft; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with graphic water-level recorder from March 29, 1978 to June 19, 1981, Nov. 6, 1985 to May 3, 1987, and July 1, 1987 to June 1994.  
 DATUM.--Elevation of land surface is 520 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 1.45 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--February 1978 to June 1981, April 1984 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.12 ft below land surface, May 4, 1993; lowest measured, 37.24 ft below land surface, Feb. 26, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 2001	36.02	MAR 28, 2002	37.12	JUN 13, 2002	36.92	AUG 29, 2002	37.01
NOV 06	36.49	APR 10	37.14	27	36.72	SEP 12	37.13
DEC 10	36.83	30	37.09	JUL 16	36.75	26	37.21
JAN 30, 2002	37.13	MAY 13	37.07	29	36.79		
FEB 26	37.24	31	36.90	AUG 15	36.92		

WATER YEAR 2002      HIGHEST    36.02    OCT 04, 2001      LOWEST    37.24    FEB 26, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

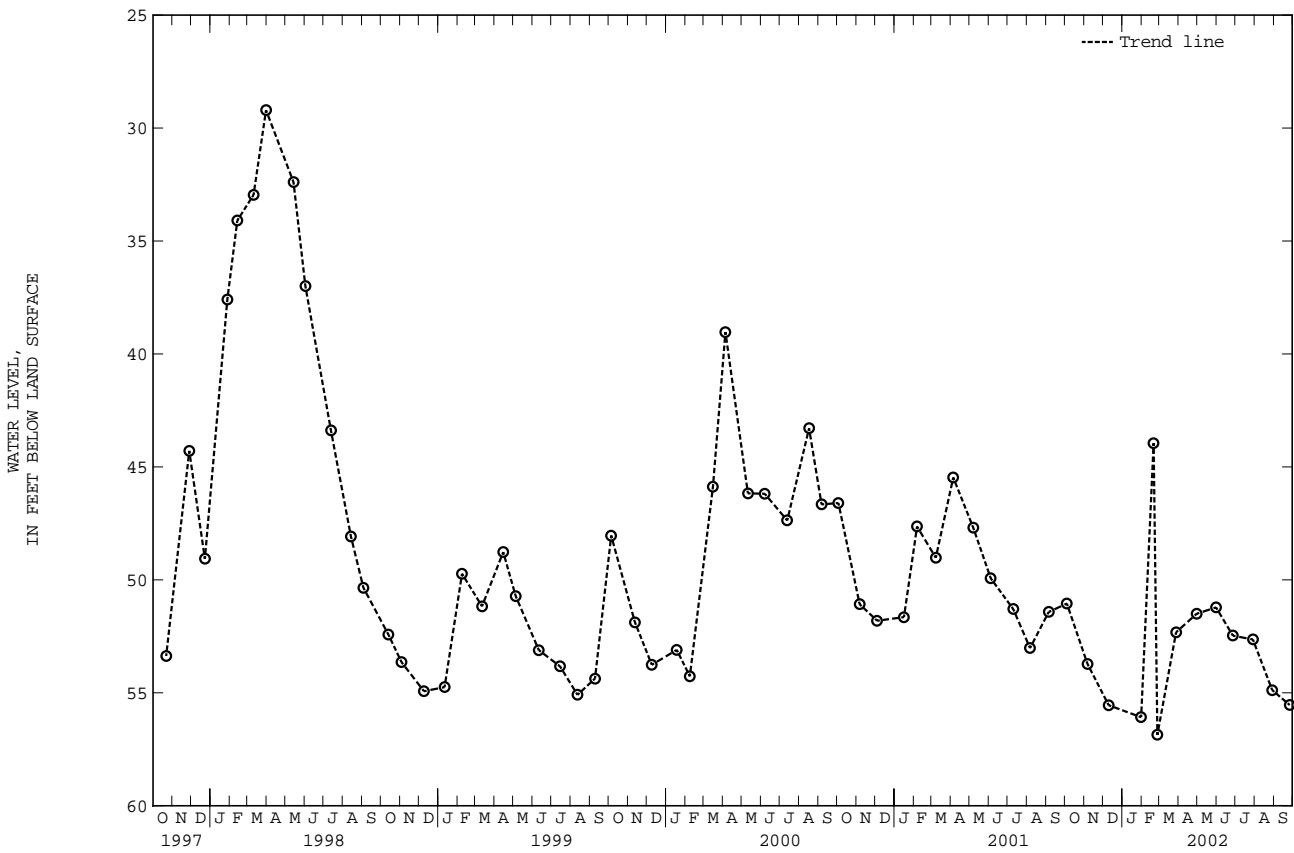
WASHINGTON COUNTY--Continued

WELL NUMBER.--WA Ci 82. SITE ID.--393402077434201. PERMIT NUMBER.--WA-73-2101.  
 LOCATION.--Lat 39°34'02", long 77°43'42", Hydrologic Unit 02070004, at Maryland Correction Institution, nr Lappans.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Conococheague Limestone (middle member) of Upper Cambrian age. Aquifer code: 371CCCG.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 84 ft; casing diameter 6 in., to 32 ft; open hole.  
 INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from April 25, 1978 to June 19, 1981.  
 DATUM.--Elevation of land surface is 500 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing 2.30 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.  
 PERIOD OF RECORD.--February 1978 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.95 ft below land surface, April 6, 1993;  
 lowest measured, 59.28 ft below land surface, Feb. 1, 1981.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 2001	51.05	FEB 20, 2002	43.95	MAY 31, 2002	51.22	SEP 26, 2002	55.54
NOV 06	53.72	26	56.86	JUN 27	52.47		
DEC 10	55.55	MAR 28	52.32	JUL 29	52.64		
JAN 31, 2002	56.08	APR 30	51.50	AUG 29	54.88		

WATER YEAR 2002      HIGHEST    43.95    FEB 20, 2002      LOWEST    56.86    FEB 26, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

WASHINGTON COUNTY--Continued

WELL NUMBER.--WA Dj 2. SITE ID.--392904077371501.

LOCATION.--Lat 39°29'04", long 77°37'15", Hydrologic Unit 02070004, at Turner's Gap on Alt. U.S. 40.

Owner: Russell Schwartz.

AQUIFER.--Weverton Formation (Buzzard Knob member) of Lower Cambrian age. Aquifer code: 377WVRN.

WELL CHARACTERISTICS.--Dug, stone-lined, observation, water-table well, depth 61.3 ft; casing diameter 48 in.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 1,070 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of concrete cover, 0.25 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.

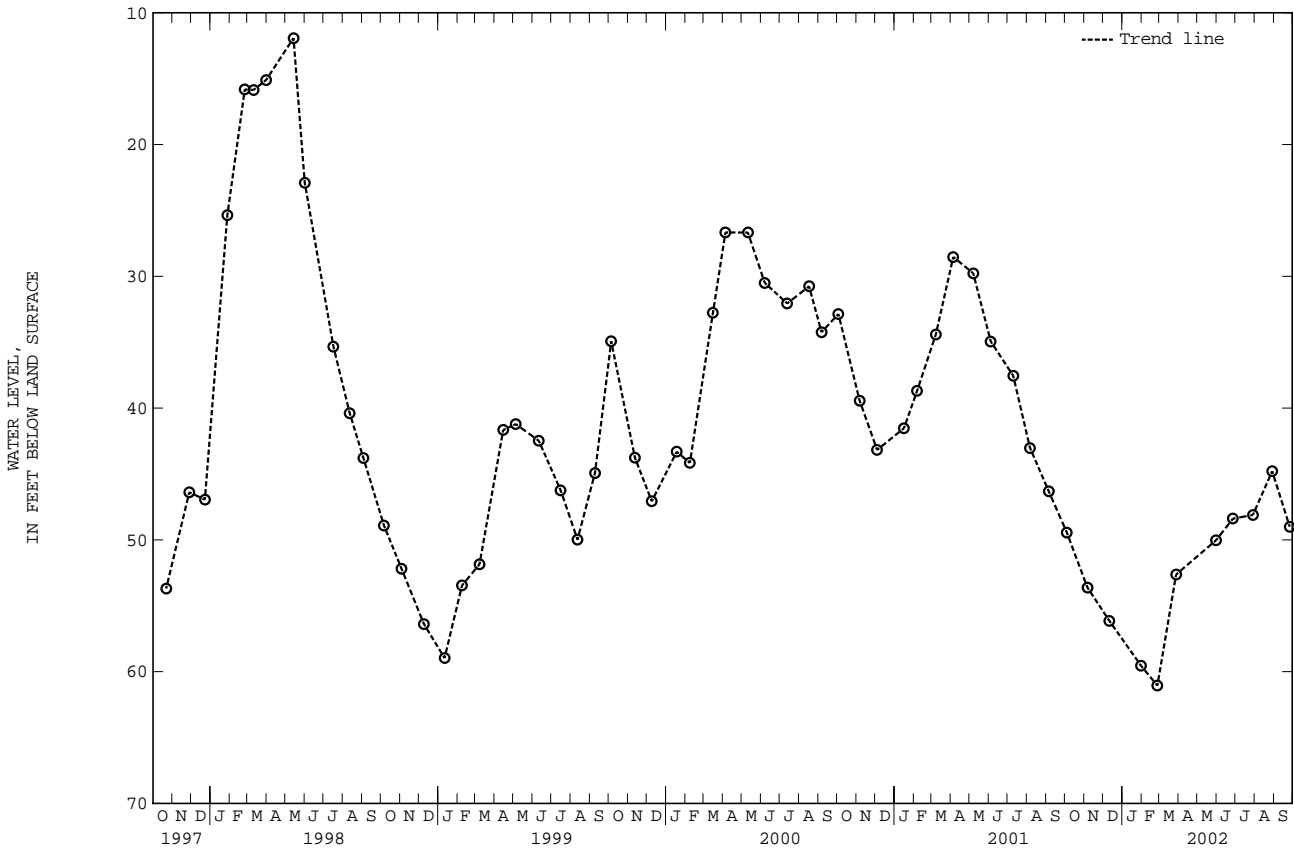
PERIOD OF RECORD.--December 1956 to current year.

EXTREMES FOR PERIOD FOR RECORD.--Highest water level measured, 11.92 ft below land surface, May 14, 1998;

lowest measured, 61.06 ft below land surface, Feb. 26, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 2001	49.45	JAN 31, 2002	59.56	MAY 31, 2002	50.03	AUG 29, 2002	44.79
NOV 06	53.62	FEB 26	61.06	JUN 27	48.39	SEP 26	49.00
DEC 11	56.14	MAR 28	52.63	JUL 29	48.11		
WATER YEAR 2002 HIGHEST 44.79		AUG 29, 2002		LOWEST 61.06		FEB 26, 2002	



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

WICOMICO COUNTY

WELL NUMBER.--WI Ce 13. SITE ID.--382150075352101.

LOCATION.--Lat 38°21'50", long 75°35'21", Hydrologic Unit 02060007, at Municipal Zoo Park, Salisbury.

Owner: City of Salisbury.

AQUIFER.--Pensauken Formation (Salisbury aquifer) of Upper Miocene age. Aquifer code: 112SLBR.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, reported depth 65 ft, measured depth 51.7 ft; casing diameter 16 to 10 in., to unknown depth; screen diameter and interval unknown; screen length 20 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with water-level recorder from July 16, 1947 to Jan. 3, 1955, and Aug. 23, 1962 to Aug. 20, 1968.

DATUM.--Elevation of land surface is 7 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.22 ft above land surface.

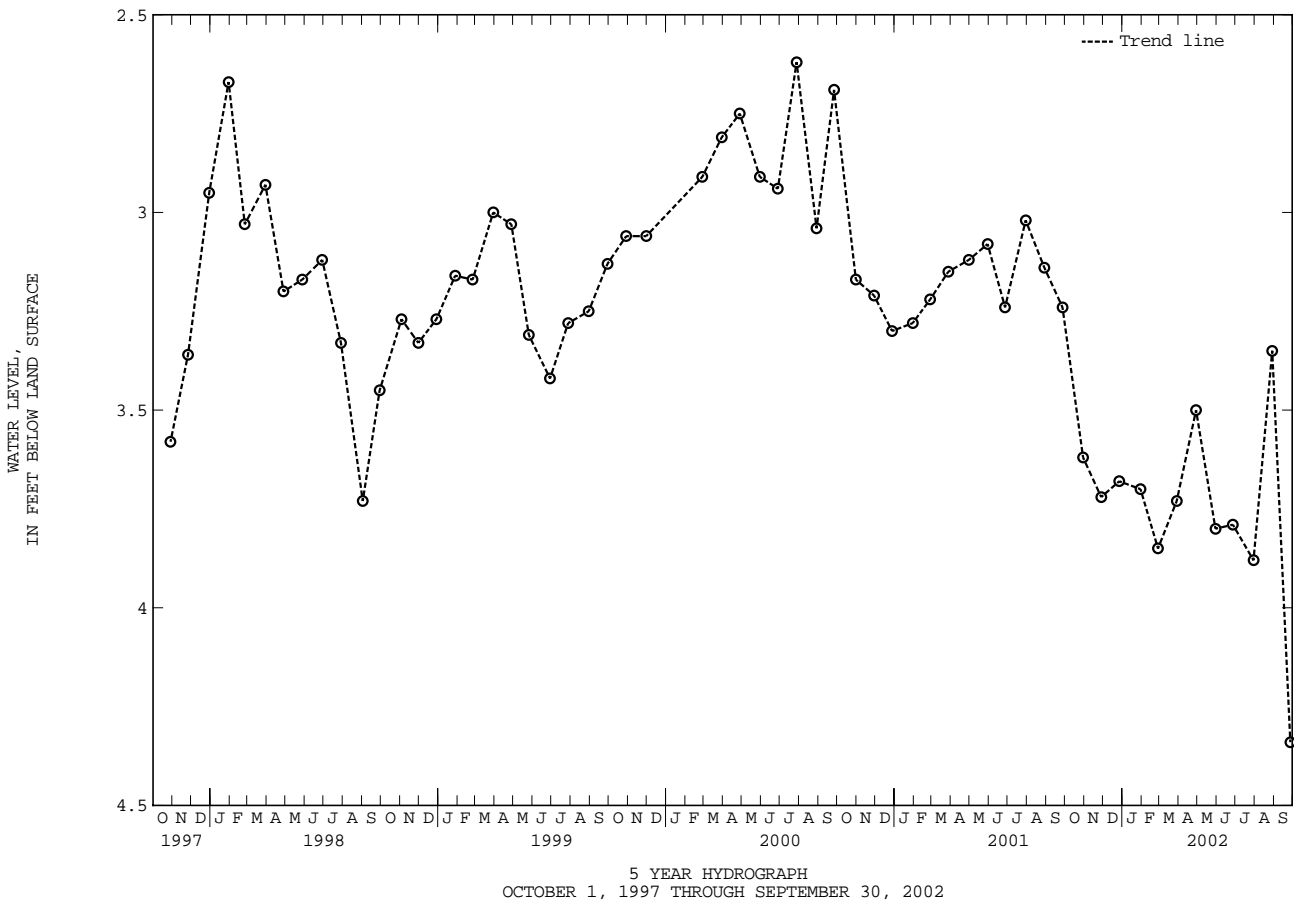
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--July 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.25 ft below land surface, Aug. 30, 1979; lowest measured, 10.72 ft below land surface, Aug. 30, 1947.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	3.62	JAN 30, 2002	3.70	APR 29, 2002	3.50	JUL 30, 2002	3.88
NOV 28	3.72	FEB 27	3.85	MAY 30	3.80	AUG 29	3.35
DEC 27	3.68	MAR 29	3.73	JUN 27	3.79	SEP 27	4.34
WATER YEAR 2002 HIGHEST 3.35		AUG 29, 2002		LOWEST 4.34		SEP 27, 2002	





WICOMICO COUNTY--Continued

WELL NUMBER.--WI Ce 204. SITE ID.--382404075355401 PERMIT NUMBER.--WI-67-0191.

LOCATION.--Lat 38°24'04", long 75°35'54", Hydrologic Unit 02060007, north side of Naylor Mill Rd., Salisbury.

Owner: City of Salisbury.

AQUIFER.--Pensauken Formation (Salisbury aquifer) of Upper Miocene age. Aquifer code: 112SLBR.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 113 ft; casing diameter 8 in., to 109 ft; screen diameter 3 in. from 109 to 113 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of shelter floor on cross-brace, 3.14 ft above land surface.

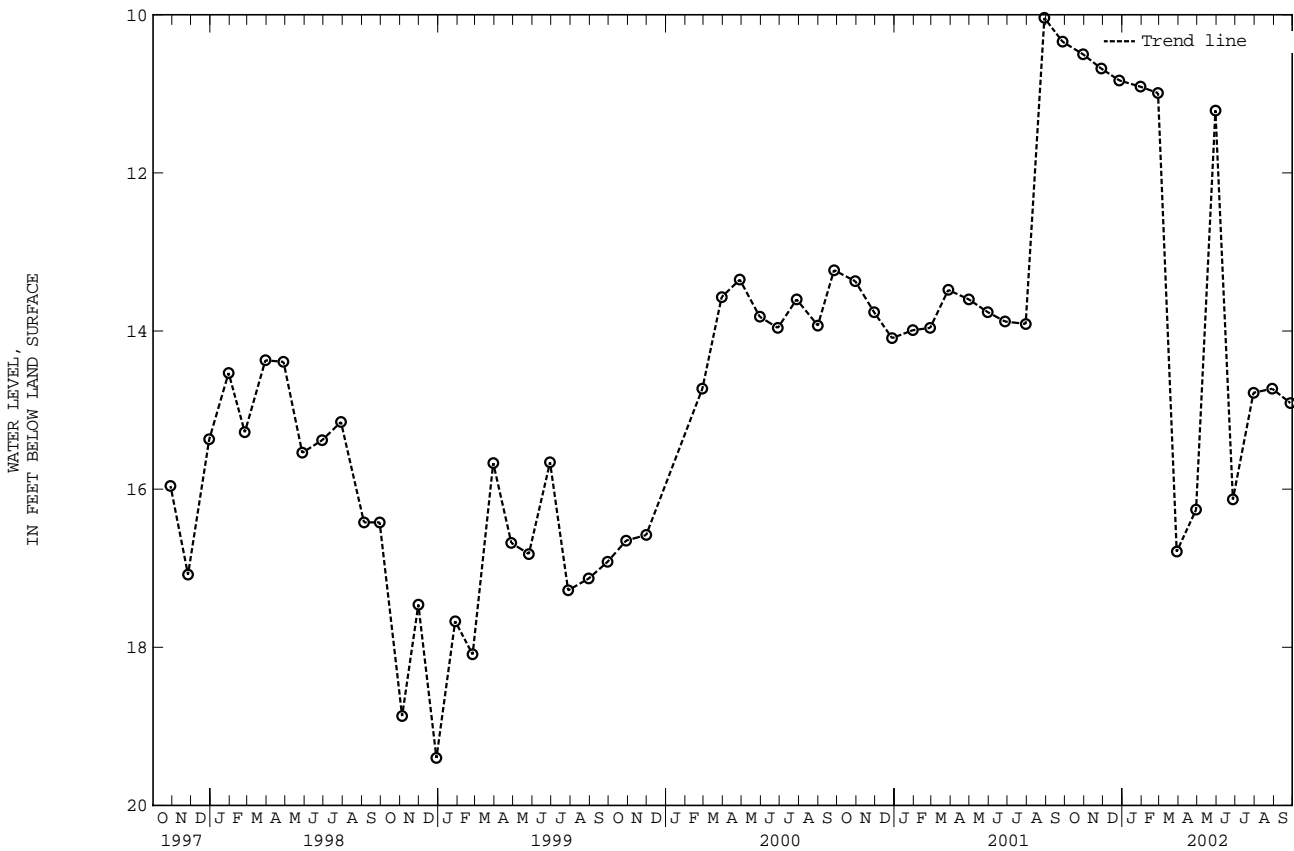
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal. The nearby production well was not in use from approximately August 2001 through February 2002, and for some period in May 2002.

PERIOD OF RECORD.--April 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.35 ft below land surface, April 27, 1967; lowest measured, 19.40 ft below land surface, Dec. 29, 1998.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	10.50	JAN 30, 2002	10.91	APR 29, 2002	16.26	JUL 30, 2002	14.78
NOV 28	10.68	FEB 27	10.99	MAY 30	11.21	AUG 29	14.73
DEC 27	10.83	MAR 29	16.79	JUN 27	16.13	SEP 27	14.91
WATER YEAR 2002 HIGHEST 10.50 OCT 30, 2001		LOWEST 16.79 MAR 29, 2002					



WICOMICO COUNTY--Continued

WELL NUMBER.--WI Cf 3. SITE ID.--382037075310801.

LOCATION.--Lat 38°20'37", long 75°31'08", Hydrologic Unit 02060007, on Airport Rd., at Salisbury-Wicomico Airport, Mt. Hermon.

Owner: Salisbury-Wicomico Airport.

AQUIFER.--Pensauken Formation (Salisbury aquifer) of Upper Miocene age. Aquifer code: 112PNSK.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 110 ft; casing diameter 16 in., to 90 ft; screened from 90 to 110 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel. Equipped with graphic water-level recorder from March 24, 1948 to July 9, 1948, Aug. 2, 1949 to April 11, 1960, and Aug. 29, 1963 to Aug. 20, 1968.

DATUM.--Elevation of land surface is 44.79 ft above National Geodetic Vertical Datum of 1929.

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

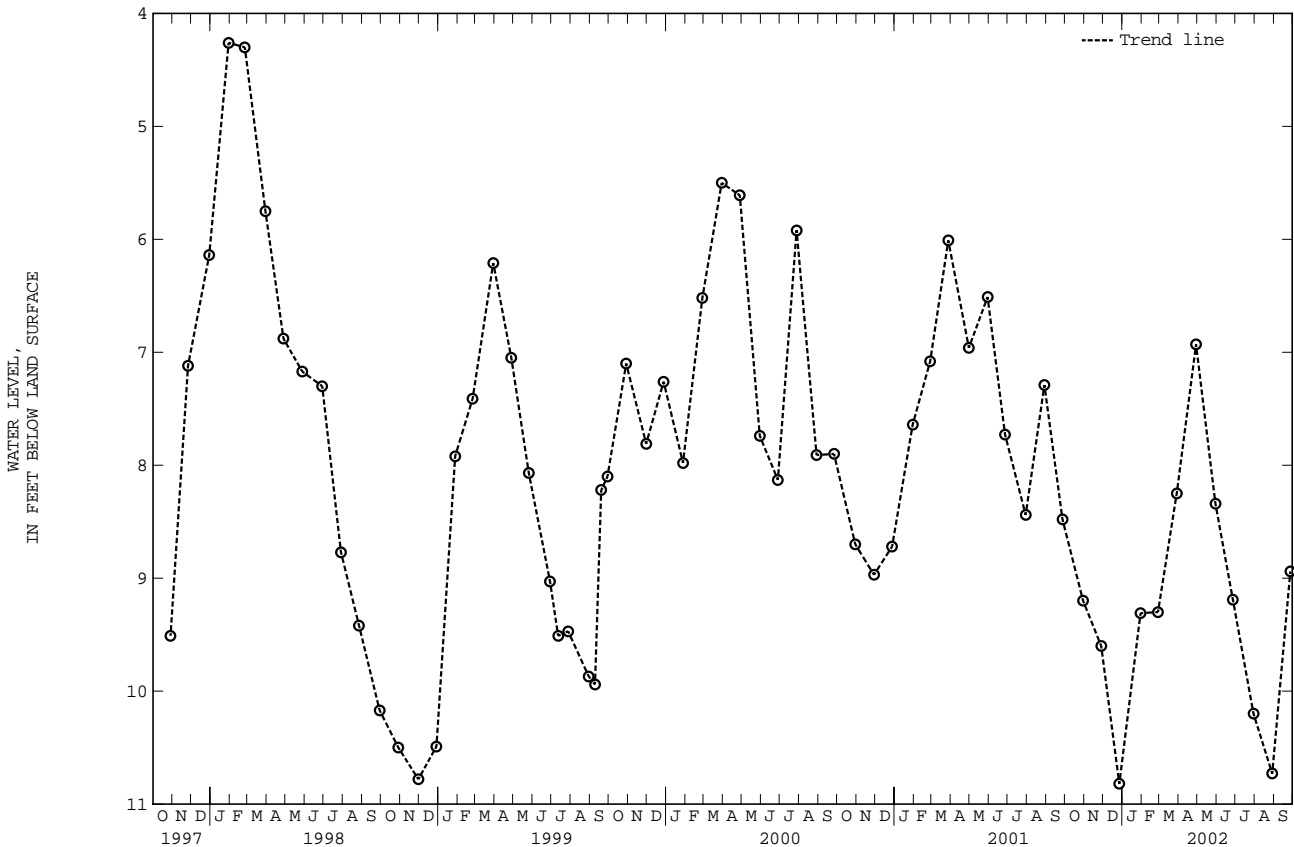
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well (See Figure 1.). A water level was reported as 7.2 ft below land surface on Oct. 26, 1942. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD.--September 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.18 ft below land surface, May 8, 1958; lowest measured, 13.44 ft below land surface, Sept. 18, 1947.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	9.20	JAN 30, 2002	9.31	APR 29, 2002	6.93	JUL 30, 2002	10.20
NOV 28	9.60	FEB 27	9.30	MAY 30	8.34	AUG 29	10.73
DEC 27	10.82	MAR 29	8.25	JUN 27	9.19	SEP 27	8.94
WATER YEAR 2002		HIGHEST	6.93	APR 29, 2002	LOWEST	10.82	DEC 27, 2001



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

WICOMICO COUNTY--Continued

WELL NUMBER.--WI Cf 147. SITE ID.--382429075344501.

LOCATION.--Lat 38°24'29", long 75°34'45", Hydrologic Unit 02060007, south side of Naylor Mill Rd., Salisbury.

Owner: A.S. Abell Co.

AQUIFER.--Pensauken Formation (Salisbury aquifer) of Upper Miocene age. Aquifer code: 112SLBR.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 80 ft; casing diameter 2 in., to 80 ft; perforated casing from 60 to 80 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 41.83 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing at land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.

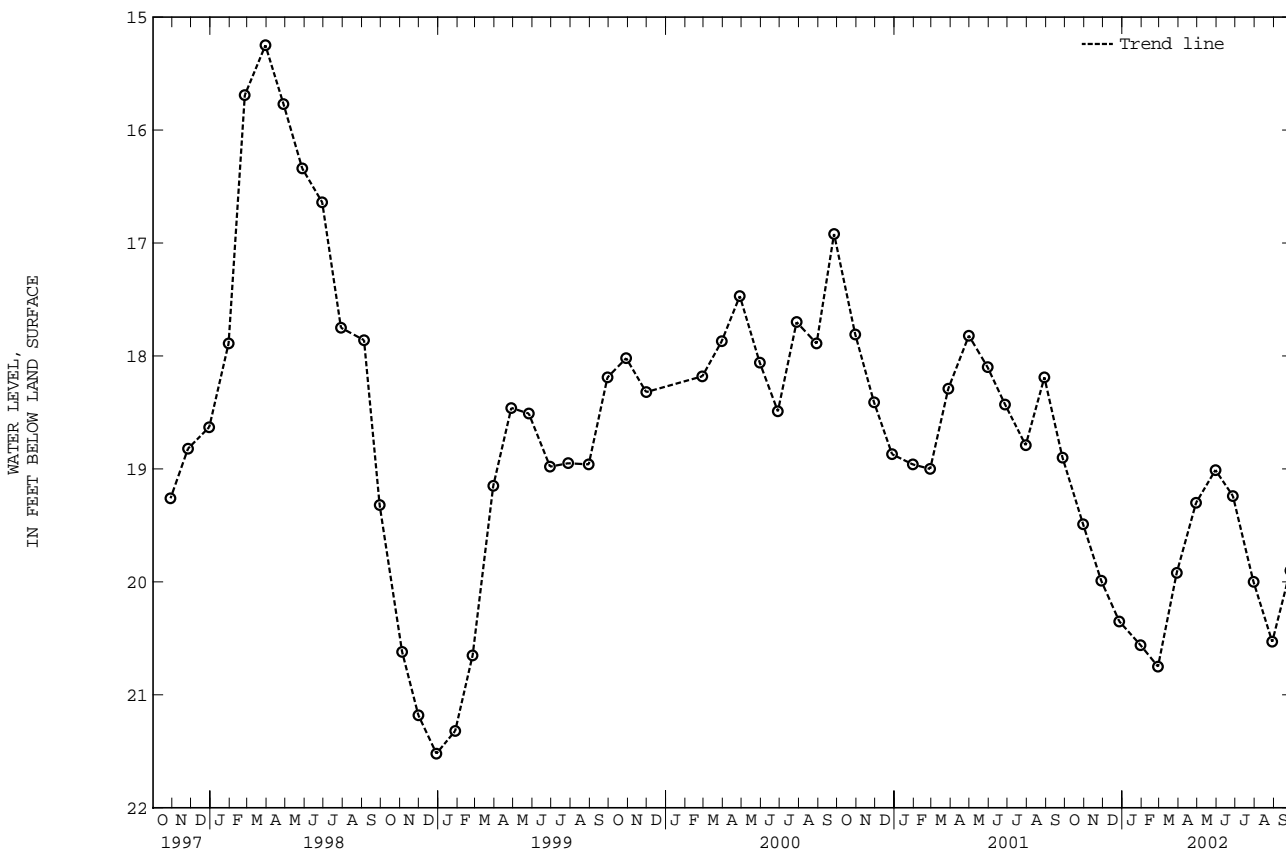
PERIOD OF RECORD.--November 1964; March 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.78 ft below land surface, June 18, 1979; lowest measured, 21.52 ft below land surface, Dec. 29, 1998.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	19.49	JAN 30, 2002	20.56	APR 29, 2002	19.30	JUL 30, 2002	20.00
NOV 28	19.99	FEB 27	20.75	MAY 30	19.01	AUG 29	20.53
DEC 27	20.35	MAR 29	19.92	JUN 27	19.24	SEP 27	19.90

WATER YEAR 2002 HIGHEST 19.01 MAY 30, 2002 LOWEST 20.75 FEB 27, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

WICOMICO COUNTY--Continued

WELL NUMBER.--WI Cg 20. SITE ID.--382329075263701.

LOCATION.--Lat 38°23'29", long 75°26'37", Hydrologic Unit 02060009, 1.45 mi east of Parsonsburg, south of MD Route 346.

Owner: Maryland State Highway Administration.

AQUIFER.--Parsonsburg Sand (Columbia aquifer) of Pleistocene age. Aquifer code: 112PRBG.

WELL CHARACTERISTICS.--Driven, unused, water-table well, depth 25 ft, casing diameter 1.25 in., to unknown depth.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 68 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of 2 in. sleeve, 0.17 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.

PERIOD OF RECORD.--August 1949 to current year.

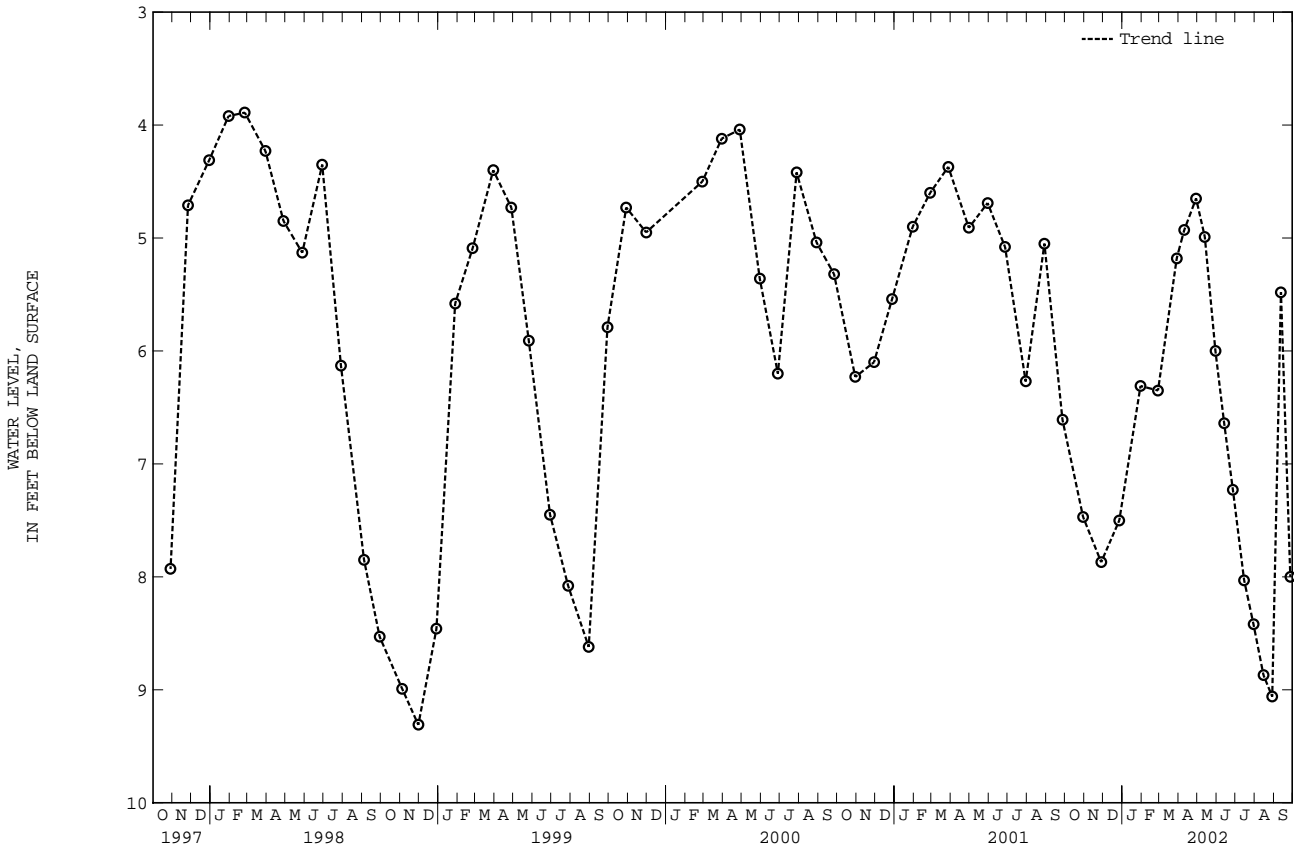
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.84 ft below land surface, Jan. 31, 1950;

lowest measured, 9.31 ft below land surface, Nov. 30, 1998.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	7.47	MAR 29, 2002	5.18	JUN 13, 2002	6.64	AUG 29, 2002	9.06
NOV 28	7.87	APR 10	4.93	27	7.23	SEP 12	5.48
DEC 27	7.50	29	4.65	JUL 15	8.03	27	8.00
JAN 30, 2002	6.31	MAY 13	4.99	30	8.42		
FEB 27	6.35	30	6.00	AUG 15	8.87		

WATER YEAR 2002 HIGHEST 4.65 APR 29, 2002 LOWEST 9.06 AUG 29, 2002



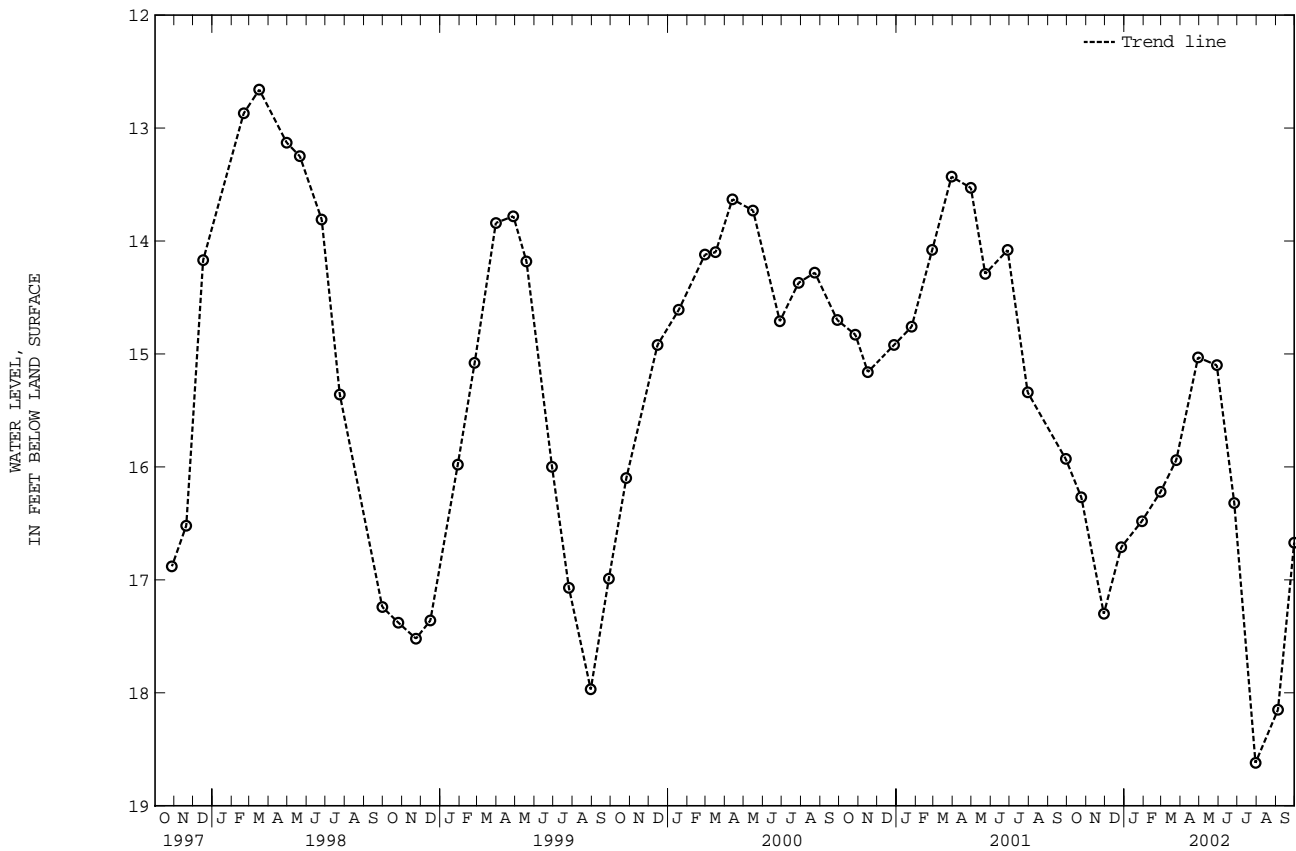
5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

WORCESTER COUNTY

WELL NUMBER.--WO Ae 23. SITE ID.--382621075174201. PERMIT NUMBER.--WO-73-0513.  
 LOCATION.--Lat 38°26'21", long 75°17'42", Hydrologic Unit 02060009, 2.75 mi north of Whaleyville.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 280 ft; casing diameter 4 in., to 270 ft; screen diameter 2 in. from 270 to 280 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of 4 in. casing, 3.52 ft above land surface.  
 REMARKS.--Ocean City Ground-Water Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal.  
 PERIOD OF RECORD.--October 1975 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.85 ft below land surface, Dec. 16, 1975; lowest measured, 20.18 ft below land surface, Sept. 28, 1995.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	16.27	JAN 29, 2002	16.48	APR 29, 2002	15.03	JUL 30, 2002	18.62
NOV 29	17.30	FEB 28	16.22	MAY 29	15.10	SEP 04	18.15
DEC 27	16.71	MAR 25	15.94	JUN 26	16.32	30	16.67
WATER YEAR 2002		HIGHEST	15.03	APR 29, 2002	LOWEST	18.62	JUL 30, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

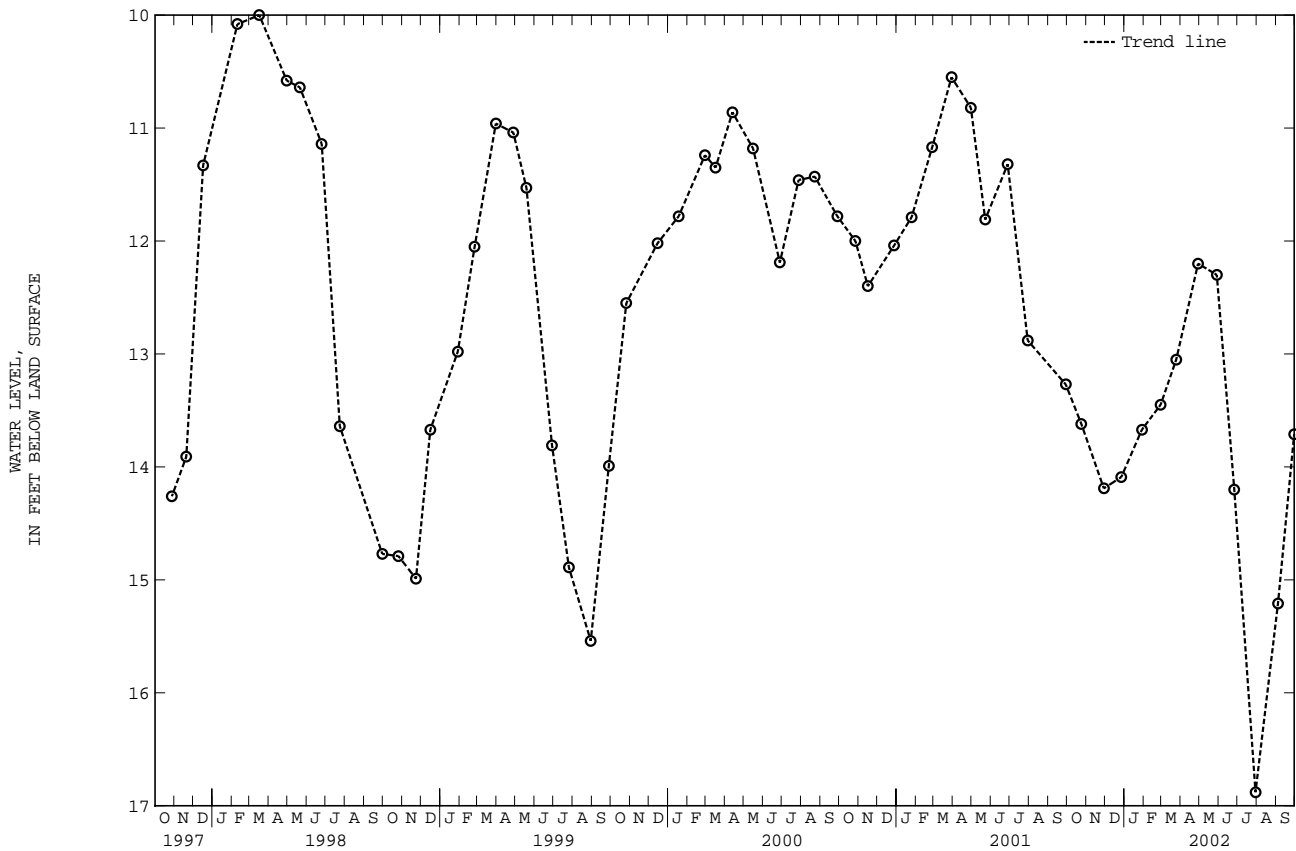
WORCESTER COUNTY--Continued

WELL NUMBER.--WO Ae 24. SITE ID.--382621075174202. PERMIT NUMBER.--WO-73-0512.  
 LOCATION.--Lat 38°26'21", long 75°17'42", Hydrologic Unit 02060009, 2.75 mi north of Whaleyville.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Ocean City aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122OCNC.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 200 ft; casing diameter 4 in., to 190 ft; screen diameter 2 in. from 190 to 200 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of 4 in. casing, 4.00 ft above land surface.  
 REMARKS.--Ocean City Ground-Water Monitoring Network observation well. Water levels are affected by local and regional ground-water withdrawal.  
 PERIOD OF RECORD.--October 1975 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.49 ft below land surface, May 31, 1978; lowest measured, 16.88 ft below land surface, July 30, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	13.62	JAN 29, 2002	13.67	APR 29, 2002	12.20	JUL 30, 2002	16.88
NOV 29	14.19	FEB 28	13.45	MAY 29	12.30	SEP 04	15.21
DEC 27	14.09	MAR 25	13.05	JUN 26	14.20	30	13.71

WATER YEAR 2002    HIGHEST 12.20    APR 29, 2002    LOWEST 16.88    JUL 30, 2002



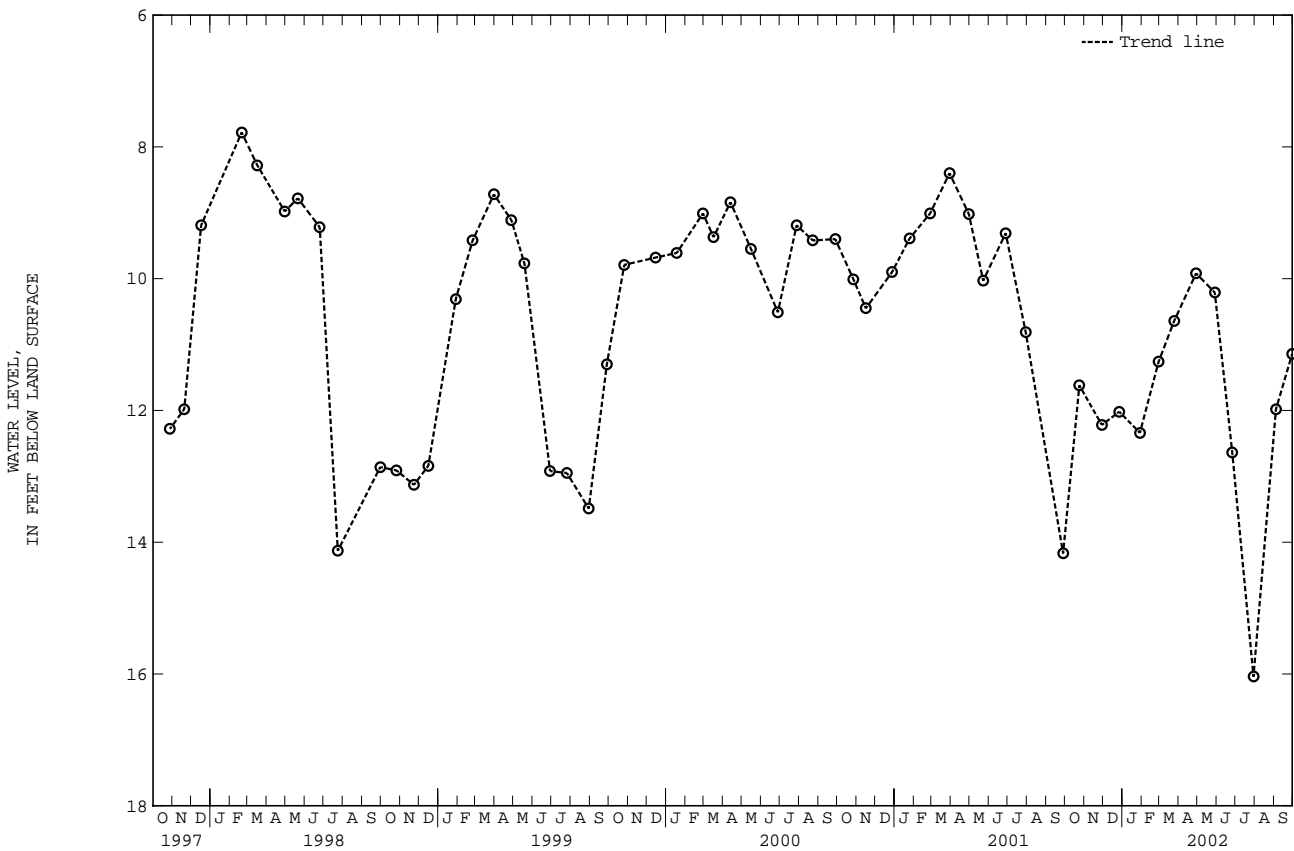
5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Ae 25. SITE ID.--382621075174203. PERMIT NUMBER.--WO-73-0514.  
 LOCATION.--Lat 38°26'21", long 75°17'42", Hydrologic Unit 02060009, 2.75 mi north of Whaleyville.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Beaverdam Sand of Pliocene age. Aquifer code: 121BVDM.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 118 ft; casing diameter 4 in., to 108 ft; screened diameter 2 in. from 108 to 118 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 3.20 ft above land surface.  
 REMARKS.--Ocean City Ground-Water Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.  
 PERIOD OF RECORD.--October 1975 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.78 ft below land surface, Feb. 20, 1998; lowest measured, 16.04 ft below land surface, July 30, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	11.62	JAN 29, 2002	12.34	APR 29, 2002	9.92	JUL 30, 2002	16.04
NOV 29	12.22	FEB 28	11.26	MAY 29	10.21	SEP 04	11.98
DEC 27	12.02	MAR 25	10.64	JUN 26	12.64	30	11.14
WATER YEAR 2002		HIGHEST	9.92	APR 29, 2002	LOWEST	16.04	JUL 30, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

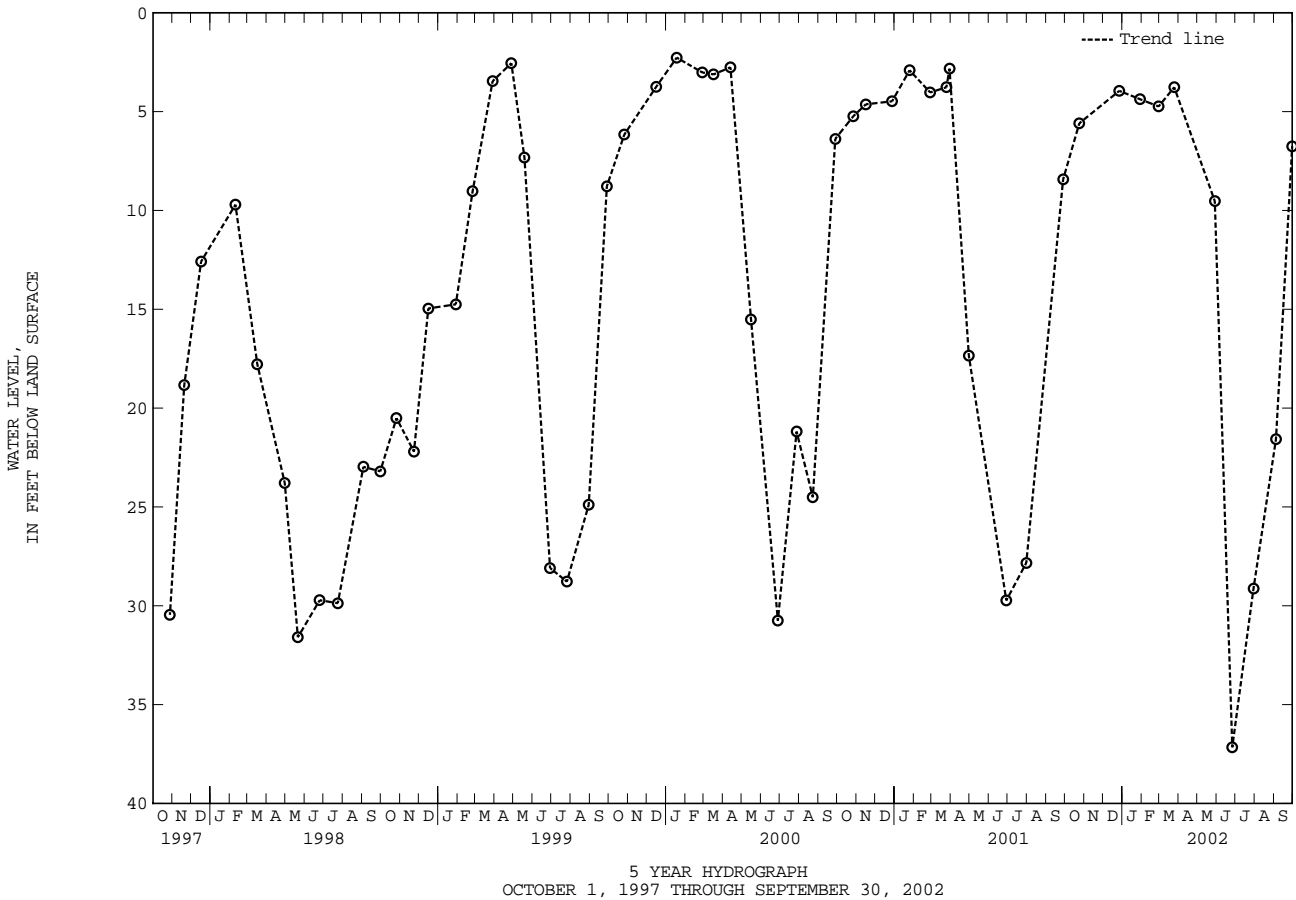
GROUND-WATER LEVELS IN MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Ah 6. SITE ID.--382632075031801. PERMIT NUMBER.--WO-70-0009.  
 LOCATION.--Lat 38°26'32", long 75°03'18", Hydrologic Unit 02060010, at east end of 137th St., Ocean City.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 357 ft; casing diameter 6 in., to 347 ft; casing diameter 4 in. from 327 to 347 ft; screen diameter 4 in. from 347 to 357 ft.  
 INSTRUMENTATION.--Monthly water level measurements with an electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--15-minute recording interval, March 1985 to February 1994.  
 DATUM.--Elevation of land surface is 6.35 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 3.27 ft above land surface.  
 REMARKS.--Ocean City Ground-Water Monitoring Network observation well. Water levels are affected by local ground-water withdrawal, especially during summer peak demands.  
 PERIOD OF RECORD.--September 1970 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.48 ft above land surface, March 27, 1973; lowest measured, 52.46 ft below land surface, July 24, 1989 (recorder).

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	5.59	FEB 28, 2002	4.74	JUN 26, 2002	37.16	SEP 30, 2002	6.75
DEC 27	3.95	MAR 25	3.77	JUL 30	29.13		
JAN 29, 2002	4.37	MAY 29	9.53	SEP 04	21.57		
WATER YEAR 2002 HIGHEST		3.77 MAR 25, 2002	LOWEST		37.16 JUN 26, 2002		



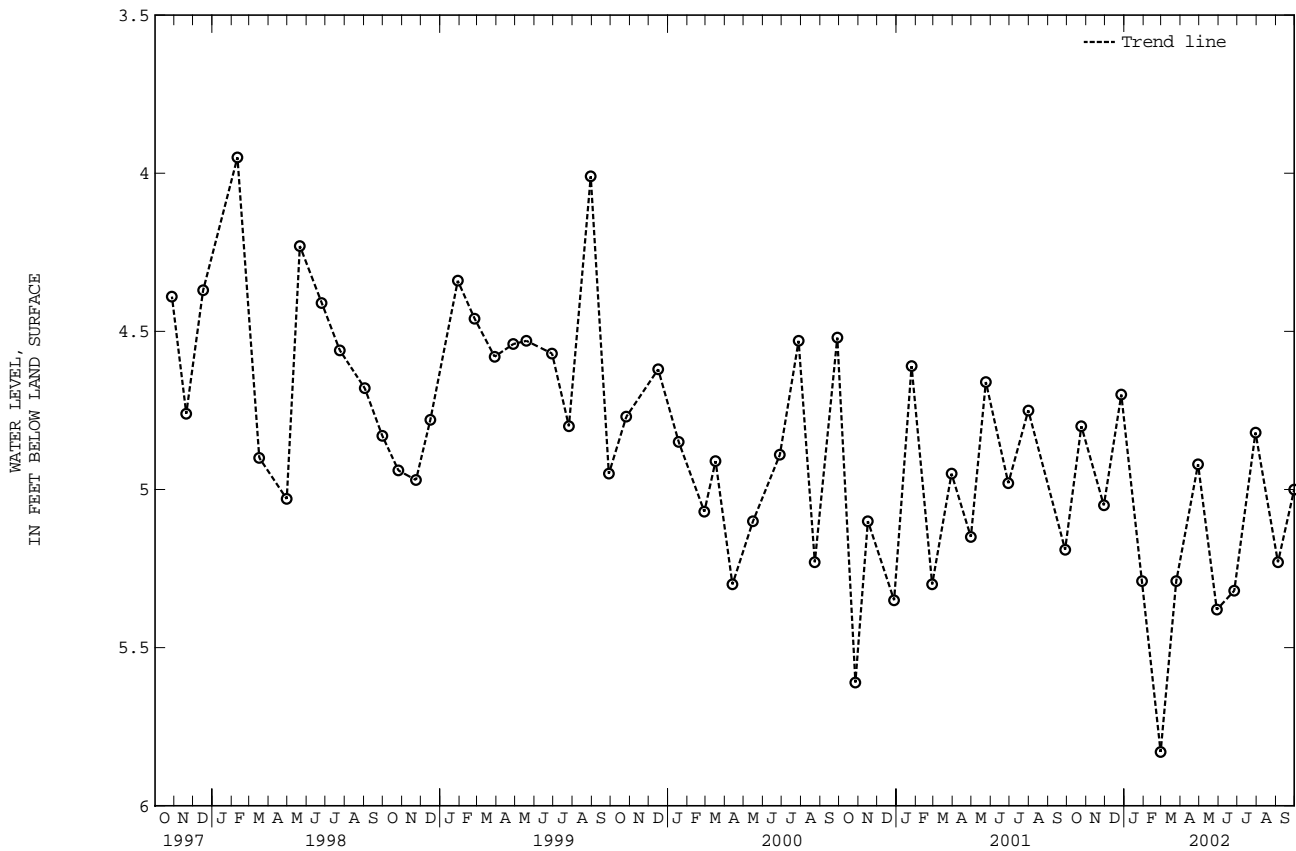


WORCESTER COUNTY--Continued

WELL NUMBER.--WO Ah 35. SITE ID.--382635075030601. PERMIT NUMBER.--WO-73-0516.  
 LOCATION.--Lat 38°26'35", long 75°03'06", Hydrologic Unit 02060010, at east end of 137th St., Ocean City.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--St. Marys Formation of Middle-Upper Miocene age. Aquifer code: 122SMRS.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 726 ft; casing diameter 4 in., to 716 ft; screen diameter 2 in. from 716 to 726 ft.  
 INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 13.99 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of 4 in. casing, 3.30 ft above land surface.  
 REMARKS.--Ocean City Ground-Water Monitoring Network observation well. Water levels are affected by local ground-water withdrawal through leakage with the overlying Manokin aquifer.  
 PERIOD OF RECORD.--October 1975 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.90 ft below land surface, March 10, 1976; lowest measured, 10.26 ft below land surface, Oct. 28, 1975.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	4.80	JAN 29, 2002	5.29	APR 29, 2002	4.92	JUL 30, 2002	4.82
NOV 29	5.05	FEB 28	5.83	MAY 29	5.38	SEP 04	5.23
DEC 27	4.70	MAR 25	5.29	JUN 26	5.32	30	5.00
WATER YEAR 2002 HIGHEST 4.70		DEC 27, 2001		LOWEST 5.83		FEB 28, 2002	



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Ah 36. SITE ID.--382635075030602. PERMIT NUMBER.--WO-73-0518.

LOCATION.--Lat 38°26'35", long 75°03'06", Hydrologic Unit 02060010, at east end of 137th St., Ocean City.

Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 430 ft; casing diameter 4 in., to 420 ft; screen diameter 2 in. from 420 to 430 ft.

INSTRUMENTATION.--Monthly water level measurements with an electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recording interval from May 1994 to May 1997.

DATUM.--Elevation of land surface is 14.32 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of 4 in. casing, 4.09 ft above land surface.

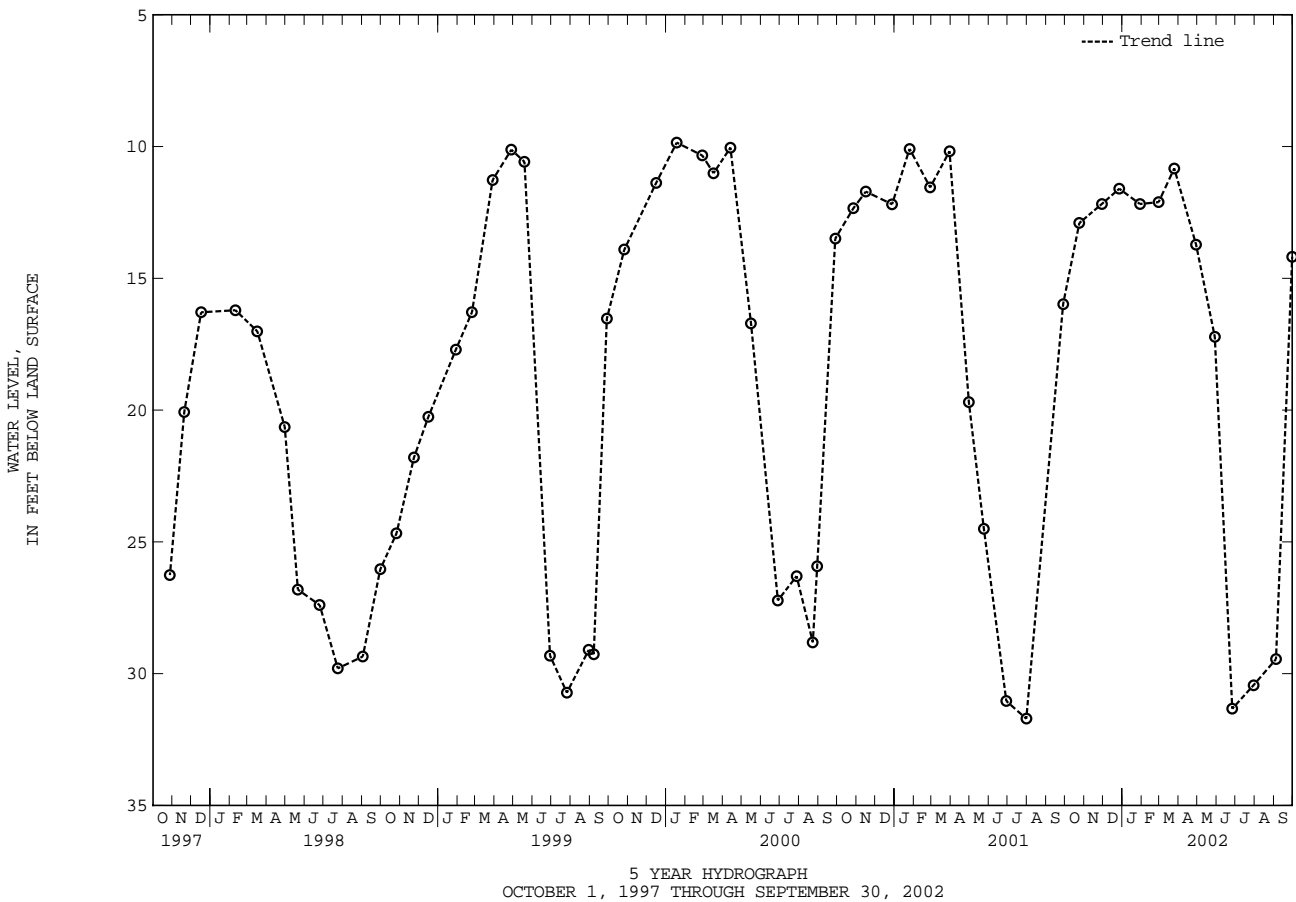
REMARKS.--Ocean City Ground-Water Monitoring Network observation well. Water levels are affected by local ground-water withdrawal, especially during summer peak demands.

PERIOD OF RECORD.--October 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.23 ft below land surface, Feb. 9, 1997; lowest measured, 38.75 ft below land surface, Aug. 30, 1989.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	12.90	JAN 29, 2002	12.18	APR 29, 2002	13.72	JUL 30, 2002	30.44
NOV 29	12.18	FEB 28	12.11	MAY 29	17.22	SEP 04	29.45
DEC 27	11.60	MAR 25	10.83	JUN 26	31.33	30	14.18
WATER YEAR 2002		HIGHEST	10.83	MAR 25, 2002	LOWEST	31.33	JUN 26, 2002



## WORCESTER COUNTY--Continued

WELL NUMBER.--WO Ah 37. SITE ID.--382635075030603. PERMIT NUMBER.--WO-73-0517.

LOCATION.--Lat 38°26'35", long 75°03'06", Hydrologic Unit 02060010, at east end of 137th St., Ocean City.

Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 478 ft; casing diameter 4 in., to 468 ft; screen diameter 2 in. from 468 to 478 ft.

INSTRUMENTATION.--Monthly water level measurements with an electric tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recording interval from May 17, 1997 to current year

DATUM.--Elevation of land surface is 13.89 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of 4 in. casing, 3.10 ft above land surface.

REMARKS.--Ocean City Ground-Water Monitoring Network observation well. Water levels are affected by local ground-water withdrawal, especially during summer peak demands.

PERIOD OF RECORD.--December 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.58 ft below land surface, Feb. 10, 1977; lowest measured, 41.42 ft below land surface, Aug. 30, 1989.

## WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.54	13.24	14.19	12.76	13.28	11.69	13.31	11.34	11.97	10.13	12.83	10.97
2	15.12	13.84	14.26	12.74	13.44	11.55	13.19	11.38	12.43	10.87	12.74	10.30
3	15.41	14.04	14.23	12.71	13.41	11.59	13.04	11.15	12.36	10.73	11.88	10.37
4	15.42	14.10	14.09	12.43	13.46	11.86	12.57	10.99	11.93	10.59	12.34	10.41
5	15.44	14.06	13.95	12.39	13.48	11.91	12.77	11.40	11.97	10.63	12.49	11.05
6	15.45	14.17	13.80	12.21	13.26	11.80	12.69	11.28	12.18	10.88	12.71	11.31
7	15.37	14.07	13.76	12.42	13.19	11.87	12.47	11.19	11.91	10.82	12.50	11.50
8	15.43	14.20	13.72	12.36	12.92	11.54	12.61	11.18	11.99	10.43	12.02	11.00
9	15.43	14.09	13.82	12.31	12.73	11.45	13.03	11.31	11.99	10.64	11.93	10.82
10	15.34	14.18	13.76	12.41	12.92	11.42	12.99	11.52	11.96	10.54	12.62	10.80
11	15.36	13.96	13.89	12.36	12.94	11.39	12.78	11.03	12.25	10.51	12.63	11.41
12	15.02	13.48	14.02	12.29	12.92	11.29	12.79	11.25	12.12	10.53	12.60	11.02
13	14.90	13.21	14.07	12.31	12.83	10.97	12.61	10.69	12.22	10.71	12.12	10.38
14	14.72	12.74	14.12	12.32	12.93	11.20	13.23	11.71	12.22	10.89	11.83	10.42
15	14.76	13.01	14.14	12.22	13.11	11.52	13.39	11.35	12.30	11.07	11.97	10.61
16	14.91	12.94	13.83	11.99	12.93	11.34	13.15	11.55	12.09	10.69	11.95	10.72
17	15.07	12.94	13.71	11.74	12.85	11.22	12.64	11.25	11.72	10.65	11.71	10.24
18	15.45	13.59	13.41	11.82	12.42	11.23	12.55	11.33	11.62	10.61	11.37	10.27
19	15.15	13.37	13.54	12.19	12.65	11.48	12.50	11.08	11.48	10.58	11.49	10.35
20	14.93	13.36	13.45	12.29	12.69	11.52	12.11	10.97	11.49	10.55	11.31	10.30
21	14.73	13.31	13.26	12.14	13.06	12.11	12.18	11.19	11.47	10.60	11.34	10.29
22	14.64	13.37	13.19	12.19	12.61	11.68	12.96	11.49	11.77	10.39	11.99	10.45
23	14.32	13.11	13.12	12.18	12.48	11.58	12.60	11.90	11.89	10.58	15.52	11.13
24	13.97	12.95	13.01	12.08	12.33	11.37	12.43	11.21	11.89	10.41	15.04	11.69
25	14.00	13.00	12.99	12.00	12.54	11.46	12.46	10.97	12.02	10.26	13.18	10.81
26	14.37	13.23	13.10	12.03	12.30	11.21	12.87	11.15	12.06	10.13	15.51	10.33
27	14.38	13.20	13.15	11.92	12.70	10.99	12.87	11.17	11.97	9.86	15.51	10.59
28	14.13	12.98	13.19	11.86	13.01	11.24	12.61	10.69	12.61	10.80	12.36	10.38
29	14.27	13.01	13.19	11.64	13.01	11.22	12.39	10.34	---	---	14.39	10.55
30	14.29	12.96	13.05	11.53	13.01	11.21	12.32	10.35	---	---	15.18	10.71
31	14.17	12.76	---	---	13.36	11.45	12.14	10.07	---	---	15.44	10.93
MONTH	15.45	12.74	14.26	11.53	13.48	10.97	13.39	10.07	12.61	9.86	15.52	10.24

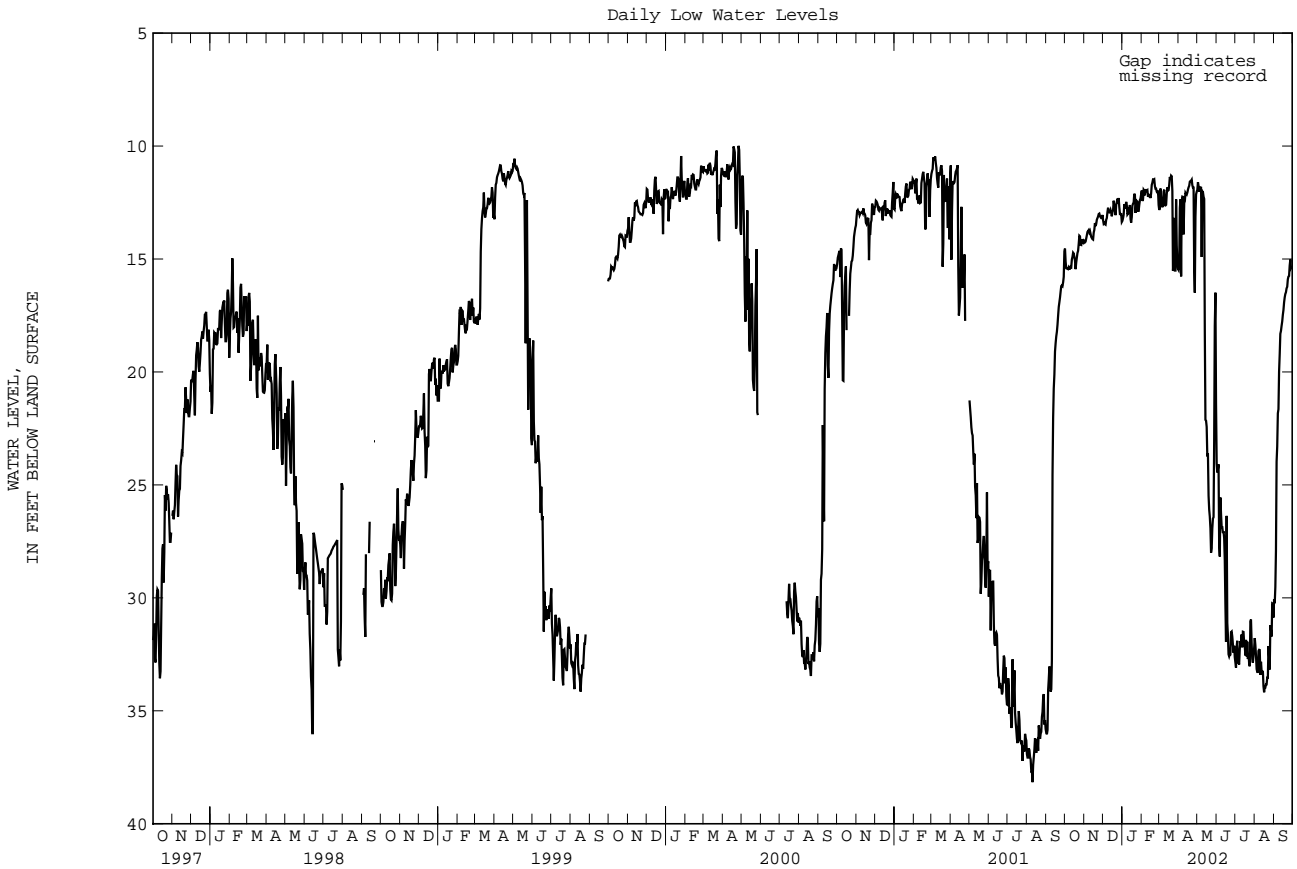
GROUND-WATER LEVELS IN MARYLAND--Continued

WORCESTER COUNTY--Continued

WO Ah 37--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN									
	APRIL				MAY				JUNE				JULY				AUGUST				SEPTEMBER			
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN				
1	15.49	11.12	11.94	10.42	24.05	20.44	32.86	30.94	31.78	30.37	30.06	28.54												
2	15.18	11.64	11.60	10.41	24.45	22.80	33.09	31.16	32.09	29.95	30.24	28.03												
3	12.74	11.23	11.77	10.38	24.30	22.64	32.16	29.85	32.55	30.39	29.52	26.49												
4	12.36	11.20	12.02	10.79	24.09	21.55	31.90	28.65	33.15	30.83	27.91	23.61												
5	15.77	11.06	11.88	10.96	27.61	20.95	32.83	30.60	33.28	31.14	23.97	20.97												
6	12.46	11.63	11.83	10.86	28.17	23.98	32.81	31.37	33.28	30.51	23.30	19.66												
7	12.24	11.16	11.84	10.81	25.56	23.98	32.95	30.90	32.35	29.62	21.83	19.43												
8	12.25	11.22	14.91	10.75	26.31	24.55	32.25	30.21	32.30	29.68	21.65	18.48												
9	13.91	11.56	12.00	10.57	26.87	24.72	31.91	29.84	32.31	29.84	19.99	17.78												
10	12.52	11.19	12.04	10.75	26.87	25.34	32.10	29.55	33.41	30.28	19.20	16.97												
11	12.44	10.83	12.24	10.94	27.13	25.57	31.62	29.18	32.83	30.61	18.31	16.66												
12	12.07	10.75	12.34	10.64	27.05	25.49	32.19	29.83	33.24	31.10	18.18	16.71												
13	12.12	10.78	18.25	10.74	27.36	25.41	31.50	29.97	33.29	31.14	17.96	16.66												
14	12.15	10.67	22.12	18.25	28.34	25.64	31.51	29.48	33.23	31.56	17.76	16.54												
15	12.06	10.60	22.16	20.73	30.35	25.76	31.99	28.30	33.91	31.48	17.47	16.22												
16	11.93	10.54	22.43	21.25	31.95	26.37	32.14	30.01	34.18	32.00	17.26	15.95												
17	11.83	10.54	23.74	21.17	26.37	20.43	32.55	29.84	33.95	31.37	16.92	15.50												
18	11.76	10.39	23.61	21.17	31.11	25.21	31.86	28.75	33.96	30.24	16.70	15.24												
19	11.58	10.39	25.48	22.56	31.65	28.84	32.59	29.49	33.83	30.39	16.55	15.08												
20	11.55	10.42	26.09	24.16	32.50	28.43	31.94	29.59	33.83	30.42	16.47	15.08												
21	11.54	10.36	26.40	24.59	32.59	30.80	32.71	29.34	33.53	30.78	16.30	15.01												
22	11.49	10.19	26.92	24.65	32.50	28.99	32.45	29.11	33.53	30.04	16.23	14.82												
23	11.73	10.06	28.00	25.33	32.50	29.45	32.89	29.67	32.14	29.97	15.90	14.64												
24	11.84	10.20	27.80	25.04	31.52	28.57	33.03	30.00	32.61	29.60	15.78	14.58												
25	11.84	10.05	26.93	24.67	31.49	27.54	31.05	28.12	33.17	30.05	15.75	14.51												
26	15.47	10.13	26.49	24.42	31.71	29.01	30.96	28.59	31.21	28.84	15.29	13.98												
27	16.49	10.97	26.43	23.06	32.05	29.29	32.01	29.00	31.42	29.84	15.02	14.00												
28	13.13	10.34	23.06	16.89	32.43	30.35	32.71	30.03	31.71	28.01	15.42	14.29												
29	12.14	10.35	17.96	15.32	32.12	30.85	32.87	30.82	30.25	28.69	15.38	14.23												
30	12.02	10.52	16.49	14.50	32.63	30.95	32.58	30.69	30.27	28.39	15.36	14.18												
31	---	---	21.39	14.51	---	---	32.24	30.71	30.87	29.55	---	---												
MONTH	16.49	10.05	28.00	10.38	32.63	20.43	33.09	28.12	34.18	28.01	30.24	13.98												
YEAR	34.18	9.86																						



WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bg 1. SITE ID.--382022075072401.

LOCATION.--Lat 38°20'22", long 75°07'24", Hydrologic Unit 02060010, 0.4 mi east of Herring Creek on U.S. Rt. 50.

Owner: MD State Highway Administration.

AQUIFER.--Sinepuxent Formation (Columbia aquifer) of Pleistocene age. Aquifer code: 112SNPX.

WELL CHARACTERISTICS.--Driven, water-table well, depth 14 ft; casing diameter 1.25 in., to 14 ft.

INSTRUMENTATION.--Monthly water level measurements with electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.25 ft above land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well.

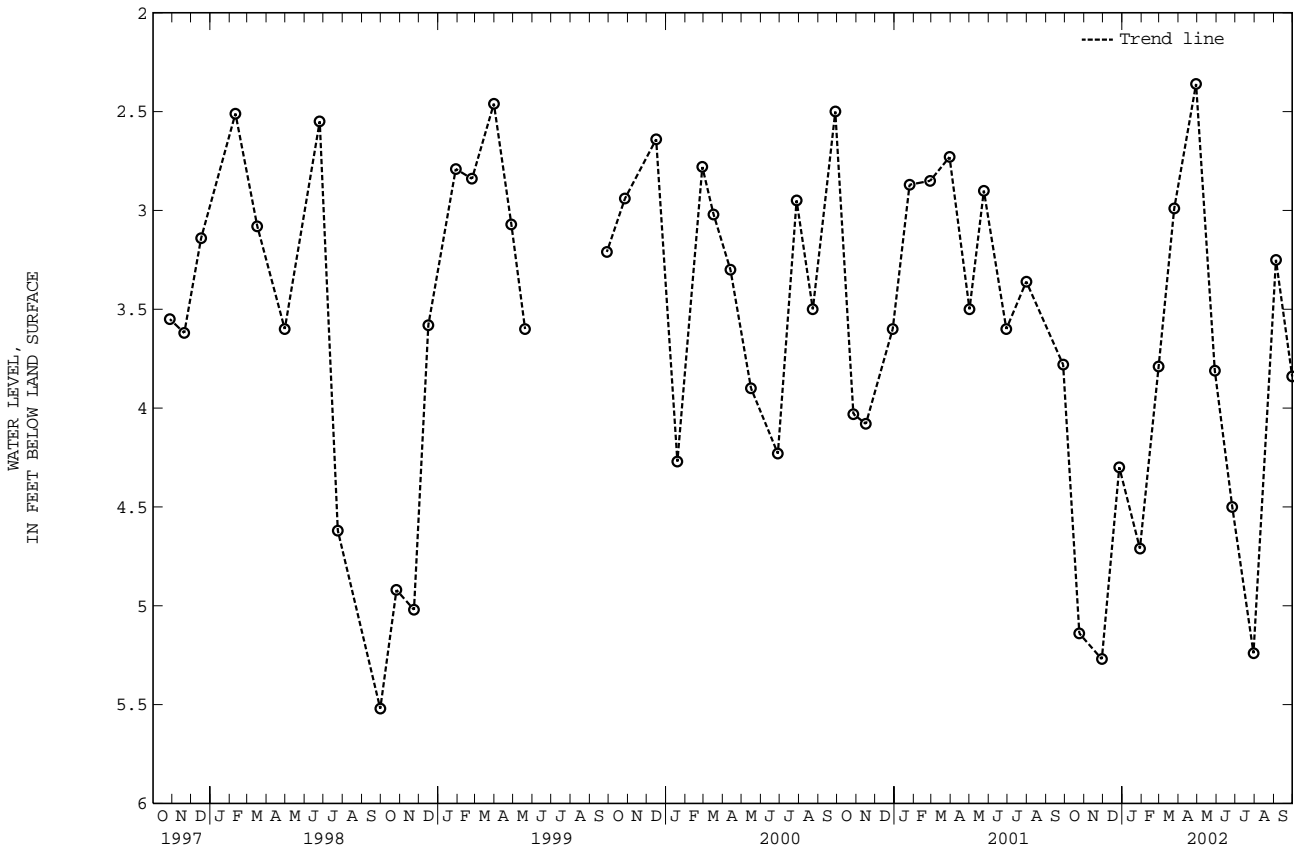
PERIOD OF RECORD.--August 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.41 ft below land surface, March 8, 1962;

lowest measured, 8.61 ft below land surface, May 14, 1986.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	5.14	JAN 29, 2002	4.71	APR 29, 2002	2.36	JUL 30, 2002	5.24
NOV 29	5.27	FEB 28	3.79	MAY 29	3.81	SEP 04	3.25
DEC 27	4.30	MAR 25	2.99	JUN 26	4.50	30	3.84
WATER YEAR 2002		HIGHEST	2.36	APR 29, 2002	LOWEST	5.27	NOV 29, 2001



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

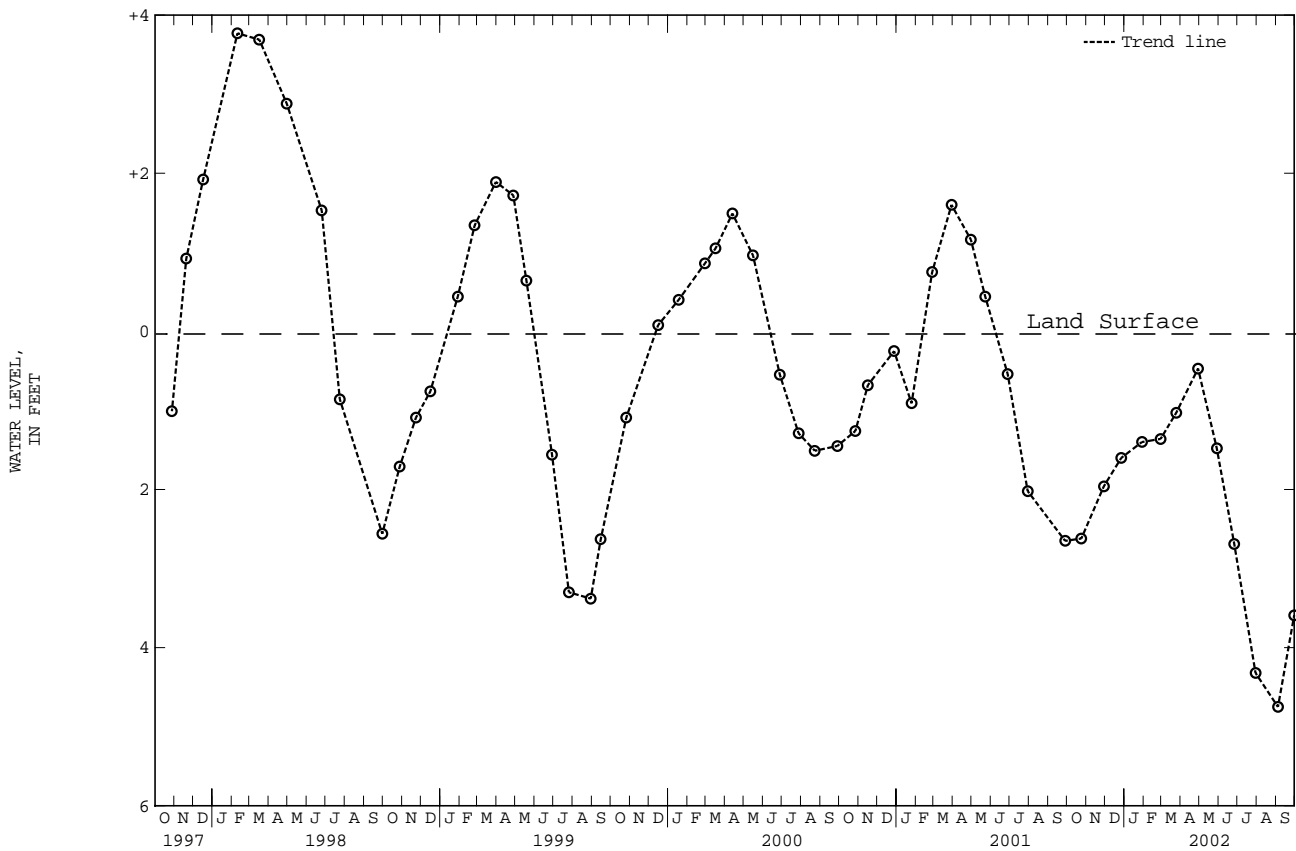
GROUND-WATER LEVELS IN MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bg 15. SITE ID.--382359075094501. PERMIT NUMBER.--WO-68-0066.  
 LOCATION.--Lat 38°23'59", long 75°09'45", Hydrologic Unit 02060010, south side of Beauchamp Rd. at Ocean Pines.  
 Owner: Ocean Pines.  
 AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 318 ft; casing diameter 6 in., to 288 ft;  
 screen diameter 6 in. from 288 to 318 ft.  
 INSTRUMENTATION.--Monthly water level measurements with an electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 7 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of 6 in. casing, 5.50 ft above land surface.  
 REMARKS.--Ocean City Ground-Water Monitoring Network observation well. Water levels are affected by local ground-water  
 withdrawal, especially during summer peak demands  
 PERIOD OF RECORD.--September 1970 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.13 ft above land surface, Feb. 29, 1972;  
 lowest measured, 4.75 ft below land surface, Sept. 4, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	2.62	JAN 29, 2002	1.40	APR 29, 2002	.47	JUL 30, 2002	4.32
NOV 29	1.96	FEB 28	1.36	MAY 29	1.48	SEP 04	4.75
DEC 27	1.60	MAR 25	1.03	JUN 26	2.69	30	3.59
WATER YEAR 2002		HIGHEST	.47	APR 29, 2002	LOWEST	4.75	SEP 04, 2002



WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bg 45. SITE ID.--382358075094501. PERMIT NUMBER.--WO-68-0066.

LOCATION.--Lat 38°23'58", long 75°09'45", Hydrologic Unit 02060010, south side of Beauchamp Rd. at Ocean Pines.

Owner: Ocean Pines.

AQUIFER.--Beaverdam Sand of Pliocene age. Aquifer code: 121BVDM.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 77 ft; casing diameter 2 in., to 56 ft; screen diameter 3 in. from 56 to 77 ft.

INSTRUMENTATION.--Monthly water level measurements with an electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of 2 in. casing, 1.60 ft above land surface.

REMARKS.--Ocean City Ground-Water Monitoring Network observation well. Water levels may be affected by local ground-water withdrawal.

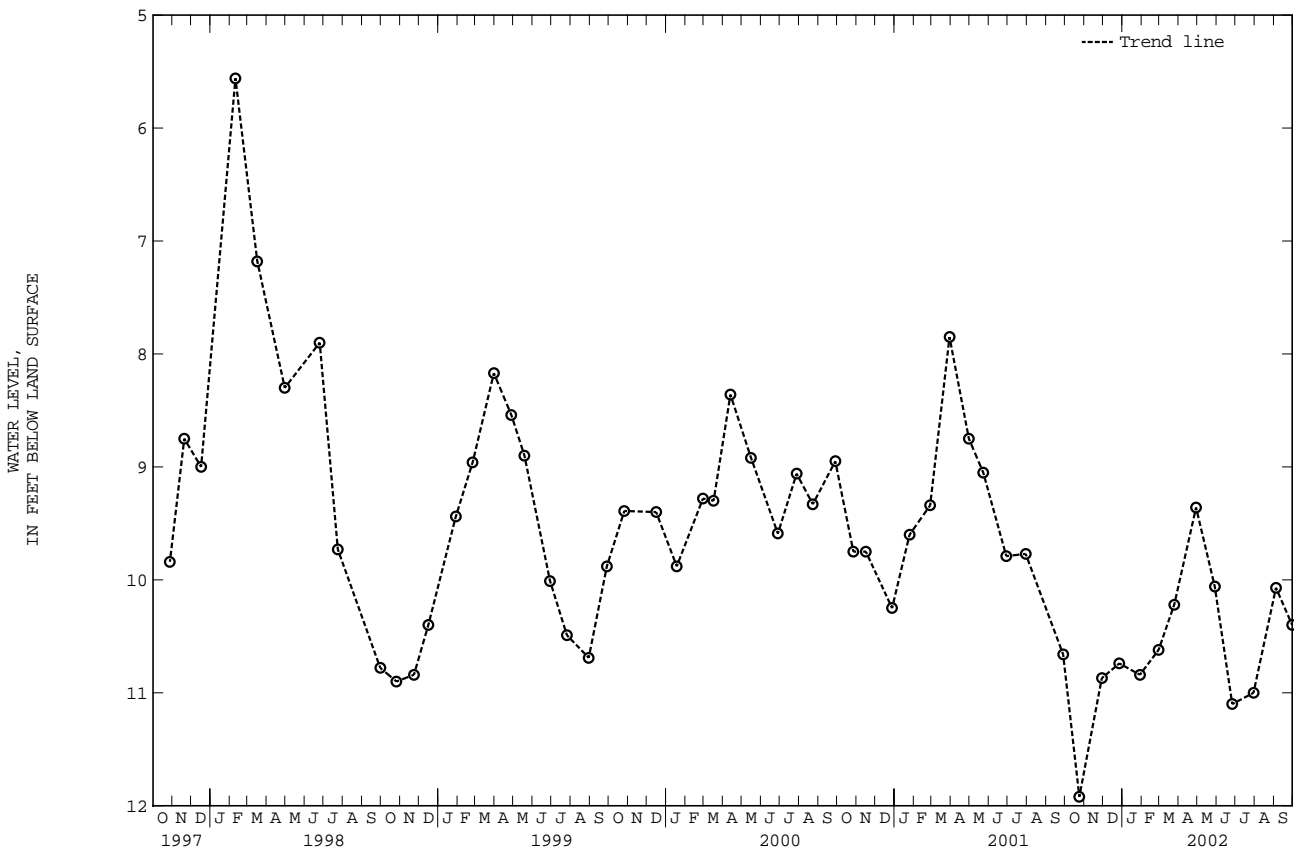
PERIOD OF RECORD.--October 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.22 ft below land surface, Jan. 8, 1971; lowest measured, 11.92 ft below land surface, Oct. 24, 2001.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	11.92	JAN 29, 2002	10.84	APR 29, 2002	9.36	JUL 30, 2002	11.00
NOV 29	10.87	FEB 28	10.62	MAY 29	10.06	SEP 04	10.07
DEC 27	10.74	MAR 25	10.22	JUN 26	11.10	30	10.40

WATER YEAR 2002 HIGHEST 9.36 APR 29, 2002 LOWEST 11.92 OCT 24, 2001



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

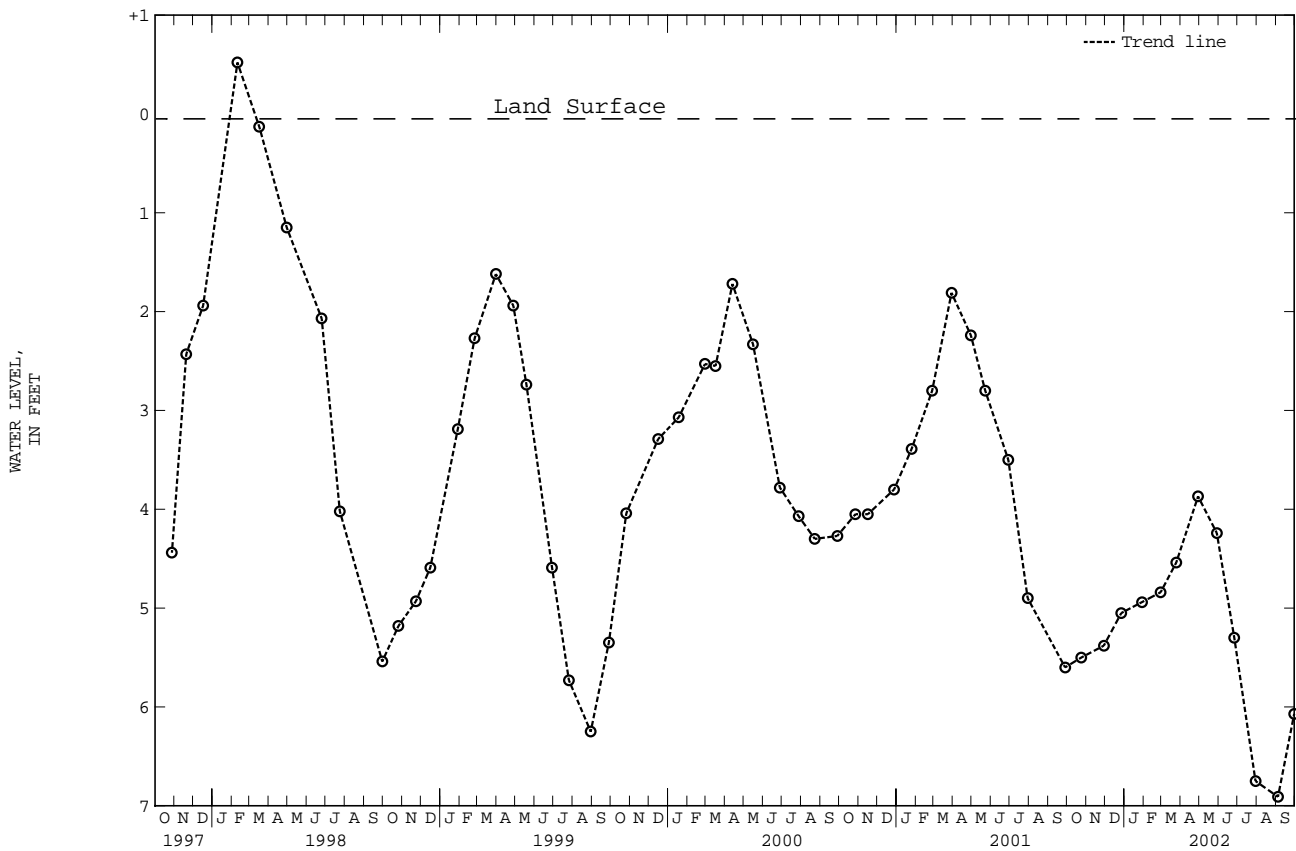
GROUND-WATER LEVELS IN MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bg 46. SITE ID.--382358075094502 PERMIT NUMBER.--WO-68-0066  
 LOCATION.--Lat 38°23'58", long 75°09'45", Hydrologic Unit 02060010, south side of Beauchamp Rd. at Ocean Pines.  
 Owner: Ocean Pines  
 AQUIFER.--Pocomoke aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122PCMK.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 199.5 ft; casing diameter 6 in., to 53.7 ft; casing diameter 4 in. from 53.7 to 164.2 ft, and 194.5 to 199.5 ft; screen diameter 6 in. from 164.2 to 194.5 ft.  
 INSTRUMENTATION.--Monthly water level measurements with an electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of 2 in. coupling, 2.50 ft above land surface.  
 REMARKS.--Ocean City Ground-Water Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.  
 PERIOD OF RECORD.--October 1970 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.52 ft above land surface, Feb. 10, 1998;  
 lowest measured, 6.91 ft below land surface, Sept. 4, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	5.50	JAN 29, 2002	4.94	APR 29, 2002	3.87	JUL 30, 2002	6.75
NOV 29	5.38	FEB 28	4.84	MAY 29	4.24	SEP 04	6.91
DEC 27	5.05	MAR 25	4.54	JUN 26	5.30	30	6.07
WATER YEAR 2002		HIGHEST	3.87	APR 29, 2002	LOWEST	6.91	SEP 04, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



## WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bg 47. SITE ID.--382325075063301. PERMIT NUMBER.--WO-73-0522.

LOCATION.--Lat 38°23'25", long 75°06'33", Hydrologic Unit 02060010, at intersection of MD Rt. 90 and Isle of Wight Rd., Isle of Wight.

Owner: U.S. Geological Survey.

AQUIFER.--Ocean City aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 1220CNC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 268 ft; casing diameter 4 in., to 258 ft; screen diameter 2 in. from 258 to 268 ft.

INSTRUMENTATION.--Monthly water level measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recording interval from July 1985 to current year.

DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of recorder shelf, 4.07 ft above land surface.

REMARKS.--Ocean City Ground-Water Monitoring Network observation well. Water levels are affected by local ground-water withdrawal, especially during summer peak demands. Missing data due to recorder malfunction.

PERIOD OF RECORD.--September 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.71 ft below land surface, February 5, 1998 (recorder); lowest measured, 15.42 ft below land surface, April 11, 2002 (recorder).

## WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	8.22	7.62	7.68	6.90	6.46	5.72	7.29	6.72
2	---	---	---	---	8.42	7.61	7.57	6.89	7.04	6.33	7.21	6.21
3	---	---	---	---	8.34	7.54	7.53	6.76	6.99	6.44	6.51	5.97
4	---	---	---	---	8.39	7.73	7.15	6.51	6.73	6.10	7.32	6.10
5	---	---	---	---	8.43	7.74	7.35	6.83	6.74	6.24	7.47	6.82
6	---	---	---	---	8.28	7.60	7.34	6.54	6.88	6.28	7.61	6.93
7	---	---	---	---	8.23	7.63	7.12	6.56	6.93	6.23	---	---
8	---	---	---	---	8.15	7.28	7.15	6.66	6.63	5.99	---	---
9	11.45	10.76	---	---	7.86	7.25	7.41	6.75	6.75	6.21	---	---
10	11.30	10.78	---	---	7.83	7.22	7.56	7.02	6.71	6.08	---	---
11	11.39	10.74	---	---	7.89	7.22	7.39	6.58	6.85	6.09	---	---
12	11.10	10.25	---	---	7.93	7.20	7.33	6.75	6.90	6.17	---	---
13	10.74	10.02	---	---	7.68	6.88	7.21	6.48	6.90	6.38	---	---
14	10.52	9.66	---	---	7.80	7.08	7.64	7.02	6.96	6.45	---	---
15	10.52	9.81	---	---	7.99	7.35	7.66	6.88	6.96	6.54	---	---
16	10.66	9.93	---	---	7.92	7.08	7.30	6.81	6.88	6.29	---	---
17	10.66	9.96	---	---	7.68	6.88	7.25	6.60	6.63	6.14	---	---
18	10.93	10.33	---	---	7.43	6.83	7.21	6.69	6.68	6.21	---	---
19	10.70	9.94	---	---	7.50	6.91	7.24	6.62	6.46	6.05	---	---
20	10.42	9.75	---	---	7.50	6.94	6.78	6.32	6.54	6.01	---	---
21	10.28	9.63	---	---	7.87	7.33	6.92	6.43	6.62	6.08	---	---
22	10.27	9.69	---	---	7.76	6.87	7.72	6.73	6.76	5.99	---	---
23	10.35	9.39	---	---	7.29	6.75	7.72	7.09	6.79	6.22	---	---
24	---	---	---	---	7.17	6.69	7.31	6.58	6.83	6.12	---	---
25	---	---	---	---	7.19	6.66	7.04	6.45	6.76	6.06	---	---
26	---	---	---	---	7.22	6.53	7.12	6.54	6.77	5.99	---	---
27	---	---	---	---	7.00	6.35	7.34	6.70	6.59	5.84	9.44	5.98
28	---	---	---	---	7.23	6.61	7.10	6.25	7.18	6.29	10.51	7.28
29	---	---	---	---	7.45	6.67	6.85	6.04	---	---	11.19	8.02
30	---	---	8.10	7.41	7.51	6.74	6.76	6.06	---	---	12.49	8.70
31	---	---	---	---	7.62	6.94	6.72	5.95	---	---	12.92	9.29
MONTH	---	---	---	---	8.43	6.35	7.72	5.95	7.18	5.72	---	---

GROUND-WATER LEVELS IN MARYLAND--Continued

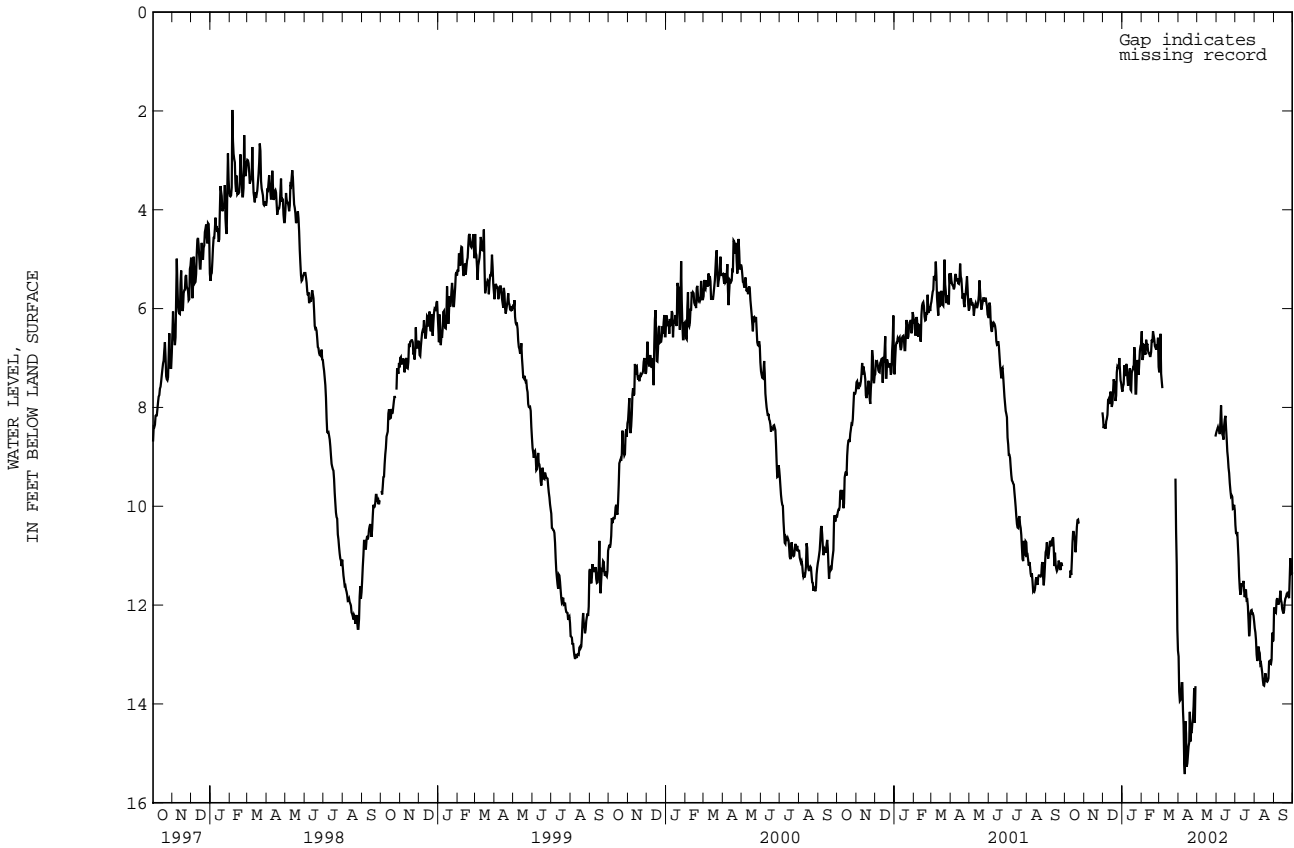
WORCESTER COUNTY--Continued

WO Bg 47--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.04	8.82	---	---	8.48	8.02	10.38	9.73	12.47	12.06	12.05	11.15
2	13.75	10.20	---	---	8.44	7.89	10.54	10.09	12.55	12.11	12.17	11.52
3	13.94	10.39	---	---	8.40	7.91	10.56	10.20	12.70	12.32	12.12	11.47
4	13.92	11.30	---	---	8.45	8.05	10.52	10.14	13.00	12.52	12.14	11.34
5	13.81	10.88	---	---	8.46	8.08	10.79	10.40	13.13	12.54	11.90	11.21
6	13.58	10.57	---	---	8.54	7.96	11.05	10.60	13.09	12.22	11.86	11.18
7	13.58	10.70	---	---	8.29	7.30	11.42	10.92	12.84	12.16	11.94	11.22
8	14.13	11.71	---	---	7.96	7.33	11.66	11.04	12.93	12.23	11.99	11.36
9	14.43	12.08	---	---	8.31	7.52	11.79	11.13	12.97	12.24	11.94	11.38
10	15.19	12.87	---	---	8.54	7.84	11.74	11.01	13.20	12.41	11.90	11.22
11	15.42	12.19	---	---	8.58	7.88	11.56	10.89	13.18	12.67	11.71	11.03
12	14.35	11.68	---	---	8.65	7.91	11.59	10.89	13.27	12.74	11.89	11.31
13	14.60	11.90	---	---	8.36	7.54	11.58	10.96	13.37	12.87	11.95	11.43
14	15.27	11.91	---	---	8.24	7.50	11.51	10.95	13.52	13.02	12.08	11.59
15	15.20	12.08	---	---	8.17	7.48	11.71	10.98	13.62	13.14	12.13	11.57
16	15.03	12.12	---	---	8.41	7.60	11.84	11.32	13.63	13.07	12.17	11.69
17	14.86	11.82	---	---	8.62	7.86	11.70	11.14	13.54	12.92	12.11	11.49
18	14.78	11.72	---	---	8.89	8.21	11.70	11.17	13.38	12.74	11.95	11.29
19	14.16	11.08	---	---	9.02	8.65	11.90	11.29	13.45	12.85	11.87	11.27
20	14.76	11.38	---	---	9.22	8.65	11.89	11.28	13.54	12.89	11.84	11.33
21	14.57	11.54	---	---	9.33	8.72	12.02	11.43	13.55	12.94	11.79	11.33
22	14.57	10.80	---	---	9.53	8.90	12.31	11.61	13.53	12.94	11.80	11.33
23	14.39	10.98	---	---	9.68	8.96	12.63	11.79	13.48	12.81	11.73	11.22
24	14.29	11.37	---	---	9.80	9.06	12.51	11.64	13.14	12.61	11.81	11.33
25	14.05	10.02	---	---	9.78	9.05	12.17	11.49	13.13	12.61	11.86	11.32
26	13.68	10.41	---	---	9.81	9.05	12.11	11.49	13.18	12.68	11.47	10.71
27	14.38	10.74	---	---	10.05	9.22	12.10	11.51	13.19	12.79	11.05	10.50
28	13.64	9.03	---	---	10.04	9.47	12.17	11.62	13.10	12.25	11.34	10.81
29	---	---	---	---	9.97	9.51	12.17	11.71	12.56	12.13	11.39	10.77
30	---	---	8.59	7.85	10.08	9.49	12.22	11.76	12.74	12.32	11.34	10.73
31	---	---	8.53	7.95	---	---	12.33	11.90	12.71	12.04	---	---
MONTH	---	---	---	---	10.08	7.30	12.63	9.73	13.63	12.04	12.17	10.50

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bg 48. SITE ID.--382325075063302. PERMIT NUMBER.--WO-73-0521.

LOCATION.--Lat 38°23'25", long 75°06'33", Hydrologic Unit 02060010, at intersection of MD Rt. 90 and Isle of Wight Rd., Isle of Wight.

Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 420 ft; casing diameter 4 in., to 410 ft; screen diameter 2 in. from 410 to 420 ft.

INSTRUMENTATION.--Monthly water level measurements with an electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recording interval from July 1985 to current year.

DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of recorder shelf, 3.87 ft above land surface.

REMARKS.--Ocean City Ground-Water Monitoring Network observation well. Water levels are affected by local ground-water withdrawal, especially during summer peak demands

PERIOD OF RECORD.--September 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.54 ft below land surface, February 24, 1998 (recorder); lowest measured, 15.06 ft below land surface, Aug. 16, 23, 2002 (recorder).

## WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.54	10.02	9.72	9.21	8.53	8.01	7.89	7.22	6.78	6.12	7.03	6.53
2	11.02	10.27	9.71	9.18	8.74	8.04	7.79	7.20	7.37	6.69	6.95	6.00
3	11.23	10.74	9.66	9.11	8.65	7.95	7.73	7.05	7.33	6.84	6.24	5.76
4	11.28	10.86	9.60	8.85	8.68	8.12	7.38	6.83	7.07	6.52	6.86	5.88
5	11.32	10.87	9.42	8.75	8.73	8.12	7.57	7.09	7.12	6.67	7.03	6.50
6	11.44	10.97	9.34	8.64	8.57	7.98	7.58	6.85	7.28	6.72	7.16	6.61
7	11.52	11.02	9.31	8.73	8.52	8.01	7.38	6.85	7.29	6.68	7.45	6.76
8	11.72	11.26	9.31	8.62	8.43	7.68	7.45	6.98	7.03	6.48	7.37	6.77
9	11.85	11.25	9.21	8.62	8.18	7.64	7.69	7.05	7.17	6.72	7.05	6.51
10	11.72	11.27	9.17	8.66	8.16	7.65	7.79	7.31	7.16	6.60	7.29	6.46
11	11.78	11.15	9.28	8.79	8.21	7.63	7.65	6.92	7.28	6.57	7.47	7.14
12	11.45	10.71	9.20	8.68	8.26	7.64	7.58	7.08	7.35	6.70	7.43	6.72
13	11.13	10.49	9.21	8.72	8.03	7.33	7.46	6.82	7.36	6.90	6.99	6.18
14	10.93	10.10	9.24	8.74	8.12	7.53	7.87	7.36	7.44	7.00	6.72	6.24
15	10.91	10.25	9.30	8.68	8.35	7.79	7.88	7.19	7.44	7.05	6.84	6.43
16	11.04	10.42	9.11	8.48	8.30	7.58	7.56	7.13	7.36	6.78	6.91	6.43
17	11.09	10.46	9.07	8.31	8.04	7.33	7.50	6.92	7.13	6.70	6.86	6.12
18	11.35	10.83	8.87	8.24	7.76	7.23	7.46	6.99	7.20	6.78	6.54	6.07
19	11.13	10.43	9.03	8.48	7.83	7.34	7.49	6.86	7.00	6.64	6.74	6.13
20	10.79	10.19	9.00	8.51	7.81	7.34	7.06	6.62	7.08	6.61	6.52	6.08
21	10.62	10.01	8.90	8.28	8.18	7.68	7.18	6.72	7.18	6.68	6.66	6.14
22	10.53	10.01	8.73	8.27	8.05	7.29	7.94	7.02	7.37	6.64	7.21	6.43
23	10.37	9.73	8.75	8.25	7.61	7.12	7.93	7.37	7.41	6.89	7.47	6.91
24	10.03	9.49	8.57	8.08	7.47	7.05	7.56	6.86	7.44	6.82	7.48	7.09
25	10.03	9.56	8.47	8.03	7.50	7.04	7.26	6.76	7.38	6.76	7.32	6.40
26	10.16	9.75	8.55	8.16	7.50	6.92	7.43	6.87	7.37	6.68	6.77	6.06
27	10.24	9.79	8.59	8.12	7.34	6.71	7.58	7.02	7.22	6.56	6.54	5.95
28	10.06	9.51	8.59	8.11	7.52	6.97	7.37	6.61	7.65	6.50	6.74	6.21
29	9.88	9.47	8.63	7.97	7.69	7.03	7.09	6.37	---	---	6.88	6.25
30	9.92	9.43	8.39	7.81	7.76	7.09	7.02	6.41	---	---	6.86	6.26
31	9.78	9.25	---	---	7.84	7.28	7.03	6.25	---	---	6.97	6.32
MONTH	11.85	9.25	9.72	7.81	8.74	6.71	7.94	6.25	7.65	6.12	7.48	5.76

GROUND-WATER LEVELS IN MARYLAND--Continued

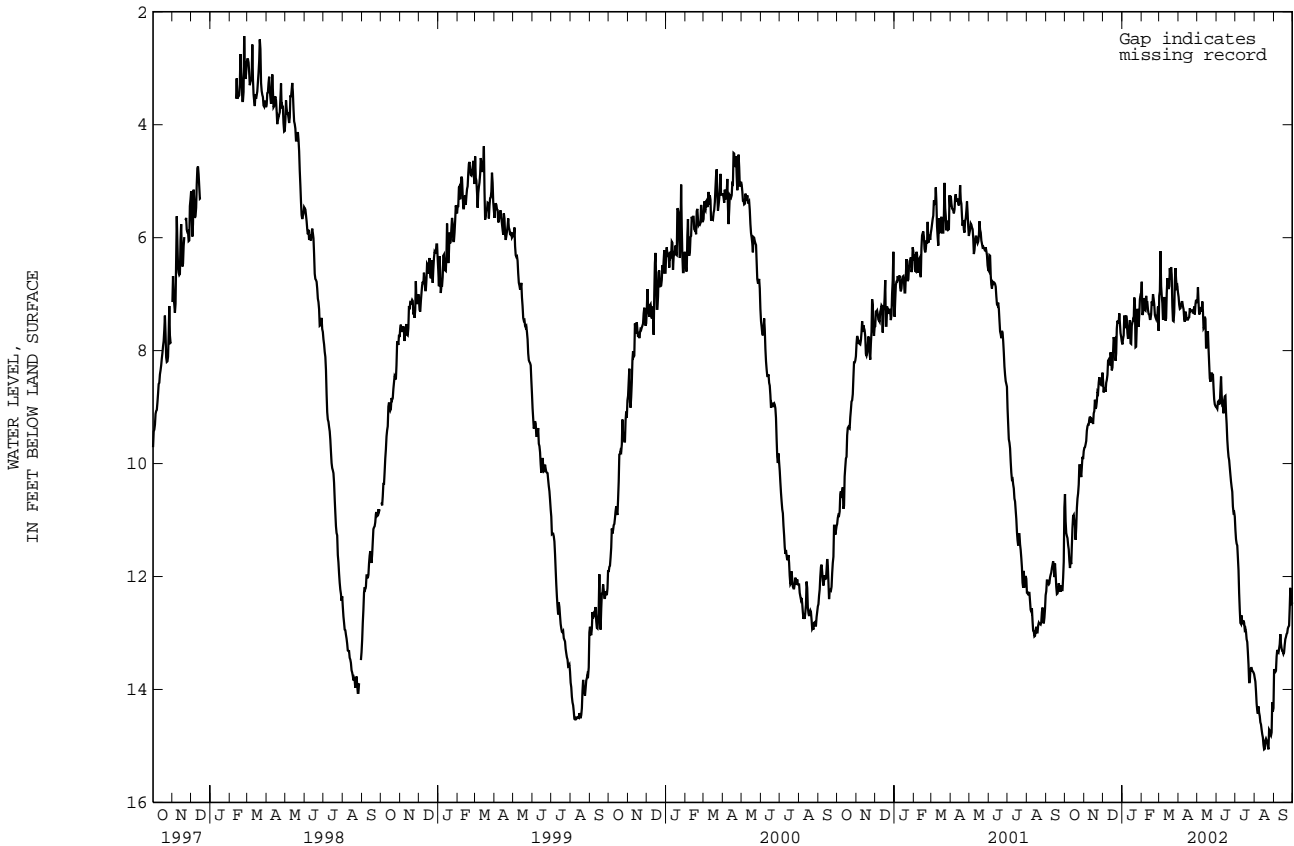
WORCESTER COUNTY--Continued

WO Bg 48--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.05	6.26	7.14	6.55	9.01	8.54	11.17	10.57	13.80	13.43	13.64	12.73
2	7.19	6.55	6.88	6.46	9.03	8.50	11.34	10.87	13.86	13.46	13.68	13.09
3	7.26	6.61	7.16	6.38	8.92	8.50	11.42	11.07	14.03	13.64	13.69	13.06
4	7.25	6.78	7.36	6.77	8.93	8.54	11.45	11.08	14.25	13.79	13.67	12.95
5	7.19	6.71	7.33	6.90	8.87	8.50	11.67	11.28	14.37	13.88	13.42	12.76
6	7.14	6.64	7.27	6.86	8.95	8.41	11.89	11.46	14.43	13.74	13.30	12.67
7	7.14	6.66	7.23	6.84	8.70	7.85	12.29	11.81	14.30	13.72	13.34	12.77
8	7.22	6.81	7.31	6.80	8.46	7.90	12.59	12.04	14.41	13.84	13.35	12.80
9	7.27	6.89	7.13	6.65	8.78	8.11	12.82	12.20	14.47	13.87	13.28	12.73
10	7.44	7.05	7.30	6.85	8.98	8.36	12.84	12.16	14.58	13.92	13.20	12.52
11	7.49	6.95	7.61	7.10	8.99	8.39	12.69	12.07	14.62	14.05	13.02	12.37
12	7.31	6.87	7.59	6.98	9.11	8.40	12.82	12.07	14.71	14.18	13.19	12.65
13	7.36	6.90	7.40	6.63	8.88	8.15	12.83	12.22	14.79	14.32	13.27	12.75
14	7.45	6.91	7.44	6.64	8.81	8.12	12.78	12.24	14.85	14.42	13.32	12.83
15	7.45	6.91	7.96	7.03	8.80	8.14	12.82	12.22	14.98	14.53	13.33	12.78
16	7.45	6.94	7.86	7.35	9.10	8.29	12.94	12.44	15.06	14.56	13.37	12.88
17	7.42	6.91	7.89	7.27	9.30	8.59	12.92	12.41	15.05	14.47	13.34	12.74
18	7.41	6.89	7.66	7.16	9.58	8.92	12.98	12.49	14.90	14.31	13.21	12.59
19	7.25	6.75	7.98	6.99	9.75	9.22	13.11	12.51	14.87	14.27	13.11	12.55
20	7.30	6.74	8.24	7.55	9.88	9.38	13.16	12.62	14.90	14.31	13.07	12.59
21	7.29	6.74	8.49	7.82	9.94	9.40	13.34	12.79	14.94	14.40	13.02	12.59
22	7.29	6.63	8.55	8.07	10.07	9.52	13.56	13.02	15.01	14.44	13.00	12.53
23	7.29	6.74	8.50	7.91	10.20	9.58	13.87	13.22	15.06	14.42	12.92	12.43
24	7.34	6.85	8.39	7.82	10.32	9.69	13.87	13.13	14.71	14.23	12.89	12.42
25	7.30	6.60	8.45	7.75	10.42	9.76	13.65	13.02	14.73	14.23	12.87	12.36
26	7.22	6.67	8.41	7.82	10.50	9.80	13.62	13.02	14.80	14.32	12.57	11.85
27	7.36	6.73	8.66	7.86	10.76	9.97	13.62	13.05	14.82	14.43	12.20	11.67
28	7.18	6.35	8.86	8.06	10.87	10.26	13.67	13.14	14.76	13.94	12.46	11.93
29	7.10	6.34	8.95	8.25	10.86	10.39	13.68	13.22	14.23	13.83	12.51	11.92
30	7.14	6.51	8.98	8.34	10.94	10.39	13.70	13.26	14.39	13.98	12.46	11.85
31	---	---	9.00	8.41	---	---	13.73	13.35	14.33	13.64	---	---
MONTH	7.49	6.26	9.00	6.38	10.94	7.85	13.87	10.57	15.06	13.43	13.69	11.67
YEAR	15.06	5.76										

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

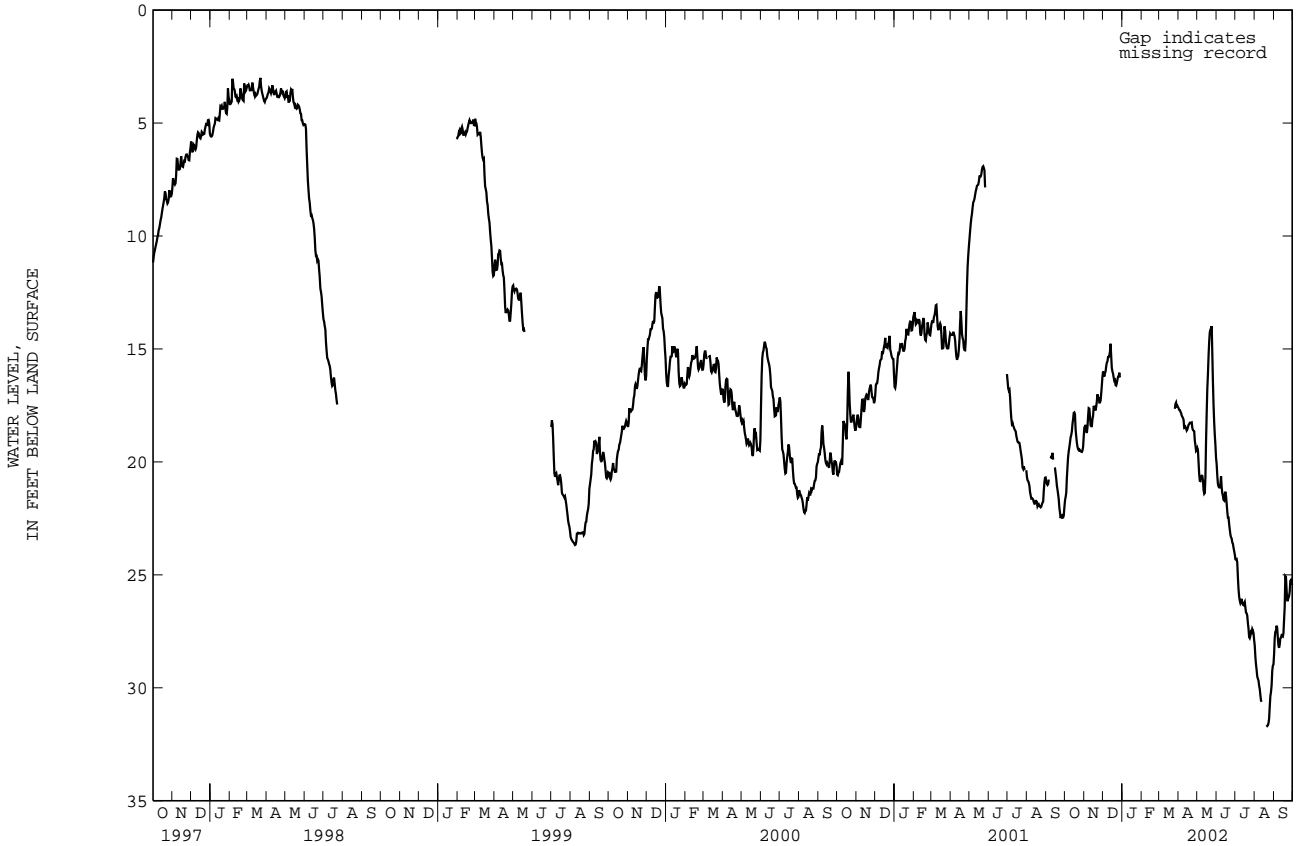
WORCESTER COUNTY--Continued

WO Bg 49--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	17.62	17.42	19.39	19.29	20.11	19.78	24.31	24.01	28.14	27.88	28.51	27.67
2	17.70	17.56	19.50	19.30	20.61	20.09	24.32	24.12	28.63	28.12	27.78	27.52
3	17.71	17.58	20.03	19.49	20.98	20.58	24.30	24.14	28.96	28.63	27.52	27.32
4	17.78	17.63	20.54	20.03	21.09	20.93	24.46	24.14	29.21	28.96	27.47	27.25
5	17.84	17.70	20.84	20.52	21.13	20.99	25.12	24.46	29.50	29.21	27.25	27.10
6	17.95	17.79	20.85	20.64	21.13	20.97	25.63	25.12	29.60	29.46	27.35	27.16
7	18.00	17.89	20.66	20.38	20.97	20.56	25.96	25.63	29.68	29.48	27.80	27.35
8	18.06	17.98	20.61	20.44	20.64	20.48	26.14	25.96	29.90	29.68	28.13	27.80
9	18.14	18.04	20.62	20.52	21.11	20.64	26.25	26.07	30.05	29.86	28.23	28.01
10	18.50	18.14	20.81	20.59	21.39	21.11	26.18	26.06	30.32	30.05	28.08	27.81
11	18.49	18.40	21.24	20.81	21.50	21.37	26.06	25.96	30.56	30.31	27.81	27.59
12	18.45	18.34	21.41	21.24	21.68	21.47	26.24	25.94	30.62	30.54	27.78	27.64
13	18.52	18.37	21.37	20.66	21.71	21.40	26.32	26.17	---	---	27.68	27.53
14	18.61	18.47	20.66	19.05	21.40	21.23	26.34	26.21	---	---	27.71	27.55
15	18.56	18.42	19.05	17.85	21.32	21.14	26.26	26.04	---	---	27.73	27.56
16	18.46	18.36	17.85	16.75	21.52	21.25	26.20	25.94	---	---	27.58	26.97
17	18.36	18.30	16.75	16.12	21.84	21.45	26.45	26.15	---	---	26.97	26.42
18	18.32	18.23	16.12	15.29	22.20	21.82	26.67	26.36	---	---	26.42	25.06
19	18.27	18.15	15.29	14.68	22.46	22.16	26.70	26.52	---	---	25.06	24.76
20	18.28	18.08	14.68	14.26	22.46	22.40	26.81	26.61	31.65	31.58	25.10	24.76
21	18.26	18.13	14.26	13.92	22.76	22.46	27.13	26.81	31.69	31.65	25.64	25.10
22	18.25	18.06	14.16	13.75	22.99	22.75	27.38	27.09	31.66	31.57	26.13	25.64
23	18.50	18.24	14.26	13.99	23.22	22.98	27.75	27.38	31.57	31.37	26.13	25.94
24	18.59	18.50	14.00	13.76	23.34	23.13	27.80	27.63	31.37	30.85	26.02	25.90
25	18.62	18.45	15.19	14.00	23.39	23.26	27.70	27.50	30.85	30.34	25.94	25.75
26	18.64	18.49	16.44	15.19	23.57	23.31	27.52	27.42	30.37	30.12	25.75	25.26
27	19.06	18.63	17.50	16.44	23.62	23.46	27.55	27.36	30.19	29.89	25.27	25.05
28	19.27	19.06	18.24	17.50	23.80	23.48	27.40	27.27	29.89	29.20	25.23	25.01
29	19.51	19.19	18.80	18.22	23.94	23.70	27.47	27.32	29.26	29.02	25.35	25.19
30	19.47	19.37	19.25	18.74	24.10	23.85	27.57	27.32	29.02	28.77	25.44	25.24
31	---	---	19.82	19.21	---	---	27.88	27.56	28.97	28.51	---	---
MONTH	19.51	17.42	21.41	13.75	24.10	19.78	27.88	24.01	---	---	28.51	24.76

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bh 31. SITE ID.--382215075041801. PERMIT NUMBER.--WO-04-9586.  
 LOCATION.--Lat 38°22'15", long 75°04'18", Hydrologic Unit 020060010, at 44th St, Ocean City.  
 Owner: Town of Ocean City.  
 AQUIFER.--Ocean City aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122OCNC.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 278 ft; casing diameter 4 in., to 263 ft; screen diameter 3 in. from 263 to 278 ft.  
 INSTRUMENTATION.--Monthly water level measurements with an electric tape by U.S. Geological Survey personnel. Periodic water level measurements with chalked steel tape September 1970 to May 1985. Equipped with digital water-level recorder--60-minute recording interval, May 1985 to current year.  
 DATUM.--Elevation of land surface is 5.59 ft above National Geodetic Vertical Datum of 1929.  
 Measuring Point: Top of shelter platform, 2.49 ft above land surface.  
 REMARKS.--Ocean City Ground-Water Monitoring Network observation well. Water levels are affected by local ground-water withdrawal, especially during summer peak demands. Missing data due to recorder malfunction.  
 PERIOD OF RECORD.--September 1970 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.55 ft below land surface, March 13, 1993; lowest measured, 51.44 ft below land surface, August 16, 1998 (recorder).

## WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	32.80	32.79	16.21	15.11	14.25	13.06	9.90	8.45	8.01	6.77	8.89	7.34
2	32.80	32.79	16.06	14.92	14.38	12.94	9.82	8.56	8.67	7.41	8.64	7.40
3	34.26	32.80	15.91	14.74	14.28	12.95	9.84	8.30	8.64	7.53	8.81	7.50
4	35.00	33.38	15.71	14.39	14.30	13.12	9.28	8.10	8.26	7.19	8.92	7.62
5	40.02	34.23	15.52	14.27	14.28	13.09	9.50	8.54	8.36	7.31	8.80	7.81
6	41.35	33.60	15.34	14.03	14.02	12.90	9.48	8.33	8.59	7.50	9.14	7.93
7	42.41	34.99	15.22	14.11	13.90	12.88	9.28	8.27	8.50	7.43	8.85	8.26
8	42.65	32.10	23.07	14.11	13.62	12.47	9.42	8.33	8.31	7.11	8.41	7.52
9	32.27	30.83	---	---	13.30	12.34	9.89	8.48	8.32	7.33	8.63	7.26
10	30.90	28.83	---	---	13.43	12.32	9.89	8.80	8.27	7.17	9.05	7.68
11	30.02	27.80	---	---	13.43	12.30	9.64	8.25	8.48	7.18	9.06	8.09
12	29.29	26.73	---	---	13.43	12.18	9.51	8.44	10.65	7.32	9.11	7.98
13	38.05	28.55	---	---	15.26	11.80	9.44	7.99	8.55	7.45	8.81	7.65
14	38.59	31.67	---	---	19.80	11.22	10.01	8.99	8.55	7.61	8.48	7.39
15	31.67	29.40	---	---	12.48	10.95	9.91	8.50	14.72	7.92	8.68	7.61
16	30.15	22.73	---	---	11.51	10.11	9.35	8.39	8.73	7.51	8.81	7.63
17	23.46	21.97	---	---	10.84	9.49	9.15	8.01	8.29	7.46	8.22	7.05
18	24.85	21.96	---	---	10.09	9.10	8.97	8.02	8.28	7.45	---	---
19	26.22	18.75	---	---	10.10	9.14	8.95	7.66	8.19	7.46	---	---
20	24.97	18.75	---	---	9.83	8.91	8.43	7.56	8.30	7.46	---	---
21	27.95	21.49	---	---	10.17	9.40	8.62	7.83	8.23	7.50	---	---
22	31.39	20.77	---	---	9.62	8.79	9.55	8.18	8.37	7.27	9.34	8.64
23	23.01	18.44	---	---	9.26	8.58	9.31	8.69	8.50	7.42	9.82	8.60
24	21.08	18.29	---	---	9.04	8.35	8.91	8.00	8.51	7.33	9.63	8.91
25	18.29	16.87	---	---	9.14	8.33	8.80	7.70	---	---	---	---
26	17.44	16.49	---	---	9.05	8.03	9.17	7.82	---	---	---	---
27	22.69	16.68	---	---	9.08	7.73	9.19	7.94	---	---	---	---
28	18.22	16.30	---	---	9.32	7.96	8.93	7.49	---	---	---	---
29	16.91	15.89	---	---	9.37	7.99	8.69	7.16	---	---	---	---
30	20.82	15.78	14.14	12.96	9.43	8.10	8.52	7.11	---	---	---	---
31	16.75	15.39	---	---	9.79	8.48	8.34	6.80	---	---	---	---
MONTH	42.65	15.39	---	---	19.80	7.73	10.01	6.80	---	---	---	---

GROUND-WATER LEVELS IN MARYLAND--Continued

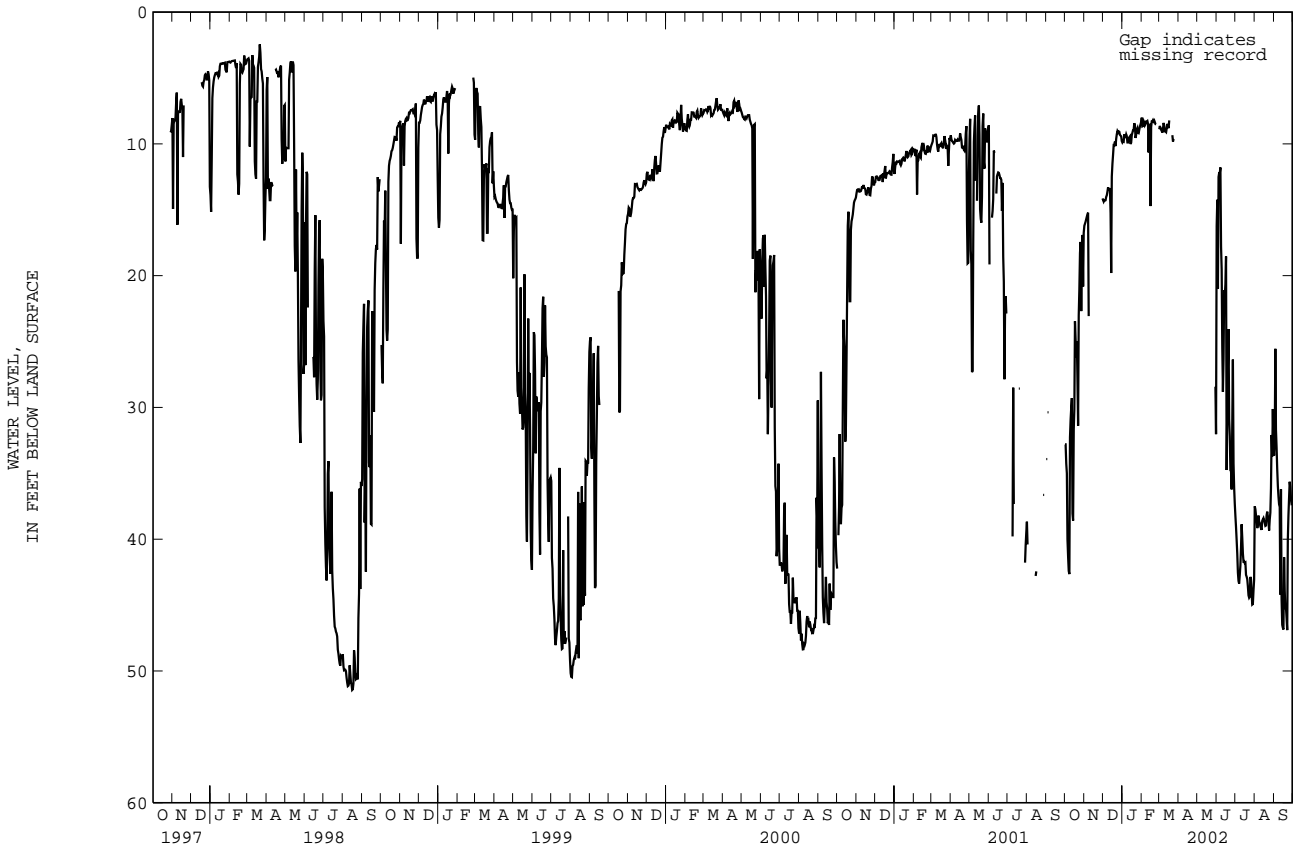
WORCESTER COUNTY--Continued

WO Bh 31--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	16.23	14.02	38.23	22.00	37.50	36.53	33.65	25.55
2	---	---	---	---	14.24	12.97	39.07	22.76	37.72	31.88	32.57	25.55
3	---	---	---	---	20.98	12.41	40.08	23.96	38.18	32.48	25.55	22.41
4	---	---	---	---	12.51	11.75	41.09	25.99	38.44	30.66	31.69	21.98
5	---	---	---	---	12.21	11.47	42.54	40.57	39.16	35.18	33.07	24.02
6	---	---	---	---	12.20	11.10	43.17	32.34	38.91	35.20	34.68	25.33
7	---	---	---	---	11.79	9.73	43.37	34.31	38.21	32.34	35.96	30.83
8	---	---	---	---	17.78	9.93	42.72	29.50	38.66	34.97	36.75	31.74
9	---	---	---	---	19.53	12.95	42.00	26.82	38.75	33.88	37.35	31.78
10	---	---	---	---	25.41	14.78	40.62	26.19	39.02	34.69	37.55	31.79
11	---	---	---	---	28.82	14.96	38.87	24.10	39.16	34.71	44.20	29.50
12	---	---	---	---	26.34	16.27	39.88	23.92	39.29	34.96	36.22	27.11
13	---	---	---	---	21.12	16.08	41.09	25.36	38.61	31.20	44.57	29.91
14	---	---	---	---	21.57	16.30	41.69	26.75	38.49	30.62	46.50	32.72
15	---	---	---	---	20.64	16.30	41.67	26.04	38.40	29.88	46.72	39.54
16	---	---	---	---	18.54	15.17	41.82	26.92	38.59	29.61	46.85	36.82
17	---	---	---	---	34.75	18.54	41.78	26.04	38.76	31.68	41.37	31.72
18	---	---	---	---	29.93	16.06	42.71	27.14	38.99	31.45	43.88	29.64
19	---	---	---	---	26.78	15.12	42.84	26.89	38.96	31.16	45.30	39.64
20	---	---	---	---	24.06	14.17	43.04	27.40	38.18	30.72	45.18	40.27
21	---	---	---	---	30.88	14.26	43.58	30.93	37.91	30.12	45.98	40.07
22	---	---	---	---	32.18	16.90	44.26	30.74	38.26	30.30	46.90	38.61
23	---	---	---	---	34.77	19.18	44.44	30.86	38.61	31.23	40.05	31.12
24	---	---	---	---	34.83	20.87	44.36	35.25	39.34	34.22	38.21	28.35
25	---	---	---	---	36.22	20.39	42.86	28.47	38.53	31.40	36.84	26.49
26	---	---	---	---	31.13	22.12	43.02	29.27	37.98	30.30	35.64	24.96
27	---	---	---	---	26.37	18.67	44.16	30.41	36.14	28.44	36.08	25.88
28	---	---	---	---	34.25	18.56	44.96	37.93	32.09	25.31	36.91	35.63
29	---	---	---	---	36.10	19.17	44.92	32.71	33.72	23.92	37.34	36.39
30	---	---	28.43	18.81	37.31	21.75	43.88	32.85	30.12	24.47	37.33	34.28
31	---	---	32.03	16.23	---	---	43.09	34.66	32.98	24.50	---	---
MONTH	---	---	---	---	37.31	9.73	44.96	22.00	39.34	23.92	46.90	21.98

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



## WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bh 34. SITE ID.382443075033501. PERMIT NUMBER.--WO-04-9588.

LOCATION.--Lat 38°24'43", long 75°03'35", Hydrologic Unit 02060010, north side of 100th St., 0.2 mi west of MD Rt. 528, Ocean City.

Owner: Town of Ocean City.

AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 353 ft; casing diameter 4 in., to 316.2 ft, casing diameter 2.5 in. from 316.2 to 337 ft; screen diameter 3 in. from 337 to 353 ft.

INSTRUMENTATION.--Monthly water level measurements with an electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recording interval April 1985 to current year. Prior to April 1985, periodic water level measurements with chalked steel tape were collected.

DATUM.--Elevation of land surface is 4 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of recorder shelf, 2.86 ft above land surface.

REMARKS.--Ocean City Ground-Water Monitoring Network observation well. Water levels are affected by local ground-water withdrawal, especially during summer peak demands. Missing data due to recorder malfunction.

PERIOD OF RECORD.--December 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.54 ft above land surface, March 27, 1973; lowest measured, 19.04 ft below land surface, Sept. 5, 1995 (recorder).

## WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	6.57	5.53	6.23	4.91	4.73	3.51	---	---
2	---	---	---	---	6.77	5.49	6.08	4.91	5.29	4.19	---	---
3	---	---	---	---	6.68	5.46	5.99	4.63	5.24	4.18	---	---
4	---	---	---	---	6.73	5.68	5.48	4.44	4.80	3.89	---	---
5	---	---	---	---	6.77	5.72	5.68	4.81	4.87	3.97	---	---
6	---	---	---	---	6.59	5.60	5.65	4.62	5.09	4.15	---	---
7	---	---	---	---	6.50	5.61	5.41	4.52	5.02	4.09	---	---
8	---	---	---	---	6.28	5.27	5.54	4.59	4.87	3.80	---	---
9	---	---	---	---	6.02	5.15	5.94	4.70	4.88	4.03	---	---
10	---	---	---	---	6.14	5.12	5.94	4.98	4.87	3.89	---	---
11	---	---	---	---	6.17	5.11	5.72	4.50	5.02	3.83	---	---
12	---	---	---	---	6.17	5.04	5.69	4.70	5.04	3.93	---	---
13	---	---	---	---	5.95	4.70	5.58	4.31	5.09	4.14	---	---
14	---	---	---	---	6.11	4.95	6.12	5.21	5.11	4.27	---	---
15	---	---	---	---	6.32	5.25	6.05	4.90	5.17	4.42	---	---
16	---	---	---	---	6.22	5.07	5.70	4.86	5.02	3.99	---	---
17	---	---	---	---	6.06	4.93	5.57	4.62	4.67	3.95	---	---
18	---	---	---	---	5.69	4.88	5.50	4.70	4.61	3.90	---	---
19	---	---	---	---	5.88	5.08	5.53	4.43	4.42	3.85	---	---
20	---	---	---	---	5.86	5.07	5.04	4.29	4.46	3.78	---	---
21	---	---	---	---	6.25	5.56	5.13	4.46	4.49	3.84	---	---
22	---	---	---	---	5.85	5.16	5.98	4.77	4.72	3.69	---	---
23	---	---	---	---	5.59	5.01	5.71	5.21	4.82	3.90	---	---
24	---	---	---	---	5.46	4.85	5.39	4.60	4.80	3.78	---	---
25	---	---	---	---	5.61	4.89	5.37	4.40	4.79	3.66	---	---
26	---	---	---	---	5.55	4.69	5.73	4.53	4.88	3.56	4.71	3.59
27	---	---	---	---	5.70	4.44	5.76	4.64	4.76	3.31	4.68	3.44
28	---	---	---	---	5.95	4.73	5.50	4.17	---	---	4.90	3.65
29	---	---	---	---	6.00	4.74	5.24	3.84	---	---	5.05	3.68
30	---	---	6.35	5.30	6.00	4.77	5.13	3.81	---	---	4.98	3.78
31	---	---	---	---	6.25	5.01	5.00	3.56	---	---	5.01	3.70
MONTH	---	---	---	---	6.77	4.44	6.23	3.56	---	---	---	---

GROUND-WATER LEVELS IN MARYLAND--Continued

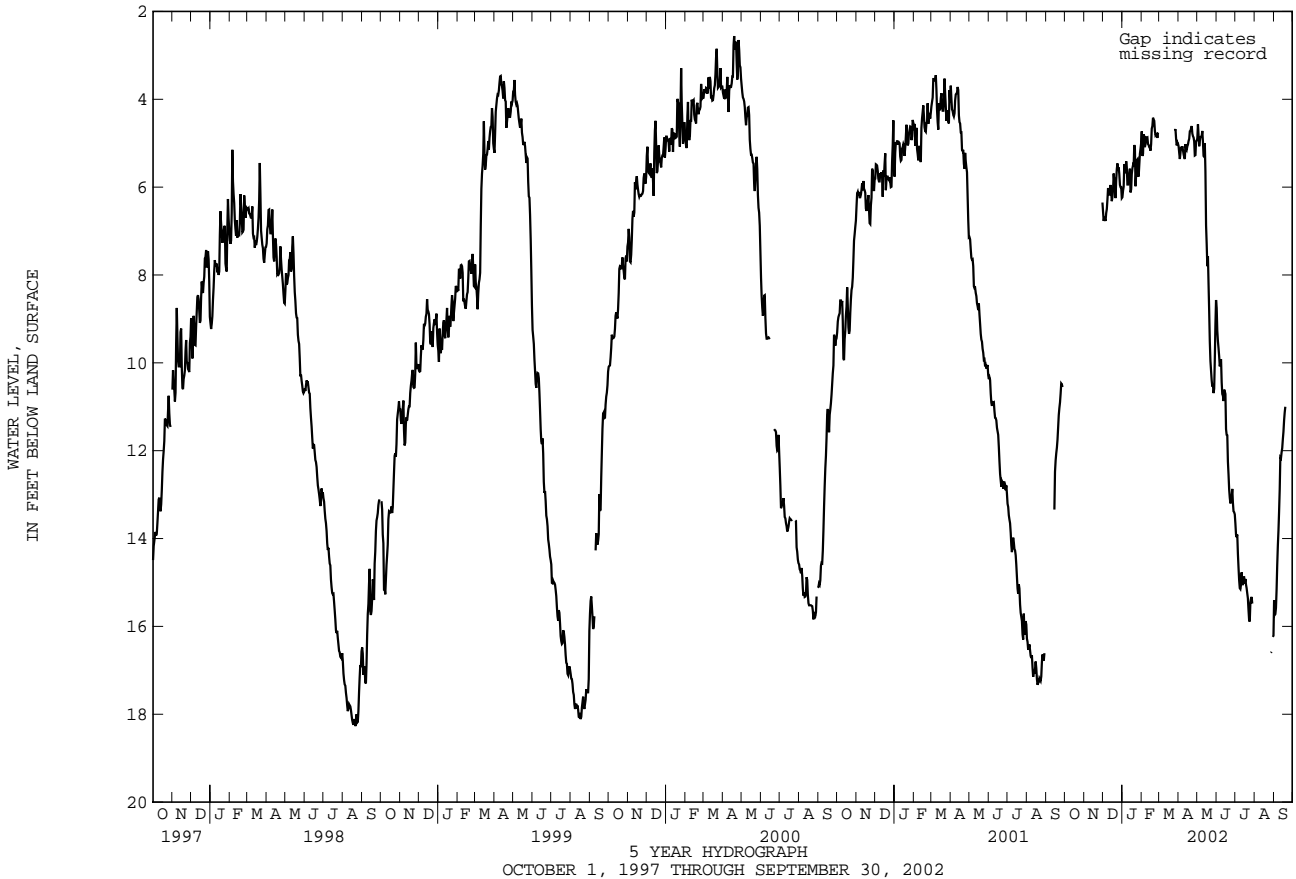
WORCESTER COUNTY--Continued

WO Bh 34--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.07	3.70	4.89	3.89	8.75	7.79	13.66	12.84	---	---	15.41	14.52
2	5.22	4.15	4.57	3.84	9.27	8.20	13.91	13.19	---	---	15.74	14.76
3	5.36	4.33	4.82	3.74	9.51	8.63	13.97	13.37	---	---	15.72	14.68
4	5.22	4.43	5.07	4.19	9.67	8.99	13.91	13.22	---	---	15.58	14.35
5	5.08	4.36	4.95	4.34	9.85	9.09	14.35	13.54	---	---	15.16	13.71
6	5.13	4.42	4.86	4.24	10.08	9.35	14.66	13.82	---	---	14.61	13.13
7	5.07	4.35	4.85	4.18	9.98	8.72	14.94	14.12	---	---	14.16	12.75
8	5.16	4.46	4.84	4.06	9.92	9.01	15.13	14.05	---	---	13.82	12.41
9	5.25	4.44	4.72	3.92	10.44	9.54	15.15	14.00	---	---	13.39	12.00
10	5.32	4.56	4.97	4.16	10.71	9.62	15.05	13.82	---	---	12.88	11.31
11	5.36	4.31	5.29	4.43	10.75	9.72	14.77	13.67	---	---	12.15	11.03
12	5.02	4.20	5.31	4.15	10.87	9.76	15.04	13.88	---	---	12.17	11.16
13	5.12	4.26	5.00	3.85	10.61	9.36	15.04	13.89	---	---	12.04	11.16
14	5.15	4.19	5.64	4.26	10.65	9.43	14.88	13.84	---	---	11.94	11.09
15	5.07	4.15	6.87	5.34	10.71	9.49	14.88	13.82	---	---	11.74	10.84
16	5.03	4.10	7.29	6.17	11.51	9.88	15.02	14.07	---	---	11.57	10.67
17	4.95	4.10	7.80	6.46	11.64	10.71	14.92	14.00	---	---	11.31	10.32
18	4.90	3.99	7.57	6.79	11.65	10.50	15.05	14.14	---	---	11.13	10.10
19	4.73	3.95	8.23	6.65	12.25	11.05	15.13	14.13	---	---	11.00	10.01
20	4.72	3.91	8.83	7.57	12.55	11.56	15.25	14.17	---	---	---	---
21	4.66	3.86	9.51	8.17	12.88	11.85	15.36	14.26	---	---	---	---
22	4.61	3.66	9.96	8.82	13.07	11.98	15.63	14.53	---	---	---	---
23	4.78	3.62	10.18	9.11	13.20	11.96	15.86	14.85	---	---	---	---
24	4.84	3.83	10.40	9.23	13.13	11.95	15.89	14.57	---	---	---	---
25	4.87	3.68	10.54	9.23	13.04	11.73	15.46	14.37	---	---	---	---
26	4.96	3.78	10.50	9.25	12.87	11.97	15.37	14.37	---	---	---	---
27	5.28	4.06	10.69	9.46	13.18	12.13	15.33	14.43	16.60	15.92	---	---
28	5.27	3.70	10.59	9.12	13.38	12.39	15.48	14.58	16.58	15.32	---	---
29	4.96	3.80	9.95	8.37	13.40	12.60	---	---	---	---	---	---
30	4.94	3.84	9.13	7.86	13.45	12.63	---	---	16.24	15.59	---	---
31	---	---	8.57	7.84	---	---	---	---	16.21	15.28	---	---
MONTH	5.36	3.62	10.69	3.74	13.45	7.79	---	---	---	---	---	---

Daily Low Water Levels

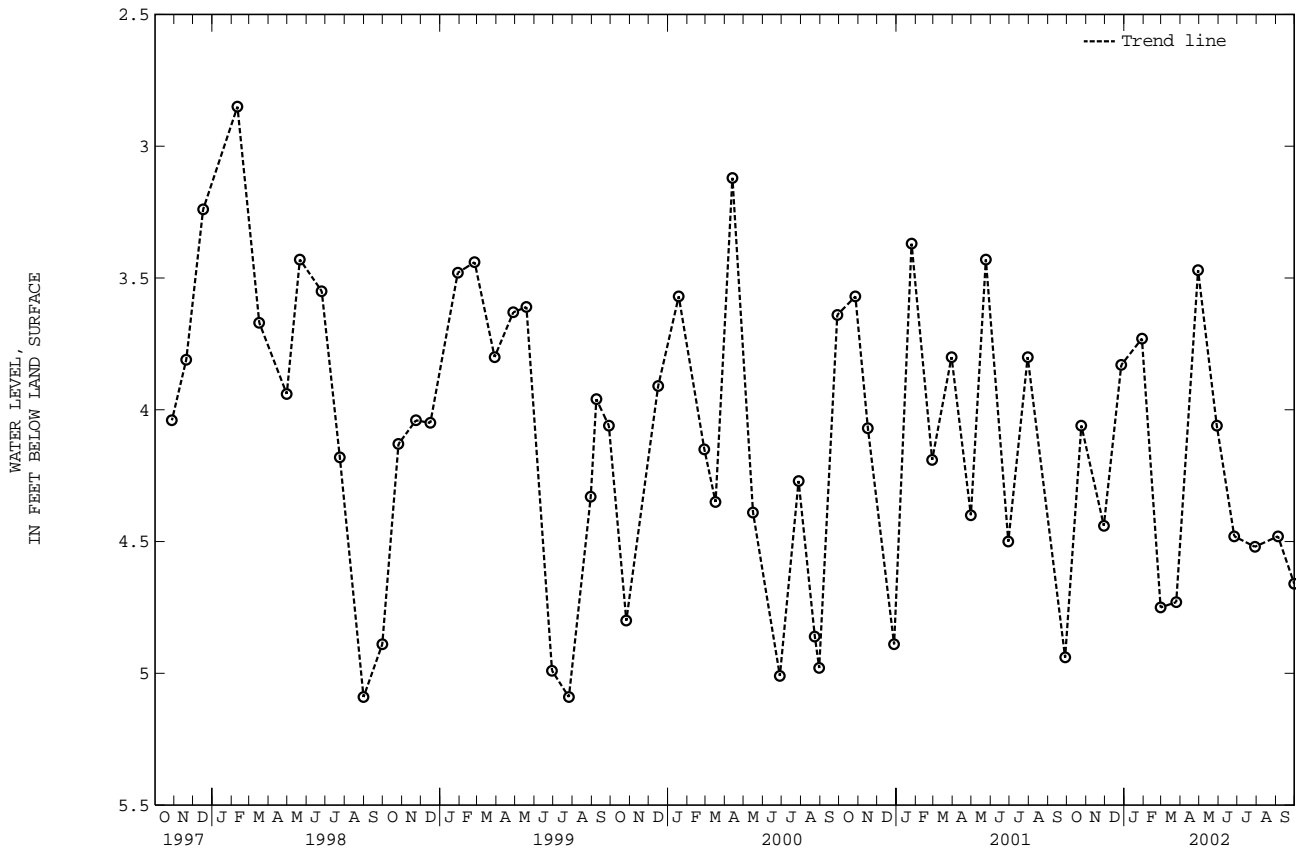


WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bh 84. SITE ID.--382215075041901. PERMIT NUMBER.--WO-73-0095.  
 LOCATION.--Lat 38°22'15", long 75°04'20", Hydrologic Unit 02060010, west end of 44th St., Ocean City.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Beaverdam Sand of Pliocene age. Aquifer code: 121BVDM.  
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 89 ft; casing diameter 4 in., to 84 ft; screen diameter 4 in. from 84 to 89 ft.  
 INSTRUMENTATION.--Monthly water level measurements with an electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of casing, 2.55 ft above land surface.  
 REMARKS.--Ocean City Ground-Water Monitoring Network observation well.  
 PERIOD OF RECORD.--April 1973 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.47 ft below land surface, April 29, 2002;  
 lowest measured, 6.34 ft below land surface, Sept. 17, 1991.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	4.06	JAN 29, 2002	3.73	APR 29, 2002	3.47	JUL 29, 2002	4.52
NOV 29	4.44	FEB 28	4.75	MAY 29	4.06	SEP 04	4.48
DEC 27	3.83	MAR 25	4.73	JUN 26	4.48	30	4.66
WATER YEAR 2002		HIGHEST	3.47	APR 29, 2002	LOWEST	4.75	FEB 28, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

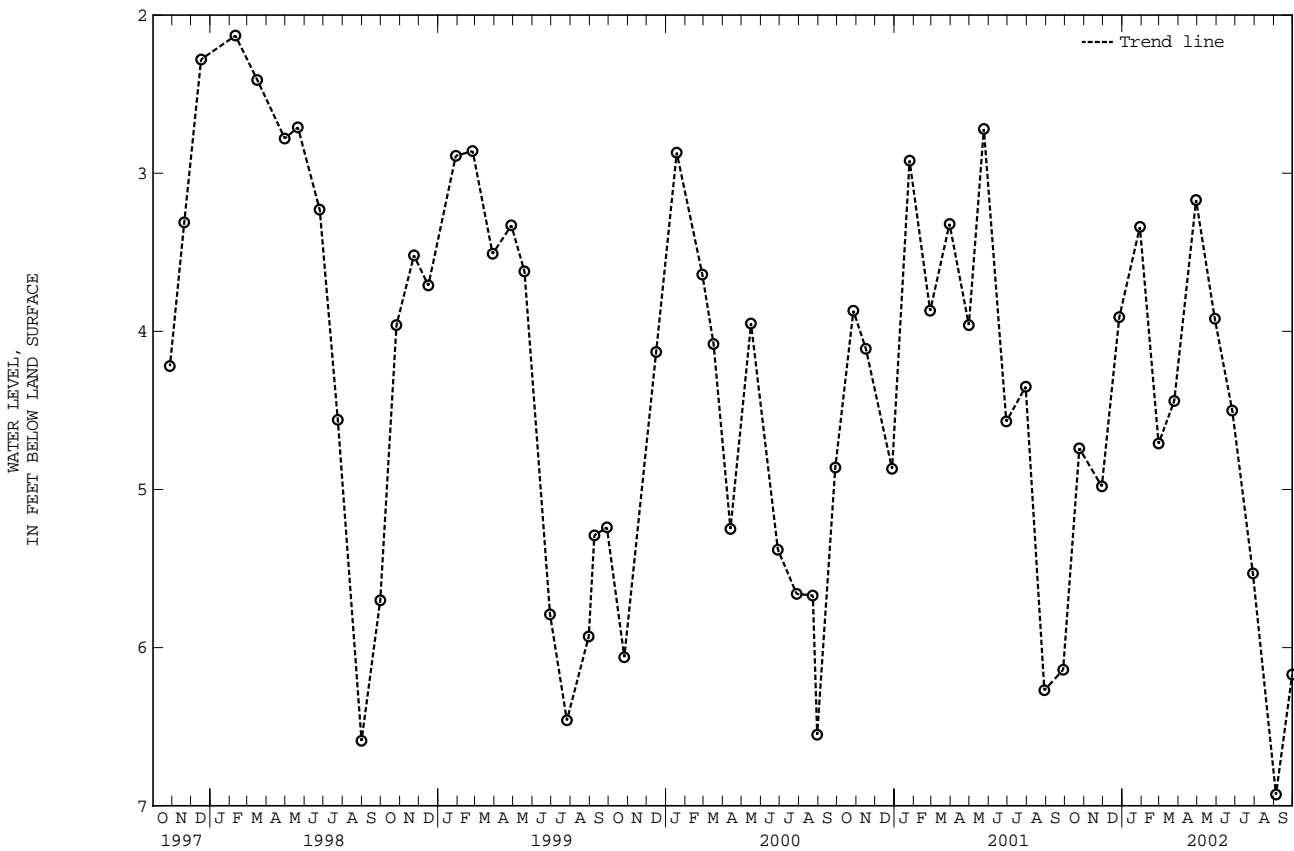
WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bh 85. SITE ID.--382215075041902. PERMIT NUMBER.--WO-73-0094.  
 LOCATION.--Lat 38°22'15", long 75°04'19", Hydrologic Unit 02060010, west end of 44th St., Ocean City.  
 Owner: U.S. Geological Survey.  
 AQUIFER.--Pocomoke aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122PCMK.  
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 195 ft; casing diameter 4 in., to 190 ft; screen diameter 4 in. from 190 to 195 ft.  
 INSTRUMENTATION.--Monthly water level measurements with an electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of 4 in. casing, 1.78 ft above land surface.  
 REMARKS.--Ocean City Ground-Water Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.  
 PERIOD OF RECORD.--April 1973 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.43 ft below land surface, Jan. 11, 1993;  
 lowest measured, 7.53 ft below land surface, August 26, 1997.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	4.74	JAN 29, 2002	3.34	APR 29, 2002	3.17	JUL 29, 2002	5.53
NOV 29	4.98	FEB 28	4.71	MAY 29	3.92	SEP 04	6.93
DEC 27	3.91	MAR 25	4.44	JUN 26	4.50	30	6.17

WATER YEAR 2002      HIGHEST    3.17    APR 29, 2002      LOWEST    6.93    SEP 04, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bh 89. SITE ID.--382215075041903 PERMIT NUMBER.--WO-81-1497.

LOCATION.--Lat 38°22'15", long 75°04'19", Hydrologic Unit 020060010, at 44th St, Ocean City.

Owner: Town of Ocean City.

AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 510 ft; casing diameter 4 in., to 388 ft; 408 to 413 ft, 423 to 433 ft, 443 to 464 ft, and 474 to 495 ft; screen diameter 4 in. from 388 to 408 ft, 413 to 423 ft, 433 to 443 ft, 464 to 474 ft, and 495 to 510 ft.

INSTRUMENTATION.--Monthly water level measurements with an electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recording interval, October 1986 to current year.

DATUM.--Elevation of land surface is 5.59 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder shelf, 2.84 ft above land surface.

REMARKS.--Ocean City Ground-Water Monitoring Network observation well. Water levels are affected by local ground-water 1 withdrawal, especially during summer peak demands. Missing data due to recorder malfunction.

PERIOD OF RECORD.--October 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.42 ft below land surface, Oct. 8, 1993 (recorder); lowest recorded, 40.65 ft below land surface, Aug. 17, 1998 (recorder).

## WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.61	17.45	---	---	---	---	8.84	7.59	7.07	5.96	8.17	7.08
2	24.08	17.92	---	---	---	---	8.78	7.66	7.69	6.58	8.08	6.41
3	25.81	24.08	---	---	---	---	8.77	7.43	7.67	6.75	7.34	6.39
4	26.57	25.57	---	---	---	---	8.27	7.21	7.33	6.35	7.93	6.46
5	29.67	25.85	---	---	---	---	8.50	7.64	7.41	6.49	8.11	7.15
6	31.45	26.34	---	---	---	---	8.49	7.38	7.62	6.67	8.32	7.34
7	33.09	29.92	---	---	---	---	8.26	7.36	7.60	6.60	8.12	7.53
8	32.50	28.16	---	---	---	---	8.38	7.42	7.35	6.30	7.84	6.96
9	28.31	26.95	---	---	---	---	8.82	7.56	7.38	6.52	7.57	6.72
10	27.03	26.08	---	---	---	---	8.82	7.87	7.32	6.36	8.11	6.70
11	26.19	25.05	---	---	---	---	8.58	7.37	7.51	6.32	8.24	7.51
12	25.38	23.88	---	---	---	---	8.52	7.55	7.60	6.50	8.25	7.07
13	28.77	24.73	---	---	---	---	8.41	7.13	7.59	6.63	7.66	6.32
14	29.38	27.61	---	---	---	---	8.93	8.07	7.61	6.80	7.27	6.37
15	27.61	25.53	---	---	---	---	8.87	7.64	8.47	6.99	7.44	6.62
16	26.25	21.21	---	---	---	---	8.35	7.51	7.78	6.67	7.49	6.74
17	21.28	18.96	---	---	---	---	8.17	7.16	7.36	6.62	7.34	6.24
18	19.68	17.91	---	---	---	---	8.00	7.17	7.33	6.60	9.00	6.24
19	20.85	17.45	---	---	---	---	7.98	6.82	7.23	6.59	10.14	6.83
20	21.24	17.45	---	---	---	---	7.46	6.69	7.34	6.58	9.67	7.53
21	22.24	19.94	---	---	---	---	7.64	6.93	7.28	6.65	8.87	7.40
22	23.02	18.13	---	---	---	---	8.57	7.28	7.42	6.44	8.18	7.29
23	19.67	17.11	---	---	---	---	8.37	7.78	7.53	6.60	8.50	7.61
24	19.22	16.90	---	---	---	---	8.00	7.13	7.53	6.51	8.46	7.79
25	16.90	15.52	---	---	---	---	7.83	6.87	7.54	6.47	8.27	7.01
26	16.05	15.22	---	---	---	---	8.12	6.97	7.68	6.41	7.75	6.63
27	18.95	15.33	---	---	---	---	8.16	7.08	7.49	6.11	9.33	6.40
28	---	---	---	---	8.32	7.14	7.92	6.60	8.04	6.99	9.84	6.97
29	---	---	---	---	8.39	7.16	7.67	6.32	---	---	12.80	7.75
30	---	---	---	---	8.46	7.24	7.55	6.30	---	---	14.49	9.59
31	---	---	---	---	8.77	7.61	7.38	6.02	---	---	11.04	8.34
MONTH	---	---	---	---	---	---	8.93	6.02	8.47	5.96	14.49	6.24

GROUND-WATER LEVELS IN MARYLAND--Continued

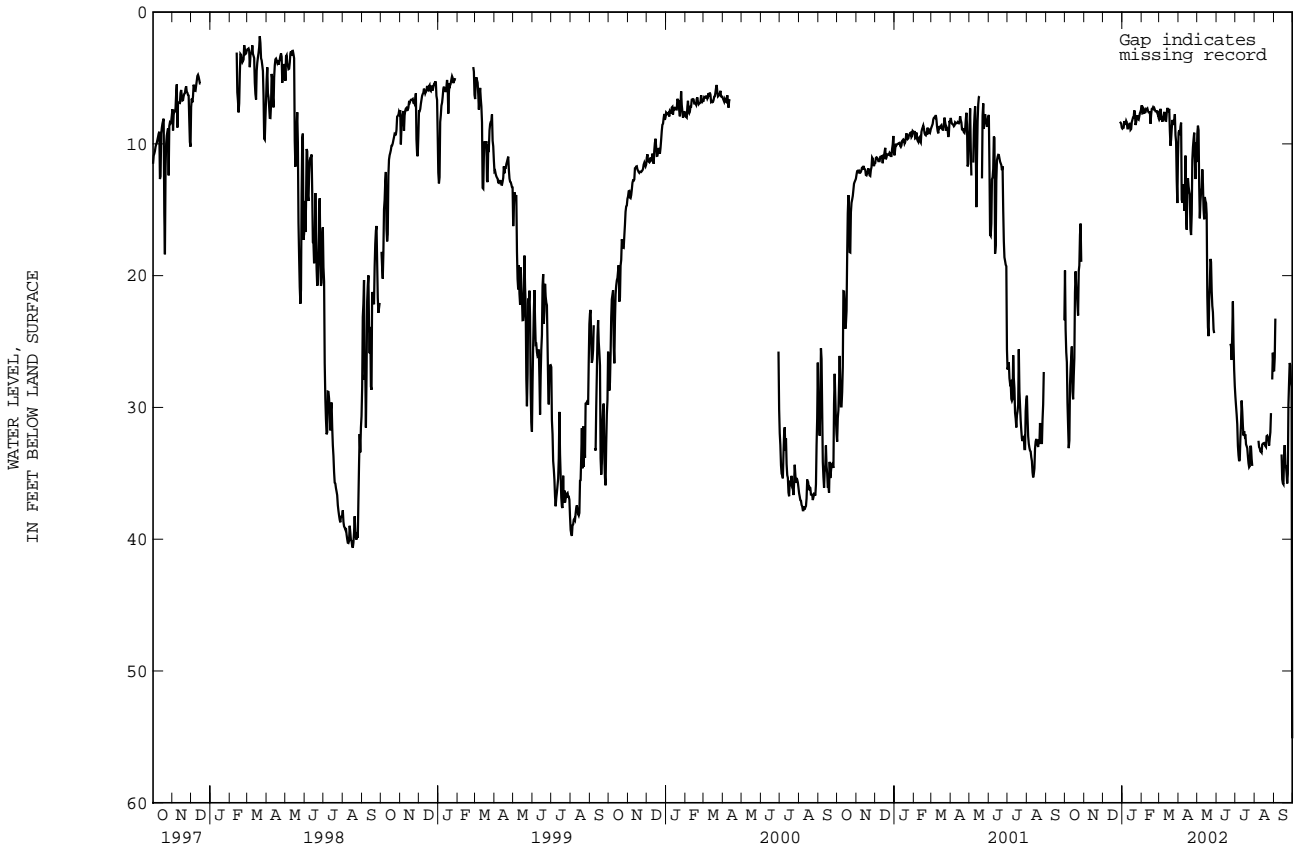
WORCESTER COUNTY--Continued

WO Bh 89--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.15	8.06	9.22	8.04	---	---	29.19	21.99	---	---	27.26	23.23
2	8.96	8.00	8.62	7.82	---	---	29.87	22.65	---	---	26.23	23.26
3	9.33	7.90	8.96	7.66	---	---	30.53	23.63	---	---	23.26	20.32
4	8.69	7.98	13.16	8.57	---	---	31.27	25.36	---	---	---	---
5	8.39	7.76	15.65	12.25	---	---	32.92	31.18	---	---	---	---
6	14.23	7.65	14.41	11.52	---	---	33.63	30.34	---	---	---	---
7	14.45	10.25	13.65	11.05	---	---	34.08	30.83	32.53	29.55	---	---
8	13.57	11.02	13.34	9.92	---	---	33.95	28.87	33.01	31.47	---	---
9	13.07	11.02	11.94	9.45	---	---	32.33	26.39	33.10	30.90	---	---
10	15.06	11.57	13.04	9.34	---	---	31.25	25.61	33.33	31.07	---	---
11	13.92	10.45	14.96	12.61	---	---	29.48	23.74	33.35	31.00	---	---
12	10.89	9.34	15.72	12.40	---	---	30.29	23.60	33.42	31.17	---	---
13	15.45	9.62	14.03	11.04	---	---	31.41	24.80	32.82	29.32	33.57	27.18
14	16.51	12.40	14.33	12.82	---	---	32.13	26.06	32.75	28.85	35.46	29.88
15	13.65	11.18	14.49	11.56	---	---	31.80	25.27	32.72	28.21	35.75	33.76
16	12.61	10.27	15.34	12.06	---	---	32.14	25.97	32.70	27.98	35.83	33.21
17	13.22	10.25	21.59	14.96	---	---	32.04	25.27	32.79	29.59	33.74	28.98
18	13.60	10.89	23.91	20.13	---	---	32.80	26.16	32.92	29.19	32.86	27.08
19	13.85	10.68	24.59	21.87	---	---	32.93	25.86	32.99	29.01	34.36	30.75
20	16.47	11.92	21.87	19.75	---	---	33.10	26.27	32.18	28.53	34.45	31.26
21	16.92	14.10	20.73	16.85	---	---	33.69	28.89	32.14	28.17	35.00	31.11
22	15.34	10.99	18.73	14.96	---	---	34.24	29.37	32.29	28.46	35.77	33.56
23	11.19	9.50	18.95	15.03	25.17	18.93	34.53	29.75	32.43	28.93	35.05	28.42
24	10.25	8.81	21.16	17.48	25.36	20.31	34.45	31.22	32.89	30.59	29.77	26.09
25	9.64	8.13	22.29	15.07	26.40	19.84	32.91	27.30	32.34	28.96	28.07	24.42
26	9.15	8.04	22.78	16.10	24.28	21.40	33.00	28.19	31.89	28.30	26.63	22.74
27	11.13	8.16	24.08	17.16	21.96	18.80	33.91	28.97	30.43	26.83	26.79	23.30
28	12.67	8.50	24.36	17.80	25.15	18.59	34.44	31.19	---	---	28.00	26.27
29	9.90	8.05	---	---	27.12	19.23	---	---	27.88	22.28	28.43	27.67
30	11.38	8.05	---	---	28.37	21.93	---	---	25.85	22.95	55.11	27.25
31	---	---	---	---	---	---	---	---	26.98	22.61	---	---
MONTH	16.92	7.65	---	---	---	---	---	---	---	---	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



GROUND-WATER LEVELS IN MARYLAND--Continued

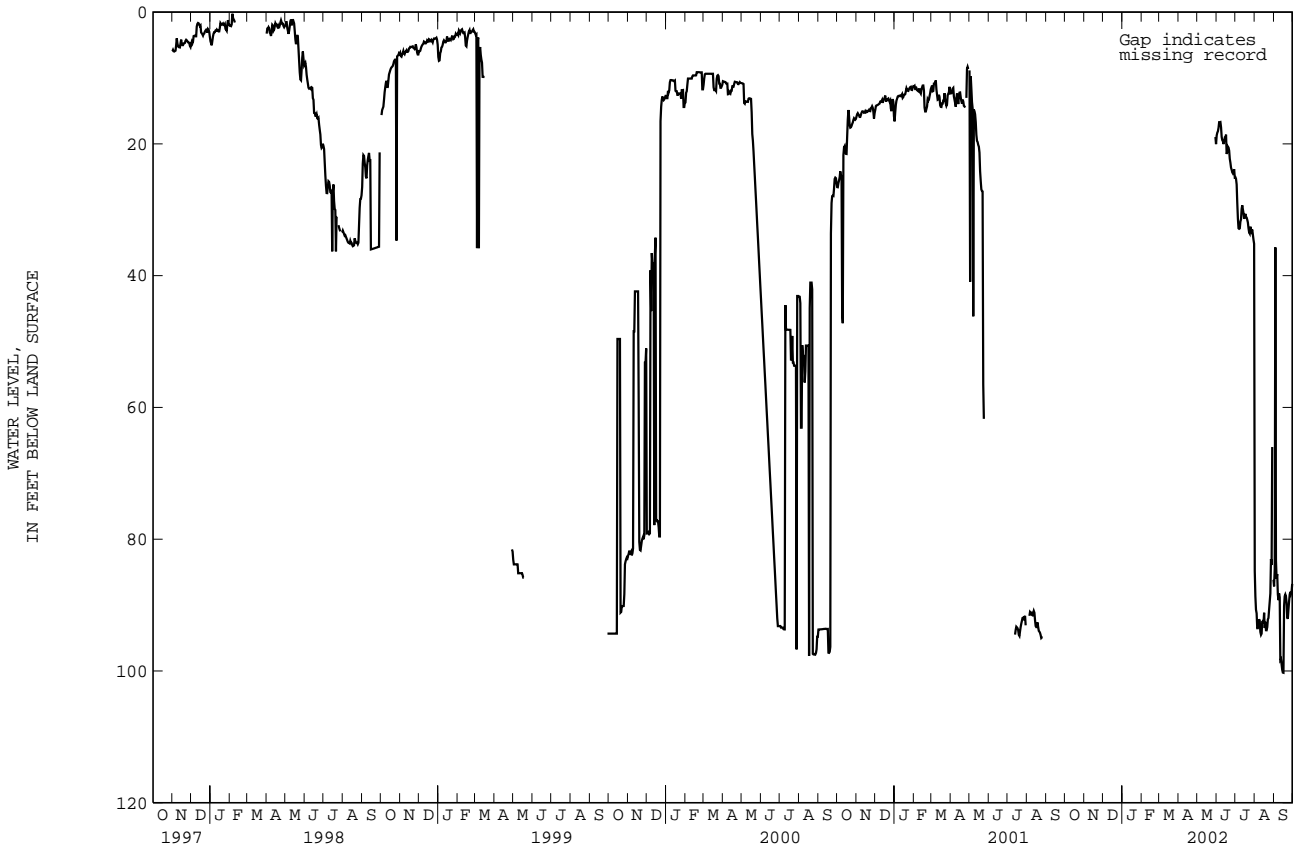
WORCESTER COUNTY--Continued

WO Bh 98--Continued

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	18.73	17.74	25.06	24.08	84.84	34.96	87.16	40.59
2	---	---	---	---	18.31	17.80	25.30	23.99	88.65	53.16	84.48	35.71
3	---	---	---	---	18.08	16.87	26.16	24.45	90.70	87.75	35.71	29.57
4	---	---	---	---	17.56	16.48	28.93	25.87	91.25	47.95	83.18	28.75
5	---	---	---	---	16.71	15.87	31.36	28.93	93.50	88.63	86.01	48.12
6	---	---	---	---	16.71	15.95	32.81	31.09	93.50	90.12	85.29	37.88
7	---	---	---	---	16.68	14.01	32.89	32.21	93.07	89.05	88.39	83.65
8	---	---	---	---	17.49	14.60	32.82	31.13	92.14	45.35	89.25	85.35
9	---	---	---	---	18.94	17.41	31.81	30.83	92.43	88.31	88.22	41.50
10	---	---	---	---	19.44	18.77	31.45	29.71	94.08	90.24	88.82	83.77
11	---	---	---	---	19.60	18.54	29.88	28.52	94.51	89.44	98.35	42.69
12	---	---	---	---	20.03	18.98	29.32	28.29	94.32	60.97	98.20	97.04
13	---	---	---	---	19.58	18.01	29.95	28.80	92.54	45.05	98.99	97.44
14	---	---	---	---	19.08	17.76	30.50	29.60	92.44	43.89	99.84	98.88
15	---	---	---	---	19.11	17.99	31.38	29.62	92.80	43.81	100.24	99.77
16	---	---	---	---	18.60	17.64	30.97	29.98	91.16	44.17	100.27	90.12
17	---	---	---	---	21.53	17.93	30.62	29.67	93.48	50.10	90.12	88.46
18	---	---	---	---	21.22	20.26	31.12	30.10	92.54	49.13	88.65	87.68
19	---	---	---	---	20.42	19.20	31.18	30.20	93.81	47.73	88.39	87.52
20	---	---	---	---	20.57	19.79	31.52	30.39	93.82	48.82	88.69	87.74
21	---	---	---	---	21.02	19.12	31.93	30.83	93.36	47.37	89.64	87.78
22	---	---	---	---	22.26	20.38	32.82	31.35	92.18	47.13	91.84	89.64
23	---	---	---	---	22.87	21.63	33.43	32.30	91.96	47.05	92.09	90.28
24	---	---	---	---	23.61	22.32	33.61	32.25	90.66	40.31	90.74	89.13
25	---	---	---	---	23.94	22.61	32.57	31.41	89.48	42.32	89.44	87.95
26	---	---	---	---	24.32	23.46	32.96	31.21	88.23	39.37	88.41	86.81
27	---	---	---	---	24.48	23.91	33.27	32.42	83.02	38.44	87.99	86.47
28	---	---	---	---	24.28	23.07	33.00	32.32	83.92	34.98	88.32	87.59
29	---	---	---	---	23.84	22.60	33.77	32.31	66.01	31.35	88.00	86.69
30	---	---	18.96	18.04	25.10	23.55	34.56	33.77	---	---	86.78	86.23
31	---	---	20.04	18.73	---	---	35.16	34.50	86.17	32.58	---	---
MONTH	---	---	---	---	25.10	14.01	35.16	23.99	---	---	100.27	28.75

Daily Low Water Levels



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002



WORCESTER COUNTY--Continued

WELL NUMBER.--WO Cg 72. SITE ID.--381939075052101. PERMIT NUMBER.--WO-73-1304.

LOCATION.--Lat 38°19'39", long 75°05'21", Hydrologic Unit 02060010, at South Division St., Ocean City.

Owner: Town of Ocean City.

AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 450 ft; casing diameter 4 in., to 384 ft, 394 to 404 ft, and 424 to 445 ft; screen diameter 4 in. from 384 to 394 ft, 404 to 424 ft, and 445 to 450 ft..

INSTRUMENTATION.--Monthly water level measurements with an electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 3.00 ft above land surface.

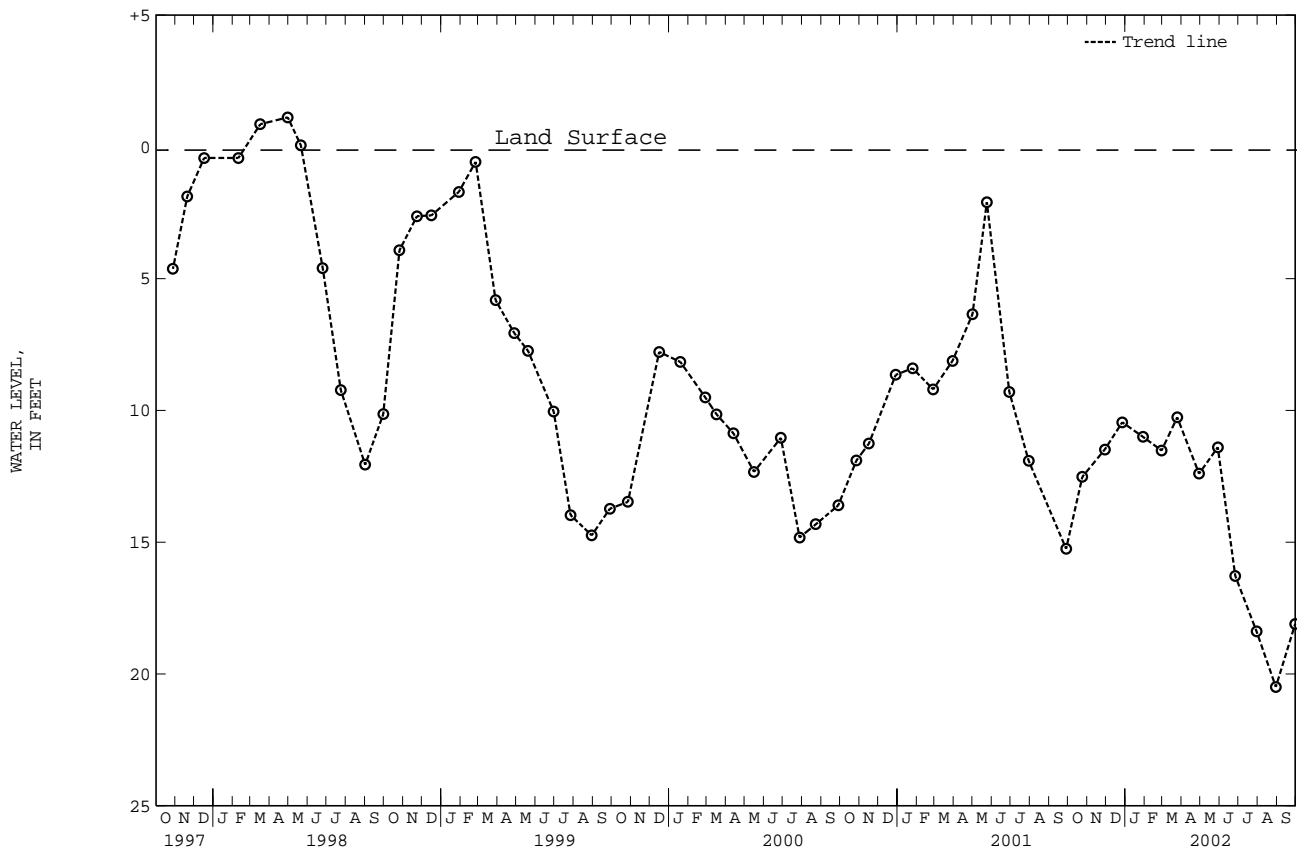
REMARKS.--Ocean City Ground-Water Monitoring Network observation well. Water levels are affected by local ground-water withdrawal, especially during summer peak demands.

PERIOD OF RECORD.--January 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.58 ft above land surface, March 30, 1990; lowest measured, 32.49 ft below land surface, Sept. 25, 1996.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	12.52	JAN 29, 2002	11.00	APR 29, 2002	12.40	JUL 30, 2002	18.38
NOV 29	11.48	FEB 28	11.52	MAY 29	11.40	AUG 30	20.49
DEC 27	10.45	MAR 25	10.26	JUN 26	16.28	SEP 30	18.10
WATER YEAR 2002 HIGHEST 10.26 MAR 25, 2002		LOWEST 20.49		AUG 30, 2002			



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

GROUND-WATER LEVELS IN MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Dd 7. SITE ID.--381037075234301.

LOCATION.--Lat 38°10'37", long 75°23'43", Hydrologic Unit 02060009, near intersection of Green and Commerce Sts., Snow Hill.

Owner: City of Snow Hill.

AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN. WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 290 ft; casing diameter 6 in.; casing length unknown.

INSTRUMENTATION.--Monthly water level measurements with an electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 13 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of coupling, 0.40 ft below land surface.

REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--July 1958 to current year.

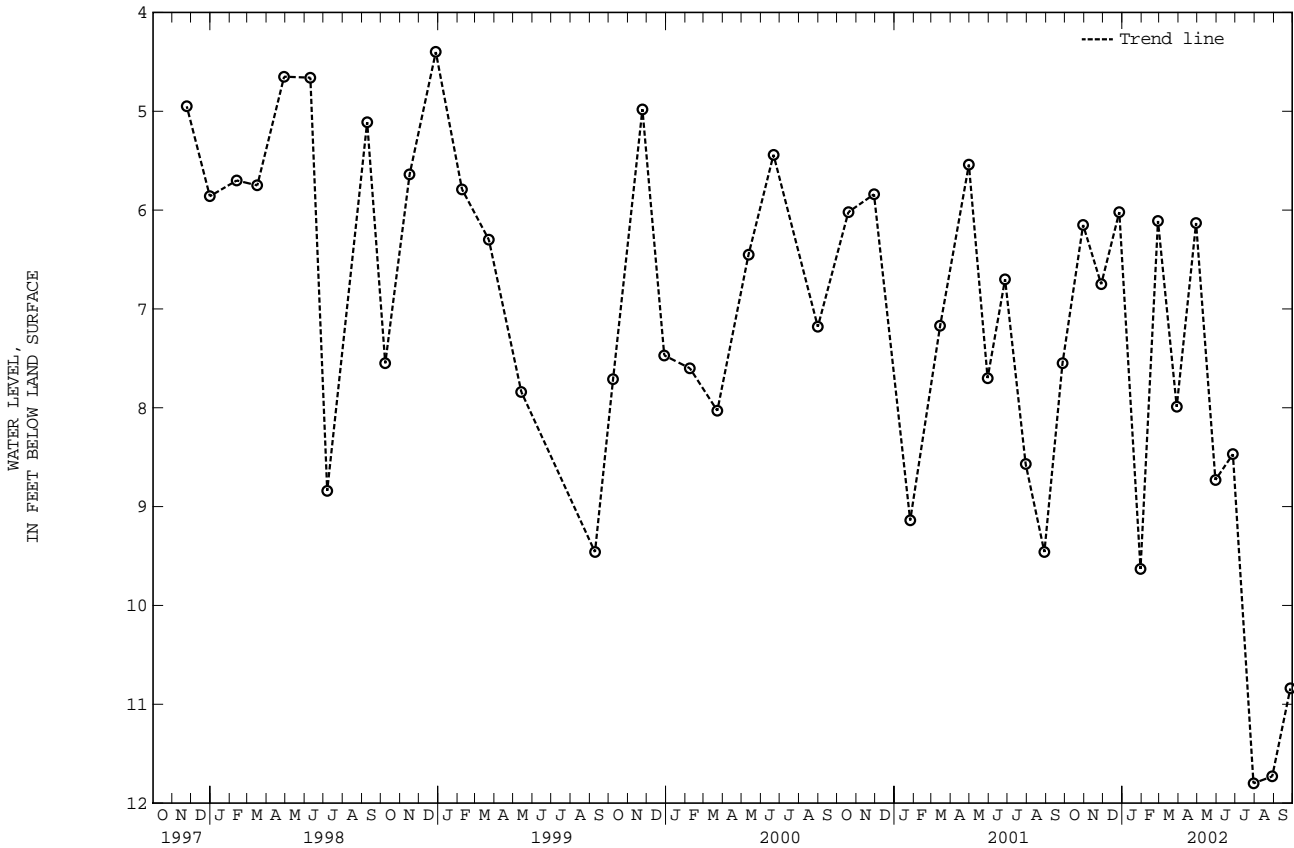
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.63 ft below land surface, March 8, 1962;

lowest measured, 38.02 ft below land surface, Sept. 17, 1970.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	6.15	JAN 30, 2002	9.63	APR 29, 2002	6.13	JUL 30, 2002	11.80
NOV 28	6.75	FEB 27	6.11	MAY 30	8.73	AUG 29	11.73
DEC 27	6.02	MAR 29	7.99	JUN 27	8.47	SEP 27	10.84

WATER YEAR 2002      HIGHEST    6.02 DEC 27, 2001      LOWEST    11.80 JUL 30, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

WORCESTER COUNTY--Continued

WELL NUMBER.--WO De 36. SITE ID.--381457075174101. PERMIT NUMBER.--WO-73-0515.

LOCATION.--Lat 38°14'57", long 75°17'41", Hydrologic Unit 02060010, at Newark.

Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 330 ft; casing diameter 4 in., to 320 ft; screen diameter 2 in. from 320 to 330 ft.

INSTRUMENTATION.--Monthly water level measurements with an electric tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 30 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.84 ft above land surface.

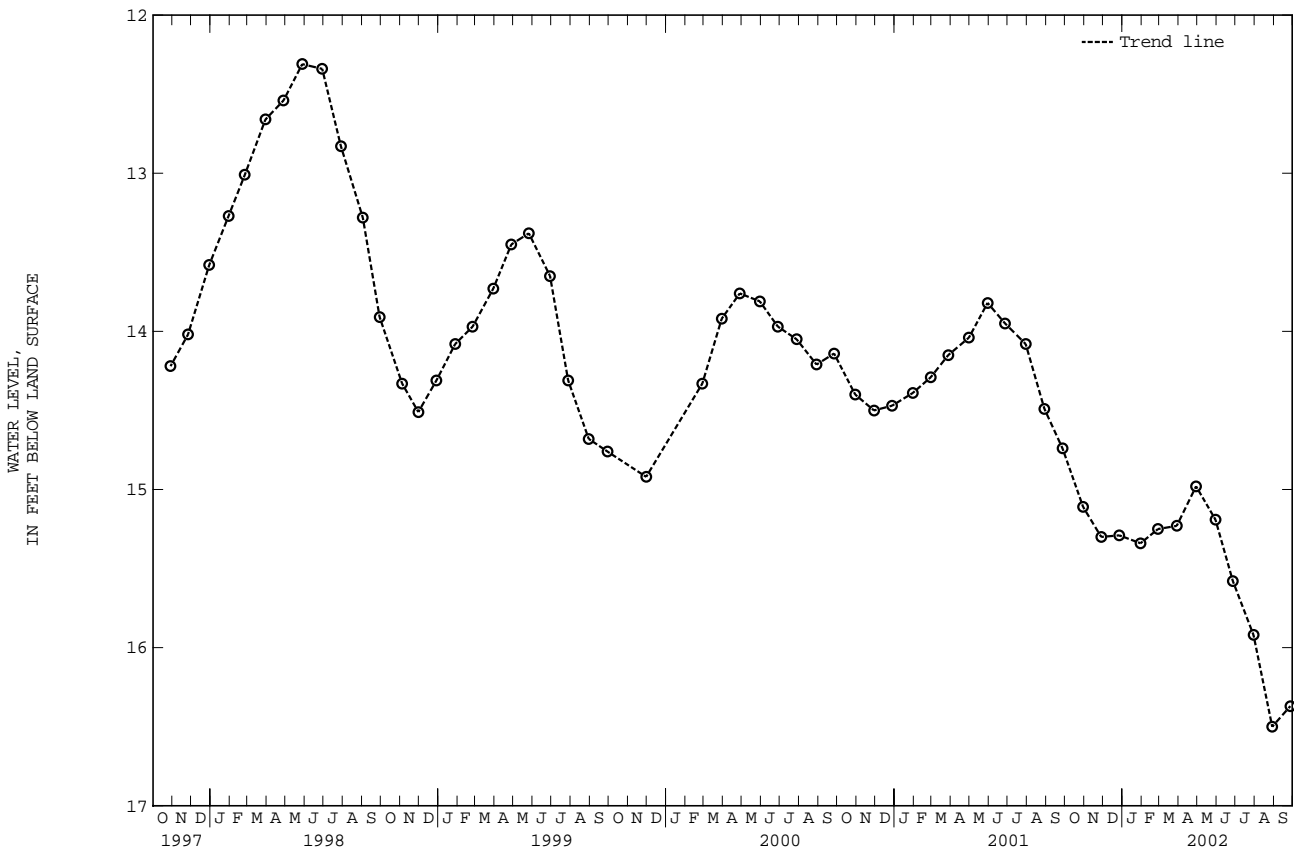
REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. Water levels are affected by regional ground-water withdrawal.

PERIOD OF RECORD.--September 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.62 ft below land surface, May 20, 1976, lowest measured, 16.50 ft below land surface, Aug. 29, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	15.11	JAN 30, 2002	15.34	APR 29, 2002	14.98	JUL 30, 2002	15.92
NOV 28	15.30	FEB 27	15.25	MAY 30	15.19	AUG 29	16.50
DEC 27	15.29	MAR 29	15.23	JUN 27	15.58	SEP 27	16.37
WATER YEAR 2002		HIGHEST	14.98	APR 29, 2002	LOWEST	16.50	AUG 29, 2002



5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Dg 21. SITE ID.--381427075081102. PERMIT NUMBER.--WO-73-0519.

LOCATION.--Lat 38°14'26", long 75°08'11", Hydrologic Unit 020060010, at Assateague Island State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer in the Eastover Formation of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 310 ft; casing diameter 4 in., to 300 ft; screen diameter 2 in. from 300 to 310 ft.

INSTRUMENTATION.--Monthly water level measurements with an electric tape by U.S. Geological Survey personnel from November 1990, to current year. Periodic water level measurements with chalked steel tape October 1975, to April 1985. Equipped with digital water-level recorder--60-minute recording interval, April 1985 to October 1990.

DATUM.--Elevation of land surface is 5.66 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.98 ft above land surface.

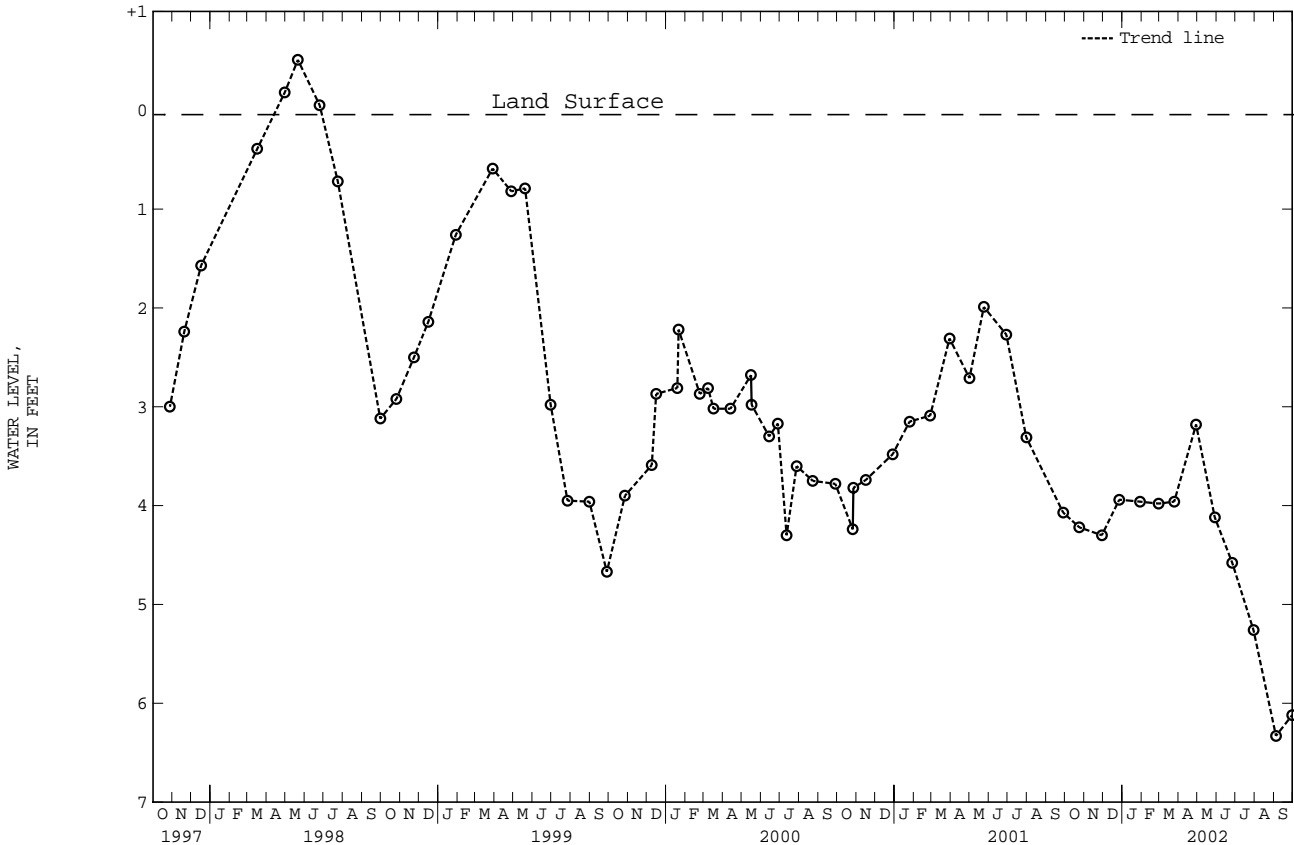
REMARKS.--Ocean City Ground-Water Monitoring Network observation well. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD.--October 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.37 ft above land surface, April 22, 1991; lowest recorded, 6.33 ft below land surface, Sept. 4, 2002.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 2001	4.22	JAN 29, 2002	3.96	APR 29, 2002	3.18	JUL 30, 2002	5.26
NOV 29	4.30	FEB 28	3.98	MAY 29	4.12	SEP 04	6.33
DEC 27	3.94	MAR 25	3.96	JUN 26	4.58	30	6.12
WATER YEAR 2002		HIGHEST	3.18	APR 29, 2002	LOWEST	6.33	SEP 04, 2002



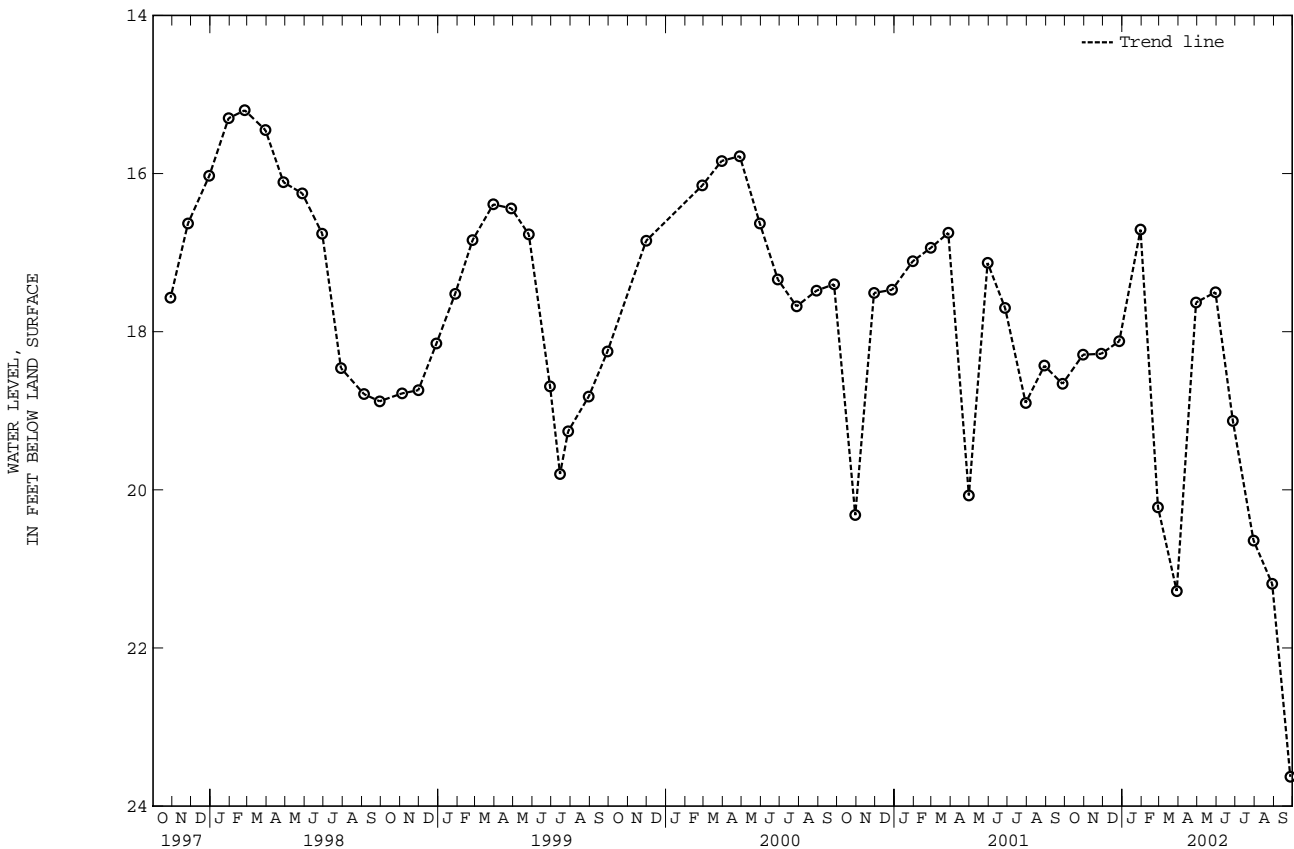
5 YEAR HYDROGRAPH  
OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Fb 2. SITE ID.--380408075335701. PERMIT NUMBER.--WO-00-1633.  
 LOCATION.--Lat 38°04'08", long 75°33'57", Hydrologic Unit 02060009, near 7th and Young St., Pocomoke City.  
 Owner: Pocomoke City.  
 AQUIFER.--Pocomoke aquifer in the Eastover Formation (?) or Yorktown Formation (?) of Upper Miocene-Pliocene age.  
 Aquifer code: 122PCMK.  
 WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 130 ft; casing diameter 16 in., to 100 ft; casing diameter 10 in., to 100 ft; screen diameter 9.5 in. from 100 to 130 ft.  
 INSTRUMENTATION.--Monthly water level measurements with an electric tape by U.S. Geological Survey personnel.  
 DATUM.--Elevation of land surface is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 Measuring point: Top of 1.5 in. casing extension, 3.30 ft above land surface.  
 REMARKS.--Maryland Ground-Water-Level Monitoring Network observation well. A water level was reported at 30 ft below land surface on Oct. 3, 1947. The well was inaccessible from January 1997, through July 1997 due to construction equipment being parked over the well. Water levels are affected by local ground-water withdrawal.  
 PERIOD OF RECORD.--January 1953 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.20 ft below land surface, Feb. 25, 1998; lowest measured, 49.70 ft below land surface, July 1, 1954.

WATER LEVELS, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 2001	18.29	JAN 30, 2002	16.71	APR 29, 2002	17.63	JUL 30, 2002	20.64
NOV 28	18.28	FEB 27	20.22	MAY 30	17.50	AUG 29	21.19
DEC 27	18.12	MAR 29	21.28	JUN 27	19.13	SEP 27	23.63
WATER YEAR 2002		HIGHEST	16.71	JAN 30, 2002	LOWEST	23.63	SEP 27, 2002



5 YEAR HYDROGRAPH  
 OCTOBER 1, 1997 THROUGH SEPTEMBER 30, 2002

## GROUND-WATER-QUALITY RECORDS

## REMARK CODES

The following remark codes may appear with the water-quality data in this section:

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
E	Estimated value
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.
V	Analyte was detected in both the environmental sample and the associated blank.
M	Presence of material verified but not quantified.

## Dissolved Trace-Element Concentrations

**NOTE**--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (ug/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Data above the ug/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols in water year 1994.

## Change in National Trends Network Procedures

**NOTE**--Sample handling procedures at all national Trends Network stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences based on a special intercomparison study, is available from the NADP/NTN Coordination Office, Colorado State University, Fort Collins, CO 80523 (Telephone: 303-491-5643).

QUALITY OF GROUND WATER DATA

KENT COUNTY, DELAWARE

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geo-logic unit	Station type	SAM-PLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)			
Ib32-05	11-08-01	1100	391233075433102	ENVIRONMENTAL	112CLMB	GW	4040	65	5.98			
			DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO BOT-TOM OF SAMPLE VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE VAL (FT) (72015)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)		
			30	30	27	45	.53	770	8	.8	7.6	209
			TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	2,4-D METHYL SURROG WATER FLTRD REC (99958)	2,4-D, DIS-SOLVED REC (50470)	2,4-DB WATER, FLTRD, GF 0.7U REC (38746)	3HYDRXY CARBO-FURAN WAT,FLT REC (49308)	3-KETO CARBO-FURAN WATER REC (50295)	ACIFL-UORFEN WATER, FLTRD, GF 0.7U REC (49315)	ALDI-CARB SULFONE WAT,FLT REC (49313)	
			18.0	14.0	84.5	<.009	<.02	<.02	<.006	<2	<.007	<.02
			ALDICA-RB SUL-FOXIDE, WAT,FLT REC (UG/L) (49314)	ALDI-CARB WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ATRA-BARYL, WATER, DISS, REC (UG/L) (39632)	BARBAN SURROG-ATE WTR FLT SCD 2060, 9060 RE PERCENT (UG/L) (90640)	BENDIO-CARB, WATER, FLTRD REC (UG/L) (50299)	BENOMYL WATER, FLTRD REC (UG/L) (50300)	BEN-SUL-FURON METHYL WAT FLT REC (UG/L) (61693)	BENTA-ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BRO-MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)
			<.008	<.04	<.009	83.4	<.03	<.004	<.02	<.01	<.03	<.02
			CAF-FEINE, WATER, FLTRD REC (UG/L) (50305)	CAF-FEINE-C13 SURROG WAT FLT REC (99959)	CAR-BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CARBO-FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	CHLOR-AMBN, METHYL ESTER WATER, FLTRD REC (UG/L) (61188)	CHLORI-MURON, WATER, FLTRD REC (UG/L) (50306)	CHLORO-THALO-NIL, WAT,FLT REC (UG/L) (49306)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CY-CLOATE, WATER, DISS, REC (UG/L) (04031)	DACTHAL MONO-ACID, WAT,FLT REC (UG/L) (49304)
			<.010	109	<.03	<.006	<.02	<.010	<.04	<.01	<.01	<.01
			DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DEETHYL DEISO-PROPYL ATRAZIN WATER, DISS, REC (UG/L) (04039)	DEISO-PROPYL ATRAZIN WATER, DISS, REC (UG/L) (04038)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DIPHEN-AMID, WATER, DISS, REC (UG/L) (04033)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	FEN-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUMET-SULAM WATER, FLTRD REC (UG/L) (61694)
			<.03	<.01	<.04	<.01	<.01	<.01	<.03	<.01	<.03	<.01

< Actual value is known to be less than the value shown.

Geologic Unit (aquifer): 112CLMB - Columbia Formation

Station Type: GW - Groundwater

Sampling Method: 4040 - Submersible pump

QUALITY OF GROUND WATER DATA

KENT COUNTY, DELAWARE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	FLUO-METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	HYDROXY ATRA-ZINE WATER FLTRD REC (UG/L) (50355)	IMAZ-AQUIN WATER FLTRD REC (UG/L) (50356)	IMAZE-THAPYR WATER FLTRD REC (UG/L) (50407)	IMID-ACLOP-RID WATER FLTRD REC (UG/L) (61695)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METAL-AXYL WATER FLTRD REC (UG/L) (50359)	METHIO-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)
Ib32-05	11-08-01	<.03	<.008	<.02	<.02	<.007	<.01	<.02	<.01	<.02	<.008
		METH-OMYL OXIME WATER, FLTRD, GF 0.7U REC (UG/L) (61696)	METH-OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	MET-SUL-FURON METHYL WAT FLT REC (UG/L) (61697)	NEB-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NICOSUL FURON WATER, FLTRD REC (UG/L) (50364)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY-ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL OXIME WATER, FLTRD REC (UG/L) (50410)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)
		<.01	<.004	<.03	<.01	<.01	<.02	<.02	<.01	<.01	<.02
		PRO-PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PROP-ICONA-ZOLE, WATER, FLTRD REC (UG/L) (50471)	PRO-POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SIDURON WATER, FLTRD REC (UG/L) (38548)	SULFO-MET-RURON METHYL WTR FLT REC (UG/L) (50337)	TEBU-THIURON WATER, FLTRD, GF, REC (UG/L) (82670)	TER-BACIL, WATER, DISS, REC (UG/L) (04032)	TRI-BENURON METHYL WATER, FLTRD REC (UG/L) (61159)	TRI-CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	UREA 3(4-CHLOR OPHENYL METHYL WAT FLT REC (UG/L) (61692)
		<.010	<.02	<.008	<.02	<.009	<.006	<.010	<.009	<.02	<.02
						RADON 222, 2X CL, 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, UNFLTRD TOTAL, (PCI/L) (99327)				
						1520	23.0	36			

< Actual value is known to be less than the value shown.



QUALITY OF GROUND WATER DATA

SUSSEX COUNTY, DELAWARE

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geo-logic unit	Station type	SAMPLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)
Beard domestic well	10-30-01	1100	383231075383101	ENVIRONMENTAL	112BVDM	GW	4040	--	--
Denver domestic well	10-29-01	1100	384606075115801	ENVIRONMENTAL	112CLMB	GW	4040	10	10.00
	10-29-01	1200		BLANK	--	GW	4040	--	--
	10-29-01	1205		BLANK	--	GW	4040	--	--
Rf14-02	10-11-01	1000	382927075211701	ENVIRONMENTAL	112CLMB	GW	4040	45	--
	10-11-01	1010		REPLICATE	112CLMB	GW	4040	45	--
	10-11-01	1300		BLANK	--	GW	4040	--	--

DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO BOT-TOM OF SAMPLE INTERVAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTERVAL (FT) (72015)	PUMP OR FLOW PERIOD TO SAM-PLING (MIN) (72004)	FLOW RATE (G/M) (00059)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER FIELD (STAND-ARD) UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)		
Beard domestic well	10-30-01	60	60	50	60	.51	776	23	2.4	4.8	316
Denver domestic well	10-29-01	100	100	93	75	.76	778	37	3.8	5.0	39
	10-29-01	--	--	--	--	--	--	--	--	--	--
	10-29-01	--	--	--	--	--	--	--	--	--	--
Rf14-02	10-11-01	56	56	46	75	.40	773	3	.3	5.0	113
	10-11-01	56	--	--	--	--	--	--	--	--	--
	10-11-01	--	--	--	--	--	--	--	--	--	--

TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY, WAT DIS-TOT IT FIELD (MG/L AS CACO3) (39086)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)		
Beard domestic well	10-30-01	15.0	15.0	92	23.8	7.57	6.28	12.1	1	1	19.5
Denver domestic well	10-29-01	12.0	15.0	6	1.48	.600	1.08	7.40	2	3	9.11
	10-29-01	--	--	--	--	--	--	--	--	--	--
	10-29-01	--	--	--	--	--	--	--	--	--	--
Rf14-02	10-11-01	25.0	18.0	25	6.42	1.98	2.21	10.1	4	5	13.8
	10-11-01	--	--	--	--	--	--	--	--	--	--
	10-11-01	--	--	--	--	--	--	--	--	--	--

FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)		
Beard domestic well	10-30-01	<.1	.05	15.1	.2	.26	.32	E.005	.05	28	27.2
Denver domestic well	10-29-01	<.1	.05	16.2	2.2	<.04	<.10	<.008	--	--	1.16
	10-29-01	--	--	--	--	--	--	--	--	--	--
	10-29-01	--	--	--	--	--	--	--	--	--	--
Rf14-02	10-11-01	<.1	.06	26.3	5.8	<.04	E.08	<.008	--	--	6.22
	10-11-01	--	--	--	--	--	--	--	--	--	--
	10-11-01	--	--	--	--	--	--	--	--	--	--

E Estimated value.  
 < Actual value is known to be less than the value shown.

Geologic Unit (aquifer): 112BVDM - Beaverdam Sand  
 112CLMB - Columbia aquifer

Station Type: GW - Ground Water

Sampling Method: 4040 - Submersible pump

QUALITY OF GROUND WATER DATA

SUSSEX COUNTY, DELAWARE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	ORTHO-PHOSPHATE, DIS-SOLVED (MG/L AS P) (00671)	TOTAL COLIFORM, M ENDO MF, WTR (COL/100 ML) (31501)	E COLI, NA-MUG, WATER (COL/100 ML) (50278)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC, DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYLLIUM, DIS-SOLVED (UG/L AS BE) (01010)
		Beard domestic well	10-30-01	<.02	<1	<1	202	207	6	<.05	<.2
Denver domestic well	10-29-01	<.02	<1	<1	48	45	<1	<.05	<.2	19	.09
	10-29-01	--	--	--	--	--	--	--	--	--	--
	10-29-01	--	--	--	--	--	--	--	--	--	--
Rf14-02	10-11-01	<.02	<1	<1	98	97	5	<.05	<.2	190	1.34
	10-11-01	--	--	--	--	--	--	--	--	--	--
	10-11-01	--	--	--	--	--	--	--	--	--	--
		BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)
Beard domestic well	10-30-01	E6	.20	E.5	2.05	17.5	25	.68	2.0	67.3	<.2
Denver domestic well	10-29-01	7	<.04	1.6	.61	19.7	E9	.49	2.5	2.9	<.2
	10-29-01	--	--	--	--	--	--	--	--	--	--
	10-29-01	--	--	--	--	--	--	--	--	--	--
Rf14-02	10-11-01	10	.12	<.8	5.20	13.9	62	.34	2.0	78.2	<.2
	10-11-01	--	--	--	--	--	--	--	--	--	--
	10-11-01	--	--	--	--	--	--	--	--	--	--
		NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRONTIUM, DIS-SOLVED (UG/L AS SR) (01080)	THALLIUM, DIS-SOLVED (UG/L AS TL) (01057)	VANADIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC, DIS-SOLVED (MG/L AS C) (00681)	2,4,5-T SURROG WATER FLTRD REC (99958)	2,4-D METHYL ESTER, WATER FLTRD REC (50470)
Beard domestic well	10-30-01	.23	<.3	<1	614	.08	<.2	10	.6	100	<.009
Denver domestic well	10-29-01	.99	E.3	<1	19.3	<.04	.3	19	.4	91.8	<.009
	10-29-01	--	--	--	--	--	--	--	--	--	--
	10-29-01	--	--	--	--	--	--	--	--	--	--
Rf14-02	10-11-01	.63	E.2	<1	204	.10	<.2	14	.9	92.9	<.009
	10-11-01	--	--	--	--	--	--	--	--	--	--
	10-11-01	--	--	--	--	--	--	--	--	--	--
		2,4-D, DIS-SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U (UG/L) (38746)	2,6-DI-ETHYL ANILINE WAT FLT GF, REC (UG/L) (82660)	3HYDRXY CARBO-FURAN WAT,FLT GF 0.7U (UG/L) (49308)	3-KETO CARBO-FURAN WATER FLTRD REC (UG/L) (50295)	ACETO-CHLOR ESA FLTRD GF REC (UG/L) (61029)	ACETO-CHLOR OA FLTRD GF REC (UG/L) (61030)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ACIFL-UORFEN WATER, FLTRD, GF 0.7U (UG/L) (49315)	ALA-CHLOR OA FLTRD GF REC (UG/L) (61031)
Beard domestic well	10-30-01	<.02	<.02	<.002	<.006	<2	<.05	<.05	<.004	<.007	.11
Denver domestic well	10-29-01	<.02	<.02	<.002	<.006	<2	<.05	<.05	<.004	<.007	<.05
	10-29-01	--	--	--	--	--	--	--	--	--	--
	10-29-01	--	--	--	--	--	--	--	--	--	--
Rf14-02	10-11-01	<.02	<.02	<.002	<.006	<2	<.05	<.05	<.004	<.007	<.05
	10-11-01	--	--	--	--	--	--	--	--	--	--
	10-11-01	--	--	--	--	--	--	--	--	--	--

E Estimated value.  
 < Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

SUSSEX COUNTY, DELAWARE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	ALA-CHLOR ESA WAT FLT GF 0.7U REC (UG/L) (50009)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SUL-FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALPHA BHC DISS- SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BARBAN SURROG- ATE WTR FLT SCD 2060, REC (UG/L) (90640)	BENDIO-CARB, WATER, FLTRD REC (UG/L) (50299)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)
Beard domestic well	10-30-01	.92	<.002	<.02	<.008	<.04	<.005	.060	E95.2	<.03	<.010
Denver domestic well	10-29-01	<.05	<.002	<.02	<.008	<.04	<.005	<.007	E87.0	<.03	<.010
	10-29-01	--	--	--	--	--	--	--	--	--	--
	10-29-01	--	--	--	--	--	--	--	--	--	--
Rf14-02	10-11-01	2.06	<.002	<.02	<.008	<.04	<.005	<.007	121	<.03	<.010
	10-11-01	--	--	--	--	--	--	--	--	--	--
	10-11-01	--	--	--	--	--	--	--	--	--	--
		BENOMYL WATER FLTRD REC (UG/L) (50300)	BEN-SUL-FURON METHYL WAT FLT REC (UG/L) (61693)	BENTA-ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BRO-MOXYNIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAF-FEINE, WATER, FLTRD REC (UG/L) (50305)	CAF-FEINE-C13 SURROG, WAT FLT REC (99959)	CAR-BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CAR-BARYL, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82680)
Beard domestic well	10-30-01	<.004	<.02	<.01	<.03	<.02	<.002	<.010	111	<.03	<.041
Denver domestic well	10-29-01	<.004	<.02	<.01	<.03	<.02	<.002	<.010	E278	<.03	<.041
	10-29-01	--	--	--	--	--	--	--	--	--	--
	10-29-01	--	--	--	--	--	--	--	--	--	--
Rf14-02	10-11-01	<.004	<.02	<.01	<.03	<.02	<.002	<.010	E127	<.03	<.041
	10-11-01	--	--	--	--	--	--	--	--	--	--
	10-11-01	--	--	--	--	--	--	--	--	--	--
		CARBO-FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	CARBO-FURAN, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82674)	CHLOR-AM BEN, METHYL ESTER, WATER, FLTRD REC (UG/L) (61188)	CHLORI-MURON, WATER, FLTRD REC (UG/L) (50306)	CHLORO-THALO-NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLOR-PYRIFOS, DIS- SOLVED (UG/L) (38933)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	CY-CLOATE, WATER, DISS, REC (UG/L) (04031)	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)
Beard domestic well	10-30-01	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01
Denver domestic well	10-29-01	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01
	10-29-01	--	--	--	--	--	--	--	--	--	--
	10-29-01	--	--	--	--	--	--	--	--	--	--
Rf14-02	10-11-01	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01
	10-11-01	--	--	--	--	--	--	--	--	--	--
	10-11-01	--	--	--	--	--	--	--	--	--	--
		DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DEETHYL PROPYL ATRAZIN, DISS, REC (UG/L) (04039)	DEISO-PROPYL ATRAZIN, DISS, REC (UG/L) (04038)	DIAZ-INON D10 SRG WAT FLT 0.7 U GF, REC (UG/L) (91063)	DI-AZINON, DIS- SOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLOR PROP, WATER, FLTRD, REC (UG/L) (49302)	DI-ELDRIN, DIS- SOLVED (UG/L) (39381)	DIMETH-ENAMID OA, WATER, FLT, REC (UG/L) (62482)
Beard domestic well	10-30-01	<.003	E.050	<.01	E.02	97.1	<.005	<.01	<.01	<.005	<.05
Denver domestic well	10-29-01	<.003	<.006	<.01	<.04	90.3	<.005	<.01	<.01	<.005	<.05
	10-29-01	--	--	--	--	--	--	--	--	--	--
	10-29-01	--	--	--	--	--	--	--	--	--	--
Rf14-02	10-11-01	<.003	<.006	<.01	<.04	104	<.005	<.01	<.01	<.005	<.05
	10-11-01	--	--	--	--	--	--	--	--	--	--
	10-11-01	--	--	--	--	--	--	--	--	--	--

E Estimated value.  
 < Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

SUSSEX COUNTY, DELAWARE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	DIMETH-ENAMID, ESA, WAT FLT (61951)	DINOSEB WATER, FLTRD, GF 0.7U REC (49301)	DIPHEN-AMID, WATER, DISS, REC (04033)	DISUL-FOTON WATER, FLTRD, 0.7 U GF, REC (82677)	DIURON, WATER, FLTRD, GF 0.7U REC (49300)	EPTC WATER, FLTRD, 0.7 U GF, REC (82668)	ETHAL-FLUR-ALIN, WAT FLT (82663)	ETHO-PROP WATER, FLTRD, 0.7 U GF, REC (82672)	FEN-URON, WATER, FLTRD, GF 0.7U REC (49297)	FLUFEN-ACET, ESA, WAT FLT (61952)
		Beard domestic well	10-30-01	<.05	<.01	<.03	<.02	<.01	<.002	<.009	<.005
Denver domestic well	10-29-01	<.05	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.05
	10-29-01	--	--	--	--	--	--	--	--	--	--
	10-29-01	--	--	--	--	--	--	--	--	--	--
Rf14-02	10-11-01	<.05	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.05
	10-11-01	--	--	--	--	--	--	--	--	--	--
	10-11-01	--	--	--	--	--	--	--	--	--	--
		FLUFE-NACET OA, WATER FLT, REC (62483)	FLUMET-SULAM WATER, FLTRD, REC (61694)	FLUO-METURON FLTRD, GF 0.7U REC (38811)	FONOFOS WATER, DISS, REC (04095)	HCH ALPHA D6 SRG WAT FLT, REC (91065)	HYDROXY ATRA-ZINE FLTRD, REC (50355)	IMAZ-AQUIN WATER, FLTRD, REC (50356)	IMAZE-THAPYR WATER, FLTRD, REC (50407)	IMID-ACLOP-RID WATER, FLTRD, REC (61695)	LINDANE DIS-SOLVED (39341)
Beard domestic well	10-30-01	<.05	E.01	<.03	<.003	92.5	E.005	E.02	<.02	<.007	<.004
Denver domestic well	10-29-01	<.05	<.01	<.03	<.003	73.1	<.008	<.02	<.02	<.007	<.004
	10-29-01	--	--	--	--	--	--	--	--	--	--
	10-29-01	--	--	--	--	--	--	--	--	--	--
Rf14-02	10-11-01	<.05	E.02	<.03	<.003	98.2	<.008	<.02	<.02	<.007	<.004
	10-11-01	--	--	--	--	--	--	--	--	--	--
	10-11-01	--	--	--	--	--	--	--	--	--	--
		LINURON WATER, FLTRD, GF 0.7U REC (38478)	LIN-URON WATER, FLTRD, 0.7 U GF, REC (82666)	MALA-THION, DIS-SOLVED (39532)	MCPA, WATER, FLTRD, GF 0.7U REC (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (38487)	METAL-AXYL WATER, FLTRD, REC (50359)	METHIO-CARB, WATER, FLTRD, GF 0.7U REC (38501)	METH-OMYL, OXIME WATER, FLTRD, REC (61696)	METH-OMYL, WATER, FLTRD, GF 0.7U REC (49296)	METHYL-AZIN-PHOS WAT FLT, 0.7 U GF, REC (82686)
Beard domestic well	10-30-01	<.01	<.035	<.027	<.02	<.01	<.02	<.008	<.01	<.004	<.050
Denver domestic well	10-29-01	<.01	<.035	<.027	<.02	<.01	<.02	<.008	<.01	<.004	<.050
	10-29-01	--	--	--	--	--	--	--	--	--	--
	10-29-01	--	--	--	--	--	--	--	--	--	--
Rf14-02	10-11-01	<.01	<.035	<.027	<.02	<.01	<.02	<.008	<.01	<.004	<.050
	10-11-01	--	--	--	--	--	--	--	--	--	--
	10-11-01	--	--	--	--	--	--	--	--	--	--
		METHYL-PARA-THION WAT FLT, 0.7 U GF, REC (82667)	METOLA-CHLOR ESA, FLTRD, GF REC (61043)	METOLA-CHLOR OA, FLTRD, GF REC (61044)	METO-LACHLOR WATER, DISSOLV (39415)	METRI-BUZIN WATER, DISSOLV (82630)	MET-SUL-FURON METHYL, WAT FLT, REC (61697)	MOL-INATE WATER, FLTRD, 0.7 U GF, REC (82671)	NAPROP-AMIDE WATER, FLTRD, GF, REC (82684)	NEB-URON, WATER, FLTRD, GF 0.7U REC (49294)	NICOSUL FURON WATER, FLTRD, REC (50364)
Beard domestic well	10-30-01	<.006	3.39	1.42	E.008	<.006	<.03	<.002	<.007	<.01	<.01
Denver domestic well	10-29-01	<.006	<.05	<.05	<.013	<.006	<.03	<.002	<.007	<.01	<.01
	10-29-01	--	--	--	--	--	--	--	--	--	--
	10-29-01	--	--	--	--	--	--	--	--	--	--
Rf14-02	10-11-01	<.006	7.30	.85	<.013	<.006	<.03	<.002	<.007	<.01	<.01
	10-11-01	--	--	--	--	--	--	--	--	--	--
	10-11-01	--	--	--	--	--	--	--	--	--	--

E Estimated value.  
 < Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

SUSSEX COUNTY, DELAWARE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	NORFLURAZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY-ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, OXIME, WATER, FLTRD, GF 0.7U REC (UG/L) (50410)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	P,P' DDE DISSOLV (UG/L) (34653)	PARATHION, DIS-SOLVED (UG/L) (39542)	PEB-ULATE, WATER, FILTRD, GF, REC (UG/L) (82669)	PENDI-ALIN, WAT FLT, GF, REC (UG/L) (82683)	PER-METHRIN, CIS, WAT FLT, GF, REC (UG/L) (82687)	PHORATE, WATER, FLTRD, GF, REC (UG/L) (82664)
Beard domestic well	10-30-01	<.02	<.02	<.01	<.01	<.003	<.007	<.002	<.010	<.006	<.011
Denver domestic well	10-29-01	<.02	<.02	<.01	<.01	<.003	<.007	<.002	<.010	<.006	<.011
	10-29-01	--	--	--	--	--	--	--	--	--	--
	10-29-01	--	--	--	--	--	--	--	--	--	--
Rf14-02	10-11-01	<.02	<.02	<.01	<.01	<.003	<.007	<.002	<.010	<.006	<.011
	10-11-01	--	--	--	--	--	--	--	--	--	--
	10-11-01	--	--	--	--	--	--	--	--	--	--
		PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE, WATER, FLTRD, GF, REC (UG/L) (82676)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL, WATER, FLTRD, GF, REC (UG/L) (82679)	PRO-PARGITE, FLTRD, GF, REC (UG/L) (82685)	PRO-PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PROP-ICONA-ZOLE, WATER, FLTRD, REC (UG/L) (50471)	PRO-POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SIDURON, WATER, FLTRD, REC (UG/L) (38548)
Beard domestic well	10-30-01	<.02	<.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
Denver domestic well	10-29-01	<.02	<.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
	10-29-01	--	--	--	--	--	--	--	--	--	--
	10-29-01	--	--	--	--	--	--	--	--	--	--
Rf14-02	10-11-01	<.02	<.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
	10-11-01	--	--	--	--	--	--	--	--	--	--
	10-11-01	--	--	--	--	--	--	--	--	--	--
		SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	SULFO-MET-RURON, METHYL, WTR FLT (UG/L) (50337)	TEBU-THIURON, WATER, FLTRD, GF, REC (UG/L) (82670)	TER-BACIL, WATER, DISS, REC (UG/L) (04032)	TER-BACIL, WATER, FLTRD, GF, REC (UG/L) (82665)	TER-BUFOS, WATER, FLTRD, GF, REC (UG/L) (82675)	THIO-BENCARB, WATER, FLTRD, GF, REC (UG/L) (82681)	TRIAL-LATE, WATER, FLTRD, GF, REC (UG/L) (82678)	TRI-BENURON, METHYL, WATER, FLTRD, REC (UG/L) (61159)	TRI-CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)
Beard domestic well	10-30-01	<.011	<.009	<.02	<.010	<.034	<.02	<.005	<.002	<.009	<.02
Denver domestic well	10-29-01	<.011	<.009	<.02	<.010	<.034	<.02	<.005	<.002	<.009	<.02
	10-29-01	--	--	--	--	--	--	--	--	--	--
	10-29-01	--	--	--	--	--	--	--	--	--	--
Rf14-02	10-11-01	<.011	<.009	<.02	<.010	<.034	<.02	<.005	<.002	<.009	<.02
	10-11-01	--	--	--	--	--	--	--	--	--	--
	10-11-01	--	--	--	--	--	--	--	--	--	--
		TRI-FLUR-ALIN, WAT FLT, GF, REC (UG/L) (82661)	UREA 3(4-CHLOROPHENYL, WAT FLT, REC (UG/L) (61692)	1,1,1-TRI-CHLORO-ETHANE, TOTAL (UG/L) (34506)	1,1,2-TRI-CHLORO-ETHANE, TOTAL (UG/L) (34511)	1,1-DI-CHLORO-ETHANE, TOTAL (UG/L) (34496)	1,1-DI-CHLORO-ETHYL-ENE, TOTAL (UG/L) (34501)	1,1-DI-CHLORO-PRO-PENE, WAT, WH, TOTAL (UG/L) (77168)	123-TRI-CHLORO-PROPANE, WATER, WHOLE, TOTAL (UG/L) (77443)	1,2-DIBROMO, ETHANE, WATER, WHOLE, TOTAL (UG/L) (77651)	1,2-DI-CHLORO-ETHANE, TOTAL (UG/L) (32103)
Beard domestic well	10-30-01	<.009	<.02	<.03	<.06	<.04	<.04	<.03	<.16	<.04	<.1
Denver domestic well	10-29-01	<.009	<.02	<.03	<.06	<.04	<.04	<.03	<.16	<.04	<.1
	10-29-01	--	--	<.03	<.06	<.04	<.04	<.03	<.16	<.04	<.1
	10-29-01	--	--	<.03	<.06	<.04	<.04	<.03	<.16	<.04	<.1
Rf14-02	10-11-01	<.009	<.02	<.03	<.06	<.04	<.04	<.03	<.16	<.04	<.1
	10-11-01	--	--	<.03	<.06	<.04	<.04	<.03	<.16	<.04	<.1
	10-11-01	--	--	<.03	<.06	<.04	<.04	<.03	<.16	<.04	<.1

< Actual value is known to be less than the value shown.

## QUALITY OF GROUND WATER DATA

SUSSEX COUNTY, DELAWARE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	TRANS-1,2-DI-CHLORO-ETHANE		2,2-DI-CHLORO-PRO-PANE	2BUTENE TRANS-1 4-DI-CHLORO UNFLTRD	2-HEXA-NONE WATER	ACETONE WHOLE	ACRYLO-NITRILE	1,2,3-TRI-CHLORO-BENZENE	BENZENE 123-TRI-METHYL-WATER	BENZENE 1,2,4-TRI-CHLORO-WAT UNF
		TOTAL (UG/L) (34541)	TOTAL (UG/L) (34546)	TOTAL (UG/L) (77170)	RECOVER (UG/L) (73547)	TOTAL (UG/L) (77103)	TOTAL (UG/L) (81552)	TOTAL (UG/L) (34215)	REC (UG/L) (77613)	RECOVER (UG/L) (77221)	REC (UG/L) (34551)
Beard domestic well	10-30-01	<.03	<.03	<.05	<.7	<.7	<7	<1	<.3	<.1	<.2
Denver domestic well	10-29-01	<.03	<.03	<.05	<.7	<.7	<7	<1	<.3	<.1	<.2
	10-29-01	<.03	<.03	<.05	<.7	<.7	<7	<1	<.3	<.1	<.2
	10-29-01	<.03	<.03	<.05	<.7	<.7	<7	<1	<.3	<.1	<.2
Rf14-02	10-11-01	<.03	<.03	<.05	<.7	<.7	<7	<1	<.3	<.1	<.2
	10-11-01	<.03	<.03	<.05	<.7	<.7	<7	<1	<.3	<.1	<.2
	10-11-01	<.03	<.03	<.05	<.7	<.7	<7	<1	<.3	<.1	<.2
		BENZENE 124-TRI-METHYL UNFILT RECOVER (UG/L) (77222)	BENZENE 135-TRI-METHYL WATER UNFLTRD REC (UG/L) (77226)	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 14BRFL-SURROG VOC UNFLTRD REC PERCENT (99834)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	ISO-PROPYL-BENZENE WATER REC (UG/L) (77223)	BENZENE N-BUTYL WATER UNFLTRD REC (UG/L) (77342)	BENZENE N-PROPYL WATER UNFLTRD REC (UG/L) (77224)	BENZENE O-DI-BROMO-WATER UNFLTRD REC (UG/L) (34536)	BENZENE SEC-BUTYL-WATER UNFLTRD REC (UG/L) (77350)
Beard domestic well	10-30-01	<.06	<.04	<.03	95.8	<.05	<.03	<.2	<.04	<.03	<.03
Denver domestic well	10-29-01	<.06	<.04	<.03	94.4	<.05	<.03	<.2	<.04	<.03	<.03
	10-29-01	<.06	<.04	<.03	97.1	<.05	<.03	<.2	<.04	<.03	<.03
	10-29-01	<.06	<.04	<.03	98.6	<.05	<.03	<.2	<.04	<.03	<.03
Rf14-02	10-11-01	<.06	<.04	<.03	108	<.05	<.03	<.2	<.04	<.03	<.03
	10-11-01	<.06	<.04	<.03	104	<.05	<.03	<.2	<.04	<.03	<.03
	10-11-01	<.06	<.04	<.03	112	<.05	<.03	<.2	<.04	<.03	<.03
		BENZENE TERT-BUTYL-WATER UNFLTRD REC (UG/L) (77353)	BENZENE TOTAL (UG/L) (34030)	BROMO-BENZENE WHOLE, TOTAL (UG/L) (81555)	BROMO-ETHENE WATER UNFLTRD REC (UG/L) (50002)	BROMO-FORM TOTAL (UG/L) (32104)	CARBON DI-SULFIDE WATER WHOLE TOTAL (UG/L) (77041)	CARBON TETRA-CHLO-RIDE TOTAL (UG/L) (32102)	CHLORO-BENZENE TOTAL (UG/L) (34301)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)	CHLORO-ETHANE TOTAL (UG/L) (34311)
Beard domestic well	10-30-01	<.06	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
Denver domestic well	10-29-01	<.06	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
	10-29-01	<.06	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
	10-29-01	<.06	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
Rf14-02	10-11-01	<.06	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
	10-11-01	<.06	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
	10-11-01	<.06	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
		CHLORO-FORM TOTAL (UG/L) (32106)	CIS-1,2-DI-CHLORO-ETHENE WATER TOTAL (UG/L) (77093)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	DIBROMO-CHLORO-PROPANE WATER WHOLE TOT.REC (UG/L) (82625)	DI-BROMO-METHANE WATER WHOLE RECOVER (UG/L) (30217)	BROMO-DI-CHLORO-METHANE TOTAL (UG/L) (32101)	DI-CHLORO-FLURO-METHANE TOTAL (UG/L) (34668)	DI-ISO-PROPYL-ETHER, WATER UNFLTRD RECOVER (UG/L) (81577)	ETHANE, 1112-TETRA-CHLORO-WAT UNF REC (UG/L) (77562)	ETHANE, 1,1,2,2-TETRA-CHLORO-WAT UNF REC (UG/L) (34516)
Beard domestic well	10-30-01	E.05	<.04	<.09	<.5	<.05	<.05	<.27	<.10	<.03	<.09
Denver domestic well	10-29-01	.45	<.04	<.09	<.5	<.05	<.05	<.27	<.10	<.03	<.09
	10-29-01	<.02	<.04	<.09	<.5	<.05	<.05	<.27	<.10	<.03	<.09
	10-29-01	<.02	<.04	<.09	<.5	<.05	<.05	<.27	<.10	<.03	<.09
Rf14-02	10-11-01	<.02	<.04	<.09	<.5	<.05	<.05	<.27	<.10	<.03	<.09
	10-11-01	<.02	<.04	<.09	<.5	<.05	<.05	<.27	<.10	<.03	<.09
	10-11-01	<.02	<.04	<.09	<.5	<.05	<.05	<.27	<.10	<.03	<.09

E Estimated value.

&lt; Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

SUSSEX COUNTY, DELAWARE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	ETHANE	ETHANE	ETHER	ETHER	ETHER		FREON-	FURAN,	HEXA-	ISO-
		12DICL SURROG VOC	HEXA- CHLORO- WATER	ETHER ETHYL WATER	TERT- BUTYL UNFLTRD	TERT- PENTYL METHYL	ETHYL- BENZENE	WATER	113 HYDRO- WATER	CHLORO- BUT- ADIENE	DURENE WATER
		UNFLTRD REC (99832)	UNFLTRD RECOVER (34396)	UNFLTRD RECOVER (81576)	UNFLTRD RECOVER (50004)	UNFLTRD RECOVER (50005)	TOTAL (34371)	UNFLTRD REC (77652)	UNFLTRD RECOVER (81607)	TOTAL (39702)	UNFLTRD RECOVER (50000)
Beard domestic well	10-30-01	113	<.2	<.2	<.05	<.11	<.03	<.06	<2	<.1	<.2
Denver domestic well	10-29-01	110	<.2	<.2	<.05	<.11	<.03	<.06	<2	<.1	<.2
	10-29-01	113	<.2	<.2	<.05	<.11	<.03	<.06	<2	<.1	<.2
	10-29-01	113	<.2	<.2	<.05	<.11	<.03	<.06	<2	<.1	<.2
Rf14-02	10-11-01	104	<.2	<.2	<.05	<.11	<.03	<.06	<2	<.1	<.2
	10-11-01	107	<.2	<.2	<.05	<.11	<.03	<.06	<2	<.1	<.2
	10-11-01	102	<.2	<.2	<.05	<.11	<.03	<.06	<2	<.1	<.2
		METHAC- RYLATE ETHYL- WATER UNFLTRD RECOVER (UG/L) (73570)	METHAC- RYLATE METHYL WATER UNFLTRD RECOVER (UG/L) (81597)	METH- ACRYLO- NITRILE WATER UNFLTRD RECOVER (UG/L) (81593)	METHANE BROMO CHLORO- WAT UNFLTRD REC (UG/L) (77297)	METHYL ACRY- LATE WATER UNFLTRD RECOVER (UG/L) (49991)	METHYL IODIDE WATER UNFLTRD RECOVER (UG/L) (77424)	METHYL TERT- BUTYL ETHER WAT UNF REC (UG/L) (78032)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL ENE CHLO- RIDE TOTAL (UG/L) (34423)
Beard domestic well	10-30-01	<.2	<.3	<.6	<.04	<1.4	<.12	<.2	<.3	<.2	<.2
Denver domestic well	10-29-01	<.2	<.3	<.6	<.04	<1.4	<.12	<.2	<.3	<.2	<.2
	10-29-01	<.2	<.3	<.6	<.04	<1.4	<.12	<.2	<.3	<.2	<.2
	10-29-01	<.2	<.3	<.6	<.04	<1.4	<.12	<.2	<.3	<.2	<.2
Rf14-02	10-11-01	<.2	<.3	<.6	<.04	<1.4	<.12	<.2	<.3	<.2	<.2
	10-11-01	<.2	<.3	<.6	<.04	<1.4	<.12	<.2	<.3	<.2	<.2
	10-11-01	<.2	<.3	<.6	<.04	<1.4	<.12	<.2	<.3	<.2	.2
		METHYL- ETHYL- KETONE WATER WHOLE TOTAL (UG/L) (81595)	METHYL ISO- BUTYL KETONE WAT.WH. TOTAL (UG/L) (78133)	META/ PARA- XYLENE WATER UNFLTRD REC (UG/L) (85795)	NAPHTH- ALENE TOTAL (UG/L) (34696)	O- CHLORO- TOLUENE WATER WHOLE TOTAL (UG/L) (77275)	O- XYLENE WATER WHOLE TOTAL (UG/L) (77135)	P-ISO- PROPYL- TOLUENE WATER WHOLE REC (UG/L) (77356)	1234- TETRA METHYL BENZENE UNFLTRD REC (UG/L) (49999)	1,3-DI- CHLORO- PROPANE WAT. WH TOTAL (UG/L) (77173)	PROPENE 3- CHLORO- WATER UNFLTRD RECOVER (UG/L) (78109)
Beard domestic well	10-30-01	<1.6	<.4	<.06	<.5	<.03	<.04	<.07	<.2	<.1	<.07
Denver domestic well	10-29-01	<1.6	<.4	<.06	<.5	<.03	<.04	<.07	<.2	<.1	<.07
	10-29-01	<1.6	<.4	<.06	<.5	<.03	<.04	<.07	<.2	<.1	<.07
	10-29-01	<1.6	<.4	<.06	<.5	<.03	<.04	<.07	<.2	<.1	<.07
Rf14-02	10-11-01	<1.6	<.4	<.06	<.5	<.03	<.04	<.07	<.2	<.1	<.07
	10-11-01	<1.6	<.4	<.06	<.5	<.03	<.04	<.07	<.2	<.1	<.07
	10-11-01	<1.6	<.4	<.06	<.5	<.03	<.04	<.07	<.2	<.1	<.07
		STYRENE TOTAL (UG/L) (77128)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TOLUENE D8 SURROG VOC UNFLTRD REC (99833)	TOLUENE O-ETHYL WATER UNFLTRD RECOVER (UG/L) (77220)	TOLUENE P-CHLOR WATER UNFLTRD REC (UG/L) (77277)	TOLUENE TOTAL (UG/L) (34010)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	VINYL CHLO- RIDE TOTAL (UG/L) (39175)
Beard domestic well	10-30-01	<.04	<.10	104	<.06	<.06	<.05	<.09	E.01	<.09	<.1
Denver domestic well	10-29-01	<.04	<.10	103	<.06	<.06	<.05	<.09	<.04	<.09	<.1
	10-29-01	<.04	<.10	104	<.06	<.06	<.05	<.09	<.04	<.09	<.1
	10-29-01	<.04	<.10	104	<.06	<.06	<.05	<.09	<.04	<.09	<.1
Rf14-02	10-11-01	<.04	<.10	103	<.06	<.06	<.05	<.09	<.04	<.09	<.1
	10-11-01	<.04	<.10	105	<.06	<.06	<.05	<.09	<.04	<.09	<.1
	10-11-01	<.04	E.02	105	<.06	<.06	<.05	<.09	<.04	<.09	<.1

E Estimated value.  
 < Actual value is known to be less than the value shown.

## QUALITY OF GROUND WATER DATA

SUSSEX COUNTY, DELAWARE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	RADON 222, RN-222 URANIUM 2X CL, 2 SIGMA NATURAL RADON SS MDC, WATER, DIS- 222 WATER, WHOLE, SOLVED TOTAL UNFLTRD TOTAL, (UG/L (PCI/L) (PCI/L) (PCI/L) AS U) (82303) (99327) (76002) (22703)			
Beard domestic well	10-30-01	190	23.0	18	<.02
Denver domestic well	10-29-01	180	23.0	18	E.01
	10-29-01	--	--	--	--
	10-29-01	--	--	--	--
Rf14-02	10-11-01	230	21.0	18	<.02
	10-11-01	240	21.0	18	--
	10-11-01	--	--	--	--

E Estimated value.

&lt; Actual value is known to be less than the value shown.



QUALITY OF GROUND WATER DATA

ANNE ARUNDEL COUNTY, MARYLAND

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geologic unit	Station type	SAMPLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH OF WELL, TOTAL (FEET) (72008)			
AA Bf 64	09-04-02	1500	390622076272601	ENVIRONMENTAL	211MGTY	GW	8030	60	90			
	09-04-02	1505		REPLICATE	211MGTY	GW	--	60	90			
			DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT) (72015)	PUMP OR FLOW PERIOD TO SAM-PLING (MIN) (72004)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE WATER (US/CM) (00095)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED AS CA (MG/L) (00915)			
	09-04-02	90	83	25	5.5	<1.0	3.8	191	15.2	25	3.51	
	09-04-02	--	--	--	--	--	--	--	25	25	3.49	
			MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
	09-04-02	4.03	2.35	8.77	15.8	E.06	15.2	52.4	E.03	<.008	<.05	
	09-04-02	4.03	2.35	8.69	16.2	<.1	15.0	53.0	E.03	<.008	<.05	
			PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	IRON, TOTAL DIS-COVERY-ERABLE (UG/L AS FE) (01045)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	
	09-04-02	<.06	<.02	2	101	3.4	.27	1530	1440	1.29	32.1	
	09-04-02	<.06	<.02	<1	99	3.6	.26	1520	1450	1.27	32.3	
			MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	THAL-LIUM, DIS-SOLVED (UG/L AS TL) (01057)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, SOLVED (UG/L) (46342)	ALPHA-BHC DIS-SOLVED (UG/L) (34253)	ALPHA-HCH, D6 SUR SCD 1379 WTR, FLTRD, PERCENT (90505)	AMETRYN WATER, DISS, REC, (UG/L) (38401)
	09-04-02	30.2	<.01	<.04	.7	<.006	<.006	<.004	<.005	88.1	<.05	
	09-04-02	31.7	<.01	<.04	.6	<.006	<.006	<.004	<.005	98.1	<.05	
			ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BUTA-CHLOR, WATER, DISS, REC (UG/L) (04026)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL, WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN, WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CAR-BOXIN, WATER, DISS, REC (UG/L) (04027)	CHLOR-PYRIFOS, SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)
	09-04-02	<.007	<.010	<.05	<.05	<.002	<.041	<.020	<.05	<.005	<.018	
	09-04-02	<.007	<.010	<.05	<.05	<.002	<.041	<.020	<.05	<.005	<.018	
			CY-CLOATE, WATER, DISS, REC (UG/L) (04031)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DEISO-PROPYL ATRAZIN WATER, DISS, REC (UG/L) (04038)	DIAZ-INON D10 SRG WAT FLT 0.7 U GF, REC PERCENT (91063)	DIAZI-NON D10 SUR SCD 1379 WTR, FLTRD PERCENT (90670)	DI-AZINON, SOLVED (UG/L) (39572)	DI-ELDRIN, SOLVED (UG/L) (39381)	DIPHEN-AMID, WATER, DISS, REC (UG/L) (04033)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)
	09-04-02	<.05	<.003	<.05	<.05	109	103	<.005	<.005	<.05	<.02	
	09-04-02	<.05	<.003	<.05	<.05	104	108	<.005	<.005	<.05	<.02	

E Estimated value.

< Actual value is known to be less than the value shown.

Geologic Unit (aquifer): 211MGTY - Magothy Formation

Station Type: GW - Ground Water

Sampling Method: 8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER DATA

ANNE ARUNDEL COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	HCH ALPHA D6 SRG WAT FLT 0.7 U GF, REC PERCENT (UG/L) (91065)	HEXA-ZINONE, WATER, DISS, REC (UG/L) (04025)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)
AA Bf 64	09-04-02 <.002	09-04-02 <.009	09-04-02 <.005	09-04-02 <.003	09-04-02 106	09-04-02 <.05	09-04-02 <.004	09-04-02 <.035	09-04-02 <.027	09-04-02 <.050
	09-04-02 <.002	09-04-02 <.009	09-04-02 <.005	09-04-02 <.003	09-04-02 100	09-04-02 <.05	09-04-02 <.004	09-04-02 <.035	09-04-02 <.027	09-04-02 <.050
	METHYL-PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	P,P'-DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PEB-ULATE WATER FLTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)
	09-04-02 <.006	09-04-02 <.013	09-04-02 <.006	09-04-02 <.002	09-04-02 <.007	09-04-02 <.003	09-04-02 <.010	09-04-02 <.004	09-04-02 <.022	09-04-02 <.006
	09-04-02 <.006	09-04-02 <.013	09-04-02 <.006	09-04-02 <.002	09-04-02 <.007	09-04-02 <.003	09-04-02 <.010	09-04-02 <.004	09-04-02 <.022	09-04-02 <.006
	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRO-METRYN, WATER, DISS, REC (UG/L) (04036)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PROP-AZINE WATER FLTRD 0.7 U REC (UG/L) (38535)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	SIMA-TRYN, WATER, DISS, REC (UG/L) (04030)
	09-04-02 <.011	09-04-02 <.01	09-04-02 <.05	09-04-02 <.004	09-04-02 <.010	09-04-02 <.011	09-04-02 <.02	09-04-02 <.05	09-04-02 <.005	09-04-02 <.05
	09-04-02 <.011	09-04-02 <.01	09-04-02 <.05	09-04-02 <.004	09-04-02 <.010	09-04-02 <.011	09-04-02 <.02	09-04-02 <.05	09-04-02 <.005	09-04-02 <.05
	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL, WATER, DISS, REC (UG/L) (04032)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN, WATER, DISS, REC (UG/L) (04023)	TRI-FLUR-ALIN WATER FLTRD 0.7 U GF, REC (UG/L) (82661)	VERNO-LATE, WATER, DISS, REC (UG/L) (04034)	XYLENE WATER UNFLTRD REC (UG/L) (81551)
	09-04-02 <.02	09-04-02 <.05	09-04-02 <.034	09-04-02 <.02	09-04-02 <.005	09-04-02 <.002	09-04-02 <.05	09-04-02 <.009	09-04-02 <.05	09-04-02 <.2
	09-04-02 <.02	09-04-02 <.05	09-04-02 <.034	09-04-02 <.02	09-04-02 <.005	09-04-02 <.002	09-04-02 <.05	09-04-02 <.009	09-04-02 <.05	09-04-02 <.2
	BENZENE 14BRFL-SURROG VOC UNFLTRD REC PERCENT (99834)	BENZENE TOTAL (UG/L) (34030)	ETHANE 12DICL SURROG VOC UNFLTRD REC PERCENT (99832)	ETHYL-BENZENE TOTAL (UG/L) (34371)	METHYL TERT-BUTYL ETHER WAT UNF REC (UG/L) (78032)	META/PARA-XYLENE WATER UNFLTRD REC (UG/L) (85795)	O-XYLENE WATER WHOLE TOTAL (UG/L) (77135)	TOLUENE D8 SURROG VOC UNFLTRD REC PERCENT (99833)	TOLUENE TOTAL (UG/L) (34010)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)
	09-04-02 99.1	09-04-02 <.2	09-04-02 121	09-04-02 <.2	09-04-02 1.7	09-04-02 <.2	09-04-02 <.2	09-04-02 102	09-04-02 <.2	09-04-02 4.0
	09-04-02 97.2	09-04-02 <.2	09-04-02 120	09-04-02 <.2	09-04-02 1.7	09-04-02 <.2	09-04-02 <.2	09-04-02 103	09-04-02 <.2	09-04-02 3.8
	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS-SOLVED (PCI/L) AS CS-137 (03515)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (76002)					
	09-04-02 152	09-04-02 3.0	09-04-02 72	09-04-02 200	09-04-02 20					
	09-04-02 152	09-04-02 3.0	09-04-02 75	09-04-02 180	09-04-02 20					

< Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

495

BALTIMORE COUNTY, MARYLAND

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geo-logic unit	Station type	SAM-PLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)
BA Ee 145	03-28-02	1015	392436076332201	ENVIRONMENTAL	110CLVM	GW	4080	224	4.53
	05-29-02	0925		ENVIRONMENTAL	110CLVM	GW	4080	224	4.32
	07-16-02	0910		ENVIRONMENTAL	110CLVM	GW	4080	224	5.23
	07-16-02	0911		REPLICATE	110CLVM	GW	4080	224	5.23
	09-04-02	0930		ENVIRONMENTAL	110CLVM	GW	4080	224	5.36
BA Ee 146	03-28-02	1445	392437076332201	ENVIRONMENTAL	110ALVM	GW	4080	219	+ .06
	05-29-02	1240		ENVIRONMENTAL	110ALVM	GW	4080	219	+ .06
	07-16-02	1205		ENVIRONMENTAL	110ALVM	GW	4080	219	.06
	09-04-02	1215		ENVIRONMENTAL	110ALVM	GW	4080	219	.11
BA Ee 147	03-28-02	1525	392437076332202	ENVIRONMENTAL	110ALVM	GW	4080	219	+ .03
	03-28-02	1526		REPLICATE	110ALVM	GW	4080	219	+ .03
	05-29-02	1315		ENVIRONMENTAL	110ALVM	GW	4080	219	+ .04
	07-16-02	1220		ENVIRONMENTAL	110ALVM	GW	4080	219	.07
	09-04-02	1235		ENVIRONMENTAL	110ALVM	GW	4080	219	.15
BA Ee 148	03-29-02	1025	392437076332203	ENVIRONMENTAL	110ALVM	GW	4080	220	.03
	05-29-02	1350		ENVIRONMENTAL	110ALVM	GW	4080	220	.07
	07-16-02	1235		ENVIRONMENTAL	110ALVM	GW	4080	220	.17
	09-04-02	1255		ENVIRONMENTAL	110ALVM	GW	4080	220	.22
BA Ee 149	04-02-02	1410	392438076332101	ENVIRONMENTAL	110ALVM	GW	4080	216	FLOWING
	05-28-02	1000		ENVIRONMENTAL	110ALVM	GW	4080	216	FLOWING
	05-28-02	1001		REPLICATE	110ALVM	GW	4080	216	FLOWING
	07-19-02	0845		ENVIRONMENTAL	110ALVM	GW	4080	216	+ .29
	09-06-02	1315		ENVIRONMENTAL	110ALVM	GW	4080	216	+ .17
	09-06-02	1317		BLANK	--	GW	--	--	--
BA Ee 150	04-02-02	1500	392438076332102	ENVIRONMENTAL	110ALVM	GW	4080	217	+ .32
	05-28-02	1030		ENVIRONMENTAL	110ALVM	GW	4080	217	+ .32
	07-19-02	0915		ENVIRONMENTAL	110ALVM	GW	4080	217	+ .07
	09-09-02	0925		ENVIRONMENTAL	110ALVM	GW	4080	217	.00
BA Ee 151	04-04-02	1400	392438076332103	ENVIRONMENTAL	110ALVM	GW	4020	217	+ .29
	05-28-02	1055		ENVIRONMENTAL	110ALVM	GW	4080	217	+ .07
	07-19-02	0940		ENVIRONMENTAL	110ALVM	GW	4080	217	.19
	09-09-02	0940		ENVIRONMENTAL	110ALVM	GW	4080	217	.22
BA Ee 152	03-28-02	1050	392436076332202	ENVIRONMENTAL	110CLVM	GW	4080	223	4.68
	05-29-02	0950		ENVIRONMENTAL	110CLVM	GW	4080	223	4.52
	05-29-02	0951		REPLICATE	110CLVM	GW	4080	223	4.52
	07-16-02	0955		ENVIRONMENTAL	110CLVM	GW	4080	223	5.12
	09-04-02	0955		ENVIRONMENTAL	110CLVM	GW	4080	223	5.21
BA Ee 153	03-08-02	1605	392439076331901	ENVIRONMENTAL	110ALVM	GW	4080	216	.34
	05-21-02	1315		ENVIRONMENTAL	110ALVM	GW	4080	216	.33
	07-22-02	1245		ENVIRONMENTAL	110ALVM	GW	4080	216	.75
	09-10-02	1245		ENVIRONMENTAL	110ALVM	GW	4080	216	.93
BA Ee 154	03-11-02	1515	392439076331902	ENVIRONMENTAL	110ALVM	GW	4080	216	.33
	05-21-02	1345		ENVIRONMENTAL	110ALVM	GW	4080	216	.30
	05-21-02	1346		REPLICATE	110ALVM	GW	4080	216	.30
	07-23-02	0900		ENVIRONMENTAL	110ALVM	GW	4080	216	.95
	09-10-02	1310		ENVIRONMENTAL	110ALVM	GW	4080	216	.91
BA Ee 155	03-12-02	1030	392439076331903	ENVIRONMENTAL	110ALVM	GW	4080	216	.40
	05-21-02	1410		ENVIRONMENTAL	110ALVM	GW	4080	216	.29
	07-23-02	0930		ENVIRONMENTAL	110ALVM	GW	4080	216	.93
	07-23-02	0931		REPLICATE	110ALVM	GW	4080	216	.93
	09-10-02	1335		ENVIRONMENTAL	110ALVM	GW	4080	216	.87
BA Ee 156	03-28-02	1125	392436076332203	ENVIRONMENTAL	110CLVM	GW	4080	223	4.40
	05-29-02	1040		ENVIRONMENTAL	110CLVM	GW	4080	223	4.33
	07-16-02	1040		ENVIRONMENTAL	110CLVM	GW	4080	223	4.88
	09-04-02	1010		ENVIRONMENTAL	110CLVM	GW	4080	223	4.99
BA Ee 157	03-28-02	1230	392437076332204	ENVIRONMENTAL	110ALVM	GW	4080	223	4.05
	05-29-02	1110		ENVIRONMENTAL	110ALVM	GW	4080	223	4.00
	07-16-02	1115		ENVIRONMENTAL	110ALVM	GW	4080	223	4.14
	09-04-02	1045		ENVIRONMENTAL	110ALVM	GW	4080	223	4.17
BA Ee 158	03-28-02	1320	392437076332205	ENVIRONMENTAL	110ALVM	GW	4080	223	4.00
	05-29-02	1135		ENVIRONMENTAL	110ALVM	GW	4080	223	3.96
	07-16-02	1100		ENVIRONMENTAL	110ALVM	GW	4080	223	4.09
	09-04-02	1110		ENVIRONMENTAL	110ALVM	GW	4080	223	4.12
	09-04-02	1111		REPLICATE	110ALVM	GW	4080	223	4.12

Geologic Unit (aquifer): 110ALVM - Quaternary System  
110CLVM - Colluvium

Station Type: GW - Ground Water

Sampling Method: 4080 - Peristaltic pump



QUALITY OF GROUND WATER DATA

BALTIMORE COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITROGEN DIS-SOLVED (MG/L AS N) (00602)
BA Ee 145	03-28-02	53.4	<.1	10.5	12.9	<.04	E.07	.008	1.60	--	--
	05-29-02	--	--	--	--	<.04	E.05	<.008	--	--	--
	07-16-02	53.7	<.1	11.4	13.0	<.04	<.10	<.008	--	--	1.1
	07-16-02	55.4	<.1	11.4	13.2	<.04	<.10	<.008	--	--	--
	09-04-02	--	--	--	--	<.04	<.10	<.008	--	--	--
BA Ee 146	03-28-02	105	E.1	9.8	19.2	<.04	E.07	.008	1.10	--	--
	05-29-02	--	--	--	--	<.04	<.10	<.008	--	--	--
	07-16-02	98.4	E.1	11.2	17.3	<.04	<.10	<.008	--	--	--
	09-04-02	--	--	--	--	<.04	<.10	<.008	--	--	--
BA Ee 147	03-28-02	113	E.1	9.5	19.6	<.04	<.10	.008	1.19	--	--
	03-28-02	111	E.1	9.3	19.5	<.04	E.08	.008	1.20	--	--
	05-29-02	--	--	--	--	<.04	<.10	<.008	--	--	--
	07-16-02	98.9	E.1	11.1	17.6	.08	<.10	<.008	--	--	--
	09-04-02	--	--	--	--	<.04	<.10	<.008	--	--	--
BA Ee 148	03-29-02	130	.1	8.2	21.9	<.04	E.08	<.008	--	--	--
	05-29-02	--	--	--	--	<.04	<.10	<.008	--	--	--
	07-16-02	126	.1	9.6	19.9	<.04	E.09	<.008	--	--	--
	09-04-02	--	--	--	--	<.04	<.10	<.008	--	--	--
BA Ee 149	04-02-02	246	E.1	7.2	19.8	<.04	<.10	<.008	--	--	--
	05-28-02	--	--	--	--	<.04	E.06	<.008	--	--	--
	05-28-02	--	--	--	--	<.04	<.10	<.008	--	--	--
	07-19-02	140	<.1	9.5	20.7	<.04	<.10	<.008	--	--	--
	09-06-02	--	--	--	--	<.04	<.10	<.008	--	--	--
	09-06-02	--	--	--	--	<.04	<.10	.057	--	--	--
BA Ee 150	04-02-02	261	E.1	7.7	19.2	<.04	<.10	<.008	--	--	--
	05-28-02	--	--	--	--	<.04	.18	<.008	--	--	1.0
	07-19-02	144	<.1	10.2	20.8	<.04	<.10	<.008	--	--	--
	09-09-02	--	--	--	--	<.04	E.06	<.008	--	--	--
BA Ee 151	04-04-02	247	.2	8.1	19.8	<.04	.13	E.006	--	--	1.1
	05-28-02	--	--	--	--	<.04	E.05	<.008	--	--	--
	07-19-02	132	<.1	11.5	20.5	<.04	<.10	<.008	--	--	--
	09-09-02	--	--	--	--	<.04	E.07	<.008	--	--	--
BA Ee 152	03-28-02	194	E.1	9.6	24.3	<.04	E.07	.008	.86	--	--
	05-29-02	--	--	--	--	<.04	<.10	<.008	--	--	--
	05-29-02	--	--	--	--	<.04	<.10	<.008	--	--	--
	07-16-02	122	<.1	9.8	17.5	<.04	<.10	<.008	--	--	--
	09-04-02	--	--	--	--	<.04	<.10	<.008	--	--	--
BA Ee 153	03-08-02	221	.1	7.0	22.4	<.04	.16	E.004	--	--	1.2
	05-21-02	--	--	--	--	<.04	E.08	<.008	--	--	--
	07-22-02	147	.2	9.3	19.5	<.04	<.10	<.008	--	--	--
	09-10-02	--	--	--	--	<.04	.11	<.008	--	--	1.9
BA Ee 154	03-11-02	147	.1	6.8	21.1	<.04	E.07	<.008	--	--	--
	05-21-02	--	--	--	--	<.04	E.09	<.008	--	--	--
	05-21-02	--	--	--	--	<.04	E.07	<.008	--	--	--
	07-23-02	143	.1	7.6	20.2	<.04	.26	<.008	--	--	.47
	09-10-02	--	--	--	--	<.04	.11	<.008	--	--	1.7
BA Ee 155	03-12-02	152	.1	6.5	21.8	<.04	E.08	<.008	--	--	--
	05-21-02	--	--	--	--	<.04	E.10	<.008	--	--	--
	07-23-02	142	.2	7.6	20.1	<.04	E.07	<.008	--	--	--
	07-23-02	145	.2	7.7	20.0	<.04	E.06	<.008	--	--	--
	09-10-02	--	--	--	--	.65	.76	<.008	--	.12	--
BA Ee 156	03-28-02	191	.2	7.7	21.4	.05	.19	.028	.84	.14	1.1
	05-29-02	--	--	--	--	.09	.23	E.007	--	.14	1.0
	07-16-02	152	.1	10.9	16.8	.20	.40	.008	.32	.20	.73
	09-04-02	--	--	--	--	.23	.31	E.005	--	.08	.58
BA Ee 157	03-28-02	158	.2	7.0	21.8	<.04	E.06	.008	1.02	--	--
	05-29-02	--	--	--	--	<.04	<.10	<.008	--	--	--
	07-16-02	138	.1	10.1	20.8	<.04	E.09	<.008	--	--	--
	09-04-02	--	--	--	--	<.04	<.10	<.008	--	--	--
BA Ee 158	03-28-02	151	.2	7.0	21.9	<.04	E.06	.009	1.01	--	--
	05-29-02	--	--	--	--	<.04	E.06	<.008	--	--	--
	07-16-02	135	E.1	10.1	20.8	<.04	E.08	<.008	--	--	--
	09-04-02	--	--	--	--	<.04	E.07	<.008	--	--	--
	09-04-02	--	--	--	--	<.04	E.06	<.008	--	--	--

E Estimated value.  
 < Actual value is known to be less than the value shown.

## QUALITY OF GROUND WATER DATA

BALTIMORE COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)
BA Ee 145	03-28-02	1.61	<.02	301	<10	E.8	34
	05-29-02	1.59	<.02	--	--	--	--
	07-16-02	1.58	<.02	312	<10	<2.0	32
	07-16-02	1.58	<.02	315	E6	E.9	--
	09-04-02	1.55	E.01	--	--	--	--
BA Ee 146	03-28-02	1.11	<.02	409	<10	<2.0	31
	05-29-02	.62	<.02	--	--	--	--
	07-16-02	.35	<.04	386	<10	E2.9	35
	09-04-02	.10	<.02	--	--	--	--
BA Ee 147	03-28-02	1.20	<.02	393	<10	<2.0	20
	03-28-02	1.20	<.02	407	<10	E.8	--
	05-29-02	.70	<.02	--	--	--	--
	07-16-02	.50	<.04	384	<10	4.5	33
	09-04-02	.29	<.02	--	--	--	--
BA Ee 148	03-29-02	1.14	<.02	430	<10	E1.1	23
	05-29-02	.71	<.02	--	--	--	--
	07-16-02	.48	<.04	406	<10	3.3	18
	09-04-02	.42	E.01	--	--	--	--
BA Ee 149	04-02-02	.97	<.02	579	<10	4.5	35
	05-28-02	.82	<.02	--	--	--	--
	05-28-02	.84	<.02	--	--	--	--
	07-19-02	.62	<.02	426	<10	9.0	39
	09-06-02	.46	E.01	--	--	--	--
	09-06-02	.05	<.02	--	--	--	--
BA Ee 150	04-02-02	.99	<.02	578	<10	171	35
	05-28-02	.85	<.02	--	--	--	--
	07-19-02	.71	<.02	434	<10	60.4	47
	09-09-02	.53	E.01	--	--	--	--
BA Ee 151	04-04-02	1.01	E.01	661	32	151	--
	05-28-02	.85	E.01	--	--	--	--
	07-19-02	.58	E.01	418	E8	25.4	--
	09-09-02	.43	E.01	--	--	--	--
BA Ee 152	03-28-02	.87	<.02	533	<10	E.8	38
	05-29-02	.82	<.02	--	--	--	--
	05-29-02	.81	<.02	--	--	--	--
	07-16-02	.99	<.04	422	<10	<2.0	35
	09-04-02	.90	<.02	--	--	--	--
BA Ee 153	03-08-02	1.06	<.02	556	95	544	6.1
	05-21-02	.92	<.02	--	--	--	--
	07-22-02	.31	<.02	415	370	224	17
	09-10-02	1.76	<.02	--	--	--	--
BA Ee 154	03-11-02	.87	<.02	438	<10	<2.0	4.4
	05-21-02	.87	<.02	--	--	--	--
	05-21-02	.88	<.02	--	--	--	--
	07-23-02	.21	E.01	440	24	E2.6	17
	09-10-02	1.59	E.01	--	--	--	--
BA Ee 155	03-12-02	.94	<.02	453	<10	<2.0	6.9
	05-21-02	.89	<.02	--	--	--	--
	07-23-02	.23	E.01	444	17	5.9	13
	07-23-02	.23	E.01	443	E8	4.7	--
	09-10-02	<.05	E.01	--	--	--	--
BA Ee 156	03-28-02	.87	<.02	505	146	576	18
	05-29-02	.79	<.02	--	--	--	--
	07-16-02	.33	<.04	456	20	890	25
	09-04-02	.27	<.02	--	--	--	--
BA Ee 157	03-28-02	1.03	E.01	456	E8	41.4	12
	05-29-02	.97	<.02	--	--	--	--
	07-16-02	.70	<.04	422	104	54.7	19
	09-04-02	.46	E.01	--	--	--	--
BA Ee 158	03-28-02	1.02	<.02	441	569	84.6	5.0
	05-29-02	.94	E.01	--	--	--	--
	07-16-02	.63	<.04	421	17	E3.0	18
	09-04-02	.35	E.01	--	--	--	--
	09-04-02	.35	E.02	--	--	--	--

E Estimated value.

&lt; Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

499

BALTIMORE COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geo-logic unit	Station type	SAM-PLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH BELOW SURFACE (WATER LEVEL) (FEET) (72019)
BA Ee 159	03-28-02	1355	392437076332206	ENVIRONMENTAL	110ALVM	GW	4080	224	4.19
	05-29-02	1200		ENVIRONMENTAL	110ALVM	GW	4080	224	4.19
	07-16-02	1020		ENVIRONMENTAL	110ALVM	GW	4080	224	4.29
	09-04-02	1135		ENVIRONMENTAL	110ALVM	GW	4080	224	4.32
BA Ee 160	04-01-02	1010	392438076332301	ENVIRONMENTAL	110ALVM	GW	4080	229	9.12
	05-30-02	1310		ENVIRONMENTAL	110ALVM	GW	4080	229	9.33
	05-30-02	1312		BLANK	--	GW	--	--	--
	07-17-02	1045		ENVIRONMENTAL	110ALVM	GW	4080	229	9.78
	07-17-02	1047		BLANK	--	GW	--	--	--
	09-05-02	1245		ENVIRONMENTAL	110ALVM	GW	4080	229	9.79
BA Ee 161	03-29-02	1410	392437076332301	ENVIRONMENTAL	110ALVM	GW	4080	225	5.05
	03-29-02	1412		BLANK	--	GW	--	--	--
	05-30-02	1215		ENVIRONMENTAL	110ALVM	GW	4080	225	5.18
	07-17-02	1015		ENVIRONMENTAL	110ALVM	GW	4080	225	5.49
	09-05-02	1125		ENVIRONMENTAL	110ALVM	GW	4080	225	5.46
BA Ee 162	03-29-02	1115	392437076332207	ENVIRONMENTAL	110ALVM	GW	4080	223	3.41
	05-30-02	0940		ENVIRONMENTAL	110ALVM	GW	4080	223	3.35
	07-16-02	1320		ENVIRONMENTAL	110ALVM	GW	4080	223	3.55
	09-05-02	1005		ENVIRONMENTAL	110ALVM	GW	4080	223	3.57
BA Ee 163	03-29-02	1150	392437076332208	ENVIRONMENTAL	110ALVM	GW	4080	223	3.06
	05-30-02	1015		ENVIRONMENTAL	110ALVM	GW	4080	223	3.04
	07-16-02	1305		ENVIRONMENTAL	110ALVM	GW	4080	223	3.24
	09-05-02	1020		ENVIRONMENTAL	110ALVM	GW	4080	223	3.26
BA Ee 164	03-29-02	1225	392437076332209	ENVIRONMENTAL	110ALVM	GW	4080	223	3.53
	05-30-02	1050		ENVIRONMENTAL	110ALVM	GW	4080	223	3.50
	07-16-02	1335		ENVIRONMENTAL	110ALVM	GW	4080	223	3.68
	09-05-02	1040		ENVIRONMENTAL	110ALVM	GW	4080	223	3.71
BA Ee 165	03-29-02	1330	392437076332302	ENVIRONMENTAL	110ALVM	GW	4080	225	5.26
	05-30-02	1135		ENVIRONMENTAL	110ALVM	GW	4080	225	5.28
	05-30-02	1136		REPLICATE	110ALVM	GW	4080	225	5.28
	07-17-02	0930		ENVIRONMENTAL	110ALVM	GW	4080	225	5.49
	09-05-02	1105		ENVIRONMENTAL	110ALVM	GW	4080	225	5.48
BA Ee 167	04-01-02	1415	392438076332104	ENVIRONMENTAL	110ALVM	GW	4080	222	4.72
	04-01-02	1416		REPLICATE	110ALVM	GW	4080	222	4.72
	05-28-02	1250		ENVIRONMENTAL	110ALVM	GW	4080	222	4.84
	07-19-02	1010		ENVIRONMENTAL	110ALVM	GW	4080	222	5.14
	09-09-02	1015		ENVIRONMENTAL	110ALVM	GW	4080	222	6.28
BA Ee 168	04-01-02	1500	392438076332105	ENVIRONMENTAL	110ALVM	GW	4080	222	4.78
	05-28-02	1330		ENVIRONMENTAL	110ALVM	GW	4080	222	4.93
	07-19-02	1055		ENVIRONMENTAL	110ALVM	GW	4080	222	5.16
	09-09-02	1035		ENVIRONMENTAL	110ALVM	GW	4080	222	5.18
BA Ee 169	04-04-02	1515	392438076332106	ENVIRONMENTAL	110ALVM	GW	4020	222	4.78
	04-04-02	1517		BLANK	--	GW	--	--	--
	05-28-02	1455		ENVIRONMENTAL	110ALVM	GW	4020	222	5.01
	07-19-02	1120		ENVIRONMENTAL	110ALVM	GW	4020	222	5.39
	07-19-02	1122		BLANK	--	GW	--	--	--
	07-22-02	1330		ENVIRONMENTAL	110ALVM	GW	4020	222	5.39
	07-22-02	1332		BLANK	--	GW	--	222	5.39
	09-09-02	1050		ENVIRONMENTAL	110ALVM	GW	4020	222	5.42
BA Ee 170	04-01-02	1320	392438076332201	ENVIRONMENTAL	110ALVM	GW	4080	228	10.76
	05-28-02	1230		ENVIRONMENTAL	110ALVM	GW	4080	228	10.90
	07-19-02	1110		ENVIRONMENTAL	110ALVM	GW	4080	228	11.41
	09-09-02	1305		ENVIRONMENTAL	110ALVM	GW	4080	228	11.47
	09-09-02	1307		BLANK	--	GW	--	--	--
BA Ee 171	04-04-02	1115	392437076332101	ENVIRONMENTAL	110ALVM	GW	4080	219	1.54
	05-28-02	0815		ENVIRONMENTAL	110ALVM	GW	4080	219	1.52
	07-18-02	1205		ENVIRONMENTAL	110ALVM	GW	4080	219	1.86
	07-18-02	1206		REPLICATE	110ALVM	GW	4080	219	1.86
	09-06-02	1205		ENVIRONMENTAL	110ALVM	GW	4080	219	1.90
BA Ee 172	04-04-02	1220	392437076332102	ENVIRONMENTAL	110ALVM	GW	4080	219	1.61
	05-28-02	0920		ENVIRONMENTAL	110ALVM	GW	4020	219	1.47
	07-18-02	1045		ENVIRONMENTAL	110ALVM	GW	4080	219	1.82
	09-06-02	1230		ENVIRONMENTAL	110ALVM	GW	4080	219	1.85
BA Ee 173	04-04-02	1430	392437076332103	ENVIRONMENTAL	110ALVM	GW	4080	219	1.24
	05-23-02	1410		ENVIRONMENTAL	110ALVM	GW	4080	219	1.23
	07-18-02	1010		ENVIRONMENTAL	110ALVM	GW	4080	219	1.52
	09-06-02	1250		ENVIRONMENTAL	110ALVM	GW	4080	219	1.54

Geologic Unit (aquifer): 110ALVM - Quaternary System

Station Type: GW - Ground Water

Sampling Method: 4020 - Open-top bailer  
4080 - Peristaltic pump

## QUALITY OF GROUND WATER DATA

BALTIMORE COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	DEPTH OF WELL, TOTAL (FEET) (72008)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
BA Ee 159	03-28-02	5.96	6.0	7.5	802	8.8	220	54.5	19.2	2.92	68.9
	05-29-02	5.96	1.1	7.1	691	18.4	--	--	--	--	--
	07-16-02	5.96	.9	7.3	756	27.1	250	66.9	20.7	3.97	44.7
	09-04-02	5.96	1.0	7.3	531	22.6	--	--	--	--	--
BA Ee 160	04-01-02	12.00	6.7	6.7	838	12.1	400	92.7	41.8	1.80	16.1
	05-30-02	12.00	7.9	6.7	824	16.9	--	--	--	--	--
	05-30-02	--	--	--	--	--	--	--	--	--	--
	07-17-02	12.00	--	6.9	886	--	410	96.8	42.0	2.12	18.9
	07-17-02	--	--	--	--	--	--	.02	<.008	<.10	<.09
09-05-02	12.00	4.7	6.8	693	24.1	--	--	--	--	--	
BA Ee 161	03-29-02	10.80	2.5	6.9	853	11.9	420	97.1	44.2	2.08	12.3
	03-29-02	--	--	--	--	--	--	.01	<.008	<.10	<.09
	05-30-02	10.80	2.9	6.7	886	16.0	--	--	--	--	--
	07-17-02	10.80	3.5	6.9	889	17.6	430	99.6	43.7	1.76	14.5
	09-05-02	10.80	2.2	6.8	887	21.9	--	--	--	--	--
BA Ee 162	03-29-02	9.69	4.2	7.0	694	14.1	300	64.0	32.9	2.50	23.6
	05-30-02	9.69	2.6	6.8	667	17.5	--	--	--	--	--
	07-16-02	9.69	1.8	7.1	678	17.7	270	59.1	30.1	2.39	19.8
	09-05-02	9.69	1.2	7.0	674	21.9	--	--	--	--	--
BA Ee 163	03-29-02	7.69	4.6	7.0	715	15.1	290	62.2	32.2	2.52	24.6
	05-30-02	7.69	2.4	6.8	678	17.3	--	--	--	--	--
	07-16-02	7.69	1.3	7.1	675	18.8	270	59.1	29.9	2.39	20.3
	09-05-02	7.69	.9	6.9	666	21.7	--	--	--	--	--
BA Ee 164	03-29-02	5.69	2.9	7.0	800	14.6	280	63.5	29.4	2.73	48.9
	05-30-02	5.69	.3	6.8	708	20.1	--	--	--	--	--
	07-16-02	5.69	.2	7.0	766	19.2	280	65.7	28.6	2.69	31.6
	09-05-02	5.69	.4	6.9	527	22.7	--	--	--	--	--
BA Ee 165	03-29-02	9.00	1.7	7.0	742	11.7	330	75.2	34.2	1.77	24.0
	05-30-02	9.00	1.7	6.7	719	17.6	--	--	--	--	--
	05-30-02	9.00	--	--	--	--	--	--	--	--	--
	07-17-02	9.00	1.4	6.9	758	17.3	330	77.8	33.0	1.89	22.5
	09-05-02	9.00	.7	6.8	702	22.2	--	--	--	--	--
BA Ee 167	04-01-02	11.26	4.2	7.1	753	15.2	290	65.5	30.5	2.95	39.4
	04-01-02	11.26	--	--	--	--	280	63.1	29.5	3.02	38.9
	05-28-02	11.26	.9	6.8	715	19.7	--	--	--	--	--
	07-19-02	11.26	--	--	--	--	280	64.2	29.3	3.37	29.6
	09-09-02	11.26	.7	7.0	679	30.6	--	--	--	--	--
BA Ee 168	04-01-02	9.26	4.2	7.1	729	14.2	290	64.9	31.5	2.40	31.6
	05-28-02	9.26	3.6	6.9	657	22.4	--	--	--	--	--
	07-19-02	9.26	1.6	7.1	725	23.2	280	64.6	29.4	2.70	27.2
	09-09-02	9.26	1.1	7.1	660	--	--	--	--	--	--
BA Ee 169	04-04-02	7.26	--	--	--	--	310	65.7	35.0	5.00	29.5
	04-04-02	--	--	--	--	--	--	E.01	<.008	<.10	<.09
	05-28-02	7.26	--	--	--	--	--	--	--	--	--
	07-19-02	7.26	--	--	--	--	--	--	--	--	--
	07-19-02	7.26	--	--	--	--	--	--	--	--	--
	07-22-02	7.26	--	--	--	--	270	61.5	29.3	4.25	37.1
	07-22-02	--	--	--	--	--	--	.02	<.008	<.10	<.09
	09-09-02	7.26	--	--	--	--	--	--	--	--	--
BA Ee 170	04-01-02	15.00	6.5	6.9	796	12.9	380	86.4	39.5	1.80	12.6
	05-28-02	15.00	5.4	6.6	813	13.4	--	--	--	--	--
	07-19-02	15.00	5.9	6.8	884	14.9	400	93.0	41.9	1.72	14.9
	09-09-02	15.00	3.7	6.9	887	26.2	--	--	--	--	--
	09-09-02	--	--	--	--	--	--	--	--	--	--
BA Ee 171	04-04-02	7.75	2.6	6.7	848	13.3	270	64.3	27.0	2.56	55.8
	05-28-02	7.75	1.1	6.5	904	17.8	--	--	--	--	--
	07-18-02	7.75	.5	6.7	900	26.5	280	69.4	26.7	3.67	67.5
	07-18-02	7.75	--	--	--	--	270	67.4	25.8	3.71	65.3
	09-06-02	7.75	.4	6.9	470	35.0	--	--	--	--	--
BA Ee 172	04-04-02	5.75	--	--	--	--	320	77.8	30.6	2.95	66.7
	05-28-02	5.75	--	--	--	--	--	--	--	--	--
	07-18-02	5.75	--	6.8	1030	27.7	280	69.7	25.5	4.08	69.8
	09-06-02	5.75	--	--	--	--	--	--	--	--	--
BA Ee 173	04-04-02	3.75	--	--	--	--	280	72.4	25.2	2.92	53.7
	05-23-02	3.75	5.4	7.2	793	22.7	--	--	--	--	--
	07-18-02	3.75	2.0	7.2	820	25.5	270	70.2	23.8	3.67	46.3
	09-06-02	3.75	--	--	--	--	--	--	--	--	--

E Estimated value.

&lt; Actual value is known to be less than the value shown.



QUALITY OF GROUND WATER DATA

BALTIMORE COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE, DIS-SOLVED (MG/L AS SO4) (00945)	NITROGEN, AMMONIA + DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITROGEN, DIS-SOLVED (MG/L AS N) (00602)
BA Ee 159	03-28-02	138	.2	7.0	21.7	<.04	.12	.012	1.00	--	1.1
	05-29-02	--	--	--	--	<.04	E.07	<.008	--	--	--
	07-16-02	130	.1	9.6	20.4	<.04	E.07	<.008	--	--	--
	09-04-02	--	--	--	--	<.04	E.05	<.008	--	--	--
BA Ee 160	04-01-02	78.3	E.1	10.1	26.7	<.04	<.10	<.008	--	--	--
	05-30-02	--	--	--	--	<.04	<.10	<.008	--	--	--
	05-30-02	--	--	--	--	<.04	<.10	<.008	--	--	--
	07-17-02	82.3	<.1	11.3	26.2	<.04	.12	<.008	--	--	3.0
	07-17-02	<.30	<.1	<.2	<.1	<.04	E.06	<.008	--	--	--
09-05-02	--	--	--	--	<.04	.14	E.004	--	--	3.2	
BA Ee 161	03-29-02	79.6	E.1	9.9	24.6	.05	E.09	.081	2.56	--	--
	03-29-02	<.30	<.1	<.2	<.1	<.04	<.10	E.004	--	--	--
	05-30-02	--	--	--	--	<.04	E.06	<.008	--	--	--
	07-17-02	79.4	<.1	10.6	26.4	<.04	E.09	<.008	--	--	--
	09-05-02	--	--	--	--	<.04	E.06	<.008	--	--	--
BA Ee 162	03-29-02	85.5	<.1	10.2	15.2	<.04	<.10	E.004	--	--	--
	05-30-02	--	--	--	--	<.04	<.10	<.008	--	--	--
	07-16-02	66.8	<.1	11.0	15.9	<.04	<.10	<.008	--	--	--
	09-05-02	--	--	--	--	<.04	<.10	<.008	--	--	--
BA Ee 163	03-29-02	87.6	E.1	10.1	15.5	<.04	<.10	<.008	--	--	--
	05-30-02	--	--	--	--	<.04	<.10	<.008	--	--	--
	07-16-02	67.0	<.1	11.0	15.7	<.04	<.10	<.008	--	--	--
	09-05-02	--	--	--	--	<.04	<.10	<.008	--	--	--
BA Ee 164	03-29-02	118	E.1	9.8	18.9	<.04	<.10	<.008	--	--	--
	05-30-02	--	--	--	--	<.04	<.10	<.008	--	--	--
	07-16-02	96.0	E.1	11.2	17.5	<.04	<.10	.018	.36	--	--
	09-05-02	--	--	--	--	<.04	<.10	.042	.26	--	--
BA Ee 165	03-29-02	90.4	E.1	8.9	18.1	<.04	<.10	<.008	--	--	--
	05-30-02	--	--	--	--	<.04	<.10	<.008	--	--	--
	05-30-02	--	--	--	--	<.04	<.10	<.008	--	--	--
	07-17-02	77.8	<.1	10.6	19.2	<.04	E.08	<.008	--	--	--
	09-05-02	--	--	--	--	<.04	E.06	<.008	--	--	--
BA Ee 167	04-01-02	106	E.1	9.7	18.3	<.04	<.10	<.008	--	--	--
	04-01-02	105	E.1	9.6	18.4	<.04	<.10	<.008	--	--	--
	05-28-02	--	--	--	--	<.04	<.10	<.008	--	--	--
	07-19-02	83.6	<.1	11.4	18.1	<.04	<.10	<.008	--	--	--
	09-09-02	--	--	--	--	<.04	E.07	<.008	--	--	--
BA Ee 168	04-01-02	94.1	E.1	10.0	17.1	<.04	<.10	<.008	--	--	--
	05-28-02	--	--	--	--	<.04	E.07	<.008	--	--	--
	07-19-02	82.9	<.1	11.2	17.0	<.04	<.10	<.008	--	--	--
	09-09-02	--	--	--	--	<.04	E.07	<.008	--	--	--
BA Ee 169	04-04-02	101	.3	8.9	4.0	2.31	3.4	.009	.04	1.1	3.5
	04-04-02	<.30	E.1	<.2	<.1	<.04	<.10	<.008	--	--	--
	05-28-02	--	--	--	--	3.08	5.1	.010	.05	2.1	5.2
	07-19-02	--	--	--	--	1.14	2.4	.010	.14	1.3	2.6
	07-19-02	--	--	--	--	<.04	<.10	<.008	--	--	--
	07-22-02	88.8	.2	10.0	12.7	--	--	--	--	--	--
	07-22-02	<.30	<.1	<.2	<.1	--	--	--	--	--	--
09-09-02	--	--	--	--	.90	1.5	<.008	--	.58	1.5	
BA Ee 170	04-01-02	67.7	E.1	10.1	25.6	<.04	E.08	<.008	--	--	--
	05-28-02	--	--	--	--	<.04	E.06	<.008	--	--	--
	07-19-02	72.9	<.1	11.1	26.6	<.04	<.10	<.008	--	--	--
	09-09-02	--	--	--	--	<.04	E.09	E.007	--	--	--
	09-09-02	--	--	--	--	<.04	E.05	<.008	--	--	--
BA Ee 171	04-04-02	179	.1	8.6	20.6	<.04	<.10	<.008	--	--	--
	05-28-02	--	--	--	--	<.04	E.05	<.008	--	--	--
	07-18-02	173	E.1	11.2	21.1	<.04	E.10	E.005	--	--	--
	07-18-02	174	E.1	11.0	20.9	<.04	E.10	E.006	--	--	--
	09-06-02	--	--	--	--	<.04	<.10	<.008	--	--	--
BA Ee 172	04-04-02	235	.1	8.4	20.6	.05	E.09	.029	.39	--	--
	05-28-02	--	--	--	--	.10	.68	E.007	--	.58	1.1
	07-18-02	197	E.1	10.9	21.0	<.04	E.07	E.006	--	--	--
	09-06-02	--	--	--	--	.06	E.09	E.007	--	--	--
BA Ee 173	04-04-02	144	.2	8.0	21.5	<.04	E.07	<.008	--	--	--
	05-23-02	--	--	--	--	<.04	E.09	<.008	--	--	--
	07-18-02	129	.2	9.5	20.0	<.04	E.06	<.008	--	--	--
	09-06-02	--	--	--	--	--	<.04	E.09	<.008	--	--

E Estimated value.  
 < Actual value is known to be less than the value shown.

## QUALITY OF GROUND WATER DATA

BALTIMORE COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)
BA Ee 159	03-28-02	1.01	E.01	419	77	17.5	12
	05-29-02	.90	<.02	--	--	--	--
	07-16-02	.56	<.04	406	22	8.7	18
	09-04-02	.42	E.01	--	--	--	--
BA Ee 160	04-01-02	2.81	<.02	471	<10	17.1	138
	05-30-02	3.17	<.02	--	--	--	--
	05-30-02	<.05	<.02	--	--	--	--
	07-17-02	2.92	<.02	481	<10	19.5	75
	07-17-02	<.05	<.02	--	<10	<2.0	--
09-05-02	3.04	<.02	--	--	--	--	
BA Ee 161	03-29-02	2.64	<.02	477	<10	173	80
	03-29-02	<.05	<.02	--	<10	E.8	--
	05-30-02	2.17	<.02	--	--	--	--
	07-17-02	1.95	<.02	485	<10	18.6	78
	09-05-02	2.06	<.02	--	--	--	--
BA Ee 162	03-29-02	1.60	<.02	373	<10	15.5	45
	05-30-02	1.43	<.02	--	--	--	--
	07-16-02	1.42	<.04	348	<10	9.5	34
	09-05-02	1.32	<.02	--	--	--	--
BA Ee 163	03-29-02	1.58	<.02	374	31	10.0	42
	05-30-02	1.26	<.02	--	--	--	--
	07-16-02	1.28	<.04	347	<10	E2.6	36
	09-05-02	1.06	<.02	--	--	--	--
BA Ee 164	03-29-02	1.17	<.02	427	E7	4.4	44
	05-30-02	.54	<.02	--	--	--	--
	07-16-02	.38	<.04	405	<10	27.5	46
	09-05-02	.30	<.02	--	--	--	--
BA Ee 165	03-29-02	1.02	<.02	402	<10	E1.1	50
	05-30-02	.81	<.02	--	--	--	--
	05-30-02	.82	<.02	--	--	--	--
	07-17-02	.76	<.02	401	<10	E3.0	61
	09-05-02	.52	<.02	--	--	--	--
BA Ee 167	04-01-02	1.22	<.02	408	21	18.0	30
	04-01-02	1.24	<.02	402	29	22.5	--
	05-28-02	1.20	<.02	--	--	--	--
	07-19-02	.90	<.02	378	13	33.4	--
	09-09-02	.79	E.01	--	--	--	--
BA Ee 168	04-01-02	1.28	<.02	390	<10	<2.0	31
	05-28-02	1.16	<.02	--	--	--	--
	07-19-02	.20	<.02	370	<10	<2.0	35
	09-09-02	.82	<.02	--	--	--	--
BA Ee 169	04-04-02	.05	<.02	387	29	676	--
	04-04-02	<.05	<.02	--	<10	<2.0	--
	05-28-02	.06	<.02	--	--	--	--
	07-19-02	.15	<.02	--	--	--	--
	07-19-02	<.05	<.02	--	--	--	--
	07-22-02	--	--	378	<10	223	--
	07-22-02	--	--	--	<10	<2.0	--
09-09-02	.05	<.02	--	--	--	--	
BA Ee 170	04-01-02	2.90	<.02	448	32	280	83
	05-28-02	3.05	<.02	--	--	--	--
	07-19-02	2.64	<.02	467	<10	35.2	95
	09-09-02	2.59	<.02	--	--	--	--
	09-09-02	<.05	<.02	--	--	--	--
BA Ee 171	04-04-02	.48	<.02	454	101	856	65
	05-28-02	.56	<.02	--	--	--	--
	07-18-02	.51	<.02	478	69	734	73
	07-18-02	.54	<.02	474	113	713	--
	09-06-02	.50	<.02	--	--	--	--
BA Ee 172	04-04-02	.42	<.02	530	8180	1490	--
	05-28-02	.42	<.02	--	--	--	--
	07-18-02	.50	<.02	488	2570	1200	44
	09-06-02	.20	<.02	--	--	--	--
BA Ee 173	04-04-02	.80	<.02	441	678	135	--
	05-23-02	.76	<.02	--	--	--	--
	07-18-02	.26	<.02	416	31	62.9	22
	09-06-02	.20	<.02	--	--	--	--

E Estimated value.

&lt; Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

BALTIMORE COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geo-logic unit	Station type	SAM-PLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)
BA Ee 174	04-01-02	1220	392438076332107	ENVIRONMENTAL	110ALVM	GW	4080	222	5.03
	05-28-02	1425		ENVIRONMENTAL	110ALVM	GW	4080	222	5.09
	07-19-02	1005		ENVIRONMENTAL	110ALVM	GW	4080	222	5.54
	09-09-02	1155		ENVIRONMENTAL	110ALVM	GW	4080	222	5.70
BA Ee 175	04-01-02	1140	392438076332108	ENVIRONMENTAL	110ALVM	GW	4080	222	4.83
	05-28-02	1520		ENVIRONMENTAL	110ALVM	GW	4080	222	4.97
	05-28-02	1522		BLANK	--	GW	--	--	--
	07-19-02	1030		ENVIRONMENTAL	110ALVM	GW	4080	222	5.36
	09-09-02	1230		ENVIRONMENTAL	110ALVM	GW	4080	222	5.51
BA Ee 176	03-14-02	1445	392439076331904	ENVIRONMENTAL	110ALVM	GW	4020	221	7.03
	05-23-02	0915		ENVIRONMENTAL	110ALVM	GW	4020	221	6.53
	07-24-02	0900		ENVIRONMENTAL	110ALVM	GW	4020	221	8.01
	09-11-02	1100		ENVIRONMENTAL	110ALVM	GW	4080	221	8.14
BA Ee 177	03-14-02	1300	392439076331905	ENVIRONMENTAL	110ALVM	GW	4020	221	7.13
	05-22-02	1310		ENVIRONMENTAL	110ALVM	GW	4020	221	6.84
	05-22-02	1312		BLANK	--	GW	--	--	--
	07-23-02	1325		ENVIRONMENTAL	110ALVM	GW	4020	221	8.14
	09-11-02	1120		ENVIRONMENTAL	110ALVM	GW	4080	221	8.08
BA Ee 178	03-14-02	0945	392439076331906	ENVIRONMENTAL	110ALVM	GW	4020	221	6.09
	05-23-02	0830		ENVIRONMENTAL	110ALVM	GW	4020	221	5.96
	07-24-02	0945		ENVIRONMENTAL	110ALVM	GW	4080	221	6.94
	07-24-02	0947		BLANK	--	GW	--	--	--
	09-11-02	1200		ENVIRONMENTAL	110ALVM	GW	4020	221	7.21
	09-11-02	1202		BLANK	--	GW	--	--	--
BA Ee 179	03-11-02	1240	392439076331907	ENVIRONMENTAL	110ALVM	GW	4080	219	4.21
	05-21-02	1040		ENVIRONMENTAL	110ALVM	GW	4080	219	3.97
	07-22-02	1105		ENVIRONMENTAL	110ALVM	GW	4080	219	4.84
	09-10-02	1105		ENVIRONMENTAL	110ALVM	GW	4080	219	4.90
BA Ee 180	03-11-02	1315	392434076331908	ENVIRONMENTAL	110ALVM	GW	4080	219	3.61
	05-21-02	1110		ENVIRONMENTAL	110ALVM	GW	4080	219	3.58
	07-22-02	1130		ENVIRONMENTAL	110ALVM	GW	4080	219	4.04
	09-10-02	1140		ENVIRONMENTAL	110ALVM	GW	4080	219	4.06
BA Ee 181	03-11-02	1430	392434076331909	ENVIRONMENTAL	110ALVM	GW	4080	219	3.64
	03-11-02	1431		REPLICATE	110ALVM	GW	4080	219	3.64
	05-21-02	1140		ENVIRONMENTAL	110ALVM	GW	4080	219	3.61
	07-22-02	1155		ENVIRONMENTAL	110ALVM	GW	4080	219	4.07
	09-10-02	1205		ENVIRONMENTAL	110ALVM	GW	4080	219	4.12
BA Ee 183	03-08-02	1415	392440076332002	ENVIRONMENTAL	110ALVM	GW	4080	222	5.52
	05-22-02	1135		ENVIRONMENTAL	110ALVM	GW	4020	222	5.41
	07-23-02	1130		ENVIRONMENTAL	110ALVM	GW	4080	222	6.04
	09-11-02	1025		ENVIRONMENTAL	110ALVM	GW	4080	222	6.06
BA Ee 184	03-12-02	1130	392439076331801	ENVIRONMENTAL	110ALVM	GW	4080	214	2.29
	05-22-02	0930		ENVIRONMENTAL	110ALVM	GW	4080	214	+ .23
	07-23-02	1020		ENVIRONMENTAL	110ALVM	GW	4080	214	-.28
	09-11-02	0930		ENVIRONMENTAL	110ALVM	GW	4080	214	.09
BA Ee 185	03-12-02	1235	392439076331802	ENVIRONMENTAL	110ALVM	GW	4080	214	+ .28
	05-22-02	0955		ENVIRONMENTAL	110ALVM	GW	4080	214	+ .28
	05-22-02	0956		REPLICATE	110ALVM	GW	4080	214	+ .28
	07-23-02	1055		ENVIRONMENTAL	110ALVM	GW	4080	214	.00
	09-11-02	0945		ENVIRONMENTAL	110ALVM	GW	4080	214	.09
BA Ee 186	03-12-02	1315	392439076331803	ENVIRONMENTAL	110ALVM	GW	4080	214	+ .38
	03-12-02	1316		REPLICATE	110ALVM	GW	4080	214	+ .38
	05-22-02	1030		ENVIRONMENTAL	110ALVM	GW	4080	214	--
	07-23-02	1105		ENVIRONMENTAL	110ALVM	GW	4080	214	.22
	09-11-02	1005		ENVIRONMENTAL	110ALVM	GW	4080	214	+ .14
BA Ee 187	03-27-02	1135	392436076332001	ENVIRONMENTAL	110CLVM	GW	4080	224	8.88
	03-27-02	1136		REPLICATE	110CLVM	GW	4080	224	8.88
	05-23-02	1040		ENVIRONMENTAL	110CLVM	GW	4080	224	8.82
	07-17-02	1310		ENVIRONMENTAL	110CLVM	GW	4080	224	10.01
	09-05-02	1415		ENVIRONMENTAL	110CLVM	GW	4080	224	10.10
	09-05-02	1416		REPLICATE	110CLVM	GW	4080	224	--
BA Ee 188	03-27-02	1240	392436076332002	ENVIRONMENTAL	110CLVM	GW	4080	224	7.62
	05-23-02	1110		ENVIRONMENTAL	110CLVM	GW	4080	224	7.62
	07-18-02	1245		ENVIRONMENTAL	110CLVM	GW	4080	224	8.48
	09-06-02	0950		ENVIRONMENTAL	110CLVM	GW	4080	224	8.72

Geologic Unit (aquifer): 110ALVM - Quaternary System  
110CLVM - Colluvium

Station Type: GW - Ground Water

Sampling Method: 4020 - Open-top bailer  
4080 - Peristaltic pump

## QUALITY OF GROUND WATER DATA

BALTIMORE COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	DEPTH OF WELL, TOTAL (FEET) (72008)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
				(STAND- ARD UNITS) (00400)							
BA Ee 174	04-01-02	28.10	2.8	7.2	649	--	13.9	300	64.5	32.7	2.07
	05-28-02	28.10	3.6	6.9	623	--	17.5	--	--	--	--
	07-19-02	28.10	2.7	7.0	709	--	15.8	300	65.4	32.4	2.17
	09-09-02	28.10	1.6	7.3	594	--	29.7	--	--	--	--
BA Ee 175	04-01-02	15.50	2.5	7.1	651	--	13.4	310	67.8	34.5	2.12
	05-28-02	15.50	3.1	6.8	621	--	17.2	--	--	--	--
	05-28-02	--	--	--	--	--	--	--	--	--	--
	07-19-02	15.50	2.1	7.0	722	--	17.5	310	69.3	33.9	2.28
	09-09-02	15.50	1.1	7.0	561	--	--	--	--	--	--
BA Ee 176	03-14-02	11.85	--	--	--	--	--	700	150	79.4	8.19
	05-23-02	11.85	--	--	--	--	--	--	--	--	--
	07-24-02	11.85	--	--	--	--	--	400	89.4	43.9	5.31
	09-11-02	11.85	--	--	--	--	--	--	--	--	--
BA Ee 177	03-14-02	9.85	5.6	7.5	814	20.0	20.0	300	68.3	31.8	4.04
	05-22-02	9.85	--	--	--	--	--	--	--	--	--
	05-22-02	--	--	--	--	--	--	--	--	--	--
	07-23-02	9.85	--	--	--	--	--	330	74.9	34.8	4.28
BA Ee 178	03-14-02	7.85	7.1	7.6	755	--	18.5	380	84.7	40.6	3.80
	05-23-02	7.85	--	--	--	--	--	--	--	--	--
	07-24-02	7.85	--	--	--	--	--	410	93.3	42.3	2.17
	07-24-02	--	--	--	--	--	--	--	.03	<.008	<.10
	09-11-02	7.85	--	--	--	--	--	--	--	--	--
BA Ee 179	03-11-02	9.91	1.2	7.1	1290	--	8.5	380	93.0	34.9	3.76
	05-21-02	9.91	--	7.1	878	--	17.2	--	--	--	--
	07-22-02	9.91	.8	6.9	933	--	24.6	250	64.8	22.6	3.81
	09-10-02	9.91	.3	6.9	772	--	--	--	--	--	--
BA Ee 180	03-11-02	7.91	3.3	7.3	879	--	8.4	230	59.1	19.5	3.21
	05-21-02	7.91	--	7.3	608	--	17.2	--	--	--	--
	07-22-02	7.91	.3	7.2	857	--	26.3	280	73.6	22.8	3.24
	09-10-02	7.91	.2	7.0	570	--	27.3	--	--	--	--
BA Ee 181	03-11-02	5.91	6.6	7.6	899	--	8.2	250	65.4	21.1	3.23
	03-11-02	5.91	--	--	--	--	--	260	68.2	21.9	3.38
	05-21-02	5.91	4.3	7.4	673	--	17.1	--	--	--	--
	07-22-02	5.91	2.6	7.2	853	--	27.4	280	72.5	23.3	3.94
	09-10-02	5.91	.2	7.0	236	--	27.7	--	--	--	--
BA Ee 183	03-08-02	7.50	4.1	7.2	741	--	26.7	390	86.7	41.5	1.91
	05-22-02	7.50	--	--	--	--	--	--	--	--	--
	07-23-02	7.50	--	--	--	--	--	390	87.3	41.5	2.07
	09-11-02	7.50	--	--	--	--	--	--	--	--	--
BA Ee 184	03-12-02	6.00	7.3	7.1	1100	--	8.2	270	67.5	24.1	2.84
	05-22-02	6.00	2.6	6.8	854	--	21.3	--	--	--	--
	07-23-02	6.00	4.1	7.5	843	--	27.9	260	67.2	22.8	3.98
	09-11-02	6.00	2.3	6.9	706	--	25.5	--	--	--	--
BA Ee 185	03-12-02	4.00	9.9	7.7	886	--	8.8	240	59.5	21.6	2.66
	05-22-02	4.00	3.9	7.3	708	--	19.4	--	--	--	--
	05-22-02	4.00	--	--	--	--	--	--	--	--	--
	07-23-02	4.00	2.3	7.3	771	--	29.5	280	69.8	24.5	4.06
	09-11-02	4.00	3.4	7.3	394	--	28.4	--	--	--	--
BA Ee 186	03-12-02	2.00	9.6	7.7	860	--	8.7	260	65.1	23.2	2.74
	03-12-02	2.00	--	--	--	--	--	250	63.4	22.7	2.59
	05-22-02	2.00	6.1	7.4	780	--	17.0	--	--	--	--
	07-23-02	2.00	2.9	7.3	812	--	30.6	290	71.7	26.0	3.82
	09-11-02	2.00	3.4	7.3	554	--	28.2	--	--	--	--
BA Ee 187	03-27-02	20.50	1.8	7.0	602	--	12.2	270	59.7	30.4	2.10
	03-27-02	20.50	--	--	--	--	--	270	59.5	30.1	2.00
	05-23-02	20.50	1.9	6.9	608	--	14.9	--	--	--	--
	07-17-02	20.50	1.6	7.0	633	--	16.5	280	61.9	31.1	1.88
	09-05-02	20.50	1.0	7.0	619	--	20.5	--	--	--	--
	09-05-02	20.50	--	--	--	--	--	--	--	--	--
BA Ee 188	03-27-02	13.50	8.6	7.1	464	--	12.2	210	47.2	23.2	3.77
	05-23-02	13.50	--	6.8	546	--	16.9	--	--	--	--
	07-18-02	13.50	--	--	--	--	--	230	51.3	24.7	4.27
	09-06-02	13.50	6.4	6.5	539	21.9	--	--	--	--	--

&lt; Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

BALTIMORE COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)
BA Ee 174	04-01-02	15.6	58.6	E.1	10.3	16.0	<.04	<.10	<.008	--	--
	05-28-02	--	--	--	--	--	<.04	<.10	<.008	--	--
	07-19-02	16.3	68.6	<.1	10.4	15.7	<.04	<.10	<.008	--	--
	09-09-02	--	--	--	--	--	<.04	E.06	<.008	--	--
BA Ee 175	04-01-02	13.2	57.4	E.1	10.0	17.8	<.04	<.10	<.008	--	--
	05-28-02	--	--	--	--	--	<.04	E.05	<.008	--	--
	05-28-02	--	--	--	--	--	<.04	<.10	<.008	--	--
	07-19-02	14.2	68.4	<.1	10.5	17.9	<.04	<.10	<.008	--	--
09-09-02	--	--	--	--	--	<.04	E.05	<.008	--	--	
BA Ee 176	03-14-02	23.3	388	<.1	10.4	16.2	.06	.96	.010	1.24	.89
	05-23-02	--	--	--	--	--	.12	.89	.048	1.51	.78
	07-24-02	25.7	144	E.1	12.3	24.0	.10	1.7	.039	1.21	1.6
	09-11-02	--	--	--	--	--	.05	.32	.018	.45	.27
BA Ee 177	03-14-02	49.5	92.1	E.1	8.9	25.5	E.04	1.1	E.004	--	--
	05-22-02	--	--	--	--	--	.08	.91	E.005	--	.83
	05-22-02	--	--	--	--	--	<.04	<.10	<.008	--	--
	07-23-02	28.5	99.1	<.1	11.5	22.7	.09	1.1	<.008	--	1.1
09-11-02	--	--	--	--	--	<.04	.19	E.005	--	--	
BA Ee 178	03-14-02	8.67	47.7	E.1	10.3	26.7	<.04	.40	E.004	--	--
	05-23-02	--	--	--	--	--	.05	.57	.011	3.41	.52
	07-24-02	10.2	59.7	E.1	12.5	25.7	<.04	.20	<.008	--	--
	07-24-02	<.09	<.30	<.1	<.2	<.1	<.04	E.06	<.008	--	--
	09-11-02	--	--	--	--	--	.20	3.0	.041	1.32	2.8
09-11-02	--	--	--	--	--	<.04	<.10	<.008	--	--	
BA Ee 179	03-11-02	89.3	291	E.1	8.2	19.2	.06	E.09	<.008	--	--
	05-21-02	--	--	--	--	--	E.04	E.09	<.008	--	--
	07-22-02	65.9	150	.1	10.9	18.2	.06	E.10	<.008	--	--
	09-10-02	--	--	--	--	--	.09	.15	<.008	--	.06
BA Ee 180	03-11-02	82.2	160	.1	7.5	22.6	<.04	E.05	<.008	--	--
	05-21-02	--	--	--	--	--	.10	.19	<.008	--	.10
	07-22-02	48.8	141	.2	10.3	17.0	.16	.24	<.008	--	.08
	09-10-02	--	--	--	--	--	<.04	E.07	.033	.22	--
BA Ee 181	03-11-02	70.3	164	.2	7.0	21.9	<.04	E.06	<.008	--	--
	03-11-02	73.7	164	.2	7.2	21.7	<.04	E.05	<.008	--	--
	05-21-02	--	--	--	--	--	<.04	E.05	<.008	--	--
	07-22-02	47.9	145	.2	9.0	19.3	<.04	<.10	<.008	--	--
09-10-02	--	--	--	--	--	<.04	E.10	<.008	--	--	
BA Ee 183	03-08-02	6.05	38.2	E.1	11.5	27.9	E.02	.11	<.008	--	--
	05-22-02	--	--	--	--	--	.04	.22	<.008	--	.17
	07-23-02	6.40	40.6	<.1	12.5	26.5	<.04	.14	<.008	--	--
	09-11-02	--	--	--	--	--	<.04	.12	<.008	--	--
BA Ee 184	03-12-02	102	234	.1	7.6	21.3	<.04	<.10	<.008	--	--
	05-22-02	--	--	--	--	--	<.04	.12	<.008	--	--
	07-23-02	60.6	152	.1	10.7	20.5	<.04	.10	E.004	--	--
	09-11-02	--	--	--	--	--	<.04	E.08	<.008	--	--
BA Ee 185	03-12-02	78.2	162	.2	6.5	21.8	<.04	<.10	<.008	--	--
	05-22-02	--	--	--	--	--	<.04	E.08	<.008	--	--
	05-22-02	--	--	--	--	--	<.04	E.06	<.008	--	--
	07-23-02	47.3	134	.2	9.4	20.2	<.04	E.05	<.008	--	--
09-11-02	--	--	--	--	--	<.04	E.07	<.008	--	--	
BA Ee 186	03-12-02	65.6	152	.2	6.4	21.6	<.04	E.06	<.008	--	--
	03-12-02	63.4	153	.1	6.4	21.5	<.04	<.10	<.008	--	--
	05-22-02	--	--	--	--	--	<.04	E.08	<.008	--	--
	07-23-02	45.3	134	.1	9.0	20.4	<.04	E.06	<.008	--	--
	09-11-02	--	--	--	--	--	<.04	E.07	<.008	--	--
BA Ee 187	03-27-02	16.0	56.3	.1	10.1	12.6	<.04	E.05	<.008	--	--
	03-27-02	16.0	56.3	E.1	10.1	12.8	<.04	<.10	<.008	--	--
	05-23-02	--	--	--	--	--	<.04	E.07	<.008	--	--
	07-17-02	16.8	62.8	<.1	10.1	12.6	<.04	<.10	<.008	--	--
	09-05-02	--	--	--	--	--	<.04	E.07	<.008	--	--
	09-05-02	--	--	--	--	--	<.04	<.10	<.008	--	--
BA Ee 188	03-27-02	17.8	53.0	E.1	8.5	13.8	<.04	E.10	<.008	--	--
	05-23-02	--	--	--	--	--	.10	.66	<.008	--	.55
	07-18-02	19.0	60.4	E.1	9.6	14.2	<.04	E.09	<.008	--	--
	09-06-02	--	--	--	--	<.04	.20	<.008	--	.76	.55

E Estimated value.  
 < Actual value is known to be less than the value shown.

## QUALITY OF GROUND WATER DATA

BALTIMORE COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)
BA Ee 174	04-01-02	--	1.53	E.01	--	353	<10	E1.4	33
	05-28-02	--	1.49	<.02	--	--	--	--	--
	07-19-02	--	1.38	<.02	--	359	<10	<2.0	41
	09-09-02	--	1.52	E.01	--	--	--	--	--
BA Ee 175	04-01-02	--	1.57	<.02	--	358	<10	E2.5	40
	05-28-02	--	1.55	<.02	--	--	--	--	--
	05-28-02	--	<.05	<.02	--	--	--	--	--
	07-19-02	--	1.46	<.02	--	369	<10	E.9	53
	09-09-02	--	1.37	<.02	--	--	--	--	--
BA Ee 176	03-14-02	2.2	1.25	<.02	--	780	10	112	--
	05-23-02	2.5	1.56	<.02	--	--	--	--	--
	07-24-02	3.0	1.25	<.02	--	495	<10	115	--
	09-11-02	.79	.46	<.02	--	--	--	--	--
BA Ee 177	03-14-02	3.6	2.51	E.01	--	457	<10	72.1	16
	05-22-02	4.2	3.27	<.02	--	--	--	--	--
	05-22-02	--	<.05	<.02	--	--	--	--	--
	07-23-02	2.5	1.31	.03	.083	430	<10	89.3	--
09-11-02	.93	.75	<.02	--	--	--	--	--	
BA Ee 178	03-14-02	3.7	3.33	.03	.086	426	<10	40.0	15
	05-23-02	4.0	3.42	<.02	--	--	--	--	--
	07-24-02	2.8	2.64	<.02	--	441	15	276	--
	07-24-02	--	<.05	<.02	--	--	<10	<2.0	--
	09-11-02	4.4	1.36	<.02	--	--	--	--	--
09-11-02	--	E.02	<.02	--	--	--	--	--	
BA Ee 179	03-11-02	--	.23	<.02	--	646	322	1420	28
	05-21-02	--	.21	<.02	--	--	--	--	--
	07-22-02	--	.14	<.02	--	456	1040	1100	43
	09-10-02	.29	.14	<.02	--	--	--	--	--
BA Ee 180	03-11-02	--	.46	<.02	--	465	18	14.0	19
	05-21-02	.38	.19	<.02	--	--	--	--	--
	07-22-02	--	E.03	<.02	--	432	19	656	25
	09-10-02	--	.26	E.01	--	--	--	--	--
BA Ee 181	03-11-02	--	.93	<.02	--	465	18	12.4	8.5
	03-11-02	--	.93	<.02	--	473	11	11.4	--
	05-21-02	--	.86	<.02	--	--	--	--	--
	07-22-02	--	.23	<.02	--	431	102	13.2	20
	09-10-02	--	.38	<.02	--	--	--	--	--
BA Ee 183	03-08-02	3.4	3.31	<.02	--	431	<10	236	43
	05-22-02	3.1	2.91	<.02	--	--	--	--	--
	07-23-02	3.2	3.07	<.02	--	433	<10	19.7	--
	09-11-02	3.3	3.23	<.02	--	--	--	--	--
BA Ee 184	03-12-02	--	.87	E.01	--	560	<10	909	24
	05-22-02	.88	.76	<.02	--	--	--	--	--
	07-23-02	.54	.44	<.02	--	446	26	908	10
	09-11-02	--	.59	<.02	--	--	--	--	--
BA Ee 185	03-12-02	--	.95	E.01	--	466	<10	E2.9	6.7
	05-22-02	--	.95	E.01	--	--	--	--	--
	05-22-02	--	.95	E.01	--	--	--	--	--
	07-23-02	--	.42	E.01	--	423	45	45.8	18
	09-11-02	--	.47	<.02	--	--	--	--	--
BA Ee 186	03-12-02	--	.89	E.01	--	449	<10	E2.6	6.8
	03-12-02	--	.90	E.01	--	447	<10	E2.9	--
	05-22-02	--	.96	<.02	--	--	--	--	--
	07-23-02	--	.40	E.01	--	427	E8	6.5	17
	09-11-02	--	.49	E.01	--	--	--	--	--
BA Ee 187	03-27-02	--	.97	<.02	--	326	<10	19.1	41
	03-27-02	--	.97	<.02	--	326	<10	18.5	--
	05-23-02	--	.93	<.02	--	--	--	--	--
	07-17-02	--	.86	<.02	--	334	E7	92.4	44
	09-05-02	--	.87	E.01	--	--	--	--	--
	09-05-02	--	.86	E.01	--	--	--	--	--
BA Ee 188	03-27-02	--	.51	<.02	--	277	E7	70.6	29
	05-23-02	.98	.32	<.02	--	--	--	--	--
	07-18-02	--	.28	<.02	--	300	15	86.0	--
	09-06-02	.76	.55	<.02	--	--	--	--	--

E Estimated value.

&lt; Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

507

BALTIMORE COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geo-logic unit	Station type	SAM-PLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)
BA Ee 189	03-27-02	1500	392436076331901	ENVIRONMENTAL	110CLVM	GW	4020	224	9.12
	05-23-02	1130		ENVIRONMENTAL	110CLVM	GW	4020	224	9.06
	07-18-02	0850		ENVIRONMENTAL	110CLVM	GW	4080	224	10.33
	09-06-02	0920		ENVIRONMENTAL	110CLVM	GW	4080	224	10.40
BA Ee 190	03-11-02	1110	392438076331801	ENVIRONMENTAL	110CLVM	GW	4080	220	6.74
	05-22-02	1100		ENVIRONMENTAL	110CLVM	GW	4020	220	5.95
	07-22-02	0930		ENVIRONMENTAL	110CLVM	GW	4080	220	7.40
BA Ee 191	03-08-02	1130	392438076331802	ENVIRONMENTAL	110CLVM	GW	4080	220	6.31
	05-21-02	1210		ENVIRONMENTAL	110CLVM	GW	4080	220	5.77
	07-22-02	1010		ENVIRONMENTAL	110CLVM	GW	4080	220	6.87
BA Ee 192	03-07-02	1540	392438076331803	ENVIRONMENTAL	110CLVM	GW	4080	219	5.76
	05-21-02	0935		ENVIRONMENTAL	110CLVM	GW	4080	219	5.09
	07-19-02	1250		ENVIRONMENTAL	110CLVM	GW	4080	219	6.79
BA Ee 193	09-10-02	0925	392437076332104	ENVIRONMENTAL	110ALVM	GW	4080	219	7.08
	09-10-02	0926		REPLICATE	110CLVM	GW	4080	219	7.08
	04-02-02	1230		ENVIRONMENTAL	110ALVM	GW	4080	220	2.60
BA Ee 194	05-23-02	1240	392437076332105	ENVIRONMENTAL	110ALVM	GW	4080	220	2.51
	07-18-02	1015		ENVIRONMENTAL	110ALVM	GW	4080	220	2.98
	09-06-02	1045		ENVIRONMENTAL	110ALVM	GW	4080	220	2.98
BA Ee 195	04-04-02	1000	392437076332105	ENVIRONMENTAL	110ALVM	GW	4080	220	2.54
	05-23-02	1310		ENVIRONMENTAL	110ALVM	GW	4080	220	2.55
	05-23-02	1311		REPLICATE	110ALVM	GW	4080	220	2.55
BA Ee 197	07-18-02	0915	392437076332106	ENVIRONMENTAL	110ALVM	GW	4080	220	2.91
	09-06-02	1120		ENVIRONMENTAL	110ALVM	GW	4080	220	2.88
	04-04-02	1035		ENVIRONMENTAL	110ALVM	GW	4080	220	2.38
BA Ee 198	05-23-02	1340	392432076332201	ENVIRONMENTAL	110ALVM	GW	4080	220	2.37
	07-18-02	0935		ENVIRONMENTAL	110ALVM	GW	4080	220	2.73
	09-06-02	1135		ENVIRONMENTAL	110ALVM	GW	4080	220	2.69
BA Ee 199	03-15-02	1200	392450076331201	ENVIRONMENTAL	300CCKV	GW	4041	251	--
	03-15-02	1535		ENVIRONMENTAL	300CCKV	GW	4080	238	15.85
BA Ee 200	03-19-02	1230	392502076332601	ENVIRONMENTAL	300CCKV	GW	4041	260	--
	03-19-02	1231		REPLICATE	300CCKV	GW	4041	260	--
BA Ee 201	03-19-02	1515	392502076332601	ENVIRONMENTAL	370LCRV	GW	4041	440	--
	03-19-02	1517		BLANK	--	GW	--	--	--
BA Ee 201	03-15-02	0945	392438076322501	ENVIRONMENTAL	400BLMR	GW	4040	400	--

Geologic Unit (aquifer): 110ALVM - Quaternary System  
 110CLVM - Colluvium  
 300CCKV - Cockeysville Marble  
 370LCRV - Loch Raven Schist  
 400BLMR - Baltimore Gneiss

Station Type: GW - Ground Water

Sampling Method: 4020 - Open-top bailer  
 4040 - Submersible pump  
 4041 - Submersible bladder pump  
 4080 - Peristaltic pump

## QUALITY OF GROUND WATER DATA

BALTIMORE COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	DEPTH OF WELL, TOTAL (FEET) (72008)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CAC03) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
				WATER WHOLE FIELD (STAND- ARD UNITS) (00400)							
BA Ee 189	03-27-02	24.50	8.8	7.5	723	11.6	320	66.2	36.8	2.93	23.2
	05-23-02	24.50	--	--	--	--	--	--	--	--	--
	07-18-02	24.50	2.8	7.3	820	15.5	330	70.7	37.4	2.89	28.0
	09-06-02	24.50	2.1	7.2	783	23.6	--	--	--	--	--
BA Ee 190	03-11-02	26.00	7.7	7.5	879	11.7	310	75.2	30.2	3.49	47.3
	05-22-02	26.00	--	--	--	--	--	--	--	--	--
	07-22-02	26.00	2.9	7.3	1040	16.4	330	80.7	31.0	3.41	60.9
	09-10-02	26.00	--	--	--	--	--	--	--	--	--
BA Ee 191	03-08-02	14.00	7.0	7.1	1480	12.4	450	110	43.0	3.64	101
	05-21-02	14.00	6.8	7.2	990	15.1	--	--	--	--	--
	07-22-02	14.00	1.7	6.9	927	18.6	260	65.2	24.2	3.42	69.3
	09-10-02	14.00	--	--	--	--	--	--	--	--	--
BA Ee 192	03-07-02	24.70	3.5	7.4	990	13.4	330	79.4	31.4	3.75	56.5
	05-21-02	24.70	4.3	7.2	1040	14.1	--	--	--	--	--
	07-19-02	24.70	3.0	7.2	956	16.6	270	66.4	25.5	3.27	73.7
	09-10-02	24.70	1.3	7.2	793	29.9	--	--	--	--	--
	09-10-02	24.70	--	--	--	--	--	--	--	--	--
BA Ee 193	04-02-02	9.25	6.9	7.4	1100	18.3	270	64.1	25.9	3.08	105
	05-23-02	9.25	1.8	7.2	788	21.9	--	--	--	--	--
	07-18-02	9.25	--	--	--	--	240	60.2	20.8	3.95	70.7
	09-06-02	9.25	1.7	7.1	529	30.8	--	--	--	--	--
BA Ee 194	04-04-02	7.25	5.2	7.0	791	10.6	220	55.3	20.1	2.85	75.6
	05-23-02	7.25	2.5	7.1	748	18.5	--	--	--	--	--
	05-23-02	7.25	--	--	--	--	--	--	--	--	--
	07-18-02	7.25	.5	7.1	815	22.4	270	70.7	22.7	3.93	48.7
	09-06-02	7.25	1.2	7.1	322	31.5	--	--	--	--	--
BA Ee 195	04-04-02	5.25	5.0	6.9	797	12.2	230	58.1	20.5	2.77	60.2
	05-23-02	5.25	4.0	7.1	778	19.4	--	--	--	--	--
	07-18-02	5.25	1.3	7.2	816	23.3	280	71.7	23.8	3.79	46.4
	09-06-02	5.25	2.0	7.1	203	31.2	--	--	--	--	--
BA Ee 197	03-15-02	100.00	6.9	7.4	576	14.4	250	51.6	28.9	2.47	19.0
BA Ee 198	03-15-02	27.00	4.9	6.7	1050	14.3	460	98.7	53.0	2.19	30.5
BA Ee 199	03-19-02	500.00	6.9	7.2	415	12.7	210	62.0	13.6	2.21	2.71
	03-19-02	500.00	--	--	--	--	210	61.8	13.7	2.20	2.69
BA Ee 200	03-19-02	250.00	5.9	5.1	97	13.2	19	3.18	2.64	2.25	8.79
	03-19-02	--	--	--	--	--	--	<.01	<.008	<.10	<.09
BA Ee 201	03-15-02	210.00	6.2	5.8	140	14.1	37	7.16	4.52	3.25	9.42

&lt; Actual value is known to be less than the value shown.



QUALITY OF GROUND WATER DATA

BALTIMORE COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITROGEN DIS-SOLVED (MG/L AS N) (00602)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
BA Ee 189	03-27-02	74.6	E.1	8.2	15.3	<.04	.27	<.008	--	1.4	1.18
	05-23-02	--	--	--	--	.12	.70	<.008	.58	1.9	1.18
	07-18-02	96.1	E.1	8.0	15.1	<.04	E.06	<.008	--	--	1.15
	09-06-02	--	--	--	--	<.04	E.05	<.008	--	--	1.21
BA Ee 190	03-11-02	140	.2	8.8	17.3	E.03	E.07	E.006	--	--	.76
	05-22-02	--	--	--	--	E.03	.41	<.008	--	1.2	.83
	07-22-02	183	.1	9.1	17.7	<.04	E.07	<.008	--	--	.86
	09-10-02	--	--	--	--	<.04	E.06	<.008	--	--	.84
BA Ee 191	03-08-02	347	.1	8.7	20.1	<.04	<.10	<.008	--	--	.48
	05-21-02	--	--	--	--	<.04	E.07	<.008	--	--	.18
	07-22-02	151	.1	9.7	20.0	<.04	E.08	<.008	--	--	.17
	09-10-02	--	--	--	--	<.04	E.08	<.008	--	--	.44
BA Ee 192	03-07-02	193	.1	10.0	17.2	E.02	<.10	<.008	--	--	1.11
	05-21-02	--	--	--	--	<.04	<.10	<.008	--	--	1.01
	07-19-02	161	<.1	9.7	20.7	<.04	<.10	<.008	--	--	.79
	09-10-02	--	--	--	--	<.04	.12	<.008	--	.98	.85
	09-10-02	--	--	--	--	<.04	E.05	<.008	--	--	.82
BA Ee 193	04-02-02	240	.1	7.2	21.4	<.04	.17	E.004	--	1.1	.95
	05-23-02	--	--	--	--	E.02	.11	E.005	--	.67	.56
	07-18-02	144	.2	9.7	22.2	<.04	.17	E.005	--	.67	.50
	09-06-02	--	--	--	--	<.04	.14	<.008	--	.44	.30
BA Ee 194	04-04-02	139	.2	7.6	21.2	<.04	.11	<.008	--	1.3	1.14
	05-23-02	--	--	--	--	<.04	<.10	<.008	--	--	.71
	05-23-02	--	--	--	--	<.04	E.06	<.008	--	--	.71
	07-18-02	129	.2	10.6	20.4	<.04	<.10	<.008	--	--	.37
	09-06-02	--	--	--	--	<.04	.10	<.008	--	.36	.26
BA Ee 195	04-04-02	138	.2	7.6	21.0	<.04	E.06	<.008	--	--	1.00
	05-23-02	--	--	--	--	<.04	E.08	<.008	--	--	.79
	07-18-02	128	.2	9.8	20.2	<.04	E.07	<.008	--	--	.33
	09-06-02	--	--	--	--	<.04	E.06	<.008	--	--	.28
BA Ee 197	03-15-02	50.8	<.1	12.0	9.1	<.04	E.07	<.008	--	--	2.21
BA Ee 198	03-15-02	97.0	E.1	13.1	27.7	<.04	E.08	<.008	--	--	3.21
BA Ee 199	03-19-02	7.58	E.1	14.5	12.9	<.04	<.10	<.008	--	--	1.31
	03-19-02	7.32	E.1	14.8	13.0	<.04	<.10	<.008	--	--	1.31
BA Ee 200	03-19-02	16.1	<.1	8.7	.5	<.04	<.10	<.008	--	--	2.93
	03-19-02	<.30	<.1	<.2	<.1	<.04	<.10	<.008	--	--	<.05
BA Ee 201	03-15-02	19.1	E.1	26.5	1.3	<.04	E.05	<.008	--	--	1.01

E Estimated value.

< Actual value is known to be less than the value shown.

## QUALITY OF GROUND WATER DATA

BALTIMORE COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	ORTHO- PHOS- PHATE, DIS- SOLVED AS P (00671)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	IRON, DIS- SOLVED (UG/L) AS FE (01046)	MANGA- NESE, DIS- SOLVED (UG/L) AS MN (01056)	CARBON DIOXIDE DIS- SOLVED (MG/L) AS CO2 (00405)
BA Ee 189	03-27-02	E.01	392	<10	E.8	17
	05-23-02	<.02	--	--	--	--
	07-18-02	<.02	414	<10	E.9	24
	09-06-02	<.02	--	--	--	--
BA Ee 190	03-11-02	<.02	460	<10	<2.0	14
	05-22-02	<.02	--	--	--	--
	07-22-02	<.02	514	<10	E1.4	22
	09-10-02	<.02	--	--	--	--
BA Ee 191	03-08-02	<.02	743	<10	27.5	30
	05-21-02	<.02	--	--	--	--
	07-22-02	<.02	467	<10	12.7	48
	09-10-02	E.01	--	--	--	--
BA Ee 192	03-07-02	<.02	510	<10	14.0	14
	05-21-02	<.02	--	--	--	--
	07-19-02	<.02	488	<10	E1.5	26
	09-10-02	E.01	--	--	--	--
	09-10-02	<.02	--	--	--	--
BA Ee 193	04-02-02	<.02	572	791	567	12
	05-23-02	<.02	--	--	--	--
	07-18-02	<.02	455	E5	235	--
	09-06-02	<.02	--	--	--	--
BA Ee 194	04-04-02	<.02	433	132	32.7	35
	05-23-02	<.02	--	--	--	--
	05-23-02	<.02	--	--	--	--
	07-18-02	<.02	420	49	11.7	28
	09-06-02	<.02	--	--	--	--
BA Ee 195	04-04-02	<.02	416	1980	367	38
	05-23-02	<.02	--	--	--	--
	07-18-02	<.02	417	E10	16.7	24
	09-06-02	<.02	--	--	--	--
BA Ee 197	03-15-02	<.02	312	<10	E1.3	18
BA Ee 198	03-15-02	<.02	571	<10	<2.0	151
BA Ee 199	03-19-02	<.02	241	<10	<2.0	27
	03-19-02	<.02	241	<10	<2.0	--
BA Ee 200	03-19-02	<.02	60	E9	25.8	132
	03-19-02	<.02	--	<10	<2.0	--
BA Ee 201	03-15-02	<.02	94	12	47.9	102

E Estimated value.

&lt; Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

CALVERT COUNTY, MARYLAND

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geo-logic unit	Station type	SAMPLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)			
CA Fd 85	11-28-01	1030	382236076255401	ENVIRONMENTAL	217PPSCL	GW	4040	106	120.01			
			DEPTH TO BOT-TOM OF SAMPLE VAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE VAL (FT) (72016)	PUMP OR FLOW PERIOD TO SAM-PLING (MIN) (72004)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)		
		1643.00	1630	1540	1380	82.0	8.7	414	21.0	25.2	4	
			CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
		1.08	.261	1.70	102	198	241	2.07	.4	E.02	13.5	
			SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
		13.6	<.05	.09	<1	264	253	<.2	105	180	12.5	
			MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	BETA, 2 SIGMA WATER, DISS AS CS-137 (PCI/L) (75989)	GROSS ALPHA, 2X CL, WATER, SS MDC, FLTRD, (PCI/L) (99337)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, 2X CL, WATER, FLTRD, (PCI/L) (99323)	RADON 222 TOTAL (PCI/L) (82303)
		13.7	E.4	.9	2.2	M	1.8	4.290	2	2.270	140	
			RADON 222, 2X CL, SS MDC, WATER, UNFLTRD (PCI/L) (99327)	RN-222, 2 SIGMA WATER, TOTAL, (PCI/L) (76002)								
		24.0		17								

E Estimated value.  
 < Actual value is known to be less than the value shown  
 M Presence of material verified but not quantified.

Geologic Unit (aquifer): 217PPSCL - Patapsco Formation, Lower

Station Type: GW - Ground Water

Sampling Method: 4040 - Submersible pump

QUALITY OF GROUND WATER DATA

CAROLINE COUNTY, MARYLAND

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geo-logic unit	Station type	SAMPLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)			
CO Dd 74	11-06-01	1100	385208075460801	ENVIRONMENTAL	112PCPC	GW	4040	56.00	4.60			
			DEPTH TO BOT-TOM OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE VAL (FT) (72016)	PUMP OR FLOW PERIOD TO SAM-PLING (MIN) (72004)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)			
		15.00	15	12	40	.40	778	92	9.5	4.9	220	
			TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED AS CA (00915)	MAGNE-SIUM, DIS-SOLVED AS MG (00925)	POTAS-SIUM, DIS-SOLVED AS K (00935)	SODIUM, DIS-SOLVED AS NA (00930)	ALKA-LINITY WAT DIS TOT IT FIELD CACO3 (39086)	BICAR-BONATE WATER DIS IT FIELD HCO3 (00453)	CHLO-RIDE, DIS-SOLVED AS CL (00940)
		8.0	15.0	80	23.6	5.10	4.60	2.20	3	4	18.6	
			FLUO-RIDE, DIS-SOLVED AS F (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, AMMONIA (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00602)	NITRO-GEN, ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	
		.2	.03	8.87	23.1	<.04	.44	<.008	12	12.0	<.02	
			TOTAL COLI-FORM, M ENDO MF, WTR (COL/100 ML) (31501)	E COLI, NA-MUG, WATER (COL/100 ML) (50278)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)
		<1	<1	144	143	356	E.04	.2	609	.91	E7	
			CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)
		.37	E.4	2.14	7.5	414	1.59	.8	67.2	<.2	2.53	

E Estimated value.

< Actual value is known to be less than the value shown.

Geologic Unit (aquifer): 112PCPC - Pleistocene-Pliocene Series

Station Type: GW - Ground Water

Sampling Method: 4040 - Submersible pump

QUALITY OF GROUND WATER DATA

CAROLINE COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRONTIUM, DIS-SOLVED (UG/L AS SR) (01080)	THALLIUM, DIS-SOLVED (UG/L AS TL) (01057)	VANADIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	2,4,5-T SURROG WATER FLTRD REC (99958)	2,4-D METHYL ESTER, WATER FLTRD REC (50470)	2,4-D, DIS-SOLVED (UG/L) (39732)
CO Dd 74	11-06-01	1.8	<1	20.0	E.03	.3	4	1.2	103	<.009	<.02
		2,4-DB WATER, FLTRD GF 0.7U REC (UG/L) (38746)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	3HYDRXY CARBO-FURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	3-KETO CARBO-FURAN WATER FLTRD REC (UG/L) (50295)	ACETO-CHLOR ESA FLTRD 0.7 UM GF REC (UG/L) (61029)	ACETO-CHLOR OA FLTRD GF REC (UG/L) (61030)	ACETO-CHLOR OA WATER FLTRD REC (UG/L) (49260)	ACIFL-UORFEN WATER, FLTRD GF 0.7U REC (UG/L) (49315)	ALA-CHLOR OA FLTRD 0.7 U GF REC (UG/L) (61031)	ALA-CHLOR ESA WAT FLT REC (UG/L) (50009)
		<.02	<.002	<.006	<2	<.05	<.05	<.004	<.007	<.05	2.49
		ALA-CHLOR WATER, DISS, REC (UG/L) (46342)	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SUL-FURAN WAT,FLT GF 0.7U REC (UG/L) (49314)	ALDI-CARB, WATER, FLTRD GF 0.7U REC (UG/L) (49312)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BARBAN SURROG ATE WTR FLT SCD 2060 RE 9060 RE PERCENT (90640)	BENDIO-CARB, WATER, FLTRD (UG/L) (50299)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BENOMYL WATER FLTRD REC (UG/L) (50300)
		<.002	<.02	<.008	<.04	<.005	.163	149	<.03	<.010	<.004
		BEN-SUL-FURON METHYL WAT FLT REC (UG/L) (61693)	BENTA-ZON, WATER, FLTRD GF 0.7U REC (UG/L) (38711)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BRO-MOXYNIL WATER, FLTRD GF 0.7U REC (UG/L) (49311)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAF-FEINE, WATER, FLTRD REC (UG/L) (50305)	CAF-FEINE-C13 SURROG, WAT FLT REC (99959)	CAR-BARYL, WATER, FLTRD GF 0.7U REC (UG/L) (49310)	CAR-BARYL, WATER, FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN, WATER, FLTRD, REC (UG/L) (49309)
		<.02	<.01	<.03	<.02	<.002	<.010	99.5	<.03	<.041	<.006
		CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-AMBEN, METHYL WATER FLTRD (UG/L) (61188)	CHLORI-MURON, WATER REC (UG/L) (50306)	CHLORO-THALO-NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CLOPYR-ALID, WATER, FLTRD GF 0.7U REC (UG/L) (49305)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	CY-CLOATE, WATER, DISS, REC (UG/L) (04031)	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)
		<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003
		DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DEETHYL DEISO-PROPYL ATRAZIN DISS, REC (UG/L) (04039)	DEISO-PROPYL ATRAZIN WATER, DISS, REC (UG/L) (04038)	DIAZ-INON D10 SRG WAT FLT 0.7 U GF, REC PERCENT (UG/L) (91063)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD GF 0.7U REC (UG/L) (38442)	DICHLOR PROP, WATER, FLTRD GF 0.7U REC (UG/L) (49302)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DIMETH-ENAMID OA, WATER FLT, REC (UG/L) (62482)	DIMETH-ENAMID, ESA, WAT FLT (UG/L) (61951)
		E.154	E.02	E.09	90.4	<.005	<.01	<.01	<.005	<.05	<.05

E Estimated value.  
 < Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

CAROLINE COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DIPHEN-AMID, WATER, DISS, REC (UG/L) (04033)	DISUL-FOTON WATER, FLTRD, 0.7 U GF, REC (UG/L) (82677)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	EPTC WATER, FLTRD, 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN, WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82672)	FEN-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUFEN-ACET, ESA, WAT FLT (UG/L) (61952)	FLUFE-NACET OA, WATER, FLT, REC (UG/L) (62483)
CO Dd 74	11-06-01	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.05	<.05
		FLUMET-SULAM WATER, FLTRD, REC (UG/L) (61694)	FLUO-METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	FONOFOS WATER, DISS, REC (UG/L) (04095)	HCH ALPHA D6 SRG WAT FLT 0.7 U GF, REC PERCENT (91065)	HYDROXY ATRA-ZINE WATER, FLTRD, REC (UG/L) (50355)	IMAZ-AQUIN WATER, FLTRD, REC (UG/L) (50356)	IMAZE-THAPYR WATER, FLTRD, REC (UG/L) (50407)	IMID-ACLOP-RID WATER, FLTRD, REC (UG/L) (61695)	LINDANE DIS-SOLVED (UG/L) (39341)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)
		<.01	<.03	<.003	89.5	E.057	<.02	<.02	<.007	<.004	<.01
		LIN-URON WATER, FLTRD, 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METAL-AXYL WATER, FLTRD, REC (UG/L) (50359)	METHIO-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH-OMYL, OXIME WATER, FLTRD, REC (UG/L) (61696)	METH-OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	METHYL-AZIN-PHOS, WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL-PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)
		<.035	<.027	<.02	<.01	<.02	<.008	<.01	<.004	<.050	<.006
		METOLA-CHLOR ESA, FLTRD, 0.7 UM GF REC (UG/L) (61043)	METOLA-CHLOR OA, FLTRD, 0.7 UM GF REC (UG/L) (61044)	METO-LACHLOR WATER, DISSOLV REC (UG/L) (39415)	METRI-BUZIN SENCOR WATER, DISSOLV REC (UG/L) (82630)	MET-SUL-FURON METHYL WAT FLT 0.7 U GF, REC (UG/L) (61697)	MOL-INATE WATER, FLTRD, 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER, FLTRD, 0.7 U GF, REC (UG/L) (82684)	NEB-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NICOSUL FURON WATER, FLTRD, REC (UG/L) (50364)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)
		15.0	.76	<.013	<.006	<.03	<.002	<.007	<.01	<.01	<.02
		ORY-ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, OXIME WATER, FLTRD, REC (UG/L) (50410)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	P, P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PEB-ULATE WATER, FILTRD, 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER, FLTRD, 0.7 U GF, REC (UG/L) (82664)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)
		<.02	<.01	<.01	<.003	<.007	<.002	<.010	<.006	<.011	<.02
		PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER, FLTRD, 0.7 U GF, REC (UG/L) (82676)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER, FLTRD, 0.7 U GF, REC (UG/L) (82685)	PRO-PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PROP-ICONA-ZOLE, WATER, FLTRD, REC (UG/L) (50471)	PRO-POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SIDURON WATER, FLTRD, REC (UG/L) (38548)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)
		<.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02	.050

E Estimated value.  
 < Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

CAROLINE COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	SULFO-MET-RURON METHYL WTR FLT REC (UG/L) (50337)	TEBU-THIURON FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL, WATER, DISS, REC (UG/L) (04032)	TER-BACIL FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-BENURON METHYL WATER FLTRD REC (UG/L) (61159)	TRI-CLOPYR, WATER, FLTRD, GF 0.7 U REC (UG/L) (49235)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
CO Dd 74	11-06-01	<.009	<.02	<.010	<.034	<.02	<.005	<.002	<.009	<.02	<.009
		UREA 3(4-CHLOROPHENYL METHYL WAT FLT REC (UG/L) (61692)	1,1,1-TRI-CHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRI-CHLOROETHANE TOTAL (UG/L) (34511)	1,1-DI-CHLOROETHANE TOTAL (UG/L) (34496)	1,1-DI-CHLOROETHANE TOTAL (UG/L) (34501)	1,1-DI-CHLORO-PENE, WAT, WH TOTAL (UG/L) (77168)	123-TRI-CHLORO-PROPANE WATER WHOLE TOTAL (UG/L) (77443)	1,2-DIBROMOETHANE WATER WHOLE TOTAL (UG/L) (77651)	1,2-DI-CHLOROETHANE TOTAL (UG/L) (32103)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L) (34541)
		<.02	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03
		TRANS-1,2-DI-CHLOROETHENE TOTAL (UG/L) (34546)	2,2-DI-CHLORO-PANE WAT, WH TOTAL (UG/L) (77170)	2BUTENE TRANS-1 4-DI-CHLORO UNFLTRD RECOVER (UG/L) (73547)	2-HEXA-NONE WATER WHOLE TOTAL (UG/L) (77103)	ACETONE WATER WHOLE TOTAL (UG/L) (81552)	ACRYLO-NITRILE TOTAL (UG/L) (34215)	1,2,3-TRI-CHLORO-BENZENE WAT, WH REC (UG/L) (77613)	BENZENE 123-TRI-METHYL-WATER UNFLTRD RECOVER (UG/L) (77221)	BENZENE 1,2,4-TRI-CHLORO-WAT UNF REC (UG/L) (34551)	BENZENE 124-TRI-METHYL UNFILT RECOVER (UG/L) (77222)
		<.03	<.05	<.7	<.7	<.7	<.1	<.3	<.1	<.1	<.06
		BENZENE 135-TRI-METHYL WATER UNFLTRD REC (UG/L) (77226)	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 14BRFL-SURROG VOC UNFLTRD REC (UG/L) (99834)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	ISO-PROPYL-BENZENE WATER WHOLE REC (UG/L) (77223)	BENZENE N-BUTYL WATER UNFLTRD REC (UG/L) (77342)	BENZENE N-PROPY WATER UNFLTRD REC (UG/L) (77224)	BENZENE O-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	BENZENE SEC BUTYL-WATER UNFLTRD REC (UG/L) (77350)	BENZENE TERT-BUTYL-WATER UNFLTRD REC (UG/L) (77353)
		<.04	<.03	84.2	<.05	<.06	<.2	<.04	<.03	<.03	<.05
		BENZENE TOTAL (UG/L) (34030)	BROMO-BENZENE WATER, WHOLE, TOTAL (UG/L) (81555)	BROMO-ETHENE WATER UNFLTRD RECOVER (UG/L) (50002)	BROMO-FORM TOTAL (UG/L) (32104)	CARBON DI-SULFIDE WATER WHOLE TOTAL (UG/L) (77041)	CARBON TETRA-RIDE TOTAL (UG/L) (32102)	CHLORO-BENZENE TOTAL (UG/L) (34301)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)	CHLORO-ETHANE TOTAL (UG/L) (34311)	CHLORO-FORM TOTAL (UG/L) (32106)
		<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1	<.02
		CIS-1,2-DI-CHLOROETHENE WATER TOTAL (UG/L) (77093)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	DIBROMO CHLORO-PROPANE WATER WHOLE TOT.REC (UG/L) (82625)	DI-BROMO-METHANE WATER WHOLE RECOVER (UG/L) (30217)	BROMO-DI-CHLORO-METHANE TOTAL (UG/L) (32101)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	DI-ISO-PROPYL-ETHER, WATER, UNFLTRD RECOVER (UG/L) (81577)	ETHANE, 1112-TETRA-CHLORO-WAT UNF REC (UG/L) (77562)	ETHANE, 1,1,2,2-TETRA-CHLORO-WAT UNF REC (UG/L) (34516)	ETHANE 12DICL SURROG VOC UNFLTRD REC (UG/L) (99832)
		<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	118

< Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

CAROLINE COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	ETHANE HEXA- CHLORO- WATER UNFLTRD RECOVER (UG/L) (34396)	ETHER ETHYL WATER UNFLTRD RECOVER (UG/L) (81576)	ETHER TERT- BUTYL ETHYL UNFLTRD RECOVER (UG/L) (50004)	ETHER TERT- PENTYL METHYL UNFLTRD RECOVER (UG/L) (50005)	ETHYL- BENZENE TOTAL (UG/L) (34371)	FREON- 113 WATER UNFLTRD REC (UG/L) (77652)	FURAN, TETRA- HYDRO- WATER UNFLTRD RECOVER (UG/L) (81607)	HEXA- CHLORO- BUT- ADIENE TOTAL (UG/L) (39702)	ISO- DURENE WATER UNFLTRD RECOVER (UG/L) (50000)	METHAC- RYLATE ETHYL- WATER UNFLTRD RECOVER (UG/L) (73570)
CO Dd 74	11-06-01	<.2	<.2	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2
		METHAC- RYLATE METHYL WATER UNFLTRD RECOVER (UG/L) (81597)	METH- ACRYLO- NITRILE WATER UNFLTRD RECOVER (UG/L) (81593)	METHANE BROMO- CHLORO- WAT UNFLTRD REC (UG/L) (77297)	METHYL ACRY- LATE WATER UNFLTRD RECOVER (UG/L) (49991)	METHYL IODIDE WATER UNFLTRD RECOVER (UG/L) (77424)	METHYL TERT- BUTYL ETHER WAT UNF REC (UG/L) (78032)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL ENE CHLO- RIDE TOTAL (UG/L) (34423)	METHYL- ETHYL- KETONE WATER WHOLE TOTAL (UG/L) (81595)
		<.3	<.6	<.07	<2.0	<.25	<.2	<.3	<.2	<.2	<5.0
		METHYL ISO- BUTYL KETONE WAT.WH. TOTAL (UG/L) (78133)	META/ PARA- XYLENE WATER UNFLTRD REC (UG/L) (85795)	NAPHTH- ALENE TOTAL (UG/L) (34696)	O- CHLORO- WATER WHOLE TOTAL (UG/L) (77275)	O- XYLENE WATER WHOLE TOTAL (UG/L) (77135)	P-ISO- PROPYL- TOLUENE WATER WHOLE REC (UG/L) (77356)	1234- TETRA BENZENE UNFLTRD REC (UG/L) (49999)	1,3-DI- CHLORO- PROPANE WAT. WH TOTAL (UG/L) (77173)	PROPENE 3- CHLORO- WATER UNFLTRD RECOVER (UG/L) (78109)	STYRENE TOTAL (UG/L) (77128)
		<.4	<.06	<.5	<.03	<.07	<.07	<.2	<.1	<.07	<.04
		TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TOLUENE D8 SURROG VOC UNFLTRD REC (PERCENT) (99833)	TOLUENE O-ETHYL WATER UNFLTRD RECOVER (UG/L) (77220)	TOLUENE P-CHLOR WATER UNFLTRD REC (UG/L) (77277)	TOLUENE TOTAL (UG/L) (34010)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	VINYL CHLO- RIDE TOTAL (UG/L) (39175)	RADON 222 TOTAL (PCI/L) (82303)
		<.03	102	<.06	<.05	<.05	<.09	<.04	<.09	<.1	550
							RADON 222, 2X CL, SS MDC, WATER, WATER, UNFLTRD (PCI/L) (99327)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)		
						27.0	28	.06			

< Actual value is known to be less than the value shown.



QUALITY OF GROUND WATER DATA

CARROLL COUNTY, MARYLAND

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geo-logic unit	Station type	SAMPLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH OF WELL, TOTAL (FEET) (72008)		
CL Ac 68	08-13-02	1000	394030077383101	ENVIRONMENTAL	231NOXF	GW	8030	540	115		
CL Cd 181	08-06-02	1400	393444077021201	ENVIRONMENTAL	300SMCK	GW	8030	650	165		
CL Ec 106	07-23-02	1430	392345077082701	ENVIRONMENTAL	300MRBG	GW	8030	760	260		
		DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT) (72015)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	FLOW RATE (G/M) (00059)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (MG/L) (00300)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
CL Ac 68	08-13-02	115	18	31	5.0	4.4	7.2	324	14.5	150	43.6
CL Cd 181	08-06-02	165	50	25	5.0	5.3	6.4	744	14.7	320	105
CL Ec 106	07-23-02	360	28	27	3.0	8.6	5.4	160	13.8	57	10.7
		MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS-TOT IT FIELD (MG/L AS CACO3) (39086)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00608)
CL Ac 68	08-13-02	9.76	.48	8.05	112	137	11.5	.12	21.1	17.0	E.03
CL Cd 181	08-06-02	14.3	1.70	21.1	143	174	118	E.07	19.1	27.7	<.04
CL Ec 106	07-23-02	7.43	1.00	3.76	6	7	15.6	<.10	5.3	11.3	<.04
		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)	COLOR (PLAT-INUM COBALT UNITS) (00080)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (MG/L AS AS) (01000)	BERYL-LIUM, DIS-SOLVED (MG/L AS BE) (01010)
CL Ac 68	08-13-02	<.008	4.11	.06	.06	.178	<1	209	197	.8	<.06
CL Cd 181	08-06-02	<.008	5.58	E.04	.03	.098	<1	576	417	<.2	<.06
CL Ec 106	07-23-02	<.008	6.96	E.03	.02	.058	<1	109	89	<.2	E.04
		IRON, DIS-SOLVED (UG/L AS FE) (01046)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	THAL-LIUM, DIS-SOLVED (UG/L AS TL) (01057)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
CL Ac 68	08-13-02	<10	60	.12	<2.0	E1.4	<.01	<.04	<.6	15	<.006
CL Cd 181	08-06-02	<10	<10	.89	<2.0	<2.4	<.01	<.04	E.6	115	<.006
CL Ec 106	07-23-02	<10	M	1.61	30.0	28.4	E.01	<.04	<.6	60	<.006
		ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ALPHA-HCH, D6 SUR SCD 1379 WTR, FLTRD, PERCENT (90505)	AMETRYN WATER, DISS, REC, (UG/L) (38401)	ATRA-ZINE, WATER, DISS, REC, (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BUTA-CHLOR, WATER, DISS, REC (UG/L) (04026)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)
CL Ac 68	08-13-02	<.006	<.004	<.005	78.7	<.05	E.004	<.010	<.05	<.05	<.002
CL Cd 181	08-06-02	<.006	<.004	<.005	78.7	<.05	.215	<.010	<.05	<.05	<.002
CL Ec 106	07-23-02	<.006	<.004	<.005	82.8	<.05	.173	<.010	<.05	<.05	<.002

E Estimated value.  
 < Actual value is known to be less than the value shown.  
 M Presence of material verified but not quantified.

Geologic Unit (aquifer): 231NOXF - New Oxford Formation  
 300MRBG - Marburg Formation  
 300SMCK - Sams Creek Metabasalt

Station Type: GW - Ground Water

Sampling Method: 8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER DATA

CARROLL COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	CAR-BARYL WATER FLTRD 0.7 U (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U (UG/L) (82674)	CAR-BOXIN, DISS, REC (UG/L) (04027)	CHLOR-PYRIFOS, DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	CY-CLOATE, WATER, DISS, REC (UG/L) (04031)	DCPA WATER FLTRD 0.7 U (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DEISO-PROPYL ATRAZIN, WATER, DISS, REC (UG/L) (04038)	DIAZ-INON D10 SRG WAT FLT 0.7 U GF, REC PERCENT (91063)
		CL Ac 68	08-13-02	<.041	<.020	<.05	<.005	<.018	<.05	<.003	<.05
CL Cd 181	08-06-02	<.041	<.020	<.05	<.005	<.018	<.05	<.003	.17	.17	101
CL Ec 106	07-23-02	E.010	<.020	<.05	<.005	<.018	<.05	<.003	.39	.08	129
		DIAZI-NON D10 SUR SCD 1379 WTR, FLTRD PERCENT (90670)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN, DIS-SOLVED (UG/L) (39381)	DIPHEN-AMID, WATER, DISS, REC (UG/L) (04033)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT (UG/L) (82663)	ETHO-PROP ALIN WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOFOS WATER DISS REC (UG/L) (04095)	HCH ALPHA D6 SRG WAT FLT 0.7 U GF, REC PERCENT (91065)
CL Ac 68	08-13-02	85.6	<.005	<.005	<.05	<.02	<.002	<.009	<.005	<.003	99.0
CL Cd 181	08-06-02	84.5	<.005	<.005	<.05	<.02	<.002	<.009	<.005	<.003	102
CL Ec 106	07-23-02	87.8	<.005	<.005	<.05	<.02	<.002	<.009	<.005	<.003	95.2
		HEXA-ZINONE, WATER, DISS, REC (UG/L) (04025)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METHYL PARA-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
CL Ac 68	08-13-02	<.05	<.004	<.035	<.027	<.050	<.006	E.003	<.006	<.002	<.007
CL Cd 181	08-06-02	<.05	<.004	<.035	<.027	<.050	<.006	E.004	<.006	<.002	<.007
CL Ec 106	07-23-02	<.05	<.004	<.035	<.027	<.050	<.006	.078	<.006	<.002	<.007
		P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PEB-ULATE WATER FLTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRO-METRYN, WATER, DISS, REC (UG/L) (04036)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)
CL Ac 68	08-13-02	<.003	<.010	<.004	<.022	<.006	<.011	E.01	<.05	<.004	<.010
CL Cd 181	08-06-02	<.003	<.010	<.004	<.022	<.006	<.011	E.01	<.05	<.004	<.010
CL Ec 106	07-23-02	<.003	<.010	<.004	<.022	<.006	<.011	<.01	<.05	<.004	<.010
		PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PROP-AZINE WATER DISS REC (UG/L) (38535)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	SIMA-TRYN, WATER, DISS, REC (UG/L) (04030)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL, WATER, DISS, REC (UG/L) (04032)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
CL Ac 68	08-13-02	<.011	<.02	<.05	<.005	<.05	<.02	<.05	<.034	<.02	<.005
CL Cd 181	08-06-02	<.011	<.02	<.05	.178	<.05	<.02	<.05	<.034	<.02	<.005
CL Ec 106	07-23-02	<.011	<.02	E.01	.033	<.05	<.02	<.05	<.034	<.02	<.005
		TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN, WATER, DISS, REC (UG/L) (04023)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	VERNO-LATE, WATER, DISS, REC (UG/L) (04034)	XYLENE WATER UNFLTRD REC (UG/L) (81551)	BENZENE 14BRFL-SURROG VOC UNFLTRD REC PERCENT (99834)	BENZENE TOTAL (UG/L) (34030)	ETHANE 12DICL SURROG VOC UNFLTRD REC PERCENT (99832)	ETHYL-BENZENE TOTAL (UG/L) (34371)	METHYL TERT-BUTYL ETHER WAT UNF REC (UG/L) (78032)
CL Ac 68	08-13-02	<.002	<.05	<.009	<.05	<.2	93.2	<.2	119	<.2	<.2
CL Cd 181	08-06-02	<.002	<.05	<.009	<.05	<.2	77.9	<.2	125	<.2	.3
CL Ec 106	07-23-02	<.002	<.05	<.009	<.05	<.2	72.4	<.2	125	<.2	<.2
		META/PARA-XYLENE WATER UNFLTRD REC (UG/L) (85795)	O-XYLENE WATER WHOLE TOTAL (UG/L) (77135)	TOLUENE D8 SURROG VOC UNFLTRD REC PERCENT (99833)	TOLUENE TOTAL (UG/L) (34010)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS-SOLVED (PCI/L) (03515)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)
CL Ac 68	08-13-02	<.2	<.2	100	<.2	1.6	M	1.8	M	1590	38
CL Cd 181	08-06-02	<.2	<.2	98.2	<.2	4.3	1	2.9	6	60	19
CL Ec 106	07-23-02	<.2	<.2	96.3	<.2	.66	M	.95	2	2400	46

E Estimated value.  
 < Actual value is known to be less than the value shown.  
 M Presence of material verified but not quantified.

QUALITY OF GROUND WATER DATA

CECIL COUNTY, MARYLAND

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geologic unit	Station type	SAMPLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH OF WELL, TOTAL (FEET) (72008)			
CE Ad 69	07-17-02	1355	394130075570501	BLANK ENVIRONMENTAL	-- 300MGAB	GW	-- 8030	420	240			
	07-17-02	1400				GW		420	240			
			DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTERVAL (FT) (72015)	PUMP OR FLOW PERIOD TO SAMPLING (MIN) (72004)	PH WATER WHOLE FIELD (STANDARD) (MG/L) (00400)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE WATER (DEG C) (00010)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM DISSOLVED (MG/L AS Ca) (00915)		
	07-17-02	--	--	--	--	--	--	--	--	.03		
	07-17-02	240	84	25	3.0	9.0	5.6	95	13.6	23	5.58	
			MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	ALKALINITY WATER TOTAL FIELD (MG/L AS CaCO3) (39086)	BICARBONATE WATER DISSOLVED FIELD (MG/L AS HCO3) (00453)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SiO2) (00955)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	NITROGEN, DISSOLVED AMMONIA (MG/L AS N) (00608)
	07-17-02	E.007	<.10	<.09	--	--	<.30	<.1	<.2	<.1	<.04	
	07-17-02	2.28	1.34	8.88	22	27	5.15	<.1	27.6	1.0	<.04	
			NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	ORTHOPHOSPHATE, DISSOLVED (MG/L AS P) (00671)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4) (00660)	COLOR (PLATINUM-COBALT) (PCU) (00080)	SOLIDS, RESIDUE AT 180 DEG. C (00300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (00301)	ARSENIC DISSOLVED (MG/L AS AS) (01000)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)
	07-17-02	<.008	<.05	<.06	<.02	--	<1	<10	--	<.2	<.06	
	07-17-02	<.008	3.73	<.06	.02	.055	2	75	82	E.1	.14	
			IRON, DISSOLVED (UG/L AS FE) (01046)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MERCURY DISSOLVED (UG/L AS HG) (01057)	THALIUM, DISSOLVED (UG/L AS TL) (01057)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	2,6-DIETHYL ANILINE WATER FILTERED (UG/L AS GF) (82660)
	07-17-02	<10	<10	<.08	E1.5	<2.4	E.01	<.04	--	--	<.006	
	07-17-02	E10	20	1.24	9.9	9.4	<.01	<.04	<.6	115	<.006	
			ACETOCHLOR, WATER FILTERED REC (UG/L) (49260)	ALACHLOR, WATER, DISS, REC, SOLVED (UG/L) (46342)	ALPHA BHC, DISSOLVED (UG/L) (34253)	ALPHA SUR SCDD, WTR, FLTRD, PERCENT (UG/L) (90505)	AMETRYN, WATER, REC, (UG/L) (38401)	ATRAZINE, WATER, REC (UG/L) (39632)	BENFLURALIN, 0.7 U GF, REC (UG/L) (82673)	BROMACIL, WATER, REC (UG/L) (04029)	BUTACHLOR, WATER, REC (UG/L) (04026)	BUTYLATE, WATER, DISS, REC (UG/L) (04028)
	07-17-02	<.006	<.004	<.005	82.8	<.05	<.007	<.010	<.05	<.05	<.002	
	07-17-02	<.006	<.004	<.005	77.2	<.05	<.007	<.010	<.05	<.05	<.002	

E Estimated value.

< Actual value is known to be less than the value shown.

Geologic Unit (aquifer): 300MGAB - Metagrawaywacke with Amphibolite of Wissahickon (?) Formation

Station Type: GW - Ground Water

Sampling Method: 8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER DATA

CECIL COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	CAR-BARYL WATER FLTRD 0.7 U GF, REC (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (82674)	CAR-BOXIN, WATER, DISS, SOLVED (04027)	CHLOR-PYRIFOS, DIS-SOLVED (38933)	CYANA-ZINE, WATER, DISS, REC (04041)	CY-CLOATE, WATER, DISS, REC (04031)	DCPA WATER FLTRD 0.7 U GF, REC (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (04040)	DEISO-PROPYL ATRAZIN, WATER, DISS, REC (04038)	DIAZ-INON D10 SRG WAT FLT 0.7 U GF, REC (91063)
CE Ad 69	07-17-02	<.041	<.020	<.05	<.005	<.018	<.05	<.003	<.05	<.05	91.1
	07-17-02	<.041	E.055	<.05	<.005	<.018	<.05	<.003	.08	<.05	91.0
		DIAZI-NON D10 SUR SCD 1379 WTR, FLTRD PERCENT (90670)	DI-AZINON, DIS-SOLVED (39572)	DI-ELDRIN, DIS-SOLVED (39381)	DIPHEN-AMID, WATER, DISS, REC (04033)	DISUL-FOTON, WATER, FLTRD 0.7 U GF, REC (82677)	EPTC WATER FLTRD 0.7 U GF, REC (82668)	ETHAL-FLUR-ALIN, WAT FLT 0.7 U GF, REC (82663)	ETHO-PROP ALIN, WATER, FLTRD 0.7 U GF, REC (82672)	FONOFOS WATER, DISS, REC (04095)	HCH ALPHA D6 SRG WAT FLT 0.7 U GF, REC (91065)
	07-17-02	88.1	<.005	<.005	<.05	<.02	<.002	<.009	<.005	<.003	77.7
	07-17-02	86.2	<.005	<.005	<.05	<.02	<.002	<.009	<.005	<.003	78.6
		HEXA-ZINONE, WATER, DISS, REC (04025)	LINDANE DIS-SOLVED (39341)	LIN-URON, WATER, FLTRD 0.7 U GF, REC (82666)	MALA-THION, DIS-SOLVED (39532)	METHYL AZIN-PHOS, WAT FLT 0.7 U GF, REC (82686)	METHYL PARA-THION, WAT FLT 0.7 U GF, REC (82667)	METO-LACHLOR, WATER, DISSOLV (39415)	METRI-BUZIN, WATER, DISSOLV (82630)	MOL-INATE, WATER, FLTRD 0.7 U GF, REC (82671)	NAPROP-AMIDE, WATER, FLTRD 0.7 U GF, REC (82684)
	07-17-02	<.05	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
	07-17-02	<.05	<.004	<.035	<.027	<.050	<.006	.824	<.006	<.002	<.007
		P, P' DDE DISSOLV (34653)	PARA-THION, DIS-SOLVED (39542)	PEB-ULATE, WATER, FLTRD 0.7 U GF, REC (82669)	PENDI-METH-ALIN, WAT FLT 0.7 U GF, REC (82683)	PER-METHRIN, CIS, WAT FLT 0.7 U GF, REC (82687)	PHORATE, WATER, FLTRD 0.7 U GF, REC (82664)	PRO-METON, WATER, DISS, REC (04037)	PRO-METRYN, WATER, DISS, REC (04036)	PRON-AMIDE, WATER, FLTRD 0.7 U GF, REC (82676)	PROPA-CHLOR, WATER, DISS, REC (04024)
	07-17-02	<.003	<.010	<.004	<.022	<.006	<.011	<.01	<.05	<.004	<.010
	07-17-02	<.003	<.010	<.004	<.022	<.006	<.011	<.01	<.05	<.004	<.010
		PRO-PANIL, WATER, FLTRD 0.7 U GF, REC (82679)	PRO-PARGITE, WATER, FLTRD 0.7 U GF, REC (82685)	PROP-AZINE, WATER, DISS (38535)	SI-MAZINE, WATER, DISS (04035)	SIMA-TRYN, WATER, DISS (04030)	TEBU-THIURON, WATER, FLTRD 0.7 U GF, REC (82670)	TER-BACIL, WATER, DISS (04032)	TER-BACIL, WATER, FLTRD 0.7 U GF, REC (82665)	TER-BUFOS, WATER, FLTRD 0.7 U GF, REC (82675)	THIO-BENCARB, WATER, FLTRD 0.7 U GF, REC (82681)
	07-17-02	<.011	<.02	<.05	<.005	<.05	<.02	<.05	<.034	<.02	<.005
	07-17-02	<.011	<.02	<.05	<.005	<.05	<.02	<.05	<.034	<.02	<.005
		TRIAL-LATE, WATER, FLTRD 0.7 U GF, REC (82678)	TRI-FLUR-ALIN, WATER, DISS, REC (04023)	TRI-FLUR-ALIN, WAT FLT 0.7 U GF, REC (82661)	VERNO-LATE, WATER, DISS, REC (04034)	XYLENE, WATER, UNFLTRD REC (81551)	BENZENE 14BRFL-SURROG VOC, UNFLTRD REC (99834)	ETHANE 12DICL SURROG VOC, UNFLTRD REC (99832)	ETHYL-BENZENE, TOTAL (34371)	METHYL TERT-BUTYL ETHER, WAT UNF REC (78032)	
	07-17-02	<.002	<.05	<.009	<.05	<.2	73.0	<.2	140	<.2	<.2
	07-17-02	<.002	<.05	<.009	<.05	<.2	71.1	<.2	149	<.2	<.2
		META/PARA-XYLENE, WATER, UNFLTRD REC (85795)	O-XYLENE, WATER, WHOLE TOTAL (77135)	TOLUENE D8 SURROG VOC, UNFLTRD REC (99833)	TOLUENE TOTAL (34010)	ALPHA RADIO, 2 SIGMA WAT DIS AS, TH-230 (75987)	ALPHA RADIO, 2 SIGMA WAT DIS AS, TH-230 (04126)	BETA, 2 SIGMA WAT, DISS, AS (75989)	GROSS BETA, DIS-SOLVED, (PCI/L) AS (03515)	RN-222 2 SIGMA WAT, WHOLE, TOTAL, (PCI/L) (76002)	
	07-17-02	<.2	<.2	97.4	.2	.26	M	.81	M	--	--
	07-17-02	<.2	<.2	100	<.2	.63	M	1.0	3	4230	59

< Actual value is known to be less than the value shown.  
E Estimated value.  
M Presence of material verified but not quantified.

QUALITY OF GROUND WATER DATA

DORCHESTER COUNTY, MARYLAND

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geo-logic unit	Station type	SAMPLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM ABOVE NGVD) (72000)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)			
DO Cf 36	10-10-01	1100	383225075565002	ENVIRONMENTAL	112CLMB	GW	4040	22	7.44			
	10-10-01	1110		REPLICATE	112CLMB	GW	4040	22	--			
	10-10-01	1200		BLANK	--	GW	4040	--	--			
DO Ch 1	11-13-01	1100	383051075495601	ENVIRONMENTAL	211CRCSU	GW	4040	15	--			
	11-13-01	1105		REPLICATE	211CRCSU	GW	4040	15	--			
	11-13-01	1230		BLANK	--	GW	4040	--	--			
			DEPTH TO BOT- TOM OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72016)	PUMP OR FLOW PERIOD TO SAM- PLING (MIN) (72004)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH WATER FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)			
DO Cf 36	10-10-01	16	16	13	40	.26	777	10	.9	4.5	197	
	10-10-01	16	--	--	--	--	--	--	--	--	--	
	10-10-01	--	--	--	--	--	--	--	--	--	--	
DO Ch 1	11-13-01	41	41	--	50	.53	779	90	9.2	5.0	255	
	11-13-01	41	--	--	--	--	--	--	--	--	--	
	11-13-01	--	--	--	--	--	--	--	--	--	--	
			TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	ALKA- LINITY WAT DIS- TOT IT FIELD CACO3 (39086)	BICAR- BONATE WATER DIS- IT FIELD HCO3 (00453)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
DO Cf 36	10-10-01	27.0	20.0	29	5.90	3.45	4.62	22.4	3	4	10.9	
	10-10-01	--	--	--	--	--	--	--	--	--	--	
	10-10-01	--	--	--	<.01	<.008	<.10	<.09	--	--	<.30	
DO Ch 1	11-13-01	20.0	15.5	94	15.5	13.5	3.16	4.76	3	4	19.2	
	11-13-01	--	--	--	--	--	--	--	--	--	--	
	11-13-01	--	--	--	.01	E.005	<.10	<.09	--	--	<.30	
			FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, AM- MONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)
DO Cf 36	10-10-01	<.1	E.02	8.73	39.5	<.04	.26	<.008	7.5	7.24	<.02	
	10-10-01	--	--	--	--	--	--	--	--	--	--	
	10-10-01	<.1	<.03	<.13	<.1	<.04	<.10	<.008	--	<.05	<.02	
DO Ch 1	11-13-01	<.1	.04	13.9	28.1	<.04	E.07	<.008	--	13.3	<.02	
	11-13-01	--	--	--	--	--	--	--	--	--	--	
	11-13-01	<.1	<.03	<.13	<.1	<.04	<.10	<.008	--	E.03	<.02	

E Estimated value.

< Actual value is known to be less than the value shown.

Geologic Unit (aquifer): 112CLMB - Columbia Formation  
211CRCSU - Upper Cretaceous Formation

Station Type: GW - Ground Water

Sampling Method: 4040 - Submersible pump

## QUALITY OF GROUND WATER DATA

DORCHESTER COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	SOLIDS, RESIDUE AT 180 DEG. C	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED	ALUMINUM, DIS-SOLVED	ANTIMONY, DIS-SOLVED	ARSENIC, DIS-SOLVED	BARIUM, DIS-SOLVED	BERYLLIUM, DIS-SOLVED	BORON, DIS-SOLVED	CADMIUM, DIS-SOLVED	CHROMIUM, DIS-SOLVED
		(MG/L) (70300)	(MG/L) (70301)	(UG/L) (AS AL) (01106)	(UG/L) (AS SB) (01095)	(UG/L) (AS AS) (01000)	(UG/L) (AS BA) (01005)	(UG/L) (AS BE) (01010)	(UG/L) (AS B) (01020)	(UG/L) (AS CD) (01025)	(UG/L) (AS CR) (01030)
DO Cf 36	10-10-01	132	130	104	E.04	.4	51	.32	95	.43	1.1
	10-10-01	--	--	--	--	--	--	--	--	--	--
	10-10-01	<10	--	<1	<.05	<.2	<1	<.06	<7	<.04	<.8
DO Ch 1	11-13-01	150	159	6	<.05	E.2	144	.14	11	.17	1.6
	11-13-01	--	--	--	--	--	--	--	--	--	--
	11-13-01	<10	--	10	E.03	<.2	<1	<.06	<7	<.04	<.8
		COBALT, DIS-SOLVED	COPPER, DIS-SOLVED	IRON, DIS-SOLVED	LEAD, DIS-SOLVED	LITHIUM, DIS-SOLVED	MANGANESE, DIS-SOLVED	MOLYBDENUM, DIS-SOLVED	NICKEL, DIS-SOLVED	SELENIUM, DIS-SOLVED	SILVER, DIS-SOLVED
		(UG/L) (AS CO) (01035)	(UG/L) (AS CU) (01040)	(UG/L) (AS FE) (01046)	(UG/L) (AS PB) (01049)	(UG/L) (AS LI) (01130)	(UG/L) (AS MN) (01056)	(UG/L) (AS MO) (01060)	(UG/L) (AS NI) (01065)	(UG/L) (AS SE) (01145)	(UG/L) (AS AG) (01075)
DO Cf 36	10-10-01	21.4	2.0	11	1.36	2.3	12.1	<.2	17.1	.7	<1
	10-10-01	--	--	--	--	--	--	--	--	--	--
	10-10-01	E.01	E.1	<10	E.07	<.3	.2	<.2	.20	<.3	<1
DO Ch 1	11-13-01	5.32	22.4	47	.55	3.7	11.8	<.2	3.02	1.3	<1
	11-13-01	--	--	--	--	--	--	--	--	--	--
	11-13-01	<.02	E.2	E5	<.08	<.3	.4	<.2	.09	<.3	<1
		STRONTIUM, DIS-SOLVED	THALLIUM, DIS-SOLVED	VANADIUM, DIS-SOLVED	ZINC, DIS-SOLVED	CARBON, ORGANIC, DIS-SOLVED	2,4,5-T SURROG WATER, FLTRD REC	2,4-D METHYL ESTER, WATER, FLTRD REC	2,4-D, DIS-SOLVED	2,4-DB WATER, FLTRD REC	2,6-DI-ETHYL ANILINE, WAT FLT GF, REC
		(UG/L) (AS SR) (01080)	(UG/L) (AS TL) (01057)	(UG/L) (AS V) (01085)	(UG/L) (AS ZN) (01090)	(MG/L) (AS C) (00681)	PERCENT (99958)	(UG/L) (50470)	(UG/L) (39732)	(UG/L) (38746)	(UG/L) (82660)
DO Cf 36	10-10-01	59.5	.10	1.9	52	2.2	94.3	<.009	<.02	<.02	<.002
	10-10-01	--	--	--	--	--	--	--	--	--	<.002
	10-10-01	<.08	<.04	E.1	<1	--	--	--	--	--	--
DO Ch 1	11-13-01	213	<.04	.3	17	.8	94.3	<.009	<.02	<.02	<.002
	11-13-01	--	--	--	--	.6	--	--	--	--	--
	11-13-01	<.08	<.04	<.2	<1	--	--	--	--	--	--
		3HYDRXY CARBO-FURAN WAT,FLT REC	3-KETO CARBO-FURAN WATER, FLTRD REC	ACETO-CHLOR ESA FLTRD GF REC	ACETO-CHLOR OA FLTRD GF REC	ACETO-CHLOR, WATER, FLTRD REC	ACIFLUORFEN WATER, FLTRD GF REC	ALA-CHLOR OA FLTRD GF REC	ALA-CHLOR ESA WATER, FLTRD REC	ALDI-CARB SULFONE, WAT,FLT REC	
		(UG/L) (49308)	(UG/L) (50295)	(UG/L) (61029)	(UG/L) (61030)	(UG/L) (49260)	(UG/L) (49315)	(UG/L) (61031)	(UG/L) (50009)	(UG/L) (46342)	(UG/L) (49313)
DO Cf 36	10-10-01	<.006	<2	<.05	<.05	<.004	<.007	<.05	<.05	<.002	<.02
	10-10-01	--	--	<.05	<.05	<.004	--	<.05	<.05	<.002	--
	10-10-01	--	--	--	--	--	--	--	--	--	--
DO Ch 1	11-13-01	<.006	<2	<.05	<.05	<.004	<.007	<.05	1.66	<.002	<.02
	11-13-01	--	--	--	--	--	--	--	--	--	--
	11-13-01	--	--	--	--	--	--	--	--	--	--

E Estimated value.

&lt; Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

DORCHESTER COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	ALDICA- RB SUL- FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ALDI- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	BARBAN SURROG- ATE WTR FLT SCF 2060, REC 9060 RE PERCENT (90640)	BENDIO- CARB, WATER FLTRD REC (UG/L) (50299)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BENOMYL WATER FLTRD REC (UG/L) (50300)	BEN- SUL- FURON METHYL WAT FLT REC (UG/L) (61693)	BENTA- ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)
DO Cf 36	10-10-01 10-10-01 10-10-01	<.008 -- --	<.04 -- --	<.005 <.005 --	.007 .008 --	143 -- --	<.03 -- --	<.010 <.010 --	<.004 -- --	<.02 -- --	<.01 -- --
DO Ch 1	11-13-01 11-13-01 11-13-01	<.008 -- --	<.04 -- --	<.005 -- --	.033 -- --	47.7 -- --	<.03 -- --	<.010 -- --	<.004 -- --	<.02 -- --	E.02 -- --
		BRO- MACIL, WATER, DISS, REC (UG/L) (04029)	BRO- MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAF- FEINE, WATER FLTRD REC (UG/L) (50305)	CAF- FEINE- C13 SURROG WAT FLT REC PERCENT (99959)	CAR- BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- AMBEN, METHYL ESTER WATER FLTRD (UG/L) (61188)
DO Cf 36	10-10-01 10-10-01 10-10-01	<.03 -- --	<.02 -- --	<.002 <.002 --	<.010 -- --	E133 -- --	<.03 -- --	<.041 <.041 --	<.006 -- --	<.020 <.020 --	<.02 -- --
DO Ch 1	11-13-01 11-13-01 11-13-01	<.03 -- --	<.02 -- --	<.002 -- --	<.010 -- --	88.0 -- --	<.03 -- --	<.041 -- --	<.006 -- --	<.020 -- --	<.02 -- --
		CHLORI- MURON, WATER FLTRD REC (UG/L) (50306)	CHLORO- THALO- NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CLOPYR- ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	CY- CLOATE, WATER, DISS, REC (UG/L) (04031)	DACTHAL MONO- ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DEETHYL DEISO- PROPYL ATRAZIN DISS, REC (UG/L) (04039)
DO Cf 36	10-10-01 10-10-01 10-10-01	<.010 -- --	<.04 -- --	<.005 <.005 --	<.01 -- --	<.018 <.018 --	<.01 -- --	<.01 -- --	<.003 <.003 --	E.005 E.005 --	<.01 -- --
DO Ch 1	11-13-01 11-13-01 11-13-01	<.010 -- --	<.04 -- --	<.005 -- --	<.01 -- --	<.018 -- --	<.01 -- --	<.01 -- --	<.003 -- --	E.186 -- --	E.16 -- --
		DEISO- PROPYL ATRAZIN WATER, DISS, REC (UG/L) (04038)	DIAZ- INON D10 SRG WAT FLT 0.7 U GF, REC PERCENT (91063)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	DIMETH- ENAMID WATER FLT, REC (UG/L) (62482)	DIMETH- ENAMID, ESA, WAT FLT (UG/L) (61951)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DIPHEN- AMID, WATER, DISS, REC (UG/L) (04033)
DO Cf 36	10-10-01 10-10-01 10-10-01	<.04 -- --	94.6 98.2 --	<.005 <.005 --	<.01 -- --	<.01 -- --	<.005 <.005 --	<.05 <.05 --	<.05 <.05 --	<.01 -- --	<.03 -- --
DO Ch 1	11-13-01 11-13-01 11-13-01	E.03 -- --	96.3 -- --	<.005 -- --	<.01 -- --	<.01 -- --	<.005 -- --	<.05 -- --	<.05 -- --	<.01 -- --	<.03 -- --

E Estimated value.  
< Actual value is known to be less than the value shown.

## QUALITY OF GROUND WATER DATA

DORCHESTER COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	DISUL- FOTON WATER FLTRD, 0.7 U GF, REC (UG/L) (82677)	DIURON, WATER, FLTRD, 0.7U GF, REC (UG/L) (49300)	EPTC WATER FLTRD, 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD, 0.7 U GF, REC (UG/L) (82672)	FEN- URON, WATER, FLTRD, 0.7U GF, REC (UG/L) (49297)	FLUFEN- ACET, WATER FLTRD, 0.7U GF, REC (UG/L) (61952)	FLUFE- NACET OA, WATER FLTRD, 0.7U GF, REC (UG/L) (62483)	FLUMET- SULAM WATER FLTRD, 0.7U GF, REC (UG/L) (61694)	FLUO- METURON WATER, FLTRD, 0.7U GF, REC (UG/L) (38811)
		DO Cf 36	10-10-01 10-10-01 10-10-01	<.02 <.02 --	<.01 -- --	<.002 <.002 --	<.009 <.009 --	<.005 <.005 --	<.03 -- --	<.05 <.05 --	<.05 <.05 --
DO Ch 1	11-13-01 11-13-01 11-13-01	<.02 -- --	<.01 -- --	<.002 -- --	<.009 -- --	<.005 -- --	<.03 -- --	<.05 -- --	<.05 -- --	<.01 -- --	<.03 -- --
		FONOFOS WATER DISS REC (UG/L) (04095)	HCH ALPHA D6 SRG WAT FLT 0.7 U GF, REC PERCENT (91065)	HYDROXY ZINE WATER FLTRD REC (UG/L) (50355)	IMAZ- AQUIN WATER FLTRD REC (UG/L) (50356)	IMAZE- THAPYR WATER FLTRD REC (UG/L) (50407)	IMID- ACLOP- RID WATER FLTRD REC (UG/L) (61695)	LINDANE DIS- SOLVED (UG/L) (39341)	LINURON WATER, FLTRD, 0.7U GF, REC (UG/L) (38478)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)
DO Cf 36	10-10-01 10-10-01 10-10-01	<.003 <.003 --	89.3 93.8 --	<.008 -- --	<.02 -- --	<.02 -- --	<.007 -- --	<.004 <.004 --	<.01 -- --	<.035 <.035 --	<.027 <.027 --
DO Ch 1	11-13-01 11-13-01 11-13-01	<.003 -- --	93.5 -- --	E.009 -- --	<.02 -- --	<.02 -- --	<.007 -- --	<.004 -- --	<.01 -- --	<.035 -- --	<.027 -- --
		MCPA, WATER, FLTRD, 0.7U GF, REC (UG/L) (38482)	MCPB, WATER, FLTRD, 0.7U GF, REC (UG/L) (38487)	METAL- AXYL WATER FLTRD REC (UG/L) (50359)	METHIO- CARB, WATER, FLTRD, 0.7U GF, REC (UG/L) (38501)	METH- OMYL, OXIME WATER FLTRD REC (UG/L) (61696)	METH- OMYL, WATER, FLTRD, 0.7U GF, REC (UG/L) (49296)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THON WAT FLT 0.7 U GF, REC (UG/L) (82667)	METOLA- CHLOR ESA FLTRD 0.7 UM GF REC (UG/L) (61043)	METOLA- CHLOR OA FLTRD 0.7 UM GF REC (UG/L) (61044)
DO Cf 36	10-10-01 10-10-01 10-10-01	<.02 -- --	<.01 -- --	<.02 -- --	<.008 -- --	<.01 -- --	<.004 -- --	<.050 <.050 --	<.006 <.006 --	.12 .10 --	<.05 <.05 --
DO Ch 1	11-13-01 11-13-01 11-13-01	<.02 -- --	<.01 -- --	<.02 -- --	<.008 -- --	<.01 -- --	<.004 -- --	<.050 -- --	<.006 -- --	12.0 -- --	1.57 -- --
		METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	MET- SUL- FURON METHYL WAT FLT REC (UG/L) (61697)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	NEB- URON, WATER, FLTRD, 0.7U GF, REC (UG/L) (49294)	NICOSUL FURON WATER FLTRD REC (UG/L) (50364)	NORFLUR AZON, WATER, FLTRD, 0.7U GF, REC (UG/L) (49293)	ORY- ZALIN, WATER, FLTRD, 0.7U GF, REC (UG/L) (49292)	OXAMYL OXIME WATER FLTRD REC (UG/L) (50410)
DO Cf 36	10-10-01 10-10-01 10-10-01	E.007 E.007 --	<.006 <.006 --	<.03 -- --	<.002 <.002 --	<.007 <.007 --	<.01 -- --	<.01 -- --	<.02 -- --	<.02 -- --	<.01 -- --
DO Ch 1	11-13-01 11-13-01 11-13-01	.735 -- --	<.006 -- --	<.03 -- --	<.002 -- --	<.007 -- --	<.01 -- --	<.01 -- --	<.02 -- --	<.02 -- --	<.01 -- --

E Estimated value.

&lt; Actual value is known to be less than the value shown.



QUALITY OF GROUND WATER DATA

DORCHESTER COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	P, P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS- SOLVED (UG/L) (39542)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD GF, REC (UG/L) (82664)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)
DO Cf 36	10-10-01	<.01	<.003	<.007	<.002	<.010	<.006	<.011	<.02	E.01	<.004
	10-10-01	--	<.003	<.007	<.002	<.010	<.006	<.011	--	.02	<.004
	10-10-01	--	--	--	--	--	--	--	--	--	--
DO Ch 1	11-13-01	<.01	<.003	<.007	<.002	<.010	<.006	<.011	<.02	<.01	<.004
	11-13-01	--	--	--	--	--	--	--	--	--	--
	11-13-01	--	--	--	--	--	--	--	--	--	--
DO Cf 36	10-10-01	<.010	<.011	<.02	<.010	<.02	<.008	<.02	<.011	<.009	<.02
	10-10-01	<.010	<.011	<.02	--	--	--	--	<.011	--	<.02
	10-10-01	--	--	--	--	--	--	--	--	--	--
DO Ch 1	11-13-01	<.010	<.011	<.02	<.010	<.02	<.008	<.02	<.011	<.009	<.02
	11-13-01	--	--	--	--	--	--	--	--	--	--
	11-13-01	--	--	--	--	--	--	--	--	--	--
DO Cf 36	10-10-01	<.010	<.034	<.02	<.005	<.002	<.009	<.02	<.009	<.02	--
	10-10-01	--	<.034	<.02	<.005	<.002	--	--	<.009	--	--
	10-10-01	--	--	--	--	--	--	--	--	--	--
DO Ch 1	11-13-01	<.010	<.034	<.02	<.005	<.002	<.009	<.02	<.009	<.02	<.03
	11-13-01	--	--	--	--	--	--	--	--	--	--
	11-13-01	--	--	--	--	--	--	--	--	--	--
DO Cf 36	10-10-01	--	--	--	--	--	--	--	--	--	--
	10-10-01	--	--	--	--	--	--	--	--	--	--
	10-10-01	--	--	--	--	--	--	--	--	--	--
DO Ch 1	11-13-01	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05
	11-13-01	--	--	--	--	--	--	--	--	--	--
	11-13-01	--	--	--	--	--	--	--	--	--	--

E Estimated value.  
 < Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

DORCHESTER COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	2BUTENE	2-HEXA-	ACETONE	ACRYLO-	1,2,3-	BENZENE	BENZENE	BENZENE	BENZENE	BENZENE
		TRANS-1 4-DI- CHLORO UNFLTRD RECOVER (UG/L) (73547)	NONE WATER WHOLE TOTAL (UG/L) (77103)	WATER WHOLE TOTAL (UG/L) (81552)	NITRILE TOTAL (UG/L) (34215)	CHLORO- BENZENE WAT, WH REC (UG/L) (77613)	TRI- CHLORO METHYL- WATER UNFLTRD WAT UNF REC (UG/L) (77221)	123-TRI METHYL- WATER UNFLTRD WAT UNF REC (UG/L) (34551)	1,2,4- TRI- CHLORO- WATER UNFLTRD WAT UNF REC (UG/L) (77222)	BENZENE METHYL UNFLTRD RECOVER (UG/L) (77222)	135-TRI METHYL WATER UNFLTRD REC (UG/L) (77226)
DO Cf 36	10-10-01	--	--	--	--	--	--	--	--	--	--
	10-10-01	--	--	--	--	--	--	--	--	--	--
	10-10-01	--	--	--	--	--	--	--	--	--	--
DO Ch 1	11-13-01	<.7	<.7	<.7	<.1	<.3	<.1	<.1	<.06	<.04	<.03
	11-13-01	--	--	--	--	--	--	--	--	--	--
	11-13-01	--	--	--	--	--	--	--	--	--	--
		BENZENE 14BRFL- SURROG VOC UNFLTRD REC PERCENT (99834)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	ISO- PROPYL- BENZENE WHOLE REC (UG/L) (77223)	BENZENE N-BUTYL WATER UNFLTRD REC (UG/L) (77342)	BENZENE N-PROPY WATER UNFLTRD REC (UG/L) (77224)	BENZENE O-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	BENZENE SEC BUTYL- WATER UNFLTRD REC (UG/L) (77350)	BENZENE TERT- BUTYL- WATER UNFLTRD REC (UG/L) (77353)	BENZENE TOTAL (UG/L) (34030)	BROMO- BENZENE WHOLE, TOTAL (UG/L) (81555)
DO Cf 36	10-10-01	--	--	--	--	--	--	--	--	--	--
	10-10-01	--	--	--	--	--	--	--	--	--	--
	10-10-01	--	--	--	--	--	--	--	--	--	--
DO Ch 1	11-13-01	88.2	<.05	<.06	<.2	<.04	<.03	<.03	<.05	<.04	<.04
	11-13-01	--	--	--	--	--	--	--	--	--	--
	11-13-01	--	--	--	--	--	--	--	--	--	--
		BROMO- ETHENE WATER UNFLTRD RECOVER (UG/L) (50002)	BROMO- FORM TOTAL (UG/L) (32104)	CARBON DI- SULFIDE WATER WHOLE TOTAL (UG/L) (77041)	CARBON TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- DI- METHANE TOTAL (UG/L) (32105)	CHLORO- ETHANE TOTAL (UG/L) (34311)	CHLORO- FORM TOTAL (UG/L) (32106)	CIS-1,2 DI- CHLORO- ETHENE WATER TOTAL (UG/L) (77093)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)
DO Cf 36	10-10-01	--	--	--	--	--	--	--	--	--	--
	10-10-01	--	--	--	--	--	--	--	--	--	--
	10-10-01	--	--	--	--	--	--	--	--	--	--
DO Ch 1	11-13-01	<.1	<.06	<.07	<.06	<.03	<.2	<.1	E.01	<.04	<.09
	11-13-01	--	--	--	--	--	--	--	--	--	--
	11-13-01	--	--	--	--	--	--	--	--	--	--
		DIBROMO CHLORO- PROPANE WATER WHOLE TOT.REC (UG/L) (82625)	DI- BROMO- METHANE WATER WHOLE RECOVER (UG/L) (30217)	BROMO- DI- CHLORO- METHANE TOTAL (UG/L) (32101)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	DI-ISO- PROPYL- ETHER, WATER, UNFLTRD RECOVER (UG/L) (81577)	ETHANE, 1112- TETRA- CHLORO- WAT UNF REC (UG/L) (77562)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	ETHANE 12DICL SURROG VOC UNFLTRD REC PERCENT (99832)	ETHANE HEXA- CHLORO- WATER UNFLTRD RECOVER (UG/L) (34396)	ETHER ETHYL WATER UNFLTRD RECOVER (UG/L) (81576)
DO Cf 36	10-10-01	--	--	--	--	--	--	--	--	--	--
	10-10-01	--	--	--	--	--	--	--	--	--	--
	10-10-01	--	--	--	--	--	--	--	--	--	--
DO Ch 1	11-13-01	<.5	<.05	<.05	<.18	<.10	<.03	<.09	124	<.2	<.2
	11-13-01	--	--	--	--	--	--	--	--	--	--
	11-13-01	--	--	--	--	--	--	--	--	--	--

E Estimated value.  
 < Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

DORCHESTER COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	ETHER TERT-BUTYL METHYL UNFLTRD RECOVER	ETHER TERT-PENTYL METHYL UNFLTRD RECOVER	ETHYL-BENZENE TOTAL UNFLTRD RECOVER	FREON-113 WATER UNFLTRD REC	FURAN, TETRA-HYDRO-WATER UNFLTRD RECOVER	HEXA-CHLORO-BUT-ADIENE UNFLTRD RECOVER	ISO-DURENE WATER UNFLTRD RECOVER	METHAC- RYLATE ETHYL- WATER UNFLTRD RECOVER	METHAC- RYLATE METHYL WATER UNFLTRD RECOVER	METH-ACRYLO-NITRILE WATER UNFLTRD RECOVER
		(UG/L) (50004)	(UG/L) (50005)	(UG/L) (34371)	(UG/L) (77652)	(UG/L) (81607)	(UG/L) (39702)	(UG/L) (50000)	(UG/L) (73570)	(UG/L) (81597)	(UG/L) (81593)
DO Cf 36	10-10-01 10-10-01 10-10-01	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
DO Ch 1	11-13-01 11-13-01 11-13-01	<.05 -- --	<.08 -- --	<.03 -- --	<.06 -- --	<2 -- --	<.1 -- --	<.2 -- --	<.2 -- --	<.3 -- --	<.6 -- --
		METHANE BROMO-CHLORO-WAT UNFLTRD REC	METHYL ACRY-LATE WATER UNFLTRD RECOVER	METHYL IODIDE WATER UNFLTRD RECOVER	METHYL TERT-BUTYL ETHER WAT UNF REC	METHYL- BROMIDE TOTAL UNFLTRD RECOVER	METHYL- CHLO-RIDE TOTAL UNFLTRD RECOVER	METHYL- ENE CHLO-WATER UNFLTRD RECOVER	METHYL- ETHYL- KETONE WATER WHOLE UNFLTRD RECOVER	METHYL- ISO- BUTYL KETONE WATER WHOLE UNFLTRD RECOVER	META/PARA-XYLENE WATER UNFLTRD REC
		(UG/L) (77297)	(UG/L) (49991)	(UG/L) (77424)	(UG/L) (78032)	(UG/L) (34413)	(UG/L) (34418)	(UG/L) (34423)	(UG/L) (81595)	(UG/L) (78133)	(UG/L) (85795)
DO Cf 36	10-10-01 10-10-01 10-10-01	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
DO Ch 1	11-13-01 11-13-01 11-13-01	<.07 -- --	<2.0 -- --	<.25 -- --	<.2 -- --	<.3 -- --	<.2 -- --	<.2 -- --	<5.0 -- --	<.4 -- --	<.06 -- --
		NAPHTH-ALENE TOTAL UNFLTRD RECOVER	O-CHLORO-TOLUENE WATER WHOLE TOTAL UNFLTRD RECOVER	O-XYLENE WATER WHOLE TOTAL UNFLTRD RECOVER	P-ISO-PROPYL-TOLUENE WATER WHOLE REC UNFLTRD RECOVER	1234-TETRA METHYL-BENZENE UNFLTRD REC UNFLTRD RECOVER	1,3-DI-CHLORO-PROPANE WAT. WH TOTAL UNFLTRD RECOVER	PROPENE 3-CHLORO-WATER UNFLTRD RECOVER	STYRENE TOTAL UNFLTRD RECOVER	TETRA-CHLORO-ETHYL-ENE TOTAL UNFLTRD RECOVER	TOLUENE D8 SURROG VOC UNFLTRD REC PERCENT
		(UG/L) (34696)	(UG/L) (77275)	(UG/L) (77135)	(UG/L) (77356)	(UG/L) (49999)	(UG/L) (77173)	(UG/L) (78109)	(UG/L) (77128)	(UG/L) (34475)	(PERCENT) (99833)
DO Cf 36	10-10-01 10-10-01 10-10-01	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
DO Ch 1	11-13-01 11-13-01 11-13-01	<.5 -- --	<.03 -- --	<.07 -- --	<.07 -- --	<.2 -- --	<.1 -- --	<.07 -- --	<.04 -- --	<.03 -- --	105 -- --
		TOLUENE O-ETHYL WATER UNFLTRD RECOVER	TOLUENE P-CHLOR WATER UNFLTRD RECOVER	TOLUENE TOTAL UNFLTRD RECOVER	TRANS-1,3-DI-CHLORO-PROPENE TOTAL UNFLTRD RECOVER	TRI-CHLORO-ETHYL-ENE TOTAL UNFLTRD RECOVER	TRI-CHLORO-FLUORO-METHANE TOTAL UNFLTRD RECOVER	VINYL-CHLO-RIDE TOTAL UNFLTRD RECOVER	RADON 222 SS MDC, WATER, UNFLTRD	RADON 222, 2X CL, WATER, WHOLE, TOTAL, UNFLTRD	RN-222 2 SIGMA WATER, WHOLE, TOTAL, UNFLTRD
		(UG/L) (77220)	(UG/L) (77277)	(UG/L) (34010)	(UG/L) (34699)	(UG/L) (39180)	(UG/L) (34488)	(UG/L) (39175)	(PCI/L) (82303)	(PCI/L) (99327)	(PCI/L) (76002)
DO Cf 36	10-10-01 10-10-01 10-10-01	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	480 -- --	25.0 -- --	25 -- --
DO Ch 1	11-13-01 11-13-01 11-13-01	<.06 -- --	<.05 -- --	<.05 -- --	<.09 -- --	<.04 -- --	<.09 -- --	<.1 -- --	190 -- --	23.0 -- --	18 -- --
		URANIUM NATURAL DIS-SOLVED UNFLTRD RECOVER									
		(UG/L AS U) (22703)									
DO Cf 36	10-10-01 10-10-01 10-10-01	.10 -- <.02									
DO Ch 1	11-13-01 11-13-01 11-13-01	E.01 -- <.02									

E Estimated value.  
< Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

FREDERICK COUNTY, MARYLAND

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geologic unit	Station type	SAMPLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH OF WELL, TOTAL (FEET) (72008)		
FR Be 113 FR Dc 68	08-06-02 07-30-02	1000 1400	393728077214701 392650077343001	ENVIRONMENTAL ENVIRONMENTAL	231GBRG 400GBGG	GW GW	8030 8030	390 580	195 175		
		DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTERVAL (FT) (72015)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	FLOW RATE (G/M) (00059)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD) (MG/L) (00400)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE WATER (DEG C) (00010)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)
FR Be 113 FR Dc 68	08-06-02 07-30-02	195 175	39 98	20 27	4.0 5.5	8.7 6.6	7.4 6.6	370 172	13.6 13.9	170 87	59.0 25.0
		MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKALINITY WATER TOTAL FIELD (MG/L AS CaCO3) (39086)	BICARBONATE WATER DIS FIELD (MG/L AS HCO3) (00453)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITROGEN, DIS-SOLVED (MG/L AS N) (00608)
FR Be 113 FR Dc 68	08-06-02 07-30-02	6.49 5.92	.41 .71	10.6 4.38	158 54	193 65	7.50 12.2	<.1 .1	22.8 18.2	6.0 3.4	<.04 <.04
		NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOSPHORUS, DIS-SOLVED (MG/L AS P) (00666)	ORTHOPHOSPHATE, DIS-SOLVED (MG/L AS P) (00671)	COLOR (PLATINUM-COBALT UNITS) (00080)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC, DIS-SOLVED (MG/L AS AS) (01000)	BERYL-LIUM, DIS-SOLVED (MG/L AS BE) (01010)	IRON, DIS-SOLVED (MG/L AS FE) (01046)
FR Be 113 FR Dc 68	08-06-02 07-30-02	<.008 <.008	6.26 3.22	<.06 <.06	E.01 E.01	2 2	188 133	235 116	.5 <.2	<.06 <.06	<10 E5
		IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	THALLIUM, DIS-SOLVED (UG/L AS TL) (01057)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON DIOXIDE, DIS-SOLVED (MG/L AS CO2) (00405)	2,6-DIETHYL ANILINE, WATER FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLT REC (UG/L) (49260)
FR Be 113 FR Dc 68	08-06-02 07-30-02	<10 360	.22 E.07	<2.0 E1.8	<2.4 3.7	<.01 <.01	<.04 <.04	<.6 <.6	12 29	<.006 <.006	<.006 <.006
		ALACHLOR, WATER, DISS, REC (UG/L) (46342)	ALPHA BHC, DIS-SOLVED (UG/L) (34253)	ALPHA-HCH, D6 SUR SCD 1379 WTR, FLTRD, PERCENT (90505)	AMETRYN, WATER, REC (UG/L) (38401)	ATRAZINE, WATER, REC (UG/L) (39632)	BENFLURALIN, WATER, GF, REC (UG/L) (82673)	BROMACIL, WATER, REC (UG/L) (04029)	BUTACHLOR, WATER, REC (UG/L) (04026)	BUTYLATE, WATER, REC (UG/L) (04028)	CARBARYL, WATER, FLT REC, GF, REC (UG/L) (82680)
FR Be 113 FR Dc 68	08-06-02 07-30-02	<.004 <.004	<.005 <.005	75.4 74.9	<.05 <.05	.026 E.003	<.010 <.010	<.05 <.05	<.05 <.05	<.002 <.002	<.041 <.041

E Estimated value.  
< Actual value is known to be less than the value shown.

Geologic Unit (aquifer): 231GBRG - Gettysburg Shale  
400GBGG - Granodiorite and Biotite Granite Gneiss

Station Type: GW - Ground Water

Sampling Method: 8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER DATA

FREDERICK COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	CARBO-FURAN WATER, FLTRD 0.7 U (UG/L) (82674)	CAR-BOXIN, WATER, DISS, REC (UG/L) (04027)	CHLOR-PYRIFOS, DISS, SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	CY-CLOATE, WATER, DISS, REC (UG/L) (04031)	DCPA WATER, FLTRD 0.7 U (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DEISO-PROPYL ATRAZIN, WATER, DISS, REC (UG/L) (04038)	DIAZ-INON D10 SRG, WAT FLT 0.7 U (UG/L) (91063)	DIAZI-NON D10 SUR SCD, WAT FLT 1379 (UG/L) (90670)	
		FR Be 113	08-06-02	<.020	<.05	<.005	<.018	<.05	<.003	.09	<.05	116
FR Dc 68	07-30-02	<.020	<.05	<.005	<.018	<.05	<.003	.13	<.05	106	83.0	
FR Be 113	08-06-02	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN, DIS-SOLVED (UG/L) (39381)	DIPHEN-AMID, WATER, DISS, REC (UG/L) (04033)	DISUL-FOTON, WATER, FLTRD 0.7 U (UG/L) (82677)	EPTC WATER, FLTRD 0.7 U (UG/L) (82668)	ETHAL-FLUR-ALIN, WAT FLT 0.7 U (UG/L) (82663)	ETHO-PROP, WATER, FLTRD 0.7 U (UG/L) (82672)	FONOFOS, WATER, DISS, REC (UG/L) (04095)	HCH ALPHA D6 SRG, WAT FLT 0.7 U (UG/L) (91065)	HEXA-ZINONE, WATER, DISS, REC (UG/L) (04025)	
FR Be 113	08-06-02	<.005	<.005	<.05	<.02	<.002	<.009	<.005	<.003	107	<.05	
FR Dc 68	07-30-02	<.005	<.005	<.05	<.02	<.002	<.009	<.005	<.003	114	<.05	
FR Be 113	08-06-02	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER, FLTRD 0.7 U (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METHYL-AZIN- PHOS, WAT FLT 0.7 U (UG/L) (82686)	METHYL-PARA- THION, WAT FLT 0.7 U (UG/L) (82667)	METO-LACHLOR, WATER, DISSOLV (UG/L) (39415)	METRI-BUZIN, WATER, FLTRD 0.7 U (UG/L) (82630)	MOL-INATE, WATER, FLTRD 0.7 U (UG/L) (82671)	NAPROP-AMIDE, WATER, FLTRD 0.7 U (UG/L) (82684)	P,P' DDE, WATER, DISSOLV (UG/L) (34653)	
FR Be 113	08-06-02	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007	<.003	
FR Dc 68	07-30-02	<.004	<.035	<.027	<.050	<.006	E.003	<.006	<.002	<.007	<.003	
FR Be 113	08-06-02	PARA-THION, DIS-SOLVED (UG/L) (39542)	PEB-ULATE, WATER, FLTRD 0.7 U (UG/L) (82669)	PENDI-ALIN, WAT FLT 0.7 U (UG/L) (82683)	PER-METHRIN, CIS, WAT FLT 0.7 U (UG/L) (82687)	PHORATE, WATER, FLTRD 0.7 U (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRO-METRYN, WATER, DISS, REC (UG/L) (04036)	PRON-AMIDE, WATER, FLTRD 0.7 U (UG/L) (82676)	PROPA-CHLOR, WATER, FLTRD 0.7 U (UG/L) (04024)	PRO-PANIL, WATER, FLTRD 0.7 U (UG/L) (82679)	
FR Be 113	08-06-02	<.010	<.004	<.022	<.006	<.011	<.01	<.05	<.004	<.010	<.011	
FR Dc 68	07-30-02	<.010	<.004	<.022	<.006	<.011	<.01	<.05	<.004	<.010	<.011	
FR Be 113	08-06-02	PRO-PARGITE, WATER, FLTRD 0.7 U (UG/L) (82685)	PROP-AZINE, WATER, DISS, REC (UG/L) (38535)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	SIMA-TRYN, WATER, DISS, REC (UG/L) (04030)	TEBU-THIURON, FLTRD 0.7 U (UG/L) (82670)	TER-BACIL, WATER, DISS, REC (UG/L) (04032)	TER-BACIL, WATER, FLTRD 0.7 U (UG/L) (82665)	TER-BUFOS, WATER, FLTRD 0.7 U (UG/L) (82675)	THIO-BENCARB, WATER, FLTRD 0.7 U (UG/L) (82681)	TRIAL-LATE, WATER, FLTRD 0.7 U (UG/L) (82678)	
FR Be 113	08-06-02	<.02	M	<.005	<.05	<.02	<.05	<.034	<.02	<.005	<.002	
FR Dc 68	07-30-02	<.02	<.05	<.005	<.05	<.02	<.05	<.034	<.02	<.005	<.002	
FR Be 113	08-06-02	TRI-FLUR-ALIN, WATER, DISS, REC (UG/L) (04023)	TRI-FLUR-ALIN, WAT FLT 0.7 U (UG/L) (82661)	VERNO-LATE, WATER, DISS, REC (UG/L) (04034)	XYLENE, WATER, UNFLTRD REC (UG/L) (81551)	BENZENE 14BRFL-SURROG, VOC UNFLTRD REC (UG/L) (99834)	TER-BACIL, WATER, DISS, REC (UG/L) (04032)	ETHANE 12DICL-SURROG, VOC UNFLTRD REC (UG/L) (99832)	TER-BUFOS, WATER, FLTRD 0.7 U (UG/L) (82675)	THIO-BENCARB, WATER, FLTRD 0.7 U (UG/L) (82681)	METHYL-TERT-BUTYL, ETHER, WAT UNF REC (UG/L) (78032)	META-PARA-XYLENE, WATER, UNFLTRD REC (UG/L) (85795)
FR Be 113	08-06-02	<.05	<.009	<.05	<.2	78.7	<.2	125	<.2	<.2	<.2	
FR Dc 68	07-30-02	<.05	<.009	<.05	<.2	89.6	<.2	111	<.2	<.2	<.2	
FR Be 113	08-06-02	O-XYLENE, WATER, WHOLE, TOTAL (UG/L) (77135)	TOLUENE D8, SURROG, UNFLTRD REC (UG/L) (99833)	TOLUENE, TOTAL (UG/L) (34010)	ALPHA COUNT, 2 SIGMA, WAT DIS AS (UG/L) (75987)	ALPHA RADIO, WATER, DISS, AS (UG/L) (04126)	BETA, 2 SIGMA, WATER, DISS, AS (UG/L) (75989)	GROSS BETA, DIS-SOLVED (PCI/L) (03515)	RADON 222, TOTAL (PCI/L) (82303)	RN-222, 2 SIGMA, WATER, WHOLE, TOTAL, (PCI/L) (76002)		
FR Be 113	08-06-02	<.2	98.9	<.2	4.7	10	1.4	2	2320	46		
FR Dc 68	07-30-02	<.2	98.5	<.2	.56	M	.96	1	40	16		

E Estimated value.  
 < Actual value is known to be less than the value shown.  
 M Presence of material verified but not quantified.

QUALITY OF GROUND WATER DATA

HARFORD COUNTY, MARYLAND

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station	number	Sample Type	Geo-logic unit	Station type	SAMPLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH OF WELL, TOTAL (FEET) (72008)	
HA Aa 30	07-23-02	1000	394130076312501		ENVIRONMENTAL	300PRTB	GW	8030	690	200	
		DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTERVAL (FT) (72015)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	FLOW RATE (G/M) (00059)	OXYGEN, SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD) (MG/L) (00400)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE WATER (DEG C) (00010)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
		200	59	27	3.0	10.9	5.2	78	14.0	22	4.60
		MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	ALKALINITY WATER TOTAL FIELD (MG/L AS CACO3) (39086)	BICARBONATE WATER DISSOLVED FIELD (MG/L AS HCO3) (00453)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SiO2) (00955)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	NITROGEN, DISSOLVED AMMONIA (MG/L AS N) (00608)
		2.56	.60	4.18	4	4	5.81	<.1	8.9	E.1	<.04
		NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	ORTHOPHOSPHATE, DISSOLVED (MG/L AS P) (00671)	COLOR (PLATINUM-COBALT UNITS) (00080)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	IRON, DISSOLVED (UG/L AS FE) (01046)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)
		<.008	5.28	<.06	E.01	<1	61	<.2	<.06	<10	30
		LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MERCURY DISSOLVED (UG/L AS HG) (71890)	THALLIUM, DISSOLVED (UG/L AS TL) (01057)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	2,6-DIETHYL ANILINE WATER FLTRD (UG/L) (82660)	ACETOCHLOR, WATER REC (UG/L) (49260)	ALACHLOR, WATER, DISS, REC (UG/L) (46342)
		.61	5.9	3.4	<.01	<.04	<.6	70	<.006	<.006	<.004
		ALPHA-BHC DISSOLVED (UG/L) (34253)	ALPHA-HCH, D6 SUR SCDD WATER, DISS, FLTRD, PERCENT (UG/L) (90505)	AMETRYN WATER, REC (UG/L) (38401)	ATRAZINE, DISS, REC (UG/L) (39632)	BENFLURALIN, WATER FLTRD (UG/L) (82673)	BROMACIL, WATER, DISS, REC (UG/L) (04029)	BUTACHLOR, WATER, DISS, REC (UG/L) (04026)	BUTYLATE, WATER, REC (UG/L) (04028)	CARBARYL, WATER FLTRD (UG/L) (82680)	CARBURAN, WATER FLTRD (UG/L) (82674)
		<.005	81.4	<.05	.009	<.010	<.05	<.05	<.002	<.041	<.020

E Estimated value.  
 < Actual value is known to be less than the value shown.

Geologic Unit (aquifer): 300PRTB - Prettyboy Schist

Station Type: GW - Ground Water

Sampling Method: 8030 - Grab sample at water supply tap

QUALITY OF GROUND WATER DATA

HARFORD COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	CAR-BOXIN, WATER, DISS, REC (UG/L) (04027)	CHLOR-PYRIFOS, DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	CY-CLOATE, WATER, DISS, REC (UG/L) (04031)	DCPA, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82682)	DEETHYL-ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DEISO-PROPYL, ATRAZIN, WATER, DISS, REC (UG/L) (04038)	DIAZ-INON, D10 SRG, WAT FLT, 0.7 U GF, REC PERCENT (91063)	DIAZI-NON D10, SUR SCD, 1379 WTR, FLTRD, PERCENT (90670)	DI-AZINON, DIS-SOLVED (UG/L) (39572)
HA Aa 30	07-23-02	<.05	<.005	<.018	<.05	<.003	.40	<.05	126	86.7	<.005
		DI-ELDRIN, DIS-SOLVED (UG/L) (39381)	DIPHEN-AMID, WATER, DISS, REC (UG/L) (04033)	DISUL-FOTON, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82677)	EPTC, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN, WAT FLT, 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82672)	FONOFOS, WATER, DISS, REC (UG/L) (04095)	HCH, ALPHA, D6 SRG, WAT FLT, 0.7 U GF, REC PERCENT (91065)	HEXA-ZINONE, WATER, DISS, REC (UG/L) (04025)	LINDANE, DIS-SOLVED (UG/L) (39341)
		<.005	<.05	<.02	<.002	<.009	<.005	<.003	91.0	<.05	<.004
		LIN-URON, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METHYL-AZIN-PHOS, WAT FLT, 0.7 U GF, REC (UG/L) (82686)	METHYL-PARA-THION, WAT FLT, 0.7 U GF, REC (UG/L) (82667)	METO-LACHLOR, WATER, DISSOLV (UG/L) (39415)	METRI-BUZIN, SENCOR, WATER, DISSOLV (UG/L) (82630)	MOL-INATE, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82684)	P,P', DDE, DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)
		<.035	<.027	<.050	<.006	E.003	<.006	<.002	<.007	<.003	<.010
		PEB-ULATE, WATER, FILTRD, 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN, WAT FLT, 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN, CIS, WAT FLT, 0.7 U GF, REC (UG/L) (82687)	PHORATE, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRO-METRYN, WATER, DISS, REC (UG/L) (04036)	PRON-AMIDE, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82676)	PROPA-CHLOR, WATER, FLTRD, 0.7 U GF, REC (UG/L) (04024)	PRO-PANIL, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82685)
		<.004	<.022	<.006	<.011	<.01	<.05	<.004	<.010	<.011	<.02
		PROP-AZINE, WATER, DISS, REC (UG/L) (38535)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	SIMA-TRYN, WATER, DISS, REC (UG/L) (04030)	TEBU-THIURON, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82670)	TER-BACIL, WATER, DISS, REC (UG/L) (04032)	TER-BACIL, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN, WATER, DISS, REC (UG/L) (04023)
		<.05	<.005	<.05	<.02	<.05	<.034	<.02	<.005	<.002	<.05
		TRI-FLUR-ALIN, WAT FLT, 0.7 U GF, REC (UG/L) (82661)	VERNO-LATE, WATER, DISS, REC (UG/L) (04034)	XYLENE, WATER, UNFLTRD, REC (UG/L) (81551)	BENZENE, 14BRFL-SURROG, VOC, UNFLTRD, REC (UG/L) (99834)	BENZENE, TOTAL, (UG/L) (34030)	ETHANE, 12DICL-SURROG, VOC, UNFLTRD, REC (UG/L) (99832)	ETHYL-BENZENE, TOTAL, (UG/L) (34371)	METHYL, TERT-BUTYL, ETHER, WAT UNF, REC (UG/L) (78032)	META/PARA-XYLENE, WATER, UNFLTRD, REC (UG/L) (85795)	O-XYLENE, WATER, WHOLE, TOTAL, (UG/L) (77135)
		<.009	<.05	<.2	72.7	<.2	123	<.2	<.2	<.2	<.2
			TOLUENE, D8, SURROG, VOC, UNFLTRD, PERCENT (99833)	TOLUENE, TOTAL, (UG/L) (34010)	ALPHA, COUNT, 2 SIGMA, WAT DIS, AS, TH-230, (PCI/L) (75987)	ALPHA, RADIO, WATER, DISS, AS, TH-230, (PCI/L) (04126)	BETA, 2 SIGMA, WATER, DISS, AS, CS-137, (PCI/L) (75989)	GROSS, BETA, DIS-SOLVED, (PCI/L) (03515)	RADON, 222, AS, TOTAL, (PCI/L) (82303)	RN-222, 2 SIGMA, WATER, WHOLE, TOTAL, (PCI/L) (76002)	
			96.0	<.2	.67	M	.84	2	3370	55	

E Estimated value.  
 < Actual value is known to be less than the value shown.  
 M Presence of material verified but not quantified.

QUALITY OF GROUND WATER DATA

MONTGOMERY COUNTY, MARYLAND

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geo-logic unit	Station type	SAMPLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH OF WELL, TOTAL (FEET) (72008)					
MO Cb 36	07-30-02	1000	391254077244201	ENVIRONMENTAL	231NOXF	GW	8030	340	100					
	07-30-02	1005		REPLICATE	231NOXF	GW	--	340	100					
MO Ce 18	08-13-02	1400	391403077114001	ENVIRONMENTAL	300PRTB	GW	8030	540	200					
				DEPTH TO BOT-TOM OF INTER-VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE VAL (FT) (72015)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)			
MO Cb 36	07-30-02	100	58	22	3.0	9.5	6.4	137	15.6	64	21.1			
	07-30-02	--	--	--	--	--	--	--	--	64	21.1			
MO Ce 18	08-13-02	200	34	28	5.0	6.3	5.3	258	14.4	85	17.9			
					ALKA-LINITY WAT DIS TOT IT (MG/L AS CACO3) (39086)	BICAR-BONATE WATER DIS IT (MG/L AS HCO3) (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00608)			
MO Cb 36	07-30-02	2.62	.22	1.76	45	54	4.29	<.1	10.8	E.1	<.04			
	07-30-02	2.63	.22	1.77	--	--	4.43	<.1	10.9	E.1	<.04			
MO Ce 18	08-13-02	9.90	1.92	12.7	20	25	46.1	<.1	10.9	8.4	<.04			
					NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHATE, ORTHO-DIS-SOLVED (MG/L AS PO4) (00660)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (00080)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70300)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	
MO Cb 36	07-30-02	<.008	3.52	E.03	.04	.129	<1	86	--	E.1	<.06			
	07-30-02	<.008	3.49	E.03	.04	.129	5	85	--	E.1	<.06			
MO Ce 18	08-13-02	<.008	5.28	E.04	.02	.064	<1	198	143	<.2	<.06			
					IRON, DIS-SOLVED (UG/L AS FE) (01046)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	THAL-LIUM, DIS-SOLVED (UG/L AS TL) (01057)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
MO Cb 36	07-30-02	<10	100	.51	<2.0	<2.4	<.01	<.04	<.6	38	<.006			
	07-30-02	<10	50	.50	<2.0	<2.4	<.01	<.04	<.6	--	<.006			
MO Ce 18	08-13-02	<10	20	4.18	6.9	9.9	<.01	<.04	<.6	233	<.006			
					ACETO-CHLOR, WATER, FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC (UG/L) (46342)	ALPHA-BHC DIS-SOLVED (UG/L) (34253)	ALPHA-HCH, D6 SUR SCD 1379 WTR, FLTRD, PERCENT (90505)	AMETRYN WATER, DISS, REC (UG/L) (38401)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BUTA-CHLOR, WATER, DISS, REC (UG/L) (04026)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)
MO Cb 36	07-30-02	<.006	<.004	<.005	63.3	<.05	<.007	<.010	<.05	<.05	<.002			
	07-30-02	<.006	<.004	<.005	84.1	<.05	<.007	<.010	<.05	<.05	<.002			
MO Ce 18	08-13-02	<.006	<.004	<.005	77.3	<.05	.036	<.010	<.05	<.05	<.002			

E Estimated value.

< Actual value is known to be less than the value shown.

Geologic Unit (aquifer): 231NOXF - New Oxford Formation  
300PRTB - Prettyboy Schist

Station Type: GW - Ground Water

Sampling Method: 8030 - Grab sample at water-supply tap





## QUALITY OF GROUND WATER DATA

## MONTGOMERY COUNTY, MARYLAND--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	META/ PARA- XYLENE WATER UNFLTRD REC (UG/L) (85795)	O- XYLENE WATER WHOLE TOTAL (UG/L) (77135)	TOLUENE D8 SURROG VOC UNFLTRD REC PERCENT (99833)	TOLUENE TOTAL (UG/L) (34010)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS- SOLVED (PCI/L) AS CS-137) (03515)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)
MO Cb 36	07-30-02	<.2	<.2	99.4	<.2	.51	M	.85	M	650	27
	07-30-02	<.2	<.2	98.6	<.2	.41	M	.87	M	650	27
MO Ce 18	08-13-02	<.2	<.2	101	<.2	1.3	M	1.5	3	3100	50

< Actual value is known to be less than the value shown.

M Presence of material verified but not quantified.

QUALITY OF GROUND WATER DATA

535

QUEEN ANNES COUNTY, MARYLAND

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geo-logic unit	Station type	SAM-PLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)
QA Cg 68	09-30-02	1200	390839075515601	ENVIRONMENTAL	125AQUI	GW	8030	70.0	--
QA Ch 37	09-30-02	1000	390856075474201	ENVIRONMENTAL	125AQUI	GW	8030	80.0	--
QA Db 14	03-07-02	1500	390055076184501	ENVIRONMENTAL	125AQUI	GW	8030	15.0	--
	08-21-02	1200		ENVIRONMENTAL	125AQUI	GW	8030	15.0	--
	08-21-02	1230		ENVIRONMENTAL	125AQUI	GW	8030	15.0	--
QA Db 15	03-07-02	1110	390022076191801	BLANK	125AQUI	GW	--	--	--
	03-07-02	1115		ENVIRONMENTAL	125AQUI	GW	8030	15.0	--
	08-21-02	1315		ENVIRONMENTAL	125AQUI	GW	8030	15.0	--
QA Db 23	03-07-02	1345	390033076184501	ENVIRONMENTAL	125AQUI	GW	8030	18.0	--
	08-21-02	1130		ENVIRONMENTAL	125AQUI	GW	8030	18.0	--
QA Db 27	03-20-02	1235	390117076191301	ENVIRONMENTAL	125AQUI	GW	8030	15.0	--
	08-23-02	1230		ENVIRONMENTAL	125AQUI	GW	8030	15.0	--
QA Db 45	10-04-01	1000	390156076184001	ENVIRONMENTAL	112CLMB	GW	4040	5.0	20.50
	10-04-01	1010		REPLICATE	112CLMB	GW	4040	5.0	--
	10-04-01	1130		BLANK	112CLMB	GW	--	--	--
	10-04-01	1135		BLANK	112CLMB	GW	--	--	--
QA Ea 59	03-13-02	1540	385505076215001	ENVIRONMENTAL	125AQUI	GW	8030	10.0	--
	08-28-02	1100		ENVIRONMENTAL	125AQUI	GW	8030	10.0	--
QA Ea 60	03-13-02	1330	385701076212501	ENVIRONMENTAL	125AQUI	GW	8030	7.0	--
	08-27-02	1400		ENVIRONMENTAL	125AQUI	GW	8030	7.0	--
QA Ea 61	03-13-02	1430	385812076202801	ENVIRONMENTAL	125AQUI	GW	8030	18.0	--
	08-27-02	1100		ENVIRONMENTAL	125AQUI	GW	8030	18.0	--
	08-27-02	1105		REPLICATE	125AQUI	GW	8030	18.0	--
QA Ea 77	08-20-02	0955	385718076211501	BLANK	125AQUI	GW	--	--	--
	09-09-02	1400		ENVIRONMENTAL	125AQUI	GW	4040	10.8	13.35
	09-09-02	1401		ENVIRONMENTAL	125AQUI	GW	4040	10.8	13.35
	09-09-02	1402		ENVIRONMENTAL	125AQUI	GW	4040	10.8	13.35
	09-09-02	1403		ENVIRONMENTAL	125AQUI	GW	4040	10.8	13.35
QA Ea 78	09-09-02	1130	385718076211502	ENVIRONMENTAL	125AQUI	GW	4040	11.8	13.55
	09-09-02	1131		ENVIRONMENTAL	125AQUI	GW	4040	11.8	13.55
QA Ea 82	03-13-02	1240	385705076212002	ENVIRONMENTAL	125AQUI	GW	8030	10.0	--
	08-27-02	1300		ENVIRONMENTAL	125AQUI	GW	8030	10.0	--
QA Ea 83	03-13-02	1150	385705076212001	ENVIRONMENTAL	125AQUI	GW	8030	10.0	--
	08-27-02	1200		ENVIRONMENTAL	125AQUI	GW	8030	10.0	--
QA Eb 144	03-20-02	1125	385847076184801	ENVIRONMENTAL	125AQUI	GW	8030	15.0	--
	08-27-02	1615		ENVIRONMENTAL	125AQUI	GW	8030	15.0	--
QA Fa 54	03-14-02	1110	385024076222501	ENVIRONMENTAL	125AQUI	GW	8030	10.0	--
	08-28-02	1500		ENVIRONMENTAL	125AQUI	GW	8030	10.0	--
QA Fa 60	03-14-02	1320	385254076201901	ENVIRONMENTAL	125AQUI	GW	8030	10.1	--
	08-29-02	1230		ENVIRONMENTAL	125AQUI	GW	8030	10.1	--
QA Fa 67	03-14-02	1210	385023076222201	ENVIRONMENTAL	125AQUI	GW	8030	7.3	--
QA Fa 72	03-14-02	1400	385254076201301	ENVIRONMENTAL	125AQUI	GW	8030	12.0	--
QA Fa 75	03-14-02	1510	385155076200401	ENVIRONMENTAL	125AQUI	GW	8030	10.0	--
	08-29-02	1130		ENVIRONMENTAL	125AQUI	GW	8030	10.0	--

Geologic Unit (aquifer): 112CLMB - Columbia Formation  
125AQUI - Aquia Formation

Station Type: GW - Ground Water

Sampling Method: 4040 - Submersible pump  
8030 - Grab sample at water-supply tap

## QUALITY OF GROUND WATER DATA

## QUEEN ANNES COUNTY, MARYLAND--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT) (72015)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	FLOW RATE (G/M) (00059)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)
QA Cg 68	09-30-02	290.00	290	270	31	5.0	--	--	<1.0	7.9	320
QA Ch 37	09-30-02	340.00	340	325	21	3.8	--	--	<1.0	8.0	346
QA Db 14	03-07-02	165.00	165	145	30	4.6	--	--	--	7.3	451
	08-21-02	165.00	165	145	24	4.8	--	--	--	7.2	501
	08-21-02	165.00	165	145	24	4.8	--	--	--	7.2	501
QA Db 15	03-07-02	103	--	--	--	--	--	--	--	--	--
	03-07-02	103.00	103	96	50	3.2	--	--	--	7.0	1060
	08-21-02	103.00	103	96	25	5.9	--	--	--	7.0	1170
QA Db 23	03-07-02	185.00	185	165	30	3.8	--	--	--	7.4	432
	08-21-02	185.00	185	165	29	2.6	--	--	--	7.2	480
QA Db 27	03-20-02	145.00	145	110	20	4.6	--	--	--	7.1	1230
	08-23-02	145.00	145	110	28	4.4	--	--	--	7.1	1470
QA Db 45	10-04-01	35	35	25	60	.61	767	21	2.0	3.9	1040
	10-04-01	35	--	--	--	--	--	--	--	--	--
	10-04-01	35	--	--	--	--	--	--	--	--	--
	10-04-01	35	--	--	--	--	--	--	--	--	--
QA Ea 59	03-13-02	215.00	215	195	25	5.0	--	--	--	7.9	591
	08-28-02	215.00	215	195	24	3.5	--	--	--	7.6	628
QA Ea 60	03-13-02	185.00	185	165	20	4.6	--	--	--	7.6	1710
	08-27-02	185.00	185	165	23	3.0	--	--	--	7.5	1960
QA Ea 61	03-13-02	170.00	170	150	25	5.0	--	--	--	7.2	4770
	08-27-02	170.00	170	150	31	4.3	--	--	--	7.1	5550
	08-27-02	170.00	170	150	31	4.3	--	--	--	7.1	5550
QA Ea 77	08-20-02	205	--	--	--	--	--	--	--	--	--
	09-09-02	205.00	205	195	80	6.5	--	--	--	7.1	18400
	09-09-02	205.00	205	195	80	6.5	--	--	--	7.1	18400
	09-09-02	205.00	205	195	80	6.5	--	--	--	7.1	18400
QA Ea 78	09-09-02	135.00	135	125	43	4.3	--	--	--	7.6	335
	09-09-02	135	135	125	77	--	--	--	--	--	--
QA Ea 82	03-13-02	170.00	170	155	30	5.0	--	--	--	7.5	1160
	08-27-02	170.00	170	155	47	2.0	--	--	--	7.5	1220
	03-13-02	170.00	170	160	25	5.5	--	--	--	7.7	350
	08-27-02	170.00	170	160	22	5.5	--	--	--	7.6	384
QA Eb 144	03-20-02	240.00	240	220	25	4.6	--	--	--	7.9	409
	08-27-02	240.00	240	220	20	6.0	--	--	--	7.8	447
QA Fa 54	03-14-02	260.00	260	240	25	6.0	--	--	--	7.8	347
	08-28-02	260.00	260	240	20	5.0	--	--	--	7.6	375
QA Fa 60	03-14-02	240.00	240	230	30	4.0	--	--	--	8.2	407
	08-29-02	240.00	240	230	20	E2.0	--	--	--	8.2	404
QA Fa 67	03-14-02	270.00	270	250	25	4.3	--	--	--	7.8	343
QA Fa 72	03-14-02	220.00	220	200	25	4.3	--	--	--	8.0	481
QA Fa 75	03-14-02	200.00	200	180	25	6.0	--	--	--	8.0	510
	08-29-02	200.00	200	180	43	6.0	--	--	--	7.9	514

E Estimated value.

&lt; Actual value is known to be less than the value shown.



## QUALITY OF GROUND WATER DATA

## QUEEN ANNES COUNTY, MARYLAND--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, AMMONIA + DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)
		QA Db 45	10-04-01	E.1	.23	41.3	81.0	<.04	.11	<.008	5.5
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	--	--	--	--	--	--	--	--	--	--
		SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L 70300)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)
	10-04-01	534	1450	<.05	.2	63	1.83	34	.53	2.3	34.1
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	--	--	--	--	--	--	--	--	--	--
		COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)
	10-04-01	37.0	29	3.40	61.9	169	<.2	51.8	.5	<1	197
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	--	--	--	--	--	--	--	--	--	--
		THAL- LIUM, DIS- SOLVED (UG/L AS TL) (01057)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	2,4,5-T SURROG WATER FLTRD REC PERCENT (99958)	2,4-D METHYL ESTER, WATER FLTRD REC (50470)	2,4-D, DIS- SOLVED (UG/L (39732)	2,4-DB WATER, FLTRD, GF 0.7U (UG/L) (38746)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	3HYDRXY CARBO- FURAN WAT,FLT GF 0.7U REC (UG/L) (49308)
	10-04-01	.10	<.2	144	1.5	110	<.009	<.02	<.02	<.002	<.006
	10-04-01	--	--	--	--	112	<.009	<.02	<.02	<.002	<.006
	10-04-01	--	--	--	E.2	--	--	--	--	--	--
	10-04-01	--	--	--	<.3	--	--	--	--	--	--
		3-KETO CARBO- FURAN WATER FLTRD REC (UG/L) (50295)	ACETO- CHLOR ESA FLTRD GF REC (UG/L) (61029)	ACETO- CHLOR OA FLTRD GF REC (UG/L) (61030)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ACIFL- CARB, WATER, FLTRD GF 0.7U REC (UG/L) (49315)	ALA- CHLOR OA FLTRD GF REC (UG/L) (61031)	ALA- CHLOR ESA WAT FLT DISS, REC, (UG/L) (50009)	ALA- CHLOR, WATER, WAT FLT DISS, REC, (UG/L) (46342)	ALDI- CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA- RB SUL- FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)
	10-04-01	<2	<.05	<.05	<.004	<.007	<.05	.17	<.002	<.02	<.008
	10-04-01	<2	<.05	<.05	<.004	<.007	<.05	.17	<.002	<.02	<.008
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	--	--	--	--	--	--	--	--	--	--
		ALDI- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	BARBAN SURROG- ATE WTR FLT SCD 2060, 9060 RE PERCENT (90640)	BENDIO- CARB, WATER FLTRD REC (UG/L) (50299)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BEN- SUL- FURON METHYL WAT FLT REC (UG/L) (50300)	BEN- SUL- FURON METHYL WAT FLT REC (UG/L) (61693)	BENTA- ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO- MACIL, WATER, DISS, REC (UG/L) (04029)
	10-04-01	<.04	<.005	<.007	106	<.03	<.010	<.004	<.02	<.01	<.03
	10-04-01	<.04	<.005	<.007	112	<.03	<.010	<.004	<.02	<.01	<.03
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	--	--	--	--	--	--	--	--	--	--

E Estimated value.

&lt; Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

QUEEN ANNES COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	BRO-MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAF-FEINE, WATER, FLTRD REC (UG/L) (50305)	CAF-FEINE-C13 SURROG WAT FLT REC PERCENT (99959)	CAR-BARYL, WATER, FLTRD GF 0.7U (UG/L) (49310)	CAR-BARYL, WATER, FLTRD GF, REC (UG/L) (82680)	CARBO-FURAN, WATER, FLTRD GF 0.7U REC (UG/L) (49309)	CARBO-FURAN, WATER, FLTRD GF, REC (UG/L) (82674)	CHLOR-AMBEN, METHYL ESTER, WATER, FLTRD REC (UG/L) (61188)	CHLORI-MURON, WATER, FLTRD REC (UG/L) (50306)
QA Db 45	10-04-01	<.02	<.002	<.010	76.5	<.03	<.041	<.006	<.020	<.02	<.010
	10-04-01	<.02	<.002	<.010	70.9	<.03	<.041	<.006	<.020	<.02	<.010
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	--	--	--	--	--	--	--	--	--	--
		CHLORO-THALO-NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CLOPYR-ALID, WATER, FLTRD GF 0.7U REC (UG/L) (49305)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	CY-ELDRIN, WATER, DISS, REC (UG/L) (04031)	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DCPA WATER, FLTRD GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DEETHYL ATRAZIN, DISS, REC (UG/L) (04039)	DEISO-PROPYL ATRAZIN WATER, DISS, REC (UG/L) (04038)
	10-04-01	<.04	<.005	<.01	<.018	<.01	<.01	<.003	<.006	<.01	<.04
	10-04-01	<.04	<.005	<.01	<.018	<.01	<.01	<.003	<.006	<.01	<.04
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	--	--	--	--	--	--	--	--	--	--
		DIAZ-INON D10 SRG WAT FLT 0.7 U GF, REC PERCENT (91063)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD GF 0.7U REC (UG/L) (38442)	DICHLOR PROP, WATER, FLTRD GF 0.7U REC (UG/L) (49302)	DI-ELDRIN, WATER, DIS-SOLVED (UG/L) (39381)	DIMETH-ENAMID OA, WATER, FLT, REC (UG/L) (62482)	DIMETH-ENAMID, ESA, WAT FLT (UG/L) (61951)	DINOSEB WATER, FLTRD GF, REC (UG/L) (49301)	DIPHEN-AMID, WATER, DISS, REC (UG/L) (04033)	DISUL-FOTON WATER, FLTRD 0.7 U GF, REC (UG/L) (82677)
	10-04-01	84.0	<.005	<.01	<.01	<.005	<.05	<.05	<.01	<.03	<.02
	10-04-01	76.4	<.005	<.01	<.01	<.005	<.05	<.05	<.01	<.03	<.02
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	--	--	--	--	--	--	--	--	--	--
		DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	EPTC WATER, FLTRD GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER, FLTRD GF, REC (UG/L) (82672)	FEN-URON, WATER, FLTRD GF 0.7U REC (UG/L) (49297)	FLUFEN-ACET, ESA, WAT FLT (UG/L) (61952)	FLUFE-NACET OA, WATER, FLT, REC (UG/L) (62483)	FLUMET-SULAM WATER, FLTRD REC (UG/L) (61694)	FLUO-METURON WATER, FLTRD GF 0.7U REC (UG/L) (38811)	FONOFOS WATER, DISS REC (UG/L) (04095)
	10-04-01	<.01	<.002	<.009	<.005	<.03	<.05	<.05	<.01	<.03	<.003
	10-04-01	<.01	<.002	<.009	<.005	<.03	<.05	<.05	<.01	<.03	<.003
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	--	--	--	--	--	--	--	--	--	--
		HCH ALPHA D6 SRG WAT FLT 0.7 U GF, REC PERCENT (91065)	HYDROXY ATRA-ZINE WATER, FLTRD REC (UG/L) (50355)	IMAZ-AQUIN WATER, FLTRD REC (UG/L) (50356)	IMAZE-THAPYR WATER, FLTRD REC (UG/L) (50407)	IMID-ACLOP-RID WATER, FLTRD REC (UG/L) (61695)	LINDANE DIS-SOLVED (UG/L) (39341)	LINURON WATER, FLTRD, REC (UG/L) (38478)	LIN-URON WATER, FLTRD GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)
	10-04-01	87.1	<.008	<.02	E.02	<.007	<.004	<.01	<.035	<.027	<.02
	10-04-01	79.8	<.008	<.02	E.02	<.007	<.004	<.01	<.035	<.027	<.02
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	--	--	--	--	--	--	--	--	--	--
		MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METAL-AXYL WATER, FLTRD REC (UG/L) (50359)	METHIO-CARB, WATER, FLTRD GF 0.7U REC (UG/L) (38501)	METH-OMYL OXIME WATER, FLTRD REC (UG/L) (61696)	METH-OMYL, WATER, FLTRD GF 0.7U REC (UG/L) (49296)	METHYL-AZIN-PHOS WAT FLT GF, REC (UG/L) (82686)	METHYL-PARA-THION WAT FLT GF, REC (UG/L) (82667)	METOLA-CHLOR ESA FLTRD GF, REC (UG/L) (61043)	METOLA-CHLOR OA FLTRD GF, REC (UG/L) (61044)	METO-LACHLOR WATER, DISSOLV (UG/L) (39415)
	10-04-01	<.01	<.02	<.008	<.01	<.004	<.050	<.006	.91	<.05	<.013
	10-04-01	<.01	<.02	<.008	<.01	<.004	<.050	<.006	.94	<.05	<.013
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	--	--	--	--	--	--	--	--	--	--

E Estimated value.

< Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

QUEEN ANNES COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MET- SUL- FURON METHYL WAT FLT REC (UG/L) (61697)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	NEB- URON, WATER, FLTRD, 0.7U REC (UG/L) (49294)	NICOSUL FURON WATER FLTRD REC (UG/L) (50364)	NORFLUR AZON, WATER, FLTRD, 0.7U REC (UG/L) (49293)	ORY- ZALIN, WATER, FLTRD, 0.7U REC (UG/L) (49292)	OXAMYL OXIME WATER FLTRD GF 0.7U REC (UG/L) (50410)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)
QA Db 45	10-04-01	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	<.01	<.01
	10-04-01	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	<.01	<.01
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	<.003	<.007	<.002	<.010	<.006	<.011	<.02	<.01	<.004	<.010
	10-04-01	<.003	<.007	<.002	<.010	<.006	<.011	<.02	<.01	<.004	<.010
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	<.011	<.02	<.010	<.02	<.008	<.02	<.011	<.009	<.02	<.010
	10-04-01	<.011	<.02	<.010	<.02	<.008	<.02	<.011	<.009	<.02	<.010
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	--	--	--	--	--	--	--	--	--	--
	10-04-01	<.034	<.02	<.005	<.002	<.009	<.02	<.009	<.02	1.17	
	10-04-01	<.034	<.02	<.005	<.002	<.009	<.02	<.009	<.02	--	
	10-04-01	--	--	--	--	--	--	--	--	--	
	10-04-01	--	--	--	--	--	--	--	--	--	

E Estimated value.  
 < Actual value is known to be less than the value shown.



QUALITY OF GROUND WATER DATA

ST. MARYS COUNTY, MARYLAND

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station	number	Sample Type	Geo-logic unit	Station type	SAMPLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)		
SM Bc 39	03-28-02	1030	382605076430201		ENVIRONMENTAL	217PPSCL	GW	4040	162	190.71		
			DEPTH TO BOT-TOM OF SAMPLE VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE VAL (FT) (72015)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)		
			1542	1530	1490	1295	67.0	8.4	297	15.0	26.0	2
			CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
			.40	.139	.98	69.9	136	166	2.29	.7	E.02	15.7
			SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
			10.0	<.05	.36	12	188	182	E.1	126	340	9.3
			MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	BETA, 2 SIGMA WATER, DISS AS CS-137 (PCI/L) (75989)	GROSS ALPHA, 2X CL, WATER, SS MDC, FLTRD, (PCI/L) (99337)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, 2X CL, WATER, FLTRD, (PCI/L) (99323)	RADON 222 TOTAL (PCI/L) (82303)
			14.7	E.4	1.2	.94	M	1.6	2.220	2	2.780	630
							RADON 222, 2X CL, SS MDC, WATER, UNFLTRD (PCI/L) (99327)	RN-222, 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (76002)				
							25.0	26				

E Estimated value.  
 < Actual value is known to be less than the value shown.  
 M Presence of material verified but not quantified.

Geologic Unit (aquifer): 217PPSCL - Lower Patapsco Aquifer In the Patapsco Formation  
 Station Type: GW - Ground Water  
 Sampling Method: 4040 - Submersible pump

QUALITY OF GROUND WATER DATA

SOMMERSET COUNTY, MARYLAND

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geo-logic unit	Station type	SAM-PLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)			
UMES well	11-01-01	1200	381245075404001	ENVIRONMENTAL	112CLMB	GW	4040	10	9.36			
			DEPTH TO BOT-TOM OF SAMPLE VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE VAL (FT) (72015)	PUMP OR FLOW PERIOD TO SAM-PLING (MIN) (72004)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)			
		51	49	29	80	.53	775	38	3.8	4.5	195	
			TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS TOT IT FIELD CACO3 (39086)	BICAR-BONATE WATER DIS IT FIELD HCO3 (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
		20.5	17.0	63	8.97	9.91	1.13	6.82	<1	1	14.2	
			FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, AMMONIA (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	TOTAL COLI-FORM, M ENDO MF, WTR (MG/L 100 ML) (31501)
		<.1	E.02	22.4	45.3	<.04	E.08	<.008	4.38	<.02	<1	
			E COLI, NA-MUG, WATER (COL/100 ML) (50278)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
		<1	130	129	37	<.05	<.2	62	1.48	12	.21	
			CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)
		E.5	13.1	4.7	17	.26	5.0	74.7	<.2	15.2	E.3	

E Estimated value.

< Actual value is known to be less than the value shown.

Geologic Unit (aquifer): 112CLMB - Columbia Formation

Station Type: GW - Ground Water

Sampling Method: 4040 - Submersible pump

QUALITY OF GROUND WATER DATA

SOMMERSET COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	STRON-	THAL-	VANA-		CARBON,	2,4,5-T	2,4-D		2,4-DB	
		TIUM, DIS- SOLVED (UG/L AS AG) (01075)	LIUM, DIS- SOLVED (UG/L AS SR) (01080)	LIUM, DIS- SOLVED (UG/L AS TL) (01057)	DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	ORGANIC DIS- SOLVED (MG/L AS C) (00681)	SURROG WATER FLTRD REC PERCENT (99958)	METHYL ESTER, WATER FLTRD REC (UG/L) (50470)	2,4-D, DIS- SOLVED (UG/L) (39732)	GF 0.7U REC (UG/L) (38746)
UMES well	11-01-01	<1	210	<.04	<.2	18	1.3	101	<.009	<.02	<.02
		2,6-DI-ETHYL ANILINE WAT,FLT 0.7 U GF, REC (UG/L) (82660)	3HYDRXY CARBO-FURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	3-KETO CARBO-FURAN WATER FLTRD (UG/L) (50295)	ACETO-CHLOR ESA FLTRD (UG/L) (61029)	ACETO-CHLOR OA FLTRD (UG/L) (61030)	ACETO-CHLOR OA WATER FLTRD (UG/L) (49260)	ACIFL-UORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	ALA-CHLOR OA FLTRD (UG/L) (61031)	ALA-CHLOR ESA WAT,FLT GF 0.7U REC (UG/L) (50009)	ALA-CHLOR WAT,FLT WATER, DISS, REC, (UG/L) (46342)
		<.002	<.006	<2	<.05	<.05	<.004	<.007	<.05	.15	<.002
		ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SULFOXIDE WAT,FLT GF 0.7U REC (UG/L) (49314)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BARBAN SURROG ATE WTR FLT SCD 2060, 9060 RE PERCENT (90640)	BENDIO-CARB, WATER, FLTRD, REC (UG/L) (50299)	BEN-FLUR ALIN WAT,FLD 0.7 U GF, REC (UG/L) (82673)	BENOMYL WATER FLTRD (UG/L) (50300)	BEN-SUL-FURON METHYL WAT,FLT REC (UG/L) (61693)
		<.02	<.008	<.04	<.005	.008	E56.4	<.03	<.010	<.004	<.02
		BENTA-ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BRO-MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAF-FEINE, WATER, FLTRD, REC (UG/L) (50305)	CAF-FEINE-C13 SURROG, WAT,FLT REC PERCENT (99959)	CAR-BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CAR-BARYL WATER, FLTRD, GF, REC (UG/L) (82680)	CARBO-FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	CARBO-FURAN WATER, FLTRD, GF, REC (UG/L) (82674)
		<.01	<.03	<.02	<.002	<.010	E45.6	<.03	<.041	<.006	<.020
		CHLOR-AM BEN, METHYL ESTER WATER FLTRD (UG/L) (61188)	CHLORI-MURON, WATER, FLTRD, REC (UG/L) (50306)	CHLORO-THALO-NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	CY-CLOATE, WATER, DISS, REC (UG/L) (04031)	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DCPA WATER, FLTRD, GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)
		<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.023
		DEETHYL DEISO-PROPYL ATRAZIN DISS, REC (UG/L) (04039)	DEISO-PROPYL ATRAZIN WATER, DISS, REC (UG/L) (04038)	DIAZ-INON D10 SRG WAT,FLT 0.7 U GF, REC PERCENT (91063)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DIMETH-ENAMID OA, WATER, FLT, REC (UG/L) (62482)	DIMETH-ENAMID, WAT,FLT (UG/L) (61951)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)
		<.01	<.04	93.8	<.005	<.01	<.01	<.005	<.05	<.05	<.01

E Estimated value.  
 < Actual value is known to be less than the value shown.

## QUALITY OF GROUND WATER DATA

SOMMERSET COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	DIPHEN-AMID, WATER, DISS, REC (UG/L) (04033)	DISUL-FOTON WATER, FLTRD, 0.7 U GF, REC (UG/L) (82677)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	EPTC WATER, FLTRD, 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT (UG/L) (82663)	ETHO-PROP WATER, FLTRD, 0.7 U GF, REC (UG/L) (82672)	FEN-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUFEN-ACET, ESA, WAT FLT (UG/L) (61952)	FLUFE-NACET OA, WATER, FLT, REC (UG/L) (62483)	FLUMET-SULAM WATER, FLTRD, REC (UG/L) (61694)
UMES well	11-01-01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.05	<.05	E.01
		FLUO-METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	FONOFOS WATER, DISS REC (UG/L) (04095)	HCH ALPHA D6 SRG WAT FLT REC (UG/L) (91065)	HYDROXY ATRA-ZINE WATER, FLTRD REC (UG/L) (50355)	IMAZ-AQUIN WATER, FLTRD REC (UG/L) (50356)	IMAZE-THAPYR WATER, FLTRD REC (UG/L) (50407)	IMID-ACLOP-RID WATER, FLTRD REC (UG/L) (61695)	LINDANE DIS-SOLVED (UG/L) (39341)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	LIN-URON WATER, FLTRD, 0.7 U GF, REC (UG/L) (82666)
		<.03	<.003	91.1	<.008	<.02	<.02	<.007	<.004	<.01	<.035
		MALA-THION, DIS-SOLVED (UG/L) (39532)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METAL-AXYL WATER, FLTRD REC (UG/L) (50359)	METHIO-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH-OMYL OXIME WATER, FLTRD REC (UG/L) (61696)	METH-OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	METHYL AZIN-PHOS WAT FLT GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT GF, REC (UG/L) (82667)	METOLA-CHLOR ESA FLTRD, 0.7 UM GF REC (UG/L) (61043)
		<.027	<.02	<.01	<.02	<.008	<.01	<.004	<.050	<.006	6.43
		METOLA-CHLOR OA FLTRD, 0.7 UM GF REC (UG/L) (61044)	METO-LACHLOR WATER, DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER, DISSOLV (UG/L) (82630)	MET-SUL-FURON METHYL WAT FLT REC (UG/L) (61697)	MOL-INATE WATER, FLTRD, 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER, FLTRD, 0.7 U GF, REC (UG/L) (82684)	NEB-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NICOSUL FURON WATER, FLTRD REC (UG/L) (50364)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY-ZALIN, WATER, FLTRD, 0.7 UM GF REC (UG/L) (49292)
		.06	<.013	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02
		OXAMYL OXIME WATER, FLTRD, REC (UG/L) (50410)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	P, P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PEB-ULATE WATER, FILTRD, 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT GF, REC (UG/L) (82687)	PHORATE WATER, FLTRD, 0.7 U GF, REC (UG/L) (82664)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO-METON, WATER, DISS, REC (UG/L) (04037)
		<.01	<.01	<.003	<.007	<.002	<.010	<.006	<.011	<.02	<.01
		PRON-AMIDE WATER, FLTRD, 0.7 U GF, REC (UG/L) (82676)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER, FLTRD, 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER, FLTRD, 0.7 U GF, REC (UG/L) (82685)	PRO-PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PROP-ICONA-ZOLE, WATER, FLTRD, REC (UG/L) (50471)	PRO-POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SIDURON WATER, FLTRD, REC (UG/L) (38548)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	SULFO-RURON METHYL WTR FLT REC (UG/L) (50337)
		<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02	<.011	<.009

E Estimated value.

&lt; Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

SOMMERSET COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACILL WATER, DISS, REC (UG/L) (04032)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-BENURON METHYL WATER FLTRD (UG/L) (61159)	TRI-CLOPYR, WATER, FLTRD, GF 0.7 U REC (UG/L) (49235)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	UREA 3(4-CHLOROPHENYL METHYL REC (UG/L) (61692)
UMES well	11-01-01	<.02	<.010	<.034	<.02	<.005	<.002	<.009	<.02	<.009	<.02
		1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L) (34506)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L) (34511)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)	1,1-DI-CHLORO-PRO-PENE, WH TOTAL (UG/L) (77168)	123-TRI-CHLORO-PROPANE WATER WHOLE TOTAL (UG/L) (77443)	1,2-DIBROMO-ETHANE WATER WHOLE TOTAL (UG/L) (77651)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DI-CHLORO-ETHENE TOTAL (UG/L) (34546)
		<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03
		2,2-DI-CHLORO-PRO-PANE WAT, WH TOTAL (UG/L) (77170)	2BUTENE TRANS-1 4-DI-CHLORO UNFLTRD (UG/L) (73547)	2-HEXA-NONE WATER WHOLE TOTAL (UG/L) (77103)	ACETONE WATER WHOLE TOTAL (UG/L) (81552)	ACRYLO-NITRILE UNFLTRD (UG/L) (34215)	1,2,3-TRI-CHLORO-BENZENE WAT, WH REC (UG/L) (77613)	BENZENE METHYL-WATER UNFLTRD REC (UG/L) (77221)	BENZENE 1,2,4-TRI-CHLORO-WAT UNF REC (UG/L) (34551)	BENZENE 124-TRI-METHYL UNFLILT RECOVER (UG/L) (77222)	BENZENE 135-TRI-METHYL WATER UNFLTRD REC (UG/L) (77226)
		<.05	<.7	<.7	<.7	<.1	<.3	<.1	<.1	<.06	<.04
		BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 14BRFL-SURROG VOC UNFLTRD REC PERCENT (99834)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	ISO-PROPYL-BENZENE WATER WHOLE REC (UG/L) (77223)	BENZENE N-BUTYL WATER UNFLTRD REC (UG/L) (77342)	BENZENE N-PROPY WATER UNFLTRD REC (UG/L) (77224)	BENZENE O-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	BENZENE SEC BUTYL-WATER UNFLTRD REC (UG/L) (77350)	BENZENE TERT-BUTYL-WATER UNFLTRD REC (UG/L) (77353)	BENZENE TOTAL (UG/L) (34030)
		<.03	83.7	<.05	<.06	<.2	<.04	<.03	<.03	<.05	<.04
		BROMO-BENZENE WATER, WHOLE, TOTAL (UG/L) (81555)	BROMO-ETHENE WATER UNFLTRD RECOVER (UG/L) (50002)	BROMO-FORM TOTAL (UG/L) (32104)	CARBON DI-SULFIDE WATER WHOLE TOTAL (UG/L) (77041)	CARBON TETRA-RIDE TOTAL (UG/L) (32102)	CHLORO-BENZENE TOTAL (UG/L) (34301)	CHLORO-DI-METHANE TOTAL (UG/L) (32105)	CHLORO-ETHANE TOTAL (UG/L) (34311)	CHLORO-FORM TOTAL (UG/L) (32106)	CIS-1,2-DI-CHLORO-ETHENE WATER TOTAL (UG/L) (77093)
		<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1	E.01	<.04
		CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	DIBROMO-CHLORO-PROPANE WATER WHOLE TOT.REC (UG/L) (82625)	DI-BROMO-METHANE WATER WHOLE RECOVER (UG/L) (30217)	BROMO-DI-CHLORO-METHANE TOTAL (UG/L) (32101)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	DI-ISO-PROPYL-ETHER, WATER, UNFLTRD RECOVER (UG/L) (81577)	ETHANE, 1112-TETRA-CHLORO-WAT UNF REC (UG/L) (77562)	ETHANE, 1,1,2,2 TETRA-CHLORO-WAT UNF REC (UG/L) (34516)	ETHANE 12DICL SURROG VOC UNFLTRD REC PERCENT (99832)	ETHANE HEXA-CHLORO-WATER UNFLTRD RECOVER (UG/L) (34396)
		<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	114	<.2

E Estimated value.  
 < Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

SOMMERSET COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	ETHER ETHYL WATER UNFLTRD RECOVER (UG/L) (81576)	ETHER TERT-BUTYL ETHYL UNFLTRD RECOVER (UG/L) (50004)	ETHER TERT-PENTYL METHYL UNFLTRD RECOVER (UG/L) (50005)	ETHYL-BENZENE TOTAL UNFLTRD RECOVER (UG/L) (34371)	FREON-113 WATER UNFLTRD REC (UG/L) (77652)	FURAN, TETRA-HYDRO-BUT-ADIENE UNFLTRD RECOVER (UG/L) (81607)	HEXA-CHLORO-BUT-ADIENE UNFLTRD RECOVER (UG/L) (39702)	ISO-DURENE UNFLTRD RECOVER (UG/L) (50000)	METHAC-RYLATE WATER UNFLTRD RECOVER (UG/L) (73570)	METHAC-RYLATE METHYL WATER UNFLTRD RECOVER (UG/L) (81597)
UMES well	11-01-01	<.2	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3
		METH-ACRYLO-NITRILE WATER UNFLTRD RECOVER (UG/L) (81593)	METHANE BROMO-CHLORO-WAT UNFLTRD REC (UG/L) (77297)	METHYL ACRY-LATE WATER UNFLTRD RECOVER (UG/L) (49991)	METHYL IODIDE WATER UNFLTRD RECOVER (UG/L) (77424)	METHYL TERT-BUTYL ETHER WAT UNF REC (UG/L) (78032)	METHYL-CHLORO-BROMIDE UNFLTRD REC TOTAL (UG/L) (34413)	METHYL-CHLORO-RIDE UNFLTRD REC TOTAL (UG/L) (34418)	METHYL-ENE CHLORO-RIDE UNFLTRD REC TOTAL (UG/L) (34423)	METHYL-ETHYL-KETONE WATER WHOLE TOTAL (UG/L) (81595)	METHYL ISO-BUTYL KETONE WAT.WH. TOTAL (UG/L) (78133)
		<.6	<.07	<2.0	<.25	<.2	<.3	<.2	<.2	<5.0	<.4
		META/PARA-XYLENE WATER UNFLTRD REC (UG/L) (85795)	NAPHTH-ALENE TOTAL (UG/L) (34696)	O-CHLORO-TOLUENE WATER WHOLE TOTAL (UG/L) (77275)	O-XYLENE WATER WHOLE TOTAL (UG/L) (77135)	P-ISO-PROPYL-TOLUENE WATER WHOLE REC (UG/L) (77356)	1234-TETRA-METHYL-BENZENE UNFLTRD REC (UG/L) (49999)	1,3-DI-CHLORO-PROPANE WAT. WH TOTAL (UG/L) (77173)	PROPENE 3-CHLORO-WATER UNFLTRD REC (UG/L) (78109)	STYRENE TOTAL (UG/L) (77128)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)
		<.06	<.5	<.03	<.07	<.07	<.2	<.1	<.07	<.04	<.03
		TOLUENE D8 SURROG VOC UNFLTRD REC PERCENT (99833)	TOLUENE O-ETHYL WATER UNFLTRD RECOVER (UG/L) (77220)	TOLUENE P-CHLOR WATER UNFLTRD REC (UG/L) (77277)	TOLUENE TOTAL (UG/L) (34010)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	VINYL CHLORO-RIDE TOTAL (UG/L) (39175)	RADON 222 (PCI/L) (82303)	RADON 222, 2X CL, SS MDC, WATER, UNFLTRD (PCI/L) (99327)
		100	<.06	<.05	<.05	<.09	<.04	<.09	<.1	100	20.0
						RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)				

15 .17

< Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

TALBOT COUNTY, MARYLAND

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geologic unit	Station type	SAMPLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE (FT. ABOVE NGVD) (72000)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)			
TA Be 83	11-07-01	1000	385023076012601	BLANK	125AQUI	GW	4040	--	--			
	11-07-01	1005		BLANK	125AQUI	GW	4040	--	--			
	11-07-01	1100		ENVIRONMENTAL	125AQUI	GW	4040	68	5.00			
			DEPTH TO BOT- TOM OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72016)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH WATER FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)			
	11-07-01	--	--	--	--	--	--	--	--			
	11-07-01	--	--	--	--	--	--	--	--			
	11-07-01	37	37	27	60	.48	768	65	6.7	4.8	275	
			TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL AS (MG/L) (00900)	CALCIUM DIS- SOLVED (MG/L) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L) (00935)	SODIUM, DIS- SOLVED (MG/L) (00930)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CHLO- RIDER, DIS- SOLVED (MG/L AS CL) (00940)
	11-07-01	--	--	--	--	--	--	--	--	--	--	
	11-07-01	--	--	--	--	--	--	--	--	--	--	
	11-07-01	19.0	14.0	44	10.8	4.06	1.81	30.8	4	5	41.0	
			FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	TOTAL COLI- FORM, M ENDO (COL/ 100 ML) (31501)
	11-07-01	--	--	--	--	--	--	--	--	--	--	
	11-07-01	--	--	--	--	--	--	--	--	--	--	
	11-07-01	<.1	.13	25.7	.2	<.04	E.06	<.008	13.8	<.02	<.1	
			E COLI, NA-MUG, WATER (COL/ 100 ML) (50278)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
	11-07-01	--	--	--	--	--	--	--	--	--	--	
	11-07-01	--	--	--	--	--	--	--	--	--	--	
	11-07-01	<1	176	179	4	<.05	<.2	143	.35	E4	.15	
			CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)
	11-07-01	--	--	--	--	--	--	--	--	--	--	
	11-07-01	--	--	--	--	--	--	--	--	--	--	
	11-07-01	<.8	.40	57.9	35	3.53	2.8	13.5	<.2	.69	<.3	

E Estimated value.  
 < Actual value is known to be less than the value shown.

Geologic Unit (aquifer): 125AQUI - Aquia Formation  
 Station Type: GW - Ground Water  
 Sampling Method: 4040 - Submersible pump

QUALITY OF GROUND WATER DATA

TALBOT COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	2,4-D									
		SILVER, DIS-SOLVED (UG/L) AS AG (01075)	STRON-TIUM, DIS-SOLVED (UG/L) AS SR (01080)	THAL-LIUM, DIS-SOLVED (UG/L) AS TL (01057)	VANA-DIUM, DIS-SOLVED (UG/L) AS V (01085)	ZINC, DIS-SOLVED (UG/L) AS ZN (01090)	CARBON, ORGANIC DIS-SOLVED (MG/L) AS C (00681)	2,4,5-T SURROG FLTRD REC (99958)	METHYL ESTER, WATER FLTRD REC (50470)	2,4-D, DIS-SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (38746)
TA Be 83	11-07-01	--	--	--	--	--	--	91.8	<.009	<.02	<.02
	11-07-01	--	--	--	--	--	--	--	--	--	--
	*11-07-01	<1	163	<.04	<.2	290	.6	98.9	<.009	<.02	<.02
		2,6-DI-ETHYL ANILINE WAT FLT (UG/L) (82660)	3HYDRXY CARBO-FURAN WAT,FLT (UG/L) (49308)	3-KETO CARBO-FURAN WATER FLTRD (UG/L) (50295)	ACETO-CHLOR ESA FLTRD (UG/L) (61029)	ACETO-CHLOR OA FLTRD (UG/L) (61030)	ACETO-CHLOR, WATER FLTRD (UG/L) (49260)	ACIFL-UORFEN, WATER, FLTRD, GF 0.7U (UG/L) (49315)	ALA-CHLOR OA FLTRD (UG/L) (61031)	ALA-CHLOR ESA WAT FLT (UG/L) (50009)	ALA-CHLOR, WATER, DISS, REC (UG/L) (46342)
	11-07-01	<.002	<.006	<2	<.05	<.05	<.004	<.007	<.05	<.05	<.002
	11-07-01	--	--	--	--	--	--	--	--	--	--
	11-07-01	<.002	<.006	<2	<.05	<.05	<.004	<.007	<.05	.75	<.002
		ALDI-CARB SULFONE WAT,FLT (UG/L) (49313)	ALDICA-RB SULFOXIDE, WAT,FLT (UG/L) (49314)	ALDI-CARB, WATER, FLTRD, GF 0.7U (UG/L) (49312)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BARBAN SURROG-ATE WTR FLT SCD, 2060, 9060 RE PERCENT (90640)	BENDIO-CARB, WATER, FLTRD (UG/L) (50299)	BEN-FLUR-ALIN WAT FLD (UG/L) (82673)	BENOMYL WATER FLTRD (UG/L) (50300)	BEN-SUL-FURON METHYL WAT FLT REC (UG/L) (61693)
	11-07-01	<.02	<.008	<.04	<.005	<.007	80.3	<.03	<.010	<.004	<.02
	11-07-01	--	--	--	--	--	--	--	--	--	--
	11-07-01	<.02	<.008	<.04	<.005	<.007	146	<.03	<.010	<.004	<.02
		BENTA-ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO-MACIL, WATER, REC (UG/L) (04029)	BRO-MOXYNIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	BUTYL-ATE, WATER, REC (UG/L) (04028)	CAF-FEINE, WATER, FLTRD REC (UG/L) (50305)	CAF-FEINE-C13 SURROG, WAT FLT REC (99959)	CAR-BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CAR-BARYL, WATER, FLTRD, GF, REC (UG/L) (82680)	CARBO-FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	CARBO-FURAN, WATER, FLTRD, GF, REC (UG/L) (82674)
	11-07-01	<.01	<.03	<.02	<.002	.118	139	<.03	<.041	<.006	<.020
	11-07-01	--	--	--	--	--	--	--	--	--	--
	11-07-01	<.01	<.03	<.02	<.002	<.010	109	<.03	<.041	<.006	<.020
		CHLOR-AMBEN, METHYL ESTER WATER FLTRD (UG/L) (61188)	CHLORI-MURON, WATER, FLTRD REC (UG/L) (50306)	CHLORO-THALO-NIL, WAT,FLT, GF 0.7U REC (UG/L) (49306)	CHLOR-PYRIFOS, DIS-SOLVED (UG/L) (38933)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	CY-CLOATE, WATER, DISS, REC (UG/L) (04031)	DACTHAL MONO-ACID, WAT,FLT, GF 0.7U REC (UG/L) (49304)	DCPA WATER FLTRD (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, FLTRD, DISS, REC (UG/L) (04040)
	11-07-01	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	<.006
	11-07-01	--	--	--	--	--	--	--	--	--	--
	11-07-01	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.018
		DEETHYL DEISO-PROPYL ATRAZIN, DISS, REC (UG/L) (04039)	DEISO-PROPYL ATRAZIN, WATER, DISS, REC (UG/L) (04038)	DIAZ-INON D10 SRG WAT FLT, 0.7 U PERCENT (91063)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DI-ELDRIN, DIS-SOLVED (UG/L) (39381)	DIMETH-ENAMID OA, WATER FLT, REC (UG/L) (62482)	DIMETH-ENAMID, WAT FLT, REC (UG/L) (61951)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)
	11-07-01	<.01	<.04	92.6	<.005	<.01	<.01	<.005	<.05	<.05	<.01
	11-07-01	--	--	--	--	--	--	--	--	--	--
	11-07-01	<.01	<.04	90.4	<.005	<.01	<.01	<.005	<.05	<.05	<.01

E Estimated value.

< Actual value is known to be less than the value shown.

\* Some compounds were detected in one or both of the blanks associated with this environmental sample. Interpretation of these results from the environmental sample should include the quality-control results



## QUALITY OF GROUND WATER DATA

TALBOT COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	DIPHEN-AMID, WATER, DISS, REC (UG/L) (04033)	DISUL-FOTON WATER, FLTRD, 0.7 U (UG/L) (82677)	DIURON, WATER, FLTRD, GF 0.7U (UG/L) (49300)	EPTC WATER, FLTRD, 0.7 U (UG/L) (82668)	ETHAL-ALIN WAT FLT (UG/L) (82663)	ETHO-PROP WATER, FLTRD, 0.7 U (UG/L) (82672)	FEN-URON, WATER, FLTRD, 0.7 U (UG/L) (49297)	FLUFEN-ACET, ESA, WAT FLT (UG/L) (61952)	FLUFE-NACET, OA, WATER, FLT, REC (UG/L) (62483)	FLUMET-SULAM WATER, FLTRD, REC (UG/L) (61694)
TA Be 83	11-07-01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.05	<.05	<.01
	11-07-01	--	--	--	--	--	--	--	--	--	--
	*11-07-01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.05	<.05	<.01
		FLUO-METURON WATER, FLTRD, GF 0.7U (UG/L) (38811)	HCH ALPHA D6 SRG WATER, WAT FLT, DISS REC (UG/L) (04095)	HYDROXY ATRA-ZINE WATER, FLTRD, REC (UG/L) (50355)	IMAZE-AQUIN WATER, FLTRD, REC (UG/L) (50356)	IMAZE-THAPYR WATER, FLTRD, REC (UG/L) (50407)	IMID-ACLOP-RID WATER, FLTRD, DIS-SOLVED (UG/L) (61695)	LINDANE (39341)	LINURON WATER, FLTRD, GF 0.7U (UG/L) (38478)	LIN-URON WATER, FLTRD, 0.7 U (UG/L) (82666)	
	11-07-01	<.03	<.003	86.0	<.008	<.02	<.02	<.007	<.004	<.01	<.035
	11-07-01	--	--	--	--	--	--	--	--	--	--
	11-07-01	<.03	<.003	81.4	<.008	<.02	<.02	<.007	<.004	<.01	<.035
		MALA-THION, DIS-SOLVED (UG/L) (39532)	MCPA, WATER, FLTRD, GF 0.7U (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U (UG/L) (38487)	METHIO-CARB, AXYL WATER, FLTRD, REC (UG/L) (50359)	METH-OMYL WATER, FLTRD, REC (UG/L) (38501)	METH-OMYL WATER, FLTRD, REC (UG/L) (61696)	METH-OMYL, PHOS WAT FLT (UG/L) (49296)	METHYL-AZIN-THION (UG/L) (82686)	METHYL-PARA-THION (UG/L) (82667)	METOLA-CHLOR ESA FLTRD (UG/L) (61043)
	11-07-01	<.027	<.02	<.01	<.02	<.008	<.01	<.004	<.050	<.006	<.05
	11-07-01	--	--	--	--	--	--	--	--	--	--
	11-07-01	<.027	<.02	<.01	<.02	<.008	<.01	<.004	<.050	<.006	.61
		METOLA-CHLOR OA FLTRD, 0.7 UM (UG/L) (61044)	METO-LACHLOR WATER, DISSOLV (UG/L) (39415)	METRI-BUZIN WATER, DISSOLV (UG/L) (82630)	MET-SUL-FURON METHYL WAT FLT (UG/L) (61697)	MOL-INATE WATER, FLTRD, GF 0.7 U (UG/L) (82671)	NAPROP-AMIDE WATER, FLTRD, GF 0.7 U (UG/L) (82684)	NEB-URON, WATER, FLTRD, REC (UG/L) (49294)	NICOSUL FURON WATER, FLTRD, REC (UG/L) (50364)	NORFLUR AZON, WATER, FLTRD, GF 0.7U (UG/L) (49293)	ORY-ZALIN, WATER, FLTRD, REC (UG/L) (49292)
	11-07-01	<.05	E.003	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02
	11-07-01	--	--	--	--	--	--	--	--	--	--
	11-07-01	<.05	<.013	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02
		OXAMYL, OXIME WATER, FLTRD, REC (UG/L) (50410)	OXAMYL, WATER, FLTRD, GF 0.7U (UG/L) (38866)	P, P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PEB-ULATE WATER, FILTRD, GF, REC (UG/L) (82669)	PENDI-ALIN WAT FLT (UG/L) (82683)	PER-CIS WATER, WAT FLT, GF, REC (UG/L) (82687)	PHORATE WATER, FLTRD, GF, REC (UG/L) (82664)	PIC-LORAM, WATER, FLTRD, GF 0.7U (UG/L) (49291)	PRO-METON, WATER, FLTRD, DISS, REC (UG/L) (04037)
	11-07-01	<.01	<.01	<.003	<.007	<.002	<.010	<.006	<.011	<.02	<.01
	11-07-01	--	--	--	--	--	--	--	--	--	--
	11-07-01	<.01	<.01	<.003	<.007	<.002	<.010	<.006	<.011	<.02	<.01
		PRON-AMIDE WATER, FLTRD, 0.7 U (UG/L) (82676)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER, FLTRD, GF 0.7 U (UG/L) (82679)	PRO-PARGITE WATER, FLTRD, GF 0.7 U (UG/L) (82685)	PRO-PHAM, WATER, FLTRD, GF 0.7U (UG/L) (49236)	PROP-ICONA-ZOLE, WATER, FLTRD, REC (UG/L) (50471)	PRO-POXUR, WATER, FLTRD, GF 0.7U (UG/L) (38538)	SIDURON WATER, FLTRD, REC (UG/L) (38548)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	SULFO-MET-RURON METHYL WTR FLT (UG/L) (50337)
	11-07-01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02	<.011	<.009
	11-07-01	--	--	--	--	--	--	--	--	--	--
	11-07-01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02	<.011	<.009

E Estimated value.

&lt; Actual value is known to be less than the value shown.

\* Some compounds were detected in one or both of the blanks associated with this environmental sample. Interpretation of these results from the environmental sample should include the quality-control results

QUALITY OF GROUND WATER DATA

TALBOT COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACILL WATER, DISS, REC (UG/L) (04032)	TER-BACILL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-BENURON METHYL WATER FLTRD REC (UG/L) (61159)	TRI-CLOPYR, WATER, WAT FLT GF, REC (UG/L) (49235)	TRI-FLUR-ALIN WAT FLT GF, REC (UG/L) (82661)	UREA 3(4-CHLOROPHENYL METHYL WAT FLT REC (UG/L) (61692)
TA Be 83	11-07-01	<.02	<.010	<.034	<.02	<.005	<.002	.047	<.02	<.009	<.02
	11-07-01	--	--	--	--	--	--	--	--	--	--
	*11-07-01	<.02	<.010	<.034	<.02	<.005	<.002	<.009	<.02	<.009	<.02
		1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L) (34506)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L) (34511)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)	1,1-DI-CHLORO-PRO-PENE, WAT, WH TOTAL (UG/L) (77168)	123-TRI-CHLORO-PROPANE WATER WHOLE TOTAL (UG/L) (77443)	1,2-DIBROMO-ETHANE WHOLE TOTAL (UG/L) (77651)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DI-CHLORO-ETHENE TOTAL (UG/L) (34546)
	11-07-01	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03
	11-07-01	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03
	11-07-01	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03
		2,2-DI-CHLORO-PRO-PANE WAT, WH TOTAL (UG/L) (77170)	2BUTENE TRANS-1 4-DI-CHLORO UNFLTRD RECOVER (UG/L) (73547)	2-HEXA-NONE WATER WHOLE TOTAL (UG/L) (77103)	ACETONE WATER WHOLE TOTAL (UG/L) (81552)	ACRYLO-NITRILE WAT, WH TOTAL (UG/L) (34215)	1,2,3-TRI-CHLORO-BENZENE WAT, WH UNFLTRD REC (UG/L) (77613)	BENZENE 123-TRI-METHYL-UNFLTRD RECOVER (UG/L) (77221)	BENZENE 1,2,4-TRI-CHLORO-UNF UNFILT RECOVER (UG/L) (34551)	BENZENE 124-TRI-METHYL UNFLTRD RECOVER (UG/L) (77222)	BENZENE 135-TRI-METHYL WATER UNFLTRD REC (UG/L) (77226)
	11-07-01	<.05	<.7	<.7	E7	<1	<.3	<.1	<.1	E.02	<.04
	11-07-01	<.05	<.7	<.7	<7	<1	<.3	<.1	<.1	E.01	<.04
	11-07-01	<.05	<.7	<.7	<7	<1	<.3	<.1	<.1	E.06	<.04
		BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 14BRFL-SURROG VOC UNFLTRD REC (PERCENT) (99834)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	ISO-PROPYL-BENZENE WATER WHOLE REC (UG/L) (77223)	BENZENE N-BUTYL WATER UNFLTRD REC (UG/L) (77342)	BENZENE N-PROPY WATER UNFLTRD REC (UG/L) (77224)	BENZENE O-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	BENZENE SEC-BUTYL-WATER UNFLTRD REC (UG/L) (77350)	BENZENE TERT-BUTYL-WATER UNFLTRD REC (UG/L) (77353)	BENZENE TOTAL (UG/L) (34030)
	11-07-01	<.03	86.1	E.02	<.06	<.2	<.04	E.01	<.03	<.05	E.01
	11-07-01	<.03	87.0	<.05	<.06	<.2	<.04	<.03	<.03	<.05	<.04
	11-07-01	<.03	85.1	<.05	<.06	<.2	<.04	<.03	<.03	<.05	<.04
		BROMO-BENZENE WATER, WHOLE, TOTAL (UG/L) (81555)	BROMO-ETHENE WATER UNFLTRD RECOVER (UG/L) (50002)	BROMO-BROMO-FORM TOTAL (UG/L) (32104)	CARBON DI-SULFIDE WATER WHOLE TOTAL (UG/L) (77041)	CARBON TETRA-CHLORIDE TOTAL (UG/L) (32102)	CHLORO-BENZENE TOTAL (UG/L) (34301)	BROMO-BROMO-METHANE TOTAL (UG/L) (32105)	CHLORO-ETHANE TOTAL (UG/L) (34311)	CHLORO-ETHANE FORM TOTAL (UG/L) (32106)	CIS-1,2-DI-CHLORO-ETHENE WATER TOTAL (UG/L) (77093)
	11-07-01	<.04	<.1	<.06	<.07	<.06	E.02	<.2	<.1	E.08	<.04
	11-07-01	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1	<.02	<.04
	11-07-01	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1	E.02	<.04
		CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	DIBROMO-CHLORO-PROPANE WHOLE TOT.REC (UG/L) (82625)	DI-BROMO-METHANE WATER WHOLE RECOVER (UG/L) (30217)	BROMO-BROMO-METHANE CHLORO-WATER TOTAL (UG/L) (32101)	DI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34668)	DI-ISO-PROPYL-ETHER, WATER UNFLTRD RECOVER (UG/L) (81577)	ETHANE, 1112-TETRA-CHLORO-WAT UNF (UG/L) (77562)	ETHANE, 1,1,2,2-TETRA-CHLORO-UNF REC (UG/L) (34516)	ETHANE 12D1CL-SURROG VOC UNFLTRD REC (PERCENT) (99832)	ETHANE HEXA-CHLORO-WATER UNFLTRD RECOVER (UG/L) (34396)
	11-07-01	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	117	<.2
	11-07-01	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	121	<.2
	11-07-01	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	120	<.2

E Estimated value.

< Actual value is known to be less than the value shown.

\* Some compounds were detected in one or both of the blanks associated with this environmental sample. Interpretation of these results from the environmental sample should include the quality-control results

QUALITY OF GROUND WATER DATA

TALBOT COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	ETHER	ETHER	ETHER		FURAN,			METHAC-	METHAC-	
		ETHYL	TERT-BUTYL	TERT-PENTYL	ETHYL-	113	TETRA-HYDRO-	HEXA-CHLORO-	ISO-DURENE	RYLATE	RYLATE
		WATER	WATER	WATER	BENZENE	WATER	WATER	WATER	WATER	WATER	
		UNFLTRD	UNFLTRD	UNFLTRD	TOTAL	UNFLTRD	UNFLTRD	ADIENE	UNFLTRD	UNFLTRD	
		RECOVER	RECOVER	RECOVER	RECOVER	REC	RECOVER	TOTAL	RECOVER	RECOVER	
		(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	
		(81576)	(50004)	(50005)	(34371)	(77652)	(81607)	(39702)	(50000)	(73570)	
		(81597)									
TA Be 83	11-07-01	<.2	<.05	<.08	E.01	<.06	9	<.1	<.2	<.2	<.3
	11-07-01	<.2	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3
	*11-07-01	<.2	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3
		METH-ACRYLO-NITRILE	METHANE-BROMO-WATER	METHYL-ACRY-LATE	METHYL-IODIDE	METHYL-TERT-BUTYL	METHYL-ETHER	METHYL-CHLO-RIDE	METHYL-ENE	METHYL-ETHYL-KETONE	METHYL-ISO-BUTYL-KETONE
		UNFLTRD	UNFLTRD	UNFLTRD	UNFLTRD	WAT UNF	BROMIDE	TOTAL	TOTAL	WHOLE	WAT. WH.
		RECOVER	RECOVER	RECOVER	RECOVER	REC	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
		(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
		(81593)	(77297)	(49991)	(77424)	(78032)	(34413)	(34418)	(34423)	(81595)	(78133)
	11-07-01	<.6	<.07	<2.0	<.25	<.2	<.3	<.2	E.1	5.1	<.4
	11-07-01	<.6	<.07	<2.0	<.25	<.2	<.3	<.2	.3	<5.0	<.4
	11-07-01	<.6	<.07	<2.0	<.25	<.2	<.3	<.2	<.2	<5.0	<.4
		META/PARA-XYLENE	NAPHTH-ALENE	O-CHLORO-TOLUENE	O-XYLENE	P-ISO-PROPYL-TOLUENE	1234-TETRA-METHYL-BENZENE	1,3-DI-CHLORO-PROPANE	PROPENE-3-CHLORO-WATER	STYRENE	TETRA-CHLORO-ETHYL-ENE
		UNFLTRD	TOTAL	TOTAL	TOTAL	WHOLE	UNFLTRD	WAT. WH	UNFLTRD	ENE	TOTAL
		REC	RECOVER	RECOVER	RECOVER	REC	REC	TOTAL	RECOVER	TOTAL	TOTAL
		(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
		(85795)	(34696)	(77275)	(77135)	(77356)	(49999)	(77173)	(78109)	(77128)	(34475)
	11-07-01	E.02	<.5	<.03	<.07	<.07	<.2	<.1	<.07	<.04	E.02
	11-07-01	<.06	<.5	<.03	<.07	<.07	<.2	<.1	<.07	<.04	E.03
	11-07-01	<.06	<.5	<.03	<.07	<.07	<.2	<.1	<.07	<.04	<.03
		TOLUENE	TOLUENE	TOLUENE	TOLUENE	TRANS-1,3-DI-CHLORO-PROPENE	TRI-CHLORO-ETHYL-ENE	TRI-CHLORO-FLUORO-METHANE	VINYL-CHLO-RIDE	RADON-222	RN-222
		SURROG	O-ETHYL	P-CHLOR						222	2 SIGMA
		VOC	WATER	WATER							WATER,
		UNFLTRD	UNFLTRD	UNFLTRD	TOLUENE	TOLUENE	TOLUENE	TOLUENE	TOLUENE	TOTAL	WHOLE,
		REC	RECOVER	REC	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL,
		PERCENT	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(PCI/L)	(PCI/L)
		(99833)	(77220)	(77277)	(34010)	(34699)	(39180)	(34488)	(39175)	(82303)	(76002)
	11-07-01	100	<.06	<.05	E.02	<.09	<.04	<.09	<.1	--	--
	11-07-01	103	<.06	<.05	E.02	<.09	<.04	<.09	<.1	--	--
	11-07-01	102	<.06	<.05	<.05	<.09	<.04	<.09	<.1	240	21
		URANIUM									
		NATURAL									
		DIS-									
		SOLVED									
		(UG/L									
		AS U)									
		(22703)									
	11-07-01	--									
	11-07-01	--									
	11-07-01	<.02									

E Estimated value.  
 < Actual value is known to be less than the value shown.

\* Some compounds were detected in one or both of the blanks associated with this environmental sample. Interpretation of these results from the environmental sample should include the quality-control results

QUALITY OF GROUND WATER DATA

WASHINGTON COUNTY, MARYLAND

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geo-logic unit	Station type	SAMPLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH BELOW SURFACE LAND (WATER LEVEL) (FEET) (72019)
Leach Ref. Well	06-12-02	1520	394032077322801	ENVIRONMENTAL	377HRPR	GW	4040	780	39.70
WA Bj 51	06-13-02	1315	393815077353001	BLANK	377TMSN	GW	--	--	--
	06-13-02	1430		ENVIRONMENTAL	377TMSN	GW	4040	705	64.90
WA Ci 168	06-13-02	0850	393419077405901	ENVIRONMENTAL	371ELBK	GW	4040	520	94.70
WA Cj 132	06-06-02	0945	393210077392901	ENVIRONMENTAL	377TMSN	GW	4040	560	50.31

DEPTH OF WELL, TOTAL (FEET) (72008)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	FLOW RATE (G/M) (00059)	BARO-METRIC PRES-SURE OF (MM HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (MG/L) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)			
Leach Ref. Well	06-12-02	200	100	2.5	734	1	.1	6.0	82	28.0	12.0
WA Bj 51	06-13-02	--	--	--	--	--	--	--	--	--	--
	06-13-02	166	80	2.0	744	81	8.3	7.0	503	24.5	13.6
WA Ci 168	06-13-02	225	70	1.6	744	74	7.6	7.0	599	24.5	14.1
WA Cj 132	06-06-02	100	60	2.1	749	72	7.4	7.4	359	26.0	13.9

HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS TOT IT (MG/L AS CACO3) (39086)	BICAR-BONATE WATER DIS IT (MG/L AS HCO3) (00453)	CAR-BONATE WATER FIELD (MG/L AS CO3) (00452)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)		
Leach Ref. Well	06-12-02	--	--	--	--	35	43	0	--	--	
WA Bj 51	06-13-02	--	--	--	--	--	--	--	--	--	
	06-13-02	280	73.3	23.3	1.35	3.26	237	289	0	8.96	E.08
WA Ci 168	06-13-02	330	79.4	32.0	1.69	1.84	245	298	0	6.29	.27
WA Cj 132	06-06-02	180	47.9	15.0	2.09	2.17	135	164	0	8.45	.28

BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)		
Leach Ref. Well	06-12-02	--	--	<.04	.17	<.008	--	<.05	.07	.202	
WA Bj 51	06-13-02	--	--	--	--	--	--	--	--	--	
	06-13-02	E.02	9.72	5.3	<.04	<.10	<.008	--	4.34	E.01	--
WA Ci 168	06-13-02	E.02	11.0	42.1	<.04	.12	<.008	6.3	6.21	<.02	--
WA Cj 132	06-06-02	E.02	10.1	8.5	<.04	<.10	<.008	--	7.32	E.01	--

SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)		
Leach Ref. Well	06-12-02	--	--	--	--	--	--	--	--		
WA Bj 51	06-13-02	--	--	--	--	--	--	--	--		
	06-13-02	298	287	<1	.06	<.2	30	<.06	<.06	<.04	<.8
WA Ci 168	06-13-02	368	350	<1	.06	<.2	81	<.06	<.06	<.04	<.8
WA Cj 132	06-06-02	220	208	<1	<.05	<.2	43	<.06	8	<.04	<.8

E Estimated value.  
 < Actual value is known to be less than the value shown.

Geologic Unit (aquifer): 371ELBK - Elbrook Formation  
 377HRPR - Harpers Formation  
 377TMSN - Tomstown Dolomite

Station Type: GW - Ground Water

Sampling Method: 4040 - Submersible pump

QUALITY OF GROUND WATER DATA

WASHINGTON COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
Leach Ref. Well WA Bj 51	06-12-02	--	--	--	--	--	--	--	--	--	--
	06-13-02	--	--	--	--	--	--	--	--	--	--
	06-13-02	.09	3.9	<10	.33	1.4	<.1	<.2	<.06	<.3	<1
WA Ci 168	06-13-02	.11	3.3	<10	.20	4.1	<.1	.4	<.06	.4	<1
WA Cj 132	06-06-02	.07	6.4	<10	.14	10.8	.1	.2	.22	E.2	<1
		STRONTIUM, DIS-SOLVED (UG/L AS SR) (01080)	THALIAM, DIS-SOLVED (UG/L AS TL) (01057)	VANADIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	2,4,5-TRIFLUOROPHENOL, WATER FLTRD REC (99958)	2,4-DIMETHYLTEREOPHTHALATE, WATER FLTRD REC (50470)	2,4-DIMETHYLTEREOPHTHALATE, WATER DIS-SOLVED (UG/L) (39732)	2,4-DIBROMOPHENOL, WATER FLTRD REC (38746)	2,6-DIETHYLANILINE, WATER FLTRD REC (82660)
Leach Ref. Well WA Bj 51	06-12-02	--	--	--	--	--	--	--	--	--	--
	06-13-02	--	--	--	--	<.3	--	--	--	--	--
	06-13-02	68.4	<.04	1.3	3	E.3	85.3	<.009	<.02	<.02	<.006
WA Ci 168	06-13-02	887	<.04	1.2	3	.6	84.9	<.009	<.02	<.02	<.006
WA Cj 132	06-06-02	133	E.03	1.2	5	.4	73.2	<.009	<.02	<.02	<.006
		3-HYDROXYCARBOXYFURAN, WATER FLTRD REC (UG/L) (49308)	3-KETOCARBOXYFURAN, WATER FLTRD REC (UG/L) (50295)	ACETOCHLOR, ES, FLTRD (UG/L) (61029)	ACETOCHLOR, OA, FLTRD (UG/L) (61030)	ACETOCHLOR, WATER FLTRD REC (UG/L) (49260)	ACIFLUOROPHENOL, WATER FLTRD REC (UG/L) (49315)	ALACHLOR, OA, FLTRD (UG/L) (61031)	ALACHLOR, ES, WATER FLTRD REC (UG/L) (50009)	ALACHLOR, CHLOR, WATER DISS, REC (UG/L) (46342)	ALDICARB, SULFONE, WATER FLTRD REC (UG/L) (49313)
Leach Ref. Well WA Bj 51	06-12-02	--	--	--	--	--	--	--	--	--	--
	06-13-02	--	--	--	--	--	--	--	--	--	--
	06-13-02	<.006	<2	<.05	<.05	<.006	<.007	<.05	<.05	<.004	<.02
WA Ci 168	06-13-02	<.006	<2	<.05	<.05	<.006	<.007	<.05	<.05	<.004	<.02
WA Cj 132	06-06-02	<.006	<2	<.05	<.05	<.006	<.007	<.05	.05	<.004	<.02
		ALDICARB, SULFONE, WATER FLTRD REC (UG/L) (49314)	ALDICARB, WATER, FLTRD (UG/L) (49312)	ALPHABHC, DISS, SOLVED (UG/L) (34253)	ATRAZINE, WATER, FLTRD (UG/L) (39632)	BARBANSURROGATE WTR, FLTRD (PERCENT) (90640)	BENDIOXIM, WATER FLTRD REC (UG/L) (50299)	BENFLURON, ALIN, WATER FLTRD REC (UG/L) (82673)	BENOMYL, WATER FLTRD REC (UG/L) (50300)	BENSULFURON, WATER, METHYL, WATER FLTRD REC (UG/L) (61693)	BENTAZON, WATER, FLTRD (UG/L) (38711)
Leach Ref. Well WA Bj 51	06-12-02	--	--	--	--	--	--	--	--	--	--
	06-13-02	--	--	--	--	--	--	--	--	--	--
	06-13-02	<.008	<.04	<.005	.093	102	<.03	<.010	<.004	<.02	<.01
WA Ci 168	06-13-02	<.008	<.04	<.005	.273	110	<.03	<.010	<.004	<.02	<.01
WA Cj 132	06-06-02	<.008	<.04	<.005	.134	108	<.03	<.010	<.004	<.02	<.01
		BROMACIL, WATER, DISS, REC (UG/L) (04029)	BROMOXYNIL, WATER, FLTRD (UG/L) (49311)	BUTYLATE, WATER, DISS, REC (UG/L) (04028)	CAFEEINE, WATER, FLTRD REC (UG/L) (50305)	CAFEEINE, C13, SURROG, WTR, FLTRD (PERCENT) (99959)	CARBARYL, WATER, FLTRD REC (UG/L) (49310)	CARBARYL, WATER, FLTRD REC (UG/L) (82680)	CARBONFURAN, WATER, FLTRD REC (UG/L) (49309)	CARBONFURAN, WATER, FLTRD REC (UG/L) (82674)	CHLORAMBEN, METHYL, ESTER, WATER, FLTRD (UG/L) (61188)
Leach Ref. Well WA Bj 51	06-12-02	--	--	--	--	--	--	--	--	--	--
	06-13-02	--	--	--	--	--	--	--	--	--	--
	06-13-02	<.03	<.02	<.002	<.010	107	<.03	<.041	<.006	<.020	<.02
WA Ci 168	06-13-02	<.03	<.02	<.002	<.010	96.9	<.03	<.041	<.006	<.020	<.02
WA Cj 132	06-06-02	<.03	<.02	<.002	<.010	124	<.03	<.041	<.006	<.020	<.02

E Estimated value.  
 < Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

WASHINGTON COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	CHLORIMURON, WATER, FLTRD REC (UG/L) (50306)	CHLOROTHALONIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLOROPYRIFOS, DIS-SOLVED (UG/L) (38933)	CLOPYRALID, WATER, FLTRD GF 0.7U REC (UG/L) (49305)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)	CYCLOATE, WATER, DISS, REC (UG/L) (04031)	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DCPA WATER, FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	DEETHYL DEISO-PROPYL ATRAZIN, DISS, REC (UG/L) (04039)
Leach Ref. Well	06-12-02	--	--	--	--	--	--	--	--	--	--
WA Bj 51	06-13-02	--	--	--	--	--	--	--	--	--	--
	06-13-02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.062	E.03
WA Ci 168	06-13-02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.453	E.24
WA Cj 132	06-06-02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.180	E.08
		DEISO-PROPYL ATRAZIN, DISS, REC (UG/L) (04038)	DIAZINON, D10 SRG WAT FLT 0.7 U GF, REC PERCENT (91063)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD GF 0.7U REC (UG/L) (38442)	DICHLOR PROP, WATER, FLTRD GF 0.7U REC (UG/L) (49302)	DI-ELDRIN, DIS-SOLVED (UG/L) (39381)	DIMETH-ENAMID, OA, WATER, FLT, REC WAT FLT (UG/L) (62482)	DIMETH-ENAMID, ESA, WAT FLT (UG/L) (61951)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DIPHEN-AMID, WATER, DISS, REC (UG/L) (04033)
Leach Ref. Well	06-12-02	--	--	--	--	--	--	--	--	--	--
WA Bj 51	06-13-02	--	--	--	--	--	--	--	--	--	--
	06-13-02	E.02	109	<.005	<.01	<.01	<.005	<.05	<.05	<.01	<.03
WA Ci 168	06-13-02	E.08	107	<.005	<.01	<.01	<.005	<.05	<.05	<.01	<.03
WA Cj 132	06-06-02	E.14	E110	<.005	<.01	<.01	<.005	<.05	<.05	<.01	<.03
		DISULFOTON WATER, FLTRD 0.7 U GF, REC (UG/L) (82677)	DIURON, WATER, FLTRD GF 0.7U REC (UG/L) (49300)	EPTC WATER, FLTRD GF, REC (UG/L) (82668)	ETHALFLUR-ALIN, WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHOPROP, WATER, FLTRD GF 0.7U REC (UG/L) (82672)	FENURON, WATER, FLTRD GF 0.7U REC (UG/L) (49297)	FLUFEN-ACET, ESA, WAT FLT (UG/L) (61952)	FLUFE-NACET, OA, WATER, FLT, REC (UG/L) (62483)	FLUMET-SULAM, WATER, FLTRD REC (UG/L) (61694)	FLUO-METURON, WATER, FLTRD GF 0.7U REC (UG/L) (38811)
Leach Ref. Well	06-12-02	--	--	--	--	--	--	--	--	--	--
WA Bj 51	06-13-02	--	--	--	--	--	--	--	--	--	--
	06-13-02	<.02	<.01	<.002	<.009	<.005	<.03	<.05	<.05	<.01	<.03
WA Ci 168	06-13-02	<.02	<.01	<.002	<.009	<.005	<.03	<.05	<.05	<.01	<.03
WA Cj 132	06-06-02	<.02	<.01	<.002	<.009	<.005	<.03	<.05	<.05	<.01	<.03
		FONOFOS WATER, DISS, REC (UG/L) (04095)	HCH ALPHA D6 SRG WAT FLT 0.7 U GF, REC PERCENT (91065)	HYDROXY ATRAZINE, WATER, FLTRD REC (UG/L) (50355)	IMAZ-AQUIN, WATER, FLTRD REC (UG/L) (50356)	IMAZETHAPYR, WATER, FLTRD REC (UG/L) (50407)	IMID-ACLOP-RID, WATER, FLTRD REC (UG/L) (61695)	LINDANE, DIS-SOLVED (UG/L) (39341)	LINURON, WATER, FLTRD GF 0.7U REC (UG/L) (38478)	LINURON, WATER, FLTRD GF, REC (UG/L) (82666)	MALATHION, DIS-SOLVED (UG/L) (39532)
Leach Ref. Well	06-12-02	--	--	--	--	--	--	--	--	--	--
WA Bj 51	06-13-02	--	--	--	--	--	--	--	--	--	--
	06-13-02	<.003	90.7	E.022	<.02	<.02	<.007	<.004	<.01	<.035	<.027
WA Ci 168	06-13-02	<.003	96.5	E.072	<.02	<.02	<.007	<.004	<.01	<.035	<.027
WA Cj 132	06-06-02	<.003	100	E.031	<.02	<.02	<.007	<.004	<.01	<.035	<.027
		MCPA, WATER, FLTRD GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD GF 0.7U REC (UG/L) (38487)	METAL-AXYL, WATER, FLTRD REC (UG/L) (50359)	METHIO-CARB, WATER, FLTRD GF 0.7U REC (UG/L) (38501)	METH-OMYL, WATER, FLTRD REC (UG/L) (49296)	METHYL-AZIN-PHOS, WAT FLT GF, REC (UG/L) (82686)	METHYL-PARA-THION, WAT FLT GF, REC (UG/L) (82667)	METOLA-CHLOR, ESA, FLTRD GF REC (UG/L) (61043)	METOLA-CHLOR, OA, FLTRD GF REC (UG/L) (61044)	METO-LACHLOR, WATER, DISSOLV (UG/L) (39415)
Leach Ref. Well	06-12-02	--	--	--	--	--	--	--	--	--	--
WA Bj 51	06-13-02	--	--	--	--	--	--	--	--	--	--
	06-13-02	<.02	<.01	<.02	<.008	<.004	<.050	<.006	.12	<.05	<.013
WA Ci 168	06-13-02	<.02	<.01	<.02	<.008	<.004	<.050	<.006	1.33	.06	<.013
WA Cj 132	06-06-02	<.02	<.01	<.02	<.008	<.004	<.050	<.006	.42	<.05	E.004

E Estimated value.  
 < Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

WASHINGTON COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MET-SUL-FURON METHYL WAT FLT REC (UG/L) (61697)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	NEB-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NICOSUL FURON WATER FLTRD REC (UG/L) (50364)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY-ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	P,P'DDE DISSOLV (UG/L) (34653)
Leach Ref. Well	06-12-02	--	--	--	--	--	--	--	--	--	--
WA Bj 51	06-13-02	--	--	--	--	--	--	--	--	--	--
	06-13-02	<.006	<.03	<.002	<.007	<.01	<.01	E.01	<.02	<.01	<.003
WA Ci 168	06-13-02	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	<.01	<.003
WA Cj 132	06-06-02	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	<.01	<.003

WELL NUMBER	Date	PARA-THION, DIS-SOLVED (UG/L) (39542)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-ALIN WAT FLT GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)
Leach Ref. Well	06-12-02	--	--	--	--	--	--	--	--	--	--
WA Bj 51	06-13-02	--	--	--	--	--	--	--	--	--	--
	06-13-02	<.010	<.004	<.022	<.006	<.011	<.02	<.01	<.004	<.010	<.011
WA Ci 168	06-13-02	<.010	<.004	<.022	<.006	<.011	<.02	.26	<.004	<.010	<.011
WA Cj 132	06-06-02	<.010	<.004	<.022	<.006	<.011	<.02	<.01	<.004	<.010	<.011

WELL NUMBER	Date	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRO-PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PROP-ICONA-ZOLE, WATER FLTRD REC (UG/L) (50471)	PRO-POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SIDURON WATER FLTRD REC (UG/L) (38548)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	SULFO-RURON METHYL WTR FLT REC (UG/L) (50337)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL, WATER, DISS, REC (UG/L) (04032)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)
Leach Ref. Well	06-12-02	--	--	--	--	--	--	--	--	--	--
WA Bj 51	06-13-02	--	--	--	--	--	--	--	--	--	--
	06-13-02	<.02	<.010	<.02	<.008	<.02	.046	<.009	<.02	<.010	<.034
WA Ci 168	06-13-02	<.02	<.010	<.02	<.008	<.02	.085	<.009	<.02	<.010	<.034
WA Cj 132	06-06-02	<.02	<.010	<.02	<.008	<.02	.016	<.009	<.02	<.010	<.034

WELL NUMBER	Date	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	TRI-FLUR-ALIN WAT FLT REC (UG/L) (82661)	UREA 3(4-CHLOR OPHENYL METHYL DIS-SOLVED (UG/L) (22703)	URANIUM NATURAL
Leach Ref. Well	06-12-02	--	--	--	--	--	--	--
WA Bj 51	06-13-02	--	--	--	--	--	--	--
	06-13-02	<.02	<.005	<.002	<.02	<.009	<.02	.40
WA Ci 168	06-13-02	<.02	<.005	<.002	<.02	<.009	<.02	1.07
WA Cj 132	06-06-02	<.02	<.005	<.002	<.02	<.009	<.02	.20

E Estimated value.  
< Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

WICOMICO COUNTY, MARYLAND

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geo-logic unit	Station type	SAM-PLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH OF WELL, TOTAL (FEET) (72008)		
WI Bh 15	10-30-01 10-30-01	1400 1405	382519075241901	ENVIRONMENTAL BLANK	112CLMB ---	GW GW	8030 --	50 --	90 --		
		DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT) (72015)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	FLOW RATE (G/M) (00059)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (MG/L) (00300)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE (DEG C) (00010)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
	10-30-01 10-30-01	90 --	80 --	25 --	4.3 --	.3 --	6.1 --	88 --	14.9 --	.02 <.01	<.008 <.008
		POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS TOT IT (MG/L AS CACO3) (39086)	BICAR-BONATE WATER DIS IT (MG/L AS HCO3) (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
	10-30-01 10-30-01	<.10 <.10	20.4 <.09	33 --	41 --	7.20 <.30	<.1 <.1	<.04 <.04	<.008 <.008	<.05 <.05	E.04 <.06
		ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON DIOXIDE, DIS-SOLVED (MG/L AS CO2) (00405)	ACETO-CHLOR, WATER, FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, WTR, REC (UG/L) (46342)	ALPHA-HCH, D6 SUR SCD 1379 WTR, FLTRD, PERCENT (UG/L) (90505)	AMETRYN WATER, DISS, REC (UG/L) (38401)
	10-30-01 10-30-01	.04 <.02	.126 --	84 <10	<10 <10	E1.3 E.9	55 --	<.05 --	<.05 --	83.0 --	<.05 --
		ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BUTA-CHLOR, WATER, DISS, REC (UG/L) (04026)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BOXIN, WATER, DISS, REC (UG/L) (04027)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	CY-CLOATE, WATER, DISS, REC (UG/L) (04031)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DEISO-PROPYL ATRAZIN WATER, DISS, REC (UG/L) (04038)	DIAZI-NON D10 SUR SCD 1379 WTR, FLTRD PERCENT (UG/L) (90670)
	10-30-01 10-30-01	<.05 --	<.05 --	<.05 --	<.05 --	<.05 --	<.02 --	<.05 --	<.05 --	<.05 --	92.4 --
		DIPHEN-AMID, WATER, DISS, REC (UG/L) (04033)	HEXA-ZINONE, WATER, DISS, REC (UG/L) (04025)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRO-METRYN, WATER, DISS, REC (UG/L) (04036)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PROP-AZINE WATER DISS, REC (UG/L) (38535)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	SIMA-TRYN, WATER, DISS, REC (UG/L) (04030)
	10-30-01 10-30-01	<.05 --	<.05 --	<.05 --	<.05 --	<.05 --	<.05 --	<.05 --	<.05 --	<.05 --	<.05 --
						TER-BACIL, WATER, DISS, REC (UG/L) (04032)	TRI-FLUR-ALIN, WATER, DISS, REC (UG/L) (04023)	VERNO-LATE, WATER, DISS, REC (UG/L) (04034)			
	10-30-01 10-30-01					<.05 --	<.05 --	<.05 --			

E Estimated value.  
 < Actual value is known to be less than the value shown.

Geologic Unit (aquifer): 112CLMB - Columbia aquifer

Station Type: GW - Ground Water

Sampling Method: 4040 - Submersible pump



QUALITY OF GROUND WATER DATA

WORCESTER COUNTY, MARYLAND

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geo-logic unit	Station type	SAM-PLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)
WO Ah 36	08-29-02	1000	382635075030602	ENVIRONMENTAL	122MNKN	GW	4040	14.32	28.28
	08-29-02	1001		REPLICATE	122MNKN	GW	4040	14.32	28.28
WO Ah 38	08-26-02	0915	382638075033001	ENVIRONMENTAL	122MNKN	GW	8030	4	--
WO Ah 39	08-26-02	1050	382649075033701	ENVIRONMENTAL	122MNKN	GW	8030	7	--
WO Be 34	10-30-01	1200	382322075173001	ENVIRONMENTAL	112CLMB	GW	8030	30	--
WO Bf 89	10-29-01	1200	382342075114501	ENVIRONMENTAL	112CLMB	GW	8030	20	--
WO Bf 90	10-29-01	1330	382148075113801	ENVIRONMENTAL	112CLMB	GW	8030	25	--
WO Bh 29	08-26-02	1230	382216075041201	ENVIRONMENTAL	122OCNC	GW	8030	6	--
WO Bh 84	08-28-02	1000	382215075041901	ENVIRONMENTAL	121BVDM	GW	4030	5	5.32
WO Bh 85	08-28-02	1335	382215075041902	ENVIRONMENTAL	122PCMK	GW	4030	5	6.48
WO Bh 89	08-28-02	1100	382215075041903	ENVIRONMENTAL	122MNKN	GW	4040	5.59	25.18
WO Bh 98	08-30-02	0859	382127075043802	BLANK	---	GW	4040	--	--
	08-30-02	0900		ENVIRONMENTAL	122OCNC	GW	4040	5	30.77
WO Bh 101	08-27-02	1030	382127075043804	ENVIRONMENTAL	122OCNC	GW	8030	5	--
WO Cf 60	10-30-01	1000	381713075135801	ENVIRONMENTAL	112CLMB	GW	8030	40	--
WO Cg 33	08-27-02	1215	381938075052001	ENVIRONMENTAL	122OCNC	GW	8030	6	--
WO Cg 87	08-27-02	1330	381953075051401	ENVIRONMENTAL	122OCNC	GW	8030	10	--
WO Fd 34	10-29-01	1600	380338075241301	ENVIRONMENTAL	112CLMB	GW	8030	15	--

WELL, TOTAL (FEET) (72008)	DEPTH OF WELL, INTER-VAL (FT) (72016)	DEPTH TO BOT-TOM OF SAMPLE (FT) (72015)	DEPTH TO TOP OF SAMPLE (FT) (72015)	PUMP OR FLOW PERIOD TO SAM-PLING (MIN) (72004)	FLOW RATE (G/M) (00059)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)
WO Ah 36	08-29-02 440	430	420	--	--	763	--	E.1	6.5	901
	08-29-02 440	430	420	--	--	--	--	--	--	--
WO Ah 38	08-26-02 430	430	330	--	--	763	22	2.1	6.3	553
WO Ah 39	08-26-02 --	--	--	--	--	763	27	2.6	6.1	394
WO Be 34	10-30-01 80	80	74	23	4.0	--	--	.2	6.0	82
WO Bf 89	10-29-01 56	56	46	19	6.0	--	--	10.2	5.3	197
WO Bf 90	10-29-01 80	80	70	22	3.0	--	--	.3	5.9	85
WO Bh 29	08-26-02 294	294	248	--	--	761	42	4.0	6.6	590
WO Bh 84	08-28-02 89	89	84	25	30.0	764	15	1.5	6.7	398
WO Bh 85	08-28-02 195	195	191	--	--	764	--	E.1	6.7	420
WO Bh 89	08-28-02 510	510	388	110	6.0	764	--	E.1	6.8	2000
WO Bh 98	08-30-02 --	--	--	--	--	--	--	--	--	--
	08-30-02 310	70	66	--	8.0	763	--	E.1	7.3	454
WO Bh 101	08-27-02 312	307	237	--	--	764	51	4.8	7.2	420
WO Cf 60	10-30-01 --	--	--	17	8.0	--	--	9.6	5.7	195
WO Cg 33	08-27-02 290	290	253	--	--	765	26	2.5	7.3	444
WO Cg 87	08-27-02 312	307	246	--	--	765	25	2.4	7.1	491
WO Fd 34	10-29-01 17	--	--	22	3.0	--	--	8.3	5.2	348

**E Estimated value.**

Geologic Unit (aquifer): 112CLMB - Columbia Group  
 121BVDM - Beaverdam Sand  
 122MNKN - Manokin aquifer  
 122OCNC - Ocean City aquifer  
 122PCMK - Pocomoke aquifer

Station Type: GW - Ground Water

Sampling Method: 4040 - Submersible pump  
 8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER DATA

WORCESTER COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
				FLUO- RIDE, DIS- SOLVED (MG/L AS F) AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
WO Ah 36	08-29-02	--	17.0	93	25.6	7.14	5.79	130	134	163	192
	08-29-02	--	--	92	25.1	7.04	5.80	128	140	168	194
WO Ah 38	08-26-02	--	17.6	79	22.4	5.61	4.71	68.0	85	104	100
WO Ah 39	08-26-02	--	17.3	70	20.3	4.56	3.49	42.4	89	107	64.0
WO Be 34	10-30-01	--	15.5	11	3.17	.737	1.19	9.72	25	31	9.05
WO Bf 89	10-29-01	--	14.7	65	10.7	9.35	1.72	6.85	--	--	15.4
WO Bf 90	10-29-01	--	15.5	--	.05	E.007	.74	16.3	--	--	9.51
WO Bh 29	08-26-02	31.0	17.3	93	15.9	13.1	9.07	72.9	70	84	104
WO Bh 84	08-28-02	--	16.3	91	18.3	11.0	11.8	31.7	111	134	49.0
WO Bh 85	08-28-02	--	17.0	97	15.7	14.0	11.3	37.8	129	157	47.3
WO Bh 89	08-28-02	--	--	260	29.4	44.4	15.8	274	209	255	508
WO Bh 98	08-30-02	--	--	--	<.01	<.008	<.10	<.09	--	--	<.30
	08-30-02	--	16.8	170	42.6	16.0	10.8	19.9	189	230	24.9
WO Bh 101	08-27-02	29.0	18.0	150	38.7	13.7	10.2	22.9	177	216	22.5
WO Cf 60	10-30-01	--	14.1	52	11.9	5.40	1.55	12.0	7	9	19.3
WO Cg 33	08-27-02	--	17.0	130	35.1	11.3	8.49	36.4	173	211	31.7
WO Cg 87	08-27-02	30.0	17.2	130	32.0	11.2	9.14	46.2	--	--	54.7
WO Fd 34	10-29-01	--	16.2	130	40.6	7.62	.94	5.06	4	4	25.1
WO Ah 36	08-29-02	E.1	.79	33.0	<.1	--	--	--	--	--	--
	08-29-02	E.1	.77	32.6	<.1	--	--	--	--	--	--
WO Ah 38	08-26-02	E.1	1.15	34.7	.2	--	--	--	--	--	--
WO Ah 39	08-26-02	E.1	.49	35.7	.4	--	--	--	--	--	--
WO Be 34	10-30-01	--	--	--	<.1	.05	<.008	<.05	<.06	.02	.061
WO Bf 89	10-29-01	--	--	--	19.7	<.04	<.008	9.06	<.06	<.02	--
WO Bf 90	10-29-01	--	--	--	6.6	E.04	<.008	<.05	E.04	.04	110
WO Bh 29	08-26-02	.2	.66	34.0	<.1	--	--	--	--	--	--
WO Bh 84	08-28-02	E.1	.54	36.7	<.1	--	--	--	--	--	--
WO Bh 85	08-28-02	.2	.43	34.4	<.1	--	--	--	--	--	--
WO Bh 89	08-28-02	.1	1.68	32.6	4.2	--	--	--	--	--	--
WO Bh 98	08-30-02	<.1	<.03	<.13	<.1	--	--	--	--	--	--
	08-30-02	.1	.07	29.9	E.1	--	--	--	--	--	--
WO Bh 101	08-27-02	.1	.05	29.1	<.1	--	--	--	--	--	--
WO Cf 60	10-30-01	--	--	--	6.2	<.04	<.008	10.3	<.06	<.02	--
WO Cg 33	08-27-02	.1	.10	25.4	<.1	--	--	--	--	--	--
WO Cg 87	08-27-02	.1	.16	28.8	E.1	--	--	--	--	--	--
WO Fd 34	10-29-01	--	--	--	39.2	<.04	<.008	19.7	<.06	<.02	--

E Estimated value.

< Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

WORCESTER COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	IRON, DIS-SOLVED (UG/L) (01046)	MANGANESE, DIS-SOLVED (UG/L) (01056)	CARBON DIOXIDE, DIS-SOLVED (MG/L) (00405)	ACETOCHLOR, WATER, FLTRD REC (UG/L) (49260)	ALACHLOR, WATER, DISS, REC (UG/L) (46342)	ALPHA-HCH, D6 SUR SCD 1379 WTR, FLTRD, PERCENT (UG/L) (90505)	AMETRYN WATER, DISS, REC (UG/L) (38401)	ATRAZINE, WATER, DISS, REC (UG/L) (39632)
WO Ah 36	08-29-02	484	--	13300	134	--	--	--	--	--	--
	08-29-02	469	--	13100	132	--	--	--	--	--	--
WO Ah 38	08-26-02	299	301	12200	132	--	--	--	--	--	--
WO Ah 39	08-26-02	234	232	8330	90.9	--	--	--	--	--	--
WO Be 34	10-30-01	72	--	2850	26.1	43	<.05	<.05	79.6	<.05	<.05
WO Bf 89	10-29-01	110	107	<10	15.2	56	<.05	<.05	81.3	<.05	.12
WO Bf 90	10-29-01	72	--	16	E.9	37	<.05	<.05	77.8	<.05	<.05
WO Bh 29	08-26-02	316	--	5380	109	--	--	--	--	--	--
WO Bh 84	08-28-02	217	--	6040	81.9	--	--	--	--	--	--
WO Bh 85	08-28-02	238	--	5140	106	--	--	--	--	--	--
WO Bh 89	08-28-02	1060	1040	7010	140	--	--	--	--	--	--
WO Bh 98	08-30-02	<10	--	<10	<2.0	--	--	--	--	--	--
	08-30-02	258	--	1310	28.1	--	--	--	--	--	--
WO Bh 101	08-27-02	230	--	113	37.9	--	--	--	--	--	--
WO Cf 60	10-30-01	130	106	<10	3.8	35	<.05	<.05	79.8	<.05	E.03
WO Cg 33	08-27-02	254	--	1940	69.8	--	--	--	--	--	--
WO Cg 87	08-27-02	278	--	1920	58.8	--	--	--	--	--	--
WO Fd 34	10-29-01	206	208	24	21.5	57	<.05	<.05	83.3	<.05	E.04
		BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BUTA-CHLOR, WATER, DISS, REC (UG/L) (04026)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BOXIN, WATER, DISS, REC (UG/L) (04027)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	CY-CLOATE, WATER, DISS, REC (UG/L) (04031)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DEISO-PROPYL ATRAZIN, WATER, DISS, REC (UG/L) (04038)	DIAZI-NON D10 SUR SCD 1379 WTR, FLTRD, PERCENT (UG/L) (90670)	DIPHEN-AMID, WATER, DISS, REC (UG/L) (04033)
WO Ah 36	08-29-02	--	--	--	--	--	--	--	--	--	--
	08-29-02	--	--	--	--	--	--	--	--	--	--
WO Ah 38	08-26-02	--	--	--	--	--	--	--	--	--	--
WO Ah 39	08-26-02	--	--	--	--	--	--	--	--	--	--
WO Be 34	10-30-01	<.05	<.05	<.05	<.05	<.02	<.05	<.05	<.05	86.8	<.05
WO Bf 89	10-29-01	<.05	<.05	<.05	<.05	<.02	<.05	.49	<.05	86.1	<.05
WO Bf 90	10-29-01	<.05	<.05	<.05	<.05	<.02	<.05	<.05	<.05	84.3	<.05
WO Bh 29	08-26-02	--	--	--	--	--	--	--	--	--	--
WO Bh 84	08-28-02	--	--	--	--	--	--	--	--	--	--
WO Bh 85	08-28-02	--	--	--	--	--	--	--	--	--	--
WO Bh 89	08-28-02	--	--	--	--	--	--	--	--	--	--
WO Bh 98	08-30-02	--	--	--	--	--	--	--	--	--	--
	08-30-02	--	--	--	--	--	--	--	--	--	--
WO Bh 101	08-27-02	--	--	--	--	--	--	--	--	--	--
WO Cf 60	10-30-01	<.05	<.05	<.05	<.05	<.02	<.05	.17	<.05	87.8	<.05
WO Cg 33	08-27-02	--	--	--	--	--	--	--	--	--	--
WO Cg 87	08-27-02	--	--	--	--	--	--	--	--	--	--
WO Fd 34	10-29-01	<.05	<.05	<.05	<.05	<.02	<.05	.10	<.05	91.9	<.05

E Estimated value.

< Actual value is known to be less than the value shown.

## QUALITY OF GROUND WATER DATA

WORCESTER COUNTY, MARYLAND--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	HEXA- ZINONE, WATER, DISS, REC (UG/L) (04025)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRO- METRYN, WATER, DISS, REC (UG/L) (04036)	PROPA- CHLOR, WATER, DISS, REC (UG/L) (04024)	PROP- AZINE WATER DISS REC (UG/L) (38535)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	SIMA- TRYN, WATER, DISS, REC (UG/L) (04030)	TER- BACIL, WATER, DISS, REC (UG/L) (04032)
WO Ah 36	08-29-02	--	--	--	--	--	--	--	--	--	--
	08-29-02	--	--	--	--	--	--	--	--	--	--
WO Ah 38	08-26-02	--	--	--	--	--	--	--	--	--	--
WO Ah 39	08-26-02	--	--	--	--	--	--	--	--	--	--
WO Be 34	10-30-01	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
WO Bf 89	10-29-01	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
WO Bf 90	10-29-01	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
WO Bh 29	08-26-02	--	--	--	--	--	--	--	--	--	--
WO Bh 84	08-28-02	--	--	--	--	--	--	--	--	--	--
WO Bh 85	08-28-02	--	--	--	--	--	--	--	--	--	--
WO Bh 89	08-28-02	--	--	--	--	--	--	--	--	--	--
WO Bh 98	08-30-02	--	--	--	--	--	--	--	--	--	--
	08-30-02	--	--	--	--	--	--	--	--	--	--
WO Bh 101	08-27-02	--	--	--	--	--	--	--	--	--	--
WO Cf 60	10-30-01	<.05	E.03	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
WO Cg 33	08-27-02	--	--	--	--	--	--	--	--	--	--
WO Cg 87	08-27-02	--	--	--	--	--	--	--	--	--	--
WO Fd 34	10-29-01	<.05	E.01	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05

WELL NUMBER	Date	TRI- FLUR- ALIN, WATER, DISS, REC (UG/L) (04023)	VERNO- LATE, WATER, DISS, REC (UG/L) (04034)
WO Ah 36	08-29-02	--	--
	08-29-02	--	--
WO Ah 38	08-26-02	--	--
WO Ah 39	08-26-02	--	--
WO Be 34	10-30-01	<.05	<.05
WO Bf 89	10-29-01	<.05	<.05
WO Bf 90	10-29-01	<.05	<.05
WO Bh 29	08-26-02	--	--
WO Bh 84	08-28-02	--	--
WO Bh 85	08-28-02	--	--
WO Bh 89	08-28-02	--	--
WO Bh 98	08-30-02	--	--
	08-30-02	--	--
WO Bh 101	08-27-02	--	--
WO Cf 60	10-30-01	<.05	<.05
WO Cg 33	08-27-02	--	--
WO Cg 87	08-27-02	--	--
WO Fd 34	10-29-01	<.05	<.05

E Estimated value.

&lt; Actual value is known to be less than the value shown.

QUALITY OF GROUND WATER DATA

WASHINGTON, D.C.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	Time	Station number	Sample Type	Geo-logic unit	Station type	SAM-PLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)
WE-Bb 3	08-21-02	0829	385504076563801	BLANK	110ALVM	GW	--	--	--
	08-21-02	1130		ENVIRONMENTAL	110ALVM	GW	4080	13.08	15.2
WE-Bb 4	07-26-02	0940	385504076563802	CORE MATERIAL	110ALVM	GW	5010	13.15	--
	07-26-02	0945		REPLICATE	110ALVM	GW	5010	13.15	--
	08-21-02	1030		ENVIRONMENTAL	110ALVM	GW	4080	13.15	14.68
WE-Ca 29	07-29-02	0730	385238076581501	CORE MATERIAL	110ALVM	GW	5010	14.16	--
	07-29-02	0930		CORE MATERIAL	110ALVM	GW	5010	14.16	--
	08-23-02	1000		ENVIRONMENTAL	110ALVM	GW	4080	14.16	10.00
	08-23-02	1001		REPLICATE	110ALVM	GW	4080	14.16	--
WE-Ca 30	07-02-02	1000	385406076573401	CORE MATERIAL	110ALVM	GW	5010	3	--
WE-Cb 5	08-22-02	1030	385443076562801	ENVIRONMENTAL	110TRRC	GW	4080	19.31	12.90
WE-Cb 6	07-25-02	0700	385443076562802	CORE MATERIAL	110TRRC	GW	5010	19.57	--
	07-25-02	0830		CORE MATERIAL	110TRRC	GW	5010	19.57	--
	08-22-02	0930		ENVIRONMENTAL	110TRRC	GW	4080	19.57	14.00

WELL NUMBER	Date	Time	Station number	Sample Type	Geo-logic unit	Station type	SAM-PLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO BOT-TOM OF INTER-VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT) (72015)	FLOW RATE (G/M) (00059)	TUR-BID-ITY FIELD WATER UNFLTRD (NTU) (61028)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE (DEG C) (00010)	ANC UNFLTRD CARBON-ATE IT-FLD (MG/L - CAC03) (99430)
WE-Bb 3	08-21-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08-21-02	25	25.0	15.0	.15	.72	<1	6.1	327	15.5	141							
WE-Bb 4	07-26-02	32	23.0	18.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	07-26-02	32	23.0	18.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08-21-02	32	32.0	22.0	.15	2.7	<1	6.1	286	15.4	105							
WE-Ca 29	07-29-02	48.5	1.0	.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	07-29-02	48.5	38.5	37.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08-23-02	48.5	48.5	38.5	.5	2.6	<1	6.3	153	17.1	57							
	08-23-02	48.5	48.5	38.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
WE-Ca 30	07-02-02	--	18.0	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
WE-Cb 5	08-22-02	22.6	22.6	12.6	.13	2.6	5.9	5.0	305	17.6	4.0							
WE-Cb 6	07-25-02	46.3	1.0	.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	07-25-02	46.3	11.0	10.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08-22-02	46.3	46.3	36.3	.15	.85	<1	6.5	91	17.3	30							

WELL NUMBER	Date	Time	Station number	Sample Type	Geo-logic unit	Station type	SAM-PLING METHOD, CODES (82398)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	BICAR-BONATE IT-FLD (MG/L HCO3) (99440)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDE (MG/L) (00530)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	NITRO-GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	PHOS-PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)
WE-Bb 3	08-21-02	--	<4.0	<10	<.50	E.031	<.10	<.050	--	--	--	--	--	--	--	--	--	--	--
	08-21-02	172	28	120	2.3	2.1	<.10	.49	--	--	--	--	--	--	--	--	--	--	7.5
WE-Bb 4	07-26-02	--	--	--	--	--	--	7.7	264	--	--	--	--	--	--	--	--	--	--
	07-26-02	--	--	--	--	--	--	5.7	E464	--	--	--	--	--	--	--	--	--	--
	08-21-02	128	22	130	1.8	1.5	<.10	.42	--	--	--	--	--	--	--	--	--	--	4.3
WE-Ca 29	07-29-02	--	--	--	--	--	--	<1.1	153	--	--	--	--	--	--	--	--	--	--
	07-29-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08-23-02	70	33	77	E.39	.48	<.10	.15	--	--	--	--	--	--	--	--	--	--	<2.0
	08-23-02	--	15	74	E.40	.50	<.10	.14	--	--	--	--	--	--	--	--	--	--	<2.0
WE-Ca 30	07-02-02	--	--	--	--	--	--	65.1	416	--	--	--	--	--	--	--	--	--	--
WE-Cb 5	08-22-02	4.9	E2.8	220	<.50	<.10	6.9	<.050	--	--	--	--	--	--	--	--	--	--	<2.0
WE-Cb 6	07-25-02	--	--	--	--	--	--	E1.0	715	--	--	--	--	--	--	--	--	--	--
	07-25-02	--	--	--	--	--	--	<1.1	154	--	--	--	--	--	--	--	--	--	--
	08-22-02	37	14	22	<.50	.14	<.10	.079	--	--	--	--	--	--	--	--	--	--	<2.0

Geologic Unit (aquifer): 110ALVM - Quaternary Alluvium  
110TRRC - Terrace Deposits

Station Type: GW - Ground Water

Sampling Method: 4080 - Peristaltic pump  
5010 - Sediment core

< Actual value is known to be less than the value shown  
E Estimated value.

QUALITY OF GROUND WATER DATA

WASHINGTON, D.C.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	ANTI-MONY, TOTAL (UG/L) (01097)	ARSENIC TOTAL (UG/L) (01002)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L) (01012)	CADMIUM WATER UNFLTRD TOTAL (UG/L) (01027)	CHROMIUM, TOTAL RECOV-ERABLE (UG/L) (01034)	COPPER, TOTAL RECOV-ERABLE (UG/L) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L) (01051)	MANGANESE, TOTAL RECOV-ERABLE (UG/L) (01055)
WE-Bb 3	08-21-02	E8	<2.0	<5	<1	<1	E.63	<2.0	<100	<1	E.24
	08-21-02	E16	E.073	E.44	E.05	<1	E1.1	<2.0	47000	<1	2300
WE-Bb 4	07-26-02	--	--	--	--	--	--	--	--	--	--
	07-26-02	--	--	--	--	--	--	--	--	--	--
	08-21-02	E12	<2.0	E.54	E.06	<1	E1.1	E.76	38000	E.16	1800
WE-Ca 29	07-29-02	--	--	--	--	--	--	--	--	--	--
	07-29-02	--	--	--	--	--	--	--	--	--	--
	08-23-02	E10	<2.0	E3.9	E.06	<1	E1.1	<2.0	21000	E.24	190
	08-23-02	E5	<2.0	E3.8	E.06	<1	E1.1	E1.0	21000	E.27	190
WE-Ca 30	07-02-02	--	--	--	--	--	--	--	--	--	--
WE-Cb 5	08-22-02	<20	<2.0	E.20	E.15	E.54	E.67	E.88	680	<1	120
WE-Cb 6	07-25-02	--	--	--	--	--	--	--	--	--	--
	07-25-02	--	--	--	--	--	--	--	--	--	--
	08-22-02	<20	<2.0	E2.4	<1	<1	E.62	<2.0	14000	<1	220
		MERCURY TOTAL RECOV-ERABLE (UG/L) (71900)	NICKEL, TOTAL RECOV-ERABLE (UG/L) (01067)	SELENIUM, TOTAL (UG/L) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L) (01077)	THALIUM, TOTAL (UG/L) (01059)	ZINC, TOTAL RECOV-ERABLE (UG/L) (01092)	ANTI-MONY, TOTAL IN BOT-TOM MA-TERIAL (UG/G) (01098)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G) (01003)	BERYL-LIUM, RECOV-ERABLE (UG/G) (01013)	CADMIUM FM BOT-TOM MA-TERIAL (UG/G) (01028)
WE-Bb 3	08-21-02	<.20	<2.0	<5	<5	<1	<10	--	--	--	--
	08-21-02	E.04	E.99	<5	<5	<1	E8.2	--	--	--	--
WE-Bb 4	07-26-02	--	--	--	--	--	--	.355	2.02	1.98	.303
	07-26-02	--	--	--	--	--	--	<.343	2.35	2.0	.349
	08-21-02	E.04	E.94	<5	<5	<1	E7.2	--	--	--	--
WE-Ca 29	07-29-02	--	--	--	--	--	--	E.0115	3.85	.977	.362
	07-29-02	--	--	--	--	--	--	<.335	2.43	1.59	.307
	08-23-02	<.20	E.52	<5	<5	<1	E7.1	--	--	--	--
	08-23-02	<.20	E.65	<5	<5	<1	E5.9	--	--	--	--
WE-Ca 30	07-02-02	--	--	--	--	--	--	.294	4.51	1.2	.469
WE-Cb 5	08-22-02	<.20	8.0	E.65	<5	<1	14	--	--	--	--
WE-Cb 6	07-25-02	--	--	--	--	--	--	E.0629	6.49	.681	.383
	07-25-02	--	--	--	--	--	--	E.0119	2.21	.409	E.0573
	08-22-02	<.20	E.76	<5	<5	<1	E6.9	--	--	--	--
		CHROMIUM, RECOV-FM BOT-TOM MA-TERIAL (UG/G) (01029)	COPPER, RECOV-FM BOT-TOM MA-TERIAL (UG/G) (01043)	CYANIDE TOTAL IN BOT-TOM MA-TERIAL (UG/G) (00721)	IRON, SEDIMT, BED MA-TERIAL (UG/G) (01170)	LEAD, RECOV-FM BOT-TOM MA-TERIAL (UG/G) (01052)	MANGANESE, RECOV-FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV-FM BOT-TOM MA-TERIAL (UG/G) (71921)	NICKEL, RECOV-FM BOT-TOM MA-TERIAL (UG/G) (01068)	SELENIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G) (01148)	SILVER, RECOV-FM BOT-TOM MA-TERIAL (UG/G) (01078)
WE-Bb 3	08-21-02	--	--	--	--	--	--	--	--	--	--
	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Bb 4	07-26-02	29.9	14.3	E.36	18500	11.7	1020	E.028	32.7	1.09	E.123
	07-26-02	32.4	16.2	E.29	28600	12.6	431	E.023	39.8	1.14	E.134
	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 29	07-29-02	30.7	22.6	E.51	22900	58.5	536	.26	19.6	.792	1.13
	07-29-02	26.7	15.4	E.32	33000	12.8	949	E.033	28.2	.963	E.117
	08-23-02	--	--	--	--	--	--	--	--	--	--
	08-23-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 30	07-02-02	53.8	23.1	E.50	23700	33.9	266	.11	14.5	1.01	.397
WE-Cb 5	08-22-02	--	--	--	--	--	--	--	--	--	--
WE-Cb 6	07-25-02	25.5	23.9	E.13	14600	197	214	.36	12.6	.672	2.5
	07-25-02	11.1	7.34	E.15	16000	3.19	122	<.037	8.42	E.182	E.0113
	08-22-02	--	--	--	--	--	--	--	--	--	--

E Estimated value.  
 < Actual value is known to be less than the value shown

QUALITY OF GROUND WATER DATA

WASHINGTON, D.C.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	THAL-LIUM-TOTAL	ZINC, RECOV. FM BOT-TOM MA-TERIAL	1,2,5,6-DIBENZ-ANTHRA-CENE	2,4,6-TRI-CHLORO-PHENOL	2,4-DI-METHYL-PHENOL	2,4-DI-CHLORO-PHENOL	2,4-DI-METHYL-SOIL PHENOL, REC	2,4-DI-NITRO-PHENOL	2,4-DI-NITRO-TOLUENE	2,6-DI-NITRO-TOLUENE
		(UG/G AS TL) (34480)	(UG/G AS ZN) (01093)	TOTAL (UG/L) (34556)	TOTAL (UG/L) (34621)	TOTAL (UG/L) (34606)	TOTAL (UG/L) (34601)	TOTAL (UG/L) (62267)	TOTAL (UG/L) (34616)	TOTAL (UG/L) (34611)	TOTAL (UG/L) (34626)
WE-Bb 3	08-21-02	--	--	<10	<10	<10	<10	--	<50	<10	<10
	08-21-02	--	--	<10	<10	<10	<10	--	<50	<10	<10
WE-Bb 4	07-26-02	.259	91.1	--	--	--	--	<590	--	--	--
	07-26-02	.265	99.3	--	--	--	--	<570	--	--	--
	08-21-02	--	--	<10	<10	<10	<10	--	<50	<10	<10
WE-Ca 29	07-29-02	.217	82.6	--	--	--	--	<380	--	--	--
	07-29-02	.229	81.5	--	--	--	--	<550	--	--	--
	08-23-02	--	--	<10	<10	<10	<10	--	<50	<10	<10
	08-23-02	--	--	<10	<10	<10	<10	--	<50	<10	<10
WE-Ca 30	07-02-02	.264	81.3	--	--	--	--	<490	--	--	--
WE-Cb 5	08-22-02	--	--	<10	<10	<10	<10	--	<50	<10	<10
WE-Cb 6	07-25-02	.146	88.7	--	--	--	--	<350	--	--	--
	07-25-02	E.0499	56.4	--	--	--	--	<370	--	--	--
	08-22-02	--	--	<10	<10	<10	<10	--	<50	<10	<10

WELL NUMBER	Date	2-CHLORO-ETHYL VINYL ETHER	2-CHLORO-NAPH-THALENE	2-CHLORO-PHENOL	2-NITRO-PHENOL	3,3'-DI-CHLORO-BENZI-DINE	4,6-DINITRO-ORTHO-CRESOL	4-BROMO-PHENYL ETHER	4-CHLORO-PHENYL ETHER	4-NITRO-PHENOL	ACE-NAPHTH-ENE
		TOTAL (UG/L) (34576)	TOTAL (UG/L) (34581)	TOTAL (UG/L) (34586)	TOTAL (UG/L) (34591)	TOTAL (UG/L) (34631)	TOTAL (UG/L) (34657)	TOTAL (UG/L) (34636)	TOTAL (UG/L) (34641)	TOTAL (UG/L) (34646)	TOTAL (UG/L) (34205)
WE-Bb 3	08-21-02	<2	<10	<10	<10	<50	<50	<10	<10	<50	<10
	08-21-02	<2	<10	<10	<10	<50	<50	<10	<10	<50	<10
WE-Bb 4	07-26-02	--	--	--	--	--	--	--	--	--	--
	07-26-02	--	--	--	--	--	--	--	--	--	--
	08-21-02	<2	<10	<10	<10	<50	<50	<10	<10	<50	<10
WE-Ca 29	07-29-02	--	--	--	--	--	--	--	--	--	--
	07-29-02	--	--	--	--	--	--	--	--	--	--
	08-23-02	<2	<10	<10	<10	<50	<50	<10	<10	<50	<10
	08-23-02	<2	<10	<10	<10	<50	<50	<10	<10	<50	<10
WE-Ca 30	07-02-02	--	--	--	--	--	--	--	--	--	--
WE-Cb 5	08-22-02	<2	<10	<10	<10	<50	<50	<10	<10	<50	<10
WE-Cb 6	07-25-02	--	--	--	--	--	--	--	--	--	--
	07-25-02	--	--	--	--	--	--	--	--	--	--
	08-22-02	<2	<10	<10	<10	<50	<50	<10	<10	<50	<10

WELL NUMBER	Date	ACE-NAPHTH-YLENE	ACRO-LEIN	ALDRIN, TOTAL	ALPHA BHC	ANTHRA-CENE	AROCLOR 1016 PCB	AROCLOR 1221 PCB	AROCLOR 1232 PCB	AROCLOR 1242 PCB	AROCLOR 1248 PCB
		TOTAL (UG/L) (34200)	TOTAL (UG/L) (34210)	TOTAL (UG/L) (39330)	TOTAL (UG/L) (39337)	TOTAL (UG/L) (34220)	TOTAL (UG/L) (34671)	TOTAL (UG/L) (39488)	TOTAL (UG/L) (39492)	TOTAL (UG/L) (39496)	TOTAL (UG/L) (39500)
WE-Bb 3	08-21-02	<10	<20	<.050	<.050	<10	<1	<1	<1	<1	<1.0
	08-21-02	<10	<20	<.050	<.050	<10	<1	<1	<1	<1	<1.0
WE-Bb 4	07-26-02	--	--	--	--	--	--	--	--	--	--
	07-26-02	--	--	--	--	--	--	--	--	--	--
	08-21-02	<10	<20	<.050	<.050	<10	<1	<1	<1	<1	<1.0
WE-Ca 29	07-29-02	--	--	--	--	--	--	--	--	--	--
	07-29-02	--	--	--	--	--	--	--	--	--	--
	08-23-02	<10	<20	<.050	<.050	<10	<1	<1	<1	<1	<1.0
	08-23-02	<10	<20	<.050	<.050	<10	<1	<1	<1	<1	<1.0
WE-Ca 30	07-02-02	--	--	--	--	--	--	--	--	--	--
WE-Cb 5	08-22-02	<10	<20	<.050	<.050	<10	<1	<1	<1	<1	<1.0
WE-Cb 6	07-25-02	--	--	--	--	--	--	--	--	--	--
	07-25-02	--	--	--	--	--	--	--	--	--	--
	08-22-02	<10	<20	<.050	<.050	<10	<1	<1	<1	<1	<1.0

E Estimated value.  
 < Actual value is known to be less than the value shown

## QUALITY OF GROUND WATER DATA

WASHINGTON, D.C.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	AROCLOR 1254	AROCLOR 1260	BENZENE	BENZO A-	BENZO B	BENZO K	BENZO-[A]-ANTHRA-CENE	BENZO-[GHI]-PERY-LENE	BETA	BIS(2-CHLORO-ETHOXY) METHANE
		TOTAL (UG/L) (39504)	TOTAL (UG/L) (39508)	NITRO-WATER UNFLTRD RECOVER (UG/L) (34447)	PYRENE TOTAL (UG/L) (34247)	FLUOR-AN-THENE TOTAL (UG/L) (34230)	FLUOR-AN-THENE TOTAL (UG/L) (34242)	WAT UNF (UG/L) (34526)	TOTAL (UG/L) (34521)	HEXA-CHLOR-IDE TOTAL (UG/L) (39338)	TOTAL (UG/L) (34278)
WE-Bb 3	08-21-02	<1	<1	<10	<10	<10	<10	<10	<10	<.050	<10
	08-21-02	<1	<1	<10	<10	<10	<10	<10	<10	<.050	<10
WE-Bb 4	07-26-02	--	--	--	--	--	--	--	--	--	--
	07-26-02	--	--	--	--	--	--	--	--	--	--
	08-21-02	<1	<1	<10	<10	<10	<10	<10	<10	<.050	<10
WE-Ca 29	07-29-02	--	--	--	--	--	--	--	--	--	--
	07-29-02	--	--	--	--	--	--	--	--	--	--
	08-23-02	<1	<1	<10	<10	<10	<10	<10	<10	<.050	<10
	08-23-02	<1	<1	<10	<10	<10	<10	<10	<10	<.050	<10
WE-Ca 30	07-02-02	--	--	--	--	--	--	--	--	--	--
WE-Cb 5	08-22-02	<1	<1	<10	<10	<10	<10	<10	<10	<.050	<10
WE-Cb 6	07-25-02	--	--	--	--	--	--	--	--	--	--
	07-25-02	--	--	--	--	--	--	--	--	--	--
	08-22-02	<1	<1	<10	<10	<10	<10	<10	<10	<.050	<10
		BIS(2-CHLORO-ETHYL) ETHER UNFLTRD RECOVER (UG/L) (34273)	BIS(2-CHLORO-ISO-PROPYL) ETHER TOTAL (UG/L) (34283)	BIS(2-ETHYL-HEXYL) PHTHAL-ATE TOTAL (UG/L) (39100)	CHLOR-DANE, TECH-NICAL TOTAL (UG/L) (39350)	CHLORO-METHANE SOIL REC (UG/KG) (62250)	CHRY-SENE TOTAL (UG/L) (34320)	CYCLOPE NTADIEN HEXA-CHLORO-UNFLTRD RECOVER (UG/L) (34386)	DELTA BENZENE HEXA-CHLOR-IDE TOTAL (UG/L) (34259)	DI-ELDRIN TOTAL (UG/L) (39380)	DIESEL RANGE ORGANIC SOIL REC (MG/KG) (62227)
WE-Bb 3	08-21-02	<10	<10	<10	<.5	--	<10	<50	<.050	<.050	--
	08-21-02	<10	<10	<10	<.5	--	<10	<50	<.050	<.050	--
WE-Bb 4	07-26-02	--	--	--	--	<18	--	--	--	--	<7.1
	07-26-02	--	--	--	--	<17	--	--	--	--	<6.9
	08-21-02	<10	<10	<10	<.5	--	<10	<50	<.050	<.050	--
WE-Ca 29	07-29-02	--	--	--	--	<11	--	--	--	--	<4.6
	07-29-02	--	--	--	--	<17	--	--	--	--	<6.7
	08-23-02	<10	<10	<10	<.5	--	<10	<50	<.050	<.050	--
	08-23-02	<10	<10	<10	<.5	--	<10	<50	<.050	<.050	--
WE-Ca 30	07-02-02	--	--	--	--	<15	--	--	--	--	260
WE-Cb 5	08-22-02	<10	<10	<10	<.5	--	<10	<50	<.050	<.050	--
WE-Cb 6	07-25-02	--	--	--	--	<11	--	--	--	--	33
	07-25-02	--	--	--	--	<11	--	--	--	--	<4.4
	08-22-02	<10	<10	<10	<.5	--	<10	<50	<.050	<.050	--
		DIETHYL PHTHAL-ATE TOTAL (UG/L) (34336)	DI-METHYL PHTHAL-ATE TOTAL (UG/L) (34341)	DI-N-BUTYL PHTHAL-ATE TOTAL (UG/L) (39110)	DI-N-OCTYL PHTHAL-ATE TOTAL (UG/L) (34596)	ENDO-SULFAN-I WATER WHOLE REC (UG/L) (34361)	ENDO-SULFAN-II TOTAL (UG/L) (34356)	ENDO-SULFAN-SULFATE TOTAL (UG/L) (34351)	ENDRIN ALDE-HYDE TOTAL (UG/L) (34366)	ENDRIN WATER UNFLTRD REC TOTAL (UG/L) (39390)	FLUOR-ANTHENE TOTAL (UG/L) (34376)
WE-Bb 3	08-21-02	<10	<10	<10	<10	<.050	<.050	<.050	<.050	<.050	<10
	08-21-02	<10	<10	<10	<10	<.050	<.050	<.050	<.050	<.050	<10
WE-Bb 4	07-26-02	--	--	--	--	--	--	--	--	--	--
	07-26-02	--	--	--	--	--	--	--	--	--	--
	08-21-02	<10	<10	<10	<10	<.050	<.050	<.050	<.050	<.050	<10
WE-Ca 29	07-29-02	--	--	--	--	--	--	--	--	--	--
	07-29-02	--	--	--	--	--	--	--	--	--	--
	08-23-02	<10	<10	<10	<10	<.050	<.050	<.050	<.050	<.050	<10
	08-23-02	<10	<10	<10	<10	<.050	<.050	<.050	<.050	<.050	<10
WE-Ca 30	07-02-02	--	--	--	--	--	--	--	--	--	--
WE-Cb 5	08-22-02	<10	<10	<10	<10	<.050	<.050	<.050	<.050	<.050	<10
WE-Cb 6	07-25-02	--	--	--	--	--	--	--	--	--	--
	07-25-02	--	--	--	--	--	--	--	--	--	--
	08-22-02	<10	<10	<10	<10	<.050	<.050	<.050	<.050	<.050	<10

&lt; Actual value is known to be less than the value shown



QUALITY OF GROUND WATER DATA

WASHINGTON, D.C.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	FLUOR-ENE	GASOLNE RANGE SOIL REC	HEPTA-CHLOR EPOXIDE	HEPTA-CHLOR,	HEXA-CHLORO-BENZENE	INDENO (1,2,3-CD)	ISO-PHORONE	LINDANE	N-BUTYL BENZYL PHTHAL-ATE	N-NITRO-SODI-N-PROPYL-AMINE
		TOTAL (UG/L) (34381)	(MG/KG) (62228)	TOTAL (UG/L) (39420)	TOTAL (UG/L) (39410)	TOTAL (UG/L) (39700)	PYRENE TOTAL (UG/L) (34403)	TOTAL (UG/L) (34408)	TOTAL (UG/L) (39340)	TOTAL (UG/L) (34292)	TOTAL (UG/L) (34428)
WE-Bb 3	08-21-02	<10	--	<.050	<.050	<10	<10	<10	<.050	<10	<10
	08-21-02	<10	--	<.050	<.050	<10	<10	<10	<.050	<10	<10
WE-Bb 4	07-26-02	--	<.89	--	--	--	--	--	--	--	--
	07-26-02	--	<.86	--	--	--	--	--	--	--	--
	08-21-02	<10	--	<.050	<.050	<10	<10	<10	<.050	<10	<10
WE-Ca 29	07-29-02	--	<.57	--	--	--	--	--	--	--	--
	07-29-02	--	<.84	--	--	--	--	--	--	--	--
	08-23-02	<10	--	<.050	<.050	<10	<10	<10	<.050	<10	<10
	08-23-02	<10	--	<.050	<.050	<10	<10	<10	<.050	<10	<10
WE-Ca 30	07-02-02	--	<.74	--	--	--	--	--	--	--	--
WE-Cb 5	08-22-02	<10	--	<.050	<.050	<10	<10	<10	<.050	<10	<10
WE-Cb 6	07-25-02	--	<.53	--	--	--	--	--	--	--	--
	07-25-02	--	<.55	--	--	--	--	--	--	--	--
	08-22-02	<10	--	<.050	<.050	<10	<10	<10	<.050	<10	<10

WELL NUMBER	Date	N-NITRO-SODI-PHENYL-AMINE	P,P' DDD,	P,P' DDE,	P,P' DDT,	PARA-CHLORO-META-CRESOL	PENTA-CHLORO-PHENOL	PHENAN-THRENE	PHENOL UNFILT. WATER	PYRENE TOTAL	TOX-APHENE, TOTAL
		TOTAL (UG/L) (34433)	(UG/L) (39310)	(UG/L) (39320)	(UG/L) (39300)	TOTAL (UG/L) (34452)	TOTAL (UG/L) (39032)	TOTAL (UG/L) (34461)	(UG/L) (34694)	(UG/L) (34469)	(UG/L) (39400)
WE-Bb 3	08-21-02	<10	<.050	<.050	<.050	<10	<50	<10	<10	<10	<5.0
	08-21-02	<10	<.050	<.050	<.050	<10	<50	<10	<10	<10	<5.0
WE-Bb 4	07-26-02	--	--	--	--	--	--	--	--	--	--
	07-26-02	--	--	--	--	--	--	--	--	--	--
	08-21-02	<10	<.050	<.050	<.050	<10	<50	<10	<10	<10	<5.0
WE-Ca 29	07-29-02	--	--	--	--	--	--	--	--	--	--
	07-29-02	--	--	--	--	--	--	--	--	--	--
	08-23-02	<10	<.050	<.050	<.050	<10	<50	<10	<10	<10	<5.0
	08-23-02	<10	<.050	<.050	<.050	<10	<50	<10	<10	<10	<5.0
WE-Ca 30	07-02-02	--	--	--	--	--	--	--	--	--	--
WE-Cb 5	08-22-02	<10	<.050	<.050	<.050	<10	<50	<10	<10	<10	<5.0
WE-Cb 6	07-25-02	--	--	--	--	--	--	--	--	--	--
	07-25-02	--	--	--	--	--	--	--	--	--	--
	08-22-02	<10	<.050	<.050	<.050	<10	<50	<10	<10	<10	<5.0

WELL NUMBER	Date	XYLENE, TOTAL, SOIL REC	1,1,1-TRI-CHLORO-ETHANE	1,1,2-TRI-CHLORO-ETHANE	1,1-DI-CHLORO-ETHANE	1,1-DI-CHLORO-ETHYL-ENE	1,2-DI-CHLORO-ETHANE	1,2-DI-CHLORO-PROPANE	TRANS-1,2-DI-CHLORO-ETHENE	ACRYLO-NITRILE	BENZENE 1,2,4-TRI-CHLORO-WAT UNF REC
		(UG/KG) (62264)	(UG/L) (34506)	(UG/L) (34511)	(UG/L) (34496)	(UG/L) (34501)	(UG/L) (32103)	(UG/L) (34541)	(UG/L) (34546)	(UG/L) (34215)	(UG/L) (34551)
WE-Bb 3	08-21-02	--	<1	<1	<1	<1	<1	<1	<.50	<20	<10
	08-21-02	--	<1	<1	<1	<1	<1	<1	<.50	<20	<10
WE-Bb 4	07-26-02	<.089	--	--	--	--	--	--	--	--	--
	07-26-02	<.086	--	--	--	--	--	--	--	--	--
	08-21-02	--	<1	<1	<1	<1	<1	<1	<.50	<20	<10
WE-Ca 29	07-29-02	<.057	--	--	--	--	--	--	--	--	--
	07-29-02	<.084	--	--	--	--	--	--	--	--	--
	08-23-02	--	<1	<1	<1	<1	<1	<1	<.50	<20	<10
	08-23-02	--	<1	<1	<1	<1	<1	<1	<.50	<20	<10
WE-Ca 30	07-02-02	<.074	--	--	--	--	--	--	--	--	--
WE-Cb 5	08-22-02	--	<1	<1	<1	<1	<1	<1	<.50	<20	<10
WE-Cb 6	07-25-02	<.053	--	--	--	--	--	--	--	--	--
	07-25-02	<.055	--	--	--	--	--	--	--	--	--
	08-22-02	--	<1	<1	<1	<1	<1	<1	<.50	<20	<10

< Actual value is known to be less than the value shown

## QUALITY OF GROUND WATER DATA

WASHINGTON, D.C.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	BENZENE	BENZENE	BENZENE	BROMO-		CARBON	CHLORO-		CHLORO-	CHLORO-	
		1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	O-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	BENZENE TOTAL (UG/L) (34030)	FORM TOTAL (UG/L) (32104)	TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	CHLORO- BENZENE TOTAL (UG/L) (34301)	DI- BROMO- METHANE TOTAL (UG/L) (32105)	ETHANE TOTAL (UG/L) (34311)	FORM TOTAL (UG/L) (32106)	
WE-Bb 3	08-21-02	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1.0	
	08-21-02	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1.0	
WE-Bb 4	07-26-02	--	--	--	--	--	--	--	--	--	--	
	07-26-02	--	--	--	--	--	--	--	--	--	--	
	08-21-02	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1.0	
WE-Ca 29	07-29-02	--	--	--	--	--	--	--	--	--	--	
	07-29-02	--	--	--	--	--	--	--	--	--	--	
	08-23-02	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1.0	
	08-23-02	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1.0	
WE-Ca 30	07-02-02	--	--	--	--	--	--	--	--	--	--	
WE-Cb 5	08-22-02	<10	<10	<10	<1	<1	<1	<1	<1	<1	5.7	
WE-Cb 6	07-25-02	--	--	--	--	--	--	--	--	--	--	
	07-25-02	--	--	--	--	--	--	--	--	--	--	
	08-22-02	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1.0	
WELL NUMBER	Date	CIS	BROMO-	ETHANE,	ETHANE	HEXA-		METHYL-		METHYL	NAPHTH-	TETRA-
		1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	DI- CHLORO- METHANE TOTAL (UG/L) (32101)	1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	HEXA- CHLORO- WATER UNFLTRD RECOVER (UG/L) (34396)	ETHYL- BENZENE TOTAL (UG/L) (34371)	CHLORO- ADIENE TOTAL (UG/L) (39702)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- CHLO- RIDE TOTAL (UG/L) (34423)	ENE CHLO- RIDE TOTAL (UG/L) (34696)	ALENE TOTAL (UG/L) (34696)	ETHYL- ENE TOTAL (UG/L) (34475)
WE-Bb 3	08-21-02	<1	<1	<1	<10	<1	<10	<2.0	<5	<10	<1.0	
	08-21-02	<1	<1	<1	<10	<1	<10	<2.0	<5	<10	<1.0	
WE-Bb 4	07-26-02	--	--	--	--	--	--	--	--	--	--	
	07-26-02	--	--	--	--	--	--	--	--	--	--	
	08-21-02	<1	<1	<1	<10	<1	<10	<2.0	<5	<10	<1.0	
WE-Ca 29	07-29-02	--	--	--	--	--	--	--	--	--	--	
	07-29-02	--	--	--	--	--	--	--	--	--	--	
	08-23-02	<1	<1	<1	<10	<1	<10	<2.0	<5	<10	<1.0	
	08-23-02	<1	<1	<1	<10	<1	<10	<2.0	<5	<10	<1.0	
WE-Ca 30	07-02-02	--	--	--	--	--	--	--	--	--	--	
WE-Cb 5	08-22-02	<1	<1	<1	<10	<1	<10	<2.0	<5	<10	<1.0	
WE-Cb 6	07-25-02	--	--	--	--	--	--	--	--	--	--	
	07-25-02	--	--	--	--	--	--	--	--	--	--	
	08-22-02	<1	<1	<1	<10	<1	<10	<2.0	<5	<10	<1.0	
WELL NUMBER	Date	TOLUENE	TRANS-	TRI-	VINYL	1,1,1-	1,1,2,2	1,1,2-	1,2,5,6	1,1-DI-	1,1-DI-	
		TOTAL (UG/L) (34010)	1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	CHLORO- RIDE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHANE BOT. MAT (UG/KG) (34509)	-TETRA- CHLORO- ETHANE BOT. MAT (UG/KG) (34519)	TRI- CHLORO- ETHANE BOT. MAT (UG/KG) (34514)	-ANTHRA- CENE BOT. MAT (UG/KG) (34559)	1,1-DI- CHLORO- ETHANE BOT. MAT (UG/KG) (34499)	CHLORO- ETHYL- LENE BOT. MAT (UG/KG) (34504)	
WE-Bb 3	08-21-02	<1	<1	<1	<1	--	--	--	--	--	--	
	08-21-02	<1	<1	<1	<1	--	--	--	--	--	--	
WE-Bb 4	07-26-02	--	--	--	--	<8.9	<8.9	<8.9	<590	<8.9	E4.5	
	07-26-02	--	--	--	--	<8.6	<8.6	<8.6	<570	<8.6	E7.1	
	08-21-02	<1	<1	<1	<1	--	--	--	--	--	--	
WE-Ca 29	07-29-02	--	--	--	--	<5.7	<5.7	<5.7	<380	<5.7	E1.7	
	07-29-02	--	--	--	--	<8.4	<8.4	<8.4	<550	<8.4	E4.8	
	08-23-02	<1	<1	<1	<1	--	--	--	--	--	--	
	08-23-02	<1	<1	<1	<1	--	--	--	--	--	--	
WE-Ca 30	07-02-02	--	--	--	--	<7.4	<7.4	<7.4	490	<7.4	<7.4	
WE-Cb 5	08-22-02	<1	<1	<1	<1	--	--	--	--	--	--	
WE-Cb 6	07-25-02	--	--	--	--	<5.3	<5.3	<5.3	E250	<5.3	<5.3	
	07-25-02	--	--	--	--	<5.5	<5.5	<5.5	<370	<5.5	<5.5	
	08-22-02	<1	<1	<1	<1	--	--	--	--	--	--	

E Estimated value.

&lt; Actual value is known to be less than the value shown

QUALITY OF GROUND WATER DATA

WASHINGTON, D.C.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	1,2,4-TRI-CHLORO-BENZENE	1,2-DI-CHLORO-BENZENE	1,2-DI-CHLORO-ETHANE	1,2-DI-CHLORO-PROPANE	1,2-TRACHLORO-ETHENE	1,3-DI-CHLORO-BENZENE	1,4-DI-CHLORO-BENZENE	2,4,6-TRI-CHLORO-PHENOL	2,4-DI-CHLORO-PHENOL	2,4-DI-NITRO-PHENOL
		(UG/KG) (34554)	(UG/KG) (34539)	(UG/KG) (34534)	(UG/KG) (34544)	(UG/KG) (34549)	(UG/KG) (34569)	(UG/KG) (34574)	(UG/KG) (34624)	(UG/KG) (34604)	(UG/KG) (34619)
WE-Bb 3	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Bb 4	08-21-02	--	--	--	--	--	--	--	--	--	--
	07-26-02	<590	<590	<8.9	<8.9	<4.4	<590	<590	<590	<590	<2800
	07-26-02	<570	<570	<8.6	<8.6	<4.3	<570	<570	<570	<570	<2700
	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 29	07-29-02	<380	<380	<5.7	<5.7	<5.7	<380	<380	<380	<380	<1800
	07-29-02	<550	<550	<8.4	<8.4	<4.2	<550	<550	<550	<550	<2700
	08-23-02	--	--	--	--	--	--	--	--	--	--
	08-23-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 30	07-02-02	<490	<490	<7.4	<7.4	<3.7	<490	<490	<490	<490	<2400
WE-Cb 5	08-22-02	--	--	--	--	--	--	--	--	--	--
WE-Cb 6	07-25-02	<350	<350	<5.3	<5.3	<2.6	<350	<350	<350	<350	<1700
	07-25-02	<370	<370	<5.5	<5.5	5.5	<370	<370	<370	<370	<1800
	08-22-02	--	--	--	--	--	--	--	--	--	--
		2,4-DI-NITRO-TOLUENE	2,6-DI-NITRO-TOLUENE	2-CHLORO-NAPHTHALENE	2-CHLORO-PHENOL	2-NITRO-PHENOL	3,3'-DI-CHLORO-BENZIDINE	4,6-DINITRO-ORTHO-CRESOL	4-BROMO-PHENYL ETHER	4-CHLORO-PHENYL ETHER	4-NITRO-PHENOL
		(UG/KG) (34614)	(UG/KG) (34629)	(UG/KG) (34584)	(UG/KG) (34589)	(UG/KG) (34594)	(UG/KG) (34634)	(UG/KG) (34660)	(UG/KG) (34639)	(UG/KG) (34644)	(UG/KG) (34649)
WE-Bb 3	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Bb 4	08-21-02	--	--	--	--	--	--	--	--	--	--
	07-26-02	<590	<590	<590	<590	<590	<2800	<2800	<590	<590	<2800
	07-26-02	<570	<570	<570	<570	<570	<2700	<2700	<570	<570	<2700
	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 29	07-29-02	<380	<380	<380	<380	<380	<1800	<1800	<380	<380	<1800
	07-29-02	<550	<550	<550	<550	<550	<2700	<2700	<550	<550	<2700
	08-23-02	--	--	--	--	--	--	--	--	--	--
	08-23-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 30	07-02-02	<490	<490	<490	<490	<490	<2400	<2400	<490	<490	<2400
WE-Cb 5	08-22-02	--	--	--	--	--	--	--	--	--	--
WE-Cb 6	07-25-02	<350	<350	<350	<350	<350	<1700	<1700	<350	<350	<1700
	07-25-02	<370	<370	<370	<370	<370	<1800	<1800	<370	<370	<1800
	08-22-02	--	--	--	--	--	--	--	--	--	--
		ACE-NAPHTHENE	ACE-NAPHTHYLENE	ACROLEIN	ACRYLONITRILE	ALDRIN, TOTAL IN BOTTOM MATERIAL	ALPHA BHC, TOTAL IN BOTTOM MATERIAL	ANTHRACENE	AROCLOR 1221 IN BOTTOM MAT.	AROCLOR 1016 PCB	AROCLOR 1232 IN BOTTOM MAT.
		(UG/KG) (34208)	(UG/KG) (34203)	(UG/KG) (34213)	(UG/KG) (34218)	(UG/KG) (39333)	(UG/KG) (39076)	(UG/KG) (34223)	(UG/KG) (39491)	(UG/KG) (39514)	(UG/KG) (39495)
WE-Bb 3	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Bb 4	08-21-02	--	--	--	--	--	--	--	--	--	--
	07-26-02	<590	<590	<180	<180	<30	<30	<590	<59	<59	<59
	07-26-02	<570	<570	<170	<170	<29	<29	<570	<57	<57	<57
	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 29	07-29-02	<380	<380	<110	<110	<19	<19	<380	<38	<38	<38
	07-29-02	<550	<550	<170	<170	<28	<28	<550	<55	<55	<55
	08-23-02	--	--	--	--	--	--	--	--	--	--
	08-23-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 30	07-02-02	<490	<490	<150	<150	<50	<50	<490	<49	<49	<49
WE-Cb 5	08-22-02	--	--	--	--	--	--	--	--	--	--
WE-Cb 6	07-25-02	E97	<350	<110	<110	<18	<18	360	<35	<35	<35
	07-25-02	<370	<370	<110	<110	<1.9	<1.9	<370	<37	<37	<37
	08-22-02	--	--	--	--	--	--	--	--	--	--

E Estimated value.  
 < Actual value is known to be less than the value shown

## QUALITY OF GROUND WATER DATA

WASHINGTON, D.C.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	AROCLOR 1242	AROCLOR 1248	AROCLOR 1254	AROCLOR 1260	BENZENE	BENZO-[A]-ANTHRA-CENE	BENZO-A-PYRENE	BENZO B FLUOR-AN-THENE	BENZO K FLUOR-AN-THENE	BENZO-[GHI]-PERY-LENE
		PCB	PCB	PCB	PCB		BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT
		(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)
		(39499)	(39503)	(39507)	(39511)	(34237)	(34529)	(34250)	(34233)	(34245)	(34524)
WE-Bb 3	08-21-02	--	--	--	--	--	--	--	--	--	--
	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Bb 4	07-26-02	<59	<59	<59	<59	<8.9	<590	E310	<590	<590	<590
	07-26-02	<57	<57	<57	<57	<8.6	<570	570	<570	<570	<570
	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 29	07-29-02	<38	<38	<38	180	<5.7	E56	<380	<380	<380	<380
	07-29-02	<55	<55	<55	<55	<8.4	<550	<550	<550	<550	<550
	08-23-02	--	--	--	--	--	--	--	--	--	--
	08-23-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 30	07-02-02	<49	<49	<49	180	<7.4	<490	<490	<490	<490	<490
WE-Cb 5	08-22-02	--	--	--	--	--	--	--	--	--	--
WE-Cb 6	07-25-02	<35	<35	<35	160	<5.3	1100	920	770	840	520
	07-25-02	<37	<37	<37	<37	<5.5	<370	<370	<370	<370	<370
	08-22-02	--	--	--	--	--	--	--	--	--	--
		BETA BENZENE	BIS (2-CHLORO-ETHOXY) METHANE	BIS (2-CHLORO-ETHYL) ETHER	BIS (2-CHLORO-ISO-PROPYL) ETHER	BIS (2-ETHYL-HEXYL) PHTHAL-ATE	BROMO-DI-CHLORO-METHANE	BROMO-FORM	CARBON TETRA-CHLOR-IDE	CHLOR-DANE, TOTAL	CHLORO-BENZENE
		BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT	IN BOT-TOM MA-TERIAL	BOT.MAT
		(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)
		(34257)	(34281)	(34276)	(34286)	(39102)	(34330)	(34290)	(34299)	(39351)	(34524)
WE-Bb 3	08-21-02	--	--	--	--	--	--	--	--	--	--
	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Bb 4	07-26-02	<30	<590	<590	<590	<590	<8.9	<8.9	<8.9	<300	<8.9
	07-26-02	<29	<570	<570	<570	<570	<8.6	<8.6	<8.6	<290	<8.6
	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 29	07-29-02	<19	<380	<380	<380	<380	<5.7	<5.7	<5.7	<190	<5.7
	07-29-02	<28	<550	<550	<550	<550	<8.4	<8.4	<8.4	<280	<8.4
	08-23-02	--	--	--	--	--	--	--	--	--	--
	08-23-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 30	07-02-02	<50	<490	<490	<490	E340	<7.4	<7.4	<7.4	<500	<7.4
WE-Cb 5	08-22-02	--	--	--	--	--	--	--	--	--	--
WE-Cb 6	07-25-02	<18	<350	<350	<350	<350	<5.3	<5.3	<5.3	<180	<5.3
	07-25-02	<1.9	<370	<370	<370	<370	<5.5	<5.5	<5.5	<19	<5.5
	08-22-02	--	--	--	--	--	--	--	--	--	--
		CHLORO-ETHANE	CHLORO-FORM	CHRY-SENE	CIS 1,3-DI-CHLORO-PROPENE	DELTA BENZENE	DI-BROMO-CHLORO-METHANE	DI-ELDRIN, TOTAL	DIETHYL PHTHAL-ATE	DI-METHYL PHTHAL-ATE	DI-N-BUTYL PHTHAL-ATE
		BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT	IN BOT-TOM MA-TERIAL	BOT.MAT	BOT.MAT	BOT.MAT
		(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)
		(34314)	(34318)	(34323)	(34702)	(34262)	(34309)	(39383)	(34339)	(34344)	(39112)
WE-Bb 3	08-21-02	--	--	--	--	--	--	--	--	--	--
	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Bb 4	07-26-02	<18	<18	<590	<8.9	<30	<8.9	<30	<1200	<590	<590
	07-26-02	<17	<17	<570	<8.6	<29	<8.6	<29	<1100	<570	<570
	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 29	07-29-02	<11	<11	E74	<5.7	<19	<5.7	<19	<750	<380	<380
	07-29-02	<17	<17	<550	<8.4	<28	<8.4	<28	<1100	<550	<550
	08-23-02	--	--	--	--	--	--	--	--	--	--
	08-23-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 30	07-02-02	<15	<7.4	<490	<7.4	<50	<7.4	<50	<970	<490	<490
WE-Cb 5	08-22-02	--	--	--	--	--	--	--	--	--	--
WE-Cb 6	07-25-02	<11	<11	990	<5.3	<18	<5.3	<18	<690	<350	<350
	07-25-02	<11	<11	<370	<5.5	<1.9	<5.5	<1.9	<730	<370	<370
	08-22-02	--	--	--	--	--	--	--	--	--	--

E Estimated value.

&lt; Actual value is known to be less than the value shown

QUALITY OF GROUND WATER DATA

WASHINGTON, D.C.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	DI-N-OCTYL	ENDO-SULFAN	ENDO-SULFAN	ENDRIN	ENDRIN,	ETHYL-BENZENE	FLUOR-ANTHENE	FLUOR-ENE	HEPTA-CHLOR	HEPTA-CHLOR
		PHTHAL-ATE	ALPHA	SULFATE	ALDE-HYDE	TOTAL				EPOXIDE	TOTAL
		BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT	IN BOT-TOM MA-TERIAL	BOT.MAT	BOT.MAT	BOT.MAT	TOT. IN BOT-TOM MATL.	IN BOT-TOM MA-TERIAL
		(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)
		(34599)	(34364)	(34354)	(34369)	(39393)	(34374)	(34379)	(34384)	(39423)	(39413)
WE-Bb 3	08-21-02	--	--	--	--	--	--	--	--	--	--
	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Bb 4	07-26-02	<590	<30	<30	<30	<30	<8.9	<590	<590	<120	<30
	07-26-02	<570	<29	<29	<29	<29	<8.6	<570	<570	<120	<29
	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 29	07-29-02	<380	<19	<19	<19	<19	<5.7	<380	<380	<77	<19
	07-29-02	<550	<28	<28	<28	<28	<8.4	<550	<550	<110	<28
	08-23-02	--	--	--	--	--	--	--	--	--	--
	08-23-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 30	07-02-02	<490	<50	<50	<50	<50	<7.4	<490	<490	<200	<50
WE-Cb 5	08-22-02	--	--	--	--	--	--	--	--	--	--
WE-Cb 6	07-25-02	<350	<18	<18	<18	<18	<5.3	2400	E100	<70	<18
	07-25-02	<370	<1.9	<1.9	<1.9	<1.9	<5.5	<370	<370	<7.4	<1.9
	08-22-02	--	--	--	--	--	--	--	--	--	--
		HEXA-CHLORO-BENZENE	HEXA-CHLORO-BUT-ADIENCE	HEXA-CHLORO-CYCLO-PENT-ADIENE	HEXA-CHLORO-ETHANE	INDENO (1,2,3-CD) PYRENE	ISO-PHORONE	LINDANE TOTAL	METHY-LENE CHLOR-IDE	NAPHTH-ALENE	N-BUTYL BENZYL-PHTHAL-ATE
		TOT. IN BOT-TOM MATL.	BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT	IN BOT-TOM MA-TERIAL	BOT.MAT	BOT.MAT	BOT.MAT
		(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)
		(39701)	(39705)	(34389)	(34399)	(34406)	(34411)	(39343)	(34426)	(34445)	(34295)
WE-Bb 3	08-21-02	--	--	--	--	--	--	--	--	--	--
	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Bb 4	07-26-02	<590	<590	<2800	<590	<590	<590	<30	<8.9	<590	<590
	07-26-02	<570	<570	<2700	<570	<570	<570	<29	<8.6	<570	<570
	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 29	07-29-02	<380	<380	<1800	<380	<380	<380	<19	<5.7	<380	<380
	07-29-02	<550	<550	<2700	<550	<550	<550	<28	<8.4	<550	<550
	08-23-02	--	--	--	--	--	--	--	--	--	--
	08-23-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 30	07-02-02	<490	<490	<2400	<490	<490	<490	<50	E2.0	<490	<490
WE-Cb 5	08-22-02	--	--	--	--	--	--	--	--	--	--
WE-Cb 6	07-25-02	<350	<350	<1700	<350	490	<350	<18	<5.3	<350	<350
	07-25-02	<370	<370	<1800	<370	<370	<370	<1.9	<5.5	<370	<370
	08-22-02	--	--	--	--	--	--	--	--	--	--
		NITRO-BENZENE	N-NITRO-SODI-N-PROPYL-AMINE	N-NITRO-SODI-PHENY-LAMINE	P,P'-DDD, RECOVER IN BOT-TOM MA-TERIAL	P,P'-DDE, RECOVER IN BOT-TOM MA-TERIAL	P,P'-DDT, RECOVER IN BOT-TOM MA-TERIAL	PARA-CHLORO-META-CRESOL	PENTA-CHLORO-PHENOL	PHENAN-THRENE	PHENOL SED.
		BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT	BOT.MAT
		(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)
		(34450)	(34431)	(34436)	(39363)	(39368)	(39373)	(34455)	(39061)	(34464)	(34695)
WE-Bb 3	08-21-02	--	--	--	--	--	--	--	--	--	--
	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Bb 4	07-26-02	<590	<590	<590	<30	<30	<30	<590	<2800	<590	<590
	07-26-02	<570	<570	<570	<29	<29	<29	<570	<2700	<570	<570
	08-21-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 29	07-29-02	<380	<380	<380	E4.5	E5.8	E11	<380	<1800	<380	<380
	07-29-02	<550	<550	<550	<28	<28	<28	<550	<2700	<550	<550
	08-23-02	--	--	--	--	--	--	--	--	--	--
	08-23-02	--	--	--	--	--	--	--	--	--	--
WE-Ca 30	07-02-02	<490	<490	<490	<50	<50	<50	<490	<2400	<490	<490
WE-Cb 5	08-22-02	--	--	--	--	--	--	--	--	--	--
WE-Cb 6	07-25-02	<350	<350	<350	E7.0	120	100	<350	<1700	1400	<350
	07-25-02	<370	<370	<370	<1.9	<1.9	<1.9	<370	<1800	<370	<370
	08-22-02	--	--	--	--	--	--	--	--	--	--

E Estimated value.

< Actual value is known to be less than the value shown

## QUALITY OF GROUND WATER DATA

WASHINGTON, D.C.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

WELL NUMBER	Date	PYRENE BOT.MAT (UG/KG) (34472)	TETRA-	TOLUENE BOT.MAT (UG/KG) (34483)	TOXA-	TRANS- 1,3-DI- CHLORO- PROPENE BOT.MAT (UG/KG) (34697)	TRI- CHLORO- ETHYL- ENE BOT.MAT (UG/KG) (34487)	VINYL CHLOR- IDE BOT.MAT (UG/KG) (34495)	CYANIDE
			CHLORO- ETHY- LENE BOT.MAT (UG/KG) (34478)		IN BOT- TERIAL (UG/KG) (39403)				UNFLTRD TOT REC EPA- CON- TRACT (MG/L) (99896)
WE-Bb 3	08-21-02	--	--	--	--	--	--	--	<.010
	08-21-02	--	--	--	--	--	--	--	<.010
WE-Bb 4	07-26-02	<590	<8.9	E3.8	<3000	<8.9	<8.9	<8.9	--
	07-26-02	<570	<8.6	<6.3	<2900	<8.6	<8.6	<8.6	--
	08-21-02	--	--	--	--	--	--	--	<.010
WE-Ca 29	07-29-02	<380	<5.7	<5.7	<1900	<5.7	<5.7	<5.7	--
	07-29-02	<550	<8.4	E3.6	<2800	<8.4	<8.4	<8.4	--
	08-23-02	--	--	--	--	--	--	--	E.0068
WE-Ca 30	08-23-02	--	--	--	--	--	--	--	E.0070
	07-02-02	E91	<7.4	<7.4	<5000	<7.4	<7.4	<15	--
WE-Cb 5	08-22-02	--	--	--	--	--	--	--	<.010
WE-Cb 6	07-25-02	1900	<5.3	5.5	<1800	<5.3	<5.3	<5.3	--
	07-25-02	<370	<5.5	<5.5	<190	<5.5	<5.5	<5.5	--
	08-22-02	--	--	--	--	--	--	--	<.010

E Estimated value.

&lt; Actual value is known to be less than the value shown

INDEX

-----

	Page		Page
Access to USGS data.....	13	Frederick County, MD, ground-water levels in.....	287-290
Acid neutralizing capacity (ANC), definition of.....	14	ground-water quality records in.....	528-529
Adenosine triphosphate (ATP), definition of.....	14	ground-water spring discharges in.....	33-34
Algal growth potential (AGP), definition of.....	14	Garrett County, MD, ground-water levels in.....	291-309
Alkalinity, definition of.....	14	Gas chromatography/flame ionization detector	
Allergy County, MD, ground-water levels in.....	120-122	(GC/FID), definition of.....	15
Anne Arundel County, MD, ground-water levels in.....	123-186	Ground-water level records.....	36-481
ground-water quality record in.....	493-494	explanation of.....	6-11
Aquifer, definition of.....	14	Ground-water levels at key observation wells.....	3
explanation of.....	10	Ground-water levels in selected observation wells in	
Aroclor, definition of.....	14	confined Coastal Plain aquifers in Maryland...	5
Artesian, definition of.....	14	Ground-water levels for Collection of Basic Records	
Bacteria, definition of.....	14	(CBR) network wells in Maryland and Delaware..	7
Baltimore City, MD, ground-water levels in.....	187-190	Ground-water quality records:	
Baltimore County, MD, ground-water levels in.....	191-205	Delaware,	
ground-water quality records in.....	485-510	Kent County.....	483-484
Bibliographic Data Sheet.....	iv	Sussex County.....	485-492
Biochemical oxygen demand (BOD), definition of.....	14	Maryland,	
Biomass, definition of.....	14	Anne Arundel County.....	493-494
Calvert County, MD, ground-water levels in.....	206-222	Baltimore County.....	495-510
ground-water quality record in.....	511	Calvert County.....	511
Caroline County, MD, ground-water levels in.....	223-224	Caroline County.....	512-516
ground-water quality record in.....	512-516	Carroll County.....	517-518
Carroll County, MD, ground-water levels in.....	225-228	Cecil County.....	519-520
ground-water quality records in.....	517-518	Dorchester County.....	521-527
Cecil County, MD, ground-water levels in.....	229-241	Frederick County.....	528-529
ground-water quality record in.....	519-520	Harford County.....	530-531
ground-water spring discharge.....	32	Montgomery County.....	532-534
Cells/volume, definition of.....	14	Queen Annes County.....	535-540
Charles County, MD, ground-water levels in.....	242-277	St. Marys County.....	541
Chemical oxygen demand (COD), definition of.....	14	Somerset County.....	542-546
<i>Clostridium perfringens</i> ( <i>C. perfringens</i> ),		Talbot County.....	547-551
definition of.....	14	Washington County.....	552-555
Coliphages, definition of.....	14	Wicomico County.....	556
Collection and computation of		Worcester County.....	537-560
ground-water levels.....	10	Washington, D.C.....	561-570
ground-water quality.....	11	Ground-water quality remark codes.....	10,482
Color unit, definition of.....	14	Ground-water records.....	32-570
Confined aquifer, definition of.....	14	Hardness of water, definition of.....	15
Contents.....	v-vi	Harford County, MD, ground-water levels in.....	310-327
Continuous-record station, definition of.....	14	ground-water spring discharge in.....	57
Control data, water-quality.....	12-13	ground-water quality record in.....	530-531
Conversion factors, English units to		Howard County, MD, ground-water levels in.....	328-330
International System (SI) units.....	Inside back cover	Hydrographs, explanation of.....	11
Cooperation, explanation of.....	1	Hydrologic Bench-Mark Station, definition of.....	15
Daily-record station, definition of.....	14	Hydrologic conditions, summary of.....	2
Data, collection and computation of		Hydrologic unit, definition of.....	15
ground-water levels.....	10	Instrumentation, explanation of.....	10
collection and computation of		Introduction.....	1
ground-water quality.....	11	Kent County, DE, ground-water levels in.....	36-74
presentation, ground-water levels.....	10	ground-water quality record in.....	483-484
presentation, ground-water quality.....	11	Kent County, MD, ground-water levels in.....	331-348
Data logger, definition of.....	14	Laboratory Reporting Level (LRL), definition of.....	15
Datum, definition of.....	14	Land-surface datum, definition of.....	15
Datum of ground-water levels, explanation of.....	10	Latitude-longitude system, explanation of.....	8
Definition of terms.....	14-19	Location, explanation of.....	10
Delaware and Maryland, 2002, water		Lipid, definition of.....	16
resources data for, explanation of.....	1-19	Long-Term Method Detection Level (LT-MDL),	
Dissolved, definition of.....	15	definition of.....	16
Dissolved oxygen (DO), definition of.....	15	Maryland and Delaware, 2002, water resources	
Dissolved-solids concentration, definition of.....	15	data for, explanation of.....	1-19
Documentation, Report Page.....	iv	Measuring point, definition of.....	16
Dorchester County, MD, ground-water levels in.....	278-286	Membrane filter, definition of.....	16
ground-water quality records in.....	521-527	Metamorphic stage, definition of.....	16
Enterococcus bacteria, definition of.....	15	Method Detection Limit (MDL),	
<i>Escherichia coli</i> ( <i>E. coli</i> ), definition of.....	15	definition of.....	16
Estimated (E) value, definition of.....	15	Methylene blue active substance (MBAS)	
Explanation of ground-water level records.....	6-11	definition of.....	16
Extrable organic halides (EOX), definition of.....	15	Micrograms per gram, definition of.....	16
Extremes for period of record, explanation of.....	10	Micrograms per kilogram, definition of.....	16
Factors for converting English units to		Micrograms per liter, definition of.....	16
International System (SI) units.....	Inside back cover	Microsiemens per centimeter, definition of.....	16
Fecal coliform bacteria, definition of.....	15	Milligrams per liter, definition of.....	16
Fecal streptococcal bacteria, definition of.....	15	Minimum Reporting Level (MRL), definition of.....	16

	Page		Page
Montgomery County, MD, ground-water levels in.....	349-355	Station Identification numbers, explanation of.....	6
ground-water quality records in.....	532-534	Streptococcal bacteria, fecal.....	18
Monthly ground-water levels at key		Summary of hydrologic conditions.....	2
observation wells.....	3	Suspended, definition of.....	18
Most probable number (MPN), definition of.....	16	Suspended recoverable, definition of.....	18
		Suspended, total, definition of.....	18
Nanograms per liter (NG/L, mg/L), definition of.....	16	Sussex County, DE, ground-water levels in.....	87-119
National Geodetic Vertical Datum of 1929 (NGVD),		ground-water quality records in.....	520-549
definition of.....	16	Synoptic studies short-term, definition of.....	18
National Technical Information Service.....	1	System for numbering wells.....	8
National Water-Quality Assessment (NAWQA) Program,			
definition of.....	16	Talbot County, MD, ground-water levels in.....	432-437
explanation of.....	6	ground-water quality record in.....	547-551
New Castle County, DE, ground-water levels in.....	75-86	Taxonomy, definition of.....	18
North American Vertical Datum of 1988		Techniques of Water-Resources Investigations,	
(NAVD 1988), definition of.....	16	publications on.....	20-23
Numbering system for wells .....	8-9	Terms and abbreviations, definition of.....	14-19
Numbers, station identification.....	6	Time-weighted average, definition of.....	18
		Total coliform bacteria, definition of.....	18
Open or screened interval, definition of.....	16	Total, definition of.....	18
Organic carbon (OC), definition of.....	16	Total, recoverable, definition of.....	18
Organism count/area, definition of.....	17		
Organism count/volume, definition of.....	17	USGS data, access to.....	13
Organochlorine compounds, definition of.....	17		
		Vertical datum, definition of.....	18
Parameter code, definition of.....	17	Volatile organic compounds (VOC), definition of.....	18
Partial-record station, definition of.....	17		
Particle-size classification, definition of.....	17	Washington County, MD, ground-water levels in.....	438-443
Particle size, definition of.....	17	ground-water spring discharge.....	35
Percent composition/ percent of total,		ground-water quality records in.....	552-555
definition of.....	17	Washington, D.C., ground-water quality records in...	561-570
Period of record, explanation of.....	10	Water-level records, explanation of.....	6-11
Periphyton, definition of.....	17	Water-quality codes for ground water.....	12, 503
Permit number, explanation of.....	10	Water-quality control data.....	12-13
Pesticides, definition of.....	17	Water-quality records, explanation of.....	11-13
pH, definition of.....	17	Water resources data for Maryland and Delaware,	
Picocurie, definition of.....	17	2002, explanation of.....	1-19
Polychlorinated biphenyls, definition of.....	17	Water-resources investigations, publications	
Polychlorinated naphthalenes (PCNs), definition of..	17	on techniques of.....	20-23
Preface.....	iii	Water table, definition of.....	19
Prince Georges County, MD, ground-water		Water-table aquifer, definition of.....	19
levels in.....	356-371	Water year, explanation of.....	19
Publications on Techniques of Water-Resources		WDR (Water Data Report), definition of.....	19
Investigations.....	20-23	Well characteristics, explanation of.....	10
		Well descriptions and water-level measurements:	
Quality of ground water.....	504-689	Delaware,	
Queen Annes County, MD, ground-water levels in.....	372-396	Kent County.....	36-74
ground-water quality records in.....	535-540	New Castle County.....	75-86
		Sussex County.....	87-119
Radioisotopes, definition of.....	17	Maryland,	
Records of ground-water levels.....	36-481	Allegany County.....	120-122
Records of ground-water quality.....	483-570	Anne Arundel County.....	123-186
Remark codes.....	10, 482	Baltimore, City of.....	187-190
Remarks, explanation of.....	10	Baltimore County.....	191-205
Replicate samples, definition of.....	17	Calvert County.....	206-222
Report Documentation Page.....	iv	Caroline County.....	223-224
		Carroll County.....	225-228
St. Marys County, MD, ground-water levels in.....	397-427	Cecil County.....	229-241
ground-water quality record in.....	541	Charles County.....	242-277
Sea level, definition of.....	17	Dorchester County.....	278-286
Selected ground-water references:		Frederick County.....	287-290
Delaware		Garrett County.....	291-309
Delaware Geological Survey.....	25	Harford County.....	310-327
U.S. Geological Survey.....	24	Howard County.....	328-330
Maryland		Kent County.....	331-348
Maryland Geological Survey.....	25	Montgomery County.....	349-355
U.S. Geological Survey.....	24	Prince Georges County.....	356-371
Sodium-adsorption-ratio, definition of.....	17	Queen Annes County.....	372-396
Somerset County, MD, ground water levels in.....	428-431	Saint Marys County.....	397-427
ground-water quality record in.....	542-546	Somerset County.....	428-431
Specific electrical conductance (conductivity),		Talbot County.....	432-437
definition of.....	18	Washington County.....	438-443
Spring Discharge Tables, explanation of.....	10	Wicomico County.....	444-448
Spring descriptions and discharge measurements:		Worcester County.....	449-481
Maryland,		Wells, numbering system for.....	8-9
Cecil County.....	32	Wicomico County, MD, ground-water levels in.....	444-448
Frederick County.....	33-34	ground-water quality record in.....	556
Washington County.....	35	Worcester County, MD, ground-water levels in.....	449-481
Stable isotope ratio (per MILL/MIL),		ground-water quality records in.....	557-560
definition of.....	18	WSP (Water-Supply Paper), definition of.....	19



THIS IS A BLANK PAGE

# CONVERSION FACTORS

<b>Multiply</b>	<b>By</b>	<b>To obtain</b>
<b>Length</b>		
inch (in.)	$2.54 \times 10^1$	millimeter
	$2.54 \times 10^{-2}$	meter
foot (ft)	$3.048 \times 10^{-1}$	meter
mile (mi)	$1.609 \times 10^0$	kilometer
<b>Area</b>		
acre	$4.047 \times 10^3$	square meter
	$4.047 \times 10^{-1}$	square hectometer
	$4.047 \times 10^{-3}$	square kilometer
square mile (mi <sup>2</sup> )	$2.590 \times 10^0$	square kilometer
<b>Volume</b>		
gallon (gal)	$3.785 \times 10^0$	liter
	$3.785 \times 10^0$	cubic decimeter
	$3.785 \times 10^{-3}$	cubic meter
million gallons (Mgal)	$3.785 \times 10^3$	cubic meter
	$3.785 \times 10^{-3}$	cubic hectometer
cubic foot (ft <sup>3</sup> )	$2.832 \times 10^1$	cubic decimeter
	$2.832 \times 10^{-2}$	cubic meter
cubic-foot-per-second day [(ft <sup>3</sup> /s) d]	$2.447 \times 10^3$	cubic meter
	$2.447 \times 10^{-3}$	cubic hectometer
acre-foot (acre-ft)	$1.233 \times 10^3$	cubic meter
	$1.233 \times 10^{-3}$	cubic hectometer
	$1.233 \times 10^{-6}$	cubic kilometer
<b>Flow</b>		
cubic foot per second (ft <sup>3</sup> /s)	$2.832 \times 10^1$	liter per second
	$2.832 \times 10^1$	cubic decimeter per second
	$2.832 \times 10^{-2}$	cubic meter per second
gallon per minute (gal/min)	$6.309 \times 10^{-2}$	liter per second
	$6.309 \times 10^{-2}$	cubic decimeter per second
	$6.309 \times 10^{-5}$	cubic meter per second
million gallons per day (Mgal/d)	$4.381 \times 10^1$	cubic decimeter per second
	$4.381 \times 10^{-2}$	cubic meter per second
<b>Mass</b>		
ton (short)	$9.072 \times 10^{-1}$	megagram or metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$$^{\circ}\text{F} = (1.8 \cdot ^{\circ}\text{C}) + 32$$