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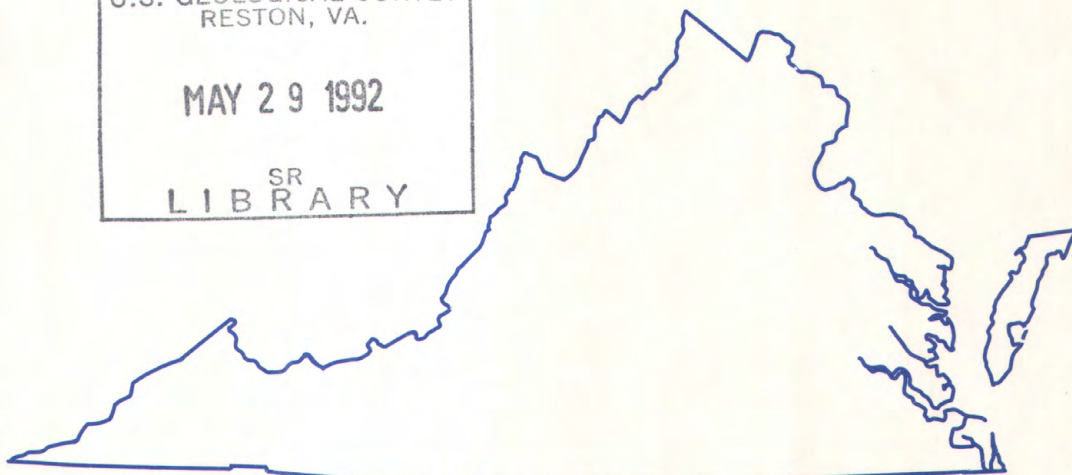
# Water Resources Data Virginia Water Year 1991

Volume 2. Ground Water and Ground-Water-  
Quality Records

U.S. GEOLOGICAL SURVEY  
RESTON, VA.

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Prepared in cooperation with the Virginia Water Control  
Board and with other agencies



# CALENDAR FOR WATER YEAR 1991

1990

## OCTOBER

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
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## NOVEMBER

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## DECEMBER

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1991

## JANUARY

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## FEBRUARY

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| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 |    |    |

## MARCH

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## APRIL

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## MAY

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| 26 | 27 | 28 | 29 | 30 | 31 |    |

## JUNE

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## JULY

| S  | M  | T  | W  | T  | F  | S  |
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## AUGUST

| S  | M  | T  | W  | T  | F  | S  |
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SEPTEMBER

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
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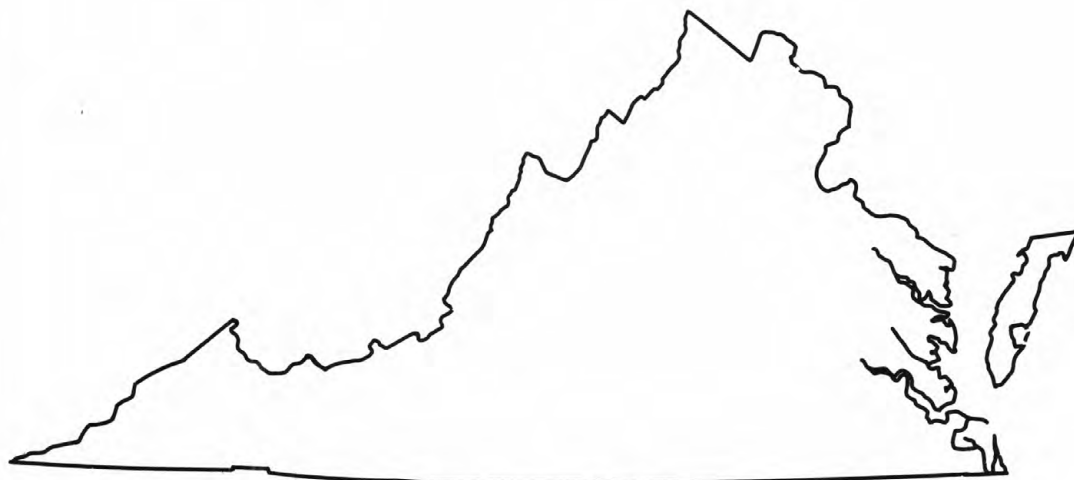




# Water Resources Data Virginia Water Year 1991

## Volume 2. Ground Water and Ground-Water- Quality Records

by Byron J. Prugh, Jr., and Eugene D. Powell



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT VA-91-2  
Prepared in cooperation with the Virginia Water Control  
Board and with other agencies



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**U.S. GEOLOGICAL SURVEY**

**Dallas L. Peck, Director**

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Charlottesville, Virginia 22903

1992



## PREFACE

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

This report (Volume 2. Ground Water and Ground-Water-Quality Records) is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey and the Virginia Water Control Board who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the 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 personnel contributed significantly to the collection, computation, processing, and completion of this information:

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This report was prepared in cooperation with the State of Virginia and with other agencies under the general supervision of Herbert J. Freiburger, Area Assistant Regional Hydrologist, Mid-Atlantic Programs, and Gary S. Anderson, District Chief.



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     |                                                                                           |                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------|------------------------------|
| <b>REPORT DOCUMENTATION<br/>PAGE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1. REPORT NO.<br>USGS/WRD/HD-92/237 | 2.                                                                                        | 3. Recipient's Accession No. |
| 4. Title and Subtitle<br>Water Resources Data - Virginia - Water Year 1991<br>Volume 2. Ground Water and Ground-Water-Quality Records                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                     | 5. Report Date<br>February 6, 1992                                                        |                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     | 6.                                                                                        |                              |
| 7. Author(s)<br>Byron J. Prugh, Jr. and Eugene D. Powell                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                     | 8. Performing Organization Rept. No.<br>USGS-WDR-VA-91-2                                  |                              |
| 9. Performing Organization Name and Address<br>U.S. Geological Survey, Water Resources Division<br>3600 West Broad Street, Room 606<br>Richmond, Virginia 23230                                                                                                                                                                                                                                                                                                                                                                                                              |                                     | 10. Project/Task/Work Unit No.                                                            |                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     | 11. Contract(C) or Grant(G) No.<br>(C)<br>(G)                                             |                              |
| 12. Sponsoring Organization Name and Address<br>U.S. Geological Survey, Water Resources Division<br>3600 West Broad Street, Room 606<br>Richmond, Virginia 23230                                                                                                                                                                                                                                                                                                                                                                                                             |                                     | 13. Type of Report & Period Covered<br>ANNUAL - October 1, 1990, to<br>September 30, 1991 |                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     | 14.                                                                                       |                              |
| 15. Supplementary Notes<br>Prepared in cooperation with the Virginia Water Control Board and with other agencies                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |                                                                                           |                              |
| 16. Abstract (Limit: 200 words)<br><br>Water-resources data for the 1991 water year for Virginia consist of records of water levels and water quality of ground-water wells. This report (Volume 2. Ground Water and Ground-Water-Quality Records) contains water levels at 356 observation wells and water quality at 49 wells. Locations of these wells are shown on figures 4, 5, 6, and 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 and Federal agencies in Virginia. |                                     |                                                                                           |                              |
| 17. Document Analysis a. Descriptors<br><br>*Virginia, *Hydrologic data, *Ground water, *Water quality,<br>Water levels, Water analyses, Chemical analyses, Water temperatures, Sampling sites<br><br>b. Identifiers/Open-Ended Terms<br><br>c. COSATI Field/Group                                                                                                                                                                                                                                                                                                           |                                     |                                                                                           |                              |
| 18. Availability Statement<br>No restriction on distribution.<br><br>This report may be purchased:<br>National Technical Information Service<br>Springfield, VA 22161                                                                                                                                                                                                                                                                                                                                                                                                        |                                     | 19. Security Class (This Report)<br>UNCLASSIFIED                                          | 21. No. of Pages<br>409      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     | 20. Security Class (This Page)<br>UNCLASSIFIED                                            | 22. Price                    |



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# WATER RESOURCES DATA - VIRGINIA, 1991

## VOLUME 2. GROUND WATER AND GROUND-WATER-QUALITY RECORDS

### INTRODUCTION

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

This series of annual reports for Virginia began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels. Beginning with the 1990 water year, the quantity of data to be published made it necessary to present the data in two volumes; Volume 1 encompassed surface water and surface-water-quality records and Volume 2 encompassed ground water and ground-water-quality records.

This report is Volume 2 in our 1991 series and includes records of water levels and water quality of ground-water wells. It contains records for water levels at 356 observation wells and water quality at 49 wells. Locations of these wells are shown on figures 4, 5, 6, and 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 and Federal agencies in Virginia.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Virginia 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 U.S. Geological Survey, Books and Open-File Reports, Federal Center, Bldg. 41, Box 25425, Denver, CO 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report VA-91-2." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22161. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc.

Additional information, including current prices, for ordering specific reports may be obtained from the District Office at the address given on the back of the title page or by telephone (804) 771-2427. A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

### COOPERATION

The U.S. Geological Survey and agencies of the State of Virginia have had joint-funding agreements for the collection of water-resource records since 1930. Organizations that assisted in collecting the data in this report through joint-funding agreements with the Survey are:

VIRGINIA WATER CONTROL BOARD, Richard N. Burton, executive director.

YORK COUNTY, Daniel M. Stuck, county administrator.

CITY OF NEWPORT NEWS, C. C. Crowder, director, Department of Public Utilities.

CITY OF WILLIAMSBURG, Frank Force, city manager.

HAMPTON ROADS PLANNING DISTRICT COMMISSION, Arthur L. Collins, executive director.

JAMES CITY SERVICE AUTHORITY, Chris Dawson, environmental engineer.

PRINCE WILLIAM HEALTH DISTRICT, Jared E. Florence, M.D., director.

ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION, Paul F. Berge, executive director.

Organizations that provided data are acknowledged in station descriptions.

#### RECORDS COLLECTED BY THE STATE OF VIRGINIA

In addition to data collected by the U.S. Geological Survey, there are included herein records for 194 index wells operated by the Virginia Water Control Board. These records are published as provided and are acknowledged in the "REMARKS" paragraph of each individual well. The Virginia Water Control Board is under the direction of Richard N. Burton, executive director. Published material for the ground-water wells is supplied, respectively, through the Office of Water Resources Management, Robert G. Burnley, deputy executive director of operations, and Office of Surface-Water Investigations, Paul E. Herman, division director.

#### SUMMARY OF HYDROLOGIC CONDITIONS

Ground-water levels were above the long-term average in the shallow water-table aquifers across the State at the beginning of the water year. This general trend continued from September through April with the exception of areas in the southwestern and southeastern corners of the State where water levels were below average. Beginning in May, the trend in water levels changed and increasingly larger areas of the State had water levels below the long-term average. By September water levels in all observation wells west of the Blue Ridge, the eastern Piedmont, and the Coastal Plain physiographic provinces were below average whereas water levels on the central and western Piedmont and on the Eastern Shore remained above average (fig. 1). Physiographic provinces of the State are highlighted on an insert in figure 4. At yearend, water levels were steady or declining across the State.

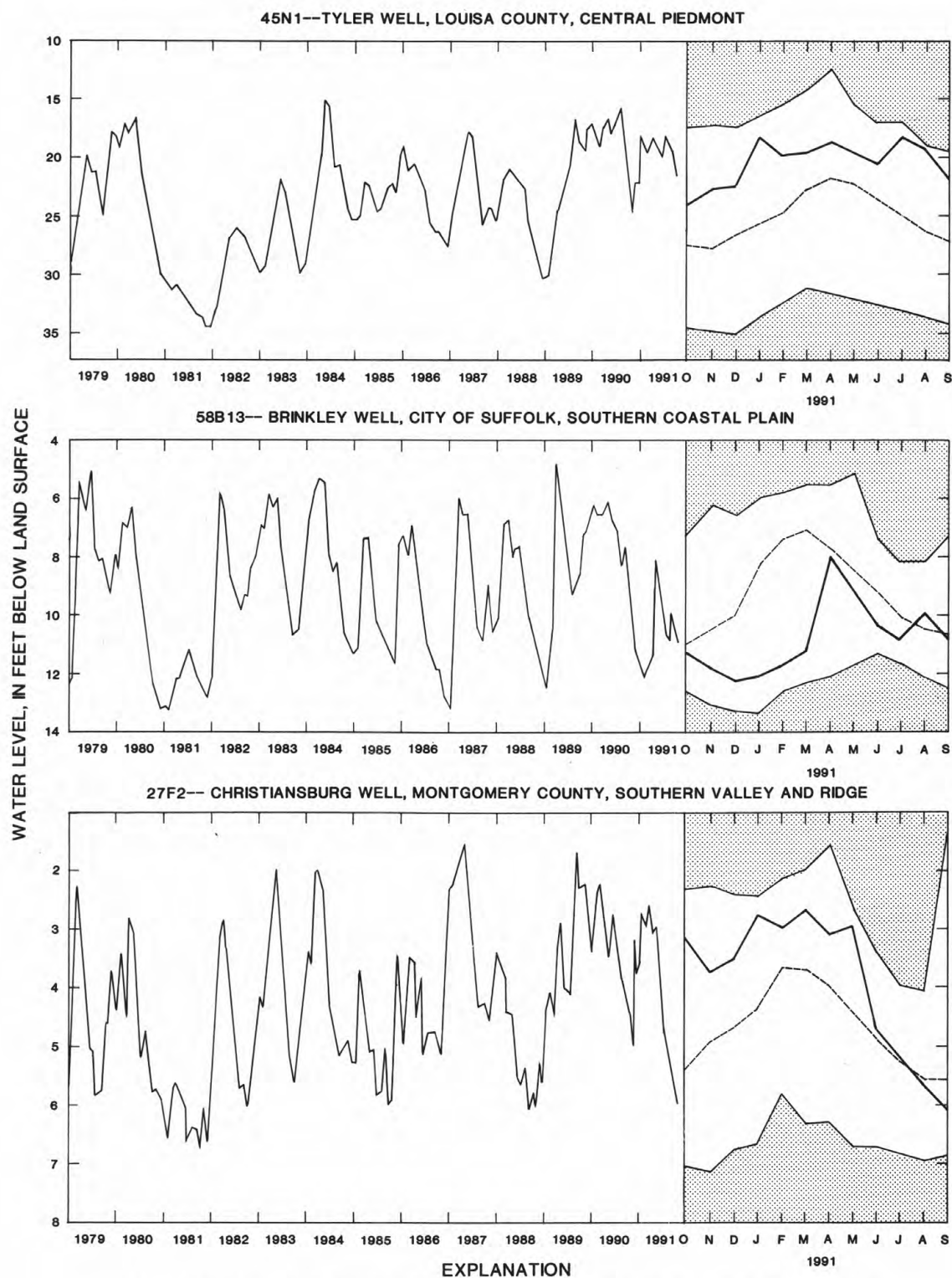
New monthend high-water levels in the water-table aquifer were recorded in several wells during the fall through spring period. These include wells at Leesburg and Clarke County in the northern part of the State, in Buchanan County in the southwestern corner of the State, and at Wallops Island on the Eastern Shore. New monthend low-water levels were recorded in May, July, and August in the dug well at George Washington's Birthplace National Monument in Westmoreland County.

Annual high-water levels were recorded during October in the observation well at Halifax and during December in wells at opposite extremes of the State--at Buchanan County in southwestern Virginia and at Wallops Island on the Eastern Shore. Water levels in most wells recorded their annual highs either in March--Westmoreland County on the Coastal Plain and Clarke and Rockingham Counties and Christiansburg in the Valley, or in April--Suffolk on the Coastal Plain and Leesburg, Colonial Heights, and Louisa County on the Piedmont. The occurrence of the annual high-water level in the observation well in Buckingham County was seasonally atypical and was recorded in May as a result of recharge from locally heavy rains.

Annual low-water levels were recorded during October in the Tyler well in Louisa County (fig. 1), during November in the observation well in Buchanan County, during December at wells in Suffolk (fig. 1) and Buckingham County, and during September at numerous wells in the Piedmont (Leesburg, Reston, Colonial Heights, and Halifax) and Valley and Ridge physiographic provinces (Clarke and Rockingham Counties and city of Christiansburg).

Water levels in observation wells in the heavily pumped confined middle and upper Potomac aquifers on the Coastal Plain at Toano and Franklin declined 1.4 feet and 4.1 feet, respectively, during the year. Cumulative decline in water level in the middle Potomac aquifer at Franklin has been about 110 feet since the early 1960's. The cumulative decline in the upper Potomac aquifer at Toano--period of record begins in May 1985--has been about 10 feet (fig. 2).





**FIGURE 1.--Monthly ground-water levels at key observation wells in water-table aquifer.**

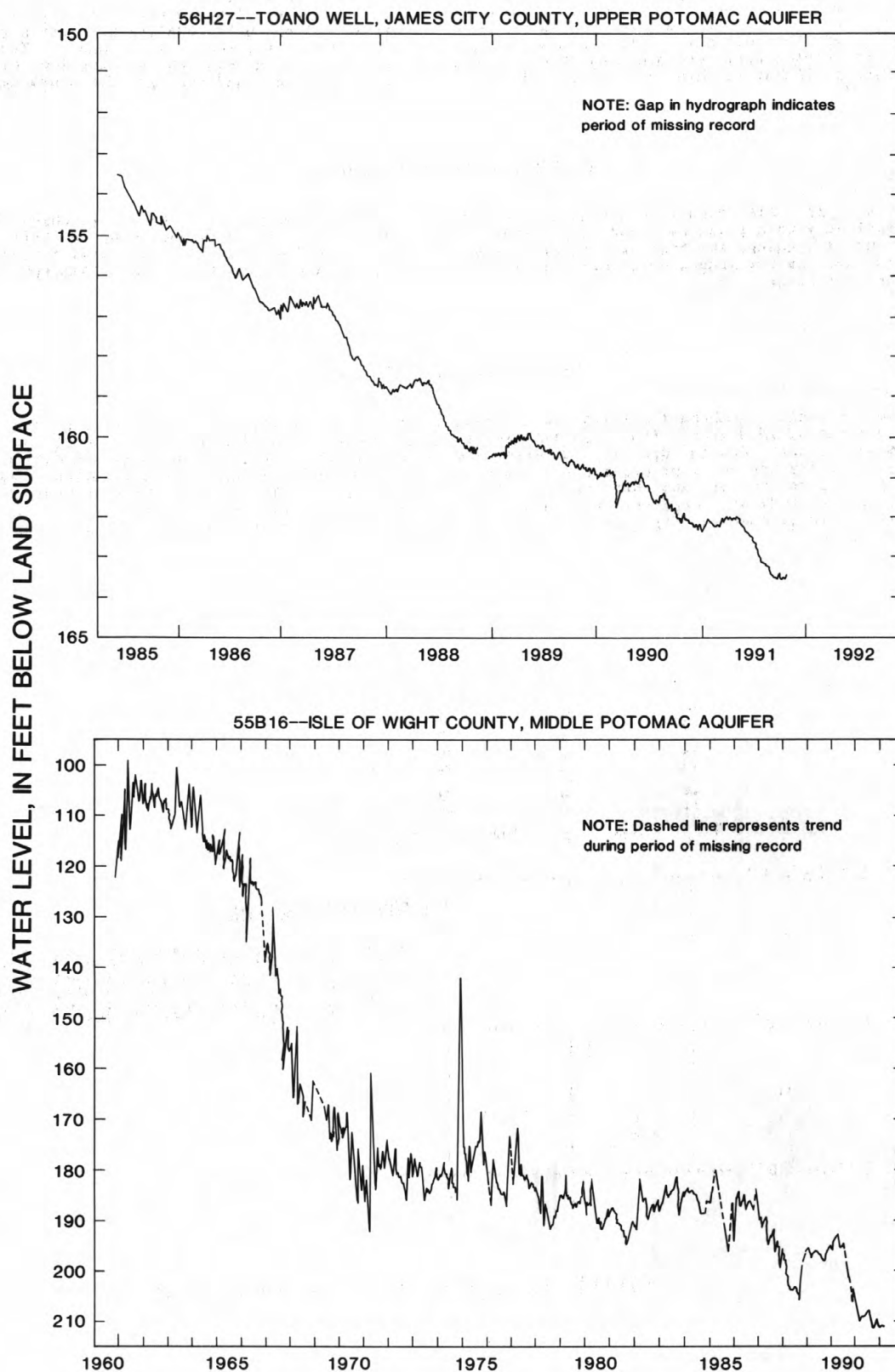


FIGURE 2.--Ground-water levels in selected observation wells in confined Coastal Plain aquifers.

## EXPLANATION OF THE RECORDS

The ground-water and quality-of-ground-water records published in this report are for the 1991 water year that began October 1, 1990, and ended September 30, 1991. 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 wells where the data were collected are shown in figures 4, 5, 6, and 7. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each well in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given well and to no other. The number usually is assigned when a well is first established and is retained for that well 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.

## 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 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.

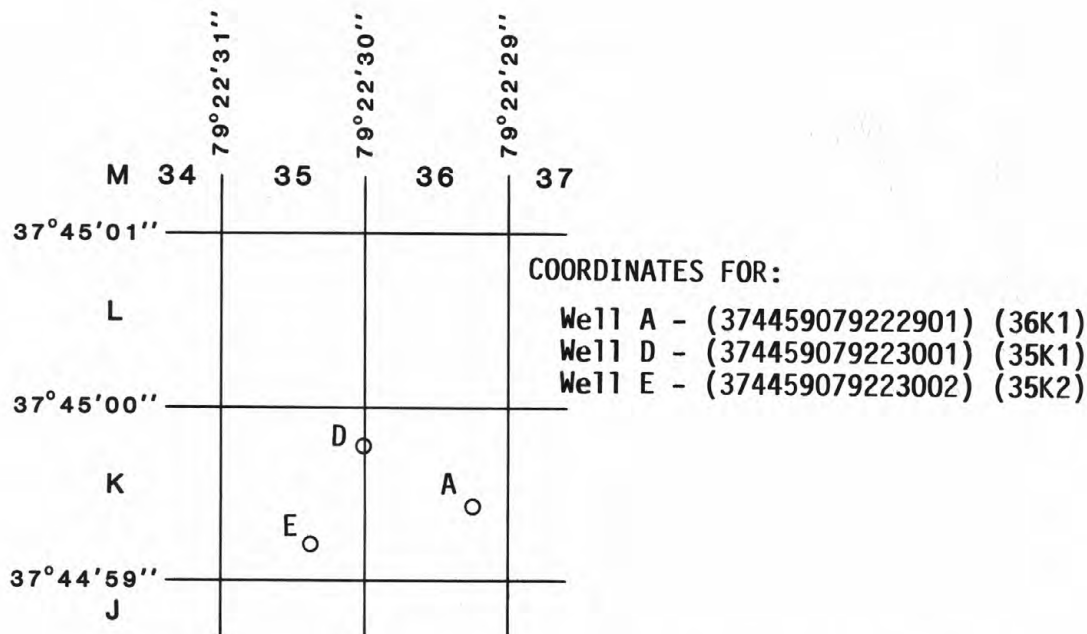


FIGURE 3.--System for numbering wells



A second well-numbering system used in Virginia utilizes 7 1/2-minute quadrangles within the State. The quadrangles are numbered from west to east, and lettered from south to north, omitting the letters "I" and "O." The designation for each quadrangle is determined by the method "Read Right, Up." Wells are numbered serially within each quadrangle. This local well number is shown immediately after the primary well number.

Well records furnished by the State of Virginia also include the well number that is based on an indexing system used by the Virginia Water Control Board.

#### Records of Ground-Water Levels

Only water-level data from a national network of observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers. Locations of the observation wells in this network in Virginia are shown in figures 4, 5, 6, and 7.

#### Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table. The secondary identification number is the local well number, an alphanumeric number, derived from the township-range location of the well.

Water-level records are obtained from direct measurements with a steel tape or from the graph or punched tape of a water-stage recorder. The water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given to a tenth of a foot or a larger unit.

#### Data Presentation

Each well record consists of three parts, the station description, the data table of water levels observed during the current water year, and a graph of the water levels for the current water year or other selected period. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

**LOCATION.**--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); a landline location designation; the hydrologic-unit number; the distance and direction from a geographic point of reference; and the owner's name.

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

**WELL CHARACTERISTICS.**--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

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

**DATUM.**--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

**REMARKS.**--This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that also are water-quality observation wells, and may be used to acknowledge the assistance of local (non-Survey) observers.

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

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

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum and all taped measurements of water level are listed. For wells equipped with recorders, only abbreviated tables are published; generally, only water-level lows are listed for every fifth day and at the end of the month (eom). The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level. A hydrograph for a selected period of record follows each water-level table.

#### 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 only slowly; therefore, for most general purposes, one annual sampling, or only a few samples taken at infrequent intervals during the year, is 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 concentration. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

#### Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special 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 Statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals listed at the end of the introductory text. 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. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

#### 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 well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. 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 ground-water-quality data in this report:

| PRINTED OUTPUT | REMARK                                                                                         |
|----------------|------------------------------------------------------------------------------------------------|
| 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                                                      |

## ACCESS TO WATSTORE DATA

The U.S. Geological Survey 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 Data Storage and Retrieval System (WATSTORE)** was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the U.S. Geological Survey and to facilitate release of the data to the public. A variety of useful products, ranging from data tables to complex statistical analyses such as Log Pearson Type III, can be produced using WATSTORE. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia, and consists of related files and data bases.

- \* Station Header File - Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or has collected data.
- \* Daily Values File - Contains more than 220 million daily values of stream flows, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.
- \* Water Quality File - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, and radio-chemical characteristics of both surface and ground water.
- \* Ground-Water Site Inventory Data Base - Contains inventory data for more than 900,000 wells, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U.S. Geological Survey opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey  
National Water Data Exchange  
421 USGS National Center  
Reston, Virginia 22092

In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5-1/4 inch floppy disk; and, as noted in the introduction, on CD-ROM discs. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices. (See address on the back of the title page.) A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.



## DEFINITION OF TERMS

Terms related to water quality and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

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

**Algae** are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

**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.

**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.

**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.

**Total coliform bacteria** are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which 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 ±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.

**Fecal coliform bacteria** are bacteria that 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 ±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.

**Fecal streptococcal bacteria** are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ±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.

**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 the mass per unit area or volume of habitat.

**Ash mass** is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m<sup>3</sup>), and periphyton and benthic organisms in grams per square meter (g/m<sup>2</sup>).

**Dry mass** refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

**Organic mass** or volatile mass of the living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

**Wet mass** is the mass of living matter plus contained water.

**Cells/volume** refers to the number of cells of any organism which 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, usually milliliters (mL) or liters (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 natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

**Chlorophyll** refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

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

**Dissolved** refers to that material in a representative water sample which passes through a 0.45  $\mu\text{m}$  membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

**Dissolved-solids concentration** of water 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 of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

**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 and is expressed as the equivalent concentration of calcium carbonate ( $\text{CaCO}_3$ ).

**Hydrologic Bench-Mark Network** is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

**Hydrologic unit** is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

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

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

**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.

**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 ( $\mu\text{g/g}$ )** 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 liter ( $\mu\text{g/L}$ ,  $\mu\text{g/L}$ )** is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

**Milligrams per liter ( $\text{mg/L}$ ,  $\text{mg/L}$ )** is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute 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.

**National Geodetic Vertical Datum of 1929 (NGVD of 1929)** is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

**Organism** is any living entity.

**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.

**Total organism count** is the total number of organisms collected and enumerated in any particular sample.

**Parameter Code** is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

**Partial-record station** is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

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

| <u>Classification</u> | <u>Size (mm)</u> | <u>Method of analysis</u> |
|-----------------------|------------------|---------------------------|
| Clay.....             | 0.00024 - 0.004  | Sedimentation             |
| Silt.....             | .004 - .062      | Sedimentation             |
| Sand.....             | .062 - 2.0       | Sedimentation or 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** 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, 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.

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

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

**Plankton** is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

**Phytoplankton** is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and are commonly known as algae.

**Blue-green algae** are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

**Diatoms** are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

**Green algae** have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

**Zooplankton** is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

**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 by the plants (carbon method).

**Milligrams of carbon per area or volume per unit time [ $\text{mg C}/(\text{m}^2 \cdot \text{time})$ ] for periphyton and macrophytes and [ $\text{mg C}/(\text{m}^3 \cdot \text{time})$ ] for phytoplankton** are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

**Milligrams of oxygen per area or volume per unit time [ $\text{mg O}_2/(\text{m}^2 \cdot \text{time})$ ] for periphyton and macrophytes and [ $\text{mg O}_2/(\text{m}^3 \cdot \text{time})$ ] for phytoplankton** are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

**Radiochemical program** is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

**Return period** is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

**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. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

**Solute** is any substance that is dissolved in water.

**Specific conductance** is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 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.

**Suspended** (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with 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 water-suspended sediment sample that is retained on a 0.45  $\mu$ m 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 analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

**Suspended, total** is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45  $\mu$ m membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A 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 analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

**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> |

**Thermograph** is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

**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 that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

**Total** is the total amount of a given constituent in a representative water-suspended sediment 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 all of the constituent in the sample.)

**Total, recoverable** is the amount of a given constituent that is in solution after a representative water-suspended sediment 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, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

**Water year** is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1991, is called the "1991 water year."

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

## PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 1-D1. **Water temperature--influential factors, field measurement, and data presentation**, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, 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.
- 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.
- 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-F1. **Application of drilling, coring, and sampling techniques to test holes and wells**, by Eugene Shuter and Warren E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 pages.
- 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. J. 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 Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. **Stage measurements at gaging stations**, by 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 E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.

- 3-A10. Discharge ratings at gaging stations**, by 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, 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. 41 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 A-15. 1984. 48 pages.
- 3-A16. Measurement of discharge using tracers**, by F. A. Kilpatrick and E. D. Cobb: USGS--TWRI Book 3, Chapter A-16. 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. Rathburn, N. Yotsukura, G. W. Parker, and L. L. DeLong: USGS--TWRI Book 3, Chapter A18. 1989. 52 pages.
- 3-A19. Levels of streamflow gaging stations**, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 27 pages.
- 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 test 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 Richard L. Cooley and Richard L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 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-C1. Fluvial sediment concepts**, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. Field methods for 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.
- 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.

- 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.
- 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.
- 5-A1. **Methods for determination of inorganic substances in water and fluvial sediments**, by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 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 analysis of organic substances in water**, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.
- 5-A4. **Methods for collection and analysis of aquatic biological and microbiological samples**, edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 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.
- 5-C1. **Laboratory theory and methods for sediment analysis**, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 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.
- 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.
- 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.
- 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.



## SELECTED U.S. GEOLOGICAL SURVEY REPORTS ON WATER RESOURCES IN VIRGINIA

Listed below is a selection of reports on water resources in Virginia which are available through the Virginia District of the Mid-Atlantic Programs at the U.S. Geological Survey, WRD, 3600 West Broad Street, Room 606, Richmond, Virginia 23230.

**An index of geophysical logging in Virginia by the U.S. Geological Survey**, by M. P. Mulheren, J. D. Larson, and H. T. Hopkins: U.S. Geological Survey Open-File Report 82-432. 1982. 34 pages.

**Annual maximum stages and discharges of selected streams in Virginia through 1990**, by B. J. Prugh, Jr., E. H. Nuckels, and C. G. Humphrey: U.S. Geological Survey Open-File Report 90-587. 1991. 442 pages.

**Assessment of ground-water contamination from a leaking underground storage tank at a Defense Supply Center near Richmond, Virginia**, by Winfield Wright and J. D. Powell: U.S. Geological Survey Water-Resources Investigations Report 90-4091. 1990. 38 pages.

**Availability and quality of ground water in the Piedmont province of Virginia**, by J. D. Powell and J. M. Abe: U.S. Geological Survey Water-Resources Investigations Report 85-4235. 1985. 33 pages.

**Conceptualization and analysis of ground-water flow system in the Coastal Plain of Virginia and adjacent parts of Maryland and North Carolina**, by J. F. Harsh and R. J. Lacznak: U.S. Geological Survey Professional Paper 1404-F. 1990. 100 pages.

**Effects of fracturing on well yields in the coalfield areas of Wise and Dickenson Counties, southwestern Virginia**, by W. G. Wright: U.S. Geological Survey Water-Resources Investigations Report 85-4061. 1985. 21 pages.

**Floods in West Virginia, Virginia, Pennsylvania, and Maryland, November 1985**, by D. H. Carpenter: U.S. Geological Survey Water-Resources Investigations Report 88-4213. 1990. 86 pages.

**Geohydrology and the occurrence of volatile organic compounds in ground water, Culpeper basin of Prince William County, Virginia**, by D. L. Nelms and D. L. Richardson: U.S. Geological Survey Water-Resources Investigations Report 90-4032. 1991. 94 pages.

**Ground-water availability along the Blue Ridge Parkway, Virginia**, by H. T. Hopkins: U.S. Geological Survey Water-Resources Investigations Report 84-4168. 1984. 154 pages.

**Ground-water contamination and movement at the Defense General Supply Center, Richmond, Virginia**, by J. D. Powell, W. G. Wright, D. L. Nelms, and R. J. Ahlin: U.S. Geological Survey Water-Resources Investigations Report 90-4113. 1991. 36 pages.

**Ground-water hydrology and quality in the Valley and Ridge and Blue Ridge physiographic provinces of Clarke County, Virginia**, by W. G. Wright: U.S. Geological Survey Water-Resources Investigations Report 90-4134. 1991. 61 pages.

**Ground-water use and levels in the southern Coastal Plain of Virginia**, by J. D. Larson and R. J. Lacznak: U.S. Geological Survey Open-File Report 91-187. 1991. 165 pages.

**Guide to obtaining U.S. Geological Survey information**, by K. Dodd, H. K. Fuller, and P. F. Clarke: U.S. Geological Survey Circular 900. 1985. 35 pages.

**Hydraulic characteristics of, and ground-water flow in, coal-bearing rocks of southwestern Virginia**, by G. E. Harlow, Jr., and G. D. LeCain: U.S. Geological Survey Open-File Report 91-250. 1991. 48 pages.

**Hydrogeology and analysis of the ground-water-flow system in the Coastal Plain of southeastern Virginia**, by P. A. Hamilton and J. D. Larson: U.S. Geological Survey Water-Resources Investigations Report 87-4240. 1988. 175 pages.

**Hydrologic conditions and trends in Shenandoah National Park, Virginia, 1983-84**, by D. D. Lynch: U.S. Geological Survey Water-Resources Investigations Report 87-4131. 1987. 115 pages.

**Hydrology and effects of mining in the upper Russell Fork basin, Buchanan and Dickenson Counties, Virginia**, by J. D. Larson and J. D. Powell: U.S. Geological Survey Water-Resources Investigations Report 85-4238. 1986. 63 pages.

**Hydrology of area 16, eastern coal province, Virginia and Tennessee**, by P. W. Hufschmidt and others: U.S. Geological Survey Water-Resources Investigations Report 81-204. 1981. 67 pages.

**Low-flow characteristics of streams in Virginia**, by D. C. Hayes: U.S. Geological Survey Water-Supply Paper 2374. 1990. 69 pages. (Supersedes Open-File Report 89-586.)

**Low flow of streams in Fairfax County, Virginia**, by E. H. Mohler, Jr., and G. F. Hagan: U.S. Geological Survey Open-File Report 81-63. 1981. 30 pages.

**National water summary, 1988-89, floods and droughts in Virginia**, by E. H. Nuckels and B. J. Prugh, Jr.: U.S. Geological Survey Water-Supply Paper 2375. 1991. p. 543-550.

**Plan of study for the regional aquifer-system analyses of the Appalachian Valley and Ridge, Piedmont, and Blue Ridge physiographic provinces of the eastern and southeastern United States with a description of study-area geology and hydrogeology**, by L. A. Swain, E. F. Hollyday, C. C. Daniel, III, and O. S. Zapecza. 1991. 44 pages.

**Preliminary investigation of soil and ground-water contamination at the U.S. Army Petroleum Training Facility, Fort Lee, Virginia, September-October 1989**, by W. G. Wright and J. D. Powell: U.S. Geological Survey Open-File Report 90-387. 1990. 28 pages.

**Quality of ground water in southern Buchanan County, Virginia**, by S. M. Rogers and J. D. Powell: U.S. Geological Survey Water-Resources Investigations 82-4022. 1983. 36 pages.

**Relation between ground-water quality and mineralogy in the coal-producing Norton Formation of Buchanan County, Virginia**, by J. D. Powell and J. D. Larson: U.S. Geological Survey Water-Supply Paper 2274. 1985. 30 pages.

**Selected hydrologic data for the Powell River basin in Wise County, Virginia**, by J. D. Larson: U.S. Geological Survey Open-File Report 85-186. 1985. 22 pages.

**Selected publications on the water resources of Virginia**, by N. R. Carrington: U.S. Geological Survey Open-File Report 86-418. 1986. 34 pages.

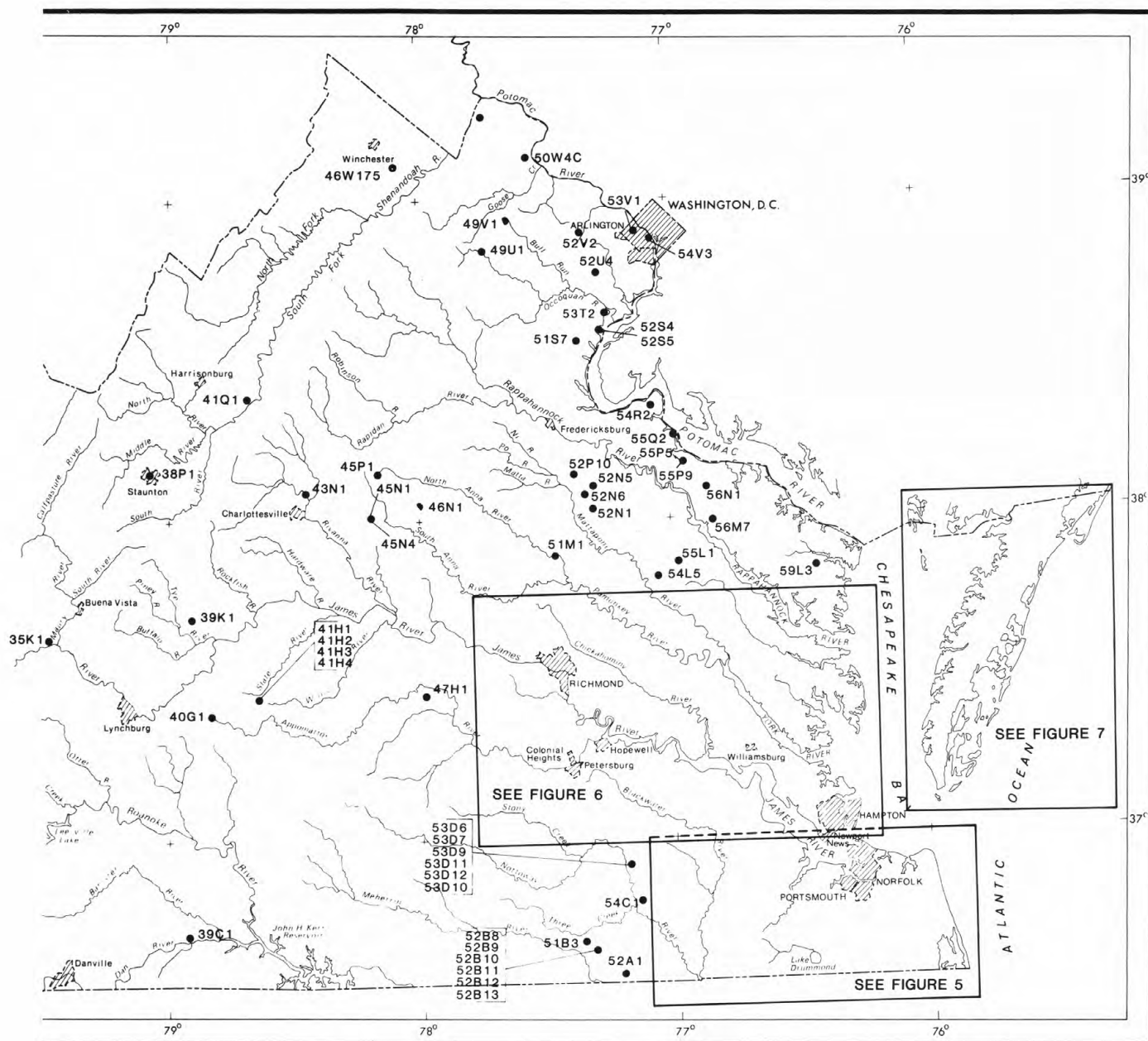
**Sensitivity of stream basins in Shenandoah National Park to acid deposition**, by D. D. Lynch and N. B. Dise: U.S. Geological Survey Water-Resources Investigations Report 85-4115. 1985. 61 pages.

**Water-level hydrographs for observation wells in Virginia**, by S. Farrington, N. R. Carrington, and W. V. Daniels: U.S. Geological Survey Open-File Report 83-134. 1984. 167 pages.

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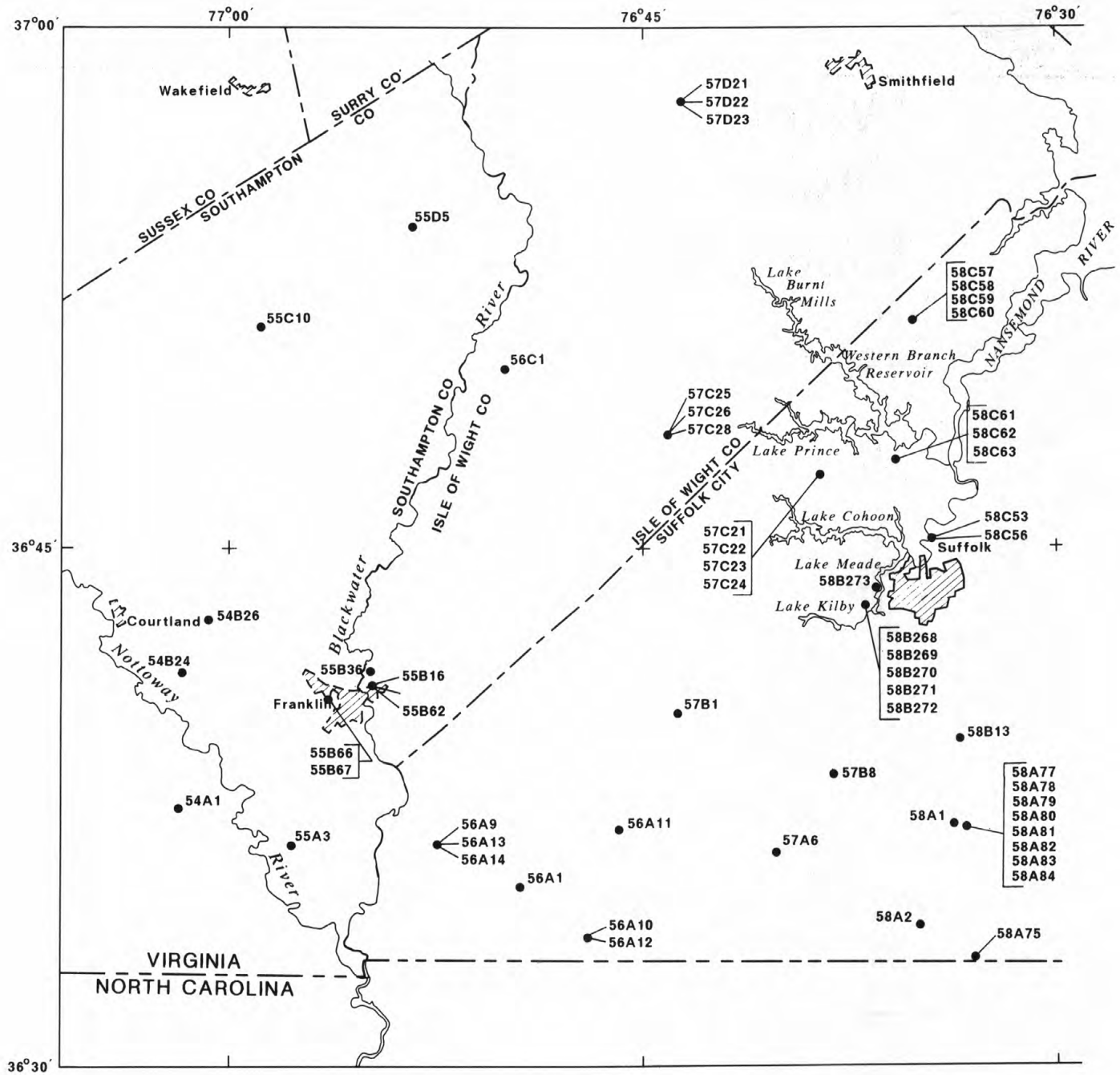
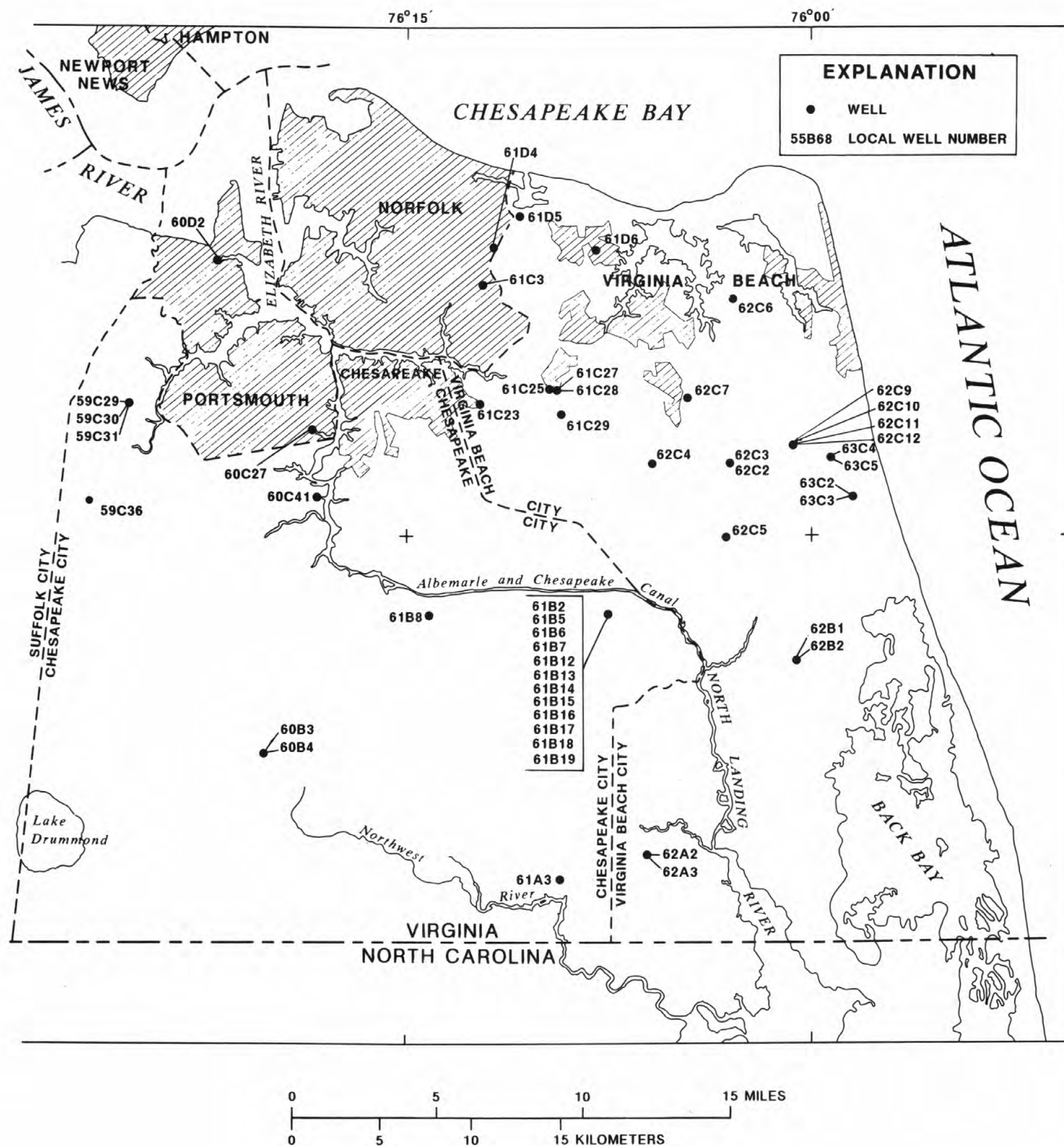


FIGURE 5.--Location of ground-water observation wells in southeastern Virginia.



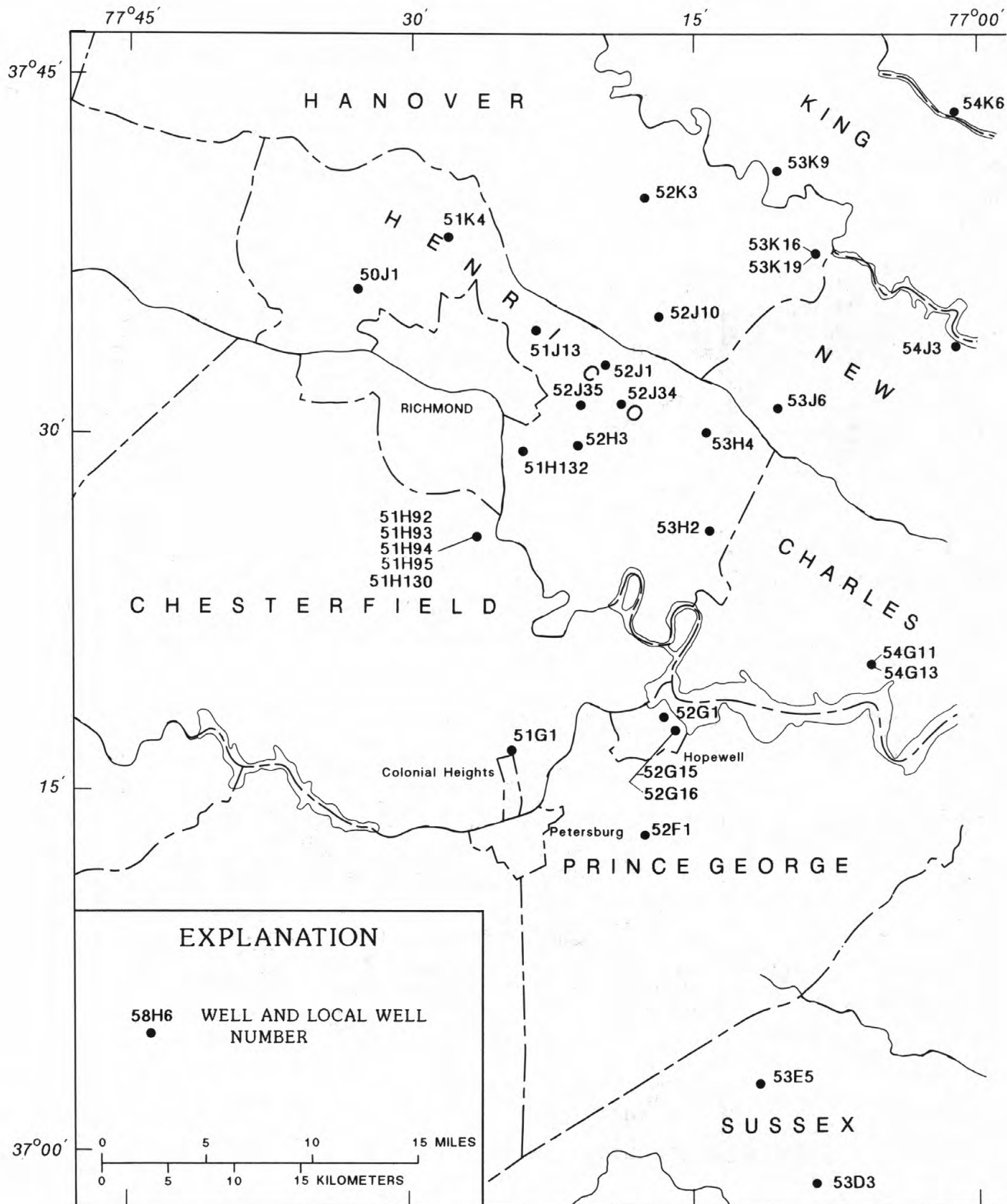
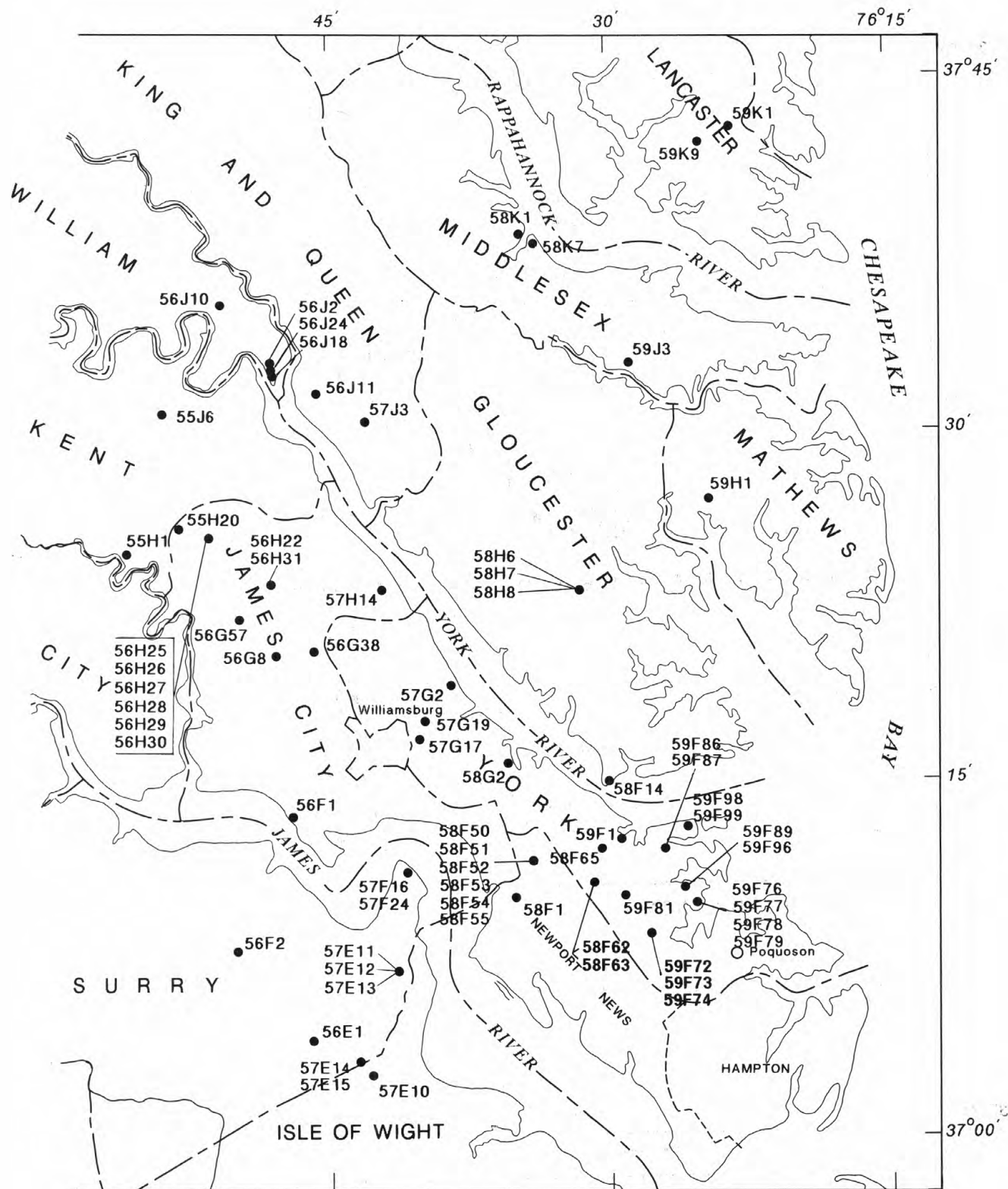


FIGURE 6.--Location of ground-water observation wells on York-James peninsula and vicinity.





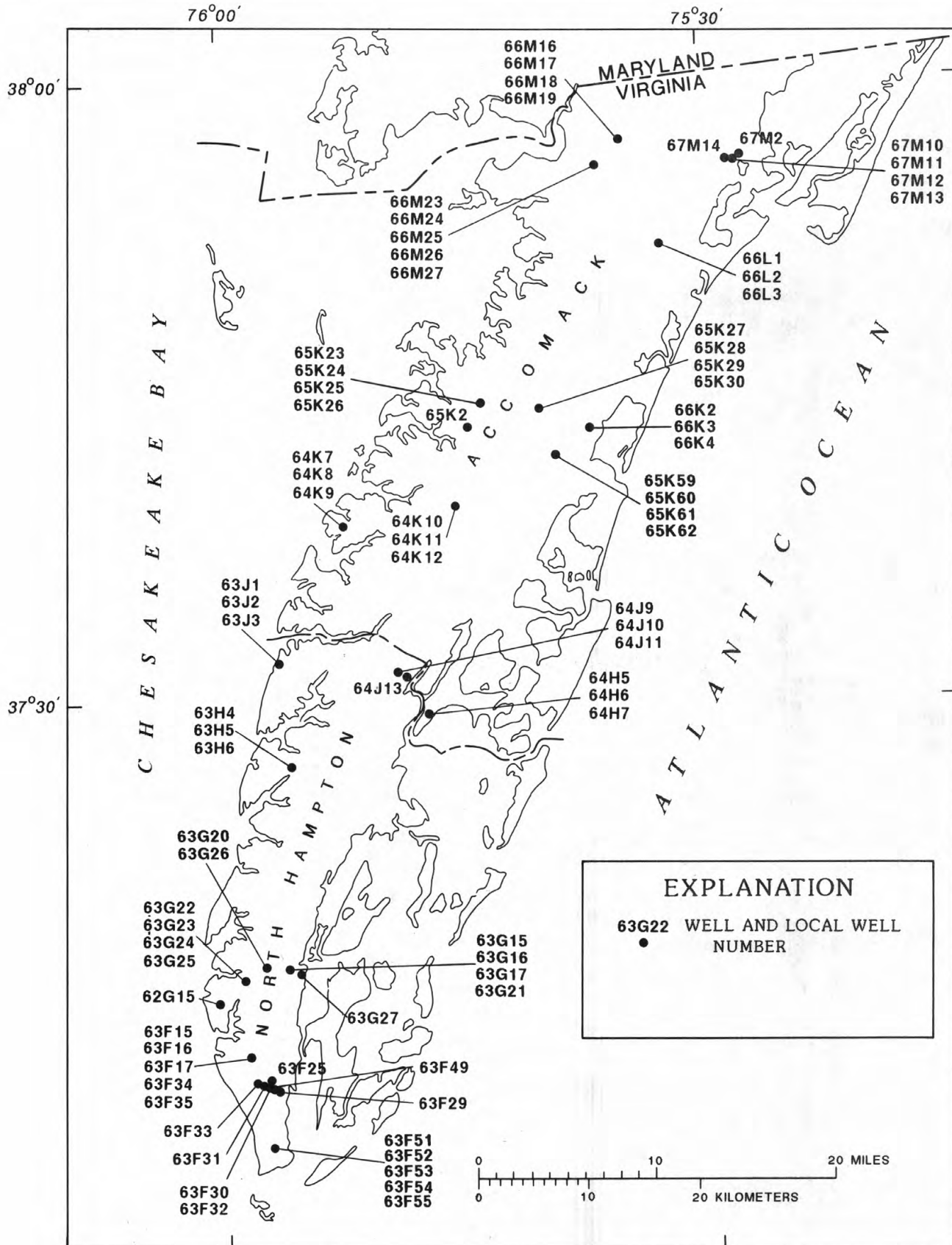


FIGURE 7.--Location of ground-water observation wells on Delmarva peninsula.

## GROUND-WATER RECORDS

## ACCOMACK COUNTY

372922076470101. Local number. 64H 5 SOW 102C.

LOCATION.--Lat 37°29'21", long 75°47'05", Hydrologic Unit 02080110, at entrance to Virginia Landing, 0.2 mi south from end of State Highway 605, 2.0 mi southeast of Willis Wharf, and 5.2 mi southwest of intersection of State Highways 605 and 182. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 306 ft., screened 296 to 306 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Nov. 13, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing. 0.3 ft above land-surface datum prior to Mar. 1, 1988; 1.1 ft thereafter.

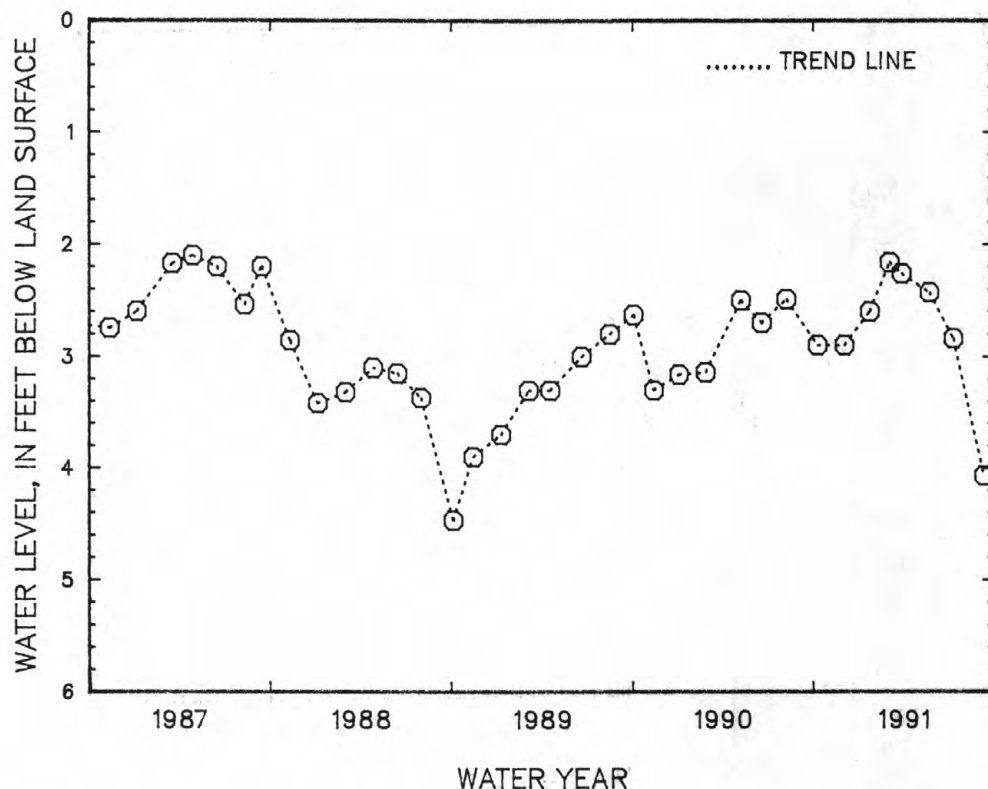
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--June 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.70 ft below land-surface datum, June 6, 1984; lowest measured, 7.35 ft below land-surface datum, Nov. 1, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 2.90        | JAN 23  | 2.60        | MAR 28       | 2.26        | MAY 23 | 2.43        | JUL 10       | 2.84        | SEP 10 | 4.07        |
| DEC 03          | 2.90        | MAR 04  | 2.16        |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 2.16        | MAR 04. 1991 |             | LOWEST | 4.07        | SEP 10. 1991 |             |        |             |





## GROUND-WATER LEVELS

29

## ACCOMACK COUNTY

372905075474002. Local number, 64H 6 SOW 102A.

LOCATION.--Lat 37°29'21", long 75°47'05", Hydrologic Unit 02080110, at entrance to Virginia Landing, 0.2 mi south from end of State Highway 605, 2.0 mi southeast of Willis Wharf, and 5.2 mi southwest of intersection of State Highways 605 and 182. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 154 ft, screened 144 to 154 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Nov. 13, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.7 ft above land-surface datum.

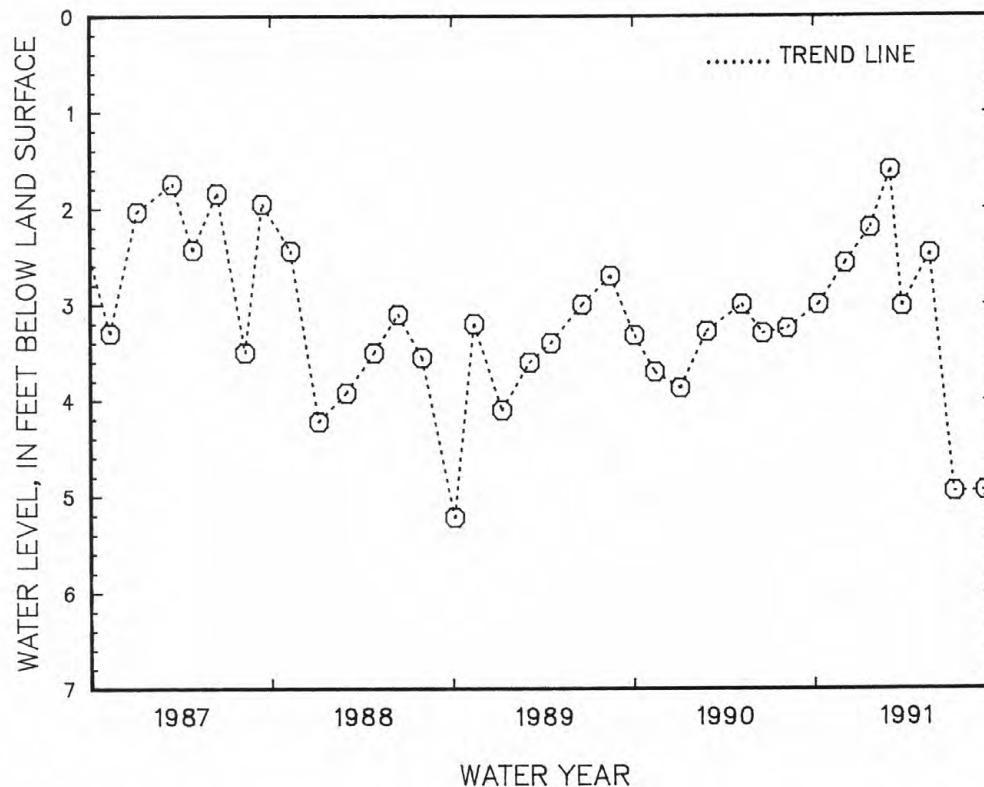
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--June 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.33 ft below land-surface datum, Oct. 30, 1984; lowest measured, 9.63 ft below land-surface datum, Sept. 1, 1977.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 3.00        | JAN 23  | 2.20        | MAR 28       | 3.02        | MAY 23 | 2.47        | JUL 10       | 4.95        | SEP 10 | 4.94        |
| DEC 03          | 2.57        | MAR 05  | 1.60        |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 1.60        | MAR 05, 1991 |             | LOWEST | 4.95        | JUL 10, 1991 |             |        |             |



## GROUND-WATER LEVELS

## ACCOMACK COUNTY

372905075474001. Local number, 64H 7 SOW 102B.

LOCATION.--Lat 37°29'21", long 75°47'05", Hydrologic Unit 02080110, at entrance to Virginia Landing, 0.2 mi south from end of State Highway 605, 2.0 mi southeast of Willis Wharf, and 5.2 mi southwest of intersection of State Highways 605 and 182. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 220 ft, screened 210 to 220 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Nov. 13, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.8 ft above land-surface datum.

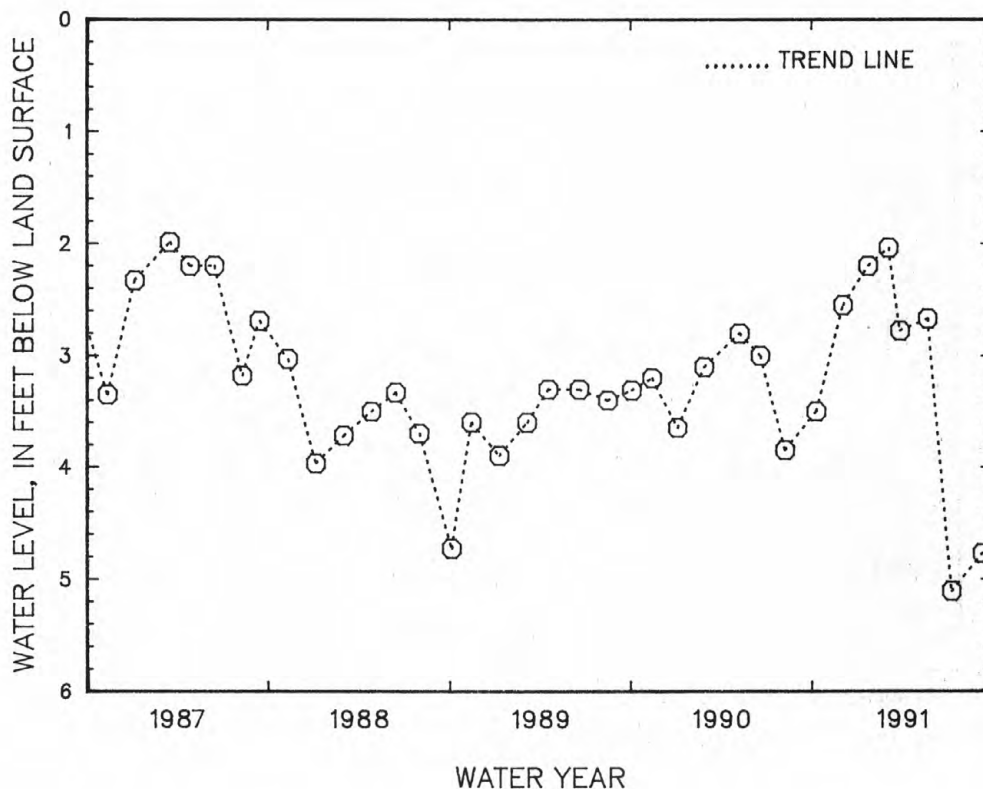
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--June 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.19 ft below land-surface datum, July 10, 1984; lowest measured, 8.76 ft below land-surface datum, Nov. 1, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 3.50        | JAN 23  | 2.20        | MAR 28       | 2.78        | MAY 23 | 2.67        | JUL 10       | 5.11        | SEP 10 | 4.77        |
| DEC 03          | 2.55        | MAR 05  | 2.04        |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 2.04        | MAR 05, 1991 |             | LOWEST | 5.11        | JUL 10, 1991 |             |        |             |



## GROUND-WATER LEVELS

31

## ACCOMACK COUNTY

373845075522501. Local number, 64K 7 SOW 106C.

LOCATION.--Lat 37°38'45", long 75°52'25", Hydrologic Unit 02080109, 100 ft north of State Highway 633, 0.3 mi northwest of intersection of State Highways 631 and 633, and 0.3 mi northwest of Hacksneck. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 176 ft, screened 166 to 176 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 3 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.73 ft above land-surface datum.

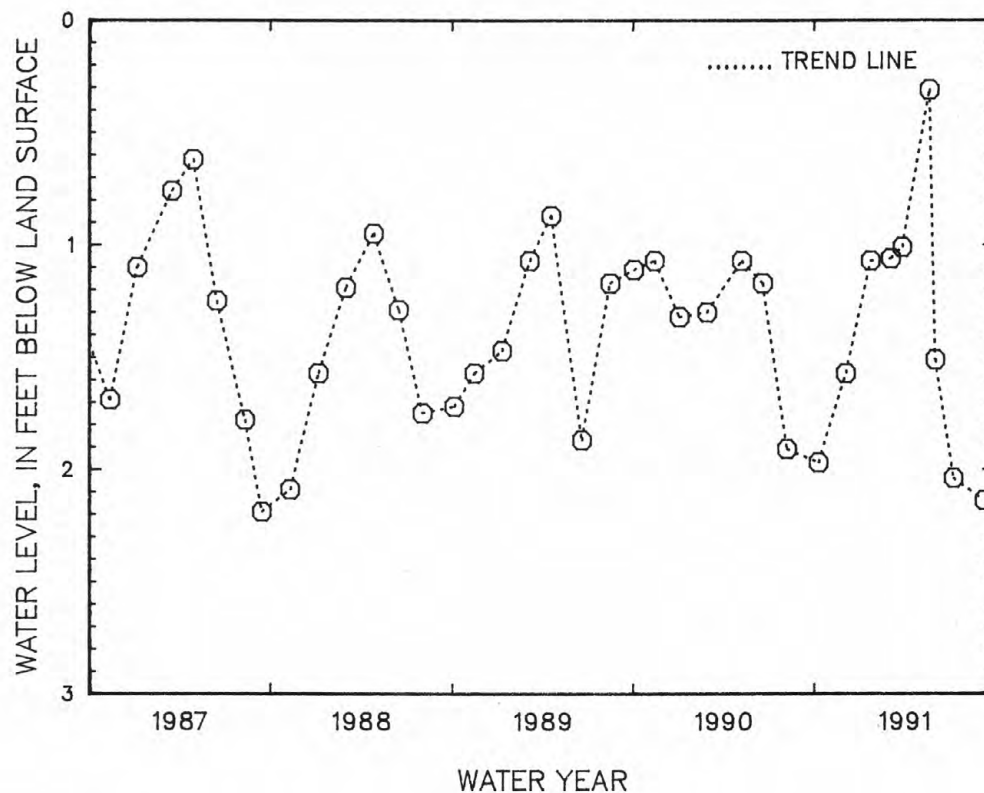
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--October 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.31 ft below land-surface datum, May 22, 1991; lowest measured, 2.35 ft below land-surface datum, July 16, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 1.97        | JAN 23  | 1.07        | MAR 28       | 1.01        | JUN 03 | 1.51        | JUL 10       | 2.04        | SEP 10 | 2.14        |
| DEC 04          | 1.57        | MAR 05  | 1.06        | MAY 22       | .31         |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 0.31        | MAY 22, 1991 |             | LOWEST | 2.14        | SEP 10, 1991 |             |        |             |



## GROUND-WATER LEVELS

## ACCOMACK COUNTY

373845075522503. Local number, 64K 8 SOW 106B.

LOCATION.--Lat 37°38'45", long 75°52'25", Hydrologic Unit 02080109, 100 ft north of State Highway 633, 0.3 mi northwest of intersection of State Highways 631 and 633, and 0.3 mi northwest of Hacksneck. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 95 ft, screened 85 to 95 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 3 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.7 ft above land-surface datum.

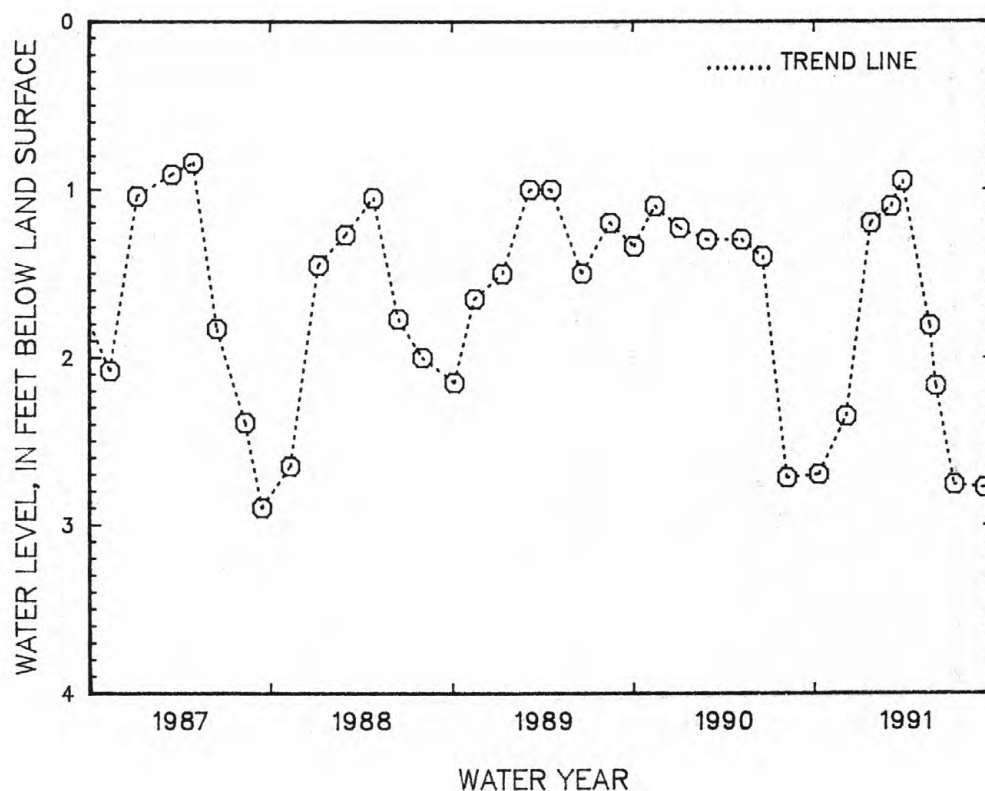
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--October 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.70 ft below land-surface datum, Apr. 21, 1983; lowest measured, 2.90 ft below land-surface datum, Sept. 14, 1987.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 2.70        | JAN 23  | 1.20        | MAR 28       | 0.95        | JUN 03 | 2.17        | JUL 10       | 2.76        | SEP 10 | 2.78        |
| DEC 04          | 2.35        | MAR 05  | 1.10        | MAY 22       | 1.81        |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 0.95        | MAR 28, 1991 |             | LOWEST | 2.78        | SEP 10, 1991 |             |        |             |





## GROUND-WATER LEVELS

33

## ACCOMACK COUNTY

373845075522502. Local number, 64K 9 SOW 106A.

LOCATION.--Lat 37°38'45", long 75°52'25", Hydrologic Unit 02080109, 100 ft north of State Highway 633, 0.3 mi northwest of intersection of State Highways 631 and 633, and 0.3 mi northwest of Hacksneck. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 37 ft, screened 27 to 37 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is approximately 3 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.2 ft above land-surface datum.

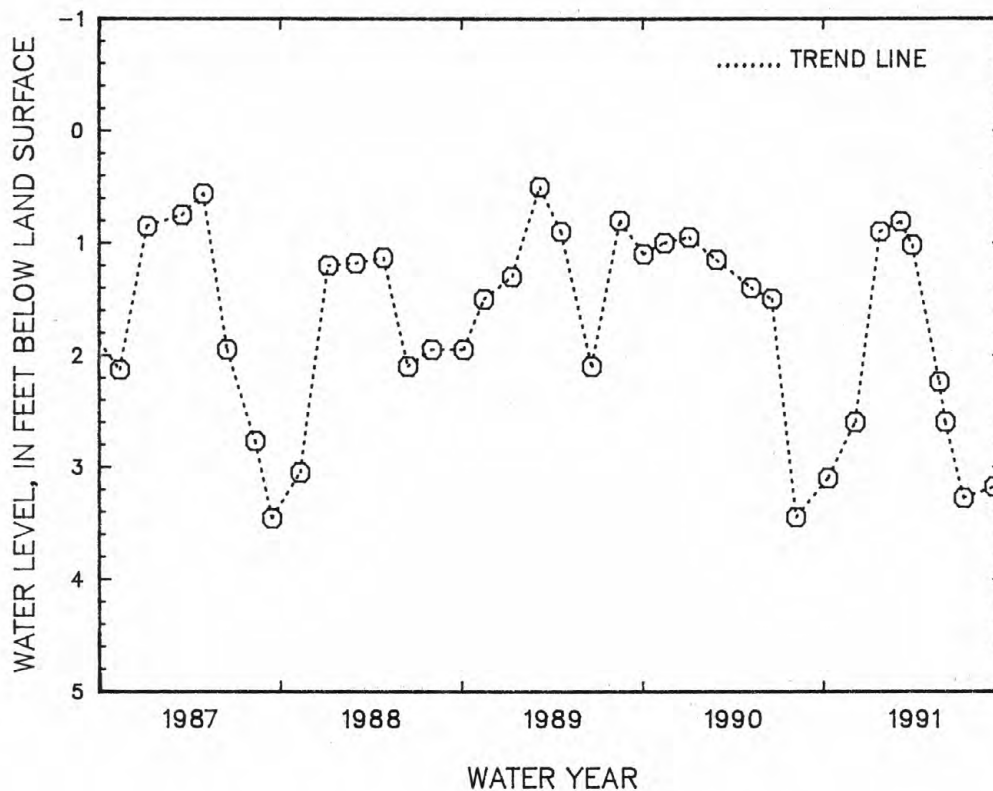
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--October 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.50 ft below land-surface datum, Mar. 7, 1989; lowest measured, 3.46 ft below land-surface datum, Sept. 14, 1987.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 10          | 3.10        | JAN 23  | 0.90        | MAR 28       | 1.02        | JUN 03 | 2.60         | JUL 10 | 3.28        | SEP 10 | 3.18        |
| DEC 04          | 2.60        | MAR 05  | .81         | MAY 22       | 2.24        |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 0.81        | MAR 05, 1991 | LOWEST      | 3.28   | JUL 10, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

## ACCOMACK COUNTY

373932075452701. Local number, 64K 10 SOW 108A.

LOCATION.--Lat 37°39'32", long 75°45'27", Hydrologic Unit 02080109, 200 ft east of State Highway 609, 0.2 mi southeast of intersection of State Highways 609 and 627, and 0.9 mi northwest of Melfa. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 50 ft, screened 40 to 50 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 47 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.22 ft above land-surface datum prior to Mar. 1, 1988; 0.75 ft thereafter.

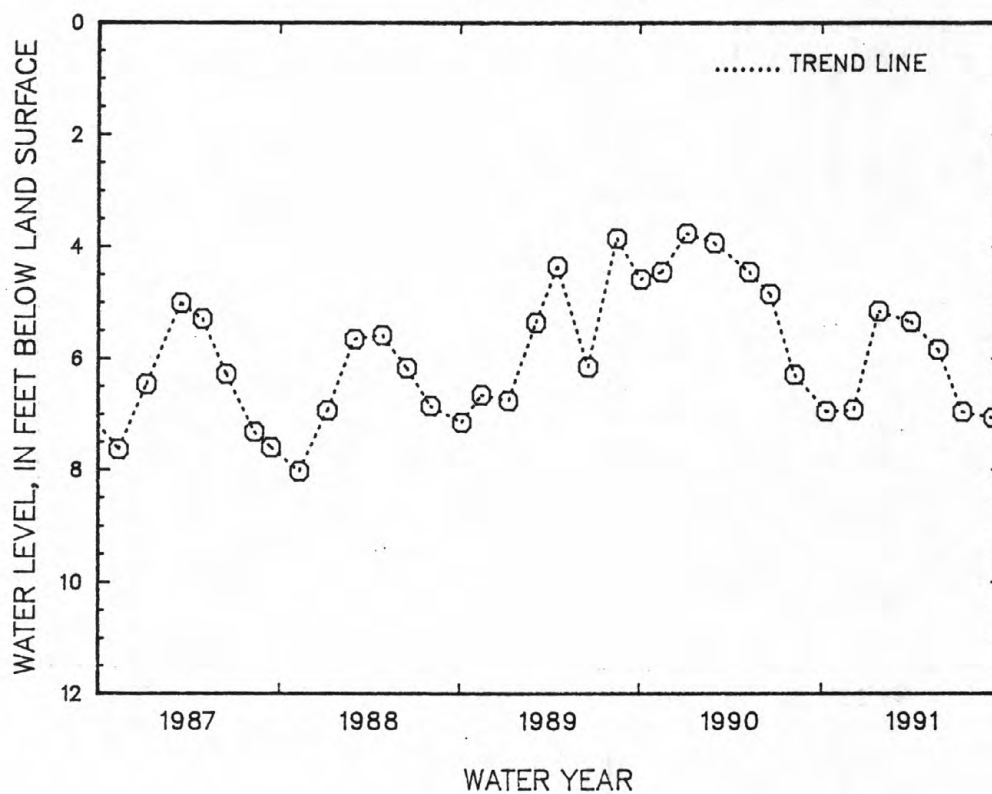
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--September 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.98 ft below land-surface datum, Apr. 21, 1983; lowest measured, 15.06 ft below land-surface datum, Jan. 30, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 6.95        | JAN 23  | 5.15        | MAR 28       | 5.34        | MAY 22 | 5.84        | JUL 10       | 6.96        | SEP 10 | 7.07        |
| DEC 04          | 6.92        |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 5.15        | JAN 23, 1991 |             | LOWEST | 7.07        | SEP 10, 1991 |             |        |             |



## GROUND-WATER LEVELS

35

## ACCOMACK COUNTY

373932075452702. Local number, 64K 11 SOW 108B.

LOCATION.--Lat 37°39'32", long 75°45'27", Hydrologic Unit 02080109, 200 ft east of State Highway 609, 0.2 mi southeast of intersection of State Highways 609 and 627, and 0.9 mi northwest of Melfa. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 180 ft, screened 170 to 180 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 47 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

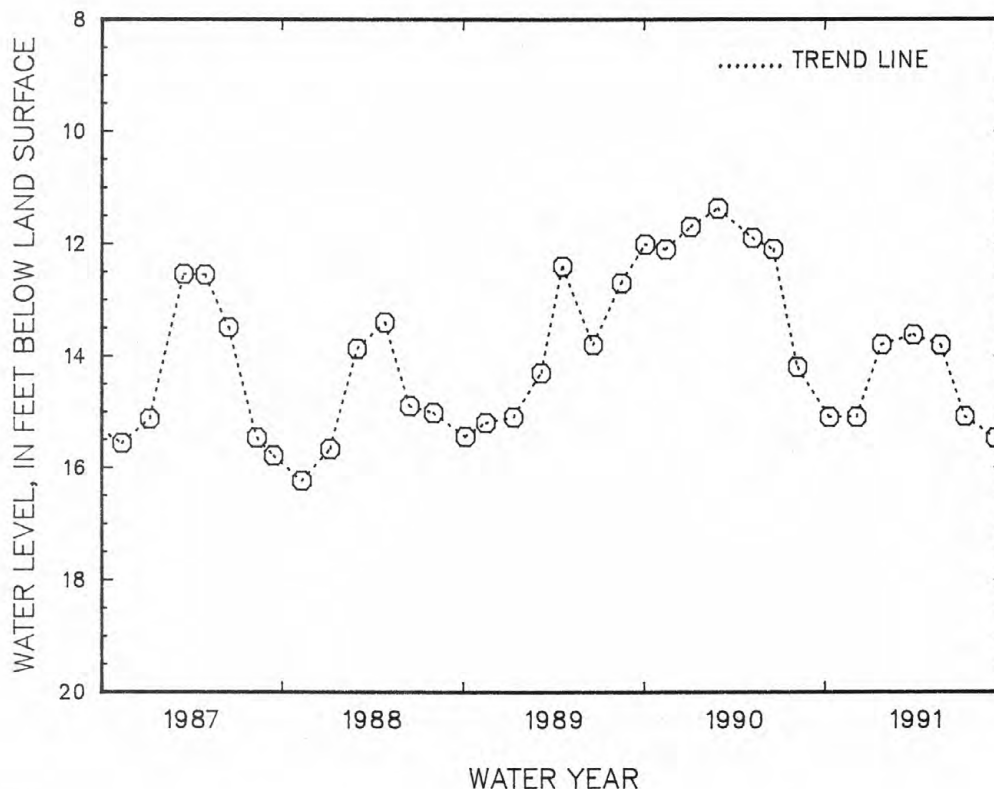
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--September 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.03 ft below land-surface datum, Aug. 1, 1979; lowest measured, 16.24 ft below land-surface datum, Nov. 10, 1987.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 10          | 15.10       | JAN 23  | 13.80       | MAR 28       | 13.62       | MAY 22 | 13.81        | JUL 10 | 15.09       | SEP 10 | 15.48       |
| DEC 04          | 15.10       |         |             |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 13.62       | MAR 28, 1991 | LOWEST      | 15.48  | SEP 10, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

## ACCOMACK COUNTY

373932075452703. Local number, 64K 12 SOW 108C.

LOCATION.--Lat 37°39'32", long 75°45'27", Hydrologic Unit 02080109, 200 ft east of State Highway 609, 0.2 mi southeast of intersection of State Highways 609 and 627, and 0.9 mi northwest of Melfa. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 284 ft, screened 274 to 284 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 47 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.5 ft above land-surface datum.

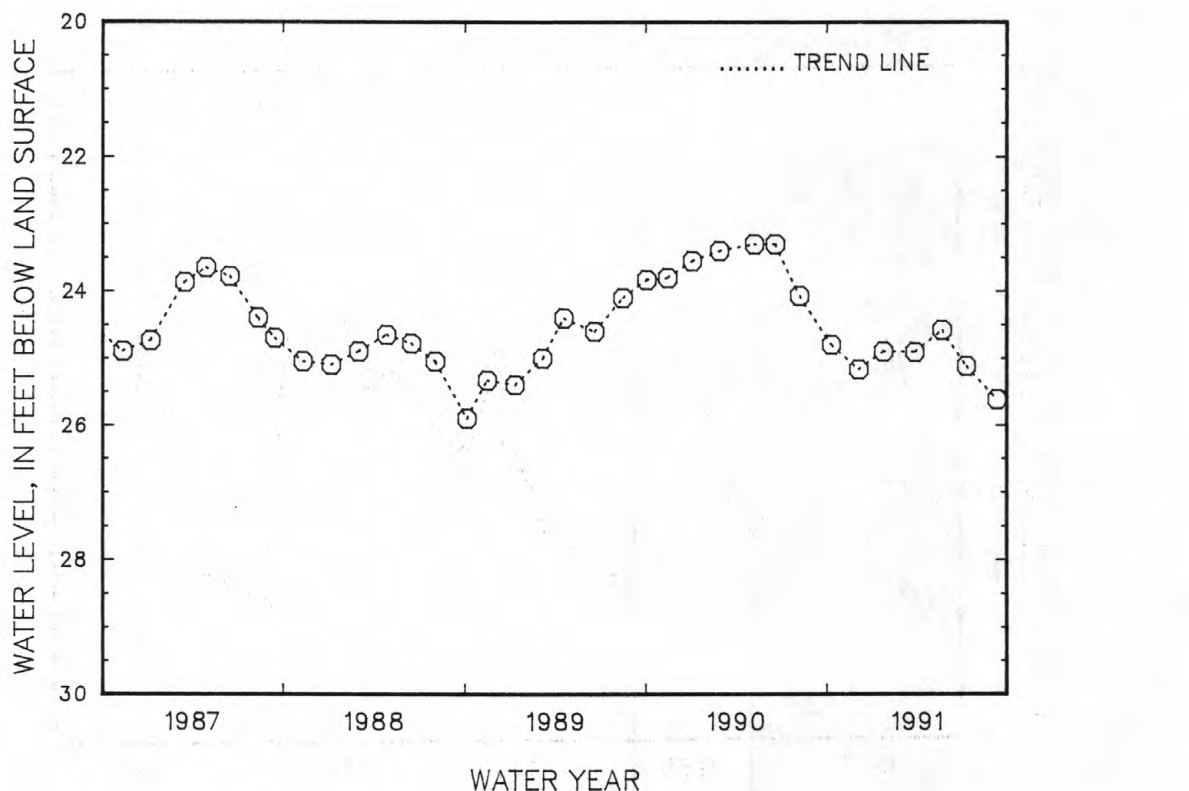
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--September 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.50 ft below land-surface datum, Feb. 2, 1984; lowest measured, 26.73 ft below land-surface datum, Nov. 20, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 24.80       | JAN 23  | 24.90       | MAR 28       | 24.91       | MAY 22 | 24.58       | JUL 10       | 25.12       | SEP 10 | 25.62       |
| DEC 04          | 25.17       |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 24.58       | MAY 22, 1991 |             | LOWEST | 25.62       | SEP 10, 1991 |             |        |             |





## GROUND-WATER LEVELS

37

## ACCOMACK COUNTY

374324075443201. Local number, 65K 2 SOW 058.

LOCATION.--Lat 37°43'24", long 75°44'32", Hydrologic Unit 02080110, 100 ft southeast of State Highway 658, 0.3 mi northeast of intersection of State Highways 653 and 658, and 0.9 mi north of Onancock. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 8 in. to 96.5 ft, diameter 6 in. from 96.5 to 187 ft, depth 187 ft, screened 97.3 to 107 ft, 116 to 126 ft, 135 to 145 ft, 162 to 182 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Aug. 20, 1980, to Oct. 1, 1985, occasional measurement with chalked tape. July 15, 1972, to Aug. 20, 1980, continuous strip-chart recorder. Prior to July 15, 1972, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 2.1 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water level may be affected by local pumpage.

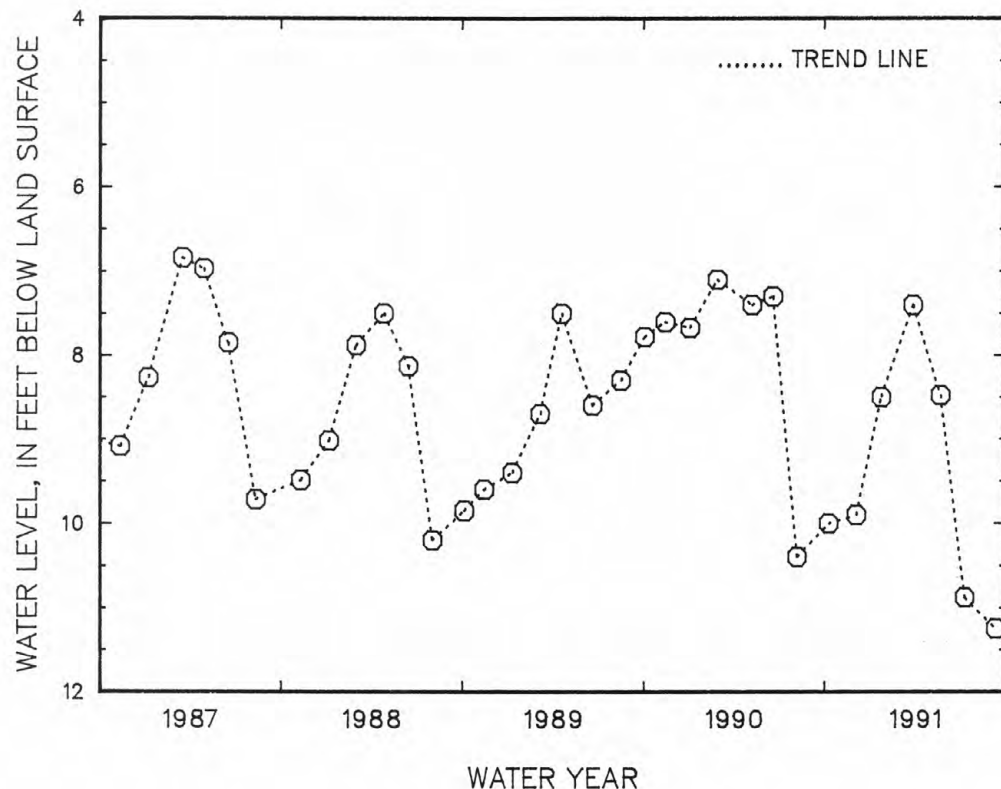
PERIOD OF RECORD.--February 1972 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.95 ft below land-surface datum, Feb. 8, 1972; lowest measured, 11.25 ft below land-surface datum, Sept. 10, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 10 | 10.00       | JAN 23 | 8.50        | MAR 28 | 7.40        | MAY 22 | 8.48        | JUL 10 | 10.88       | SEP 10 | 11.25       |
| DEC 04 | 9.90        |        |             |        |             |        |             |        |             |        |             |

WATER YEAR 1991      HIGHEST 7.40 MAR 28, 1991      LOWEST 11.25 SEP 10, 1991



## GROUND-WATER LEVELS

## ACCOMACK COUNTY

374442075432501. Local number, 65K 23 SOW 109C.

LOCATION.--Lat 37°44'28", long 75°43'28", Hydrologic Unit 02080109, 50 ft north of State Highway 658, 0.1 mi northeast of intersection of State Highways 658 and 660, and 2.2 mi southeast of Deep Creek. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 290 ft, screened 280 to 290 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 13 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.3 ft above land-surface datum.

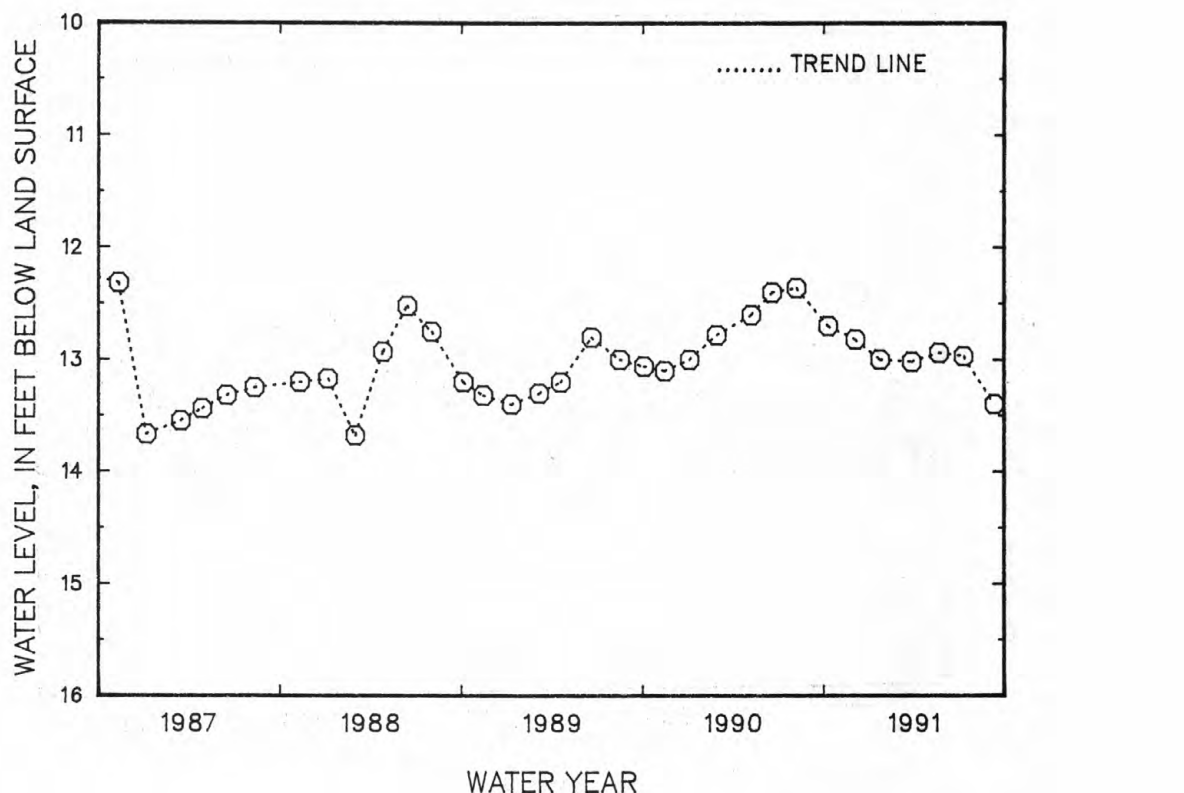
REMARKS.--Records provided by the Virginia Water Control Board. Water level may be affected by local pumpage.

PERIOD OF RECORD.--June 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.36 ft below land-surface datum, Dec. 30, 1982; lowest measured, 16.65 ft below land-surface datum, Mar. 12, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 12.70       | JAN 23  | 13.00       | MAR 28       | 13.02       | MAY 22 | 12.94       | JUL 10       | 12.97       | SEP 10 | 13.40       |
| DEC 04          | 12.82       |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 12.70       | OCT 10, 1990 |             | LOWEST | 13.40       | SEP 10, 1991 |             |        |             |



## GROUND-WATER LEVELS

39

## ACCOMACK COUNTY

374442075432502. Local number, 65K 24 SOW 109A.

LOCATION.--Lat 37°44'42", long 75°43'25", Hydrologic Unit 02080109, 50 ft north of State Highway 658, 0.1 mi northeast of intersection of State Highways 658 and 660, and 2.2 mi southeast of Deep Creek. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 130 ft, screened 120 to 130 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 13 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.8 ft above land-surface datum.

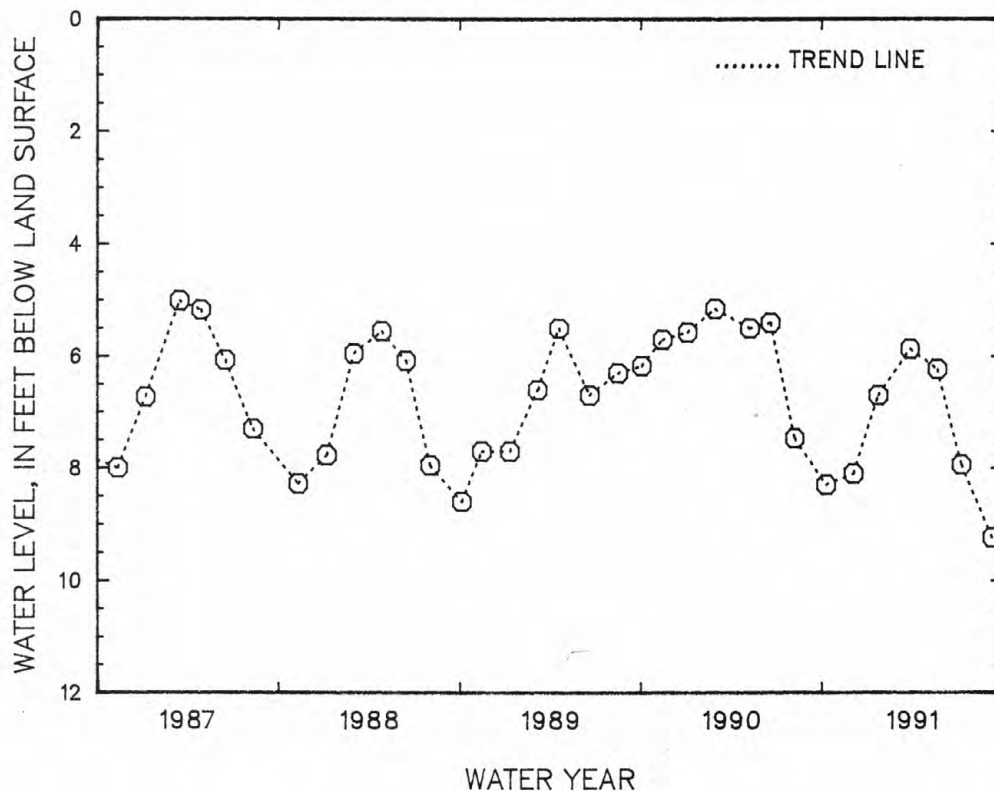
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--June 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.35 ft below land-surface datum, Apr. 21, 1983; lowest measured, 9.24 ft below land-surface datum, Sept. 10, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 8.30        | JAN 23  | 6.70        | MAR 28       | 5.87        | MAY 22 | 6.23        | JUL 10       | 7.94        | SEP 10 | 9.24        |
| DEC 04          | 8.10        |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 5.87        | MAR 28, 1991 |             | LOWEST | 9.24        | SEP 10, 1991 |             |        |             |



## GROUND-WATER LEVELS

## ACCOMACK COUNTY

374442075432503. Local number, 65K 25 SOW 109B.

LOCATION.--Lat 37°44'42", long 75°43'25", Hydrologic Unit 02080109, 50 ft north of State Highway 658, 0.1 mi northeast of intersection of State Highways 658 and 660, and 2.2 mi southeast of Deep Creek. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 228 ft, screened 218 to 228 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 13 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.85 ft above land-surface datum.

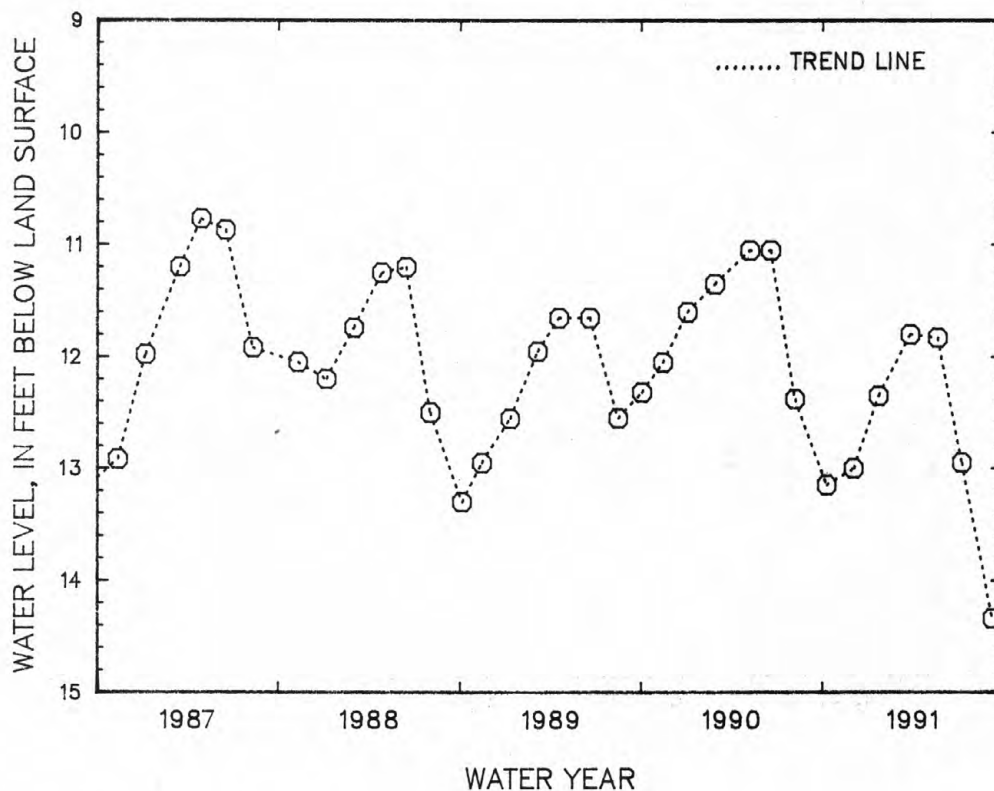
REMARKS.--Records provided by the Virginia Water Control Board. Water level may be affected by local pumpage.

PERIOD OF RECORD.--June 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.15 ft below land-surface datum, June 20, 1984; lowest measured, 14.34 ft below land-surface datum, Sept. 10, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 13.15       | JAN 23  | 12.35       | MAR 28       | 11.80       | MAY 22 | 11.83       | JUL 10       | 12.95       | SEP 10 | 14.34       |
| DEC 04          | 13.00       |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 11.80       | MAR 28, 1991 |             | LOWEST | 14.34       | SEP 10, 1991 |             |        |             |





## GROUND-WATER LEVELS

41

## ACCOMACK COUNTY

374442075432504. Local number, 65K 26 SOW 109S.

LOCATION.--Lat 37°44'42", long 75°43'25", Hydrologic Unit 02080109, 50 ft north of State Highway 658, 0.1 mi northeast of intersection of State Highways 658 and 660, and 2.2 mi southeast of Deep Creek. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 25 ft, screened 15 to 25 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 13 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.37 ft above land-surface datum prior to Mar. 1, 1988; 0.5 ft thereafter.

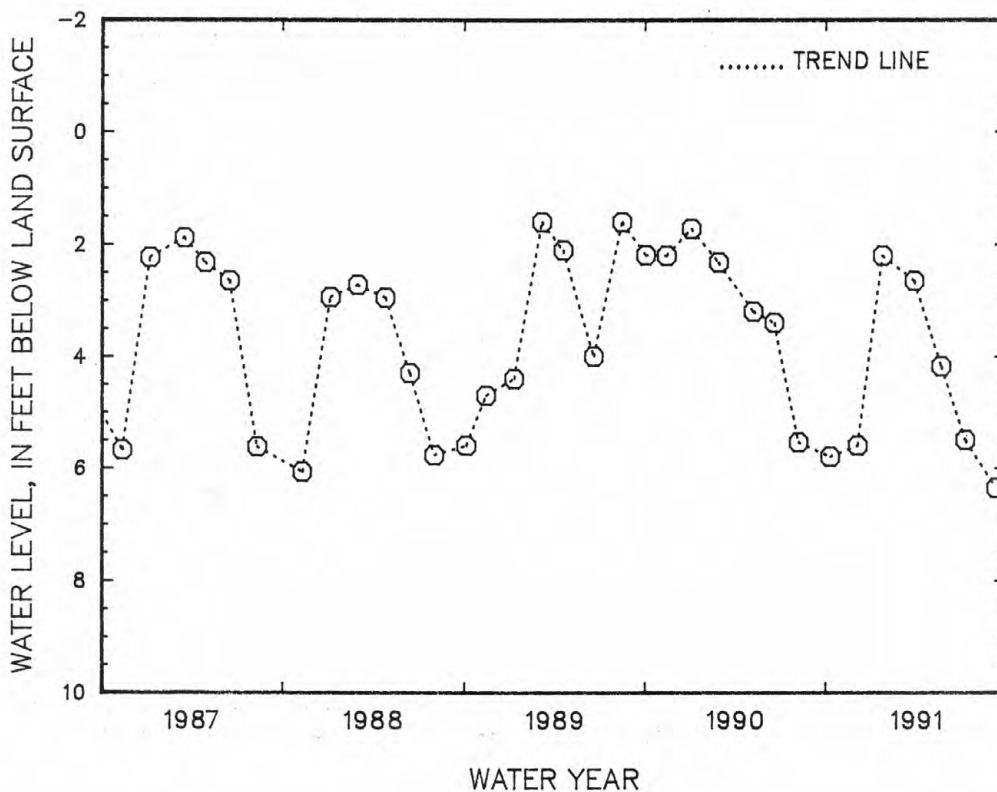
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--June 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.48 ft below land-surface datum, June 12, 1979; lowest measured, 6.57 ft below land-surface datum, Oct. 31, 1978.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 5.80        | JAN 23  | 2.20        | MAR 28       | 2.65        | MAY 22 | 4.18        | JUL 10       | 5.50        | SEP 10 | 6.36        |
| DEC 04          | 5.60        |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 2.20        | JAN 23, 1991 |             | LOWEST | 6.36        | SEP 10, 1991 |             |        |             |



## GROUND-WATER LEVELS

## ACCOMACK COUNTY

374425075400001. Local number, 65K 27 SOW 114A.

LOCATION.--Lat 37°44'25", long 75°40'00", Hydrologic Unit 02080109, 0.2 mi northwest of intersection of State Highway 662 and U.S. Highway 13, 0.6 mi northwest of State Highway 662, and 0.9 mi east of Greenbush. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 160 ft, screened 150 to 160 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to July 20, 1985, occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 1.4 ft above land-surface datum prior to Feb. 27, 1990; 1.5 ft thereafter.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

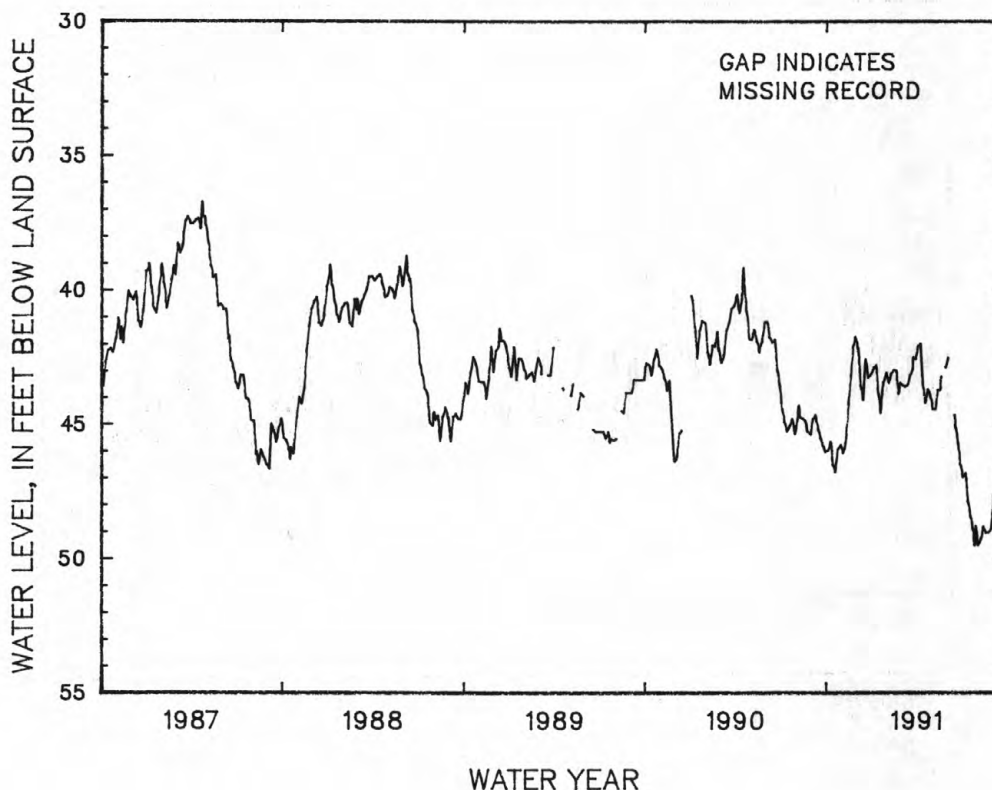
PERIOD OF RECORD.--March 1980 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.59 ft below land-surface datum, June 6, 1984; lowest measured, 49.98 ft below land-surface datum, Nov. 6, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 46.00 | 46.07 | 42.26 | 42.89 | 43.43 | 43.52 | 42.07 | 44.43 | 42.53 | 46.97 | 49.50 | 47.62 |
| 10  | 45.67 | 45.67 | 43.58 | 42.80 | 43.10 | 43.58 | 41.98 | 44.44 | ---   | 46.84 | 49.28 | 47.83 |
| 15  | 46.52 | 44.30 | 44.08 | 43.84 | 42.97 | 43.52 | 43.56 | 43.72 | ---   | 47.88 | 48.83 | 46.77 |
| 20  | 46.78 | 43.21 | 42.57 | 44.57 | 42.98 | 43.17 | 44.20 | 43.73 | 45.11 | 48.42 | 49.03 | 47.06 |
| 25  | 45.94 | 42.07 | 43.24 | 43.43 | 43.85 | 42.95 | 43.70 | ---   | 45.68 | 48.87 | 49.03 | 47.32 |
| EOM | 45.79 | 41.85 | 43.12 | 43.09 | 43.46 | 42.54 | 43.92 | 42.85 | 46.52 | 48.81 | 48.91 | 46.93 |

WATER YEAR 1991 HIGHEST 41.74 NOV 29, 30, 1990 LOWEST 49.50 JUL 28, 29, AUG 04, 05, 1991



## GROUND-WATER LEVELS

43

## ACCOMACK COUNTY

374425075400002. Local number, 65K 28 SOW 114B.

LOCATION.--Lat 37°44'25", long 75°40'00", Hydrologic Unit 02080109, 0.2 mi northwest of intersection of State Highway 662 and U.S. Highway 13, 0.6 mi northwest of State Highway 662, and 0.9 mi east of Greenbush. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 230 ft, screened 220 to 230 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to July 20, 1985, occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 1.5 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

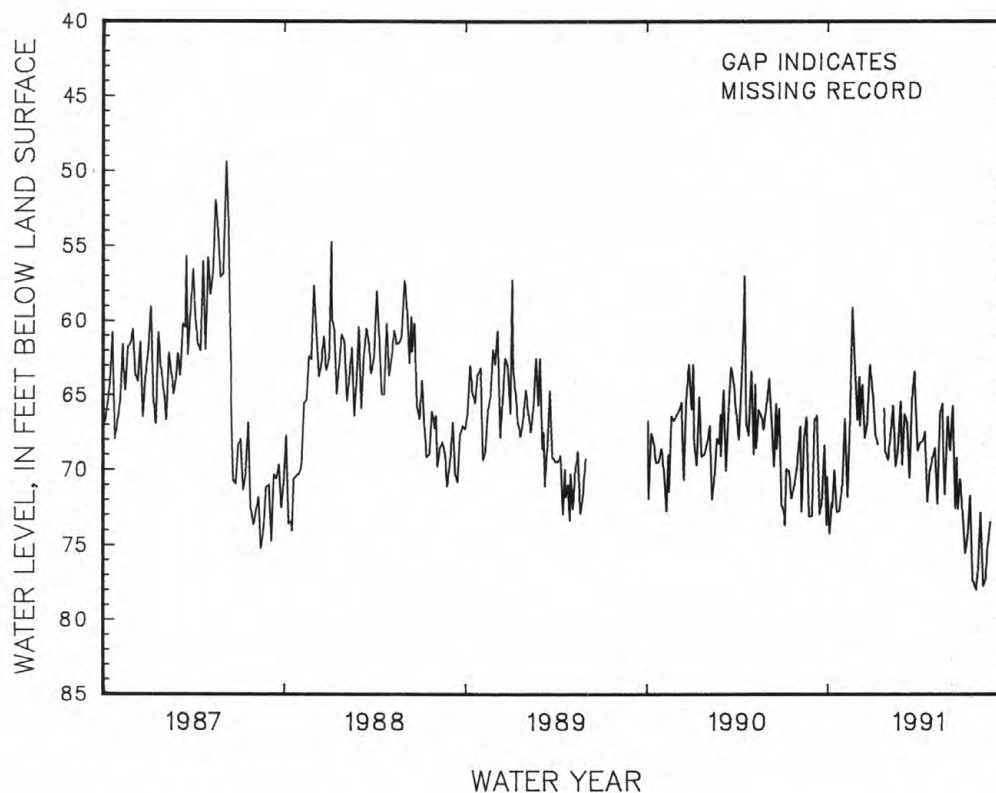
PERIOD OF RECORD.--March 1980 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 49.40 ft below land-surface datum, June 6, 1987; lowest recorded, 77.99 ft below land-surface datum, July 27, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 74.30 | 66.60 | 67.05 | 67.70 | 67.65 | 66.30 | 68.23 | 68.58 | 68.70 | 75.61 | 72.83 | ---   |
| 10  | 72.20 | 71.80 | 64.30 | 68.30 | 65.70 | 66.85 | 68.07 | 72.30 | 65.70 | 74.29 | 77.75 | 72.95 |
| 15  | 70.00 | 66.80 | 67.90 | ---   | 69.80 | 70.55 | 67.50 | 66.10 | 72.58 | 71.70 | 77.30 | ---   |
| 20  | 72.85 | 60.50 | 66.90 | ---   | 68.55 | 65.20 | 72.18 | 65.60 | 72.62 | 77.42 | 74.90 | ---   |
| 25  | 72.80 | 63.00 | 62.95 | 68.85 | 65.40 | 63.40 | 70.01 | 71.65 | 70.65 | 77.73 | 73.50 | ---   |
| EOM | 71.10 | 66.70 | 64.80 | 69.35 | 69.65 | 68.75 | 69.20 | 66.45 | 72.90 | 76.88 | ---   | ---   |

WATER YEAR 1991      HIGHEST 59.12 NOV 20, 1990      LOWEST 77.99 JUL 27, 1991



## GROUND-WATER LEVELS

## ACCOMACK COUNTY

374425075400003. Local number, 65K 29 SOW 114C.

LOCATION.--Lat 37°44'25", long 75°40'00", Hydrologic Unit 02080109, 0.2 mi northwest of intersection of State Highway 662 and U.S. Highway 13, 0.6 mi northwest of State Highway 662, and 0.9 mi east of Greenbush. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 315 ft, screened 305 to 315 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to July 20, 1985, occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 1.5 ft above land-surface datum prior to Feb. 27, 1990; 1.6 ft thereafter.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

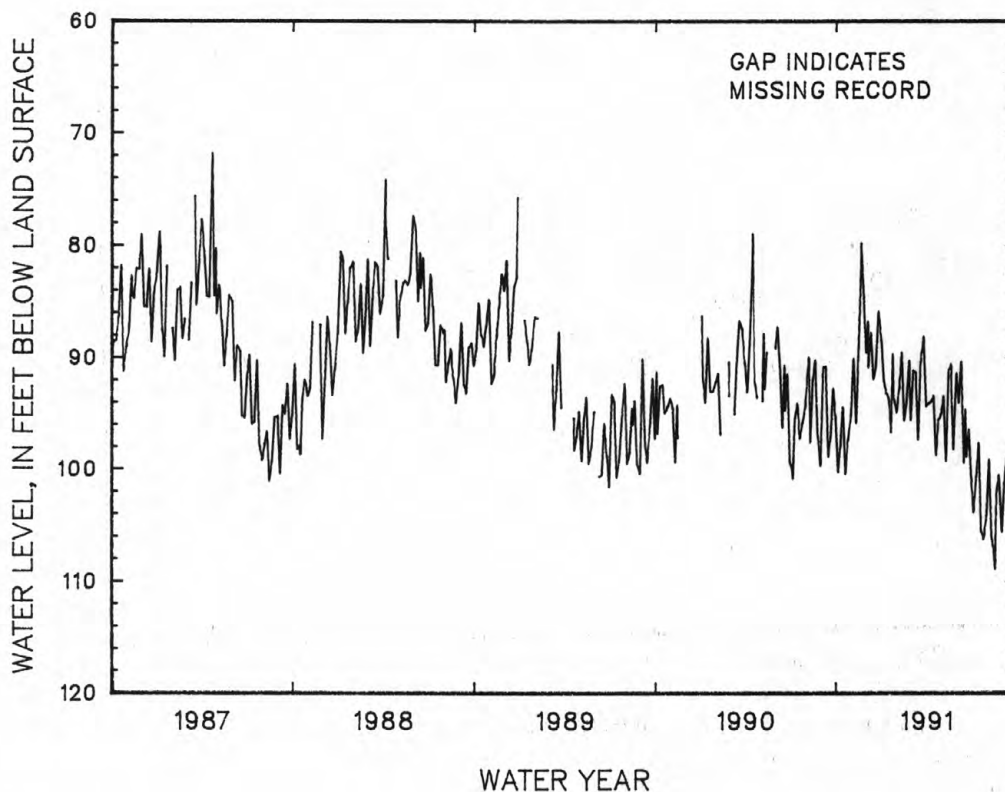
PERIOD OF RECORD.--March 1980 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 71.50 ft below land-surface datum, Feb. 24, 1986; lowest recorded, 108.92 ft below land-surface datum, Aug. 17, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN    | JUL    | AUG    | SEP    |
|-----|--------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| 5   | 100.30 | 90.10 | 90.85 | 92.20 | 92.85 | 91.20 | 94.18 | 93.50 | 94.00  | 103.90 | 99.20  | 101.29 |
| 10  | 98.00  | 95.90 | 87.85 | 93.20 | 89.60 | 91.30 | 93.95 | 99.33 | 90.35  | 100.70 | 106.28 | 98.87  |
| 15  | 94.50  | 89.10 | 91.95 | 93.70 | 95.70 | 97.40 | 93.50 | 91.12 | 99.45  | 97.70  | 107.48 | 99.92  |
| 20  | 100.45 | 82.20 | 90.95 | 96.70 | 94.15 | 90.45 | 98.80 | 90.65 | 98.90  | 105.61 | 102.00 | 102.95 |
| 25  | 97.50  | 84.30 | 85.85 | 93.75 | 90.30 | 88.70 | 95.60 | 98.28 | 96.50  | 106.25 | 100.60 | 101.01 |
| EOM | 95.30  | 89.60 | 88.40 | 94.90 | 95.60 | 94.40 | 95.10 | 91.38 | 100.85 | 104.25 | 105.69 | 96.57  |

WATER YEAR 1991 HIGHEST 79.80 NOV 20, 1990 LOWEST 108.92 AUG 17, 1991



## GROUND-WATER LEVELS

45

## ACCOMACK COUNTY

374425075400004. Local number, 65K 30 SOW 114S.

LOCATION.--Lat 37°44'25", long 75°40'00", Hydrologic Unit 02080109, 0.2 mi northwest of intersection of State Highway 662 and U.S. Highway 13, 0.6 mi northwest of State Highway 662, and 0.9 mi east of Greenbush. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 40 ft, screened 30 to 40 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum prior to Mar. 1, 1988; 1.5 ft thereafter.

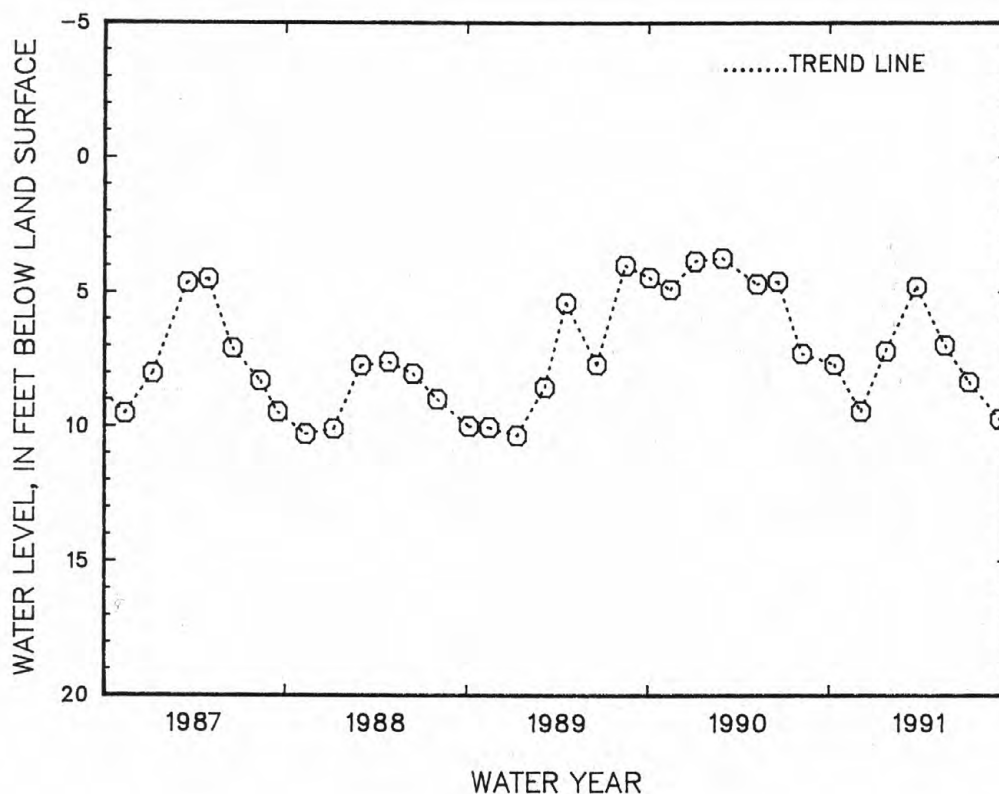
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--March 1980 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.73 ft below land-surface datum, Feb. 27, 1990; lowest measured, 20.10 ft below land-surface datum, Dec. 9, 1981.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 11          | 7.70        | JAN 23  | 7.20        | MAR 26       | 4.80        | MAY 22 | 6.98        | JUL 10       | 8.35        | SEP 10 | 9.74        |
| DEC 04          | 9.45        |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 4.80        | MAR 26, 1991 |             | LOWEST | 9.74        | SEP 10, 1991 |             |        |             |





## GROUND-WATER LEVELS

## ACCOMACK COUNTY

374314075401402. Local number, 65K 59 SOW 183A.

LOCATION.--Lat 37°43'14", long 75°40'14", Hydrologic Unit 02080109, at Accomac, 500 ft north of U.S. Highway 13 (Business), 700 ft east of intersection of State Highway 764, and U.S. Highway 13 (Business). Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in. to 250 ft, diameter 2 in. from 250 to 285 ft, depth 285 ft, screened 275 to 285 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to Aug. 7, 1991, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 35 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.2 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water level may be affected by local pumpage.

PERIOD OF RECORD.--May 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 54.00 ft below land-surface datum, May 7, 1990; lowest recorded, 61.24 ft below land-surface datum, Sept. 29, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, MAY TO AUGUST 1990

| DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL |
|--------|----------------|--------|----------------|--------|----------------|
| MAY 07 | 54.00          | JUN 18 | 54.10          | AUG 07 | 56.29          |

PERIOD MAY TO AUGUST 1990      HIGHEST 54.00 MAY 07, 1990      LOWEST 56.29 AUG 07, 1990

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, AUGUST TO SEPTEMBER 1990  
LOWEST VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG   | SEP   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|
| 5   | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---   | 56.78 |
| 10  | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 56.36 | 56.76 |
| 15  | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 56.65 | 56.79 |
| 20  | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 56.75 | 56.87 |
| 25  | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 56.50 | 56.95 |
| EQM | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 56.70 | 57.00 |

PERIOD AUGUST TO SEPTEMBER 1990      HIGHEST 56.24 AUG 08, 1990      LOWEST 57.03 SEP 29, 1990

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 57.10 | 57.24 | 55.50 | 55.53 | 55.80 | 56.02 | 55.95 | 56.54 | 56.44 | 57.65 | 60.44 | 60.81 |
| 10  | 57.45 | 57.18 | 55.57 | 55.38 | 55.70 | 56.10 | 55.80 | 56.40 | 56.57 | 58.03 | 60.23 | 60.76 |
| 15  | 57.56 | 57.19 | 55.71 | 55.30 | 55.69 | 56.20 | 55.99 | 56.61 | 57.06 | 58.27 | 60.31 | 60.90 |
| 20  | 57.54 | 56.80 | 55.76 | 55.56 | 55.83 | 56.20 | 56.10 | 56.56 | 56.84 | 59.15 | 60.67 | 60.94 |
| 25  | 57.23 | 56.53 | 55.72 | 55.67 | 55.87 | 56.00 | 56.12 | 57.06 | 56.91 | 59.39 | 60.68 | 60.97 |
| EQM | 57.37 | 55.80 | 55.61 | 55.79 | 56.02 | 56.18 | 56.35 | 57.45 | 57.65 | 59.58 | 61.03 | 60.96 |

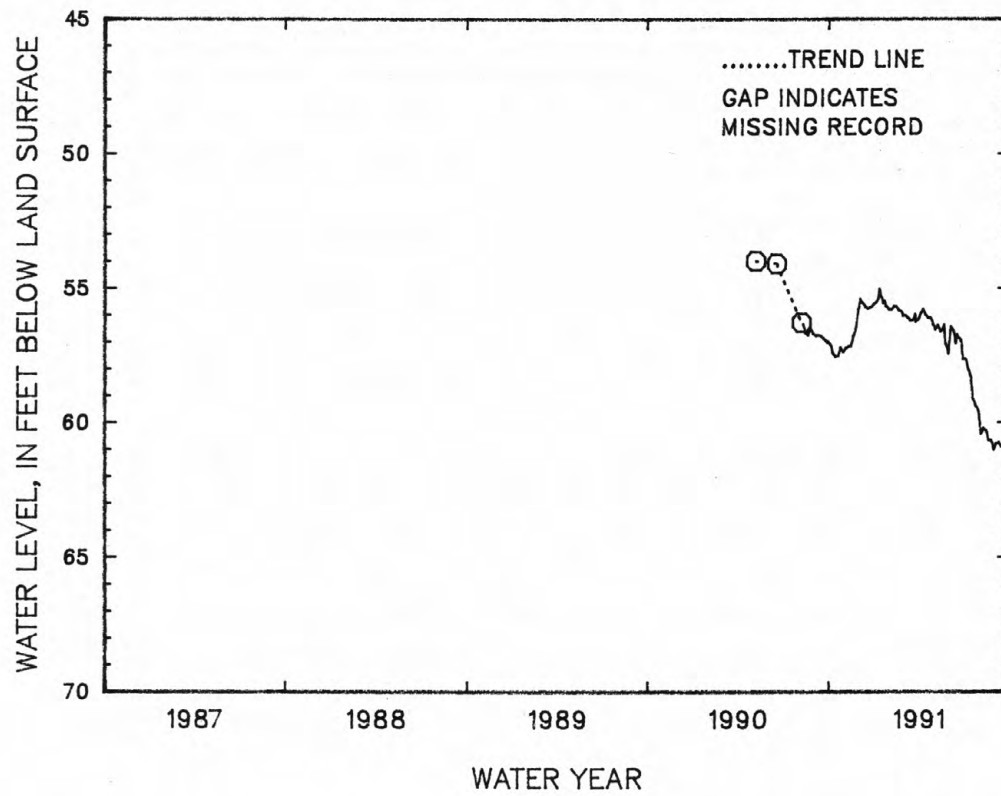
WATER YEAR 1991      HIGHEST 55.05 JAN 12, 1991      LOWEST 61.24 SEP 29, 1991

GROUND-WATER LEVELS

47

ACCOMACK COUNTY

374314075401402. Local number, 65K 59 SOW 183A--Continued



## GROUND-WATER LEVELS

## ACCOMACK COUNTY

374314075401403. Local number, 65K 60 SOW 183B.

LOCATION.--Lat 37°43'14", long 75°40'14", Hydrologic Unit 02080109, at Accomac, 500 ft north of U.S. Highway 13 (Business), 700 ft east of intersection of State Highway 764, and U.S. Highway 13 (Business). Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in. to 210 ft, diameter 2 in. from 210 to 235 ft, depth 235 ft, screened 225 to 235 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 35 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.3 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water level may be affected by local pumpage.

PERIOD OF RECORD.--May 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.50 ft below land-surface datum, May 7, 1990; lowest measured, 29.12 ft below land-surface datum, Sept. 5, 1991.

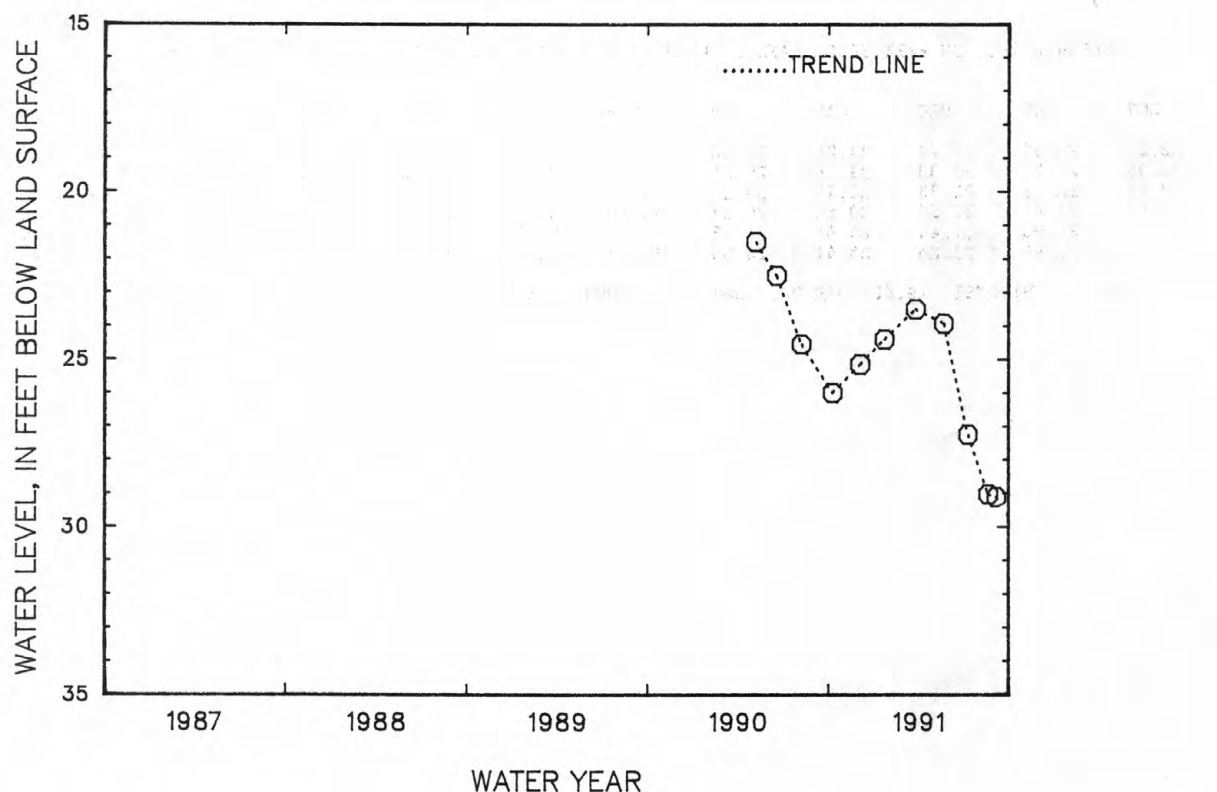
## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, MAY TO AUGUST 1990

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|
| MAY 07 | 21.50       | JUN 18 | 22.50       | AUG 07 | 24.55       |

PERIOD MAY TO AUGUST 1990      HIGHEST 21.50 MAY 07, 1990      LOWEST 24.55 AUG 07, 1990

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL        | DATE   | WATER LEVEL | DATE               | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|--------------------|--------|-------------|--------------------|-------------|--------|-------------|--------|-------------|
| OCT 09          | 26.00       | JAN 22  | 24.40              | MAY 22 | 23.93       | JUL 10             | 27.25       | AUG 20 | 29.04       | SEP 05 | 29.12       |
| DEC 04          | 25.15       | MAR 26  | 23.50              |        |             |                    |             |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 23.50 MAR 26, 1991 | LOWEST |             | 29.12 SEP 05, 1991 |             |        |             |        |             |



## GROUND-WATER LEVELS

49

## ACCOMACK COUNTY

374314075401404. Local number, 65K 61 SOW 183C.

LOCATION.--Lat 37°43'14", long 75°40'14", Hydrologic Unit 02080109, at Accomac, 500 ft north of U.S. Highway 13 (Business), 700 ft east of intersection of State Highway 764, and U.S. Highway 13 (Business). Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in. to 82 ft, diameter 2 in. from 82 to 134 ft, depth 134 ft, screened 124 to 134 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to Aug. 6, 1990, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 35 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.1 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water level may be affected by local pumpage.

PERIOD OF RECORD.--May 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.20 ft below land-surface datum, May 7, 1990; lowest recorded, 26.70 ft below land-surface datum, Sept. 25, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, MAY TO AUGUST 1990

| DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL |
|--------|----------------|--------|----------------|--------|----------------|
| MAY 07 | 18.20          | JUN 18 | 18.90          | AUG 06 | 21.08          |

PERIOD MAY TO AUGUST 1990      HIGHEST 18.20 MAY 07, 1990      LOWEST 21.08 AUG 06, 1990

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, AUGUST TO SEPTEMBER 1990  
LOWEST VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG   | SEP   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|
| 5   | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---   | 21.69 |
| 10  | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 21.30 | 21.68 |
| 15  | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 21.40 | 21.87 |
| 20  | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 21.58 | 21.92 |
| 25  | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 21.28 | 21.98 |
| EOM | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 21.48 | 22.10 |

PERIOD AUGUST TO SEPTEMBER 1990      HIGHEST 21.09 AUG 07, 1990      LOWEST 22.13 SEP 28, 29, 1990

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

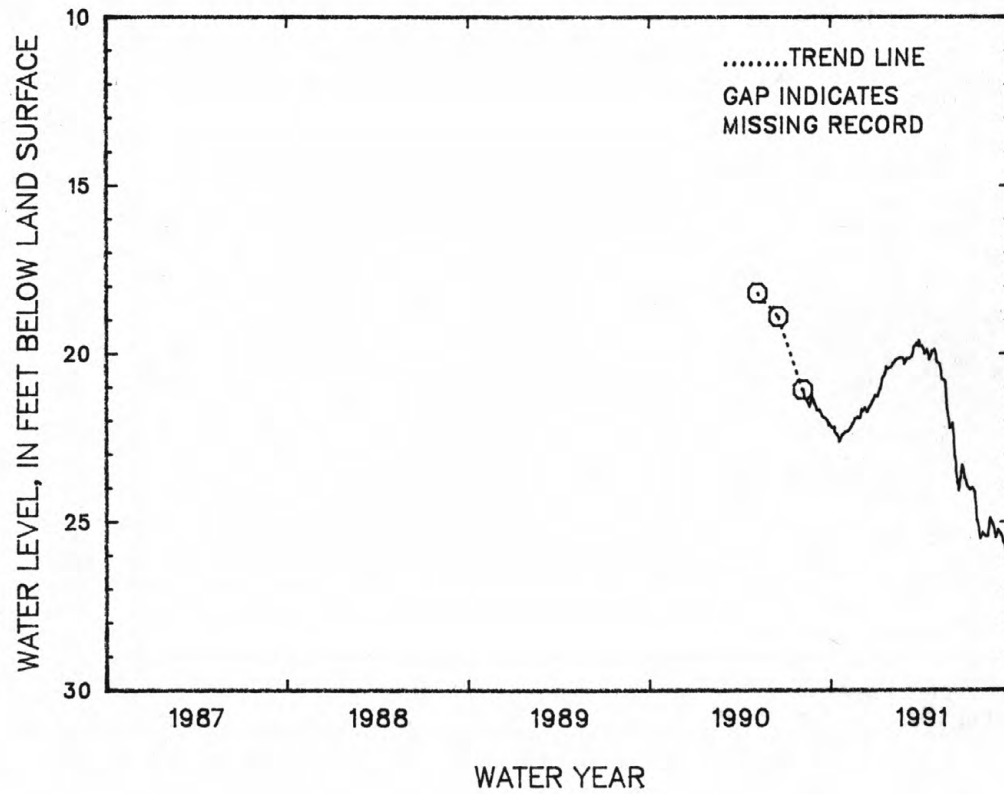
| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 22.22 | 22.32 | 21.72 | 21.28 | 20.30 | 20.16 | 19.78 | 20.25 | 22.10 | 23.94 | 25.34 | 25.25 |
| 10  | 22.34 | 22.23 | 21.63 | 21.06 | 20.20 | 20.15 | 20.00 | 20.30 | 23.06 | 24.05 | 25.43 | 25.36 |
| 15  | 22.41 | 22.10 | 21.73 | 20.72 | 20.15 | 20.08 | 19.90 | 20.76 | 23.85 | 24.00 | 25.44 | 25.58 |
| 20  | 22.62 | 21.95 | 21.59 | 20.60 | 20.12 | 19.80 | 20.17 | 20.80 | 23.78 | 24.12 | 24.90 | 25.82 |
| 25  | 22.44 | 21.90 | 21.44 | 20.44 | 20.13 | 19.70 | 19.94 | 21.68 | 23.33 | 24.95 | 25.06 | 26.70 |
| EOM | 22.35 | 21.92 | 21.25 | 20.41 | 20.30 | 19.77 | 19.89 | 22.23 | 23.70 | 25.50 | 25.47 | 26.07 |

WATER YEAR 1991      HIGHEST 19.62 MAR 30, 1991      LOWEST 26.70 SEP 25, 1991

## GROUND-WATER LEVELS

ACCOMACK COUNTY

374314075401404. Local number, 65K 61 SOW 183C--Continued





## GROUND-WATER LEVELS

51

## ACCOMACK COUNTY

374314075401405. Local number, 65K 62 SOW 183D.

LOCATION.--Lat 37°43'14", long 75°40'14", Hydrologic Unit 02080109, at Accomac, 500 ft north of U.S. Highway 13 (Business), 700 ft east of intersection of State Highway 764, and U.S. Highway 13 (Business). Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 20 ft, screened 15 to 20 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 35 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.3 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--May 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.20 ft below land-surface datum, May 7, June 18, 1990; lowest measured, 4.19 ft below land-surface datum, Sept. 5, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, MAY TO SEPTEMBER 1990

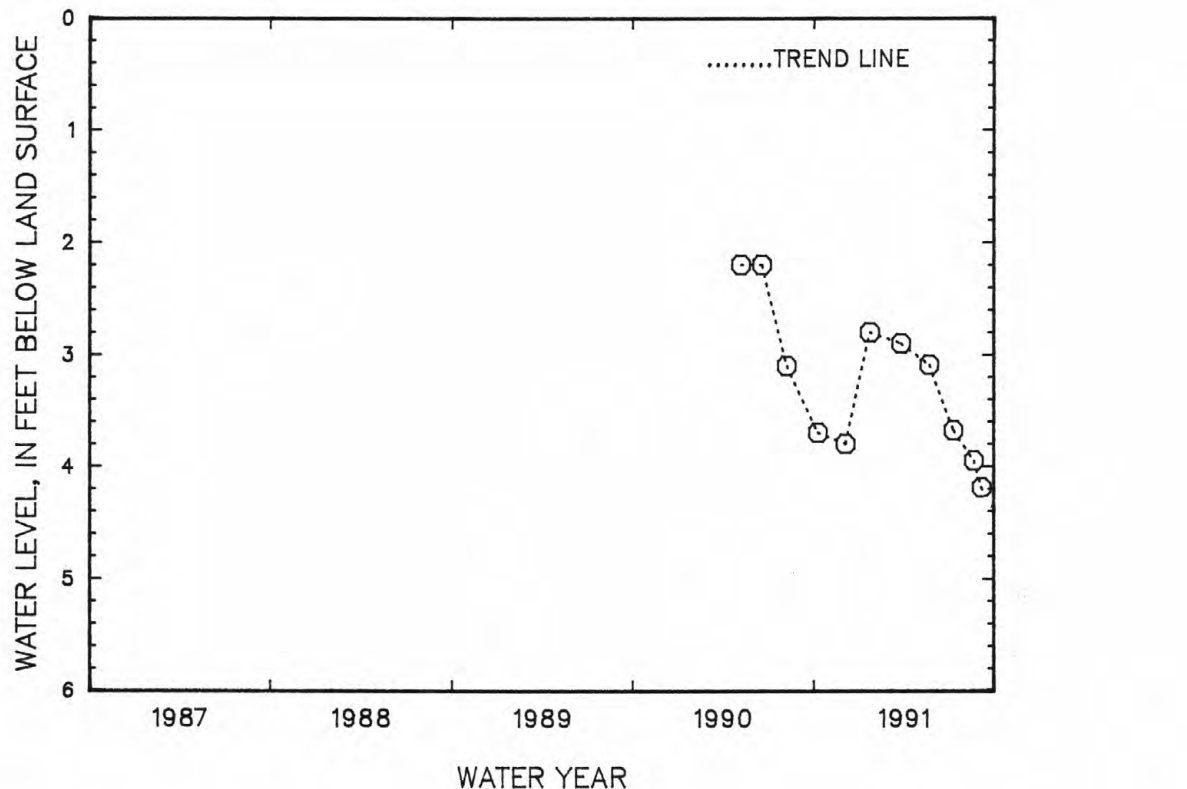
| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|
| MAY 07 | 2.20        | JUN 18 | 2.20        | AUG 07 | 3.10        |

PERIOD MAY TO SEPTEMBER 1990      HIGHEST 2.20 MAY 07, JUN 18, 1990      LOWEST 3.10 AUG 07, 1990

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 09 | 3.70        | JAN 22 | 2.80        | MAY 22 | 3.09        | JUL 10 | 3.68        | AUG 20 | 3.95        | SEP 05 | 4.19        |
| DEC 04 | 3.80        | MAR 26 | 2.90        |        |             |        |             |        |             |        |             |

WATER YEAR 1991      HIGHEST 2.80 JAN 22, 1991      LOWEST 4.19 SEP 05, 1991



## GROUND-WATER LEVELS

## ACCOMACK COUNTY

374320075380501. Local number, 66K 2 SOW 101C.

LOCATION.--Lat 37°43'19", long 75°36'54", Hydrologic Unit 02080110, 0.2 mi north of State Highway 662, 2.2 mi east of intersection of State Highway 662 and U.S. Highway 13 (Business), and 2.8 mi east of Accomac. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 292 ft, screened 282 to 292 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.4 ft above land-surface datum prior to Mar. 1, 1988; 0.6 ft thereafter.

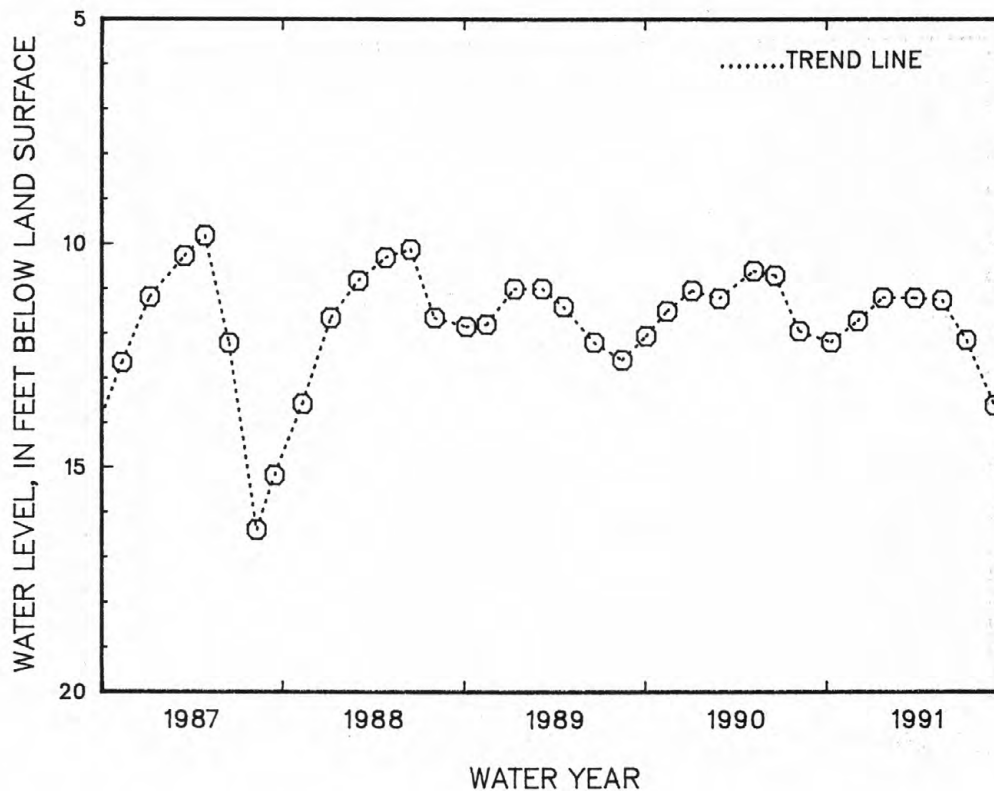
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

PERIOD OF RECORD.--June 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.57 ft below land-surface datum, Apr. 25, 1984; lowest measured, 17.30 ft below land-surface datum, Aug. 5, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 12.20       | JAN 23  | 11.20       | MAR 28       | 11.21       | MAY 22 | 11.26       | JUL 10       | 12.15       | SEP 05 | 13.62       |
| DEC 03          | 11.72       |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 11.20       | JAN 23, 1991 |             | LOWEST | 13.62       | SEP 05, 1991 |             |        |             |



## GROUND-WATER LEVELS

53

## ACCOMACK COUNTY

374320075365602. Local number, 66K 3 SOW 101B.

LOCATION.--Lat 37°43'20", long 75°38'05", Hydrologic Unit 02080110, 0.2 mi north of State Highway 662, 2.2 mi east of intersection of State Highway 662 and U.S. Highway 13 (Business), and 2.8 mi east of Accomac. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 220 ft, screened 210 to 220 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 8 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.36 ft above land-surface datum prior to Mar. 1, 1988; 0.65 ft thereafter.

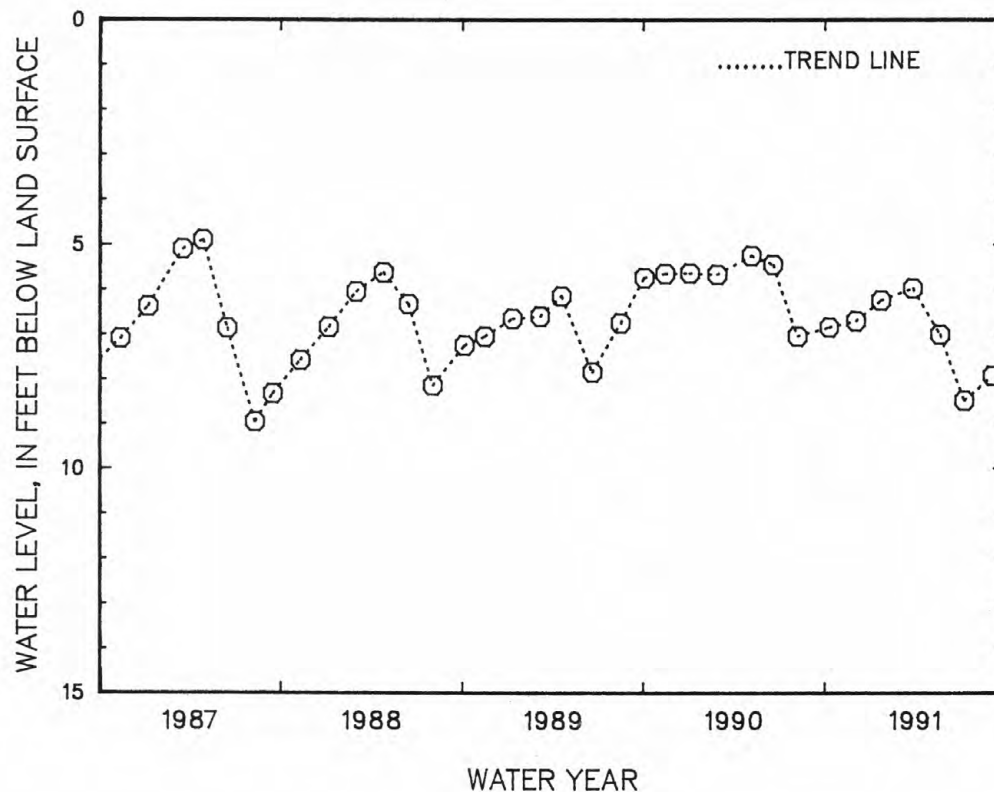
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

PERIOD OF RECORD.--June 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.04 ft below land-surface datum, Apr. 25, 1984; lowest measured, 9.84 ft below land-surface datum, Aug. 5, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 6.85        | JAN 23  | 6.25        | MAR 28       | 5.98        | MAY 22 | 7.01        | JUL 10       | 8.49        | SEP 05 | 7.93        |
| DEC 03          | 6.71        |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 5.98        | MAR 28, 1991 |             | LOWEST | 8.49        | JUL 10, 1991 |             |        |             |



## GROUND-WATER LEVELS

## ACCOMACK COUNTY

374320075365603. Local number, 66K 4 SOW 101A.

LOCATION.--Lat 37°43'20", long 75°36'56", Hydrologic Unit 02080110, 0.2 mi north of State Highway 662, 2.2 mi east of intersection of State Highway 662 and U.S. Highway 13 (Business), and 2.8 mi east of Accomac. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 152 ft, screened 142 to 152 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.4 ft above land-surface datum prior to Mar. 1, 1988; 0.65 ft Mar. 1, 1988, to June 20, 1989; 0.00 ft June 21, 1989, to Jan. 3, 1990; 0.85 ft thereafter.

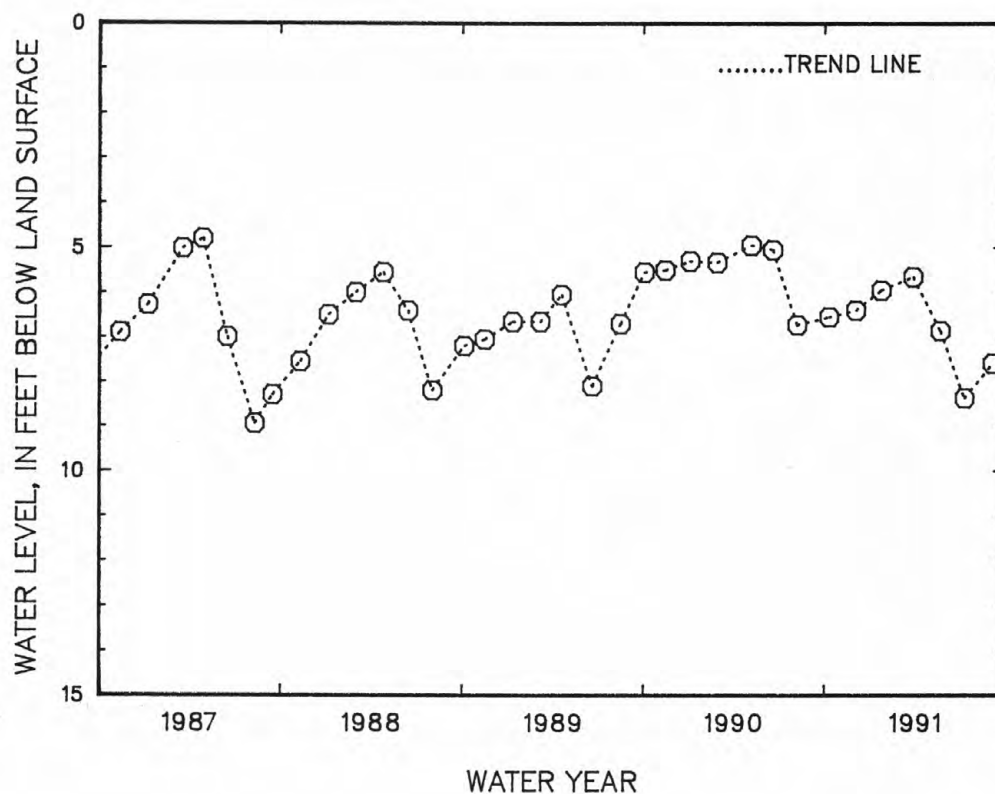
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

PERIOD OF RECORD.--June 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.99 ft below land-surface datum, Apr. 25, 1984; lowest measured, 9.93 ft below land-surface datum, Aug. 5, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 6.55        | JAN 23  | 5.95        | MAR 28       | 5.65        | MAY 22 | 6.86        | JUL 10       | 8.37        | SEP 05 | 7.59        |
| DEC 03          | 6.40        |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 5.65        | MAR 28, 1991 |             | LOWEST | 8.37        | JUL 10, 1991 |             |        |             |



## GROUND-WATER LEVELS

55

## ACCOMACK COUNTY

375225075321701. Local number, 66L 1 SOW 107C.

LOCATION.--Lat 37°52'25", long 75°32'17", Hydrologic Unit 02080110, 0.15 mi northwest of State Highway 679, 0.45 mi northeast of intersection of State Highways 679 and 790, and 0.7 mi west of Assawoman. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 305 ft, screened 295 to 305 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.33 ft above land-surface datum prior to Mar. 1, 1988; 0.4 ft thereafter.

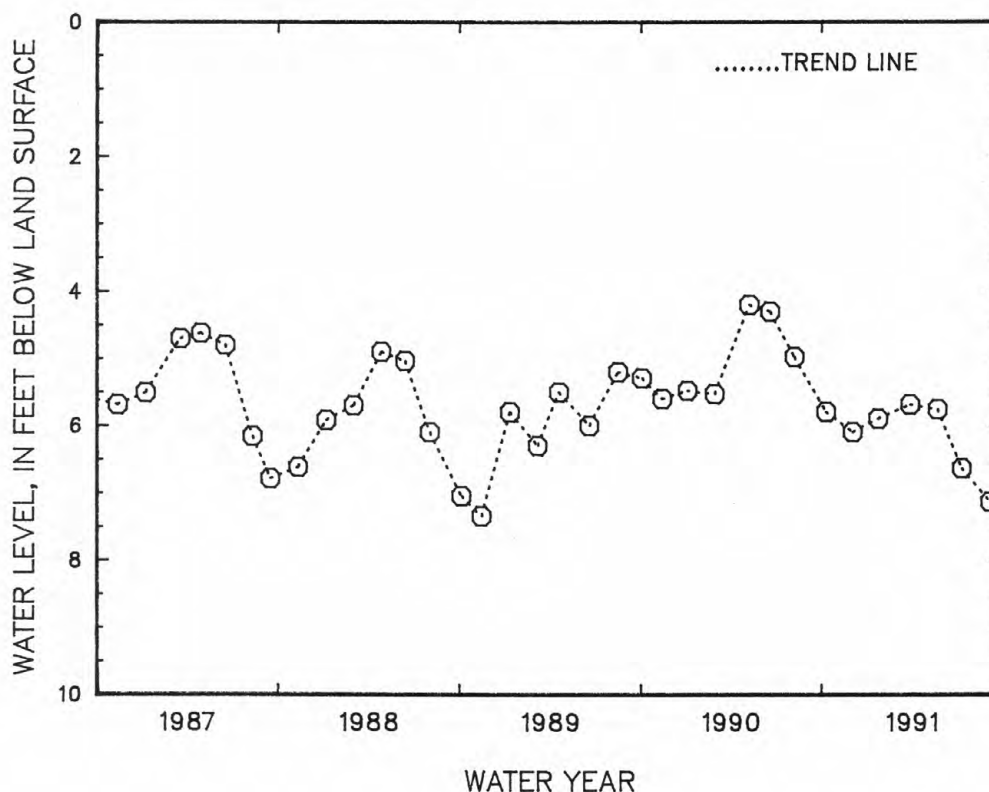
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--September 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.06 ft below land-surface datum, Jan. 4, 1984; lowest measured, 7.35 ft below land-surface datum, Nov. 14, 1988.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 10          | 5.80        | JAN 23  | 5.90        | MAR 28       | 5.69        | MAY 22 | 5.76         | JUL 10 | 6.64        | SEP 05 | 7.14        |
| DEC 03          | 6.10        |         |             |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 5.69        | MAR 28, 1991 | LOWEST      | 7.14   | SEP 05, 1991 |        |             |        |             |





## GROUND-WATER LEVELS

## ACCOMACK COUNTY

375225075321702. Local number, 66L 2 SOW 107A.

LOCATION.--Lat 37°52'25", long 75°32'17", Hydrologic Unit 02080110, 0.15 mi northwest of State Highway 679, 0.45 mi northeast of intersection of State Highways 679 and 790, and 0.7 mi west of Assawoman. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 140 ft, screened 130 to 140 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.23 ft above land-surface datum prior to Mar. 1, 1988; 0.6 ft thereafter.

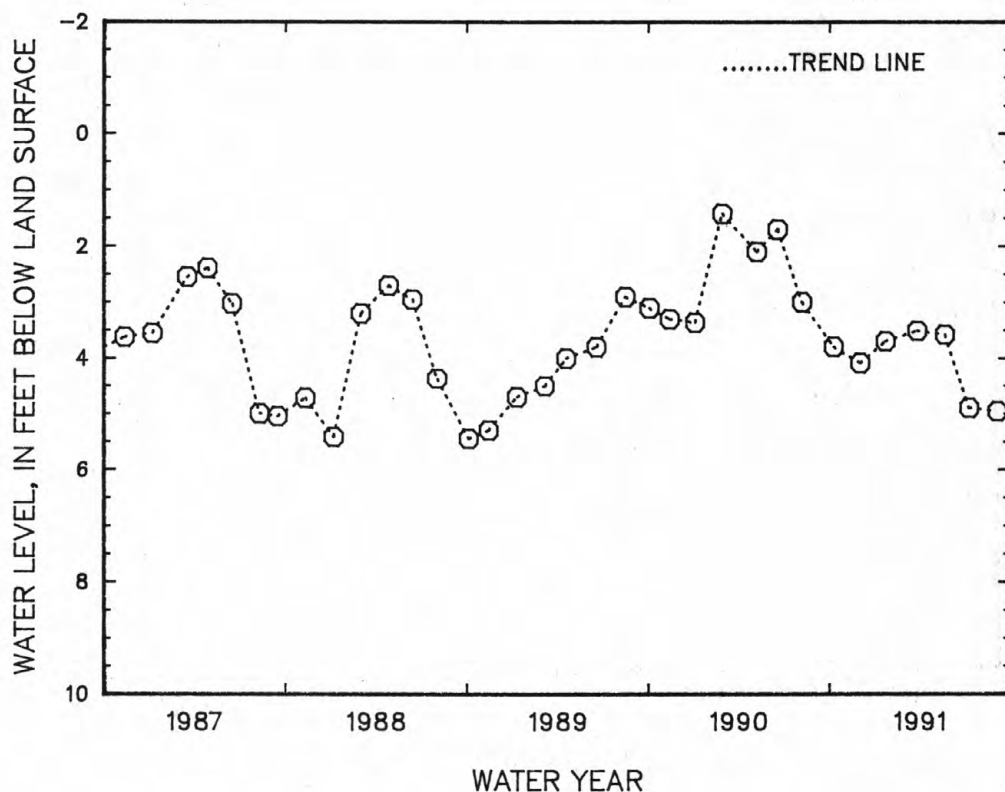
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--October 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.21 ft below land-surface datum, Apr. 25, 1984; lowest measured, 5.45 ft below land-surface datum, Oct. 5, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 10          | 3.80        | JAN 23  | 3.70        | MAR 28       | 3.51        | MAY 22 | 3.58         | JUL 10 | 4.90        | SEP 05 | 4.96        |
| DEC 03          | 4.09        |         |             |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 3.51        | MAR 28, 1991 | LOWEST      | 4.96   | SEP 05, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

57

## ACCOMACK COUNTY

375225075321703. Local number, 66L 3 SOW 107B.

LOCATION.--Lat 37°52'25", long 75°32'17", Hydrologic Unit 02080110, 0.15 mi northwest of State Highway 679, 0.45 mi northeast of intersection of State Highways 679 and 790, and 0.7 mi west of Assawoman. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 206 ft, screened 191 to 201 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.1 ft above land-surface datum prior to June 19, 1990; 0.3 ft thereafter.

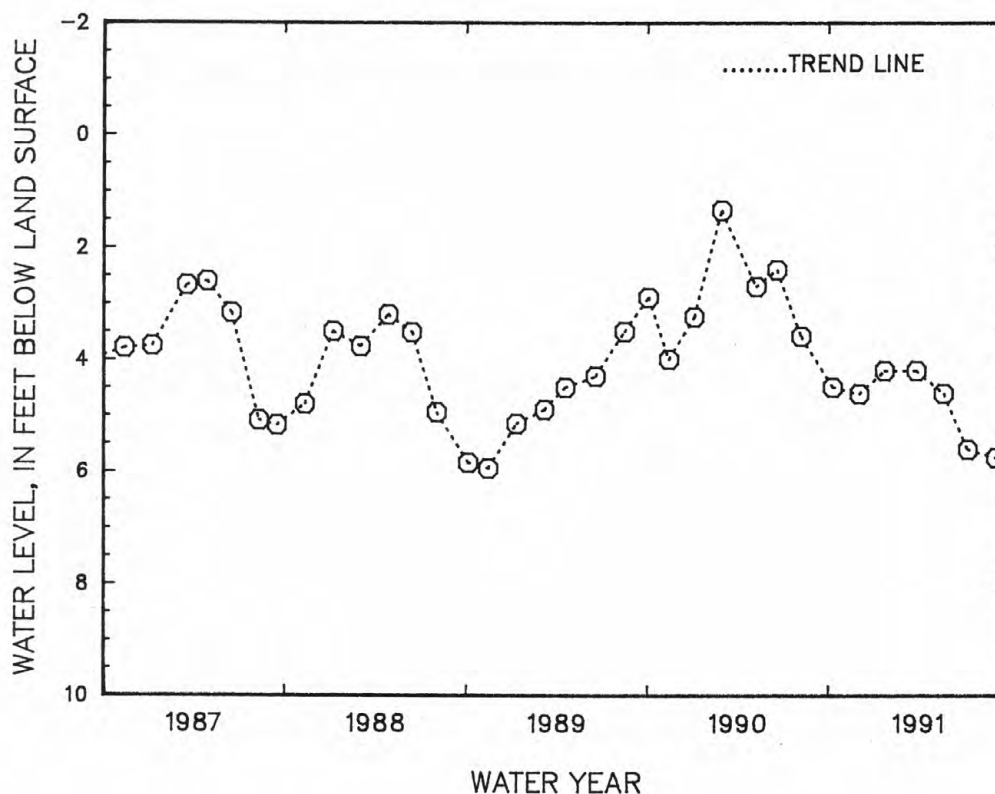
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--October 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.64 ft below land-surface datum Apr. 25, 1984; lowest measured, 5.95 ft below land-surface datum, Nov. 14, 1988.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE                 | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|----------------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 4.50        | JAN 23  | 4.20        | MAR 28               | 4.20        | MAY 22 | 4.61        | JUL 10       | 5.61        | SEP 05 | 5.76        |
| DEC 03          | 4.62        |         |             |                      |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 4.20        | JAN 23, MAR 28, 1991 |             | LOWEST | 5.76        | SEP 05, 1991 |             |        |             |



## GROUND-WATER LEVELS

## ACCOMACK COUNTY

375723075344401. Local number, 66M 16 SOW 110A.

LOCATION.--Lat 37°57'23", long 75°34'44", Hydrologic Unit 02060009, 0.25 mi northeast of State Highway 693, 0.5 mi southeast of intersection of State Highways 693 and 706, and 2.3 mi northwest of Oak Hall. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 130 ft, screened 120 to 130 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 11 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.45 ft above land-surface datum prior to Feb. 29, 1988; 0.65 ft Mar. 1, 1988, to Oct. 3, 1989; 0.00 ft Oct. 4, 1989, to Jan. 3, 1990; 1.0 ft Jan. 4, 1990, to Oct. 10, 1990; 0.70 ft thereafter.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

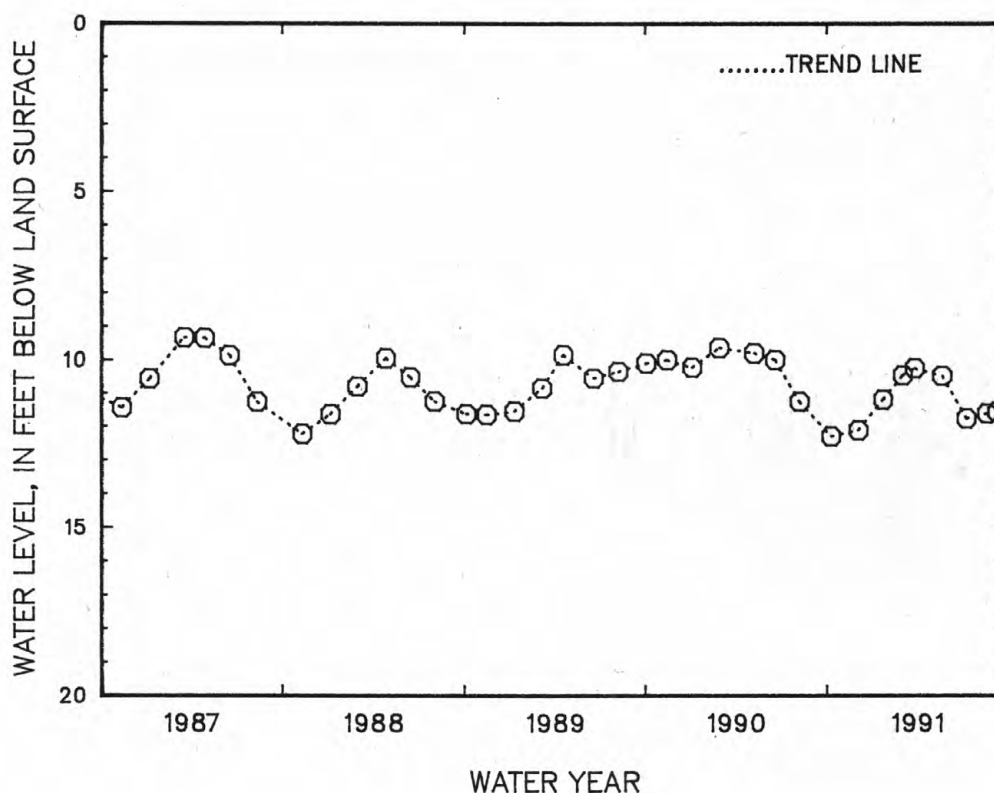
PERIOD OF RECORD.--September 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.28 ft below land-surface datum, Feb. 19, 1986; lowest measured, 12.30 ft below land-surface datum, Oct. 10, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 10 | 12.30       | JAN 23 | 11.20       | MAR 28 | 10.25       | JUL 10 | 11.77       | AUG 20 | 11.62       | SEP 10 | 11.58       |
| DEC 04 | 12.12       | MAR 04 | 10.46       | MAY 22 | 10.48       |        |             |        |             |        |             |

WATER YEAR 1991      HIGHEST 10.25 MAR 28, 1991      LOWEST 12.30 OCT 10, 1990



## GROUND-WATER LEVELS

59

## ACCOMACK COUNTY

375723075344402. Local number, 66M 17 SOW 110B.

LOCATION.--Lat 37°57'23", long 75°34'44", Hydrologic Unit 02060009, 0.25 mi northeast of State Highway 693, 0.5 mi southeast of intersection of State Highways 693 and 706, and 2.3 mi northwest of Oak Hall. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 178 ft, screened 168 to 178 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 11 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.45 ft above land-surface datum prior to Feb. 29, 1988; 0.75 ft thereafter.

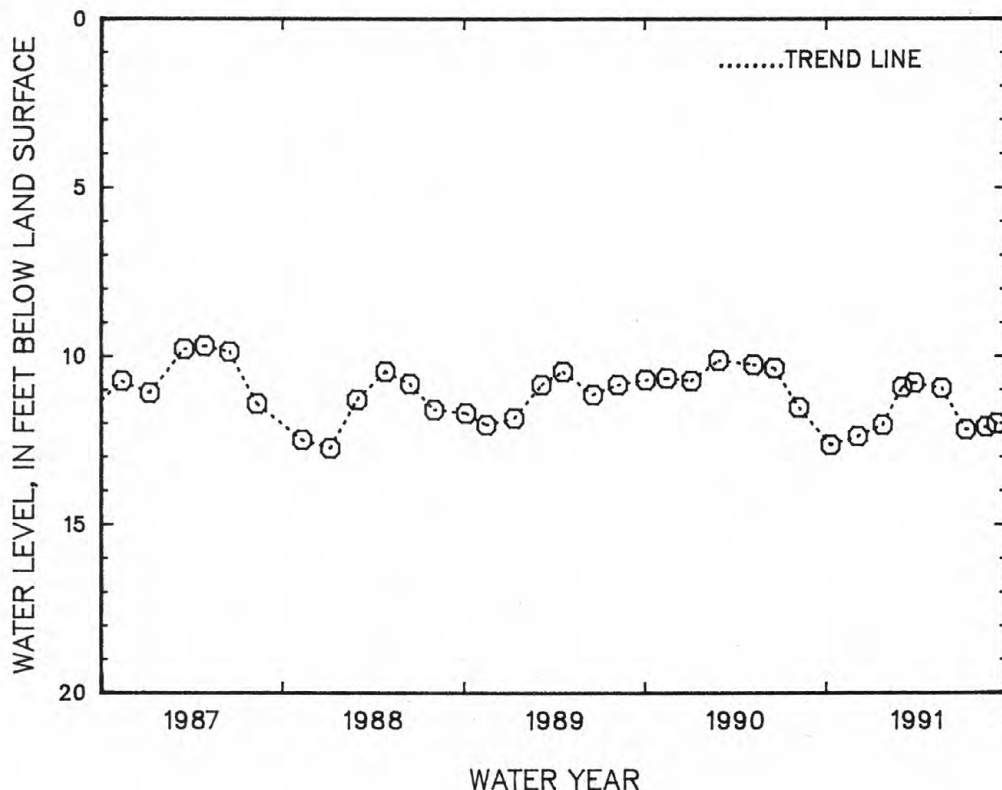
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

PERIOD OF RECORD.--October 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.76 ft below land-surface datum, Apr. 1, 1980; lowest measured, 12.75 ft below land-surface datum, Jan. 6, 1988.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 12.65       | JAN 23  | 12.05       | MAR 28       | 10.79       | JUL 10 | 12.19       | AUG 20       | 12.11       | SEP 10 | 12.01       |
| DEC 04          | 12.39       | MAR 04  | 10.92       | MAY 22       | 10.95       |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 10.79       | MAR 28, 1991 |             | LOWEST | 12.65       | OCT 10, 1990 |             |        |             |



## GROUND-WATER LEVELS

## ACCOMACK COUNTY

375723075344403. Local number, 66M 18 SOW 110C.

LOCATION.--Lat 37°57'23", long 75°34'44", Hydrologic Unit 02060009, 0.25 mi northeast of State Highway 693, 0.5 mi southeast of intersection of State Highways 693 and 706, and 2.3 mi northwest of Oak Hall. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 240 ft, screened 230 to 240 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 11 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.65 ft above land-surface datum.

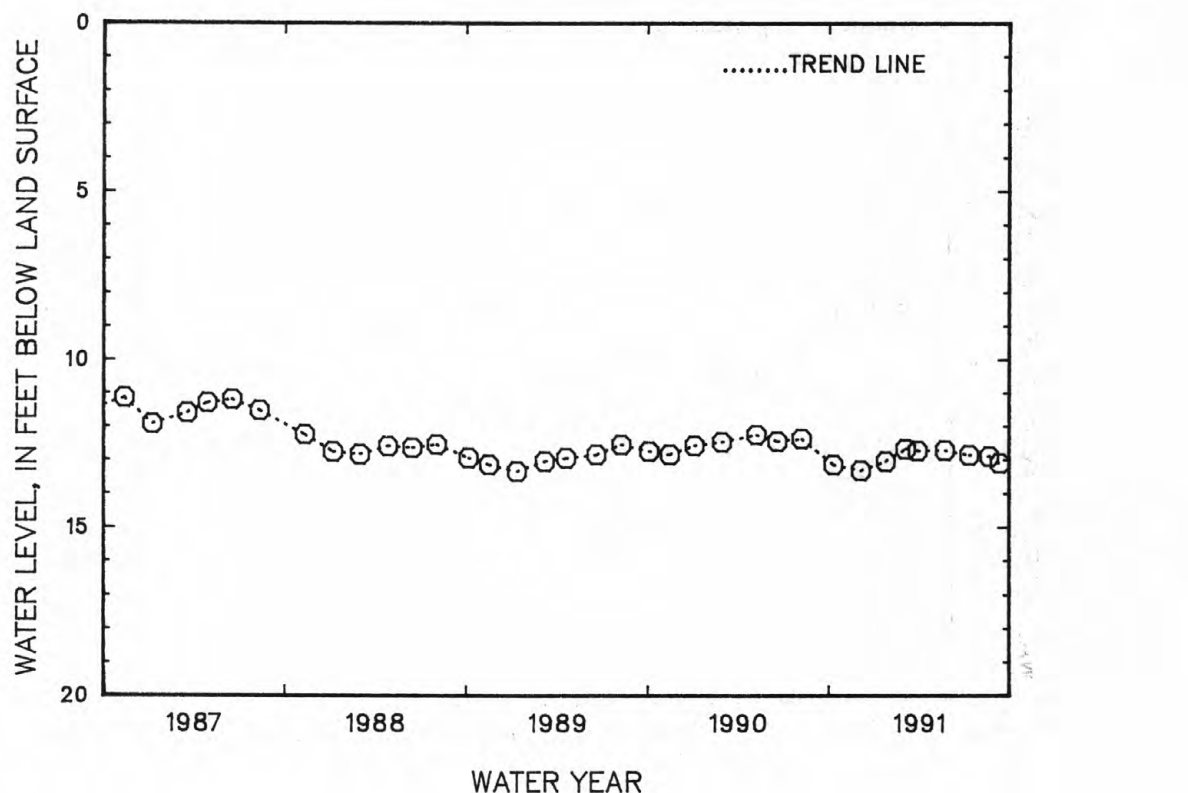
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

PERIOD OF RECORD.--October 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.43 ft below land-surface datum, Aug. 12, 1981; lowest measured, 13.35 ft below land-surface datum, Jan. 10, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 13.15       | JAN 23  | 13.05       | MAR 28       | 12.73       | JUL 10 | 12.86       | AUG 20       | 12.90       | SEP 10 | 13.10       |
| DEC 04          | 13.32       | MAR 04  | 12.68       | MAY 22       | 12.72       |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 12.68       | MAR 04, 1991 |             | LOWEST | 13.32       | DEC 04, 1990 |             |        |             |





## GROUND-WATER LEVELS

61

## ACCOMACK COUNTY

375723075344404. Local number, 66M 19 SOW 110S.

LOCATION.--Lat 37°57'23", long 75°34'44", Hydrologic Unit 02060009, 0.25 mi northeast of State Highway 693, 0.5 mi southeast of intersection of State Highways 693 and 706, and 2.3 mi northwest of Oak Hall. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 36 ft, screened 26 to 36 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 11 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum prior to Feb. 29, 1988; 0.35 ft thereafter.

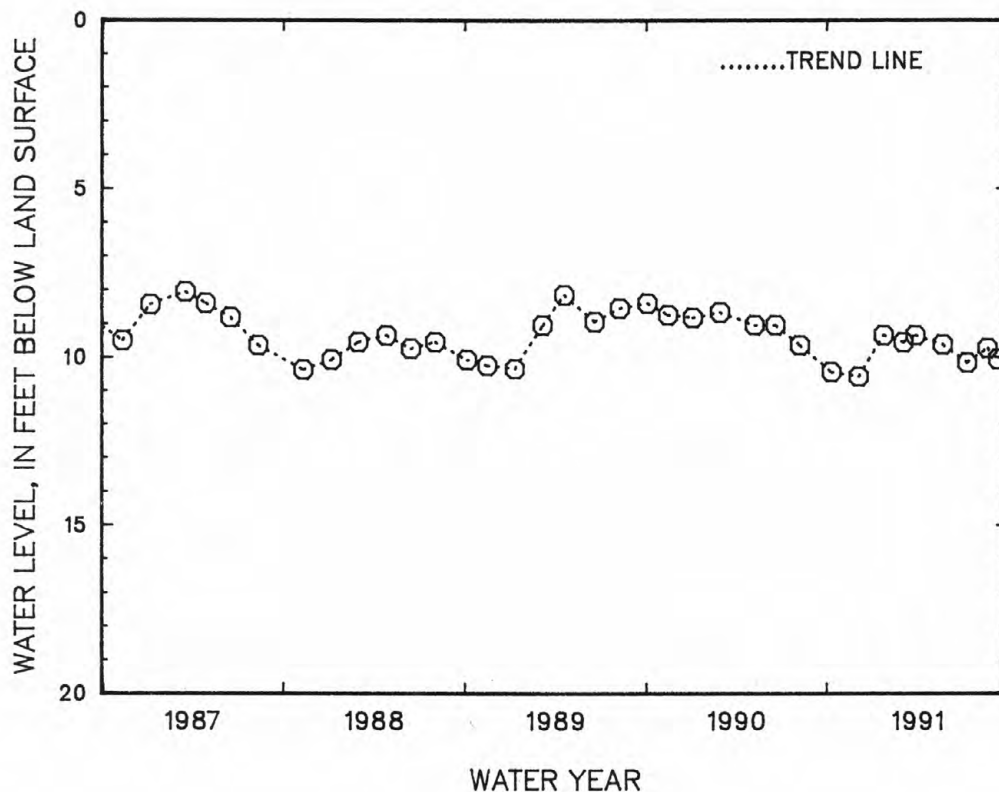
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--September 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.06 ft below land-surface datum, Mar. 17, 1987; lowest measured, 11.34 ft below land-surface datum, Nov. 6, 1981.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE                 | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|----------------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 10.45       | JAN 23  | 9.35        | MAR 28               | 9.35        | JUL 10 | 10.17       | AUG 20       | 9.74        | SEP 10 | 10.07       |
| DEC 04          | 10.59       | MAR 04  | 9.56        | MAY 22               | 9.63        |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 9.35        | JAN 23, MAR 28, 1991 |             | LOWEST | 10.59       | DEC 04, 1990 |             |        |             |



## GROUND-WATER LEVELS

## ACCOMACK COUNTY

375610075361801. Local number, 66M 23 SOW 181A.

LOCATION.--Lat 37°56'10", long 75°36'18", Hydrologic Unit 02080109, 100 ft south of State Highway 703, 0.1 mi east of intersection of State Highways 701 and 703, and 2.7 mi northwest of Makemie Park. Owner: Virginia Water Control Board.

AQUIFER.--Brightseat-upper Potomac aquifer of Cretaceous-Tertiary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 1,300 ft, screened 1,290 to 1,300 ft.

INSTRUMENTATION.--Bimonthly measurement with manometer by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--January 1988 to current year.

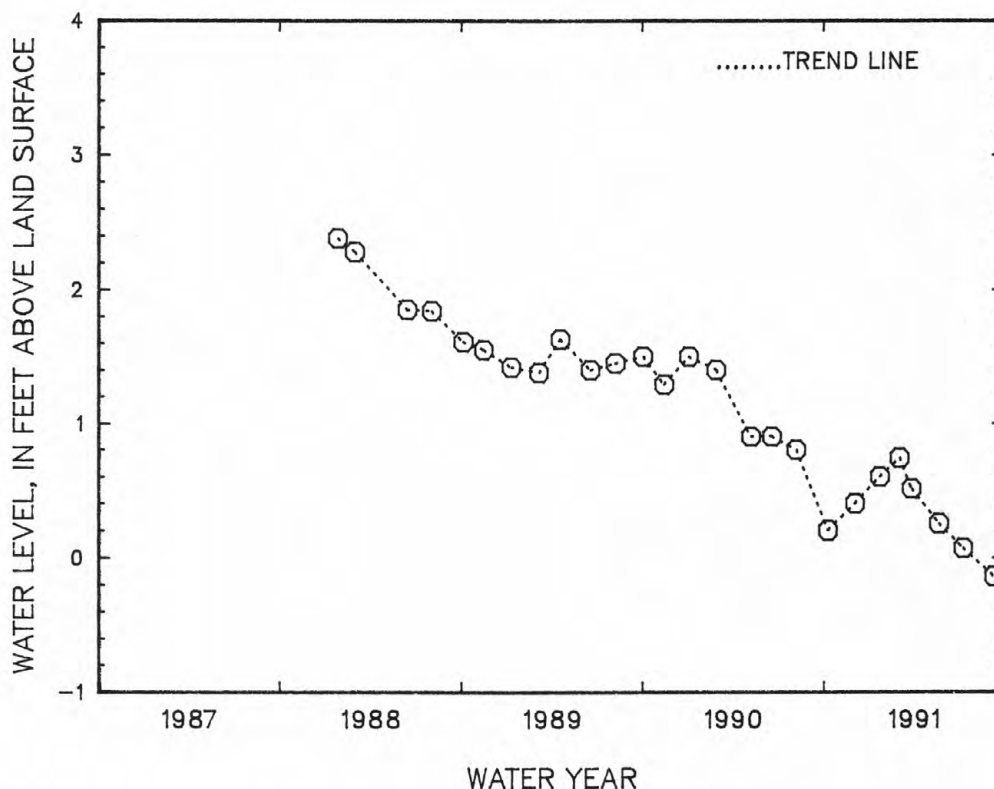
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.38 ft above land-surface datum, Jan. 26, 1988; lowest measured, 0.14 ft below land-surface datum, Sept. 10, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 10 | **+0.20     | JAN 23 | **+0.60     | MAR 28 | **+0.51     | MAY 22 | **+0.25     | JUL 10 | **+0.07     | SEP 10 | 0.14        |
| DEC 04 | **+0.40     | MAR 04 | **+0.74     |        |             |        |             |        |             |        |             |

\* Flowing well, readings given are above land-surface datum.

WATER YEAR 1991      HIGHEST \*\*+0.74 MAR 04, 1991      LOWEST 0.14 SEP 10, 1991



## GROUND-WATER LEVELS

63

## ACCOMACK COUNTY

375610075361802. Local number, 66M 24 SOW 181B.

LOCATION.--Lat 37°56'10", long 75°36'18", Hydrologic Unit 02080109, 100 ft south of State Highway 703, 0.1 mi east of intersection of State Highways 701 and 703, and 2.7 mi northwest of Makemie Park. Owner: Virginia Water Control Board.

AQUIFER.--St. Mary-Choptank aquifer of Miocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 508 ft, screened 498 to 508 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.85 ft above land-surface datum.

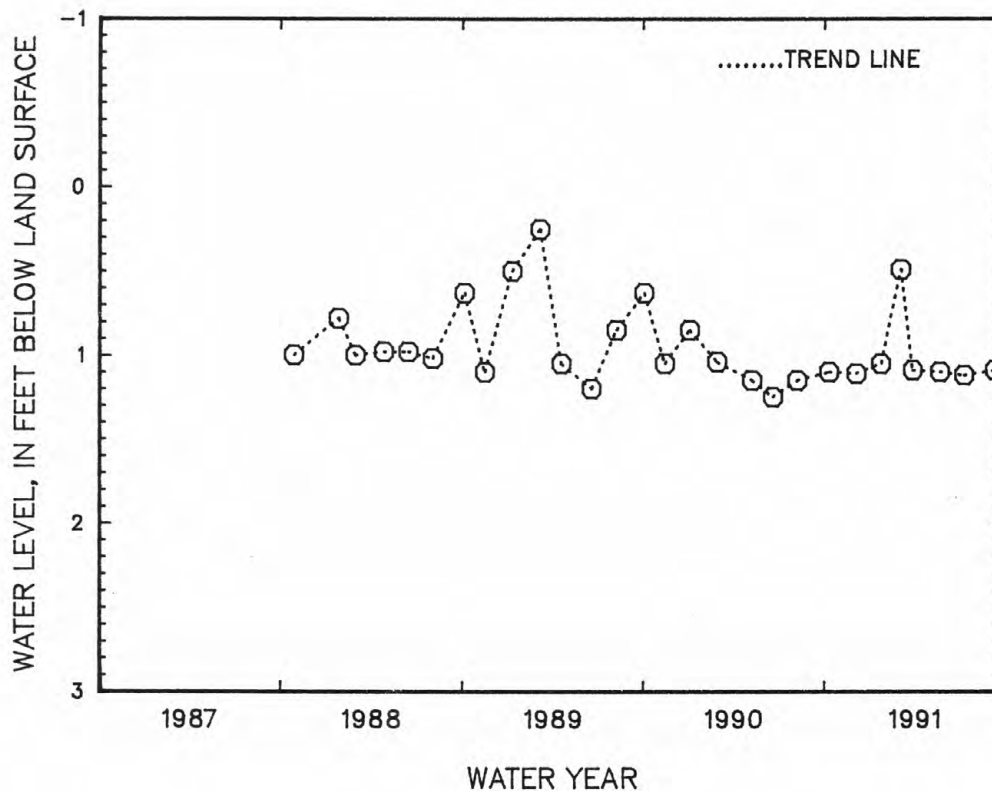
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--October 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.25 ft below land-surface datum, Mar. 7, 1989; lowest measured, 1.25 ft below land-surface datum, June 19, 1990.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 1.10        | JAN 23  | 1.05        | MAR 28       | 1.09        | MAY 22 | 1.10        | JUL 10       | 1.12        | SEP 10 | 1.09        |
| DEC 04          | 1.11        | MAR 04  | .49         |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 0.49        | MAR 04, 1991 |             | LOWEST | 1.12        | JUL 10, 1991 |             |        |             |



## GROUND-WATER LEVELS

## ACCOMACK COUNTY

375610075361803. Local number, 66M 25 SOW 181C.

LOCATION.--Lat 37°56'10", long 75°36'18", Hydrologic Unit 02080109, 100 ft south of State Highway 703, 0.1 mi east of intersection of State Highways 701 and 703, and 2.7 mi northwest of Makemie Park. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 340 ft, screened 330 to 340 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.95 ft above land-surface datum.

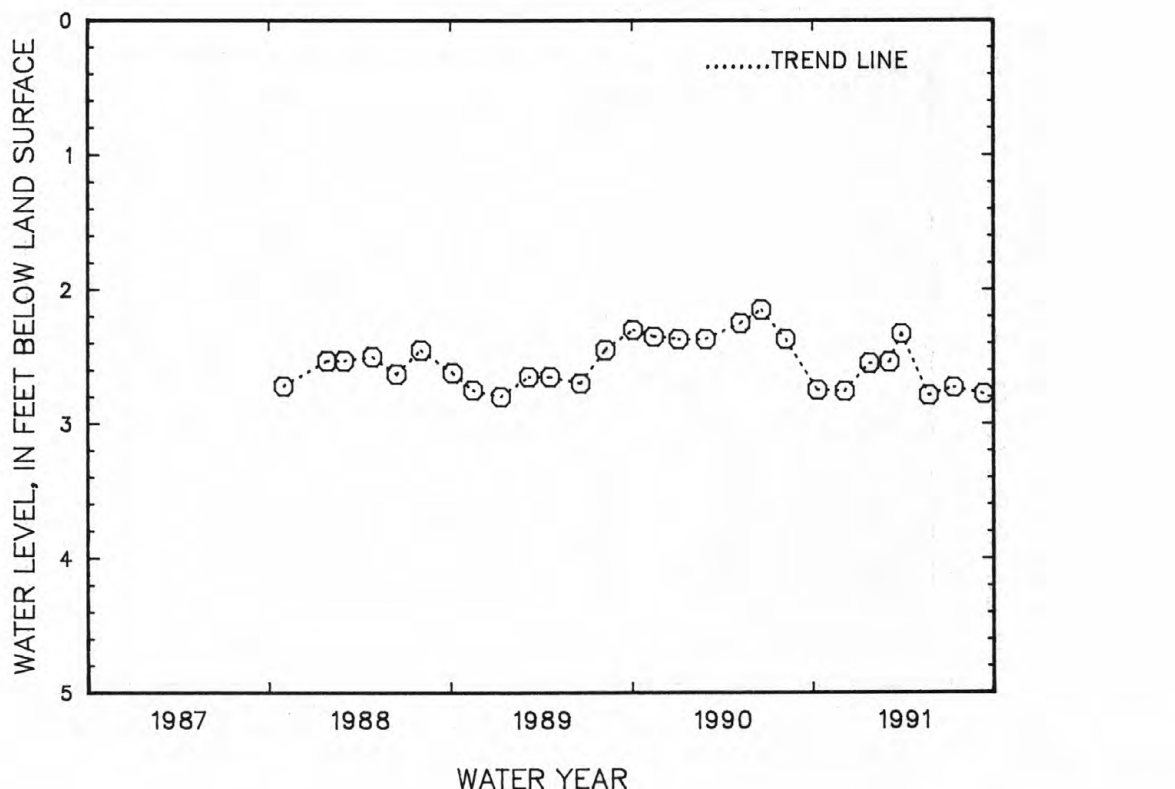
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--October 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.15 ft below land-surface datum, June 19, 1990; lowest measured, 2.80 ft below land-surface datum, Jan. 10, 1989.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 10          | 2.75        | JAN 23  | 2.55        | MAR 28       | 2.33        | MAY 22 | 2.79         | JUL 11 | 2.73        | SEP 10 | 2.78        |
| DEC 04          | 2.76        | MAR 04  | 2.54        |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 2.33        | MAR 28, 1991 | LOWEST      | 2.79   | MAY 22, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

65

## ACCOMACK COUNTY

375610075361804. Local number, 66M 26 SOW 181D.

LOCATION.--Lat 37°56'10", long 75°36'18", Hydrologic Unit 02080109, 100 ft south of State Highway 703, 0.1 mi east of intersection of State Highways 701 and 703, and 2.7 mi northwest of Makemie Park. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 230 ft, screened 220 to 230 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

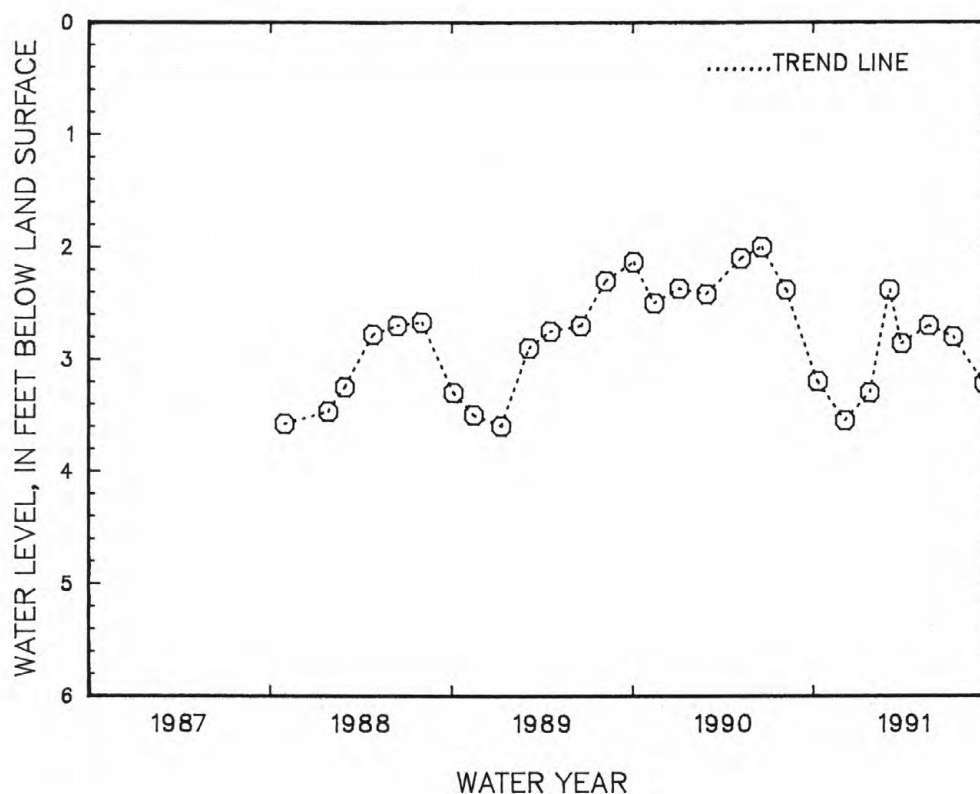
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--October 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.00 ft below land-surface datum, June 19, 1990; lowest measured, 3.60 ft below land-surface datum, Jan. 10, 1989.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 3.20        | JAN 23  | 3.30        | MAR 28       | 2.86        | MAY 22 | 2.70        | JUL 10       | 2.80        | SEP 10 | 3.22        |
| DEC 04          | 3.55        | MAR 04  | 2.38        |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 2.38        | MAR 04, 1991 |             | LOWEST | 3.55        | DEC 04, 1990 |             |        |             |





## GROUND-WATER LEVELS

## ACCOMACK COUNTY

375610075361805. Local number, 66M 27 SOW 181E.

LOCATION.--Lat 37°56'10", long 75°36'18", Hydrologic Unit 02080109, 100 ft south of State Highway 703, 0.1 mi east of intersection of State Highways 701 and 703, and 2.7 mi northwest of Makemie Park. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 30 ft, screened 20 to 30 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.9 ft above land-surface datum.

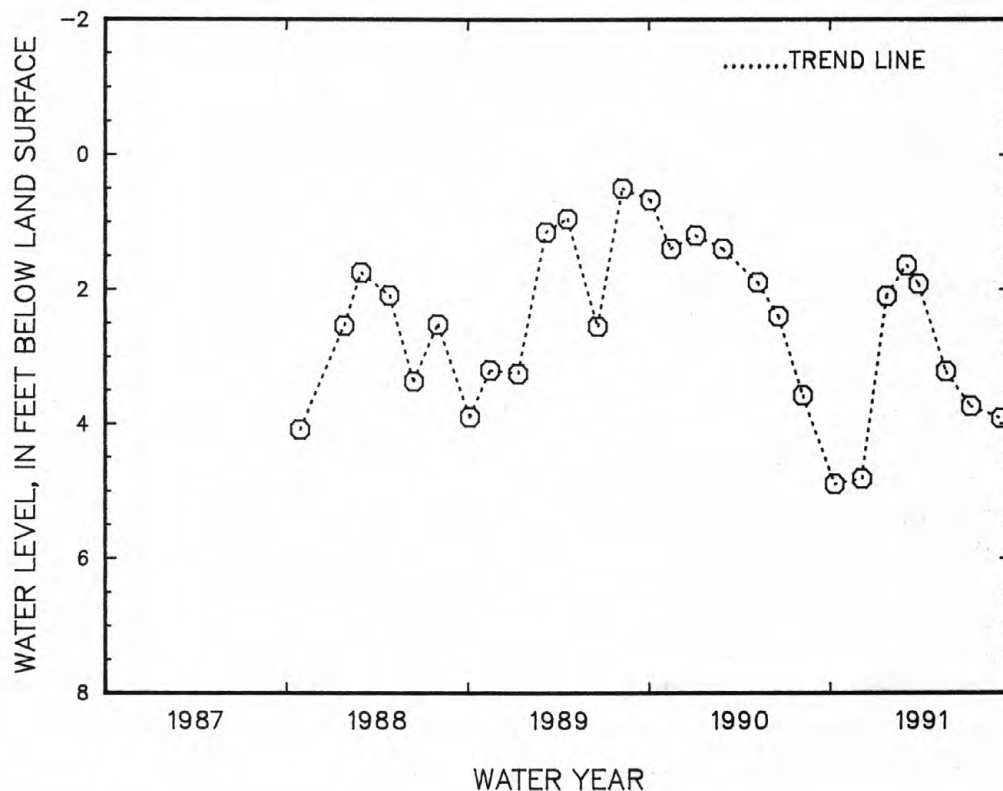
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--October 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.50 ft below land-surface datum, Aug. 8, 1989; lowest measured, 4.90 ft below land-surface datum, Oct. 10, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE                      | WATER LEVEL | DATE                     | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------------------------|-------------|--------------------------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 10          | 4.90        | JAN 23                    | 2.10        | MAR 28                   | 1.92        | MAY 22 | 3.22        | JUL 11 | 3.74        | SEP 10 | 3.92        |
| DEC 04          | 4.82        | MAR 04                    | 1.64        |                          |             |        |             |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST 1.64 MAR 04, 1991 |             | LOWEST 4.90 OCT 10, 1990 |             |        |             |        |             |        |             |



## GROUND-WATER LEVELS

67

## ACCOMACK COUNTY

375622075280101. Local number, 67M 2.

LOCATION.--Lat 37°56'23", long 75°28'02", Hydrologic Unit 02060010, well B31 Wallops Flight Center, 5.0 mi west of Chincoteague. Owner: National Aeronautics and Space Administration (formerly U.S. Naval Air Station, Wallops Island).

AQUIFER.--Columbia Group sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 8 in., depth 60 ft, screen depth unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape by National Aeronautics and Space Administration personnel.

DATUM.--Elevation of land-surface datum is 35 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.38 ft above land-surface datum.

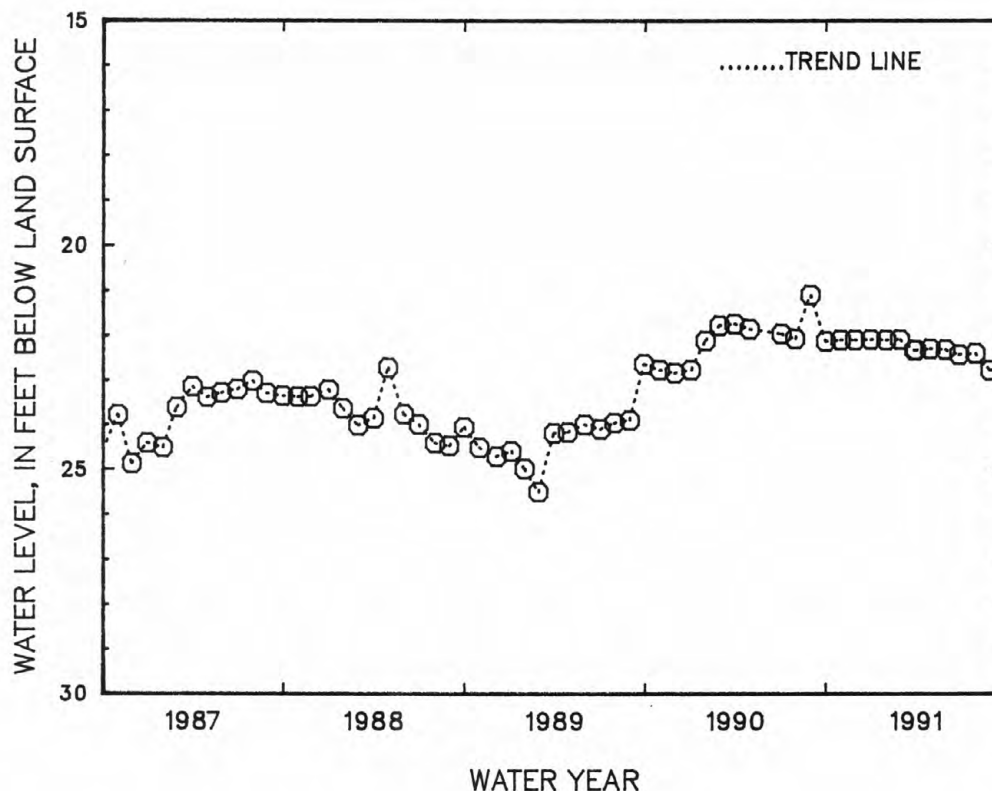
REMARKS.--Records provided by the National Aeronautics and Space Administration. Water levels for water years 1963 to 1974 should be 4.71 ft lower than previously published.

PERIOD OF RECORD.--May 1963 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.82 ft below land-surface datum, July 2, 1979; lowest measured, 27.02 ft below land-surface datum, Jan. 20, 1967.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE                       | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|----------------------------|-------------|--------|-------------|--------|--------------|--------|-------------|
| OCT 01          | 22.14       | NOV 29  | 22.11       | JAN 31                     | 22.11       | APR 01 | 22.34       | MAY 31 | 22.33        | JUL 31 | 22.41       |
| 31              | 22.11       | DEC 31  | 22.10       | FEB 28                     | 22.10       | 30     | 22.31       | JUL 01 | 22.44        | AUG 30 | 22.79       |
| WATER YEAR 1991 |             | HIGHEST | 22.10       | DEC 31, 1990, FEB 28, 1991 |             |        | LOWEST      | 22.79  | AUG 30, 1991 |        |             |



## GROUND-WATER LEVELS

## ACCOMACK COUNTY

375635075271501. Local number, 67M 10 SOW 115A.

LOCATION.--Lat 37°56'35", long 75°27'15", Hydrologic Unit 02060010, 200 ft east of State Highway 175, 2.4 mi east of Wattsville, and 2.5 mi northeast of intersection of State Highways 175 and 798. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 52 ft, screened 32 to 52 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 13 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.7 ft above land-surface datum prior to Feb. 28, 1988; 1.7 ft thereafter.

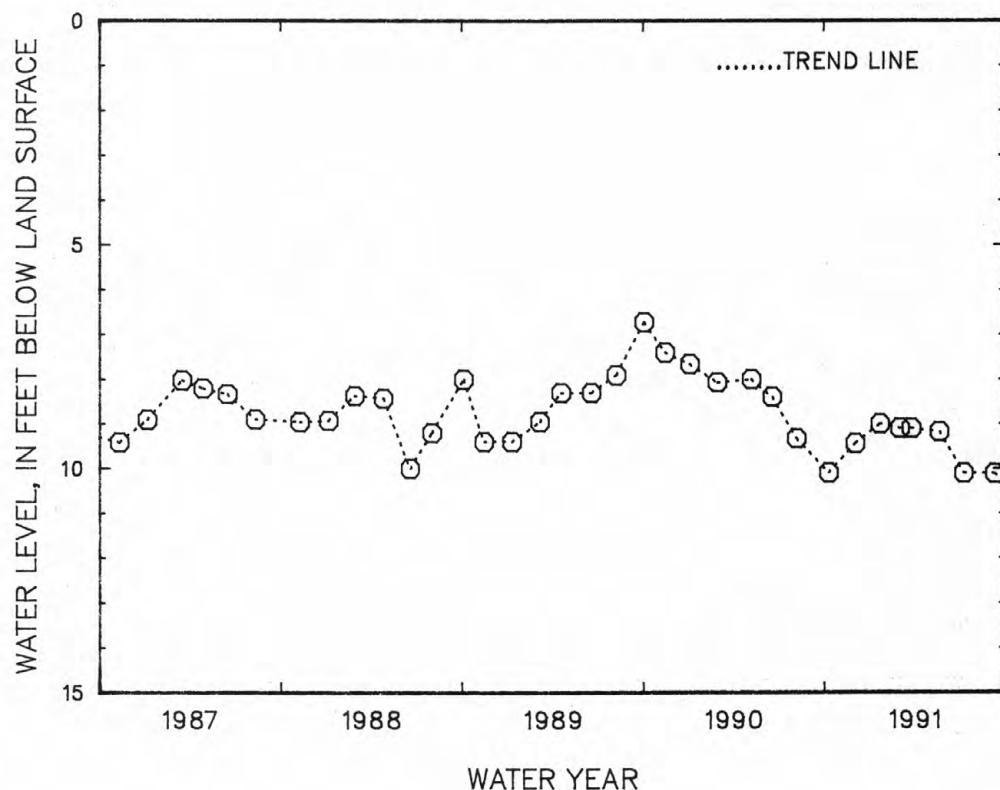
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--March 1981 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.72 ft below land-surface datum, Oct. 3, 1989; lowest measured, 10.12 ft below land-surface datum, Sept. 10, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 11          | 10.10       | JAN 23  | 9.00        | MAR 27       | 9.10        | MAY 22 | 9.18        | JUL 10       | 10.11       | SEP 10 | 10.12       |
| DEC 04          | 9.44        | MAR 04  | 9.10        |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 9.00        | JAN 23, 1991 |             | LOWEST | 10.12       | SEP 10, 1991 |             |        |             |



## GROUND-WATER LEVELS

69

## ACCOMACK COUNTY

375635075271502. Local number, 67M 11 SOW 115B.

LOCATION.--Lat 37°56'35", long 75°27'15", Hydrologic Unit 02060010, 200 ft east of State Highway 175, 2.4 mi east of Wattsville, and 2.5 mi northeast of intersection of State Highways 175 and 798. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 138 ft, screened 118 to 138 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 14 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.6 ft above land-surface datum prior to Feb. 29, 1988; 1.9 ft thereafter.

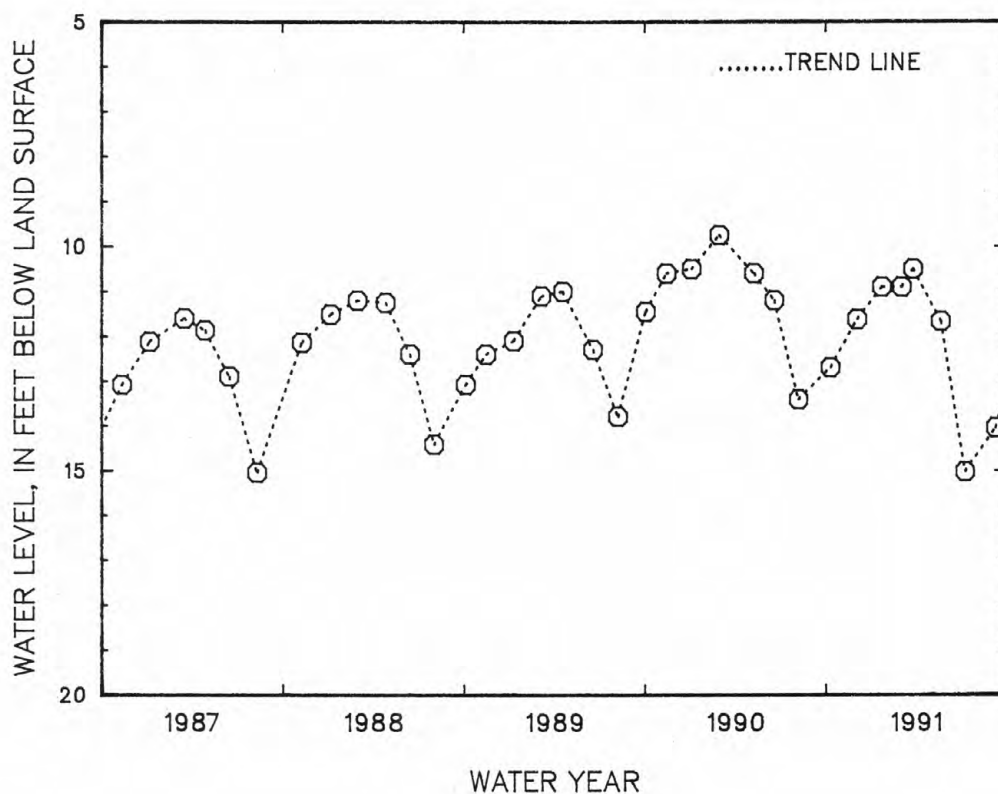
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

PERIOD OF RECORD.--March 1981 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.70 ft below land-surface datum, May 6, 1982; lowest measured, 15.45 ft below land-surface datum, Aug. 5, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 11          | 12.70       | JAN 23  | 10.90       | MAR 27       | 10.50       | MAY 22 | 11.69       | JUL 10       | 15.03       | SEP 10 | 14.05       |
| DEC 04          | 11.62       | MAR 04  | 10.90       |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 10.50       | MAR 27, 1991 |             | LOWEST | 15.03       | JUL 10, 1991 |             |        |             |



## GROUND-WATER LEVELS

## ACCOMACK COUNTY

375635075271503. Local number, 67M 12 SOW 115C.

LOCATION.--Lat 37°56'35", long 75°27'15", Hydrologic Unit 02060010, 200 ft east of State Highway 175, 2.4 mi east of Wattsville, and 2.5 mi northeast of intersection of State Highways 175 and 798. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 222 ft, screened 202 to 222 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to Nov. 15, 1985, occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 13 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 2.35 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water levels affected by local pumpage.

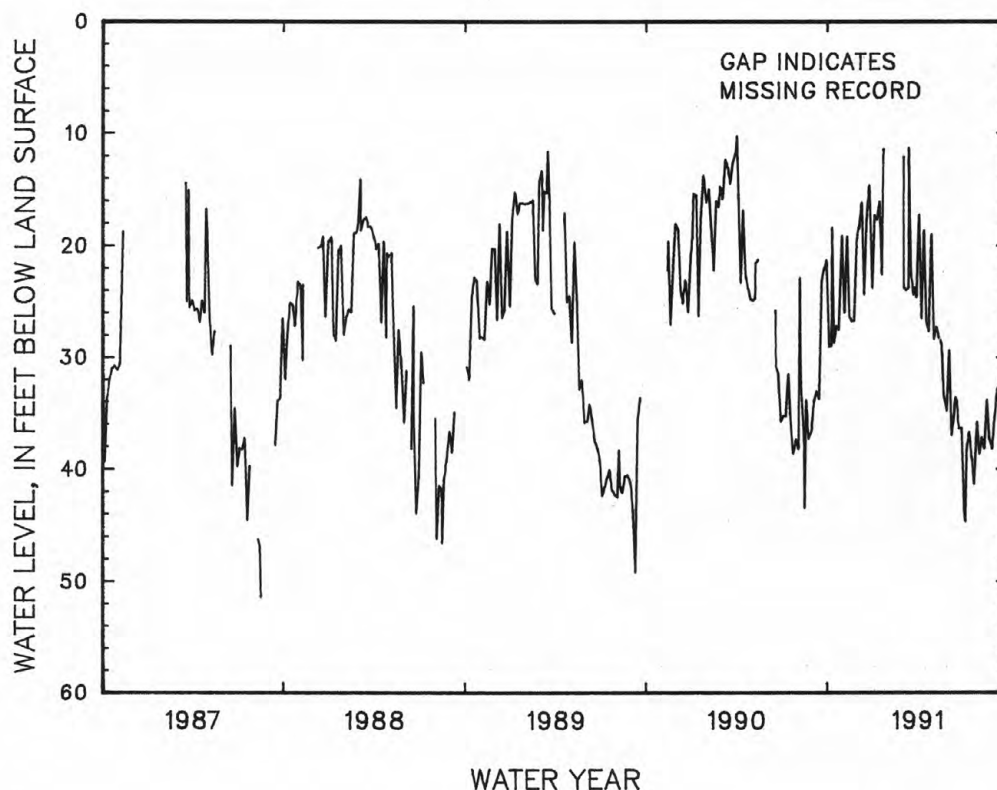
PERIOD OF RECORD.--March 1981 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 10.28 ft below land-surface datum, Apr. 2, 1990; lowest recorded, 51.40 ft below land-surface datum, Aug. 17, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|-------|
| 5   | 29.03 | 26.01 | 18.44 | 17.29 | --- | 23.81 | 17.24 | 28.38 | 29.38 | 43.91 | 38.65 | 35.39 |
| 10  | 29.00 | 19.20 | 16.19 | 17.68 | --- | 23.99 | 26.54 | 27.35 | 37.04 | 38.25 | 37.23 | 32.88 |
| 15  | 28.70 | 26.41 | 24.38 | 16.13 | --- | 23.80 | 18.65 | 28.20 | 35.23 | 36.75 | 38.15 | 32.34 |
| 20  | 27.20 | 26.75 | 17.75 | 22.60 | --- | 22.55 | 26.88 | 28.72 | 33.95 | 38.83 | 33.88 | 30.69 |
| 25  | 27.50 | 26.73 | 14.65 | ---   | --- | 24.39 | 27.65 | 33.52 | 36.40 | 41.32 | 37.37 | 30.86 |
| EOM | 19.15 | 19.40 | 23.80 | ---   | --- | 24.61 | 19.00 | 34.80 | 36.40 | 35.82 | 38.21 | 31.01 |

WATER YEAR 1991      HIGHEST 11.31 MAR 15, 1991      LOWEST 44.65 JUL 07, 1991





## GROUND-WATER LEVELS

71

## ACCOMACK COUNTY

375635075271504. Local number, 67M 13 SOW 115D.

LOCATION.--Lat 37°56'35", long 75°27'15", Hydrologic Unit 02060010, 50 ft east of State Highway 175, 2.4 mi east of Wattsville, and 2.6 mi northeast of intersection of State Highways 175 and 798. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 249 ft, screened 229 to 249 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to Oct. 5, 1985, occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 16 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.8 ft above land-surface datum prior to Aug. 8, 1989; 1.5 ft thereafter.

REMARKS.--Records provided by the Virginia Water Control Board. Water levels affected by local pumpage.

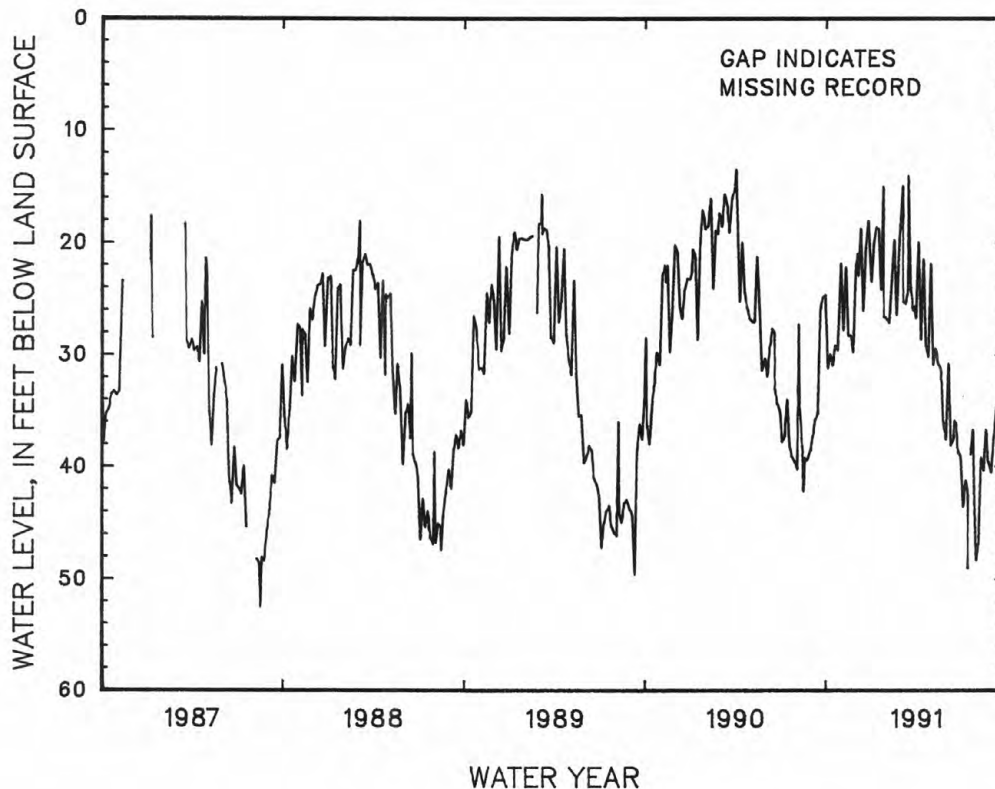
PERIOD OF RECORD.--March 1981 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 13.45 ft below land-surface datum, Apr. 2, 1990; lowest recorded, 52.52 ft below land-surface datum, Aug. 17, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 31.20 | 27.82 | 22.90 | 19.98 | 27.14 | 25.34 | 20.00 | 30.90 | 30.80 | 43.62 | 46.92 | 37.43 |
| 10  | 30.00 | 22.18 | 18.75 | 18.68 | 23.40 | 25.45 | 28.61 | 29.48 | 38.18 | 41.28 | 39.20 | 34.73 |
| 15  | 30.94 | 28.29 | 26.07 | 18.79 | 19.75 | 24.29 | 21.50 | 30.81 | 37.57 | 42.62 | 40.33 | 34.85 |
| 20  | 29.22 | 28.35 | 20.50 | 24.22 | 26.44 | 23.93 | 29.25 | 31.28 | 36.12 | 38.88 | 36.70 | 32.70 |
| 25  | 29.53 | 29.76 | 18.10 | 26.67 | 20.15 | 26.03 | 30.16 | 36.04 | 38.78 | 36.71 | 39.59 | 33.18 |
| EQM | 21.82 | 22.12 | 23.50 | 26.84 | 18.28 | 26.72 | 21.90 | 37.57 | 39.11 | 48.34 | 40.50 | 33.40 |

WATER YEAR 1991      HIGHEST 14.04 MAR 15, 1991      LOWEST 49.03 JUL 13, 1991



## GROUND-WATER LEVELS

## ACCOMACK COUNTY

375617075273701. Local number, 67M 14 SOW 115E.

LOCATION.--Lat 37°56'17", long 75°27'37", Hydrologic Unit 02060010, 100 ft west of State Highway 175, inside fence of NASA Wallops Flight Center, 2.1 mi northeast of intersection of State Highways 175 and 798, and 2.1 mi east of Wattsville. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 280 ft, screened 260 to 280 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to Oct. 5, 1985, occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 26 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 1.3 ft above land-surface datum prior to Aug. 8, 1989; 1.5 ft thereafter.

REMARKS.--Records provided by the Virginia Water Control Board. Water levels affected by local pumpage.

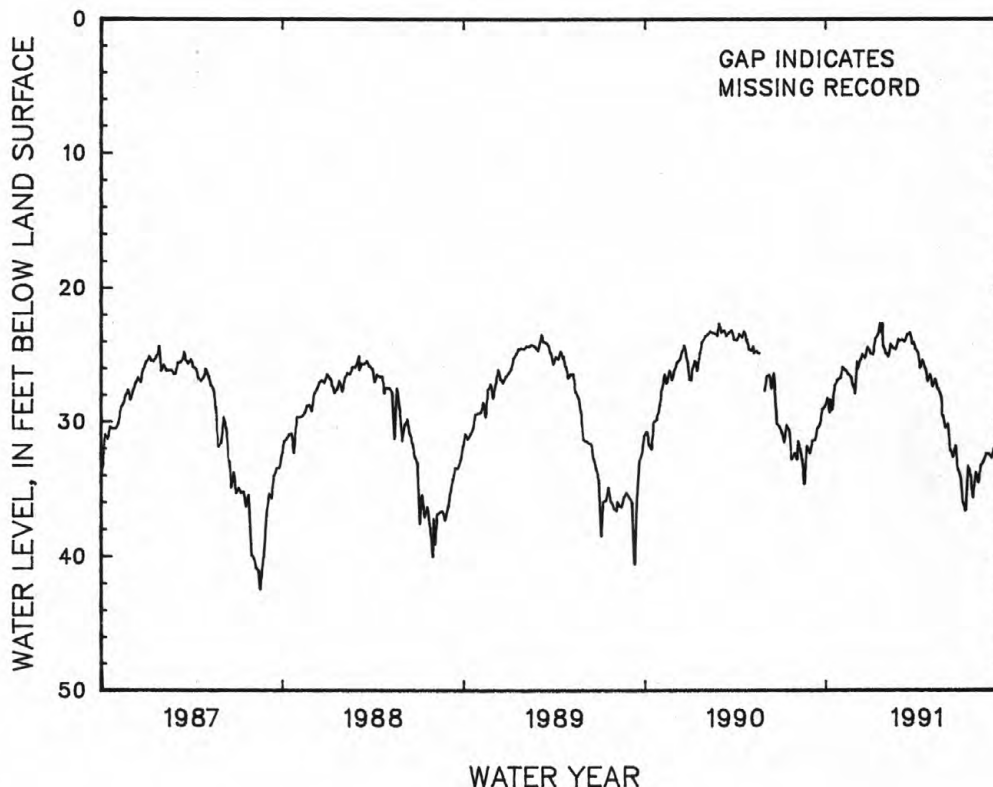
PERIOD OF RECORD.--February 1982 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.45 ft below land-surface datum, June 9, 1982; lowest recorded, 42.45 ft below land-surface datum, Aug. 17, 18, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 28.29 | 25.95 | 26.03 | 24.96 | 25.12 | 23.87 | 24.81 | 27.39 | 30.27 | 36.09 | 34.55 | 32.06 |
| 10  | 29.30 | 26.14 | 25.45 | 23.75 | 24.20 | 24.00 | 25.99 | 26.89 | 32.18 | 36.63 | 33.25 | 32.22 |
| 15  | 29.11 | 26.42 | 25.01 | 23.49 | 24.49 | 23.50 | 25.45 | 27.55 | 32.66 | 33.32 | 32.98 | 31.45 |
| 20  | 27.34 | 26.59 | 25.20 | 23.26 | 24.57 | 23.35 | 25.99 | 27.92 | 31.88 | 34.02 | 32.42 | 31.08 |
| 25  | 26.90 | 27.24 | 24.45 | 24.30 | 23.87 | 24.16 | 26.96 | 29.57 | 33.63 | 35.67 | 32.42 | 30.34 |
| EQM | 26.73 | 27.87 | 24.88 | 24.90 | 23.92 | 24.54 | 26.54 | 30.46 | 34.14 | 33.83 | 32.69 | 30.36 |

WATER YEAR 1991      HIGHEST 22.67 JAN 19, 1991      LOWEST 36.65 JUL 09, 1991



## GROUND-WATER LEVELS

73

## ALBEMARLE COUNTY

380333078264801. Local number, 43N 1 SOW 028.

LOCATION.--Lat 38°03'33", long 78°26'48", Hydrologic Unit 02080204, at Key West Subdivision, 1.1 mi east of Charlottesville. Owner: Key West Development Corporation.

AQUIFER.--Lynchburg Formation of Precambrian age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in., depth 409 ft, cased to 52 ft, open hole 52 to 409 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. June 25, 1974, to Apr. 10, 1981, occasional measurement with chalked tape by Virginia Water Control Board personnel. Prior to June 25, 1974, continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 345 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.2 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board.

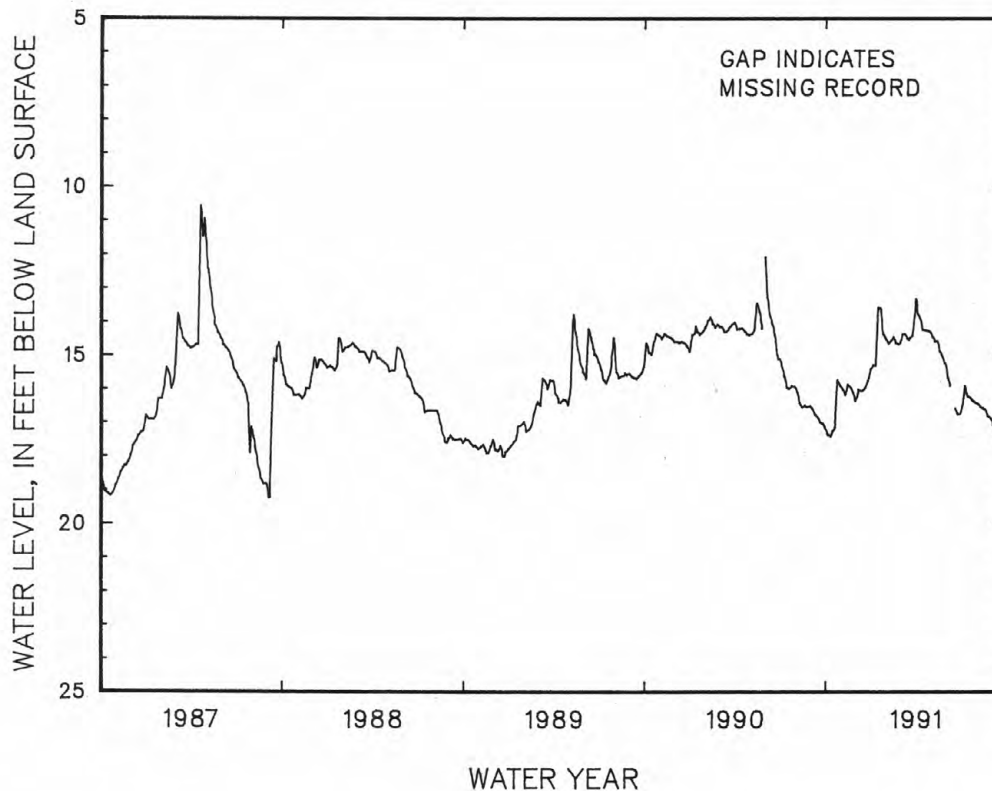
PERIOD OF RECORD.--February 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 8.65 ft below land-surface datum, May 3, 1984; lowest recorded, 22.10 ft below land-surface datum, Nov. 30, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 17.36 | 16.02 | 16.17 | 15.30 | 14.66 | 14.39 | 13.76 | 14.45 | 15.66 | 16.50 | 16.45 | 17.08 |
| 10  | 17.40 | 16.17 | 16.06 | 15.32 | 14.58 | 14.37 | 13.90 | 14.58 | 15.90 | 15.92 | 16.54 | 17.20 |
| 15  | 17.28 | 15.89 | 16.06 | 13.57 | 14.47 | 14.49 | 14.23 | 14.58 | ---   | 16.22 | 16.59 | 17.45 |
| 20  | 17.17 | 15.95 | 15.97 | 13.59 | 14.64 | 14.50 | 14.26 | 14.89 | 16.60 | 16.26 | 16.63 | 17.62 |
| 25  | 15.72 | 16.09 | 15.78 | 14.37 | 14.68 | 14.42 | 14.28 | 15.02 | 16.75 | 16.35 | 16.81 | 17.75 |
| EQM | 15.90 | 16.36 | 15.42 | 14.53 | 14.66 | 13.70 | 14.30 | 15.25 | 16.76 | 16.42 | 16.88 | 18.10 |

WATER YEAR 1991      HIGHEST 13.33 APR 01, 02, 1991      LOWEST 18.10 SEP 30, 1991



## GROUND-WATER LEVELS

## AMELIA COUNTY

372709077585801. Local number, 47H 1 SOW 166.

LOCATION.--Lat 37°27'09", long 77°58'58", Hydrologic Unit 02080207, 800 ft north of State Highway 616, 0.95 mi west of intersection of State Highways 609 and 616, and 2.3 mi east of Lodore. Owner: R. K. Anderson.

AQUIFER.--Saprolite of Wissahickon Schist.

WELL CHARACTERISTICS.--Dug unused water well, diameter 48 in., depth 44 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 2, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 340 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, at land-surface datum.

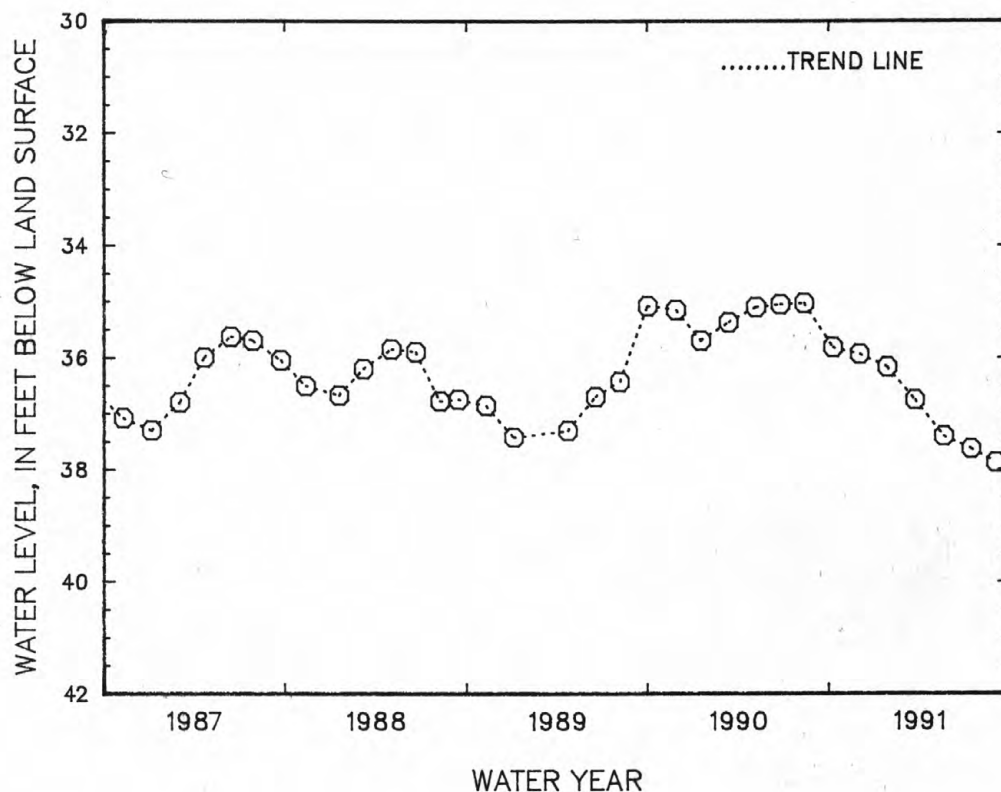
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--May 1983 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.86 ft below land-surface datum, July 30, 1984; lowest measured, 37.88 ft below land-surface datum, Sept. 4, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 35.82       | JAN 28  | 36.17       | MAR 25       | 36.76       | MAY 22 | 37.40       | JUL 16       | 37.63       | SEP 04 | 37.88       |
| DEC 03          | 35.94       |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 35.82       | OCT 10, 1990 |             | LOWEST | 37.88       | SEP 04, 1991 |             |        |             |



## GROUND-WATER LEVELS

75

## APPOMATTOX COUNTY

372133078493701. Local number, 40G 1 SOW 012.

LOCATION.--Lat 37°21'33", long 78°49'37", Hydrologic Unit 02080207, 0.45 mi east of State Highway 131, 300 ft north of U.S. Highway 460 in the town of Appomattox. Owner: Town of Appomattox.

AQUIFER.--Metamorphic rock of uncertain age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 8 in., depth 288 ft, cased to 40 ft, open hole 40 to 288 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to Oct. 15, 1967, one measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 860 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board.

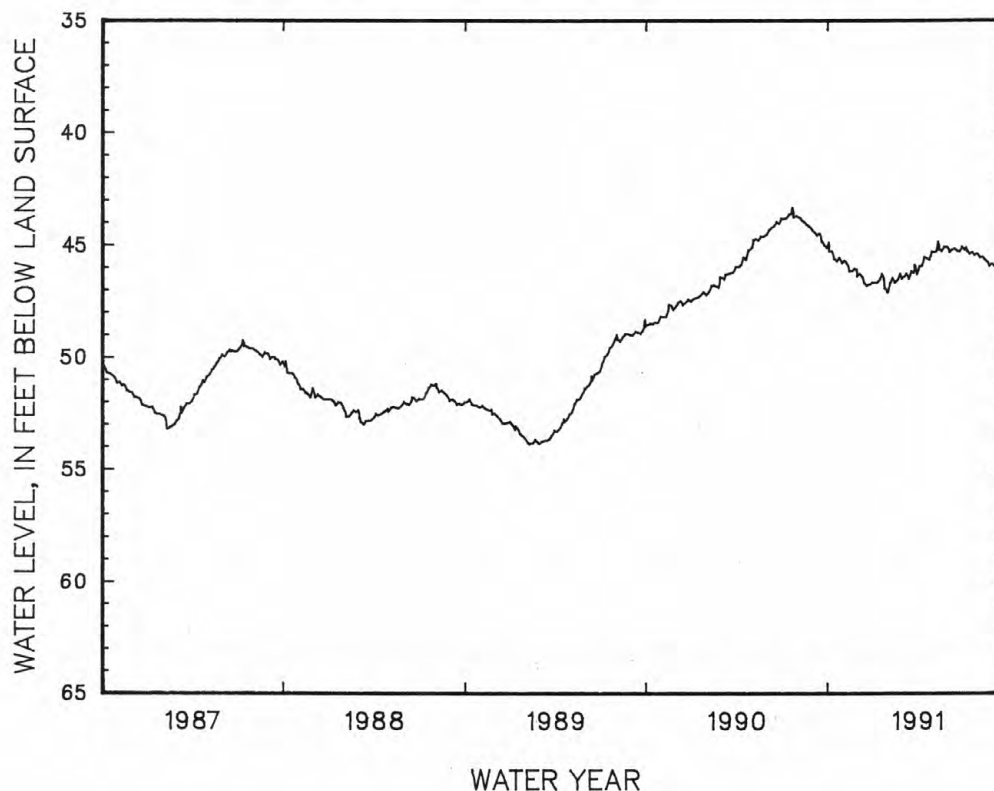
PERIOD OF RECORD.--May 1949, October 1967 to current year. Unpublished record available May 1949 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 34.78 ft below land-surface datum, June 13, 1973; lowest recorded, 58.21 ft below land-surface datum, Nov. 17, 18, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 45.28 | 45.70 | 46.30 | 46.71 | 46.72 | 46.43 | 45.99 | 45.32 | 45.32 | 45.22 | 45.55 | 45.99 |
| 10  | 45.29 | 45.85 | 46.40 | 46.69 | 46.50 | 46.30 | 45.95 | 45.30 | 45.22 | 45.27 | 45.55 | 46.07 |
| 15  | 45.62 | 46.17 | 46.70 | 46.56 | 46.68 | 46.51 | 45.55 | 45.20 | 45.18 | 45.41 | 45.67 | 46.18 |
| 20  | 45.72 | 46.16 | 46.82 | 46.32 | 46.60 | 46.20 | 45.60 | 45.28 | 45.28 | 45.35 | 45.76 | 46.35 |
| 25  | 45.59 | 46.07 | 46.78 | 46.94 | 46.31 | 46.24 | 45.67 | 45.11 | 45.31 | 45.46 | 45.95 | 46.11 |
| EOM | 45.80 | 46.39 | 46.70 | 47.12 | 46.50 | 46.30 | 45.33 | 45.09 | 45.11 | 45.40 | 45.89 | 46.50 |

WATER YEAR 1991      HIGHEST 44.89 MAY 13, 1991      LOWEST 47.12 JAN 31, FEB 01, 1991





## GROUND-WATER LEVELS

## APPOMATTOX COUNTY

372514078394301. Local number, 41H 2.

LOCATION.--Lat 37°25'14", long 78°39'43", Hydrologic Unit 02080207, 1.0 mi south of intersection of State Highway 636 on the east side of State Highway 640, 2.8 mi southeast of Sliders. Owner: U.S. Geological Survey.

AQUIFER.--Candler Formation of Paleozoic age.

WELL CHARACTERISTICS.--Augered observation water well, diameter 3 in. to 68 ft, diameter 1.25 in. from 68 to 73 ft, depth 73 ft, screened 68 to 73 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel. August 1970 to October 1974, digital recorder--60-minute punch. Prior to August 1970, occasional measurement with chalked tape.

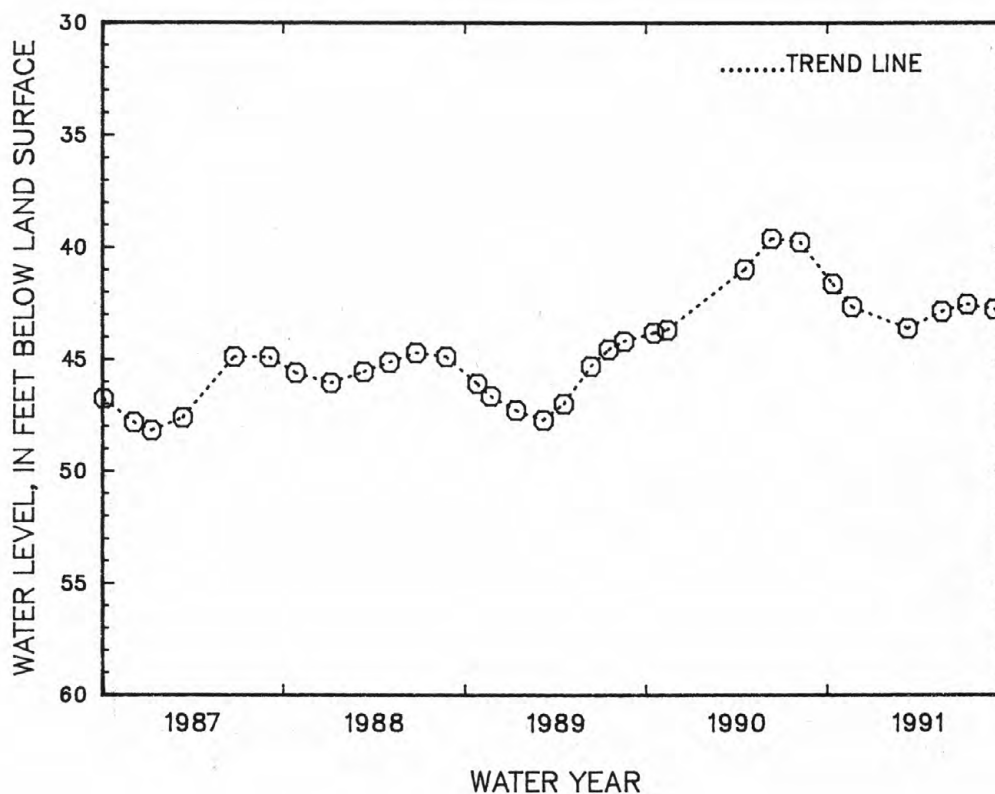
DATUM.--Elevation of land-surface datum is 640 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--March 1970 to current year. Unpublished records available prior to October 1977 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 32.99 ft below land-surface datum, May 20, 1973; lowest measured, 49.41 ft below land-surface datum, Mar. 30, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 12          | 41.63       | NOV 20  | 42.65       | MAR 13       | 43.62       | MAY 21 | 42.86       | JUL 11       | 42.54       | SEP 04 | 42.77       |
| WATER YEAR 1991 |             | HIGHEST | 41.63       | OCT 12, 1990 |             | LOWEST | 43.62       | MAR 13, 1991 |             |        |             |



## GROUND-WATER LEVELS

77

## ARLINGTON COUNTY

385346077073701. Local number, 53V 1.

LOCATION.--Lat 38°53'46", long 77°07'37", Hydrologic Unit 02070010, at Langston School, 4854 Lee Highway in Arlington. Owner: Arlington County School Board.

AQUIFER.--Brandywine Formation of Pleistocene age and Bryn Mawr (?) Gravel of Pliocene (?) age, overlying the Sykesville Formation of Precambrian age.

WELL CHARACTERISTICS.--Dug unused water well, diameter 24 in., depth 35 ft, terracotta casing.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel. Prior to Oct. 1, 1989, bimonthly measurement with chalked tape.

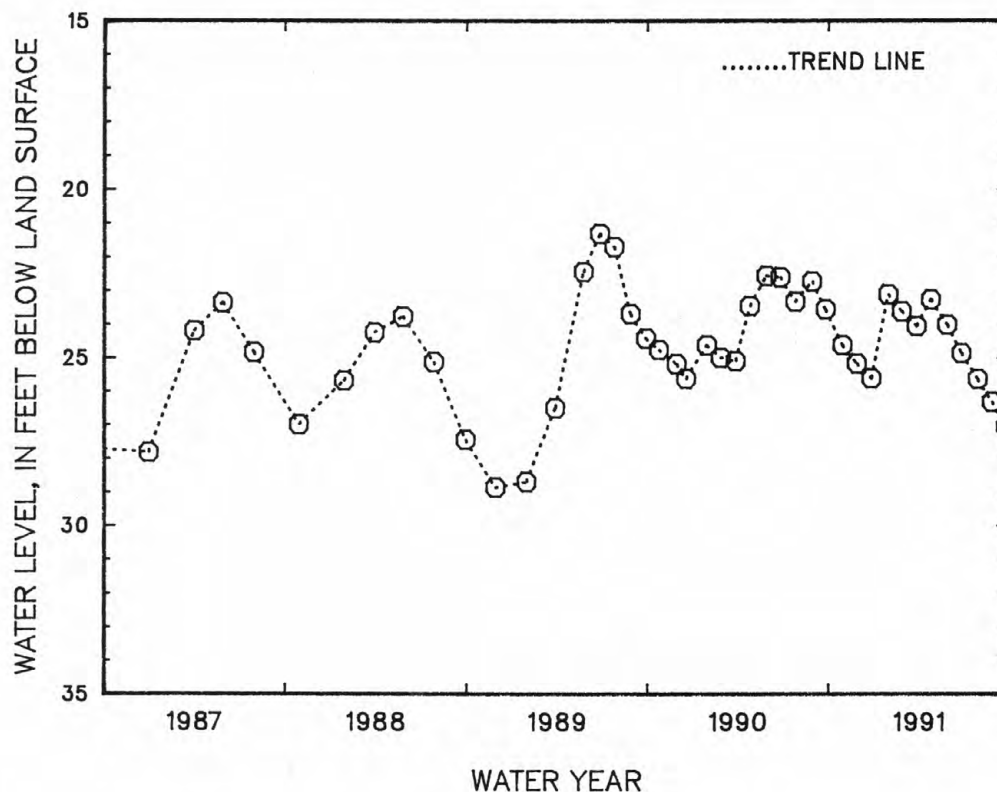
DATUM.--Elevation of land-surface datum is 410 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Inner flange of manhole, at land-surface datum.

PERIOD OF RECORD.--October 1931 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.74 ft below land-surface datum, Apr. 20, 1935; lowest measured, 34.81 ft below land-surface datum, Dec. 5, 1931.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 29          | 24.63       | DEC 26  | 25.62       | FEB 25       | 23.62       | APR 25 | 23.27        | JUN 26 | 24.87       | AUG 27 | 26.33       |
| NOV 27          | 25.18       | JAN 29  | 23.12       | MAR 27       | 24.06       | MAY 28 | 24.02        | JUL 29 | 25.64       | SEP 24 | 27.07       |
| WATER YEAR 1991 |             | HIGHEST | 23.12       | JAN 29, 1991 | LOWEST      | 27.07  | SEP 24, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

## ARLINGTON COUNTY

385253077042301. Local number, 54V 3.

LOCATION.--Lat 38°52'53", long 77°04'23", Hydrologic Unit 02070010, at Arlington National Cemetery in Arlington.  
Owner: National Park Service, National Capitol Parks.

AQUIFER.--Terrace gravels of Holocene age and sand of Early Cretaceous age.

WELL CHARACTERISTICS.--Dug unused water well, diameter 48 in., depth 50 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel. Prior to Oct. 1, 1989, bimonthly measurement with chalked tape.

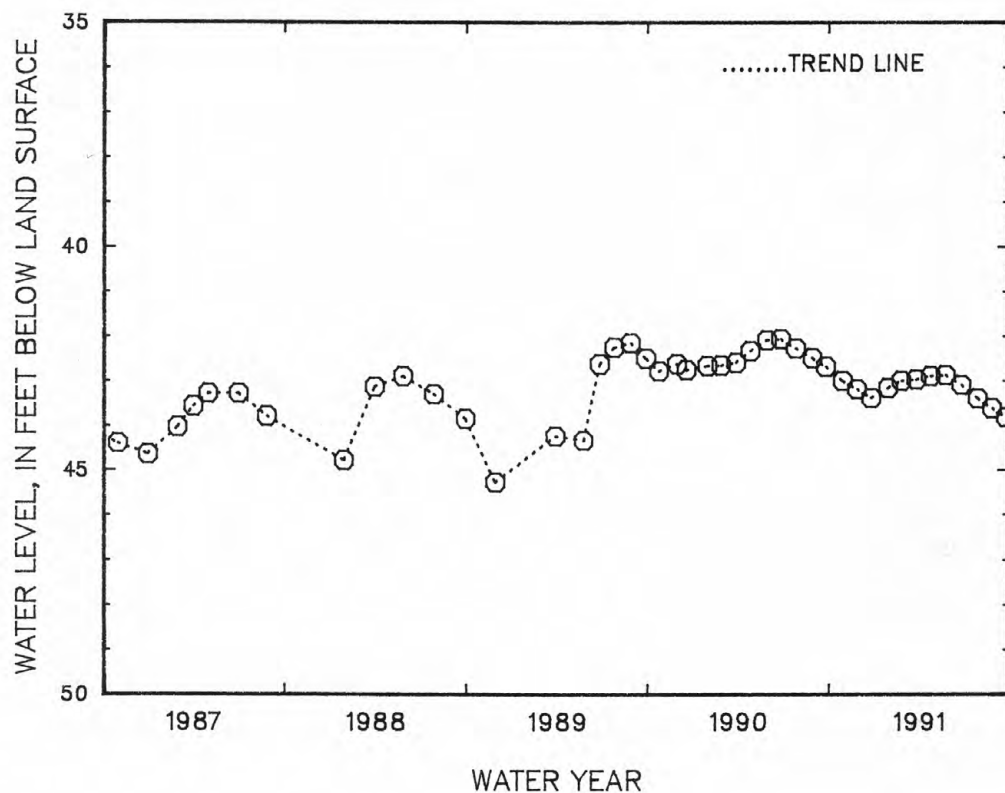
DATUM.--Elevation of land-surface datum is 205 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of brick and stone casing, 3.0 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.34 ft below land-surface datum, June 26, 1978;  
lowest measured, 45.28 ft below land-surface datum, Nov. 28, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 29          | 43.00       | DEC 26  | 43.39       | FEB 25       | 43.00       | APR 25 | 42.89        | JUN 26 | 43.09       | AUG 27 | 43.62       |
| NOV 27          | 43.19       | JAN 29  | 43.16       | MAR 27       | 42.97       | MAY 25 | 42.87        | JUL 29 | 43.40       | SEP 24 | 43.82       |
| WATER YEAR 1991 |             | HIGHEST | 42.87       | MAY 25, 1991 | LOWEST      | 43.82  | SEP 24, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

79

## AUGUSTA COUNTY

382523078535501. Local number, 38P 1 SOW 070.

LOCATION.--Lat 38°07'48", long 79°04'07", Hydrologic Unit 02070005, 100 ft east of State Highway 613, 0.5 mi south of intersection of State Highway 613 and U.S. Highway 11, and 0.9 mi south of Dogwood Hill. Owner: Augusta County Water Authority.

AQUIFER.--Beekmantown Group of Early Ordovician age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 8 in. to 30 ft, diameter 6 in. from 30 to 97 ft, depth 250 ft, open hole from 97 to 250 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to Jan. 10, 1974, occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 1,490 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board.

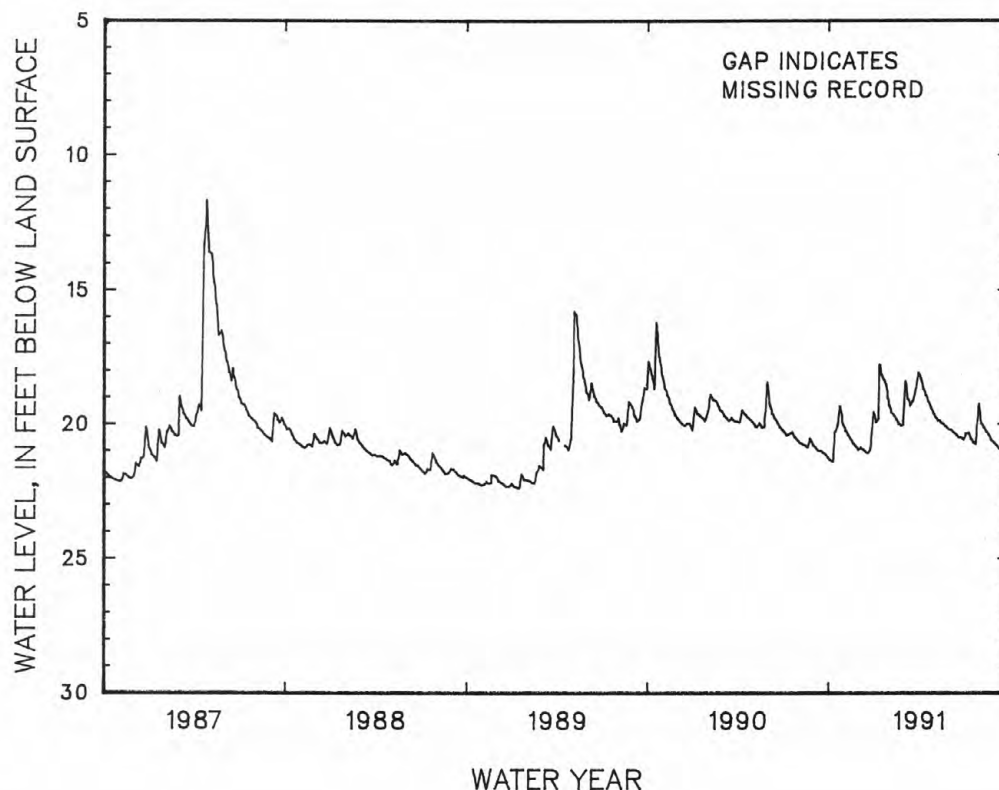
PERIOD OF RECORD.--December 1973 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 11.70 ft below land-surface datum, Apr. 25, 1987; lowest recorded, 27.02 ft below land-surface datum, Oct. 16, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 21.36 | 20.24 | 20.90 | 19.92 | 19.56 | 18.40 | 18.29 | 19.75 | 20.23 | 20.38 | 19.98 | 20.81 |
| 10  | 21.41 | 20.41 | 20.96 | 19.80 | 19.68 | 19.06 | 18.68 | 19.89 | 20.32 | 20.34 | 20.11 | 20.92 |
| 15  | 20.30 | 20.57 | 21.05 | 18.13 | 19.83 | 19.31 | 18.91 | 19.95 | 20.41 | 20.56 | 20.28 | 21.00 |
| 20  | 20.08 | 20.73 | 21.10 | 18.31 | 20.00 | 19.18 | 19.15 | 20.00 | 20.51 | 20.70 | 20.41 | 21.10 |
| 25  | 19.35 | 20.82 | 20.92 | 18.52 | 20.06 | 18.76 | 19.40 | 20.09 | 20.52 | 20.77 | 20.60 | 21.16 |
| EOM | 20.02 | 20.97 | 19.57 | 19.30 | 20.04 | 18.10 | 19.60 | 20.20 | 20.60 | 19.28 | 20.71 | 21.27 |

WATER YEAR 1991      HIGHEST 17.80 JAN 12, 13, 1991      LOWEST 21.41 OCT 10, 11, 1990



## GROUND-WATER LEVELS

## BUCHANAN COUNTY

370443082022301. Local number, 14E 40.

LOCATION.--Lat 37°04'43", long 82°02'23", Hydrologic Unit 05070202, 50 ft south of the intersection of State Highways 620 and 622, at Grissom School. Owner: U.S. Geological Survey.

AQUIFER.--Jawbone coal bed of Norton Formation of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in., depth 60 ft, cased to 14 ft, open hole 14 to 60 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 1,820 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.8 ft above land-surface datum.

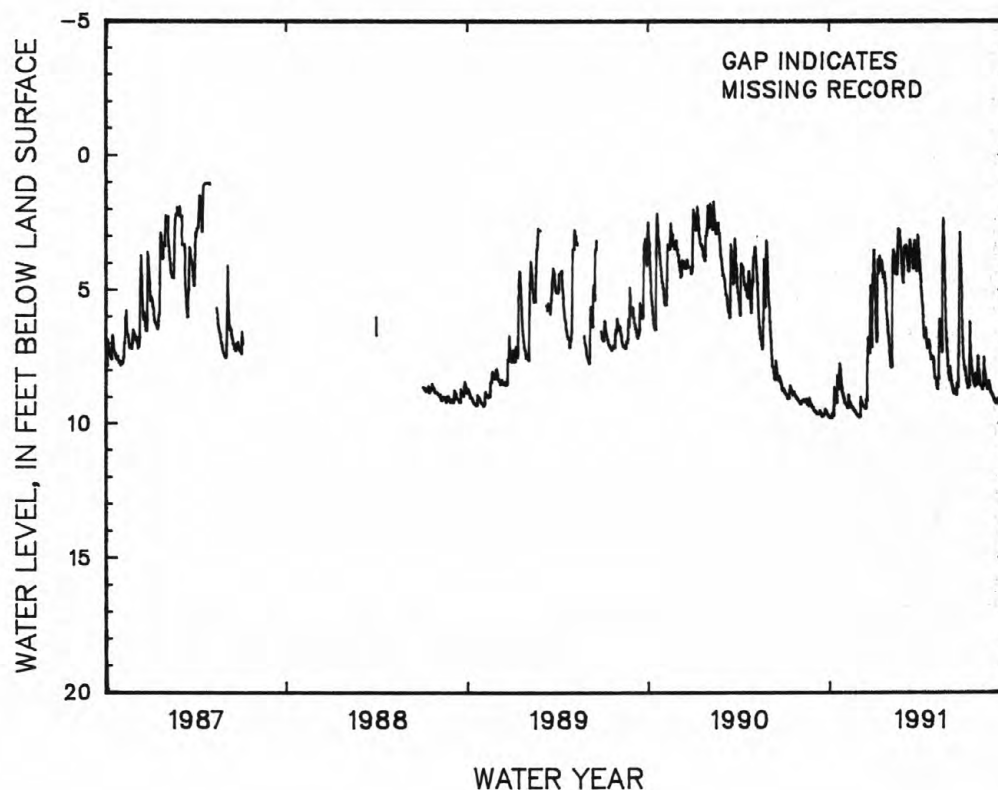
PERIOD OF RECORD.--August 1982 to September 1983, October 1986 to current year. Unpublished records available prior to October 1986 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.99 ft below land-surface datum, Apr. 30, 1987; lowest recorded, 11.49 ft below land-surface datum, Oct. 6, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT  | NOV  | DEC  | JAN  | FEB  | MAR  | APR  | MAY  | JUN  | JUL  | AUG  | SEP  |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| 5   | 9.75 | 9.31 | 9.18 | 6.60 | 7.91 | 3.49 | 4.61 | 8.32 | 8.38 | 8.22 | 8.56 | 9.14 |
| 10  | 9.72 | 8.94 | 9.35 | 4.36 | 3.69 | 4.07 | 6.19 | 8.30 | 8.86 | 8.68 | 7.53 | 9.31 |
| 15  | 9.21 | 9.40 | 9.44 | 4.26 | 4.17 | 3.26 | 6.64 | 6.94 | 8.92 | 7.58 | 8.54 | 9.20 |
| 20  | 8.70 | 9.53 | 7.38 | 4.49 | 2.86 | 3.99 | 6.90 | 3.03 | 7.48 | 8.40 | 8.44 | 8.56 |
| 25  | 8.28 | 9.65 | 5.75 | 5.45 | 3.74 | 3.48 | 7.48 | 5.75 | 4.17 | 8.21 | 8.88 | 9.02 |
| EOM | 9.06 | 9.75 | 3.54 | 7.03 | 4.66 | 3.08 | 7.55 | 8.14 | 7.61 | 8.20 | 9.16 | 8.98 |

WATER YEAR 1991      HIGHEST 2.05 MAY 21, 1991      LOWEST 9.81 OCT 03, 04, 1990





## GROUND-WATER LEVELS

81

## BUCKINGHAM COUNTY

372541078392101. Local number, 41H 1.

LOCATION.--Lat 37°25'41", long 78°39'21", Hydrologic Unit 02080207, 200 ft east of State Highway 640, 2.6 mi southeast of Sliders. Owner: U.S. Geological Survey.

AQUIFER.--Candler Formation of Paleozoic age.

WELL CHARACTERISTICS.--Augered observation water well, diameter 3 in. to 83 ft, diameter 1.25 in. from 83 to 88 ft, depth 88 ft, screened 83 to 88 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel. August 1970 to October 1974, digital recorder--60-minute punch. Prior to August 1970, occasional measurement with chalked tape.

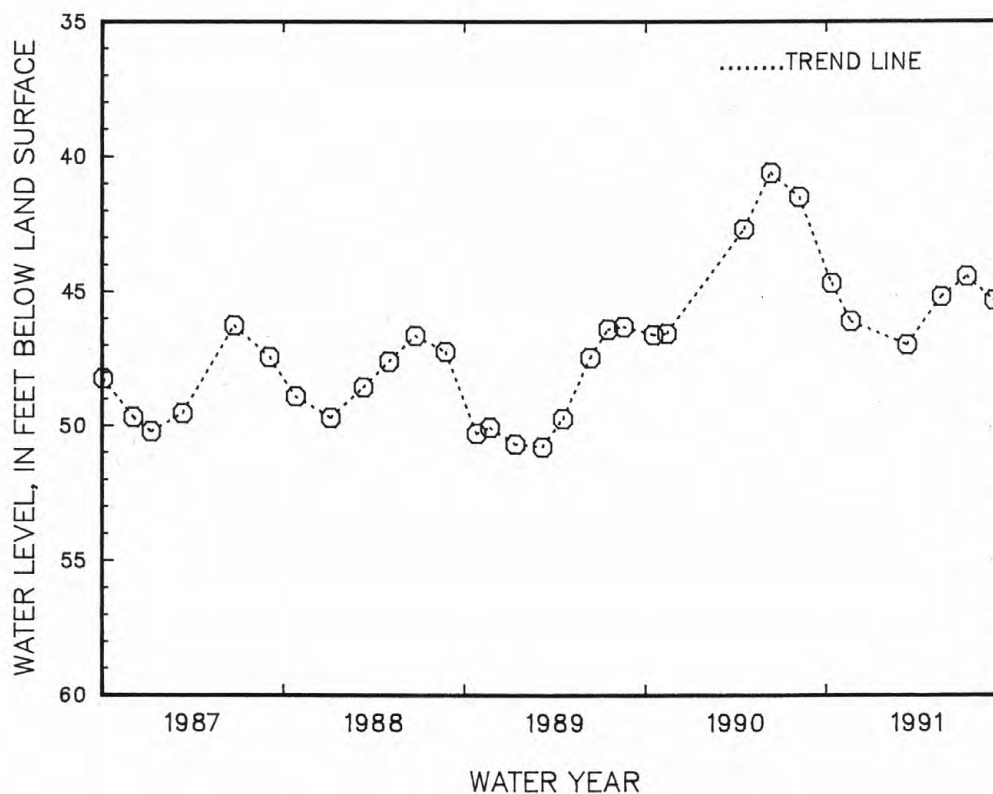
DATUM.--Elevation of land-surface datum is 660 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.2 ft above land-surface datum.

PERIOD OF RECORD.--March 1970 to current year. Unpublished records available prior to October 1977 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 30.95 ft below land-surface datum, May 20, 1973; lowest measured, 50.81 ft below land-surface datum, Mar. 8, 1989.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE          | WATER LEVEL | DATE         | WATER LEVEL | DATE         | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|--------|-------------|
| OCT 12          | 44.70       | NOV 20        | 46.12       | MAR 13       | 47.00       | MAY 21       | 45.20       | JUL 11       | 44.44       | SEP 04 | 45.34       |
| WATER YEAR 1991 |             | HIGHEST 44.44 |             | JUL 11, 1991 |             | LOWEST 47.00 |             | MAR 13, 1991 |             |        |             |



## GROUND-WATER LEVELS

## BUCKINGHAM COUNTY

372608078404601. Local number, 41H 3.

LOCATION.--Lat 37°26'08", long 78°40'46", Hydrologic Unit 02080207, 0.85 mi west of Ranger Headquarters on south side of dirt road off State Highway 636, 1.5 mi south of Sliders. Owner: U.S. Geological Survey.

AQUIFER.--Candler Formation of Paleozoic age.

WELL CHARACTERISTICS.--Augered observation water well, diameter 3 in. to 49 ft, diameter 1.25 in. from 49 to 54 ft, depth 54 ft, screened 49 to 54 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel. August 1970 to October 1974, digital recorder--60-minute punch. Prior to August 1970, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 683.8 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.3 ft above land-surface datum.

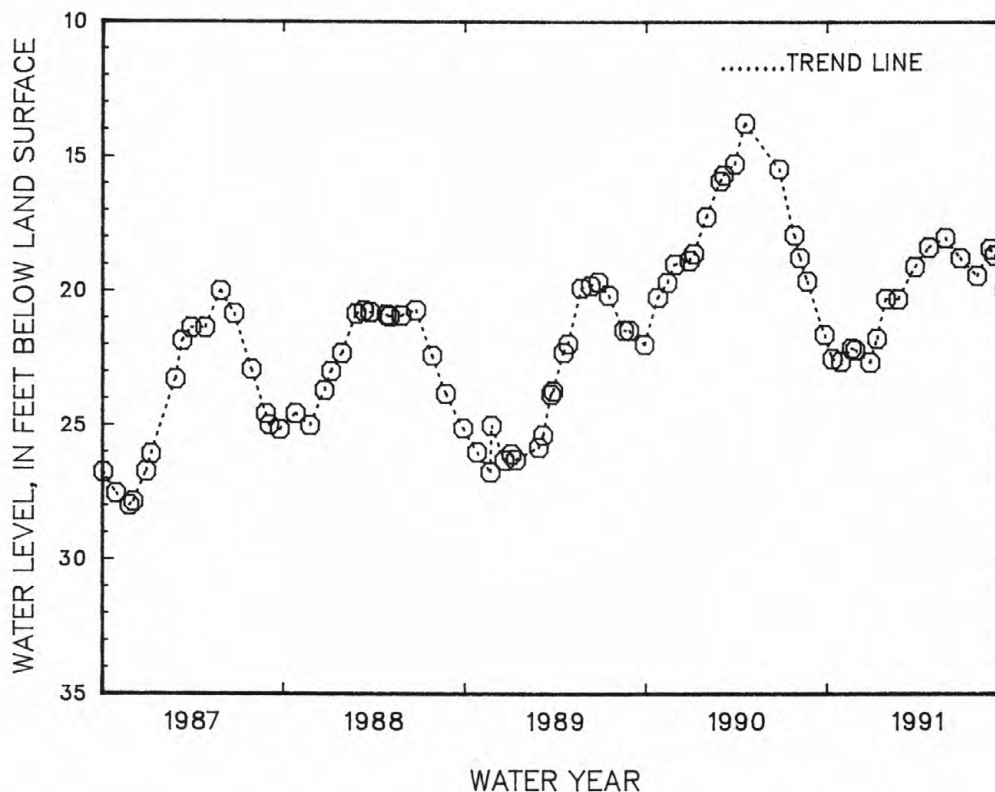
REMARKS.--Prior to Oct. 1, 1981, well was reported as being located in Appomattox County.

PERIOD OF RECORD.--March 1970 to current year. Unpublished records available prior to October 1977 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 7.31 ft below land-surface datum, Apr. 12, 1973; lowest measured, 28.30 ft below land-surface datum, Oct. 17, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 12          | 22.54       | NOV 27  | 22.20       | JAN 28       | 20.30       | APR 25 | 18.38       | JUL 31       | 19.44       | SEP 25 | 20.03       |
| 29              | 22.64       | DEC 27  | 22.67       | FEB 22       | 20.31       | MAY 28 | 18.03       | AUG 27       | 18.44       |        |             |
| NOV 20          | 22.14       | JAN 10  | 21.78       | MAR 28       | 19.10       | JUN 27 | 18.78       | SEP 04       | 18.68       |        |             |
| WATER YEAR 1991 |             | HIGHEST | 18.03       | MAY 28, 1991 |             | LOWEST | 22.67       | DEC 27, 1990 |             |        |             |



## GROUND-WATER LEVELS

83

## BUCKINGHAM COUNTY

372519078374001. Local number, 41H 4.

LOCATION.--Lat 37°25'19", long 78°37'40", Hydrologic Unit 02080207, 0.65 mi northeast of Holiday Creek, 0.85 mi southeast of State Highway 636 off State Highway 614, and 4.0 mi southeast of Sliders. Owner: U.S. Geological Survey.

AQUIFER.--Candler Formation of Paleozoic age.

WELL CHARACTERISTICS.--Augered observation water well, diameter 3 in. to 72 ft, diameter 1.25 in. from 72 to 77 ft, depth 77 ft, screened 72 to 77 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel. August 1970 to October 1974, digital recorder--60-minute punch. Prior to August 1970, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 647 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.4 ft above land-surface datum.

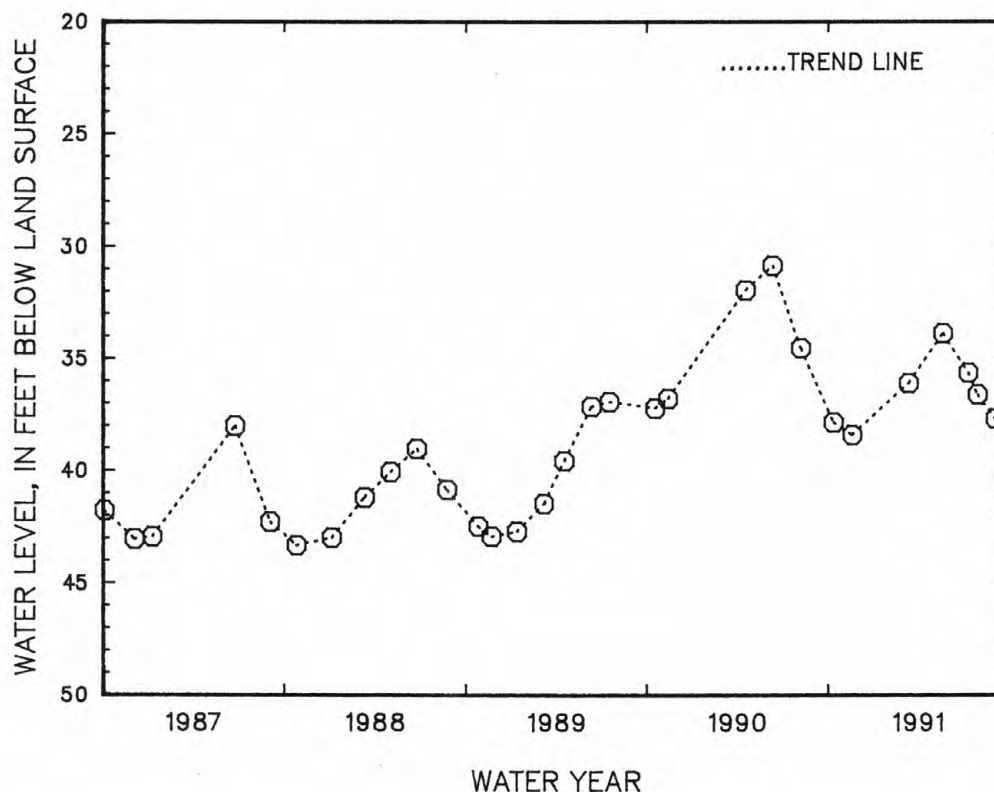
PERIOD OF RECORD.--March 1970 to current year. Unpublished records available prior to October 1977 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.45 ft below land-surface datum, May 1, 1980; lowest measured, 48.13 ft below land-surface datum, Mar. 30, 1971.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 12 | 37.88       | MAR 13 | 36.13       | MAY 21 | 33.89       | JUL 11 | 35.66       | JUL 30 | 36.65       | SEP 04 | 37.72       |
| NOV 19 | 38.44       |        |             |        |             |        |             |        |             |        |             |

WATER YEAR 1991      HIGHEST 33.89 MAY 21, 1991      LOWEST 38.44 NOV 19, 1990



## GROUND-WATER LEVELS

## CAROLINE COUNTY

380239077193101. Local number, 52N 1.

LOCATION.--Lat 38°02'49", long 77°18'29", Hydrologic Unit 02080105, 0.2 mi north of the intersection of State Highways 619 and 667 near the old ammunition supply point at Fort A. P. Hill near Bowling Green and 3.7 mi southeast of the intersection of U.S. Highway 301 and South Range Road. Owner: U.S. Department of the Army.

AQUIFER.--Aquia aquifer of Paleocene age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in., depth 278 ft, depth of screens unknown.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Mar. 10, 1988, to June 1, 1990, annual measurement with chalked tape. Apr. 30, 1974, to Aug. 5, 1986, bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Apr. 30, 1974, continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 200 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.7 ft above land-surface datum. Prior to Aug. 5, 1986, measuring point was 0.3 ft above land-surface datum. Measuring point changed when the U.S. Department of the Army added 1.4 ft of casing sometime between Aug. 5, 1986, and Mar. 10, 1988.

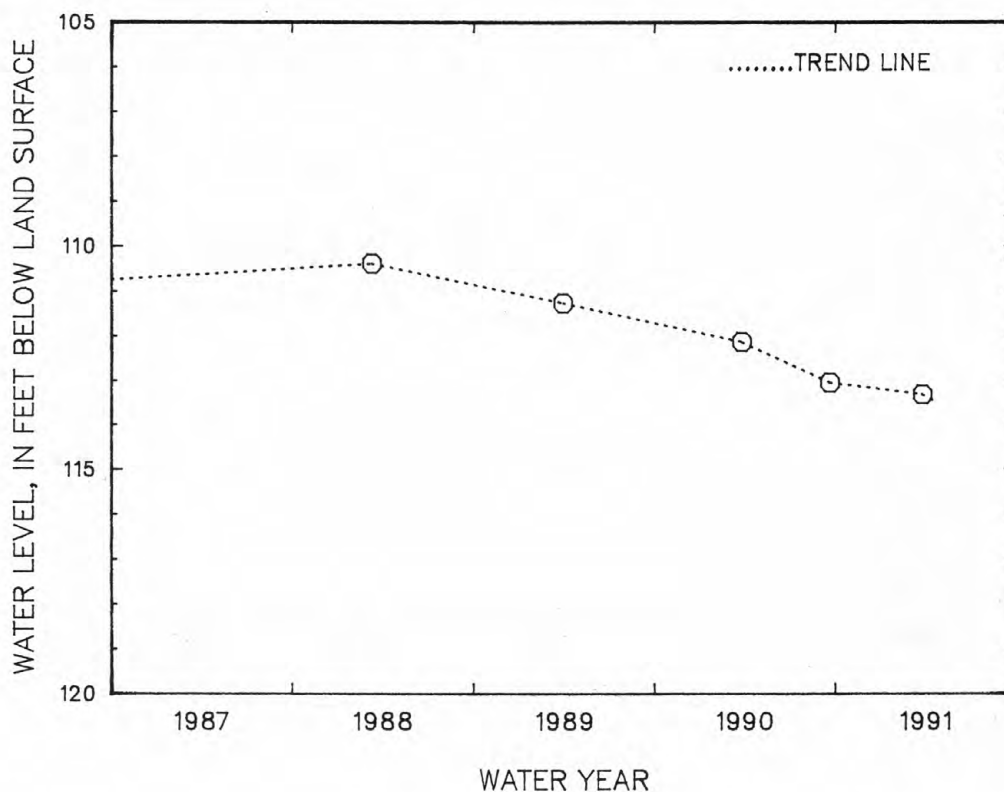
REMARKS.--Records provided by the Virginia Water Control Board prior to Aug. 5, 1986; U.S. Geological Survey after Mar. 10, 1988. Water level affected by regional drawdown.

PERIOD OF RECORD.--September 1971 to August 1986, March 1988 to current year. Unpublished records available prior to August 1986 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 102.47 ft below land-surface datum, Sept. 1, 1973; lowest measured, 113.32 ft below land-surface datum, Mar. 26, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 26 | 113.32         |



## GROUND-WATER LEVELS

85

## CAROLINE COUNTY

380624077172801. Local number, 52N 5.

LOCATION.--Lat 38°06'24", long 77°17'28", Hydrologic Unit 02080104, in block pumphouse under water tank at Camp Wilcox at Fort A. P. Hill, 1.1 mi north of U.S. Highway 301, and near Bowling Green. Owner: U.S. Department of the Army.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 6 in. to unknown depth, diameter 4 in. from unknown depth to 524 ft, depth 524 ft, screened 468 to 501 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 210 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

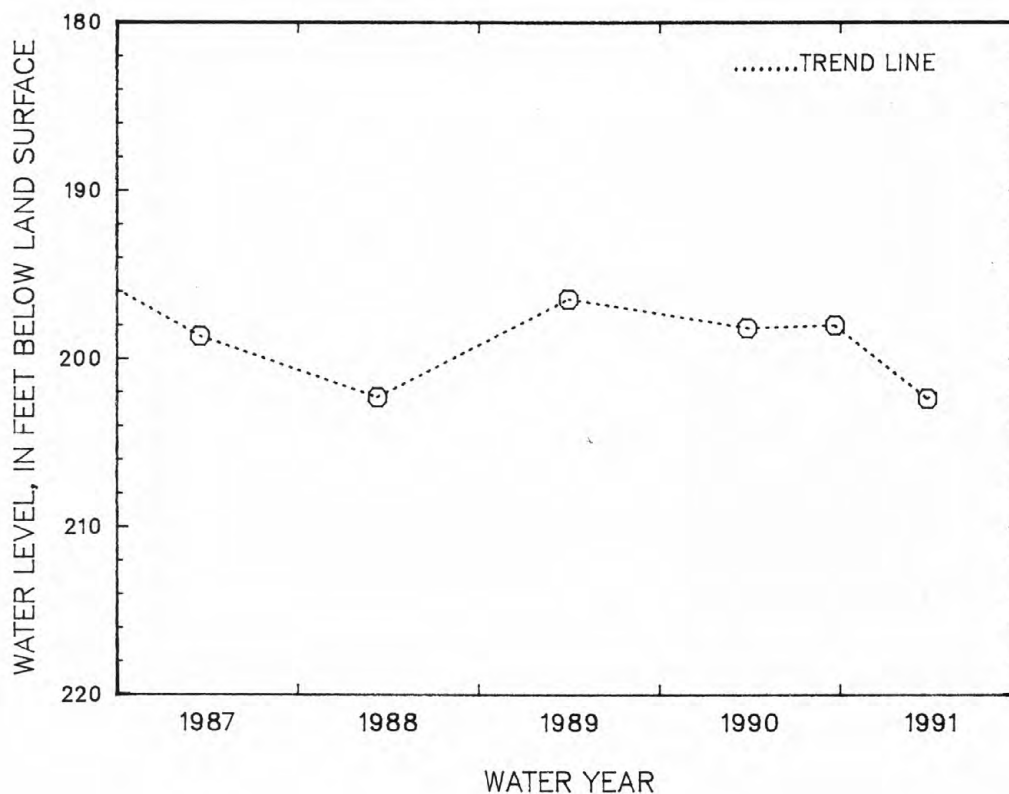
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--December 1971 to current year. Unpublished records available prior to October 1988 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 172.20 ft below land-surface datum, Dec. 16, 1971; lowest measured, 207.48 ft below land-surface datum, Mar. 19, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 26 | 202.40         |





## GROUND-WATER LEVELS

## CAROLINE COUNTY

380415077194101. Local number, 52N 6.

LOCATION.--Lat 38°04'15", long 77°19'41", Hydrologic Unit 02080105, on the southwest corner of the intersection of Burke Street and Second Street in the headquarters area of Fort A. P. Hill near Bowling Green. Owner: U.S. Department of the Army.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused withdrawal water well, diameter 6 in. to 480 ft, diameter 3 in. from 446 to 500 ft, depth 500 ft, screened 488 to 498 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 214 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

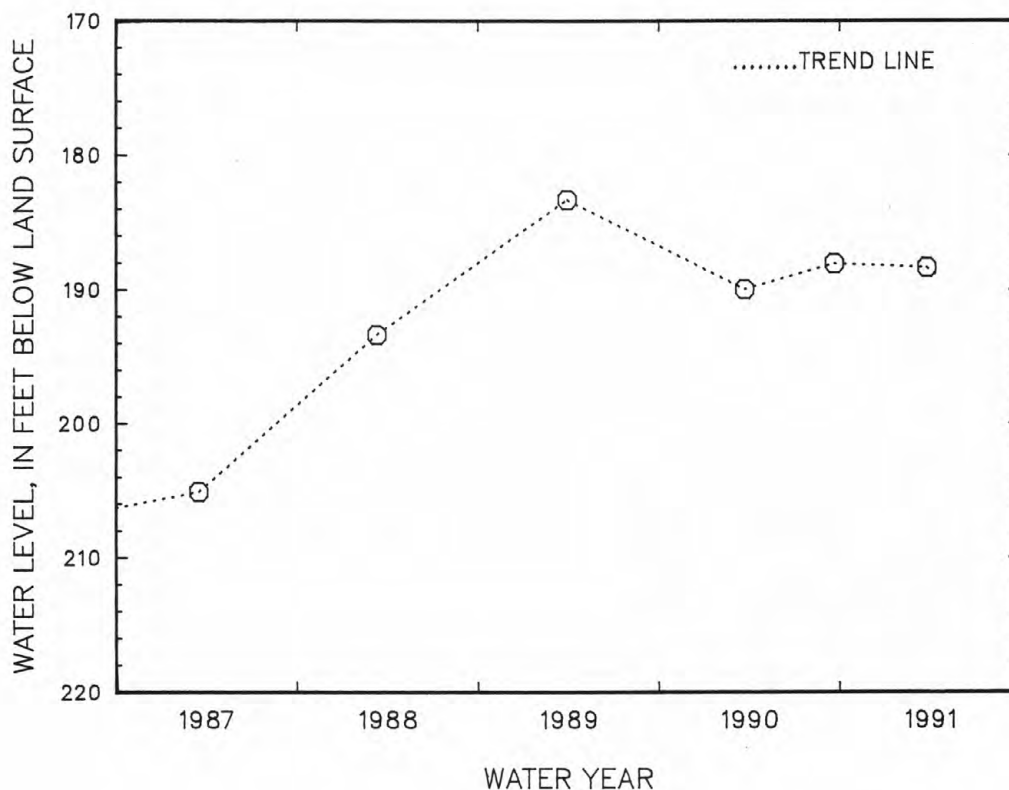
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--December 1971 to current year. Unpublished records available prior to October 1988 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 158.65 ft below land-surface datum, Feb. 10, 1982; lowest measured, 207.74 ft below land-surface datum, Mar. 19, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 26 | 188.35         |



## GROUND-WATER LEVELS

87

## CAROLINE COUNTY

380836077211401. Local number, 52P 10.

LOCATION.--Lat 38°08'36", long 77°21'14", Hydrologic Unit 02080104, on the northwest corner of the intersection of A. P. Hill Drive and Jackson Drive, 6.8 mi northwest of the intersection of U.S. Highway 301 and A. P. Hill Drive at Liberty Corner at Fort A. P. Hill near Bowling Green. Owner: U.S. Department of the Army.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 702 ft, screened 544 to 552 ft, 603 to 612 ft, 648 to 657 ft, open hole 666 to 702 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 222 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.15 ft above land-surface datum.

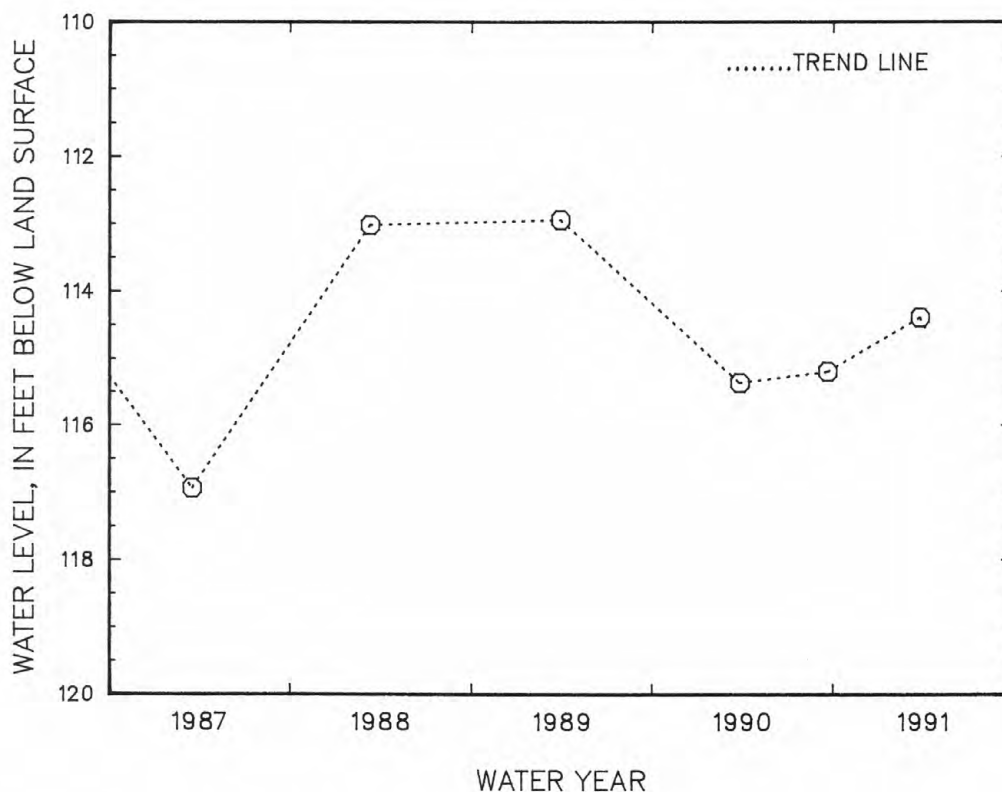
REMARKS.--Water level may be affected by regional drawdown.

PERIOD OF RECORD.--March 1986 to current year. Unpublished records available prior to October 1988 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 112.94 ft below land-surface datum, Mar. 30, 1989; lowest measured, 116.94 ft below land-surface datum, Mar. 17, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 26 | 114.39         |



CHARLES CITY COUNTY

371956077055203. Local number, 54G 11 SOW 066.

LOCATION.--Lat 37°19'56", long 77°05'52", Hydrologic Unit 02080206, 0.6 mi east of Bowens Store on State Highway 5, 1.6 mi west of Charles City. Owner: Virginia Water Control Board.

**AQUIFER.**--Lower and middle Potomac aquifers of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 540 ft, screened 290 to 310 ft, 404 to 424 ft, 486 to 496 ft, 510 to 530 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. June 5, 1976, to Sept. 30, 1985, occasional measurement with chalked tape. Jan. 10, 1974, to June 5, 1976, continuous strip-chart recorder. Prior to Jan. 10, 1974, monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 54 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 2.0 ft above land-surface datum.

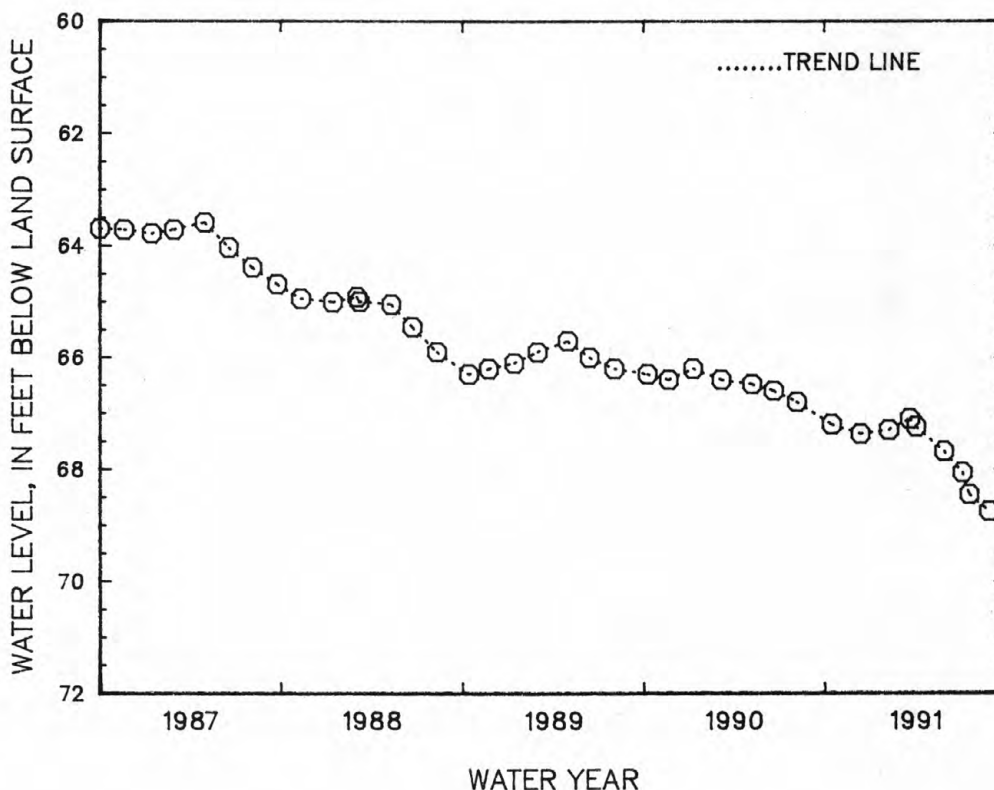
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--May 1973 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.07 ft below land-surface datum, May 1, 1973; lowest measured, 68.75 ft below land-surface datum, Aug. 28, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER<br>LEVEL | DATE    | WATER<br>LEVEL | DATE         | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE         | WATER<br>LEVEL | DATE   | WATER<br>LEVEL |
|-----------------|----------------|---------|----------------|--------------|----------------|--------|----------------|--------------|----------------|--------|----------------|
| OCT 15          | 67.20          | FEB 07  | 67.30          | APR 03       | 67.24          | JUL 05 | 68.06          | JUL 19       | 68.45          | AUG 28 | 68.75          |
| DEC 12          | 67.37          | MAR 21  | 67.10          | MAY 29       | 67.68          |        |                |              |                |        |                |
| WATER YEAR 1991 |                | HIGHEST | 67.10          | MAR 21, 1991 |                | LOWEST | 68.75          | AUG 28, 1991 |                |        |                |



## GROUND-WATER LEVELS

89

## CHARLES CITY COUNTY

371956076055101. Local number, 54G 13 SOW 067.

LOCATION.--Lat 37°19'56", long 77°05'51", Hydrologic Unit 02080206, 0.6 mi east of Bowens Store on State Highway 5, 1.6 mi southwest of Charles City. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 227 ft, screened 222 to 227 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 35 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.4 ft above land-surface datum.

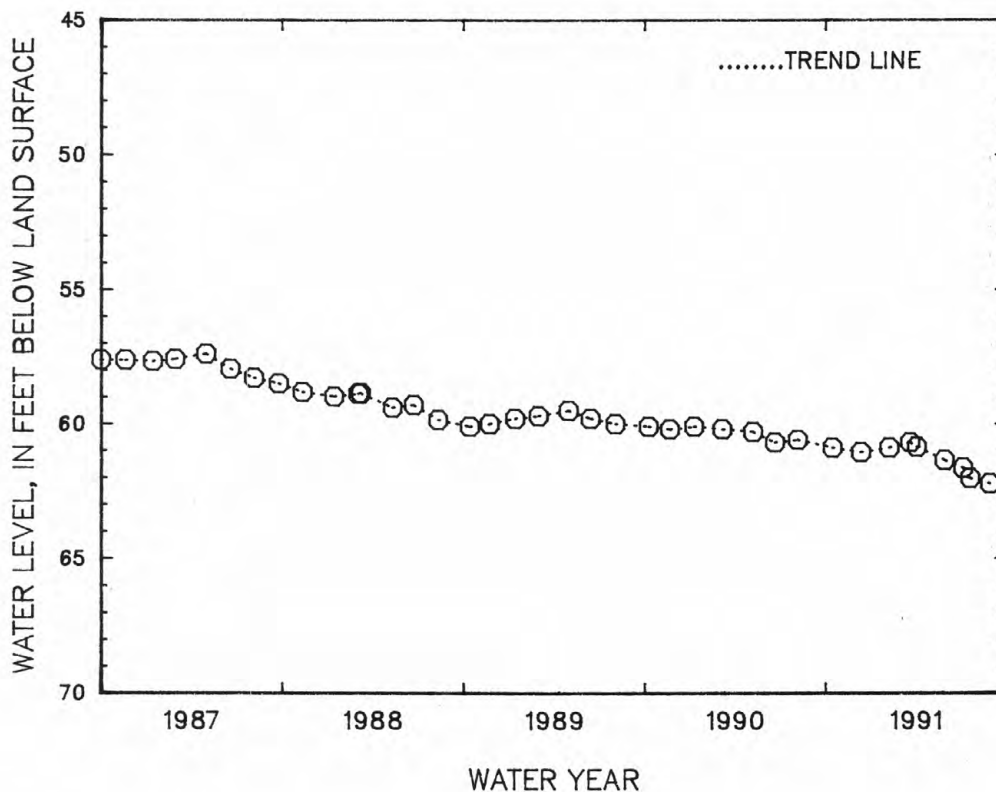
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--June 1973 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.63 ft below land-surface datum, June 7, 1973; lowest measured, 62.24 ft below land-surface datum, Aug. 28, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE                       | WATER LEVEL | DATE         | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|----------------------------|-------------|--------------|-------------|--------------|-------------|--------|-------------|--------|-------------|
| OCT 15          | 60.90       | FEB 07                     | 60.90       | APR 03       | 60.87       | JUL 05       | 61.66       | JUL 19 | 62.04       | AUG 28 | 62.24       |
| DEC 12          | 61.07       | MAR 21                     | 60.70       | MAY 29       | 61.37       |              |             |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST 60.70 MAR 21, 1991 |             | LOWEST 62.24 |             | AUG 28, 1991 |             |        |             |        |             |



## GROUND-WATER LEVELS

## CITY OF CHESAPEAKE

364852076252201. Local number, 59C 29 SOW 163A.

LOCATION.--Lat 36°48'52", long 76°25'22", Hydrologic Unit 02080208, 0.7 mi southeast of intersection of State Highways 191 and 337 in Chesapeake. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 35 ft, screened 25 to 35 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Aug. 21, 1985, monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.9 ft above land-surface datum.

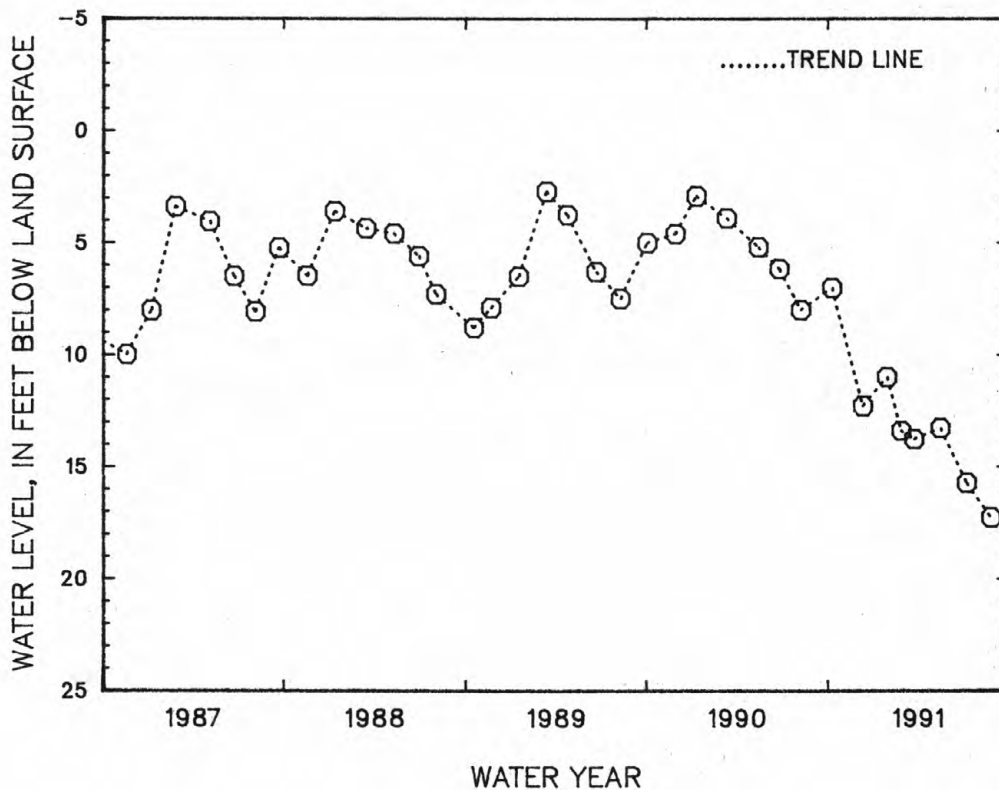
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--November 1981 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.70 ft below land-surface datum, Mar. 14, 1989; lowest measured, 17.28 ft below land-surface datum, Aug. 27, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 10          | 7.02        | JAN 29  | 11.00       | MAR 25       | 13.77       | MAY 17 | 13.27        | JUL 09 | 15.73       | AUG 27 | 17.28       |
| DEC 11          | 12.30       | FEB 27  | 13.39       |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 7.02        | OCT 10, 1990 | LOWEST      | 17.28  | AUG 27, 1991 |        |             |        |             |





## GROUND-WATER LEVELS

91

## CITY OF CHESAPEAKE

364852076252202. Local number, 59C 30 SOW 163B.

LOCATION.--Lat 36°48'52", long 76°25'22", Hydrologic Unit 02080208, 0.7 mi southeast of intersection of State Highways 191 and 337 in Chesapeake. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 948 ft, screened 938 to 948 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Aug. 21, 1985, monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.8 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

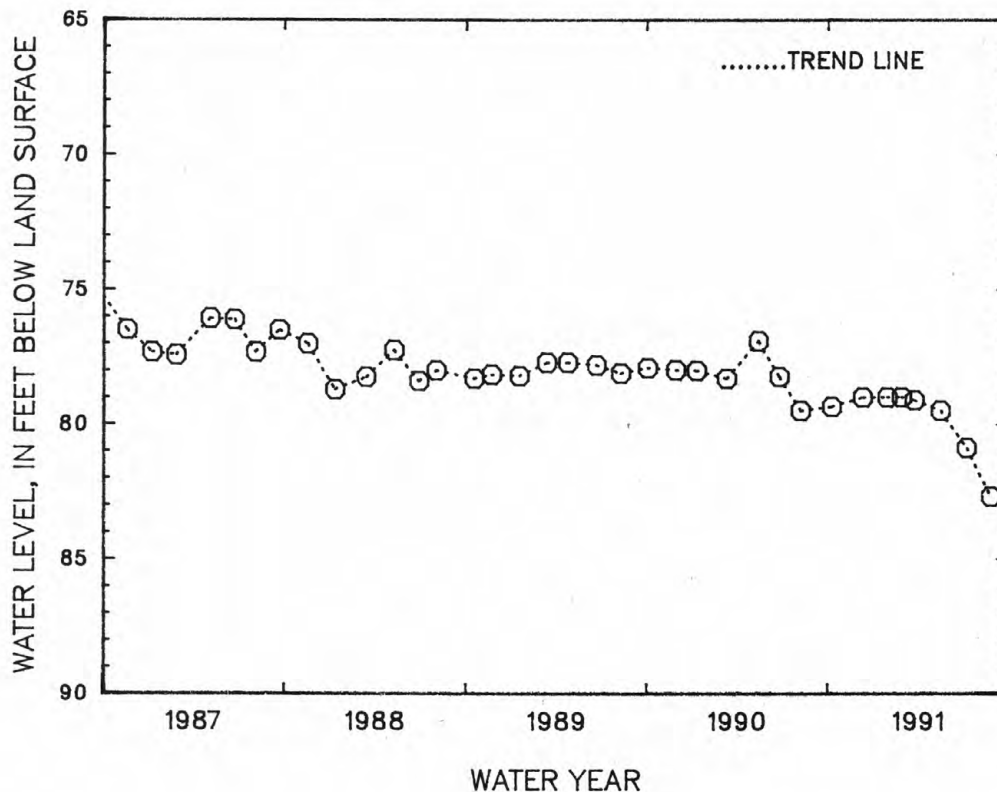
PERIOD OF RECORD.--November 1981 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 67.06 ft below land-surface datum, May 25, 1983; lowest measured, 82.69 ft below land-surface datum, Aug. 27, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 10 | 79.35       | JAN 29 | 79.00       | MAR 25 | 79.11       | MAY 17 | 79.50       | JUL 09 | 80.89       | AUG 27 | 82.69       |
| DEC 11 | 79.00       | FEB 27 | 79.00       |        |             |        |             |        |             |        |             |

WATER YEAR 1991      HIGHEST 79.00 DEC 11, 1990, JAN 29, FEB 27, 1991      LOWEST 82.69 AUG 27, 1991



## GROUND-WATER LEVELS

## CITY OF CHESAPEAKE

364852076252203. Local number, 59C 31 SOW 163C.

LOCATION.--Lat 36°48'52", long 76°25'22", Hydrologic Unit 02080208, 0.7 mi southeast of intersection of State Highways 191 and 337 in Chesapeake. Owner: Virginia Water Control Board.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 631 ft, screened 621 to 631 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Aug. 21, 1985, monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.2 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

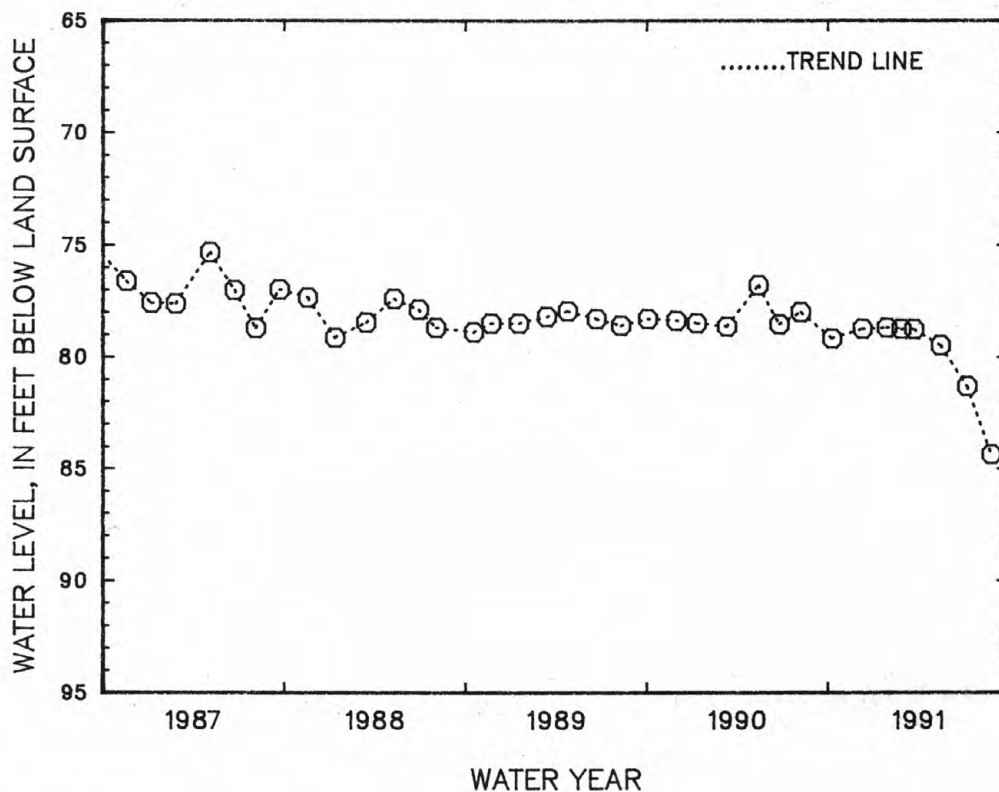
PERIOD OF RECORD.--November 1981 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 67.13 ft below land-surface datum, Feb. 23, 1983; lowest measured, 84.37 ft below land-surface datum, Aug. 27, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 10 | 79.19       | JAN 29 | 78.70       | MAR 25 | 78.77       | MAY 17 | 79.50       | JUL 09 | 81.32       | AUG 27 | 84.37       |
| DEC 11 | 78.75       | FEB 27 | 78.76       |        |             |        |             |        |             |        |             |

WATER YEAR 1991      HIGHEST 78.70    JAN 29, 1991      LOWEST 84.37    AUG 27, 1991



## GROUND-WATER LEVELS

93

## CITY OF CHESAPEAKE

364621076273201. Local number, 59C 36.

LOCATION.--Lat 36°46'21", long 76°27'32", Hydrologic Unit 02080208, 2.5 mi southwest of the intersection of U.S. Highways 13, 58, 460, and Interstate Highways 264 and 64 near Bowers Hills in the city of Chesapeake. Owner: City of Chesapeake.

AQUIFER.--Middle and upper Potomac aquifers of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 880 ft, screened 602 to 607 ft, 659 to 664 ft, 706 to 716 ft, 800 to 805 ft, 854 to 859 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Oct. 1, 1986, recorder by City of Chesapeake.

DATUM.--Elevation of land-surface datum is 22 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.2 ft above land-surface datum.

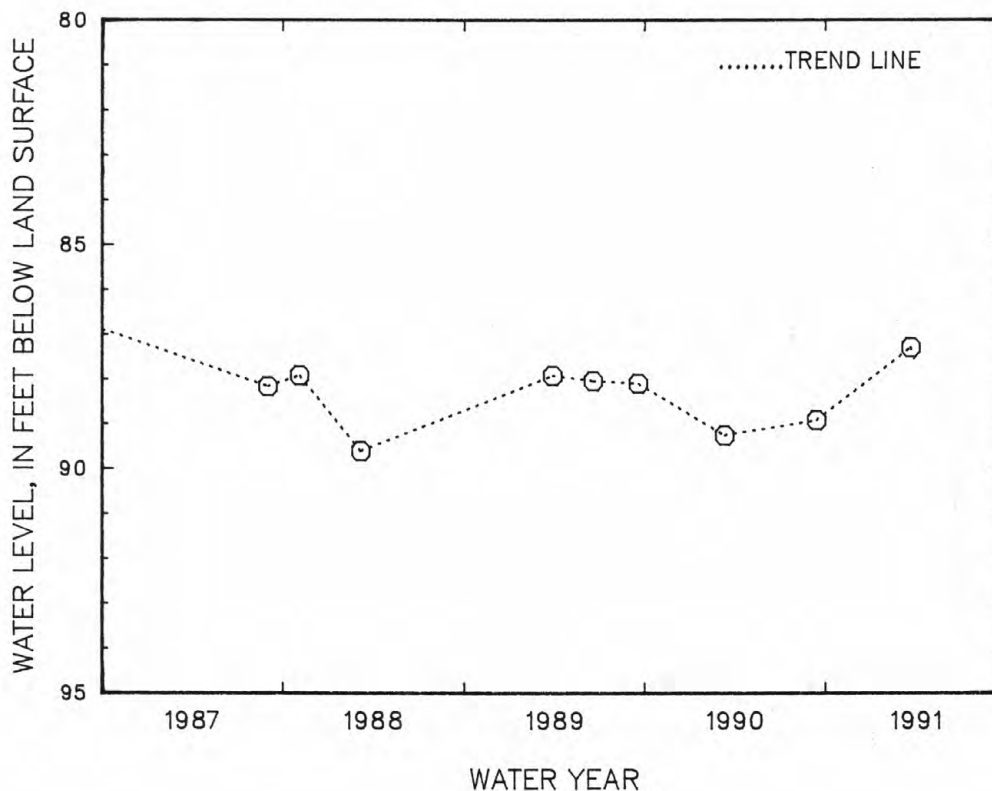
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--August 1986 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 85.46 ft below land-surface datum, Aug. 20, 25, 1986; lowest measured, 89.62 ft below land-surface datum, Mar. 7, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 22 | 87.29          |



## GROUND-WATER LEVELS

## CITY OF CHESAPEAKE

363836076201701. Local number, 60B 3 SOW 090A.

LOCATION.--Lat 36°38'36", long 76°20'17", Hydrologic Unit 03010205, 0.15 mi north of intersection of Benefit and West Roads, 1.5 mi north of Cornland. Owner: Virginia Water Control Board.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 855 ft, screened 824 to 834 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to Aug. 25, 1985, occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 16 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

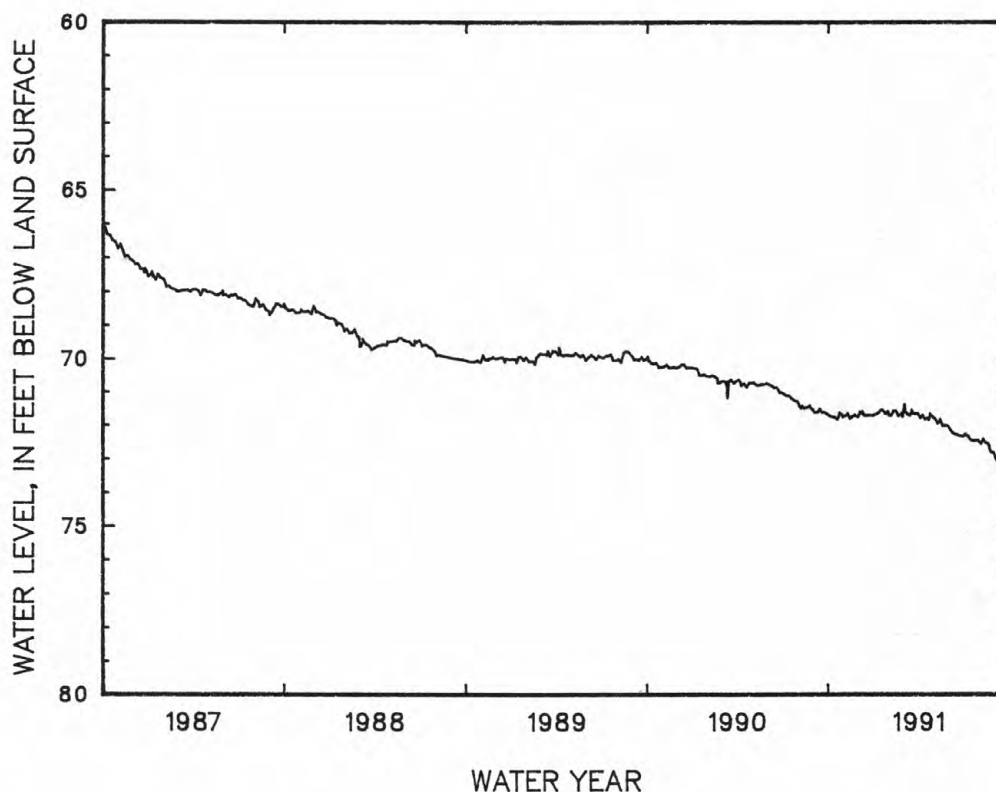
PERIOD OF RECORD.--July 1978 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.80 ft below land-surface datum July 11, 1978; lowest recorded, 73.52 ft below land-surface datum, Sept. 30, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 71.73 | 71.73 | 71.63 | 71.69 | 71.71 | 71.59 | 71.78 | 71.82 | 72.15 | 72.28 | 72.56 | 73.00 |
| 10  | 71.76 | 71.67 | 71.60 | 71.65 | 71.59 | 71.67 | 71.72 | 71.95 | 72.24 | 72.33 | 72.43 | 73.14 |
| 15  | 71.77 | 71.80 | 71.72 | 71.57 | 71.58 | 71.71 | 71.83 | 71.85 | 72.29 | 72.44 | 72.53 | 73.26 |
| 20  | 71.83 | 71.75 | 71.72 | 71.56 | 71.72 | 71.64 | 71.80 | 72.02 | 72.31 | 72.48 | 72.56 | 73.36 |
| 25  | 71.64 | 71.70 | 71.71 | 71.65 | 71.70 | 71.67 | 71.68 | 72.03 | 72.33 | 72.48 | 72.78 | 73.39 |
| EOM | 71.75 | 71.76 | 71.72 | 71.70 | 71.74 | 71.67 | 71.74 | 72.04 | 72.34 | 72.47 | 72.83 | 73.52 |

WATER YEAR 1991      HIGHEST 71.40 MAR 04, 1991      LOWEST 73.52 SEP 30, 1991



## GROUND-WATER LEVELS

95

## CITY OF CHESAPEAKE

363836076201702. Local number, 60B 4 SOW 090B.

LOCATION.--Lat 36°38'36", long 76°20'17", Hydrologic Unit 03010205, 0.15 mi north of intersection of Benefit and West Roads, 1.5 mi north of Cornland. Owner: Virginia Water Control Board.

AQUIFER.--Virginia Beach aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 556 ft, screened 525 to 535 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 9, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 16 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.05 ft above land-surface datum prior to Mar. 2, 1988; 1.2 ft thereafter.

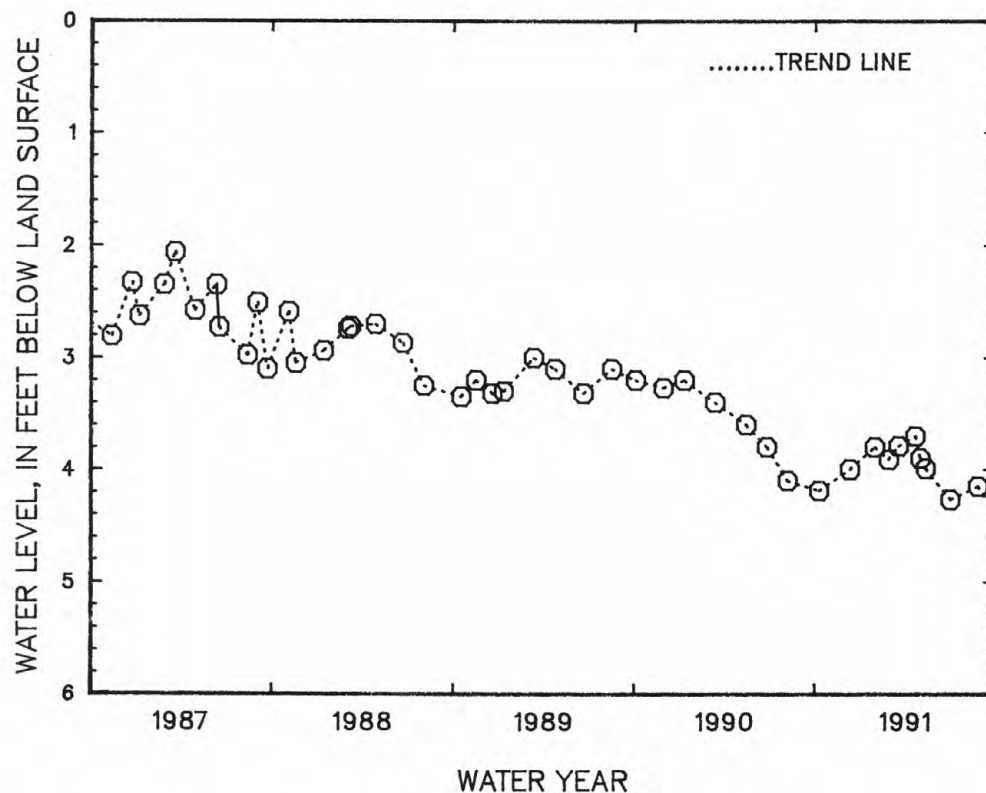
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--February 1978 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.20 ft above land-surface datum, Feb. 1, 1978; lowest measured, 4.27 ft below land-surface datum, July 2, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 10          | 4.19        | JAN 30  | 3.80        | MAR 19       | 3.79        | MAY 02 | 3.90         | JUL 02 | 4.27        | AUG 27 | 4.15        |
| DEC 11          | 4.00        | FEB 27  | 3.91        | APR 22       | 3.70        | MAY 13 | 3.99         |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 3.70        | APR 22, 1991 | LOWEST      | 4.27   | JUL 02, 1991 |        |             |        |             |





## GROUND-WATER LEVELS

## CITY OF CHESAPEAKE

364615076182101. Local number, 60C 41 SOW 164.

LOCATION.--Lat 36°46'15", long 76°18'21", Hydrologic Unit 02080208, 50 ft north of entrance road to Virginia Power powerplant, 500 ft south of Military Highway in Chesapeake. Owner: Virginia Power.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in. to 400 ft, diameter 4 in. from 400 to 928 ft, depth 928 ft, screened 770 to 780 ft, 875 to 885 ft, 918 to 928 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to Nov. 25, 1982, monthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.6 ft above land-surface datum prior to July 15, 1987; 1.5 ft thereafter.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

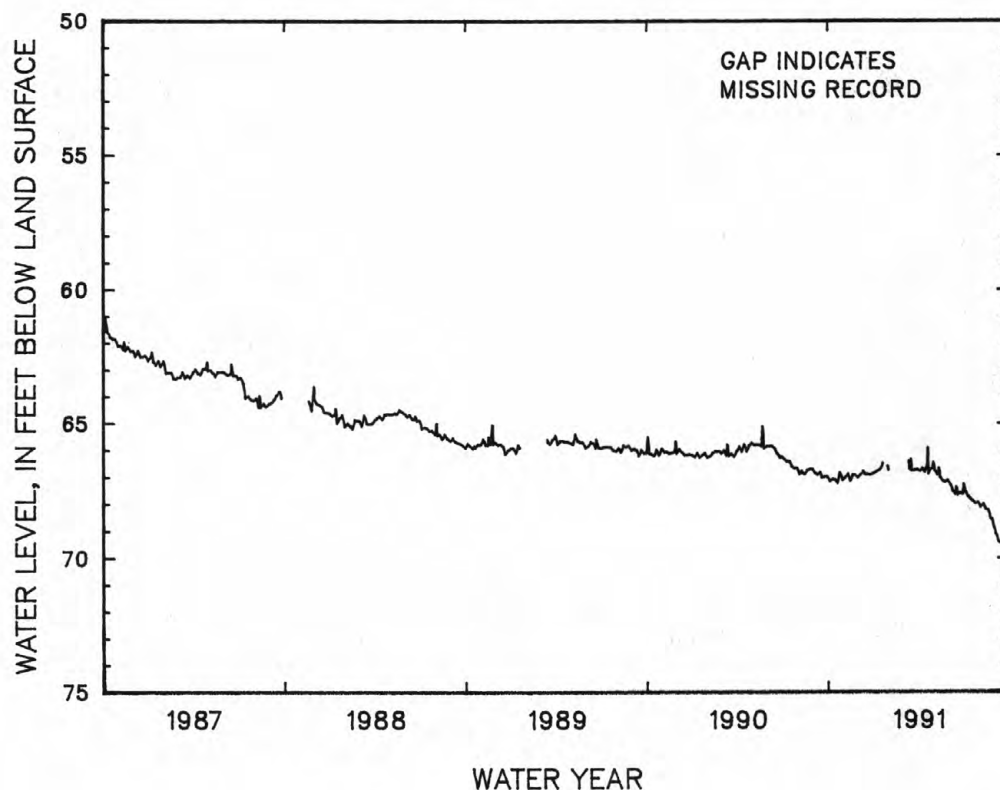
PERIOD OF RECORD.--February 1982 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 55.22 ft below land-surface datum, Mar. 15, 1983; lowest recorded, 69.66 ft below land-surface datum, Sept. 29, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|-------|
| 5   | 67.15 | 67.02 | 66.93 | 66.82 | --- | ---   | 66.78 | 66.76 | 67.28 | 67.52 | 68.12 | 69.12 |
| 10  | 67.08 | 66.90 | 66.80 | 66.77 | --- | ---   | 66.68 | 66.91 | 67.50 | 67.71 | 68.02 | 69.40 |
| 15  | 67.10 | 67.12 | 66.90 | 66.71 | --- | 66.70 | 66.80 | 67.00 | 67.64 | 67.82 | 68.20 | 69.49 |
| 20  | 67.22 | 66.93 | 66.88 | 66.50 | --- | 66.75 | 66.55 | 67.14 | 67.66 | 67.90 | 68.24 | 69.55 |
| 25  | 66.84 | 66.92 | 66.92 | ---   | --- | 66.75 | 66.72 | 67.20 | 67.60 | 67.99 | 68.55 | 69.55 |
| EOM | 67.10 | 67.01 | 66.86 | 66.72 | --- | 66.72 | 66.67 | 67.12 | 67.64 | 67.95 | 68.80 | 69.60 |

WATER YEAR 1991      HIGHEST 65.91 APR 21, 1991      LOWEST 69.66 SEP 29, 1991



## GROUND-WATER LEVELS

97

## CITY OF CHESAPEAKE

363502076091201. Local number, 61A 3 SOW 132.

LOCATION.--Lat 36°35'02", long 76°09'12", Hydrologic Unit 03010205, 250 ft south of Indian Creek Road, 0.2 mi southeast of entrance to Northwest River Park, and 3.0 mi southeast of Saint Brides. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 1.5 in., depth 36 ft, screened 28 to 36 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Aug. 23, 1985, monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.7 ft above land-surface datum prior to Mar. 2, 1988; 0.15 ft thereafter.

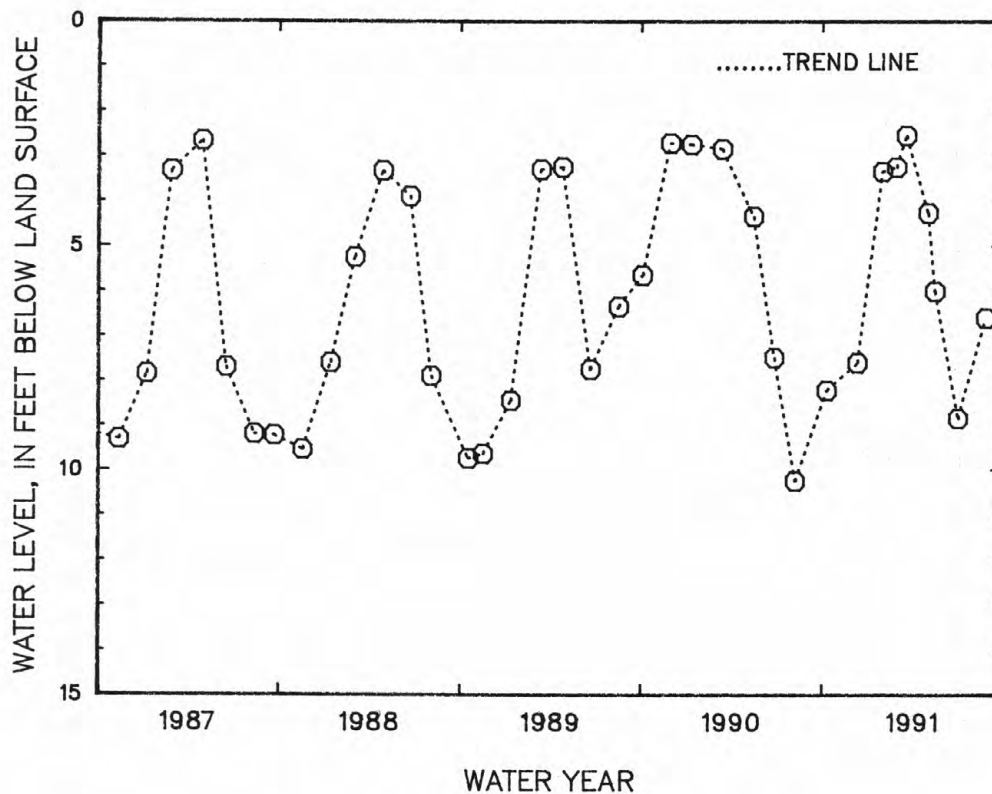
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--May 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.95 ft below land-surface datum, Jan. 24, 1980; lowest measured, 10.25 ft below land-surface datum, Aug. 7, 1990.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 8.22        | JAN 30  | 3.35        | MAR 19       | 2.55        | MAY 16 | 6.01        | JUL 02       | 8.85        | AUG 27 | 6.60        |
| DEC 11          | 7.60        | FEB 27  | 3.25        | MAY 02       | 4.27        |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 2.55        | MAR 19, 1991 |             | LOWEST | 8.85        | JUL 02, 1991 |             |        |             |



## GROUND-WATER LEVELS

## CITY OF CHESAPEAKE

364227076074701. Local number, 61B 2 SOW 091A.

LOCATION.--Lat 36°42'27", long 76°07'47", Hydrologic Unit 03010205, 300 ft south of Lockheed Avenue, 0.7 mi east of intersection of State Highway 165 and Lockheed Avenue, and 3.8 mi east of Fentress. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 97 ft, screened 92 to 97 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 9, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.05 ft above land-surface datum prior to Jan. 11, 1989; 0.75 ft thereafter.

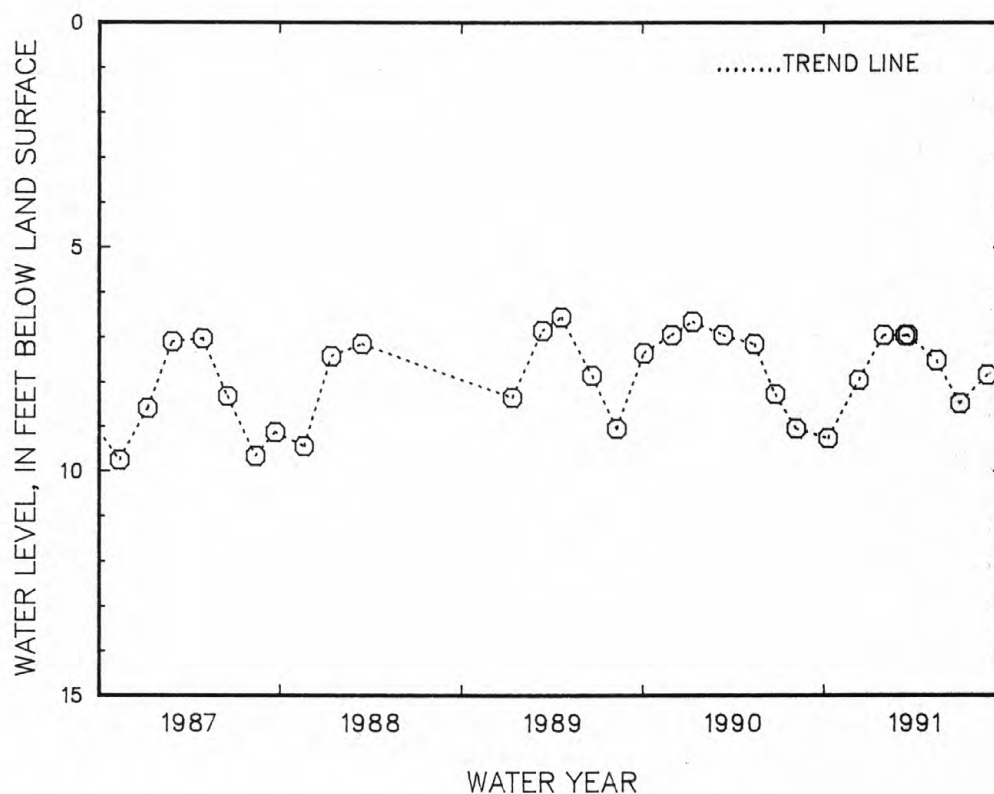
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--February 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.01 ft below land-surface datum, Oct. 16, 1979; lowest measured, 10.30 ft below land-surface datum, Sept. 18, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE                 | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|----------------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 9.27        | JAN 30  | 6.95        | MAR 19               | 6.95        | MAY 16 | 7.51        | JUL 02       | 8.48        | AUG 27 | 7.83        |
| DEC 11          | 7.95        | MAR 14  | 6.96        |                      |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 6.95        | JAN 30, MAR 19, 1991 |             | LOWEST | 9.27        | OCT 10, 1990 |             |        |             |



## GROUND-WATER LEVELS

99

## CITY OF CHESAPEAKE

364227076074702. Local number, 61B 5 SOW 091B.

LOCATION.--Lat 36°42'27", long 76°07'47", Hydrologic Unit 03010205, 300 ft south of Lockheed Avenue, 0.7 mi east of intersection of State Highway 165 and Lockheed Avenue, and 3.8 mi east of Fentress. Owner: Virginia Water Control Board.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 1,060 ft, screened 1,040 to 1,060 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 9, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

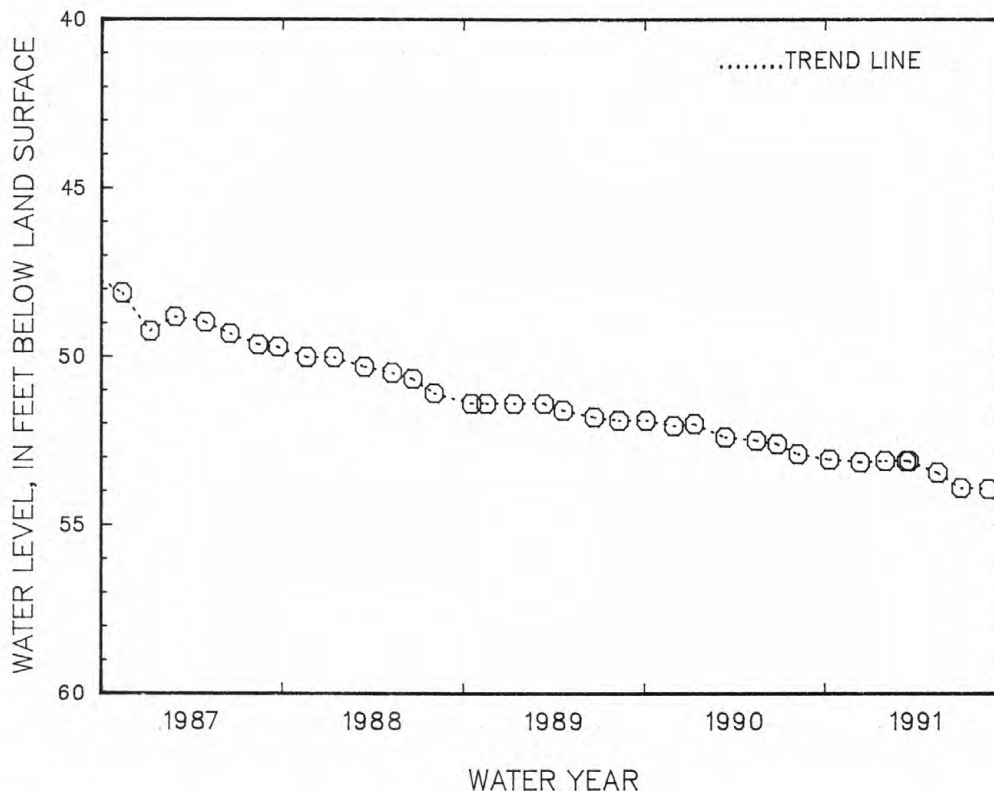
PERIOD OF RECORD.--June 1979 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.83 ft below land-surface datum, Aug. 28, 1980; lowest measured, 53.94 ft below land-surface datum, Aug. 27, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 10 | 53.06       | JAN 30 | 53.10       | MAR 19 | 53.10       | MAY 16 | 53.45       | JUL 02 | 53.91       | AUG 27 | 53.94       |
| DEC 11 | 53.14       | MAR 14 | 53.11       |        |             |        |             |        |             |        |             |

WATER YEAR 1991      HIGHEST 53.06 OCT 10, 1990      LOWEST 53.94 AUG 27, 1991



## GROUND-WATER LEVELS

## CITY OF CHESAPEAKE

364227076074703. Local number, 61B 6 SOW 091C.

LOCATION.--Lat 36°42'27", long 76°07'47", Hydrologic Unit 03010205, 300 ft south of Lockheed Avenue, 0.7 mi east of intersection of State Highway 165 and Lockheed Avenue, and 3.8 mi east of Fentress. Owner: Virginia Water Control Board.

AQUIFER.--Virginia Beach aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 780 ft, screened 760 to 780 ft.

INSTRUMENTATION.--Bimonthly measurement with manometer by Virginia Water Control Board personnel. Prior to Oct. 9, 1985, occasional measurement with manometer.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 7.0 ft above land-surface datum prior to Jan. 11, 1989; 1.2 ft thereafter.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--July 1979 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

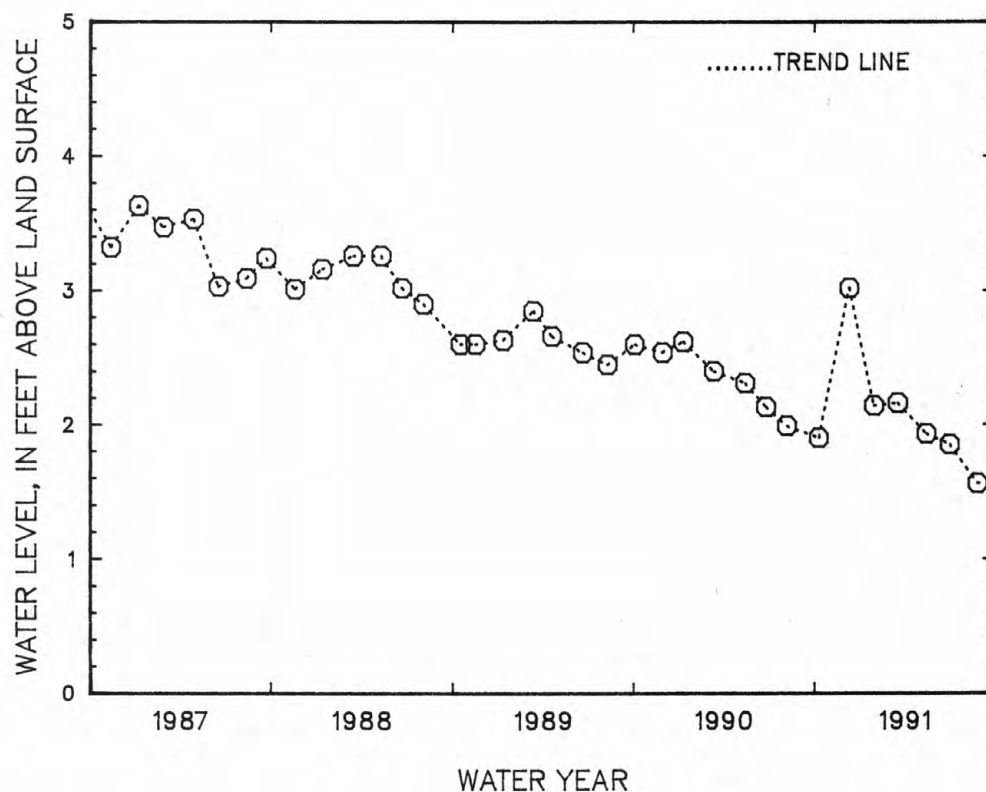
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.37 ft above land-surface datum, July 26, 1979; lowest measured, 1.56 ft above land-surface datum, Aug. 27, 1991.

WATER LEVEL, IN FEET ABOVE LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 10 | 1.90        | JAN 30 | 2.14        | MAR 19 | 2.16        | MAY 16 | 1.93        | JUL 02 | 1.85        | AUG 27 | 1.56        |
| DEC 11 | 3.02        |        |             |        |             |        |             |        |             |        |             |

NOTE.--Flowing well, readings given are above land-surface datum.

WATER YEAR 1991      HIGHEST 3.02 DEC 11, 1990      LOWEST 1.56 AUG 27, 1991





## GROUND-WATER LEVELS

101

## CITY OF CHESAPEAKE

364227076074704. Local number, 61B 7 SOW 091D.

LOCATION.--Lat 36°42'27", long 76°07'47", Hydrologic Unit 03010205, 300 ft south of Lockheed Avenue, 0.7 mi east of intersection of State Highway 165 and Lockheed Avenue, and 3.8 mi east of Fentress. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 22 ft, screened 17 to 22 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 9, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

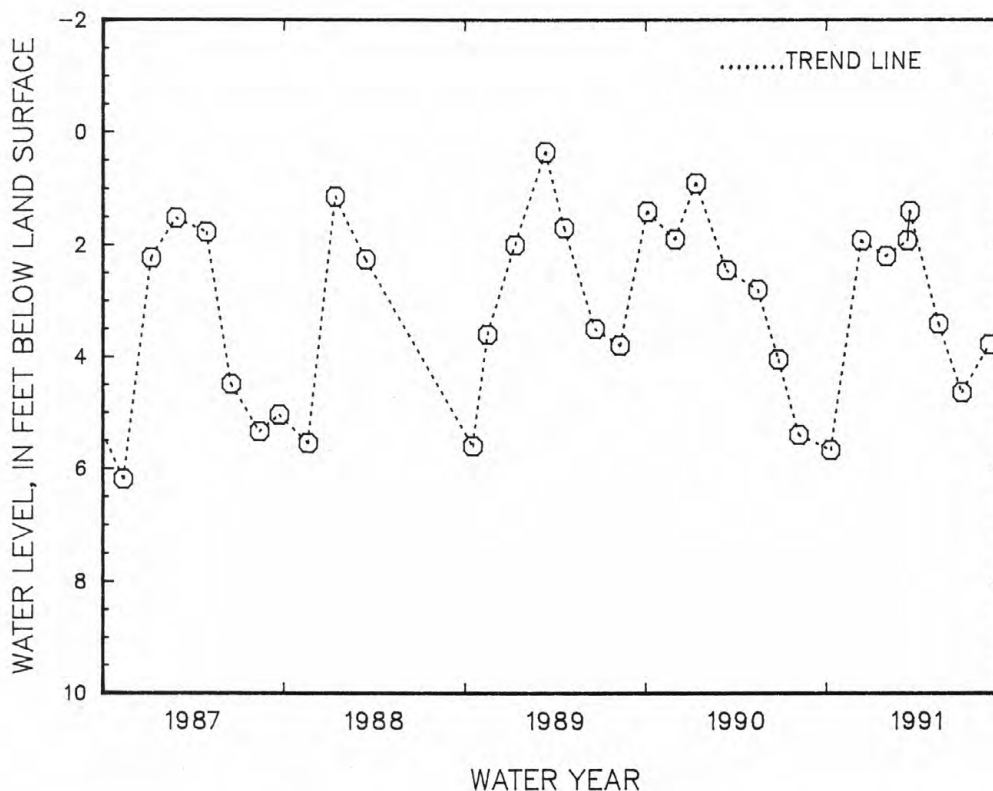
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--June 1979 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.35 ft below land-surface datum, Mar. 13, 1989; lowest measured, 6.22 ft below land-surface datum, Sept. 18, 1980.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 5.67        | JAN 30  | 2.20        | MAR 19       | 1.40        | MAY 16 | 3.41        | JUL 02       | 4.64        | AUG 27 | 3.78        |
| DEC 11          | 1.92        | MAR 14  | 1.92        |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 1.40        | MAR 19, 1991 |             | LOWEST | 5.67        | OCT 10, 1990 |             |        |             |



## GROUND-WATER LEVELS

## CITY OF CHESAPEAKE

364231076140801. Local number, 61B 8 SOW 134.

LOCATION.--Lat 36°42'31", long 76°14'08", Hydrologic Unit 03010205, at Great Bridge Junior High School, in Great Bridge. Owner: Virginia Water Control Board.

AQUIFER.--St. Mary-Choptank aquifer of Miocene age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 8 in., depth 100 ft, screened 84 to 94 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 9, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.8 ft above land-surface datum.

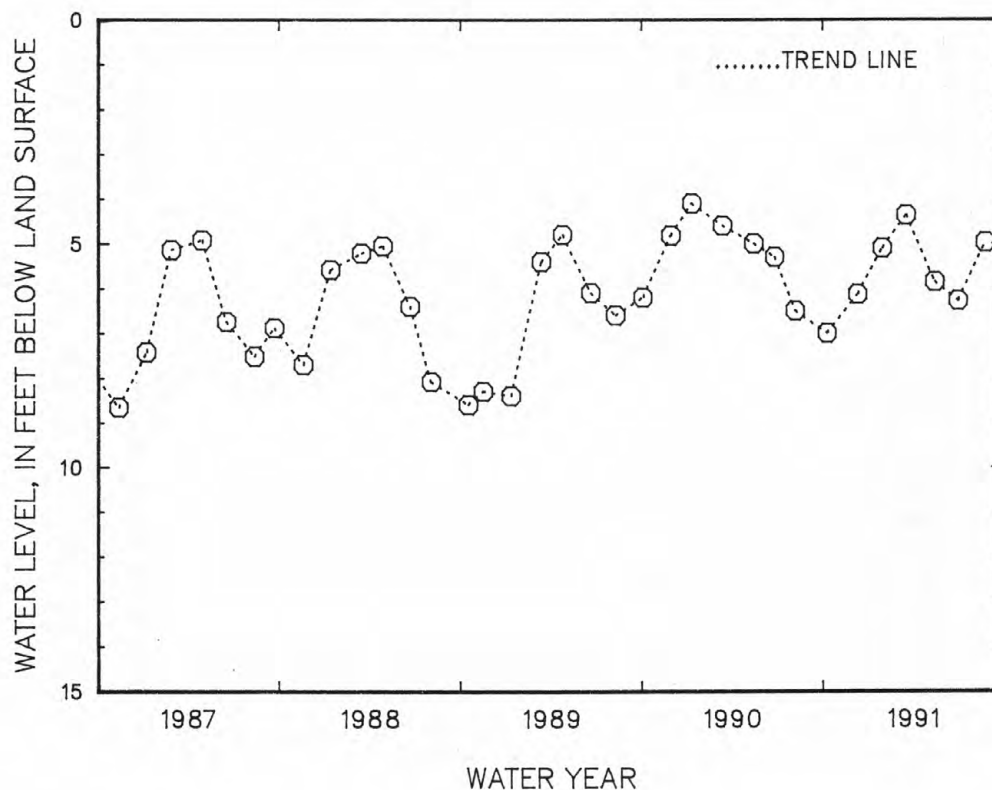
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--January 1979 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.10 ft below land-surface datum, Jan. 10, 1990; lowest measured, 16.07 ft below land-surface datum, Sept. 18, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 7.00        | JAN 30  | 5.10        | MAR 19       | 4.36        | MAY 16 | 5.85        | JUL 02       | 6.27        | AUG 26 | 4.97        |
| DEC 11          | 6.13        |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 4.36        | MAR 19, 1991 |             | LOWEST | 7.00        | OCT 10, 1990 |             |        |             |



## GROUND-WATER LEVELS

103

## CITY OF CHESAPEAKE

364227076074706. Local number, 61B 12 SOW 091E.

LOCATION.--Lat 36°42'27", long 76°07'47", Hydrologic Unit 03010205, 300 ft south of Lockheed Avenue, 0.7 mi east of intersection of State Highway 165 and Lockheed Avenue, and 3.8 mi east of Fentress. Owner: Virginia Water Control Board.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in. to 1,630 ft, diameter 2 in. from 1,630 to 1,830 ft, depth 1,830 ft, screened 1,820 to 1,830 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.4 ft above land-surface datum.

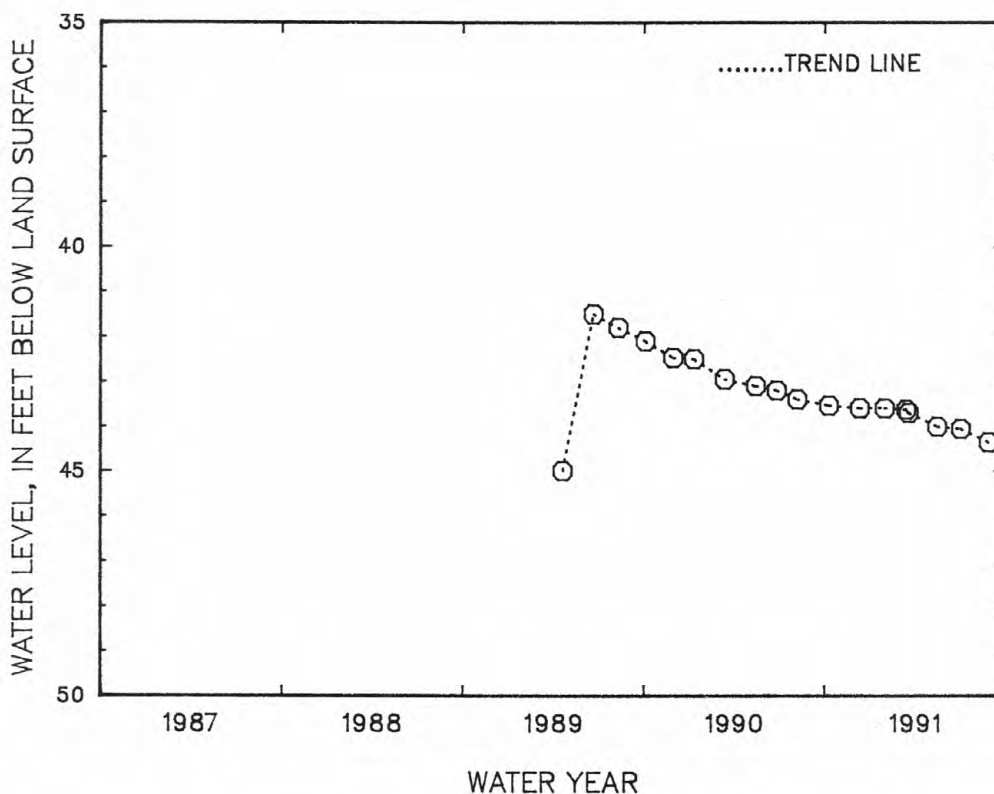
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--March 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.50 ft below land-surface datum, June 21, 1989; lowest measured, 63.00 ft below land-surface datum, Mar. 13, 1989.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 10          | 43.54       | JAN 30  | 43.60       | MAR 19       | 43.70       | MAY 16 | 44.01        | JUL 02 | 44.06       | AUG 27 | 44.36       |
| DEC 11          | 43.60       | MAR 14  | 43.63       |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 43.54       | OCT 10, 1990 | LOWEST      | 44.36  | AUG 27, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

## CITY OF CHESAPEAKE

364227076074707. Local number, 61B 13 SOW 091F.

LOCATION.--Lat 36°42'27", long 76°07'47", Hydrologic Unit 03010205, 300 ft south of Lockheed Avenue, 0.7 mi east of intersection of State Highway 165 and Lockheed Avenue, and 3.8 mi east of Fentress. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in. to 1,270 ft, diameter 2 in. from 1,270 to 1,390 ft, depth 1,390 ft, screened 1,370 to 1,380 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.1 ft above land-surface datum.

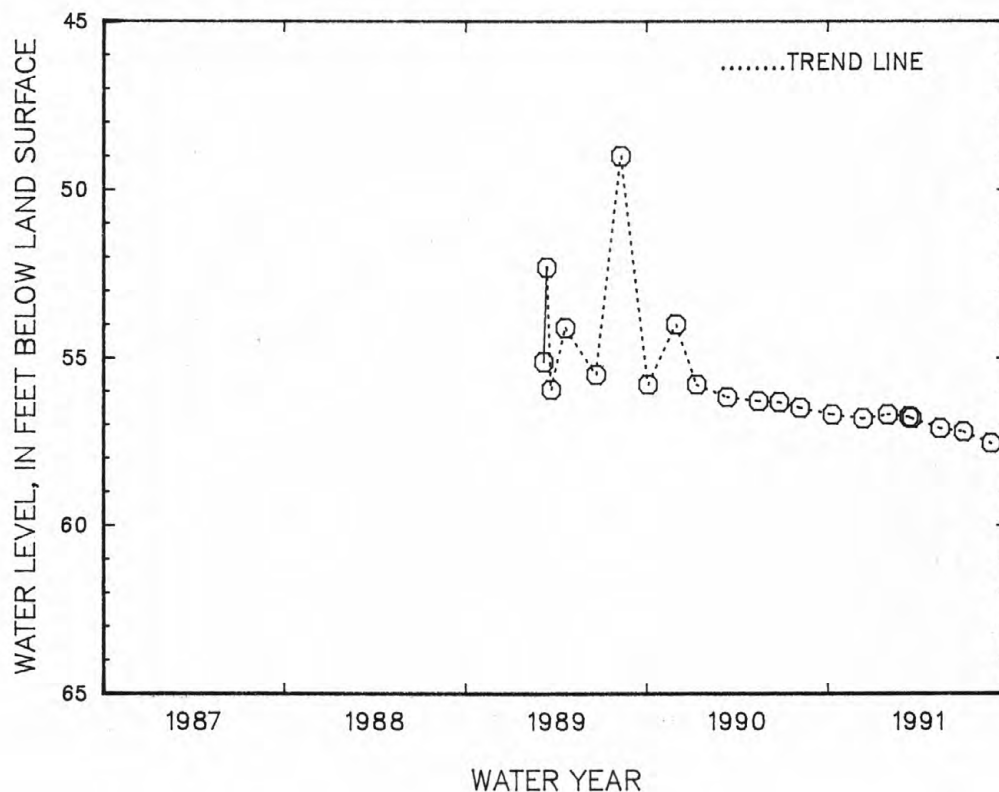
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--March 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.00 ft below land-surface datum, Aug. 10, 1989; lowest measured, 57.56 ft below land-surface datum, Aug. 27, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE                       | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|----------------------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 56.70       | JAN 30  | 56.70       | MAR 19                     | 56.80       | MAY 16 | 57.11       | JUL 02       | 57.21       | AUG 27 | 57.56       |
| DEC 11          | 56.82       | MAR 14  | 56.77       |                            |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 56.70       | OCT 10, 1990, JAN 30, 1991 |             | LOWEST | 57.56       | AUG 27, 1991 |             |        |             |



## GROUND-WATER LEVELS

105

## CITY OF CHESAPEAKE

364227076074708. Local number, 61B 14 SOW 091G.

LOCATION.--Lat 36°42'27", long 76°07'47", Hydrologic Unit 03010205, 300 ft south of Lockheed Avenue, 0.7 mi east of intersection of State Highway 165 and Lockheed Avenue, and 3.8 mi east of Fentress. Owner: Virginia Water Control Board.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in. to 987 ft, diameter 2 in. from 987 to 1,110 ft, depth 1,110 ft, screened 1,090 to 1,100 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.9 ft above land-surface datum.

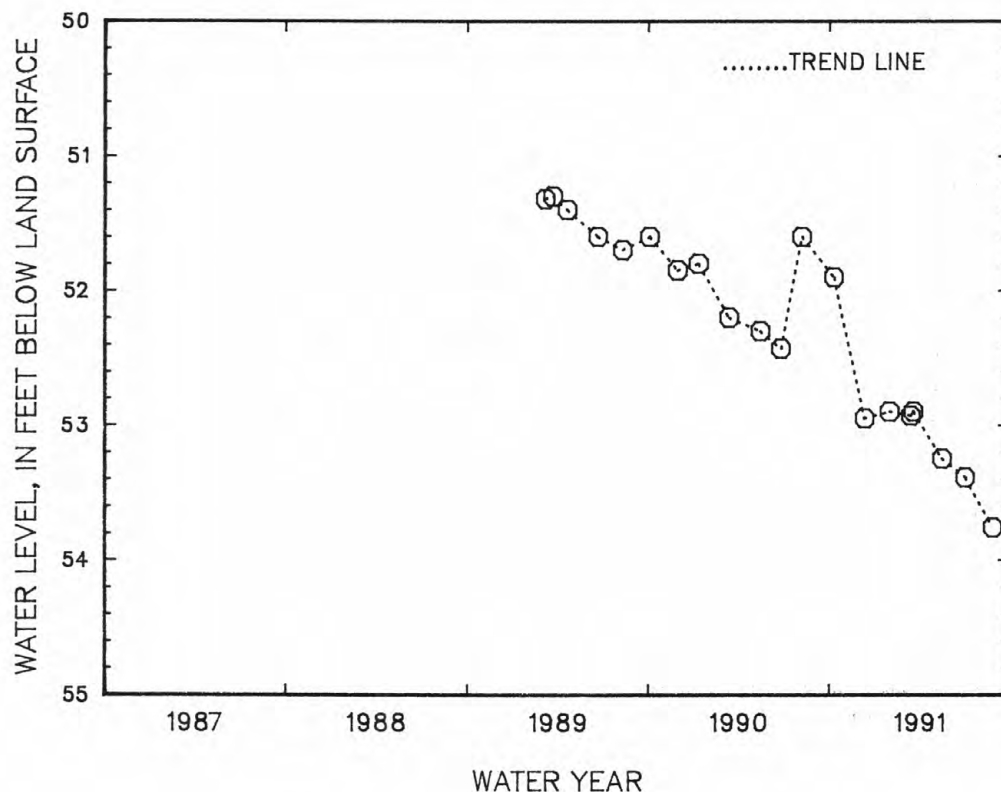
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--March 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.30 ft below land-surface datum, Mar. 22, 1989; lowest measured, 53.76 ft below land-surface datum, Aug. 27, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 51.90       | JAN 30  | 52.90       | MAR 19       | 52.90       | MAY 16 | 53.25       | JUL 02       | 53.39       | AUG 27 | 53.76       |
| DEC 11          | 52.95       | MAR 14  | 52.93       |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 51.90       | OCT 10, 1990 |             | LOWEST | 53.76       | AUG 27, 1991 |             |        |             |



## GROUND-WATER LEVELS

## CITY OF CHESAPEAKE

364227076074709. Local number, 61B 15 SOW 091H.

LOCATION.--Lat 36°42'27", long 76°07'47", Hydrologic Unit 03010205, 300 ft south of Lockheed Avenue, 0.7 mi east of intersection of State Highway 165 and Lockheed Avenue, and 3.8 mi east of Fentress. Owner: Virginia Water Control Board.

AQUIFER.--Virginia Beach aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in. to 700 ft, diameter 2 in. from 674 to 790 ft, depth 790 ft, screened 759 to 769 ft.

INSTRUMENTATION.--Bimonthly measurement with manometer by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.1 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--March 1989 to current year.

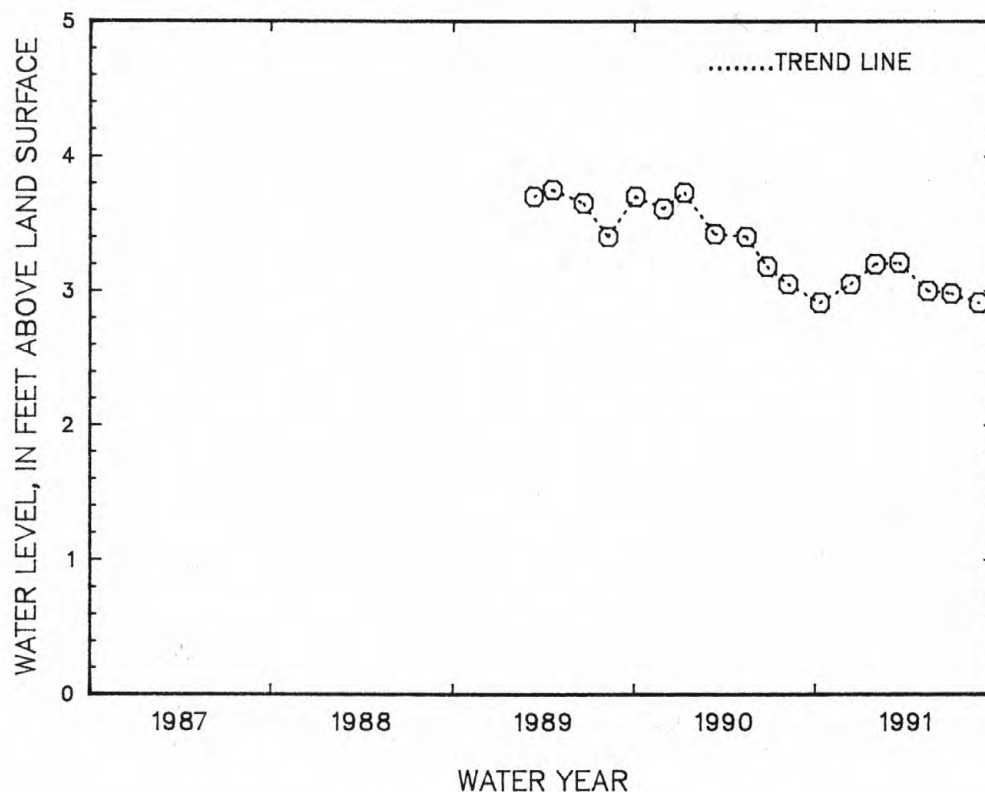
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.75 ft above land-surface datum, Apr. 20, 1989; lowest measured, 1.98 ft above land-surface datum, July 2, 1991.

WATER LEVEL, IN FEET ABOVE LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 10 | 2.91        | JAN 30 | 3.20        | MAR 19 | 3.21        | MAY 16 | 3.00        | JUL 02 | 1.98        | AUG 27 | 2.91        |
| DEC 11 | 3.05        |        |             |        |             |        |             |        |             |        |             |

NOTE.--Flowing well, readings given are above land-surface datum.

WATER YEAR 1991      HIGHEST 3.21 MAR 19, 1991      LOWEST 1.98 JUL 02, 1991





## GROUND-WATER LEVELS

107

## CITY OF CHESAPEAKE

364227076074710. Local number, 61B 16 SOW 091J.

LOCATION.--Lat 36°42'27", long 76°07'47", Hydrologic Unit 03010205, 300 ft south of Lockheed Avenue, 0.7 mi east of intersection of State Highway 165 and Lockheed Avenue, and 3.8 mi east of Fentress. Owner: Virginia Water Control Board.

AQUIFER.--Chickahominy-Piney Point aquifer of Eocene-Miocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in. to 602 ft, diameter 2 in. from 586 to 690 ft, depth 690 ft, screened 670 to 680 ft.

INSTRUMENTATION.--Bimonthly measurement with manometer by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.1 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--March 1989 to current year.

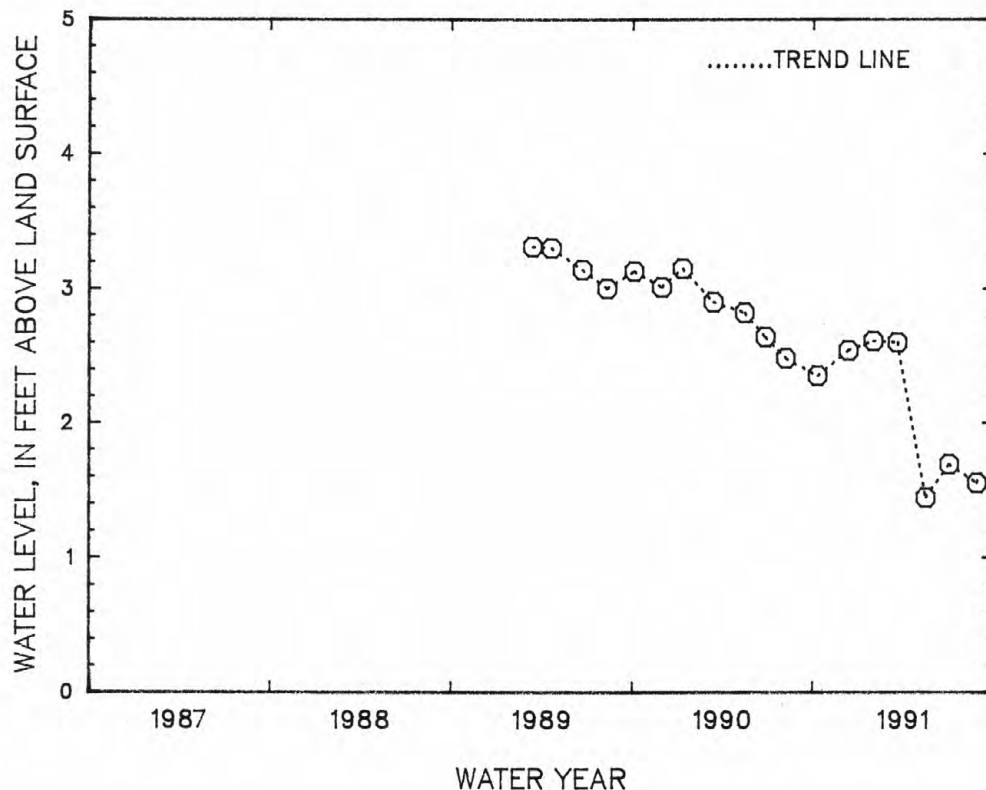
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.31 ft above land-surface datum, Mar. 13, 1989; lowest measured, 1.44 ft above land-surface datum, May 16, 1991.

## WATER LEVEL, IN FEET ABOVE LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 10 | 2.35        | JAN 30 | 2.61        | MAR 19 | 2.60        | MAY 16 | 1.44        | JUL 02 | 1.69        | AUG 27 | 1.55        |
| DEC 11 | 2.54        |        |             |        |             |        |             |        |             |        |             |

NOTE.--Flowing well, readings given are above land-surface datum.

WATER YEAR 1991      HIGHEST 2.61 JAN 30, 1991      LOWEST 1.44 MAY 16, 1991



## GROUND-WATER LEVELS

## CITY OF CHESAPEAKE

364227076074711. Local number, 61B 17 SOW 091K.

LOCATION.--Lat 36°42'27", long 76°07'47", Hydrologic Unit 03010205, 300 ft south of Lockheed Avenue, 0.7 mi east of intersection of State Highway 165 and Lockheed Avenue, and 3.8 mi east of Fentress. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in. to 78 ft, diameter 2 in. from 78 to 108 ft, depth 108 ft, screened 88 to 98 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.3 ft above land-surface datum.

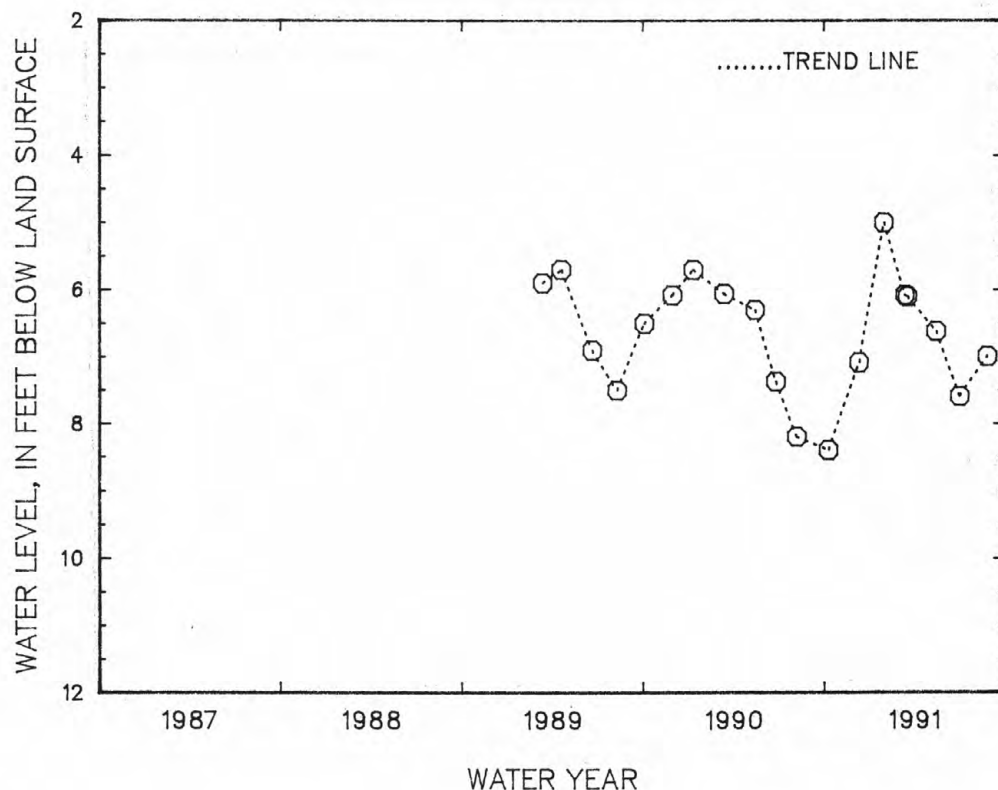
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--March 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.00 ft below land-surface datum, Jan. 30, 1991; lowest measured, 8.40 ft below land-surface datum, Oct. 10, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 8.40        | JAN 30  | 5.00        | MAR 19       | 6.10        | MAY 16 | 6.62        | JUL 02       | 7.59        | AUG 27 | 6.99        |
| DEC 11          | 7.08        | MAR 14  | 6.08        |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 5.00        | JAN 30, 1991 |             | LOWEST | 8.40        | OCT 10, 1990 |             |        |             |



## GROUND-WATER LEVELS

109

## CITY OF CHESAPEAKE

364227076074712. Local number, 61B 18 SOW 091L.

LOCATION.--Lat 36°42'27", long 76°07'47", Hydrologic Unit 03010205, 300 ft south of Lockheed Avenue, 0.7 mi east of intersection of State Highway 165 and Lockheed Avenue, and 3.8 mi east of Fentress. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in. to 37 ft, diameter 2 in. from 37 to 67 ft, depth 67 ft, screened 57 to 67 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.3 ft above land-surface datum.

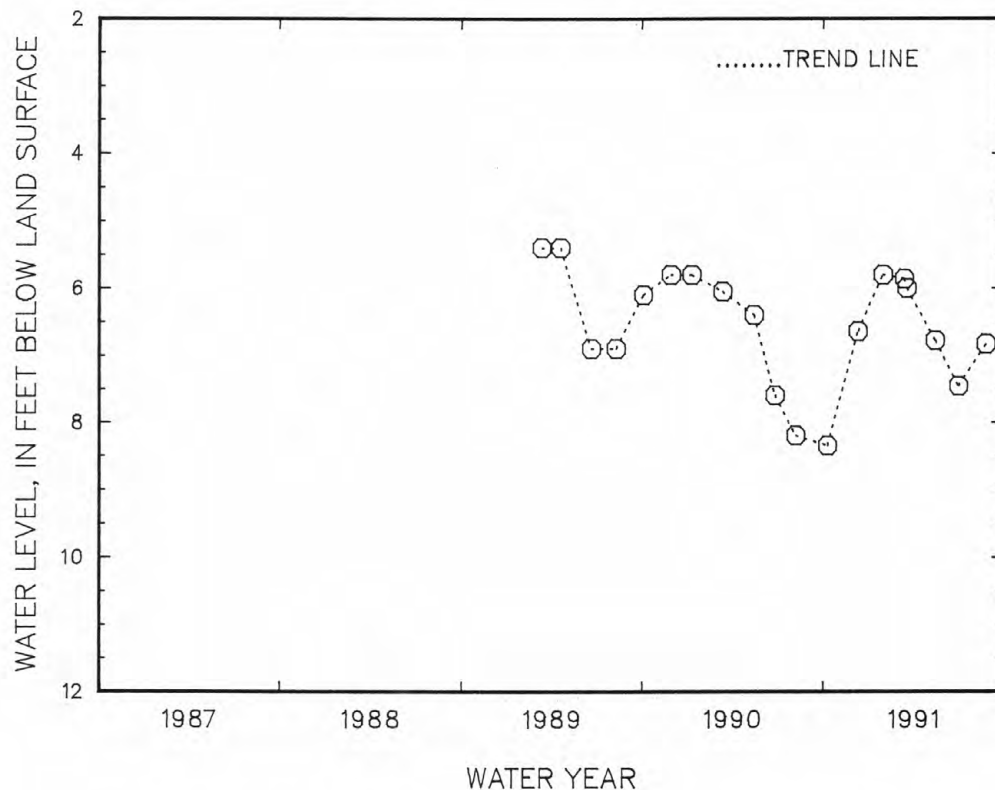
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--March 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.40 ft below land-surface datum, Mar. 13, Apr. 20, 1989; lowest measured, 8.35 ft below land-surface datum, Oct. 10, 1990.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 10          | 8.35        | JAN 30  | 5.80        | MAR 19       | 6.00        | MAY 16 | 6.78         | JUL 02 | 7.46        | AUG 27 | 6.83        |
| DEC 11          | 6.64        | MAR 14  | 5.86        |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 5.80        | JAN 30, 1991 | LOWEST      | 8.35   | OCT 10, 1990 |        |             |        |             |



## GROUND-WATER LEVELS

## CITY OF CHESAPEAKE

364227076074713. Local number, 61B 19 SOW 091M.

LOCATION.--Lat 36°42'27", long 76°07'47", Hydrologic Unit 03010205, 300 ft south of Lockheed Avenue, 0.7 mi east of intersection of State Highway 165 and Lockheed Avenue, and 3.8 mi east of Fentress. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 20 ft, screened 10 to 20 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.1 ft above land-surface datum.

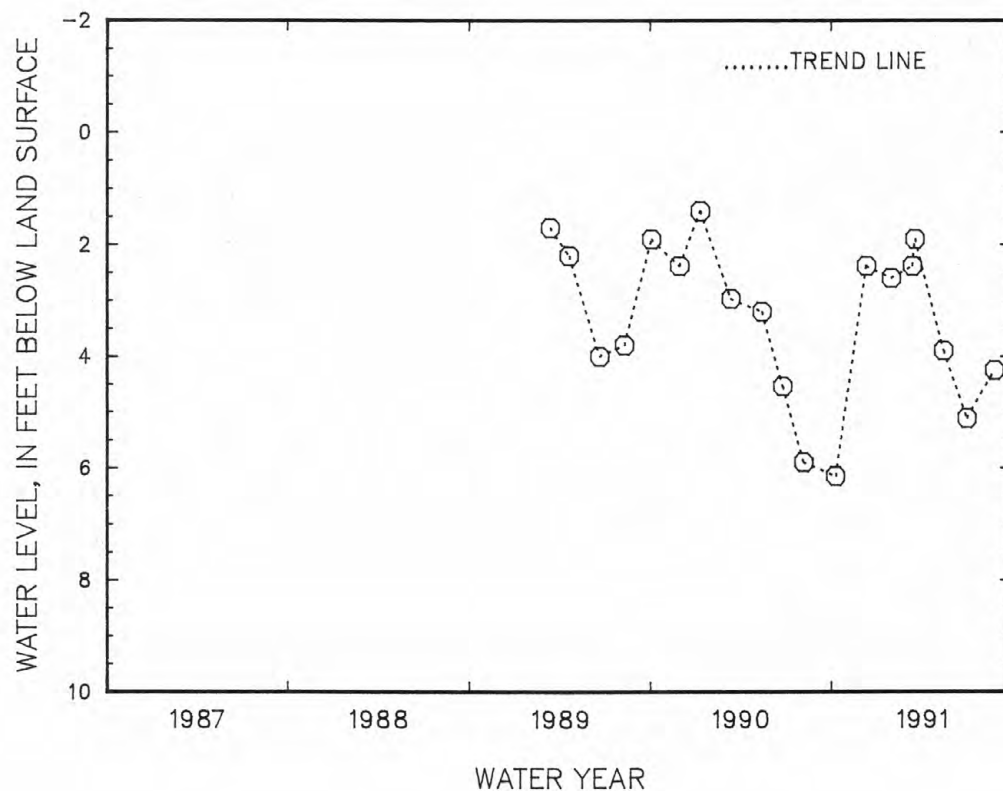
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--March 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.40 ft below land-surface datum, Jan. 10, 1990; lowest measured, 6.15 ft below land-surface datum, Oct. 10, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 6.15        | JAN 30  | 2.60        | MAR 19       | 1.90        | MAY 16 | 3.90        | JUL 02       | 5.11        | AUG 27 | 4.25        |
| DEC 11          | 2.38        | MAR 14  | 2.38        |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 1.90        | MAR 19, 1991 |             | LOWEST | 6.15        | OCT 10, 1990 |             |        |             |



## CHESTERFIELD COUNTY

372519077264701. Local number, 51H 92.

LOCATION.--Lat 37°25'19", long 77°26'47", Hydrologic Unit 02080206, 500 ft north of Alcott Road at Bensley, 0.3 mi southwest of the intersection of U.S. Highways 1 and 301 (Jefferson Davis Highway) and Alcott Road. Owner: U.S. Geological Survey.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 3 in., depth 53 ft, screened 51 to 53 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Oct. 1, 1985, to Jan. 23, 1991, digital recorder--60-minute punch. Prior to Oct. 1, 1985, monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 102.31 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.5 ft above land-surface datum.

REMARKS.--Water level affected by pumping and sampling at different times during the year.

PERIOD OF RECORD.--April 1985 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 8.95 ft below land-surface datum, June 14, 1989; lowest measured, 14.35 ft below land-surface datum, Aug. 16, 1985.

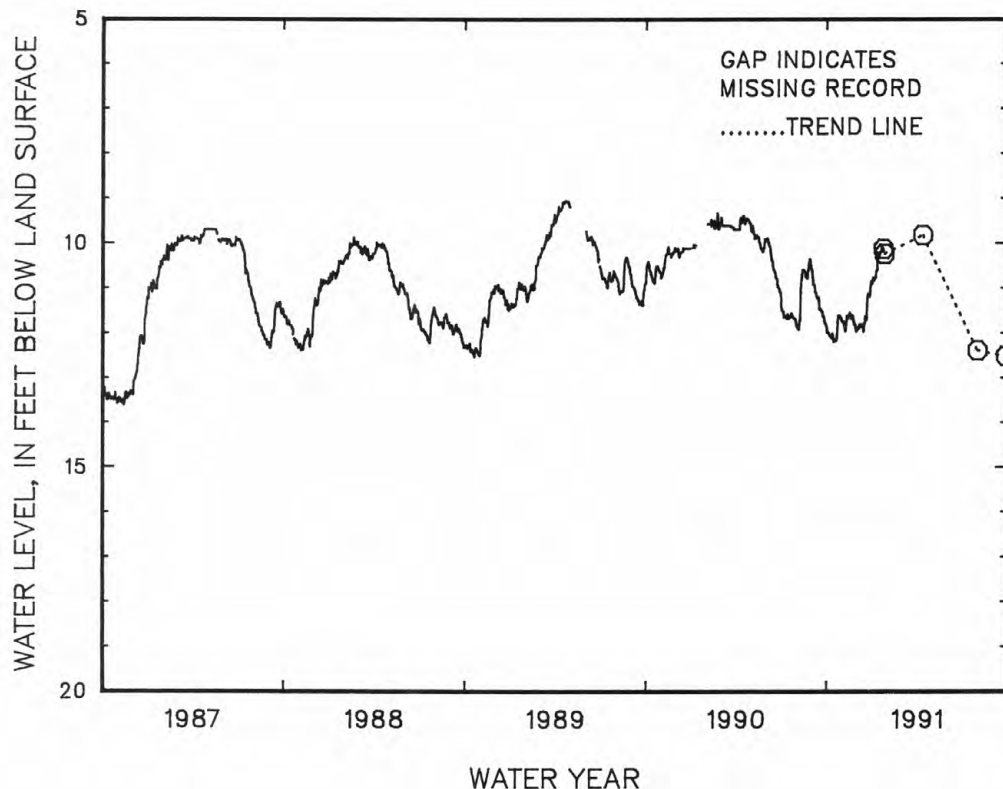
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, OCTOBER 1990 TO JANUARY 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   |
|-----|-------|-------|-------|-------|
| 5   | 11.99 | 11.74 | 11.89 | 10.82 |
| 10  | 12.08 | 11.83 | 11.81 | 10.60 |
| 15  | 12.14 | 11.66 | 11.96 | 10.26 |
| 20  | 12.17 | 11.66 | 11.71 | 10.09 |
| 25  | 11.63 | 11.72 | 11.17 | ---   |
| EOM | 11.66 | 11.96 | 10.90 | ---   |

PERIOD OCTOBER 1990 TO JANUARY 1991      HIGHEST 9.98 JAN 21, 1991      LOWEST 12.20 OCT 16, 17, 1990

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, JANUARY TO SEPTEMBER 1991

| DATE                                                                                           | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|------------------------------------------------------------------------------------------------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| JAN 23                                                                                         | 10.13       | JAN 25 | 10.24       | APR 12 | 9.82        | AUG 01 | 12.39       | SEP 27 | 12.52       |
| PERIOD JANUARY TO SEPTEMBER 1991      HIGHEST 9.82 APR 12, 1991      LOWEST 12.52 SEP 27, 1991 |             |        |             |        |             |        |             |        |             |



## GROUND-WATER LEVELS

## CHESTERFIELD COUNTY

372519077264702. Local number, 51H 93.

LOCATION.--Lat 37°25'19", long 77°26'47", Hydrologic Unit 02080206, 500 ft north of Alcott Road at Bensley and 0.3 mi southwest of the intersection of U.S. Highways 1 and 301 (Jefferson Davis Highway) and Alcott Road. Owner: U.S. Geological Survey.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 3 in., depth 38 ft, screened 36 to 38 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch. Prior to Oct. 1, 1985, monthly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 102.40 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.9 ft above land-surface datum.

REMARKS.--Water level affected by pumping and sampling at different times during the year.

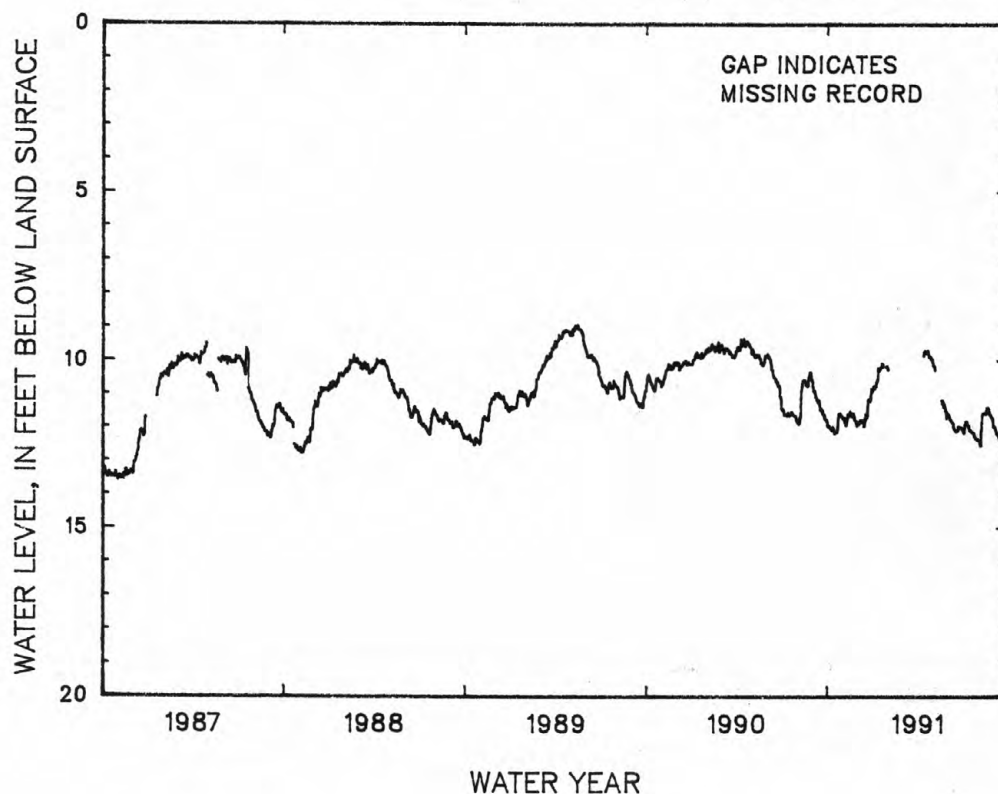
PERIOD OF RECORD.--April 1985 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 8.94 ft below land-surface datum, May 16, 1989; lowest measured, 14.65 ft below land-surface datum, Aug. 16, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB | MAR | APR  | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-----|-----|------|-------|-------|-------|-------|-------|
| 5   | 11.97 | 11.73 | 11.88 | 10.83 | --- | --- | ---  | 10.17 | 11.73 | 12.06 | 12.49 | 12.04 |
| 10  | 12.06 | 11.81 | 11.80 | 10.61 | --- | --- | ---  | ---   | 11.85 | 11.87 | 11.64 | 12.22 |
| 15  | 12.12 | 11.66 | 11.96 | 10.28 | --- | --- | 9.76 | ---   | 12.07 | 12.08 | 11.57 | 12.43 |
| 20  | 12.16 | 11.66 | 11.71 | 10.09 | --- | --- | 9.77 | 11.20 | 12.11 | 12.15 | 11.43 | 12.59 |
| 25  | 11.63 | 11.72 | 11.20 | ---   | --- | --- | 9.87 | 11.33 | 12.00 | 12.28 | 11.61 | 12.56 |
| EOM | 11.66 | 11.95 | 10.91 | 10.22 | --- | --- | 9.95 | 11.59 | 12.01 | 12.36 | 11.78 | 12.54 |

WATER YEAR 1991      HIGHEST 9.64 APR 22, 23, 1991      LOWEST 12.66 SEP 22-24, 1991





## GROUND-WATER LEVELS

113

## CHESTERFIELD COUNTY

372519077264703. Local number, 51H 94.

LOCATION.--Lat 37°25'19", long 77°26'47", Hydrologic Unit 02080206, 500 ft north of Alcott Road, 0.3 mi southwest of the intersection of U.S. Highways 1 and 301 in Bensley. Owner: U.S. Geological Survey.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 3 in., depth 26 ft, screened 24 to 26 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch. Prior to Oct. 1, 1985, monthly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 102.04 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.2 ft above land-surface datum.

REMARKS.--Water level affected by pumping and sampling at different times during the year.

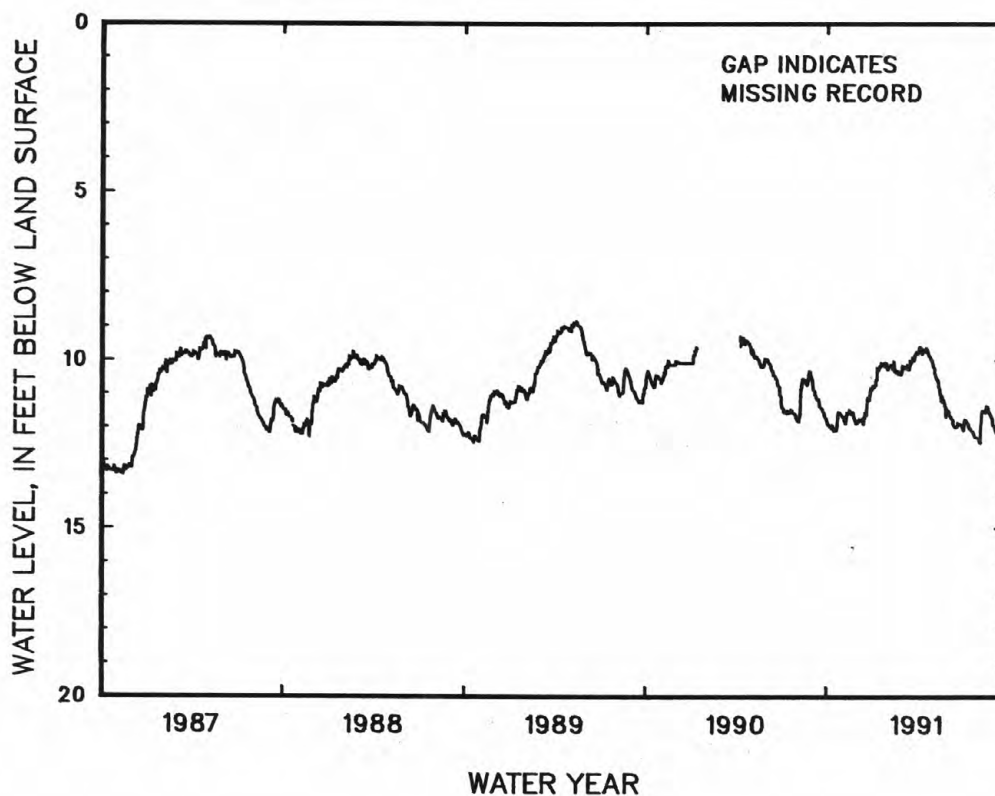
PERIOD OF RECORD.--April 1985 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 8.82 ft below land-surface datum, May 16, 1989; lowest measured, 15.19 ft below land-surface datum, Aug. 16, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR  | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|
| 5   | 11.91 | 11.67 | 11.83 | 10.79 | 10.17 | 10.23 | 9.72 | 10.20 | 11.58 | 11.97 | 12.41 | 11.98 |
| 10  | 12.01 | 11.76 | 11.75 | 10.57 | 10.12 | 10.21 | 9.61 | 10.49 | 11.73 | 11.79 | 11.55 | 12.17 |
| 15  | 12.06 | 11.59 | 11.89 | 10.24 | 10.21 | 10.24 | 9.72 | 10.74 | 11.95 | 12.00 | 11.50 | 12.37 |
| 20  | 12.10 | 11.59 | 11.64 | 10.07 | 10.30 | 10.06 | 9.72 | 11.03 | 11.99 | 12.09 | 11.35 | 12.52 |
| 25  | 11.57 | 11.65 | 11.14 | ---   | 10.33 | 9.98  | 9.83 | 11.18 | 11.88 | 12.22 | 11.56 | 12.45 |
| EOM | 11.59 | 11.89 | 10.86 | 10.21 | 10.41 | 9.81  | 9.95 | 11.43 | 11.91 | 12.30 | 11.74 | 12.46 |

WATER YEAR 1991      HIGHEST 9.54 APR 09, 10, 1991      LOWEST 12.60 SEP 22, 23, 1991



## GROUND-WATER LEVELS

## CHESTERFIELD COUNTY

372519077264704. Local number, 51H 95.

LOCATION.--Lat 37°25'19", long 77°26'47", Hydrologic Unit 02080206, 500 ft north of Alcott Road at Bensley and 0.3 mi southwest of the intersection of U.S. Highways 1 and 301 (Jefferson Davis Highway) and Alcott Road.

Owner: U.S. Geological Survey.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 3 in., depth 4.7 ft, screened 2.7 to 4.7 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Jan. 23, 1991, digital recorder--60-minute punch and monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 102.23 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.9 ft above land-surface datum.

REMARKS.--Upper limit of recorded water-level data is limited by well construction. Water level affected by pumping and sampling at different times during the year.

PERIOD OF RECORD.--April 1985 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.02 ft below land-surface datum, Jan. 11, 12, 1990; lowest recorded, 4.38 ft below land-surface datum, Aug. 8-19, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, OCTOBER 1990 TO JANUARY 1991  
LOWEST VALUES

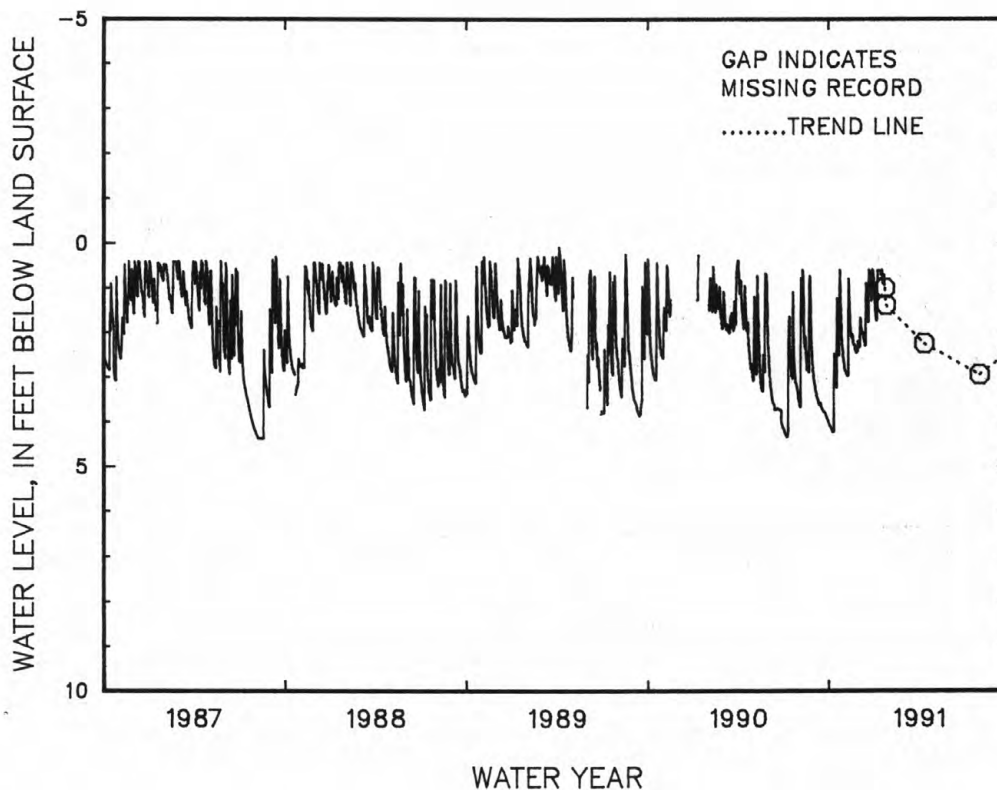
| DAY | OCT  | NOV  | DEC  | JAN  |
|-----|------|------|------|------|
| 5   | 4.11 | 2.86 | 1.69 | 1.61 |
| 10  | 4.23 | 2.96 | 2.06 | .60  |
| 15  | 2.99 | 2.01 | 2.29 | .68  |
| 20  | 2.02 | 2.23 | 1.75 | .88  |
| 25  | .89  | 2.41 | .85  | ---  |
| EOM | 2.53 | 2.21 | .76  | ---  |

PERIOD OCTOBER 1990 TO JANUARY 1991  
HIGHEST 0.60 OCT 18, 19, 23, 24, NOV 10, 11, DEC 21-23, 28-31, 1990,  
JAN 8-19, 1991  
LOWEST 4.23 OCT 10, 11, 1990

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, JANUARY TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| JAN 23 | 1.00        | JAN 25 | 1.38        | APR 12 | 2.25        | AUG 01 | 2.95        | SEP 27 | 2.46        |

PERIOD JANUARY TO SEPTEMBER 1991  
HIGHEST 1.00 JAN 23, 1991  
LOWEST 2.95 AUG 01, 1991



## GROUND-WATER LEVELS

115

## CHESTERFIELD COUNTY

372519077264605. Local number, 51H130.

LOCATION.--Lat 37°25'19", long 77°26'46", Hydrologic Unit 02080206, 500 ft north of Alcott Road at Bensley and 0.3 mi southwest of the intersection of U.S. Highway 1 and 301 (Jefferson Davis Highway) and Alcott Road.  
Owner: U.S. Geological Survey.

AQUIFER.--Petersburg Granite of Late Paleozoic age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 96 ft, cased to 71 ft, open hole 71 to 96 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 102.17 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.64 ft above land-surface datum.

REMARKS.--Water level affected by pumping and sampling at different times during the year.

PERIOD OF RECORD.--May 1985 to current year. Unpublished records available prior to October 1988 in files of the Geological Survey.

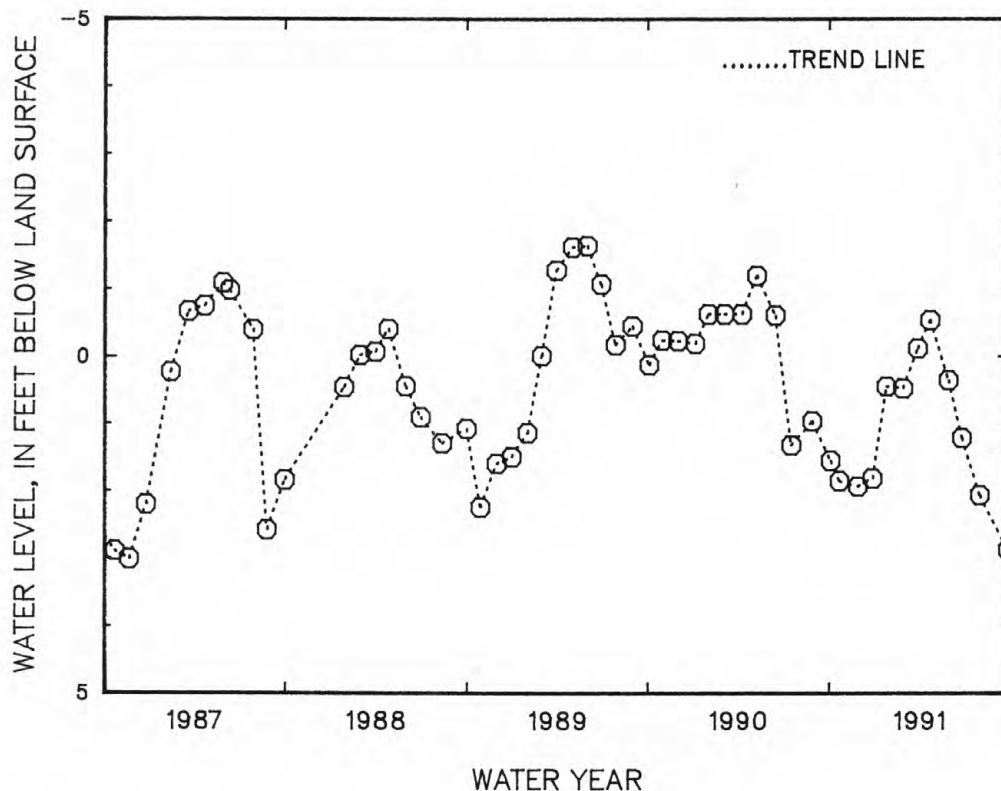
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.64 ft above land-surface datum, June 1, 1989; lowest measured, 3.80 ft below land-surface datum, Aug. 11, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 04 | 1.56        | NOV 28 | 1.94        | JAN 25 | 0.45        | MAR 29 | *+0.12      | MAY 30 | 0.36        | AUG 01 | 2.07        |
| 22     | 1.86        | DEC 28 | 1.82        | FEB 27 | .48         | APR 23 | *+.54       | JUN 26 | 1.22        | SEP 27 | 2.88        |

\* Flowing well; readings given are above land-surface datum.

WATER YEAR 1991      HIGHEST    \*+0.54    APR 23, 1991      LOWEST    2.88    SEP 27, 1991



## GROUND-WATER LEVELS

## CLARKE COUNTY

390348078035501. Local number, 46W175.

LOCATION.--Lat 39°03'48", long 78°03'55", Hydrologic Unit 02070007, 1.5 mi east of the intersection of U.S. Highways 17/50 and 340 at Blandy Experimental Farm. Owner: University of Virginia.

AQUIFER.--Conococheague Limestone of Middle Cambrian age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in., depth 80.4 ft, cased to 24 ft, open hole 24 to 80.4 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 600 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.7 ft above land-surface datum.

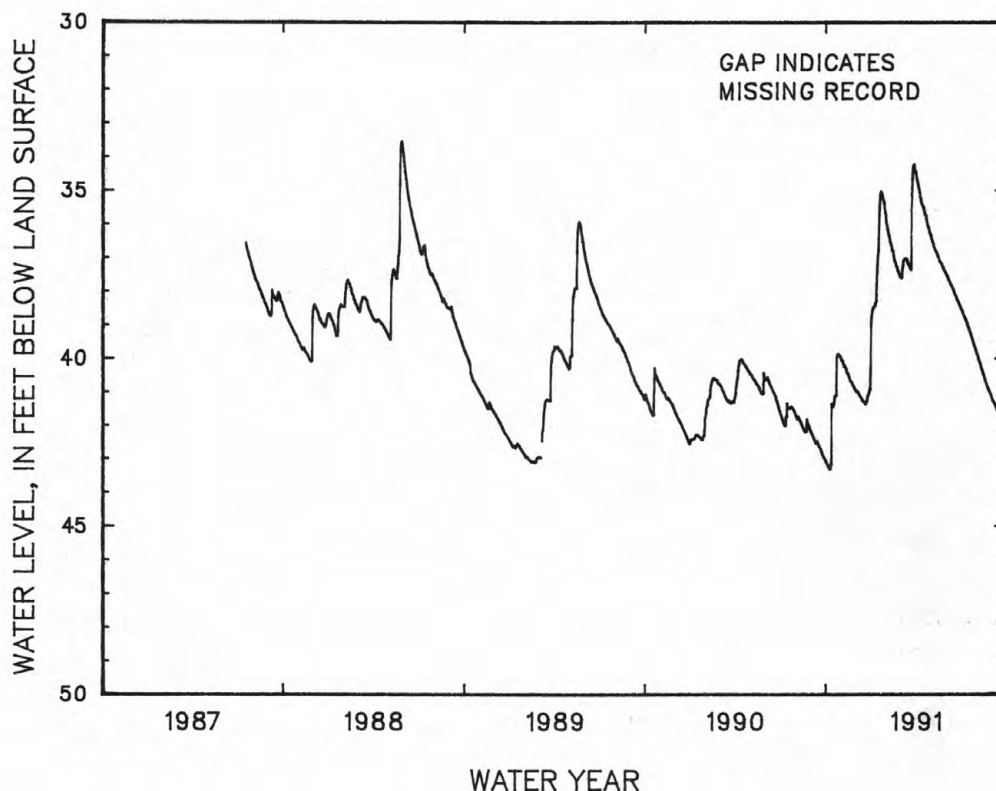
PERIOD OF RECORD.--July 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 33.53 ft below land-surface datum, May 28, 1988; lowest recorded, 43.31 ft below land-surface datum, Oct. 10, 11, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 43.17 | 40.07 | 40.99 | 38.49 | 36.30 | 37.31 | 34.79 | 36.54 | 37.62 | 38.64 | 39.99 | 41.31 |
| 10  | 43.31 | 40.24 | 41.14 | 38.33 | 36.63 | 37.03 | 35.19 | 36.78 | 37.78 | 38.83 | 40.20 | 41.46 |
| 15  | 41.45 | 40.46 | 41.26 | 36.94 | 36.94 | 37.14 | 35.44 | 36.94 | 37.94 | 39.05 | 40.46 | 41.65 |
| 20  | 41.14 | 40.66 | 41.36 | 35.07 | 37.23 | 37.29 | 35.73 | 37.13 | 38.13 | 39.24 | 40.69 | 41.85 |
| 25  | 39.89 | 40.79 | 41.15 | 35.26 | 37.43 | 34.66 | 36.06 | 37.26 | 38.31 | 39.47 | 40.90 | 42.01 |
| EOM | 39.94 | 40.93 | 40.37 | 35.87 | 37.57 | 34.41 | 36.29 | 37.45 | 38.46 | 39.75 | 41.11 | 42.21 |

WATER YEAR 1991      HIGHEST 34.16 MAR 28, 1991      LOWEST 43.31 OCT 10, 11, 1990



## GROUND-WATER LEVELS

117

## CITY OF COLONIAL HEIGHTS

371644077244601. Local number, 51G 1.

LOCATION.--Lat 37°16'44", long 77°24'46", Hydrologic Unit 02080207, 200 ft west of U.S. Highways 1 and 301, 0.5 mi south of the intersection of State Highway 144 (Ashby Avenue) and U.S. Highways 1 and 301 (Boulevard) in Colonial Heights. Owner: Dean Whittington.

AQUIFER.--Petersburg Granite of Late Paleozoic age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in., depth 100 ft, cased to 50 ft, open hole 50 to 100 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

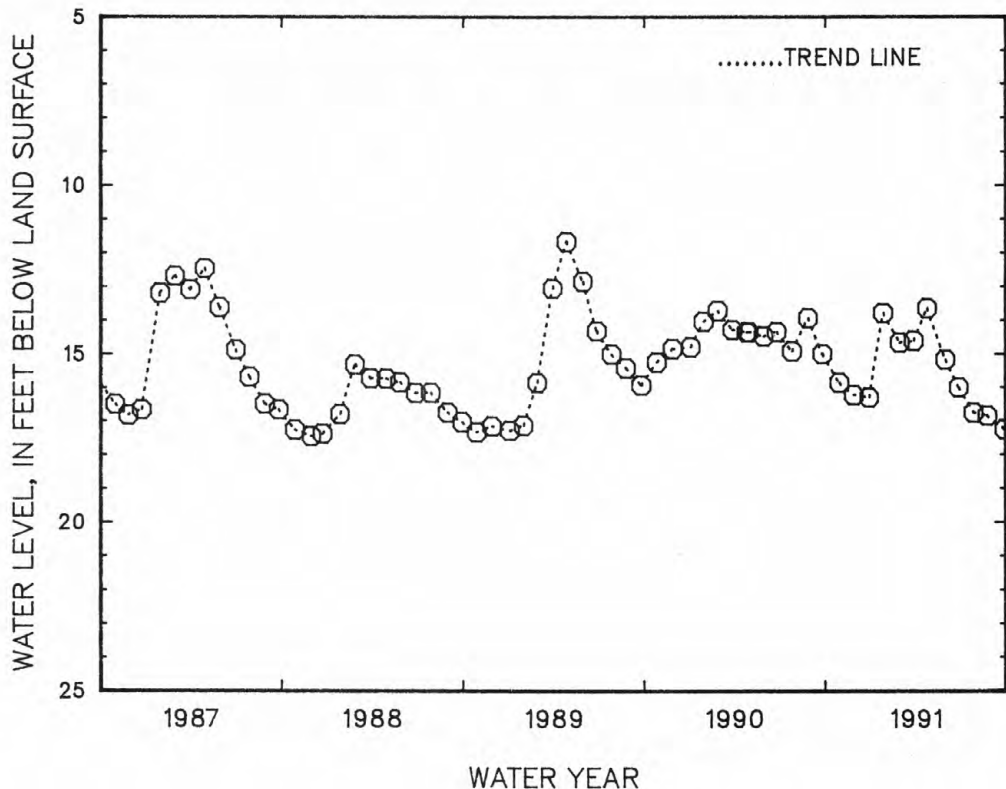
DATUM.--Elevation of land-surface datum is 57.30 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--October 1939 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.73 ft below land-surface datum, Jan. 26, 1978; lowest measured, 19.26 ft below land-surface datum, Dec. 3, 1963.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 29          | 15.87       | DEC 28  | 16.31       | FEB 27       | 14.67       | APR 23 | 13.65        | JUN 26 | 16.01       | AUG 23 | 16.85       |
| NOV 27          | 16.24       | JAN 25  | 13.79       | MAR 27       | 14.62       | MAY 30 | 15.18        | JUL 26 | 16.76       | SEP 27 | 17.26       |
| WATER YEAR 1991 |             | HIGHEST | 13.65       | APR 23, 1991 | LOWEST      | 17.26  | SEP 27, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

## ESSEX COUNTY

375032076583201. Local number, 55L 1.

LOCATION.--Lat 37°50'32", long 76°58'32", Hydrologic Unit 02080104, 0.4 mi northeast of the intersection of State Highway 621 and private dirt road at Retreat Farm near Millers Tavern and 0.9 mi west of the intersection of U.S. Highway 360 and State Highway 621. Owner: Edward W. Haile.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 4 in. to 210 ft, diameter 2 in. from 210 to 621 ft, depth 621 ft, screened 575 to 585 ft, 615 to 621 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 162 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of lip of concrete hatchway, at land-surface datum.

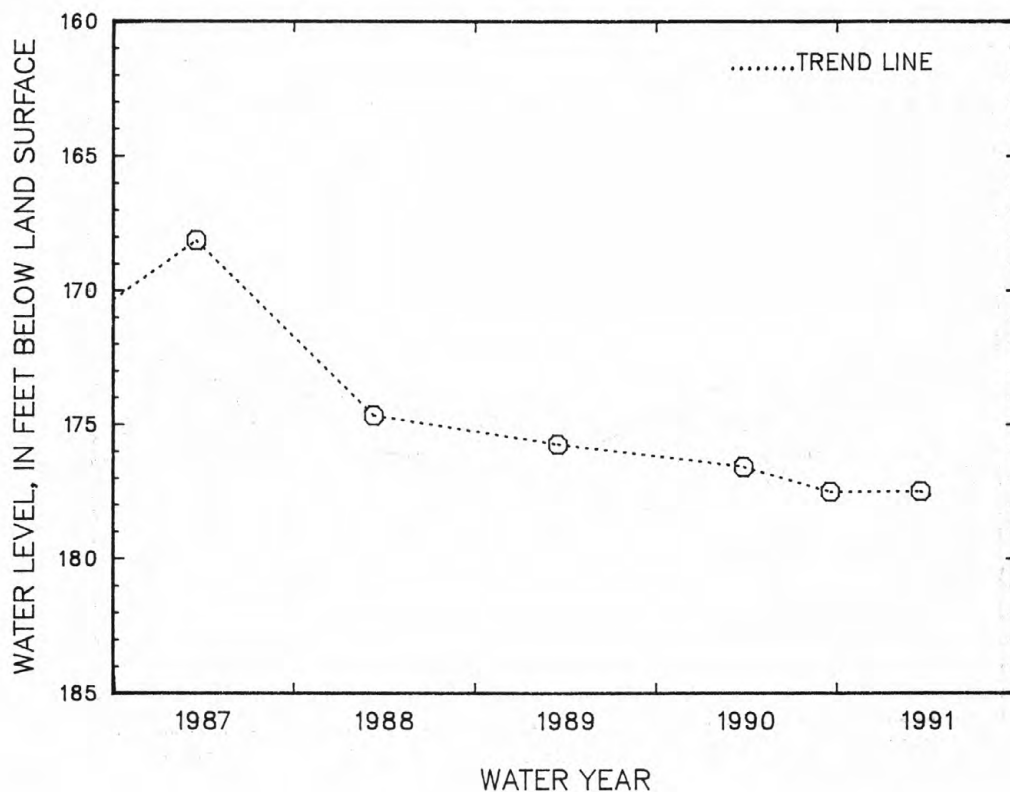
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--December 1971 to current year. Unpublished records available prior to October 1988 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 160.14 ft below land-surface datum, Mar. 1, 1973; lowest measured, 177.51 ft below land-surface datum, Sept. 18, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 19 | 177.49         |





## GROUND-WATER LEVELS

119

## FAIRFAX COUNTY

384518077163501. Local number, 52U 4.

LOCATION.--Lat 38°45'18", long 77°16'35", Hydrologic Unit 02070010, 200 ft east of intersection of State Highways 641 and 643 in Springfield. Owner: Sydenstricker Church.

AQUIFER.--Granite of undetermined age.

WELL CHARACTERISTICS.--Dug unused water well, diameter 24 in., depth 28 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 340 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Hole in cement platform, 0.67 ft above land-surface datum.

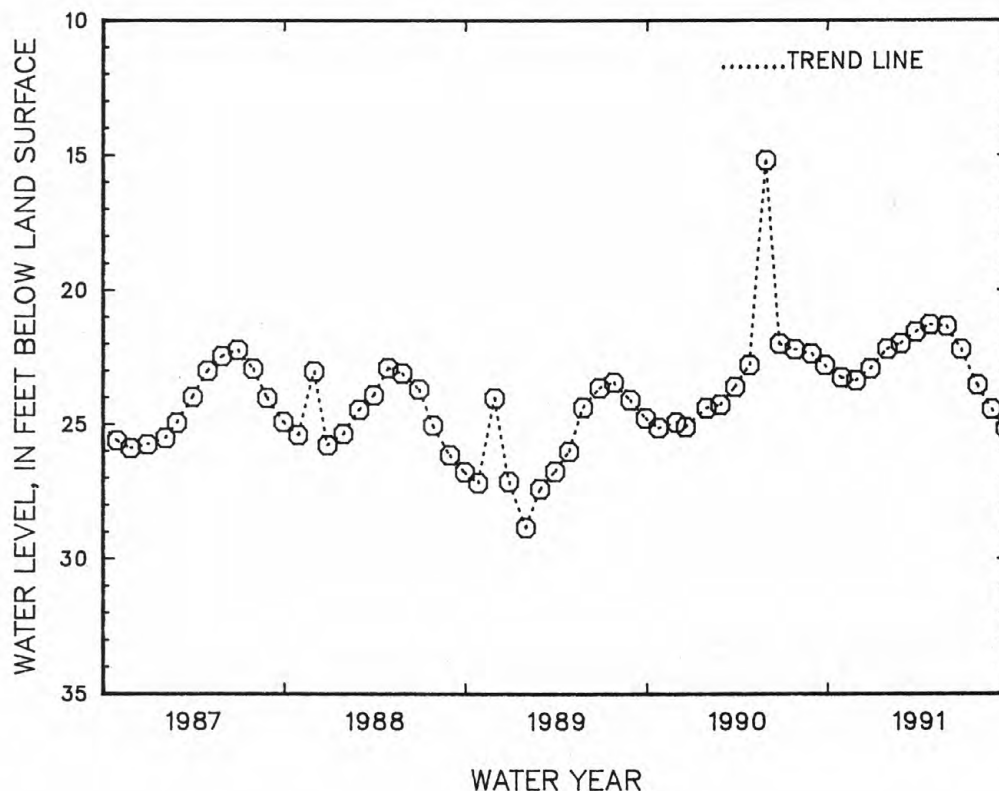
REMARKS.--Water level occasionally affected by local surface-water runoff into well casing (May 1990 and at other times).

PERIOD OF RECORD.--May 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.54 ft below land-surface datum, Apr. 30, 1973; lowest measured, 28.85 ft below land-surface datum, Jan. 30, 1989.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 29          | 23.28       | DEC 26  | 22.94       | FEB 25       | 22.00       | APR 25 | 21.29       | JUN 26       | 22.22       | AUG 27 | 24.46       |
| NOV 27          | 23.39       | JAN 29  | 22.20       | MAR 27       | 21.56       | MAY 28 | 21.35       | JUL 29       | 23.55       | SEP 24 | 25.18       |
| WATER YEAR 1991 |             | HIGHEST | 21.29       | APR 25, 1991 |             | LOWEST | 25.18       | SEP 24, 1991 |             |        |             |



## GROUND-WATER LEVELS

## FAIRFAX COUNTY

385638077220101. Local number, 52V 2.

LOCATION.--Lat 38°56'58", long 77°22'01", Hydrologic Unit 02070008, at U.S. Geological Survey National Center in Reston. Owner: U.S. Geological Survey.

AQUIFER.--Manassas Sandstone of Triassic age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 8 in., depth 205 ft, cased to 35 ft, open hole 35 to 205 ft.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 390 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

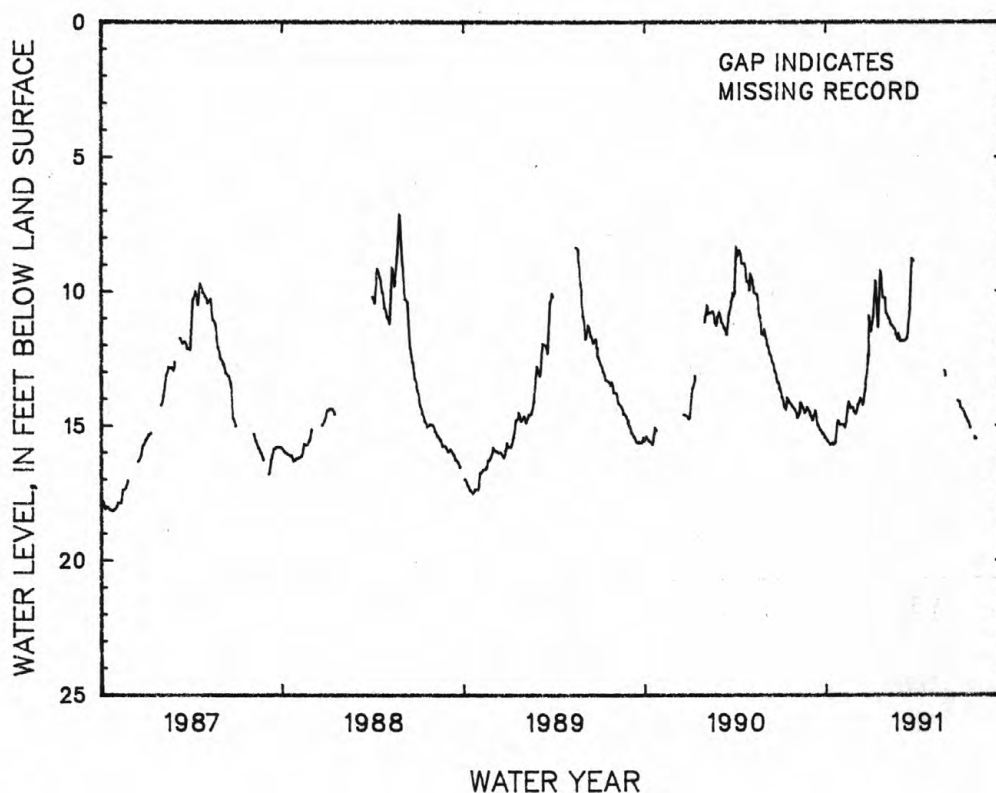
PERIOD OF RECORD.--October 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.47 ft below land-surface datum, Mar. 30, 1984; lowest recorded, 18.19 ft below land-surface datum, Oct. 25, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR | MAY   | JUN   | JUL   | AUG | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-----|-------|
| 5   | 15.59 | 14.96 | 14.25 | 10.97 | 10.99 | 11.84 | --- | ---   | ---   | 14.42 | --- | ---   |
| 10  | 15.72 | 14.97 | 14.01 | 9.63  | 11.23 | 11.84 | --- | ---   | ---   | 14.65 | --- | ---   |
| 15  | 15.67 | 14.35 | 14.21 | 11.36 | 11.36 | 11.76 | --- | ---   | ---   | 14.85 | --- | ---   |
| 20  | 15.67 | 14.33 | 13.66 | 9.22  | 11.58 | 10.81 | --- | ---   | ---   | 15.09 | --- | ---   |
| 25  | 14.92 | 14.32 | 12.70 | 10.23 | 11.66 | 8.80  | --- | ---   | 14.10 | ---   | --- | 17.53 |
| EOM | 14.94 | 14.55 | 11.49 | 10.82 | 11.84 | ---   | --- | 13.13 | 14.31 | 15.50 | --- | 17.45 |

WATER YEAR 1991      HIGHEST 8.80 MAR 24, 25, 1991      LOWEST 17.57 SEP 24, 1991



## GROUND-WATER LEVELS

121

## CITY OF FRANKLIN

364033076562603. Local number, 55B 66 SOW 145C.

LOCATION.--Lat 36°40'33", long 76°56'26", Hydrologic Unit 03010202, at P. D. Camp Community College in Franklin.  
Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 360 ft, screened 350 to 360 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 34 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.58 ft above land-surface datum.

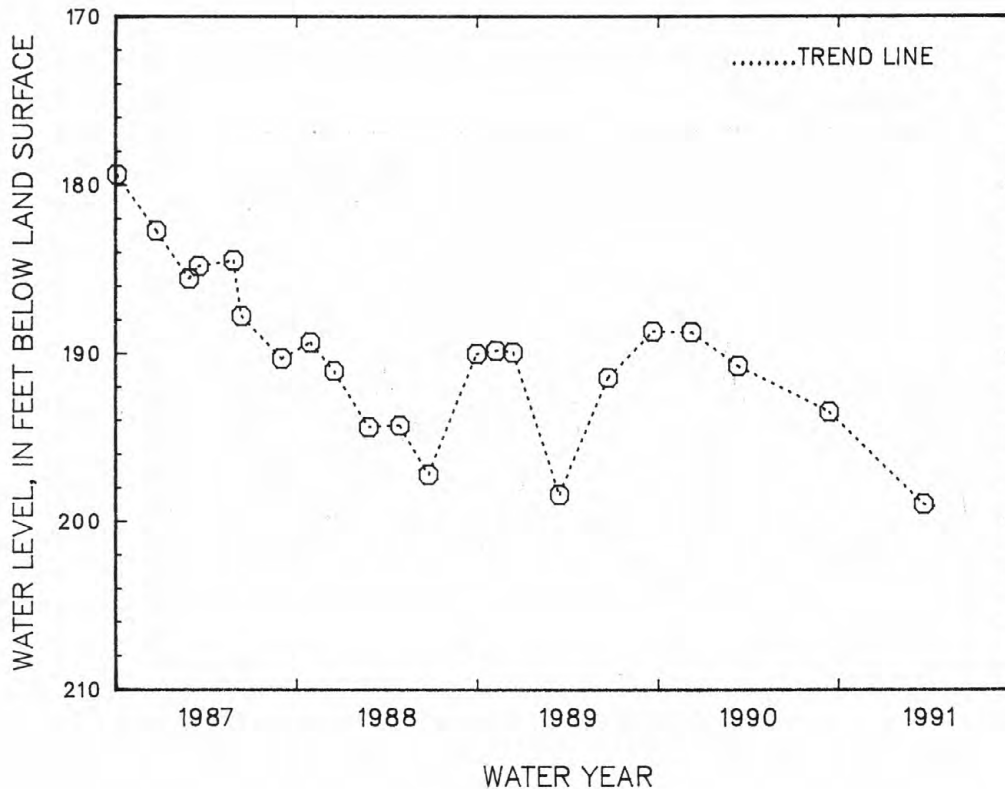
REMARKS.--Water level affected by local pumpage and regional drawdown.

PERIOD OF RECORD.--November 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 175.39 ft below land-surface datum, Dec. 27, 1984;  
lowest measured, 199.00 ft below land-surface datum, Mar. 22, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 22 | 199.00         |



## GROUND-WATER LEVELS

## CITY OF FRANKLIN

364033076562604. Local number, 55B 67 SOW 145D.

LOCATION.--Lat 36°40'33", long 76°56'26", Hydrologic Unit 03010202, at P. D. Camp Community College in Franklin.  
Owner: Virginia Water Control Board.

AQUIFER.--Aquia aquifer of Paleocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 140 ft, screened 130 to 140 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 34 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.15 ft above land-surface datum.

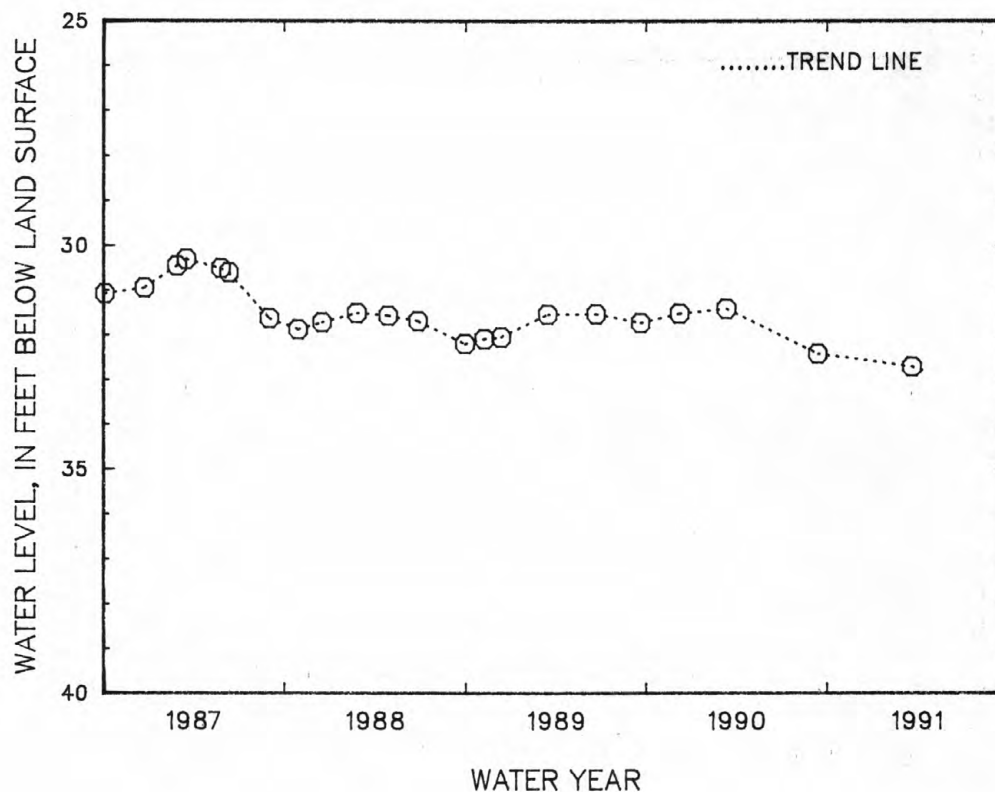
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--November 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.51 ft below land-surface datum, Mar. 19, 1985;  
lowest measured, 32.71 ft below land-surface datum, Mar. 22, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 22 | 32.71          |



## GROUND-WATER LEVELS

123

## GLOUCESTER COUNTY

371444076301501. Local number, 58F 14.

LOCATION.--Lat 37°14'44", long 76°30'15", Hydrologic Unit 02080107, at Gloucester Point under U.S. Highway 17 bridge in block pumphouse. Owner: County of Gloucester.

AQUIFER.--Chickahominy-Piney Point aquifer of Eocene-Miocene age.

WELL CHARACTERISTICS.--Drilled unused public supply well, diameter 4 in. to 252 ft, diameter 2 in. from 252 to 395 ft, depth 395 ft, screened 347 to 387 ft.

INSTRUMENTATION.--Occasional measurement with a manometer by USGS personnel.

DATUM.--Elevation of land-surface datum is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.6 ft above land-surface datum.

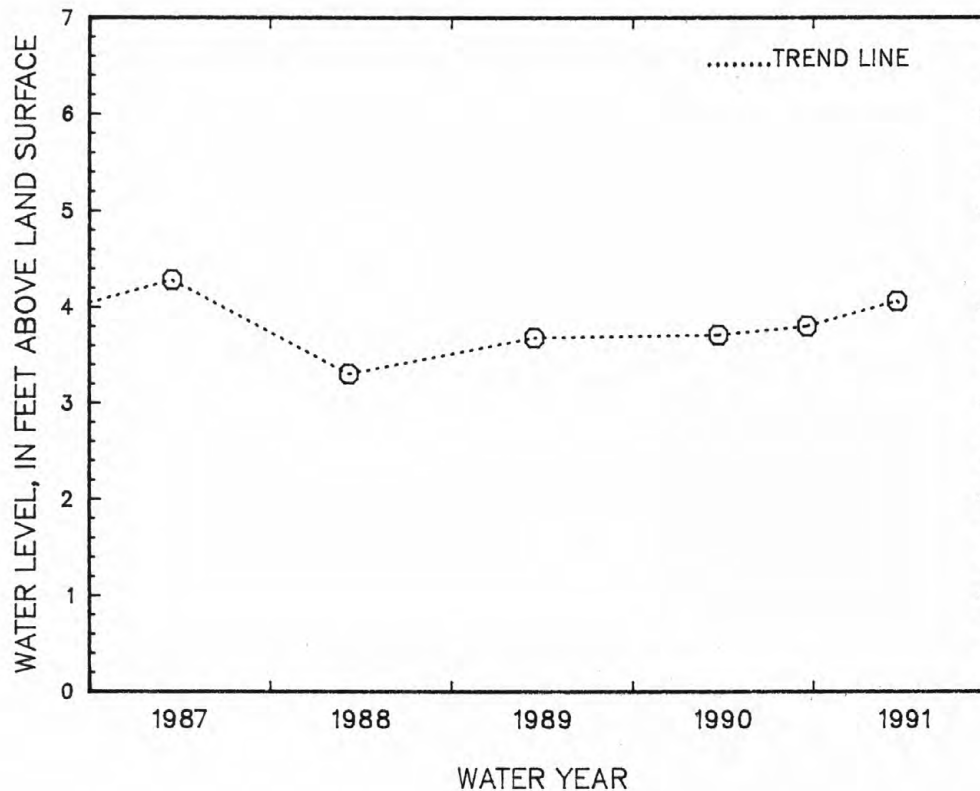
PERIOD OF RECORD.--December 1972 to current year. Unpublished records available prior to October 1988 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.80 ft above land-surface datum, Feb. 12, 1980; lowest measured, 26.41 ft below land-surface datum, Feb. 10, 1981 (well pumping at time of measurement).

WATER LEVEL, IN FEET ABOVE LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 18 | 4.06           |

NOTE.--Flowing well; reading is above land-surface datum.



## GROUND-WATER LEVELS

## GLOUCESTER COUNTY

372331076312602. Local number, 58H 6 SOW 168A.

LOCATION.--Lat 37°23'31", long 76°31'26", Hydrologic Unit 02080102, at entrance to Gloucester County landfill, 0.3 mi east of U.S. Highway 17, and 1.4 mi south of Gloucester. Owner: Virginia Water Control Board.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 1,300 ft, screened 1,290 to 1,300 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to June 11, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 75 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

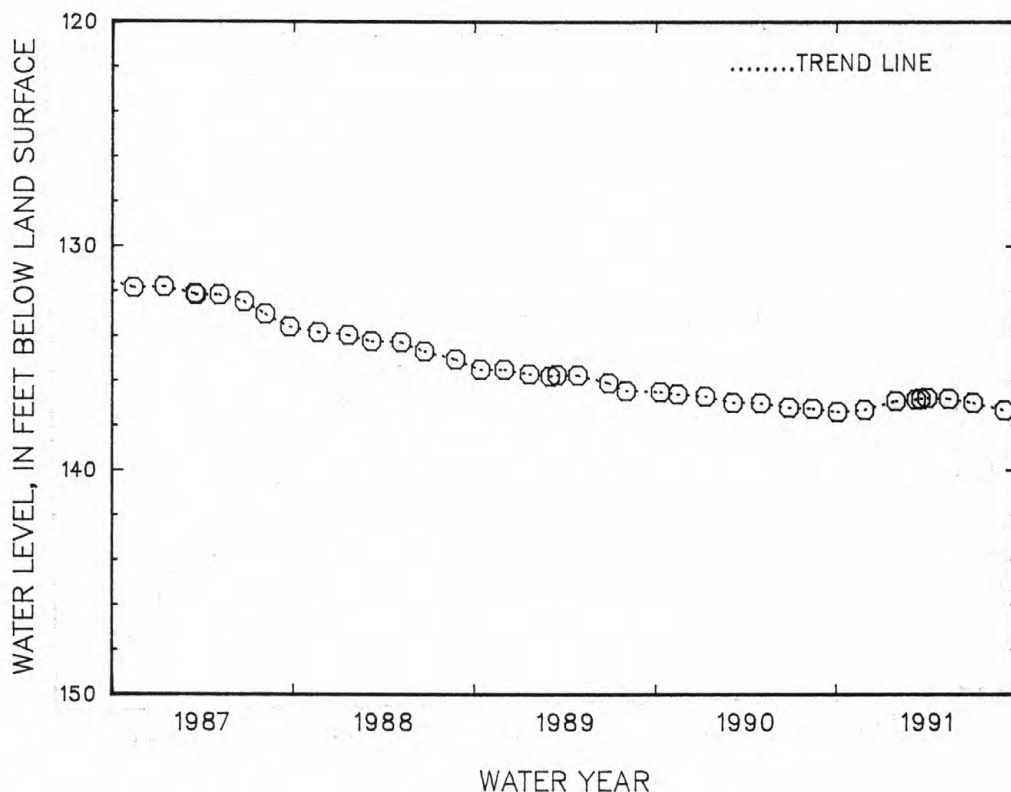
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--August 1982 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 125.26 ft below land-surface datum, Feb. 14, 1983; lowest measured, 137.39 ft below land-surface datum, Oct. 3, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE           | WATER LEVEL | DATE         | WATER LEVEL | DATE          | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|----------------|-------------|--------------|-------------|---------------|-------------|--------------|-------------|--------|-------------|
| OCT 03          | 137.39      | JAN 29         | 136.90      | MAR 20       | 136.80      | MAY 15        | 136.80      | JUL 03       | 136.98      | SEP 04 | 137.32      |
| NOV 27          | 137.30      | MAR 11         | 136.83      | APR 02       | 136.76      |               |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST 136.76 |             | APR 02, 1991 |             | LOWEST 137.39 |             | OCT 03, 1990 |             |        |             |





## GROUND-WATER LEVELS

125

## GLOUCESTER COUNTY

372331076312603. Local number, 58H 7 SOW 168B.

LOCATION.--Lat 37°23'31", long 76°31'26", Hydrologic Unit 02080102, at entrance to Gloucester County landfill, 0.3 mi east of U.S. Highway 17, and 1.4 mi south of Gloucester. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in. to 186 ft, diameter 2 in. from 186 to 960 ft, depth 960 ft, screened 950 to 960 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 75 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

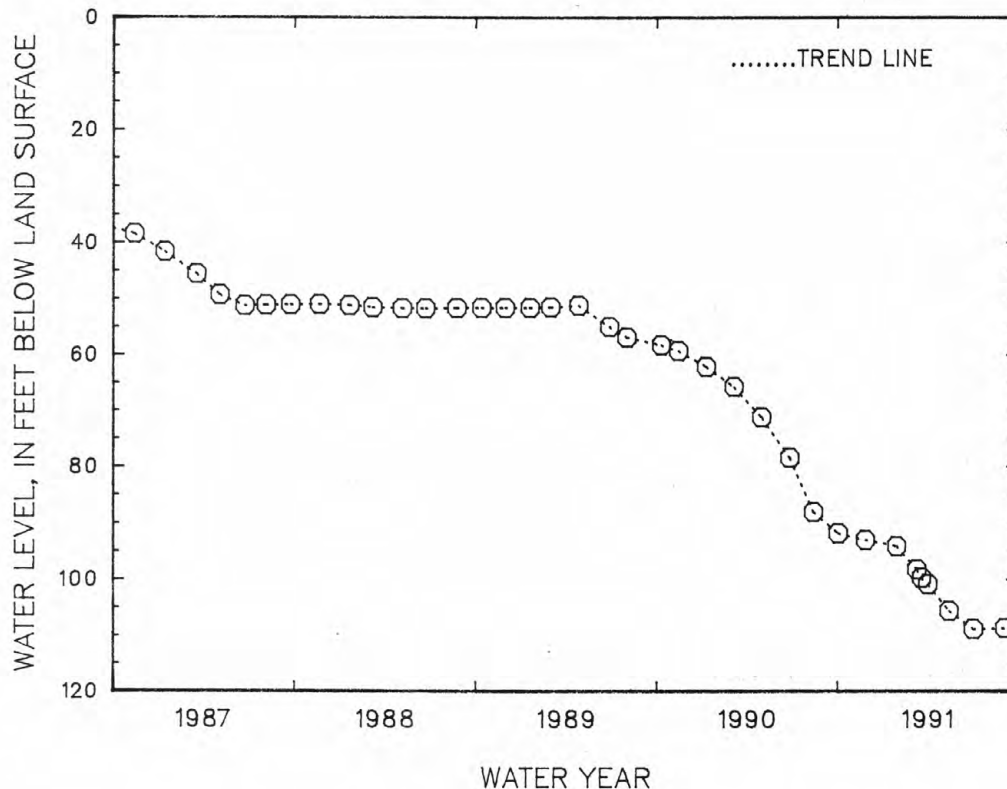
PERIOD OF RECORD.--June 1985 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.55 ft below land-surface datum, Nov. 20, 1985; lowest measured, 108.82 ft below land-surface datum, July 3, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 03 | 91.85       | JAN 29 | 94.13       | MAR 20 | 99.70       | MAY 15 | 105.60      | JUL 03 | 108.82      | SEP 04 | 108.66      |
| NOV 27 | 93.04       | MAR 11 | 98.24       | APR 02 | 100.85      |        |             |        |             |        |             |

WATER YEAR 1991      HIGHEST 91.85 OCT 03, 1990      LOWEST 108.82 JUL 03, 1991



## GROUND-WATER LEVELS

## GLOUCESTER COUNTY

372331076312604. Local number, 58H 8 SOW 168C.

LOCATION.--Lat 37°23'31", long 76°31'26", Hydrologic Unit 02080102, at entrance to Gloucester County landfill, 0.3 mi east of U.S. Highway 17, and 1.4 mi south of Gloucester. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 40 ft, screened 30 to 40 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 75 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

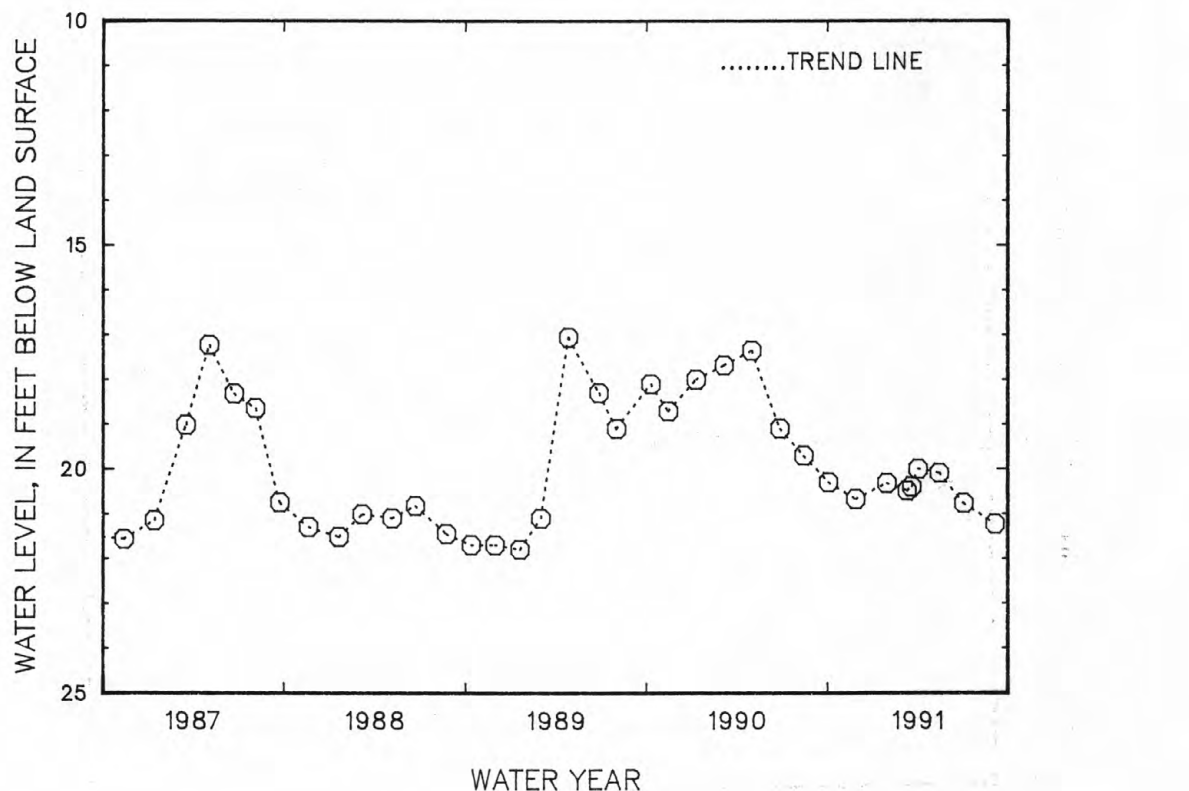
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--June 1985 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.05 ft below land-surface datum, Apr. 27, 1989; lowest measured, 21.81 ft below land-surface datum, Sept. 23, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |  |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|--|
| OCT 03          | 20.30       | JAN 29  | 20.32       | MAR 20       | 20.40       | MAY 15 | 20.09        | JUL 03 | 20.77       | SEP 04 | 21.23       |  |
| NOV 27          | 20.68       | MAR 11  | 20.49       | APR 02       | 20.00       |        |              |        |             |        |             |  |
| WATER YEAR 1991 |             | HIGHEST | 20.00       | APR 02, 1991 | LOWEST      | 21.23  | SEP 04, 1991 |        |             |        |             |  |



## GROUND-WATER LEVELS

127

## HALIFAX COUNTY

364550078562301. Local number, 39C 1 SOW 011.

LOCATION.--Lat 36°45'50", long 78°56'23", Hydrologic Unit 03010105, 0.6 mi west of intersection of U.S. Highways 501 and 360, in the town of Halifax. Owner: Town of Halifax.

AQUIFER.--Granite and gneiss of uncertain age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 8 in., depth 302 ft, cased to 52 ft, open hole 52 to 302 ft.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 380 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.28 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board.

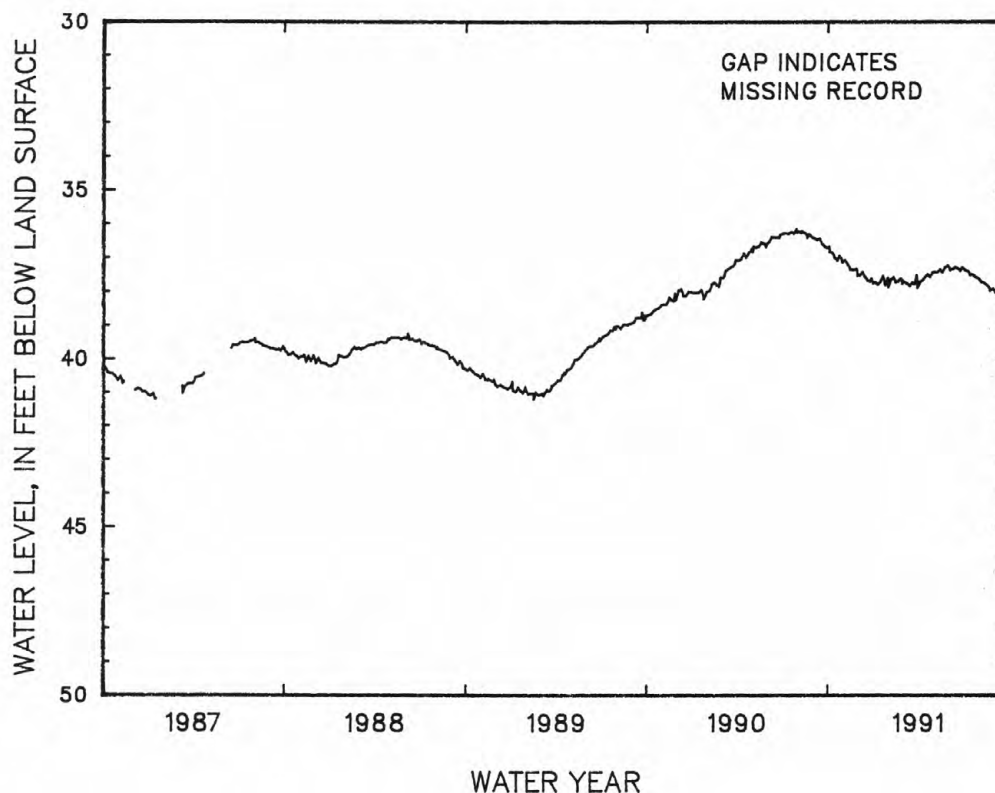
PERIOD OF RECORD.--April 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 36.16 ft below land-surface datum, July 30, 1990; lowest recorded, 45.09 ft below land-surface datum, Dec. 30, 1968.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 36.83 | 37.08 | 37.51 | 37.73 | 37.66 | 37.73 | 37.73 | 37.43 | 37.36 | 37.37 | 37.68 | 38.03 |
| 10  | 36.86 | 37.20 | 37.44 | 37.80 | 37.59 | 37.77 | 37.67 | 37.43 | 37.34 | 37.40 | 37.72 | 38.09 |
| 15  | 37.00 | 37.34 | 37.56 | 37.71 | 37.72 | 37.83 | 37.58 | 37.36 | 37.28 | 37.50 | 37.78 | 38.16 |
| 20  | 37.07 | 37.36 | 37.67 | 37.56 | 37.70 | 37.75 | 37.50 | 37.42 | 37.32 | 37.50 | 37.84 | 38.24 |
| 25  | 36.96 | 37.35 | 37.70 | 37.81 | 37.63 | 37.78 | 37.56 | 37.30 | 37.39 | 37.56 | 37.96 | 38.15 |
| EQM | 37.13 | 37.52 | 37.75 | 37.86 | 37.76 | 37.88 | 37.45 | 37.23 | 37.30 | 37.60 | 37.92 | 38.38 |

WATER YEAR 1991      HIGHEST 36.69 OCT 04, 1990      LOWEST 38.39 SEP 29, 1991



## GROUND-WATER LEVELS

## HANOVER COUNTY

375316077274701. Local number, 51M 11.

LOCATION.--Lat 37°53'16", long 77°27'47", Hydrologic Unit 02080106, 900 ft east of U.S. Highway 1 on a private dirt road at the North Anna River and 9.9 mi north of Ashland on U.S. Highway 1. Owner: Weyerhaeuser Inc.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 8 in., depth 175 ft, cased to 40 ft, open hole 40 to 175 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

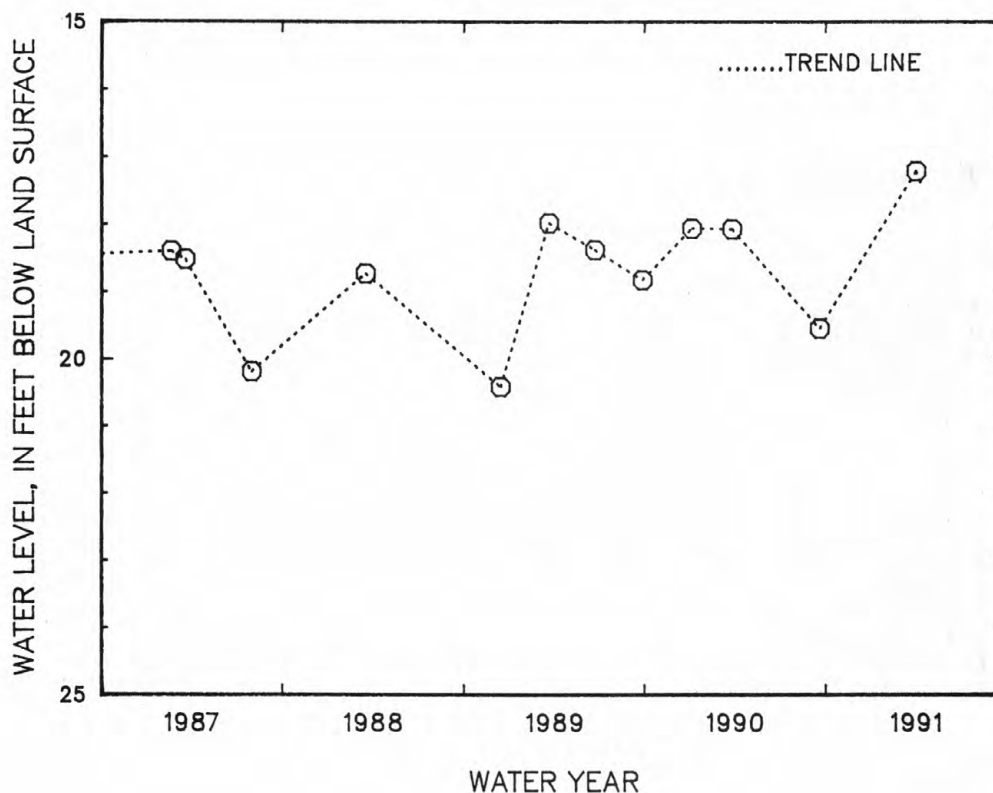
DATUM.--Elevation of land-surface datum is 70 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, at land-surface datum.

PERIOD OF RECORD.--January 1984 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.77 ft below land-surface datum, Apr. 2, 1984; lowest measured, 20.58 ft below land-surface datum, July 15, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| APR 02 | 17.21          |



## GROUND-WATER LEVELS

129

## HANOVER COUNTY

373507077171201. Local number, 52J 10.

LOCATION.--Lat 37°35'07", long 77°17'12", Hydrologic Unit 02080206, 150 ft north of State Highway 156 at the Cold Harbor Visitor Center, 1.0 mi southwest of the intersection of State Highways 156 and 619, and 4.9 mi east of Mechanicsville. Owner: U.S. National Park Service.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 6 in., depth 270 ft, screened 255 to 270 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

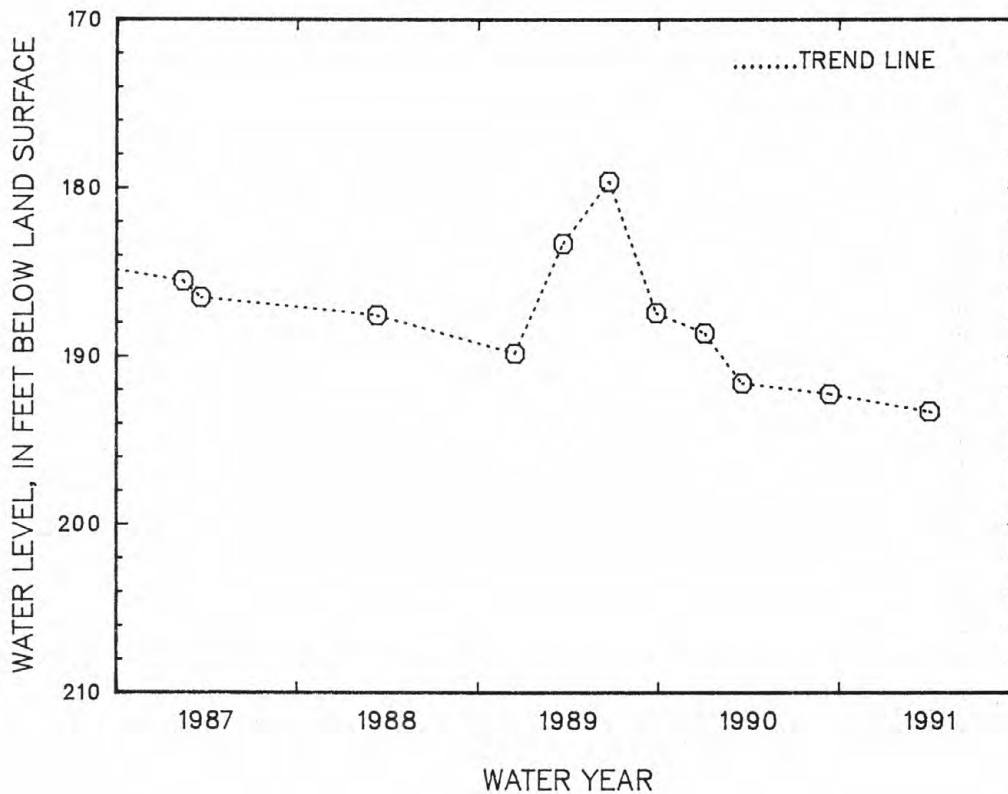
DATUM.--Elevation of land-surface datum is 172 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.55 ft above land-surface datum.

PERIOD OF RECORD.--December 1972, October 1983 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 165.75 ft below land-surface datum, Dec. 1, 1972; lowest measured, 193.32 ft below land-surface datum, Apr. 01, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| APR 01 | 193.32         |



## GROUND-WATER LEVELS

## HANOVER COUNTY

374720077300501. Local number, 52K 3.

LOCATION.--Lat 37°40'05", long 77°17'54", Hydrologic Unit 02080106, 200 ft west of State Highway 615, 0.65 mi southwest of Studley, and 1.95 mi northwest of the intersection of State Highways 615 and 627. Owner: Sydnor Hydrodynamics.

AQUIFER.--Lower and middle Potomac aquifers of Cretaceous age.

WELL CHARACTERISTICS.--Drilled public supply water well, diameter 6 in., depth 426 ft, screened 355 to 365 ft, 392 to 422 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 163 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.76 ft above land-surface datum.

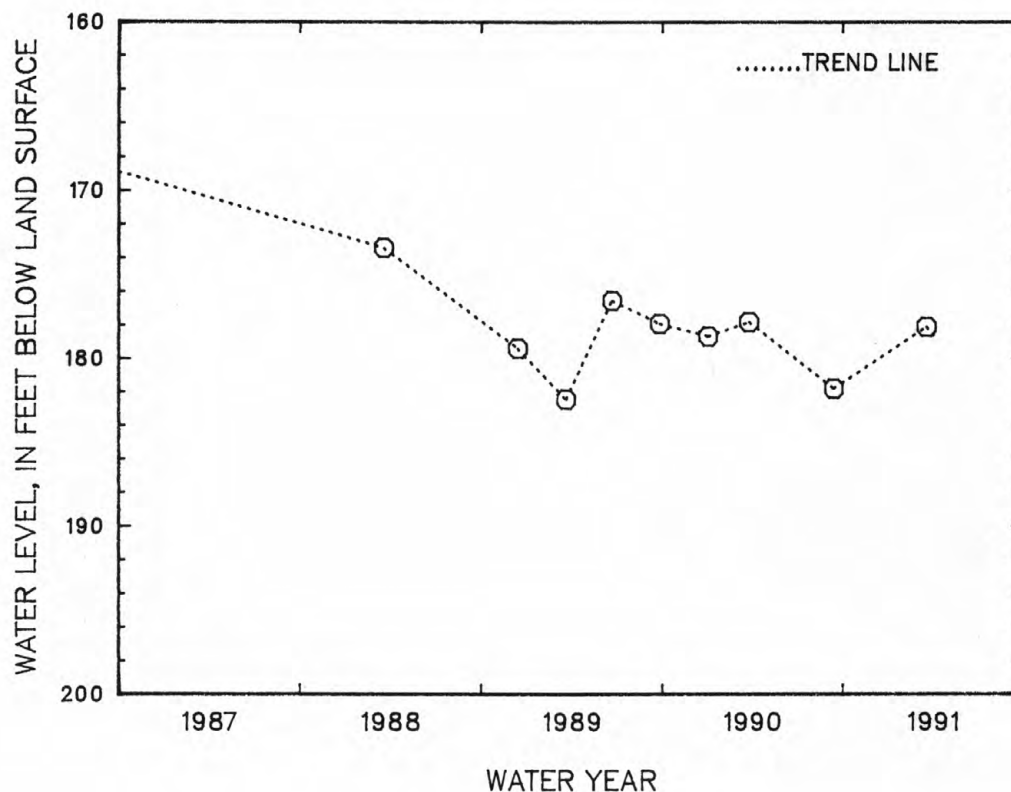
REMARKS.--Water levels affected by pumpage.

PERIOD OF RECORD.--May 1970, November 1973, December 1974, January 1984 to March 1986, March 1988 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 142.50 ft below land-surface datum, May 21, 1970; lowest measured, 182.46 ft below land-surface datum, Mar. 21, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 19 | 178.13         |





## GROUND-WATER LEVELS

131

## HANOVER COUNTY

373738077082801. Local number, 53K 16.

LOCATION.--Lat 37°37'38", long 77°08'28", Hydrologic Unit 02080106, 1,000 ft northeast of the intersection of State Highways 606 and 629 at Eastern View Farm, 0.6 mi southeast of Glimps Corner, 4.7 mi east of Old Church, and 5.95 mi east of the intersection of U.S. Highway 360 and State Highway 606. Owner: John Maples.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 4 in., depth 366 ft, screen depth unknown.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

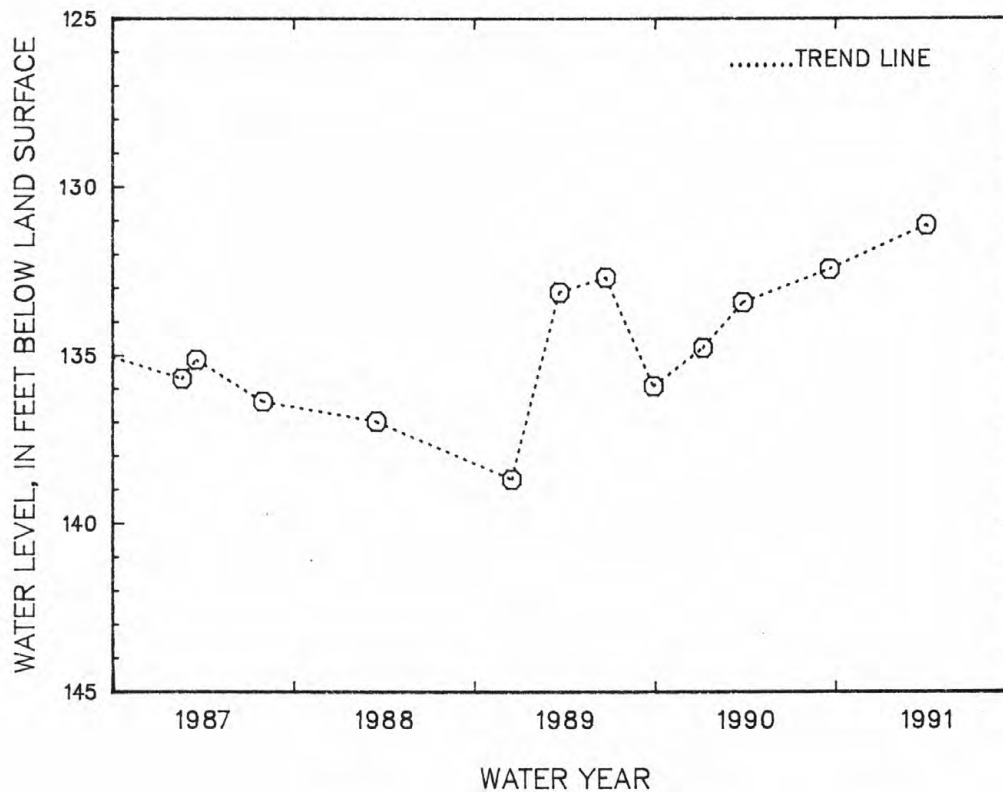
DATUM.--Elevation of land-surface datum is 100 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 5.3 ft below land-surface datum.

PERIOD OF RECORD.--January 1984 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 131.52 ft below land-surface datum, Jan. 25, 1984; lowest measured, 138.70 ft below land-surface datum, Dec. 15, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| APR 02 | 131.13         |



## GROUND-WATER LEVELS

## HANOVER COUNTY

373737077083201. Local number, 53K 19 SOW 080.

LOCATION.--Lat 37°37'37", long 77°08'32", Hydrologic Unit 02080106, 500 ft northeast of State Highway 606, 0.15 mi west of intersection of State Highways 606 and 629, and 4.6 mi east of Old Church. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Dug unused water well, diameter 30 in., depth 35 ft, cased to 35 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. May 20, 1978, to Oct. 2, 1985, occasional measurement with chalked tape. Prior to May 20, 1978, continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 130 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.85 ft above land-surface datum.

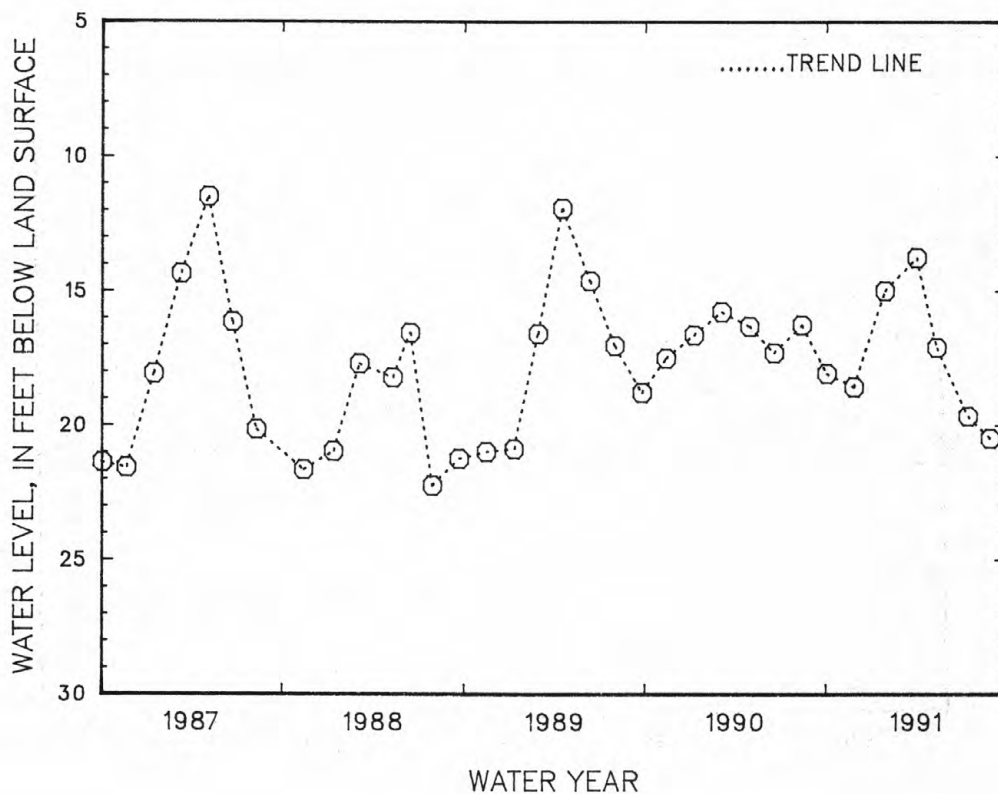
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--January 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.05 ft below land-surface datum, Jan. 25, 1978; lowest measured, 22.85 ft below land-surface datum, Aug. 3, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 02          | 18.07       | JAN 28  | 14.98       | APR 02       | 13.75       | MAY 13 | 17.10       | JUL 15       | 19.65       | AUG 29 | 20.49       |
| NOV 26          | 18.57       |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 13.75       | APR 02, 1991 |             | LOWEST | 20.49       | AUG 29, 1991 |             |        |             |



## GROUND-WATER LEVELS

133

## HENRICO COUNTY

373607077331401. Local number, 50J 1 SOW 023.

LOCATION.--Lat 37°36'07", long 77°33'14", Hydrologic Unit 02080205, 200 ft north of Three Chopt Road, 1.0 mi southeast of intersection of Three Chopt Road and Parham Road in Richmond. Owner: E. L. Gilman.

AQUIFER.--Petersburg Granite of Mississippian age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 10 in., depth 300 ft, cased to 68 ft, open hole 68 to 300 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. June 5, 1974, to Sept. 30, 1985, occasional measurement with chalked tape. Prior to June 5, 1974, continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 275 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.88 ft above land-surface datum.

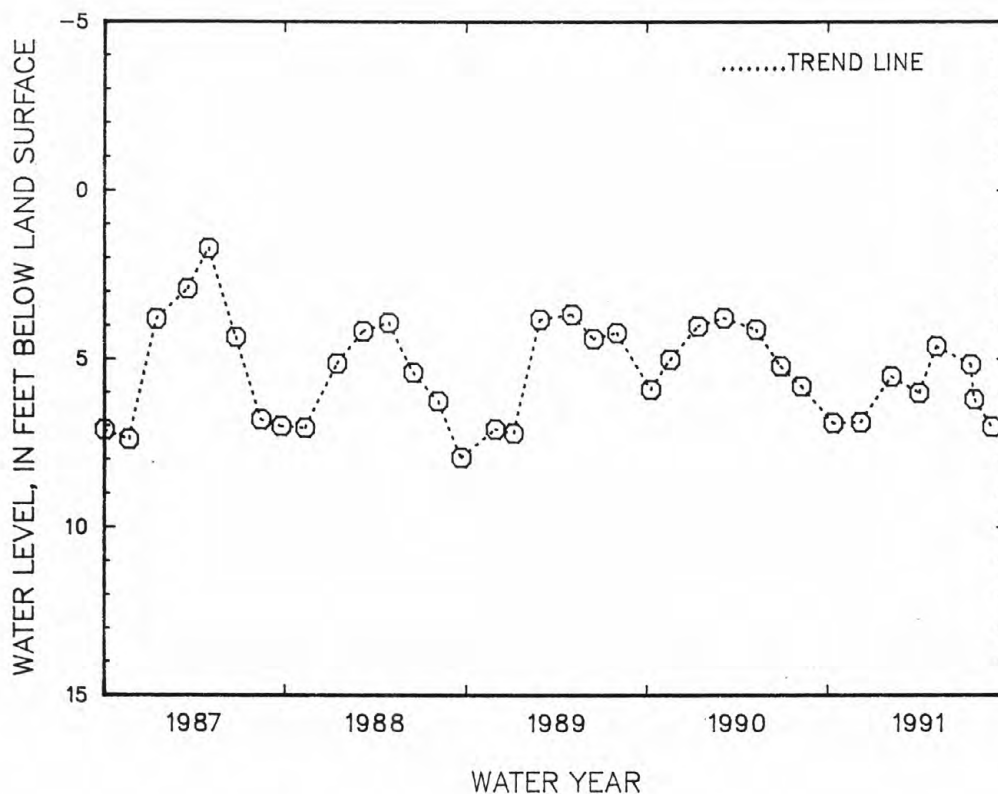
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--May 1969 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.48 ft below land-surface datum, June 5, 1970; lowest recorded, 10.43 ft below land-surface datum, Jan. 5, 1971.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 12          | 6.92        | FEB 06  | 5.52        | MAY 08       | 4.62        | JUL 17 | 5.17        | JUL 24       | 6.22        | AUG 29 | 7.04        |
| DEC 06          | 6.90        | APR 03  | 6.02        |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 4.62        | MAY 08, 1991 |             | LOWEST | 7.04        | AUG 29, 1991 |             |        |             |



## GROUND-WATER LEVELS

## HENRICO COUNTY

372920077241001. Local number, 51H132 SOW 081.

LOCATION.--Lat 37°29'20", long 77°24'10", Hydrologic Unit 02080206, 100 ft west of State Highway 5, 2.0 mi northwest of intersection of State Highway 5 and Laburnum Avenue, and 5.3 mi southwest of Sandston. Owner: Mike Moses.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Dug unused water well, diameter 30 in., depth 40 ft, cased to 40 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 160 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.3 ft above land-surface datum.

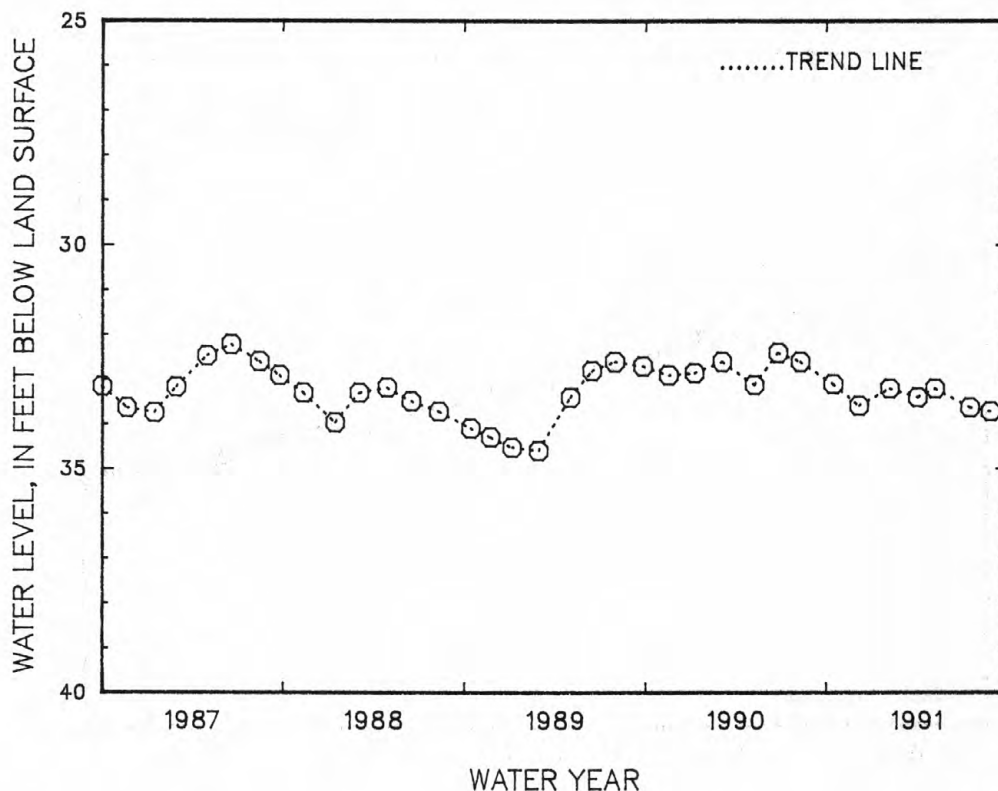
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--February 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.79 ft below land-surface datum, June 16, 1980; lowest measured, 35.23 ft below land-surface datum, Sept. 24, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 15          | 33.10       | FEB 06  | 33.20       | APR 03       | 33.40       | MAY 08 | 33.20       | JUL 17       | 33.63       | AUG 28 | 33.72       |
| DEC 06          | 33.59       |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 33.10       | OCT 15, 1990 |             | LOWEST | 33.72       | AUG 28, 1991 |             |        |             |



## GROUND-WATER LEVELS

135

## HENRICO COUNTY

373428077233001. Local number, 51J 13.

LOCATION.--Lat 37°34'28", long 77°23'30", Hydrologic Unit 02080206, 1,600 ft east of the intersection of U.S. Highway 360 (Mechanicsville Turnpike) and Laburnum Avenue and 500 ft south of Laburnum Avenue at water tower.  
Owner: Henrico County.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 8 in. to 275 ft, diameter 6 in. from 275 to 307 ft, depth 307 ft, screened 167 to 186 ft, 213 to 226 ft, 248 to 258 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 168 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.7 ft above land-surface datum.

REMARKS.--Water levels affected by local pumpage.

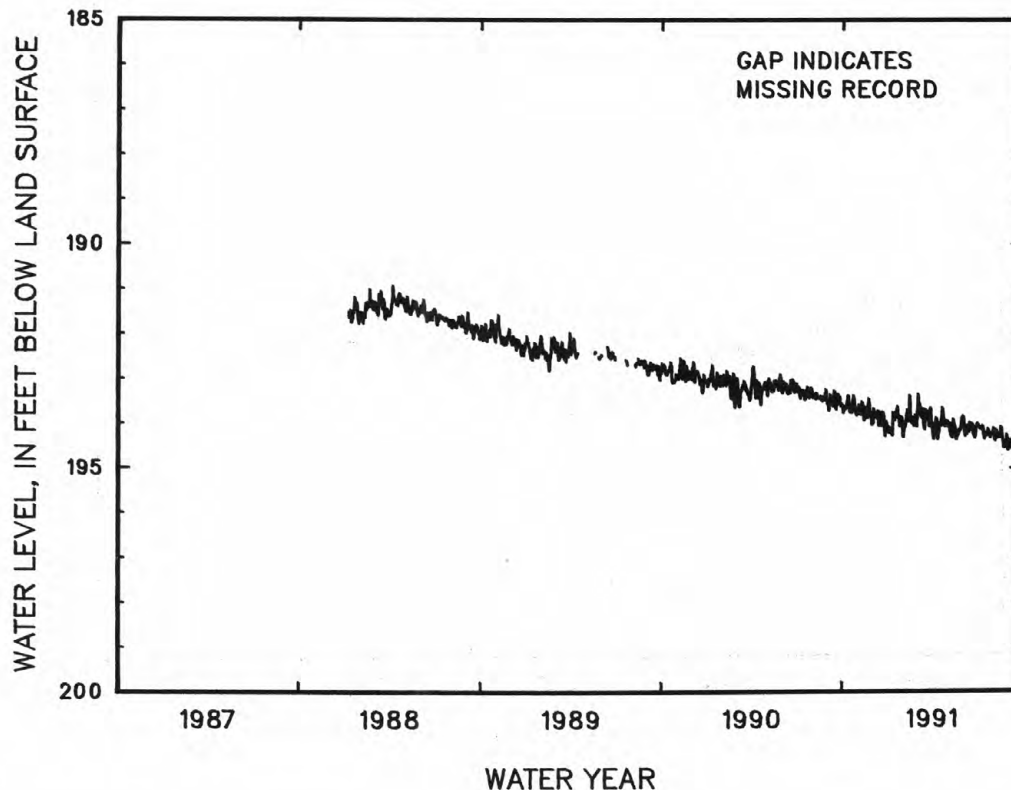
PERIOD OF RECORD.--January 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 190.85 ft below land-surface datum, Apr. 7, 1988;  
lowest recorded, 194.64 ft below land-surface datum, Sept. 22, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5   | 193.63 | 193.59 | 193.77 | 194.20 | 194.07 | 193.61 | 194.22 | 194.08 | 194.09 | 194.04 | 194.25 | 194.36 |
| 10  | 193.60 | 193.57 | 193.77 | 194.26 | 193.71 | 193.80 | 193.88 | 194.25 | 194.23 | 194.10 | 194.15 | 194.52 |
| 15  | 193.53 | 193.92 | 194.05 | 193.92 | 193.46 | 193.99 | 194.17 | 194.00 | 194.11 | 194.26 | 194.24 | 194.41 |
| 20  | 193.75 | 193.82 | 194.06 | 193.68 | 193.87 | 193.84 | 193.95 | 194.35 | 194.14 | 194.25 | 194.09 | 194.49 |
| 25  | 193.39 | 193.57 | 193.98 | 194.06 | 193.88 | 193.94 | 194.00 | 194.15 | 194.28 | 194.17 | 194.54 | 194.25 |
| EOM | 193.74 | 194.02 | 194.12 | 194.10 | 194.04 | 194.07 | 194.01 | 193.89 | 194.07 | 194.23 | 194.25 | 194.61 |

WATER YEAR 1991      HIGHEST 193.06 FEB 14, 1991      LOWEST 194.64 SEP 22, 1991



## GROUND-WATER LEVELS

## HENRICO COUNTY

373817077282501. Local number, 51K 4 SOW 137.

LOCATION.--Lat 37°38'17", long 77°28'25", Hydrologic Unit 02080206, 50 ft east of entrance to J. Sargeant Reynolds Community College, 0.9 mi west of intersection of Parham Road and U.S. Highway 1, and 0.9 mi west of Yellow Tavern. Owner: Virginia Water Control Board.

AQUIFER.--Petersburg Granite of Mississippian age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 280 ft, cased to 35 ft, open hole 35 to 280 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 180 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum prior to Sept. 9, 1980; 1.5 ft thereafter.

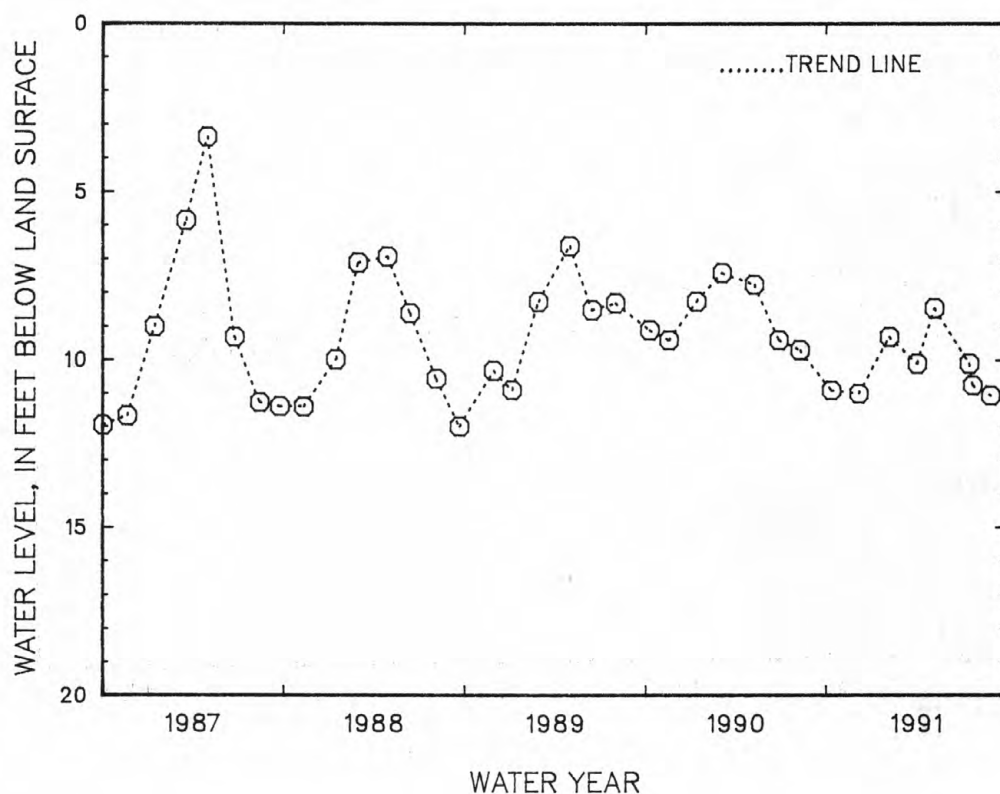
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--April 1980 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.37 ft below land-surface datum, Apr. 30, 1987; lowest measured, 12.12 ft below land-surface datum, Oct. 6, 1981, Aug. 22, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 12          | 10.90       | FEB 06  | 9.30        | MAY 08       | 8.45        | JUL 17 | 10.10       | JUL 24       | 10.75       | AUG 29 | 11.06       |
| DEC 06          | 11.00       | APR 03  | 10.10       |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 8.45        | MAY 08, 1991 |             | LOWEST | 11.06       | AUG 29, 1991 |             |        |             |





## GROUND-WATER LEVELS

137

## HENRICO COUNTY

372936077211101. Local number, 52H 3 SOW 136.

LOCATION.--Lat 37°29'36", long 77°21'11", Hydrologic Unit 02080206, 100 ft west of Laburnum Avenue, 0.9 mi north of intersection of Laburnum Avenue and Darbytown Road, and 2.4 mi southwest of Sandston. Owner: Nabisco Incorporated.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in., depth 209 ft, screened 149 to 159 ft, 199 to 209 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Mar. 25, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 150 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

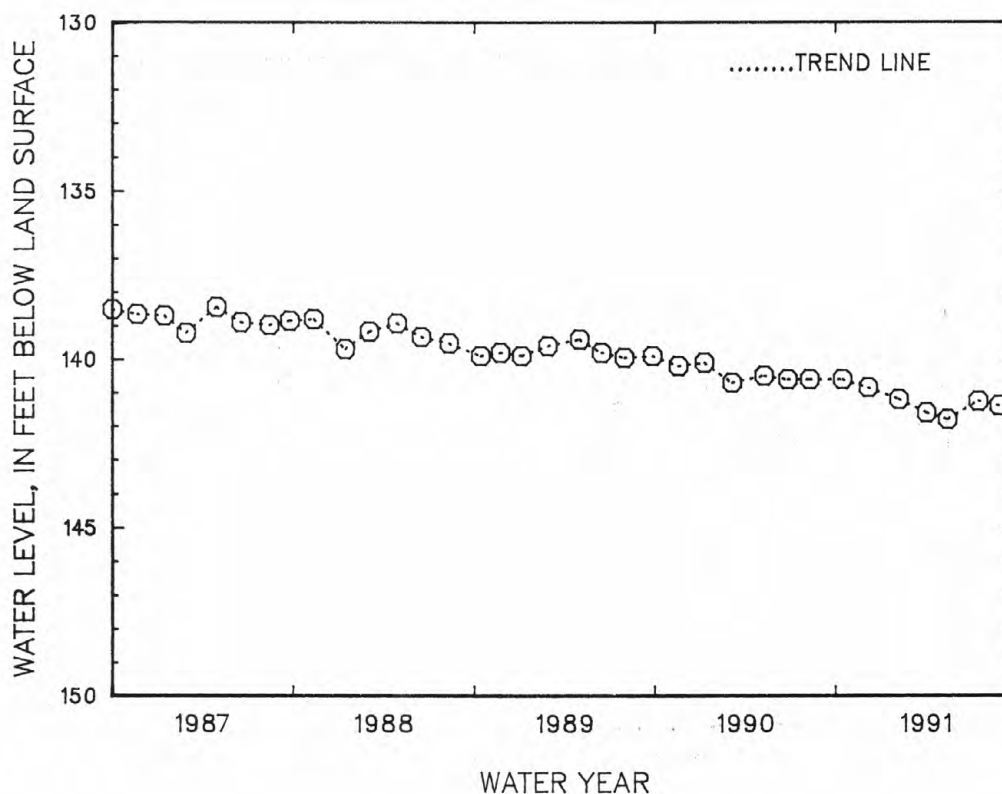
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--December 1974 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 131.42 ft below land-surface datum, Dec. 2, 1974; lowest measured, 141.80 ft below land-surface datum, May 16, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 15          | 140.60      | FEB 06  | 141.20      | APR 03       | 141.60      | MAY 16 | 141.80      | JUL 17       | 141.25      | AUG 28 | 141.39      |
| DEC 06          | 140.85      |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 140.60      | OCT 15, 1990 |             | LOWEST | 141.80      | MAY 16, 1991 |             |        |             |



## GROUND-WATER LEVELS

## HENRICO COUNTY

373301077194001. Local number, 52J 1.

LOCATION.--Lat 37°33'01", long 77°19'40", Hydrologic Unit 02080206, at the intersection of Daisy and Vine Streets, at water tower in Highland Springs. Owner: Henrico County.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 10 in. to 212 ft, diameter 6 in. from 212 to 306 ft, depth 306 ft, screened 212 to 306 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 172 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

REMARKS.--Water level affected by local pumpage and regional drawdown.

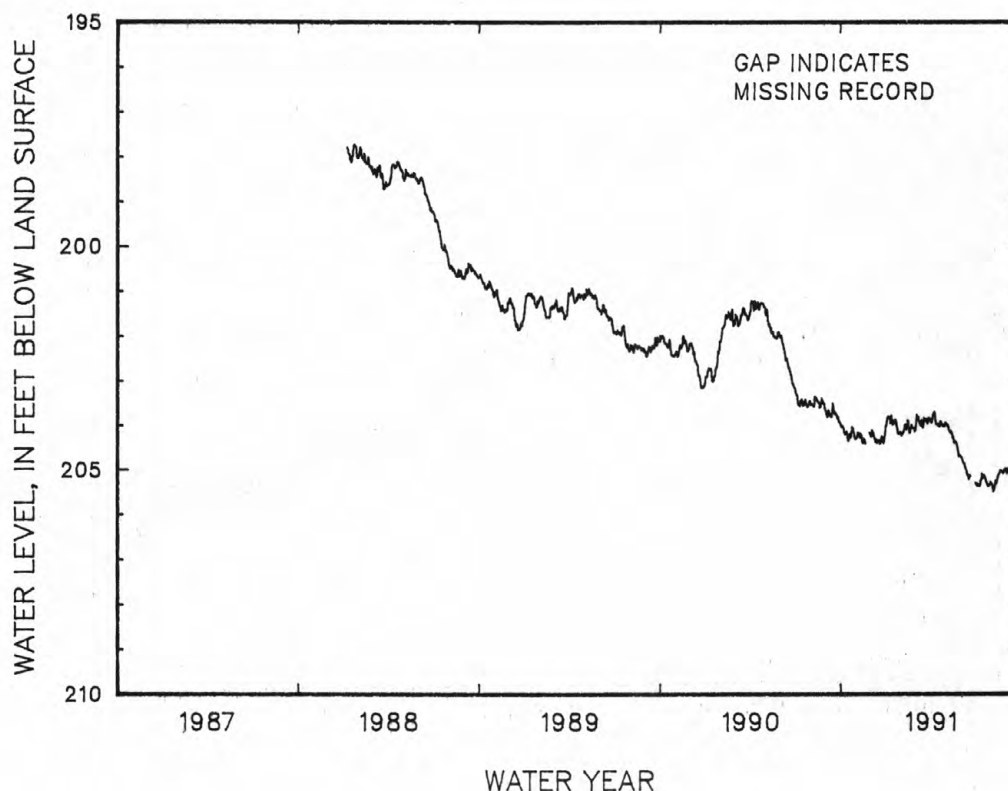
PERIOD OF RECORD.--January 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 197.64 ft below land-surface datum, Jan. 25, 26, 1988; lowest recorded, 205.49 ft below land-surface datum, Aug. 6, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5   | 204.02 | 204.19 | 204.16 | 203.83 | 204.17 | 203.84 | 203.87 | 204.01 | 204.81 | 205.33 | 205.43 | 204.98 |
| 10  | 204.21 | 204.20 | 204.32 | 203.94 | 203.98 | 203.95 | 203.77 | 204.13 | 204.95 | 205.34 | 205.26 | 205.08 |
| 15  | 204.28 | 204.40 | 204.40 | 203.98 | 203.90 | 204.00 | 203.96 | 204.22 | 205.11 | 205.15 | 205.15 | 205.15 |
| 20  | 204.27 | 204.41 | 204.42 | 203.89 | 204.08 | 203.89 | 204.00 | 204.40 | 205.14 | 205.18 | 205.01 | 205.33 |
| 25  | 204.04 | ---    | 204.30 | 204.17 | 204.05 | 203.92 | 204.00 | 204.51 | ---    | 205.35 | 205.07 | 205.18 |
| EOY | 204.31 | 204.20 | 204.03 | 204.17 | 204.13 | 203.89 | 204.00 | 204.69 | ---    | 205.28 | 204.98 | 205.26 |

WATER YEAR 1991      HIGHEST 203.64    MAR 30, 1991      LOWEST 205.49    AUG 06, 1991



## GROUND-WATER LEVELS

139

## HENRICO COUNTY

373125077185001. Local number, 52J 34.

LOCATION.--Lat 37°31'25", long 77°18'50", Hydrologic Unit 02080206, 300 ft north of the intersection of U.S. Highway 60 (Williamsburg Road) and Finley Drive and 200 ft east of Finley Drive. Owner: Henrico County.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 10 in. to 165 ft, diameter 8 in. from 165 to 272 ft, depth 272 ft, screened 222 to 265 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 162 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.9 ft above land-surface datum.

REMARKS.--Water level affected by local pumpage and regional drawdown.

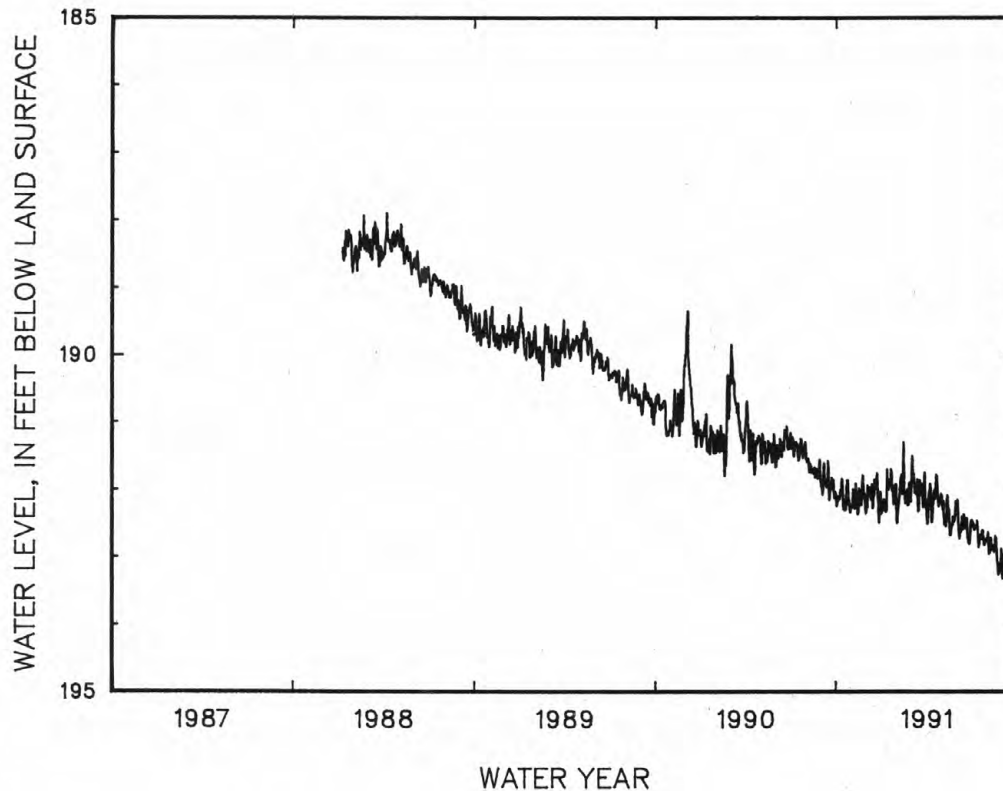
PERIOD OF RECORD.--January 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 187.76 ft below land-surface datum, Apr. 7, 1988; lowest recorded, 193.39 ft below land-surface datum, Sept. 22, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5   | 192.12 | 192.01 | 192.06 | 192.32 | 192.17 | 191.78 | 192.34 | 192.31 | 192.53 | 192.51 | 192.83 | 192.98 |
| 10  | 192.06 | 191.92 | 192.00 | 192.34 | 191.79 | 192.01 | 192.01 | 192.48 | 192.63 | 192.54 | 192.73 | 193.16 |
| 15  | 192.09 | 192.37 | 192.26 | 192.01 | 191.66 | 192.21 | 192.21 | 192.28 | 192.51 | 192.78 | 192.85 | 193.09 |
| 20  | 192.32 | 192.19 | 191.99 | 191.71 | 192.07 | 192.02 | 192.02 | 192.69 | 192.58 | 192.73 | 192.73 | 193.22 |
| 25  | 191.87 | 191.92 | 192.18 | 192.22 | 191.98 | 192.17 | 192.18 | 192.42 | 192.79 | 192.69 | 193.26 | 192.88 |
| EOM | 192.24 | 192.37 | 192.30 | 192.30 | 192.18 | 192.27 | 192.16 | 192.19 | 192.50 | 192.75 | 192.89 | 193.38 |

WATER YEAR 1991      HIGHEST 191.07 FEB 14, 1991      LOWEST 193.39 SEP 22, 1991



## GROUND-WATER LEVELS

## HENRICO COUNTY

373117077210201. Local number, 52J 35.

LOCATION.--Lat 37°31'17", long 77°21'02", Hydrologic Unit 02080206, 400 ft east of the intersection of South Laburnum Avenue and Finley Street, on Finley Street. Owner: Henrico County.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in., depth 265 ft, screened 220 to 260 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 160 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

REMARKS.--Water level affected by local pumpage.

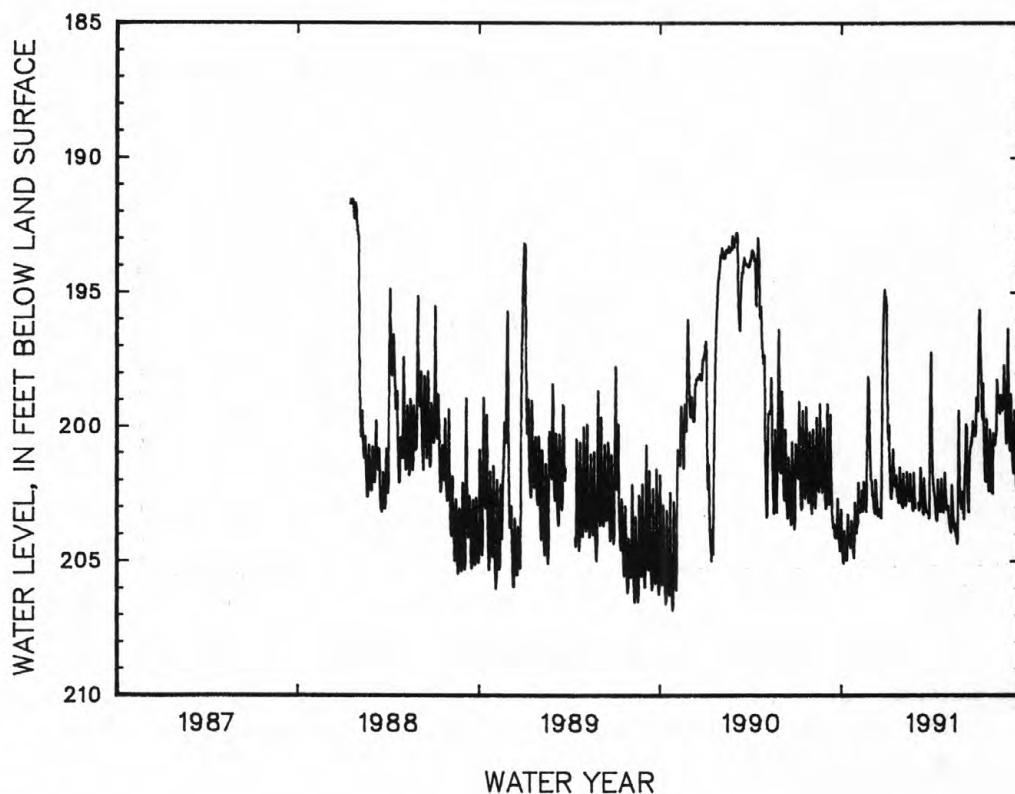
PERIOD OF RECORD.--January 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 191.24 ft below land-surface datum, Jan. 20, 1988; lowest recorded, 206.84 ft below land-surface datum, Oct. 27, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5   | 204.98 | 202.10 | 202.69 | 200.49 | 202.20 | ---    | 201.90 | 203.08 | 203.21 | 197.74 | 200.56 | 200.23 |
| 10  | 204.66 | 202.89 | 202.00 | 202.66 | 202.80 | 202.84 | 202.95 | 203.86 | 199.93 | 197.87 | 200.12 | 200.32 |
| 15  | 203.30 | 202.90 | 203.33 | 201.50 | 202.48 | 202.94 | 201.99 | 203.16 | 203.15 | 199.48 | 199.29 | 199.40 |
| 20  | 204.49 | 203.07 | 203.38 | 202.22 | 202.53 | 202.72 | 203.17 | 203.64 | 200.69 | 202.05 | 199.03 | 202.28 |
| 25  | 204.40 | 198.14 | 196.84 | 202.82 | 201.74 | 203.16 | 203.10 | 204.17 | 200.13 | 202.05 | 197.72 | 201.55 |
| EOM | 203.89 | 201.69 | 195.41 | 202.60 | 203.02 | 198.52 | 202.29 | 202.91 | 199.98 | 201.84 | 200.56 | 200.79 |

WATER YEAR 1991      HIGHEST 194.90 DEC 28, 1990      LOWEST 205.09 OCT 06, 1990



## GROUND-WATER LEVELS

141

## HENRICO COUNTY

372555077153001. Local number, 53H 2.

LOCATION.--Lat 37°25'55", long 77°15'30", Hydrologic Unit 02080206, 0.7 mi south of the intersection of State Highways 156 (Willis Church Road) and 600 (Charles City Road) at the Glendale National Cemetery, 5.0 mi southwest of the city of Richmond. Owner: U.S. Department of Veterans Affairs.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 6 in., depth 232 ft, screen depth unknown.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 128 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.95 ft below land-surface datum.

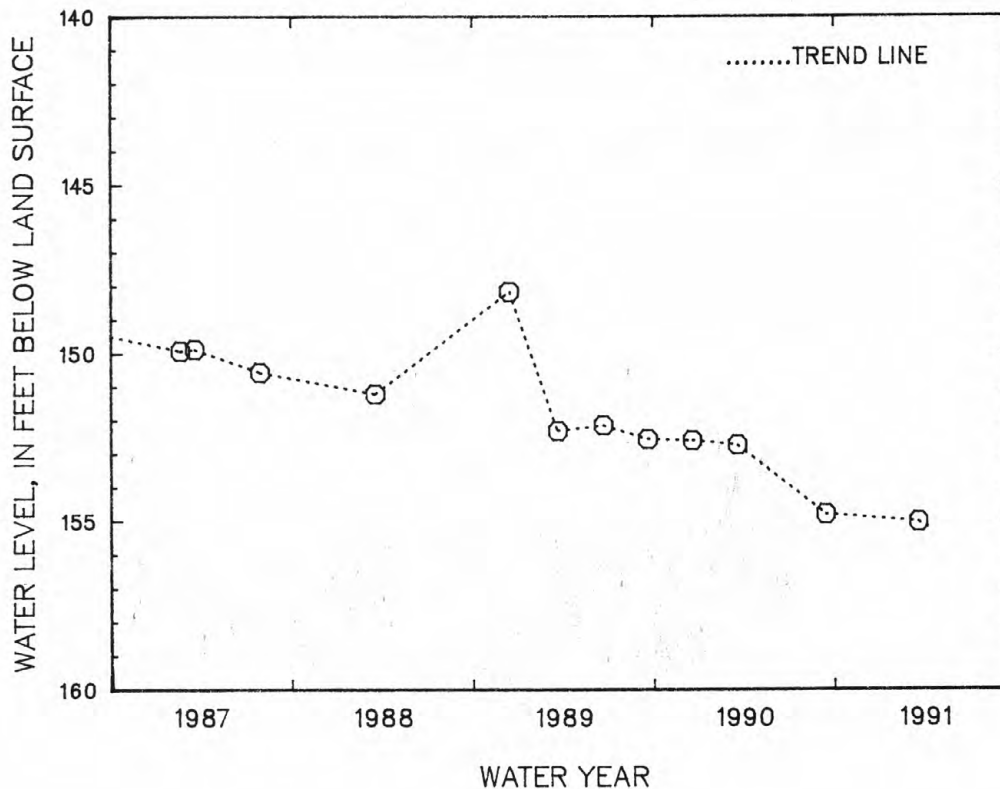
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--January 1943, November 1973, October 1983 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 128.00 ft below land-surface datum, Jan. 1, 1943; lowest measured, 155.03 ft below land-surface datum, Mar. 20, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 20 | 155.03         |



## GROUND-WATER LEVELS

## HENRICO COUNTY

372900077130001. Local number, 53H 4 SOW 072.

LOCATION.--Lat 37°29'11", long 77°14'07", Hydrologic Unit 02080206, 1.3 mi southeast of end of State Highway 345, 1.6 mi northwest of Elko. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 10 in. to 208 ft, diameter 8 in. from 208 to 292 ft, diameter 6 in. from 292 to 395 ft, depth 395 ft, screened 208 to 213 ft, 240 to 262 ft, 266 to 268 ft, 281 to 287 ft, 303 to 309 ft, 363 to 384 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Aug. 5, 1975, to Sept. 30, 1985, occasional measurement with chalked tape. Oct. 20, 1974, to Aug. 5, 1975, continuous strip-chart recorder. Prior to Oct. 20, 1974, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 130 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.8 ft above land-surface datum.

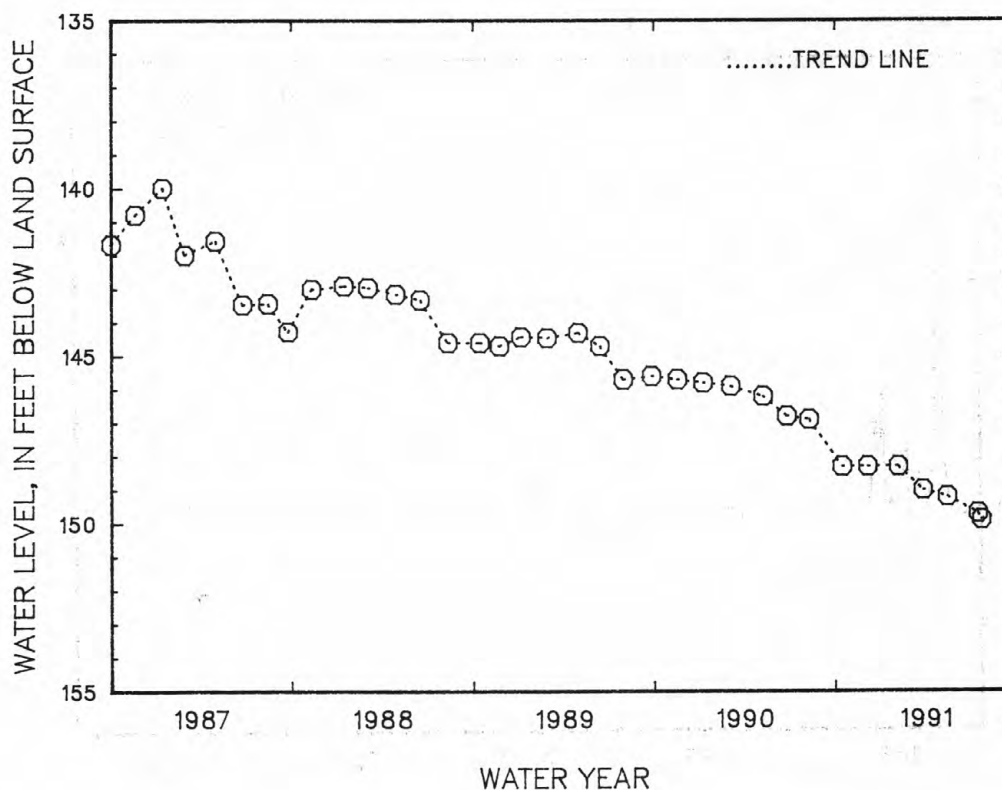
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--March 1950 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 107.00 ft below land-surface datum, Mar. 27, 1950; lowest measured, 149.89 ft below land-surface datum, July 24, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE           | WATER LEVEL | DATE                               | WATER LEVEL | DATE   | WATER LEVEL | DATE                       | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|----------------|-------------|------------------------------------|-------------|--------|-------------|----------------------------|-------------|--------|-------------|
| OCT 15          | 148.30      | FEB 06         | 148.30      | MAR 28                             | 149.00      | MAY 16 | 149.20      | JUL 17                     | 149.70      | JUL 24 | 149.89      |
| DEC 06          | 148.30      |                |             |                                    |             |        |             |                            |             |        |             |
| WATER YEAR 1991 |             | HIGHEST 148.30 |             | OCT 15, DEC 06, 1990, FEB 06, 1991 |             |        |             | LOWEST 149.89 JUL 24, 1991 |             |        |             |





## GROUND-WATER LEVELS

143

## CITY OF HOPEWELL

371801077164201. Local number, 52G 1.

LOCATION.--Lat 37°18'01", long 77°16'42", Hydrologic Unit 02080206, 0.2 mi north of intersection of State Highways 10 and 156 in Hopewell. Owner: Virginia American Water Corporation.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in., depth 300 ft, screen depth unknown.

INSTRUMENTATION.--Weekly measurement with chalked tape by USGS observer.

DATUM.--Elevation of land-surface datum is 50.26 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.34 ft above land-surface datum.

REMARKS.--Water level affected by pumpage.

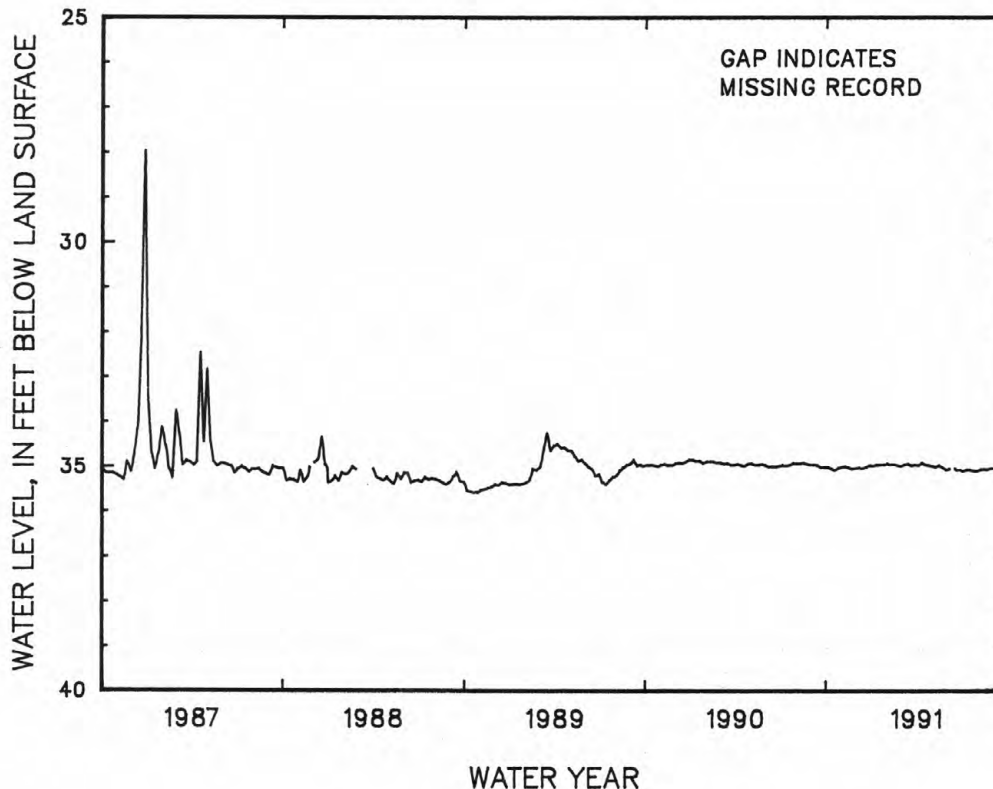
PERIOD OF RECORD.--May 1939 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.56 ft below land-surface datum, Sept. 7, 1979; lowest measured, 56.95 ft below land-surface datum, Aug. 14, 1943.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 05 | 35.01       | DEC 07 | 35.03       | FEB 08 | 34.96       | APR 12 | 34.92       | JUN 14 | 35.05       | AUG 16 | 35.06       |
| 12     | 35.05       | 14     | 35.05       | 15     | 34.95       | 19     | 34.96       | 21     | 35.08       | 23     | 35.07       |
| 19     | 35.09       | 20     | 35.02       | 22     | 34.98       | 26     | 34.98       | 28     | 35.08       | 30     | 35.04       |
| 26     | 35.04       | 28     | 34.98       | MAR 01 | 34.99       | MAY 03 | 34.99       | JUL 05 | 35.11       | SEP 06 | 35.05       |
| NOV 02 | 35.01       | JAN 04 | 34.99       | 08     | 34.96       | 10     | 35.01       | 12     | 35.08       | 13     | 35.04       |
| 09     | 35.00       | 11     | 34.96       | 15     | 34.94       | 17     | 34.98       | 19     | 35.07       | 20     | 35.07       |
| 16     | 35.03       | 18     | 34.97       | 22     | 34.98       | 24     | 35.03       | 26     | 35.10       | 27     | 35.05       |
| 23     | 35.06       | 25     | 34.97       | 29     | 34.96       | 31     | 35.08       | AUG 02 | 35.11       |        |             |
| 30     | 35.04       | FEB 01 | 34.94       | APR 05 | 34.98       | JUN 07 | 35.06       | 09     | 35.07       |        |             |

WATER YEAR 1991      HIGHEST 34.92 APR 12, 1991      LOWEST 35.11 JUL 05, AUG 02, 1991



## GROUND-WATER LEVELS

## CITY OF HOPEWELL

371727077160401. Local number, 52G 15 SOW 142A.

LOCATION.--Lat 37°17'27", long 77°16'04", Hydrologic Unit 02080206, 0.2 mi south of State Highway 10, 0.8 mi east of State Highway 156 in Hopewell. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 100 ft, screened 84 to 94 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.7 ft above land-surface datum.

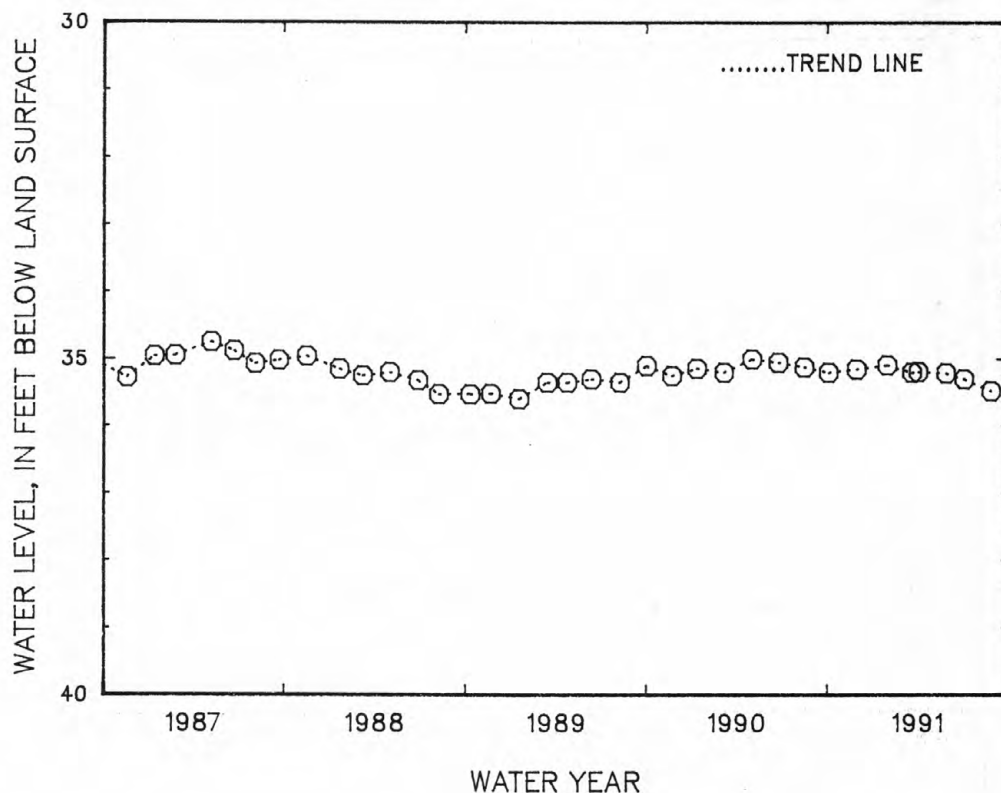
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--March 1985 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.67 ft below land-surface datum, Feb. 24, 1986; lowest measured, 35.60 ft below land-surface datum, Jan. 17, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 04          | 35.20       | JAN 30  | 35.09       | APR 03       | 35.19       | MAY 29 | 35.21       | JUL 05       | 35.30       | AUG 28 | 35.48       |
| NOV 29          | 35.15       | MAR 21  | 35.20       |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 35.09       | JAN 30, 1991 |             | LOWEST | 35.48       | AUG 28, 1991 |             |        |             |



## GROUND-WATER LEVELS

145

## CITY OF HOPEWELL

371727077160402. Local number, 52G 16 SOW 142B.

LOCATION.--Lat 37°17'27", long 77°16'04", Hydrologic Unit 02080206, 0.2 mi south of State Highway 10, 0.8 mi east of State Highway 156 in Hopewell. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 164 ft, screened 154 to 164 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

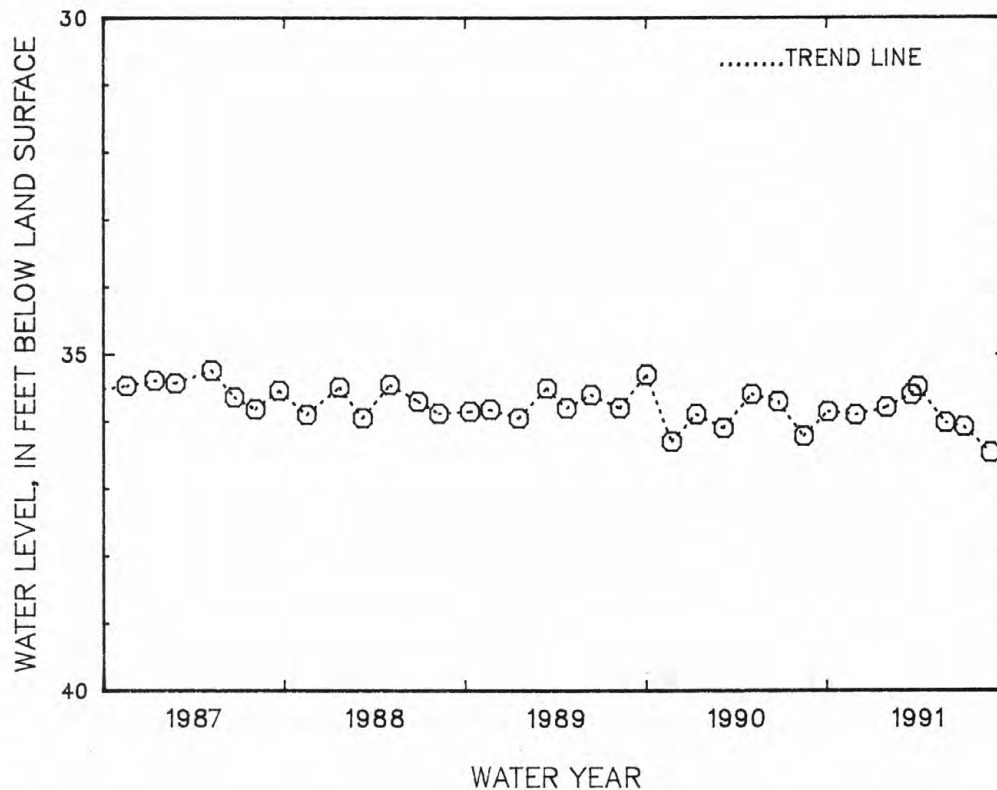
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--March 1985 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.93 ft below land-surface datum, Feb. 24, 1986; lowest measured, 36.47 ft below land-surface datum, Aug. 28, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 04          | 35.85       | JAN 30  | 35.79       | APR 03       | 35.48       | MAY 29 | 36.02       | JUL 05       | 36.08       | AUG 28 | 36.47       |
| NOV 29          | 35.90       | MAR 21  | 35.60       |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 35.48       | APR 03, 1991 | LOWEST      |        | 36.47       | AUG 28, 1991 |             |        |             |



GROUND-WATER LEVELS  
ISLE OF WIGHT COUNTY

364059076544901. Local number, 55B 16.

LOCATION.--Lat 36°40'59", long 76°54'49", Hydrologic Unit 03010202, off U.S. Highways 258 and 58, 200 ft west of the intersection of U.S. Highways 258 and 58 and Lynn Road, and 0.3 mi east of Franklin. Owner: Union Camp Corporation.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 305 ft, screened 285 to 305 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch. Prior to May 27, 1988, continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.45 ft above land-surface datum.

REMARKS.--Water level affected by local pumpage and regional drawdown.

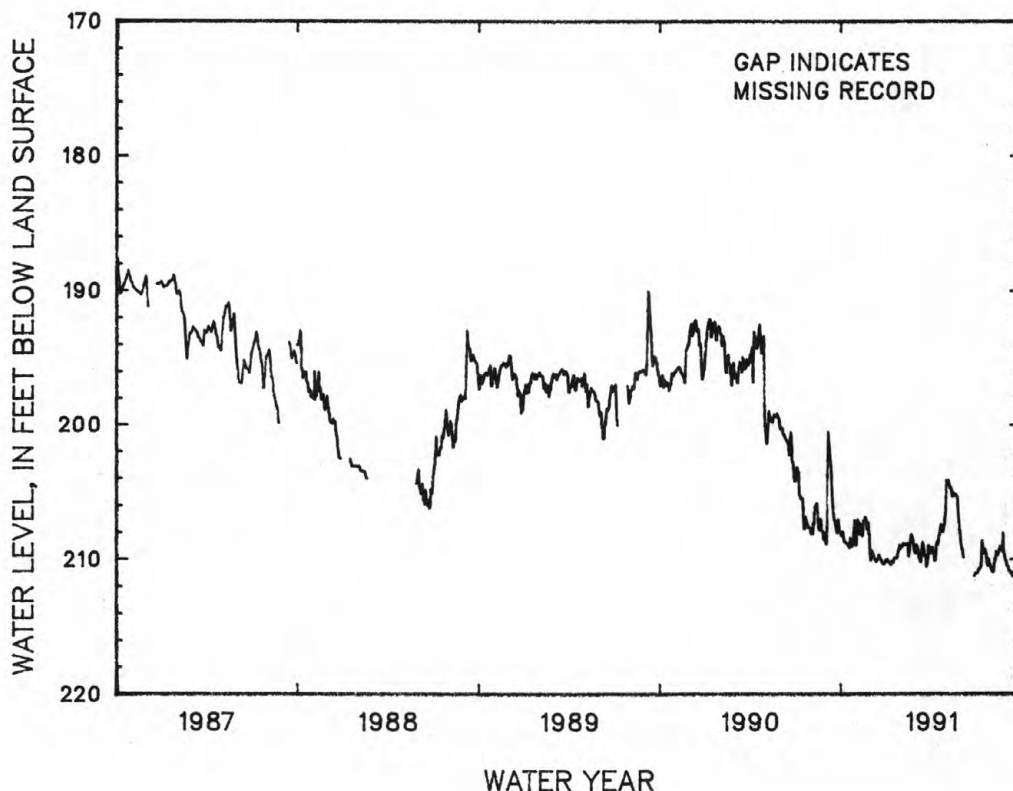
PERIOD OF RECORD.--June 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 99.00 ft below land-surface datum, Dec. 27, 1960; lowest recorded, 211.33 ft below land-surface datum, Sept. 28, 29, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5   | 208.18 | 207.08 | 209.57 | 210.19 | 208.82 | 209.16 | 209.54 | 204.19 | 209.84 | 210.80 | 210.89 | 210.86 |
| 10  | 208.73 | 207.36 | 210.07 | 210.39 | 208.86 | 210.08 | 210.09 | 204.70 | ---    | 210.54 | 209.46 | 211.07 |
| 15  | 208.85 | 208.11 | 210.05 | 210.26 | 209.75 | 208.93 | 208.88 | 205.14 | ---    | 209.19 | 209.46 | 210.93 |
| 20  | 208.93 | 206.90 | 209.95 | 209.88 | 208.30 | 209.76 | 207.79 | 205.17 | ---    | 209.44 | 209.24 | 211.09 |
| 25  | 209.04 | 207.32 | 210.30 | 209.43 | 208.80 | 210.02 | 207.92 | 205.92 | ---    | 210.47 | 209.21 | 211.08 |
| END | 208.41 | 209.79 | 210.11 | 209.07 | 209.45 | 209.52 | 206.62 | 208.81 | 211.03 | 210.56 | 210.26 | 211.29 |

WATER YEAR 1991      HIGHEST 202.70 MAY 01, 1991      LOWEST 211.33 SEP 28, 29, 1991



GROUND-WATER LEVELS  
ISLE OF WIGHT COUNTY

147

364125076544801. Local number, 55B 36.

LOCATION.--Lat 36°41'25", long 76°54'48", Hydrologic Unit 03010202, on Lynn Road, 0.45 mi north of intersection with U.S. Highways 258 and 58, and 0.7 mi northeast of Franklin. Owner: Union Camp Corporation.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 860 ft, screened 720 to 725 ft, 800 to 805 ft, 855 to 860 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. September 1983 to October 1986, occasional measurement with chalked tape by USGS personnel. October 1982 to September 1983, continuous strip-chart recorder. November 1972 to October 1982, occasional measurement with chalked tape. July 1969 to November 1972, continuous strip-chart recorder. Prior to July 1969, continuous strip-chart recorder and occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 37 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 4.56 ft above land-surface datum.

REMARKS.--Water level affected by local pumpage and regional drawdown.

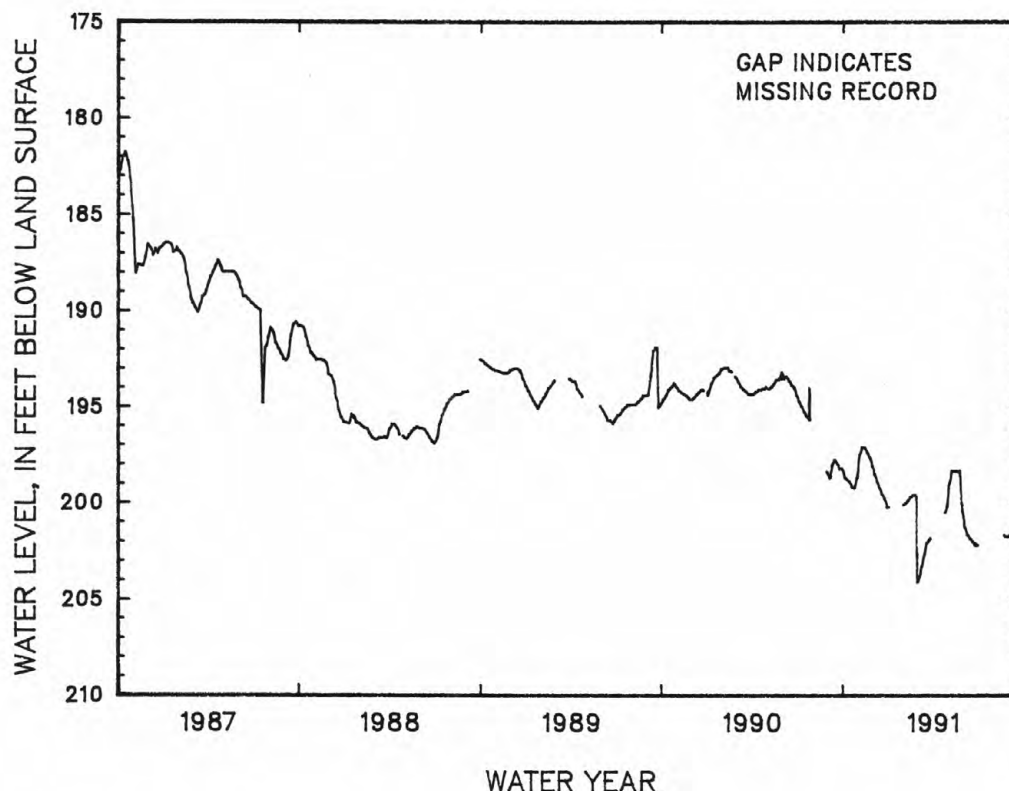
PERIOD OF RECORD.--March 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 156.65 ft below land-surface datum, Dec. 27, 1969; lowest measured, 219.29 ft below land-surface datum, May 18, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5   | 198.67 | 197.52 | 198.52 | ---    | 200.06 | 203.87 | ---    | 198.98 | 201.29 | ---    | ---    | 201.67 |
| 10  | 198.82 | 197.13 | 198.90 | ---    | 199.94 | 203.31 | ---    | 198.35 | 201.66 | ---    | ---    | 201.66 |
| 15  | 198.92 | 197.14 | 199.24 | ---    | 199.74 | 202.75 | ---    | 198.37 | 201.86 | ---    | ---    | 201.66 |
| 20  | 199.20 | 197.38 | 199.56 | ---    | 199.64 | 202.12 | ---    | 198.36 | 202.01 | ---    | ---    | 201.65 |
| 25  | 199.25 | 197.62 | 199.80 | ---    | 199.62 | 201.93 | ---    | 198.35 | 202.21 | ---    | 201.73 | 201.61 |
| EOM | 198.66 | 198.10 | 200.25 | 200.14 | 202.60 | ---    | 200.21 | 200.46 | 202.21 | 201.35 | 201.77 | ---    |

WATER YEAR 1991 HIGHEST 197.12 NOV 14, 1990 LOWEST 204.11 MAR 01, 02, 1991



## GROUND-WATER LEVELS

## ISLE OF WIGHT COUNTY

364101076544803. Local number, 55B 62 SOW 096B.

LOCATION.--Lat 36°41'01", long 76°54'48", Hydrologic Unit 03010202, 200 ft northwest of intersection of U.S. Highways 58 and 258 and Lynn Road, 0.3 mi east of Franklin. Owner: Virginia Water Control Board.

AQUIFER.--Chickahominy-Piney Point aquifer of Eocene-Miocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 3 in., depth 30.77 ft, screened 25 to 30 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch. Prior to October 1984, occasional measurement with chalked tape by USGS personnel.

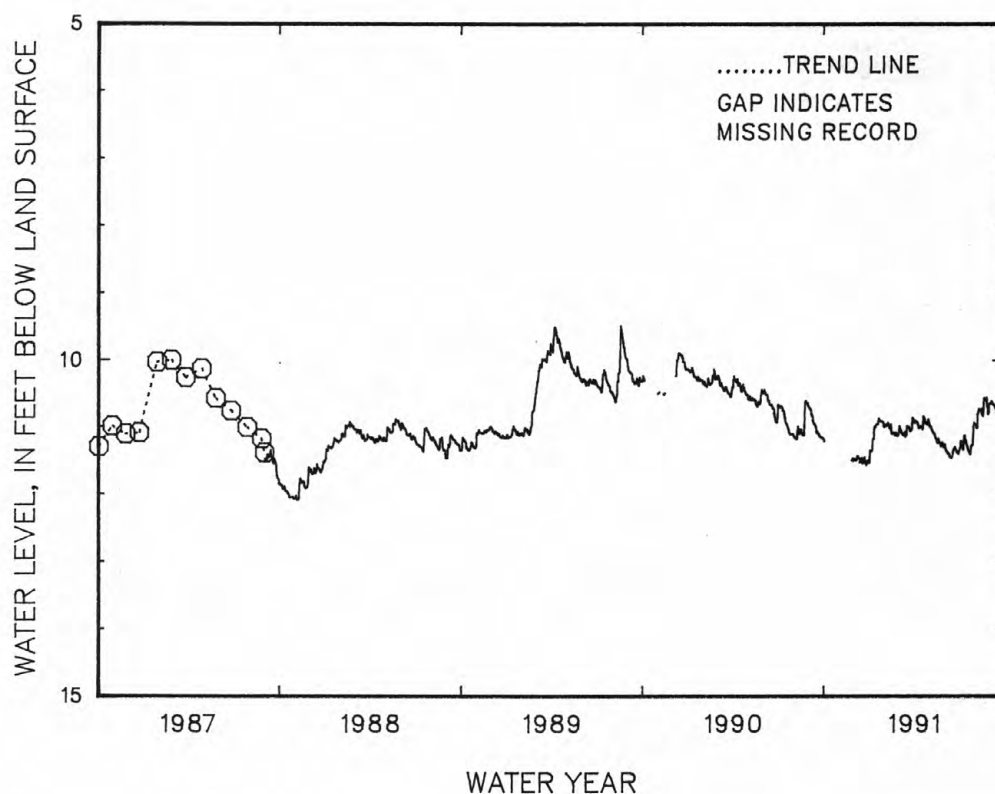
DATUM.--Elevation of land-surface datum is 27 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.15 ft above land-surface datum.

PERIOD OF RECORD.--May 1979, October 1980 to September 1981, October 1982 to September 1983, October 1984 to current year. Unpublished records available prior to October 1985 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 9.46 ft below land-surface datum, Apr. 8, 9, Aug. 19, 1990; lowest measured, 15.38 ft below land-surface datum, Oct. 17, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY             | OCT | NOV   | DEC           | JAN          | FEB   | MAR          | APR          | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----------------|-----|-------|---------------|--------------|-------|--------------|--------------|-------|-------|-------|-------|-------|
| 5               | --- | ---   | 11.49         | 11.36        | 10.97 | 11.03        | 10.91        | 10.99 | 11.34 | 11.21 | 10.99 | 10.61 |
| 10              | --- | ---   | 11.43         | 11.18        | 10.96 | 11.10        | 10.96        | 11.07 | 11.40 | 11.34 | 10.73 | 10.66 |
| 15              | --- | ---   | 11.53         | 10.98        | 11.05 | 11.13        | 10.99        | 11.16 | 11.45 | 11.20 | 10.73 | 10.74 |
| 20              | --- | ---   | 11.54         | 10.93        | 11.08 | 11.01        | 11.02        | 11.22 | 11.36 | 11.34 | 10.72 | 10.80 |
| 25              | --- | ---   | 11.54         | 10.91        | 11.09 | 11.05        | 10.93        | 11.25 | 11.34 | 11.41 | 10.56 | 10.69 |
| EOY             | --- | 11.51 | 11.54         | 10.98        | 11.13 | 10.88        | 10.96        | 11.28 | 11.40 | 10.98 | 10.65 | 10.78 |
| WATER YEAR 1991 |     |       | HIGHEST 10.49 | AUG 22, 1991 |       | LOWEST 11.57 | DEC 27, 1990 |       |       |       |       |       |





GROUND-WATER LEVELS  
ISLE OF WIGHT COUNTY

149

365305076380001. Local number, 56C 1.

LOCATION.--Lat 36°50'06", long 76°50'03", Hydrologic Unit 03010202, 0.13 mi west of State Highway 614, 2.2 mi south of Zuni. Owner: Zuni Presbyterian Training Center.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 8 in., depth 434 ft, screened 418 to 434 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 75 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of pump base, 1.7 ft above land-surface datum.

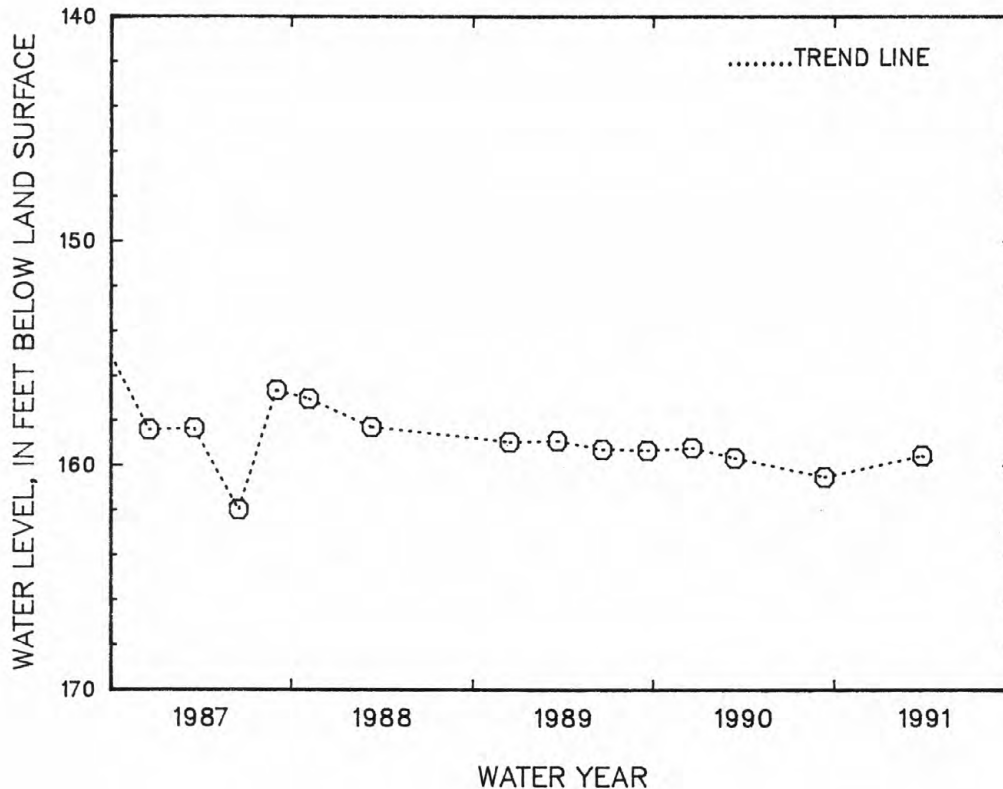
REMARKS.--Water levels affected by pumpage.

PERIOD OF RECORD.--August 1970 to December 1975, January 1978 to current year. Unpublished records available prior to October 1985 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 125.02 ft below land-surface datum, Aug. 27, 1970; lowest measured, 161.99 ft below land-surface datum, June 16, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 28 | 159.57         |



## GROUND-WATER LEVELS

## ISLE OF WIGHT COUNTY

364814076440701. Local number, 57C 25 SOW 149A.

LOCATION.--Lat 36°48'14", long 76°44'07", Hydrologic Unit 02080208, at Windsor Community Center in Windsor.  
Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 26 ft, screened 16 to 26 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 70 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.2 ft above land-surface datum.

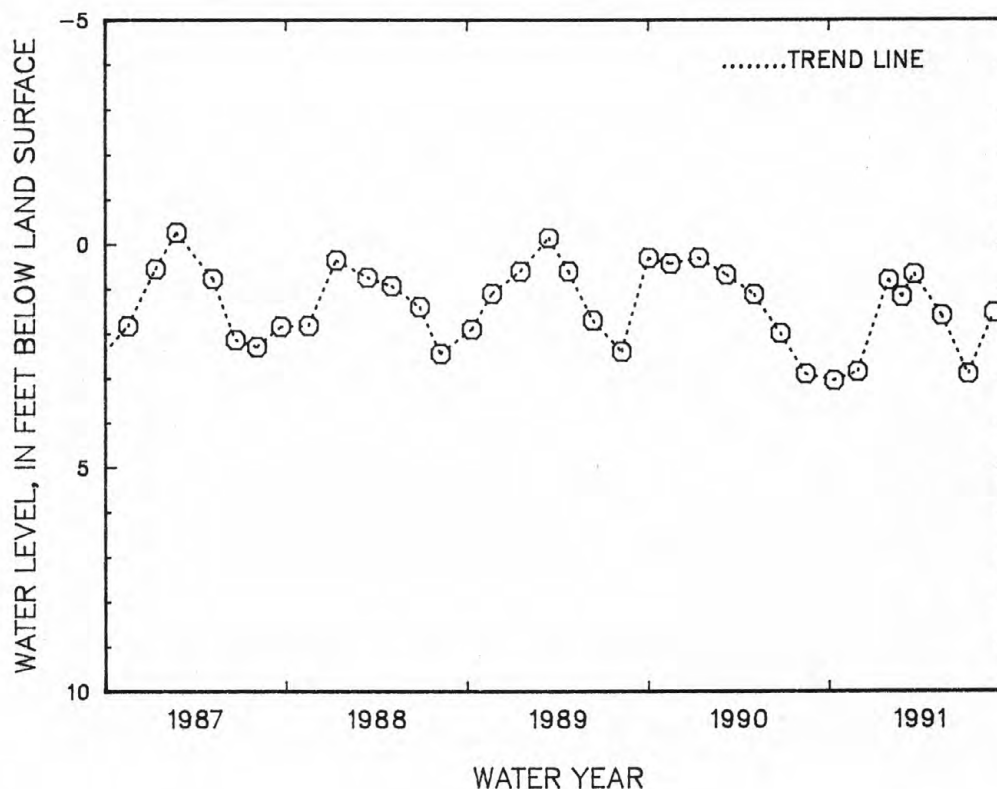
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--March 1985 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.27 ft above land-surface datum, Feb. 23, 1987;  
lowest measured, 3.29 ft below land-surface datum, July 22, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 11          | 3.05        | JAN 30  | 0.80        | MAR 22       | 0.66        | MAY 17 | 1.59        | JUL 09       | 2.90        | AUG 30 | 1.53        |
| NOV 28          | 2.85        | FEB 26  | 1.17        |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 0.66        | MAR 22, 1991 |             | LOWEST | 3.05        | OCT 11, 1990 |             |        |             |



## GROUND-WATER LEVELS

151

## ISLE OF WIGHT COUNTY

364814076440702. Local number, 57C 26 SOW 149B.

LOCATION.--Lat 36°48'14", long 76°44'07", Hydrologic Unit 02080208, at Windsor Community Center in Windsor.  
Owner: Virginia Water Control Board.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 380 ft, screened 370 to 380 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 70 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.2 ft above land-surface datum.

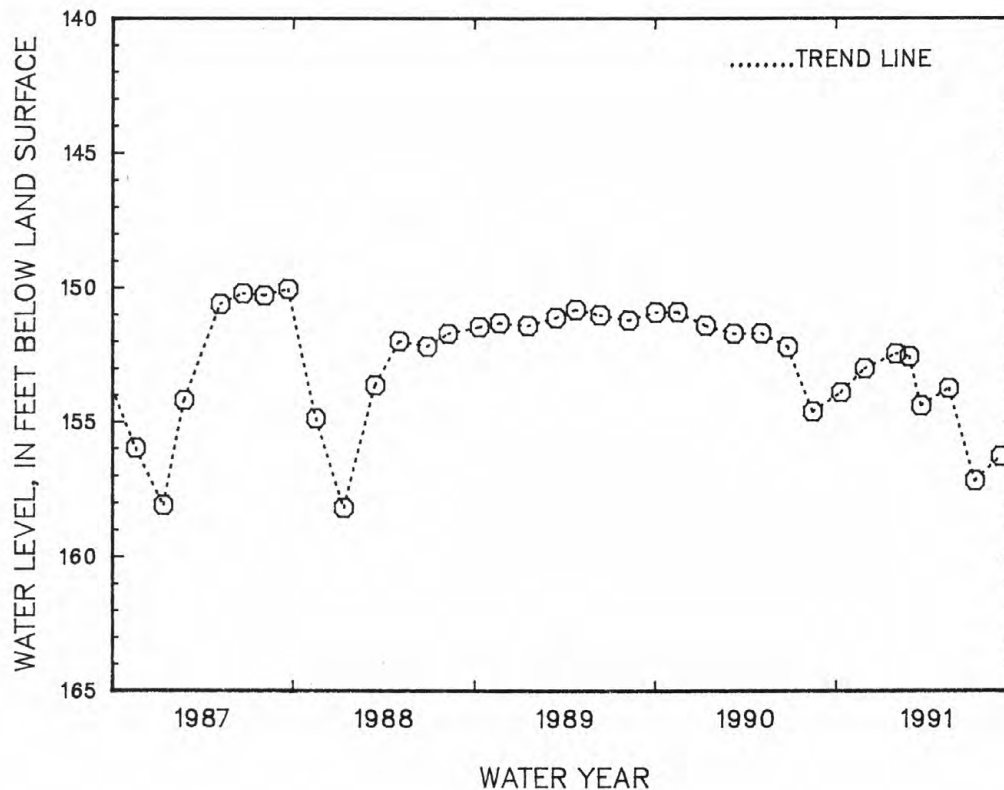
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

PERIOD OF RECORD.--March 1985 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 144.42 ft below land-surface datum, Feb. 25, 1986;  
lowest measured, 158.20 ft below land-surface datum, Jan. 11, 1988.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 11          | 153.90      | JAN 30  | 152.45      | MAR 22       | 154.40      | MAY 17 | 153.74      | JUL 09       | 157.19      | AUG 30 | 156.29      |
| NOV 28          | 153.00      | FEB 26  | 152.55      |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 152.45      | JAN 30, 1991 |             | LOWEST | 157.19      | JUL 09, 1991 |             |        |             |



## GROUND-WATER LEVELS

## ISLE OF WIGHT COUNTY

364814076440704. Local number, 57C 28 SOW 149D.

LOCATION.--Lat 36°48'14", long 76°44'07", Hydrologic Unit 02080208, at Windsor Community Center in Windsor.  
Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 807 ft, screened 797 to 807 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 70 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.4 ft above land-surface datum.

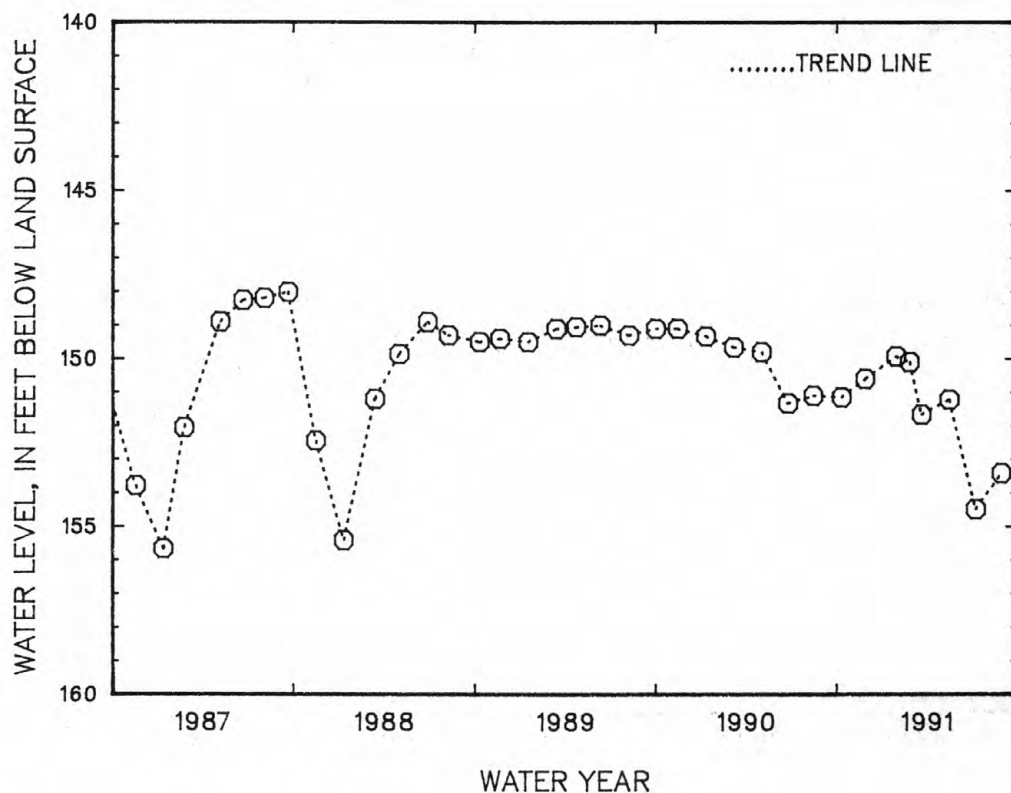
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--March 1985 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 142.80 ft below land-surface datum, Feb. 25, 1986; lowest measured, 155.67 ft below land-surface datum, Jan. 12, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 11          | 151.15      | JAN 30  | 149.93      | MAR 22       | 151.67      | MAY 17 | 151.22      | JUL 09       | 154.49      | AUG 30 | 153.41      |
| NOV 28          | 150.60      | FEB 26  | 150.10      |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 149.93      | JAN 30, 1991 |             | LOWEST | 154.49      | JUL 09, 1991 |             |        |             |



## GROUND-WATER LEVELS

153

## ISLE OF WIGHT COUNTY

365751076433501. Local number, 57D 21 SOW 143A.

LOCATION.--Lat 36°57'51", long 76°43'35", Hydrologic Unit 03010202, 50 ft west of State Highway 652, 0.5 mi south of State Highway 682, and 1.8 mi southwest of Magnet. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 650 ft, screened 640 to 650 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 7, 1985, monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 73 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

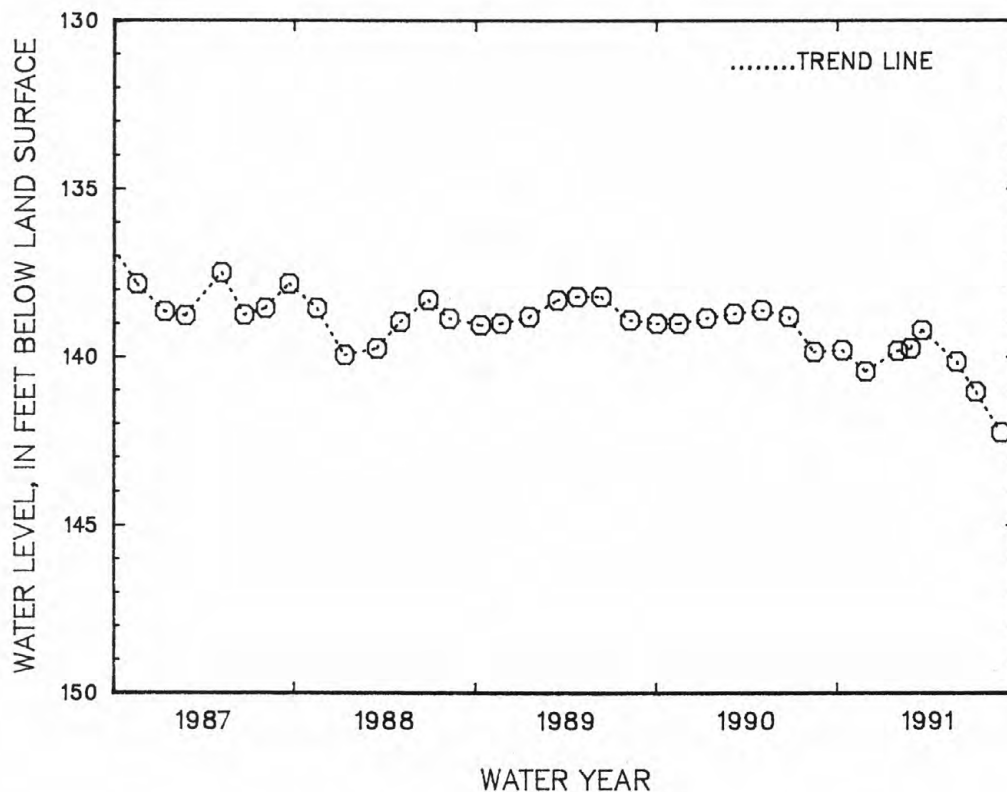
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--April 1980 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 122.60 ft below land-surface datum, Aug. 27, 1980; lowest measured, 142.26 ft below land-surface datum, Aug. 28, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE                        | WATER LEVEL | DATE          | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|-----------------------------|-------------|---------------|-------------|--------------|-------------|--------|-------------|--------|-------------|
| OCT 11          | 139.80      | JAN 31                      | 139.82      | MAR 21        | 139.20      | MAY 30       | 140.15      | JUL 08 | 141.05      | AUG 28 | 142.26      |
| NOV 27          | 140.44      | FEB 26                      | 139.75      |               |             |              |             |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST 139.20 MAR 21, 1991 |             | LOWEST 142.26 |             | AUG 28, 1991 |             |        |             |        |             |



## GROUND-WATER LEVELS

## ISLE OF WIGHT COUNTY

365751076433502. Local number, 57D 22 SOW 143B.

LOCATION.--Lat 36°57'51", long 76°43'35", Hydrologic Unit 03010202, 50 ft west of State Highway 652, 0.5 mi south of State Highway 682, and 1.8 mi southwest of Magnet. Owner: Virginia Water Control Board.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 350 ft, screened 340 to 350 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 7, 1985, monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 73 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

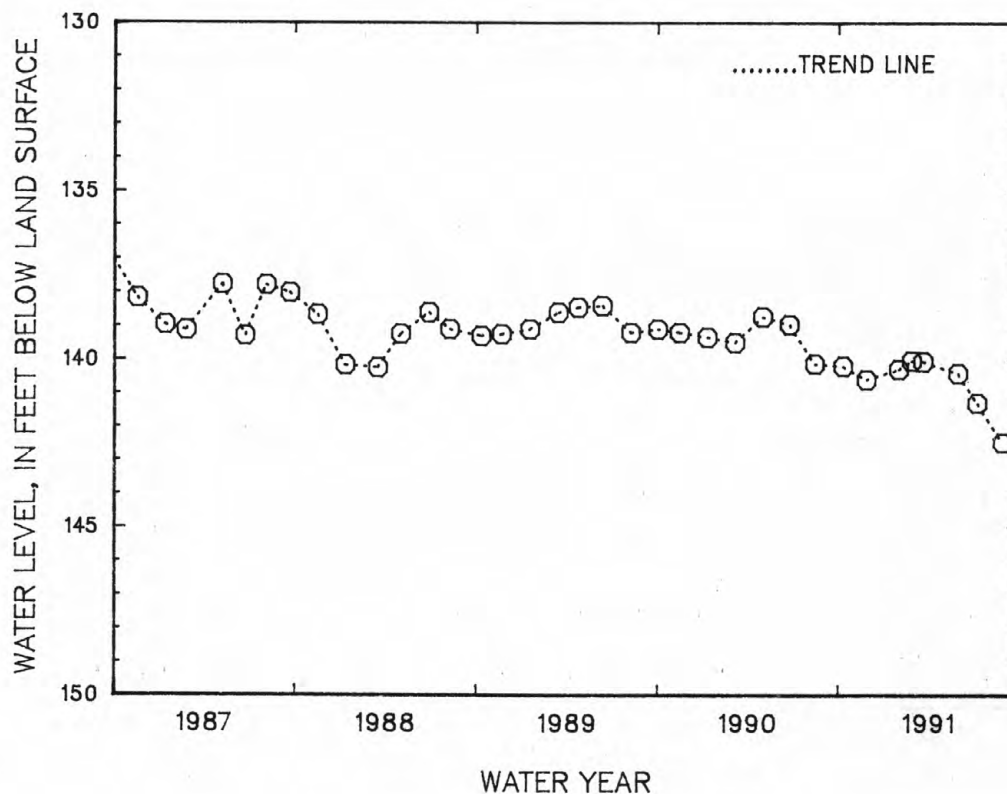
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--April 1980 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 125.10 ft below land-surface datum, Apr. 24, May 29, 1980; lowest measured, 142.48 ft below land-surface datum, Aug. 28, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE                        | WATER LEVEL | DATE          | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|-----------------------------|-------------|---------------|-------------|--------------|-------------|--------|-------------|--------|-------------|
| OCT 11          | 140.20      | JAN 31                      | 140.29      | MAR 21        | 140.06      | MAY 30       | 140.41      | JUL 08 | 141.30      | AUG 28 | 142.48      |
| NOV 27          | 140.60      | FEB 26                      | 140.04      |               |             |              |             |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST 140.04 FEB 26, 1991 |             | LOWEST 142.48 |             | AUG 28, 1991 |             |        |             |        |             |





## GROUND-WATER LEVELS

155

## ISLE OF WIGHT COUNTY

365751076433503. Local number, 57D 23 SOW 143C.

LOCATION.--Lat 36°57'51", long 76°43'35", Hydrologic Unit 03010202, 50 ft west of State Highway 652, 0.5 mi south of State Highway 682, and 1.8 mi southwest of Magnet. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 18 ft, screened 8 to 18 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 7, 1985, monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 73 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

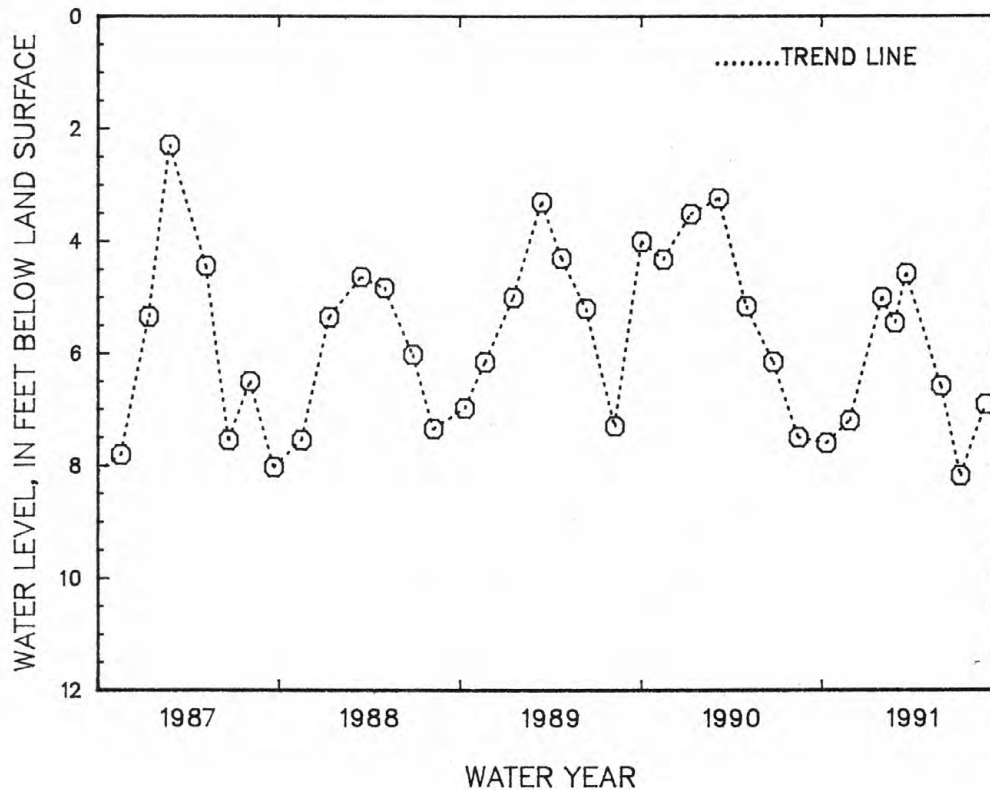
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--April 1980 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.29 ft below land-surface datum, Feb. 23, 1987; lowest measured, 8.70 ft below land-surface datum, Aug. 11, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 11          | 7.60        | JAN 31  | 5.00        | MAR 21       | 4.57        | MAY 30 | 6.58         | JUL 08 | 8.18        | AUG 28 | 6.91        |
| NOV 27          | 7.20        | FEB 26  | 5.45        |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 4.57        | MAR 21, 1991 | LOWEST      | 8.18   | JUL 08, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

## ISLE OF WIGHT COUNTY

370236076425901. Local number, 57E 10 SOW 144B.

LOCATION.--Lat 37°02'36", long 76°42'59", Hydrologic Unit 02080206, 0.5 mi east of State Highway 627, 1.0 mi north of State Highway 621, and 2.5 mi southwest of Rushmere. Owner: Virginia Water Control Board.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 440 ft, screened 430 to 440 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 7, 1985, monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 85 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

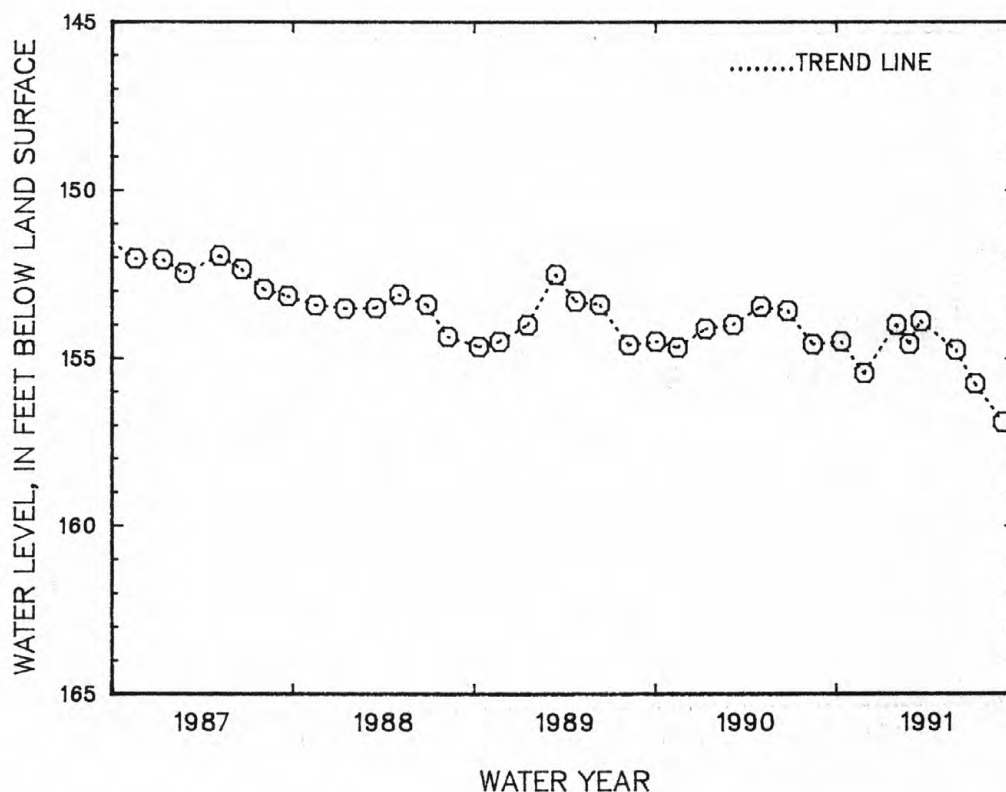
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

PERIOD OF RECORD.--April 1980 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 139.90 ft below land-surface datum, Apr. 24, July 24, 1980; lowest measured, 156.91 ft below land-surface datum, Sept. 3, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 11          | 154.50      | JAN 31  | 154.00      | MAR 21       | 153.89      | MAY 31 | 154.75      | JUL 09       | 155.76      | SEP 03 | 156.91      |
| NOV 27          | 155.45      | FEB 26  | 154.57      |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 153.89      | MAR 21, 1991 |             | LOWEST | 156.91      | SEP 03, 1991 |             |        |             |



## GROUND-WATER LEVELS

157

## ISLE OF WIGHT COUNTY

370253076431201. Local number, 57E 14 SOW 144A.

LOCATION.--Lat 37°02'53", long 76°43'12", Hydrologic Unit 02080208, 0.5 mi east of State Highway 627, 1.0 mi north of State Highway 621, and 2.5 mi southwest of Rushmere. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in. to 590 ft, diameter 3 in. from 590 to 600 ft, depth 600 ft, screened 590 to 600 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 7, 1985, monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 86 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

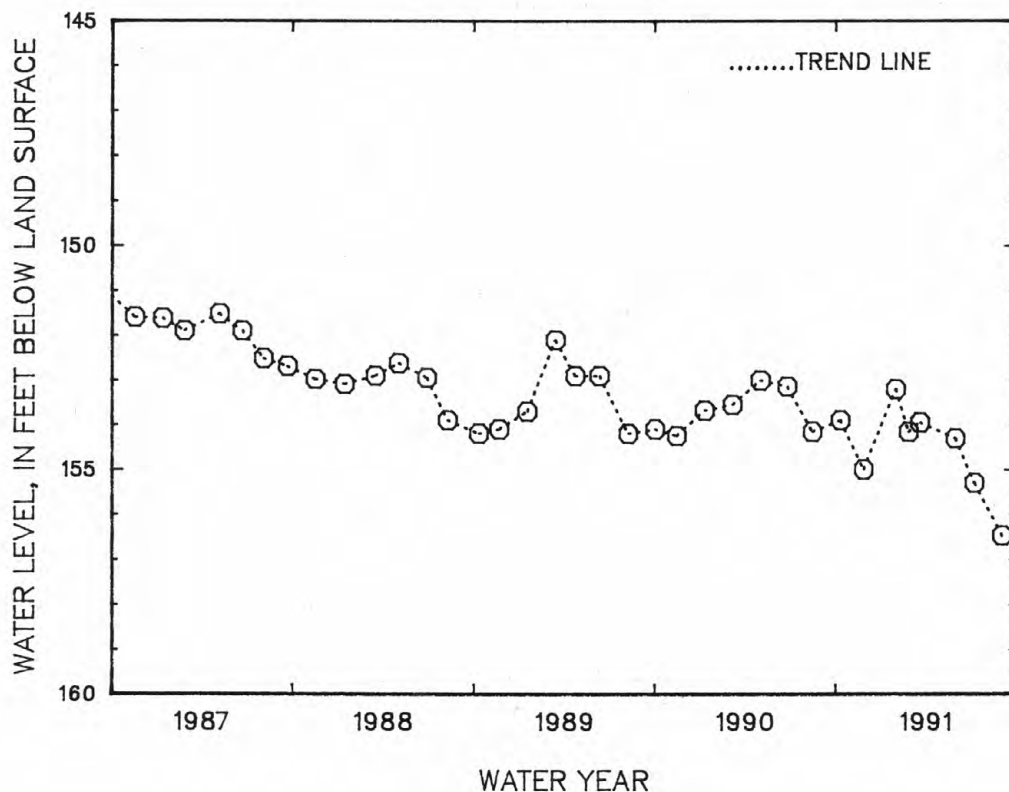
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

PERIOD OF RECORD.--April 1980 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 139.49 ft below land-surface datum, Apr. 24, 1980; lowest measured, 156.47 ft below land-surface datum, Sept. 3, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 11          | 153.90      | JAN 31  | 153.20      | MAR 21       | 153.95      | MAY 31 | 154.31      | JUL 09       | 155.30      | SEP 03 | 156.47      |
| NOV 27          | 155.00      | FEB 26  | 154.16      |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 153.20      | JAN 31, 1991 |             | LOWEST | 156.47      | SEP 03, 1991 |             |        |             |



## GROUND-WATER LEVELS

## ISLE OF WIGHT COUNTY

370253076431202. Local number, 57E 15 SOW 144C.

LOCATION.--Lat 37°02'53", long 76°43'12", Hydrologic Unit 02080208, 0.5 mi east of State Highway 627, 1.0 mi north of State Highway 621, and 2.5 mi southwest of Rushmere. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

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

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 7, 1985, monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 86 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

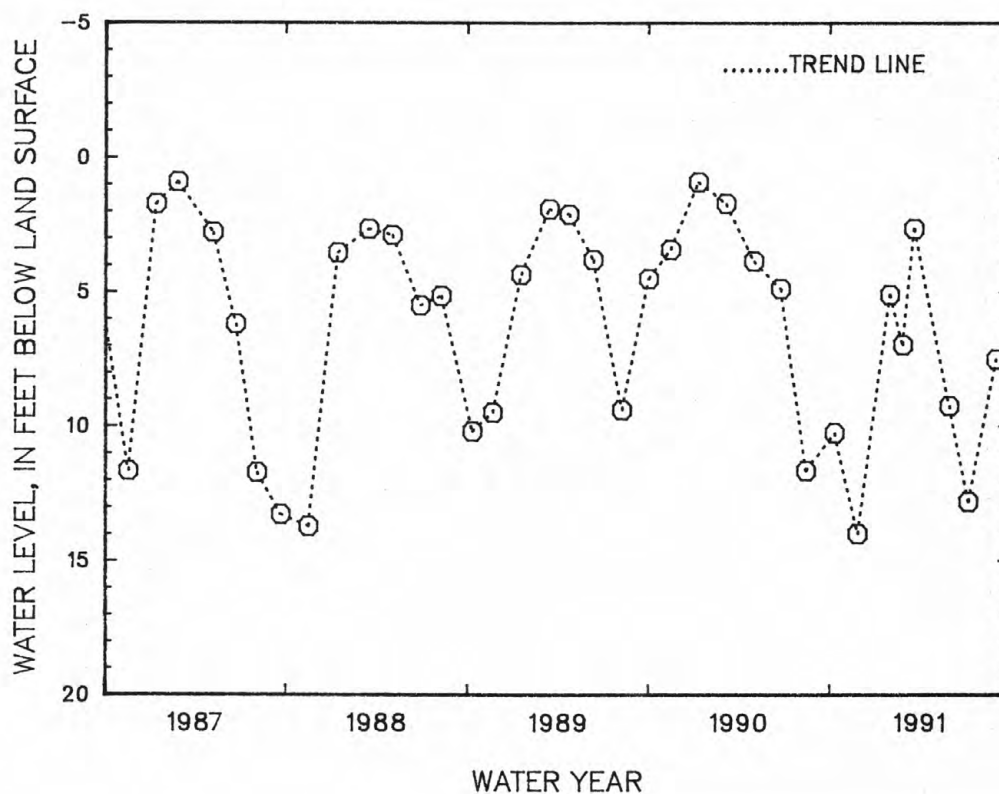
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--April 1980 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.90 ft below land-surface datum, Feb. 25, 1987, Jan. 10, 1990; lowest measured, 14.00 ft below land-surface datum, Nov. 27, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 11          | 10.25       | JAN 31  | 5.10        | MAR 21       | 2.64        | MAY 31 | 9.25        | JUL 09       | 12.81       | SEP 03 | 7.50        |
| NOV 27          | 14.00       | FEB 26  | 6.97        |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 2.64        | MAR 21, 1991 |             | LOWEST | 14.00       | NOV 27, 1990 |             |        |             |



## GROUND-WATER LEVELS

159

## JAMES CITY COUNTY

372546076532901. Local number, 55H 20.

LOCATION.--Lat 37°25'46", long 76°53'29", Hydrologic Unit 02080206, 100 ft north of State Highway 603, 700 ft east of the pumping station at Diascund Creek Reservoir, and 0.6 mi northwest of the intersection of U.S. Highway 60 and State Highway 603 in James City County. Owner: City of Newport News.

AQUIFER.--Lower and middle Potomac aquifers of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 12 in. to 300 ft, diameter 6 in. from 300 to 735 ft, depth 735 ft, screened 515 to 540 ft, 600 to 620 ft, 630 to 655 ft, 665 to 685 ft, 720 to 730 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 28 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.6 ft above land-surface datum.

REMARKS.--Water levels for the period May to September 1988 should be 100.00 ft higher than previously published.

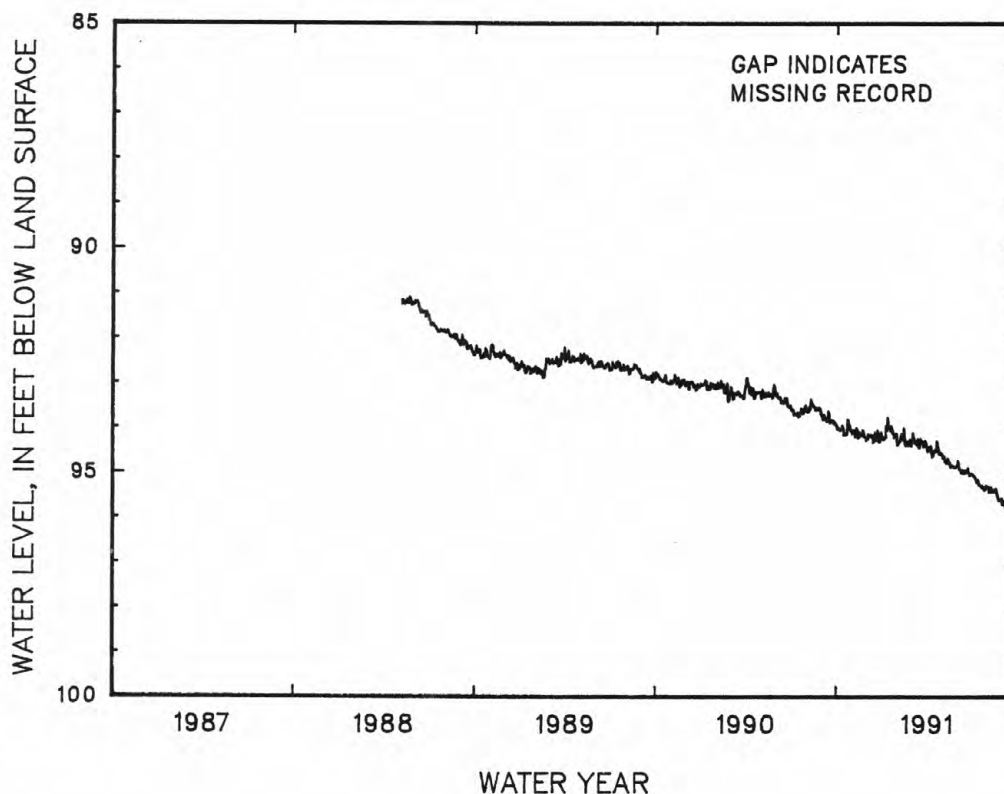
PERIOD OF RECORD.--May 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 90.99 ft below land-surface datum, June 4, 1988; lowest recorded, 95.91 ft below land-surface datum, Sept. 22, 30, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 94.02 | 94.07 | 94.20 | 94.27 | 94.32 | 94.24 | 94.50 | 94.69 | 94.87 | 95.07 | 95.38 | 95.66 |
| 10  | 94.05 | 94.04 | 94.17 | 94.06 | 94.16 | 94.34 | 94.45 | 94.76 | 95.01 | 95.19 | 95.36 | 95.77 |
| 15  | 94.06 | 94.22 | 94.29 | 94.00 | 94.20 | 94.40 | 94.54 | 94.76 | 95.00 | 95.26 | 95.40 | 95.82 |
| 20  | 94.17 | 94.18 | 94.30 | 93.99 | 94.34 | 94.32 | 94.50 | 94.89 | 94.97 | 95.32 | 95.42 | 95.84 |
| 25  | 93.84 | 94.14 | 94.24 | 94.22 | 94.31 | 94.39 | 94.55 | 94.87 | 95.02 | 95.34 | 95.64 | 95.73 |
| EOM | 94.06 | 94.29 | 94.26 | 94.32 | 94.40 | 94.41 | 94.59 | 94.87 | 95.03 | 95.30 | 95.59 | 95.91 |

WATER YEAR 1991      HIGHEST 93.64 JAN 12, 1991      LOWEST 95.91 SEP 22, 30, 1991



## GROUND-WATER LEVELS

## JAMES CITY COUNTY

371311076463601. Local number, 56F 1 SOW 018.

LOCATION.--Lat 37°13'11", long 76°46'36", Hydrologic Unit 02080206, 1,100 ft southwest of Colonial Parkway, 0.5 mi west of State Highway 682, and 0.6 mi north of Jamestown. Owner: U.S. Department of Interior, Colonial National Historical Park.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 4 in., depth 346 ft, screened 336 to 346 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Sept. 30, 1980, to Sept. 30, 1985, occasional measurement with chalked tape. Prior to Sept. 30, 1980, continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top edge of recorder shelf, 3.15 ft above land-surface datum.

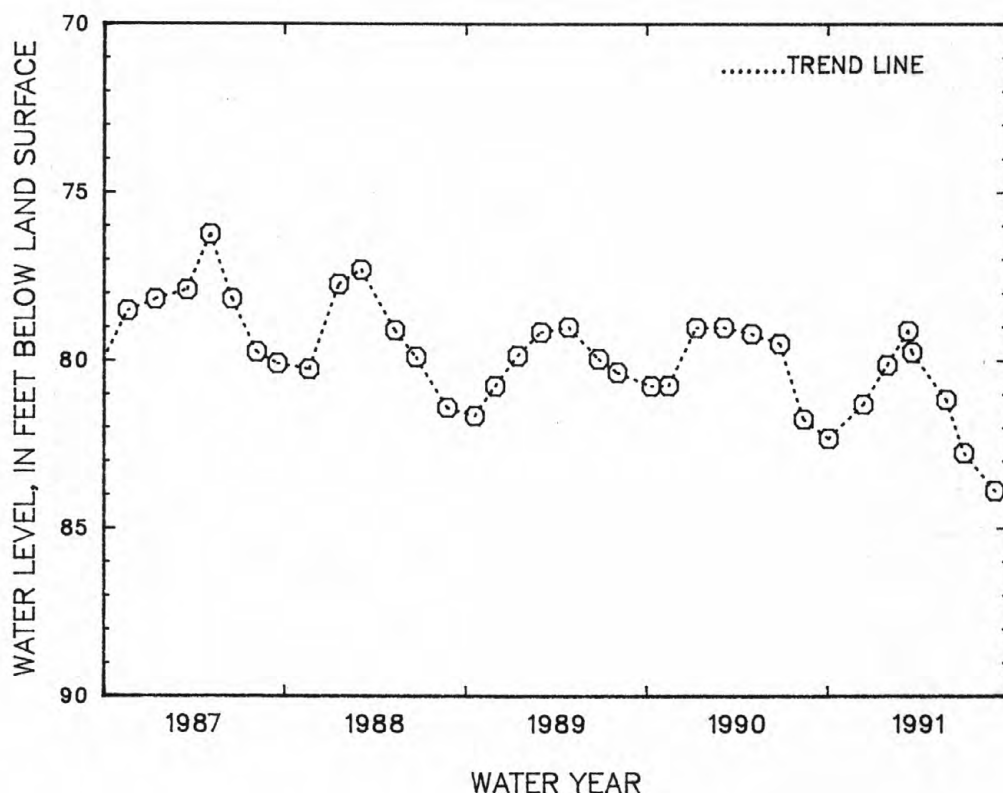
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--May 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.29 ft below land-surface datum, May 8, 1969; lowest measured, 83.89 ft below land-surface datum, Sept. 4, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 03          | 82.33       | JAN 29  | 80.13       | MAR 20       | 79.75       | MAY 28 | 81.16       | JUL 03       | 82.76       | SEP 04 | 83.89       |
| DEC 12          | 81.30       | MAR 12  | 79.11       |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 79.11       | MAR 12, 1991 |             | LOWEST | 83.89       | SEP 04, 1991 |             |        |             |





## GROUND-WATER LEVELS

161

## JAMES CITY COUNTY

371810076473001. Local number, 56G 8.

LOCATION.--Lat 37°20'08", long 76°47'32", Hydrologic Unit 02080206, 0.55 mi east of the intersection of State Highways 611 and 614 on State Highway 611, 2.1 mi west of Lightfoot. Owner: Peninsula Boy Scout Council.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 4 in., depth 490 ft, screened 480 to 490 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

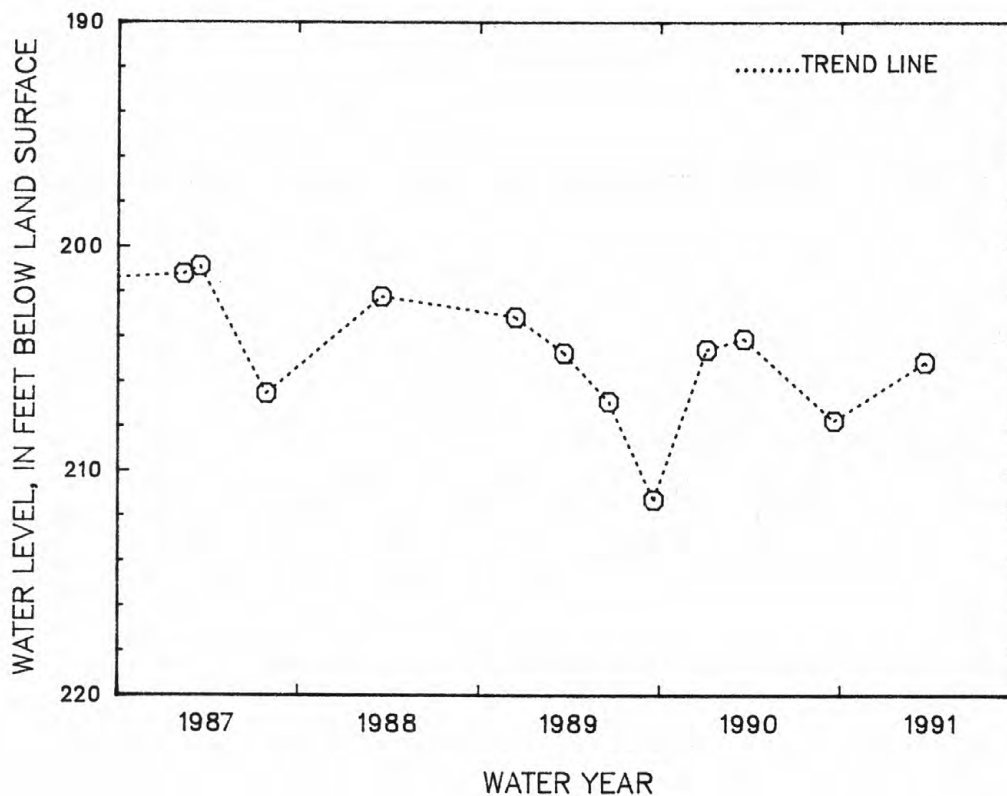
DATUM.--Elevation of land-surface datum is 143 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.85 ft above land-surface datum.

PERIOD OF RECORD.--November 1965, September 1978, January 1984 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 160.00 ft below land-surface datum, November 1965; lowest measured, 211.28 ft below land-surface datum, Sept. 19, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 20 | 205.13         |



## GROUND-WATER LEVELS

## JAMES CITY COUNTY

372028076452401. Local number, 56G 38.

LOCATION.--Lat 37°20'24", long 76°45'24", Hydrologic Unit 02080206, 200 ft southwest of U.S. Highway 60 in Lightfoot, 550 ft northwest of the intersection of U.S. Highway 60 and State Highway 646. Owner: Chesapeake and Potomac Telephone Company.

AQUIFER.--Chickahominy-Piney Point aquifer of Eocene-Miocene age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 4 in., depth 300 ft, screened 262 to 300 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 122 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.53 ft below land-surface datum.

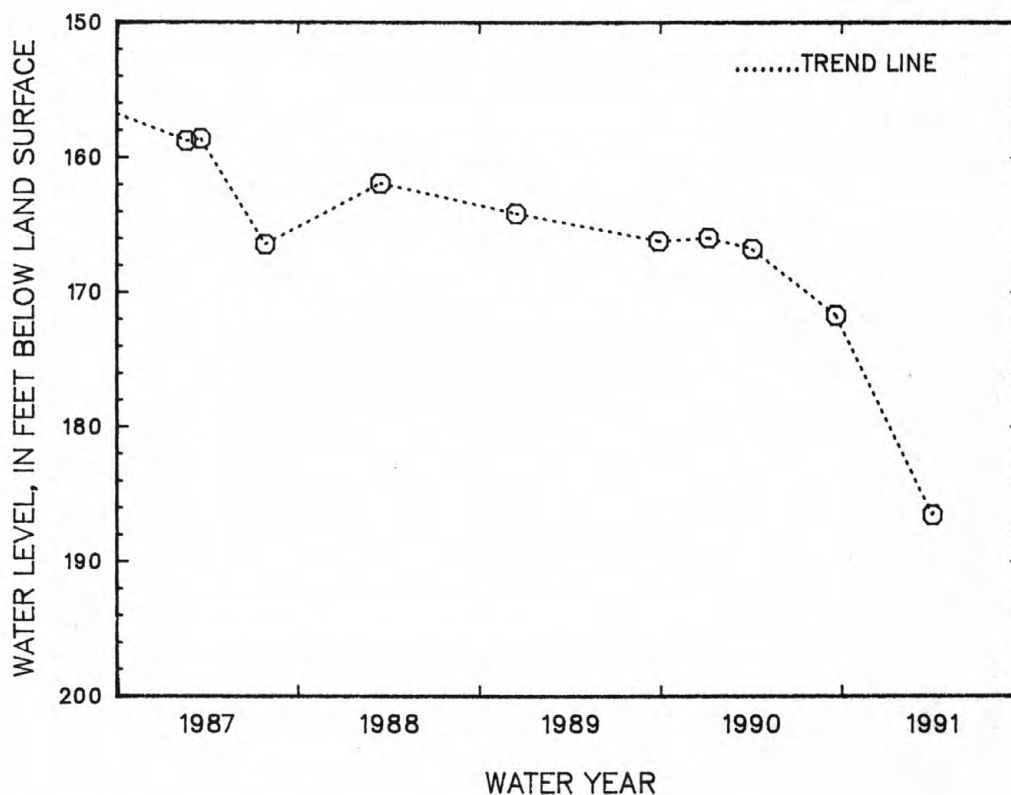
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--February to September 1978, February 1984 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 137.61 ft below land-surface datum, Feb. 9, 1978; lowest measured, 186.55 ft below land-surface datum, Apr. 02, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| APR 02 | 186.55         |



## GROUND-WATER LEVELS

163

## JAMES CITY COUNTY

372145076493201. Local number, 56G 57.

LOCATION.--Lat 37°21'45", long 76°49'32", Hydrologic Unit 02080206, 1.75 mi south of the intersection of U.S. Highway 60 and State Highway 631 (Church Lane), off a dirt road at the end of State Highway 631, and 0.10 mi north of the pump station at Little Creek Reservoir. Owner: City of Newport News.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 12 in. to 300 ft, diameter 6 in. from 300 to 695 ft, depth 695 ft, screened 530 to 540 ft, 558 to 598 ft, 604 to 624 ft, 660 to 690 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 84 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 4.3 ft above land-surface datum.

REMARKS.--Cause of low water levels in May 1990 unknown. Water level affected by regional drawdown.

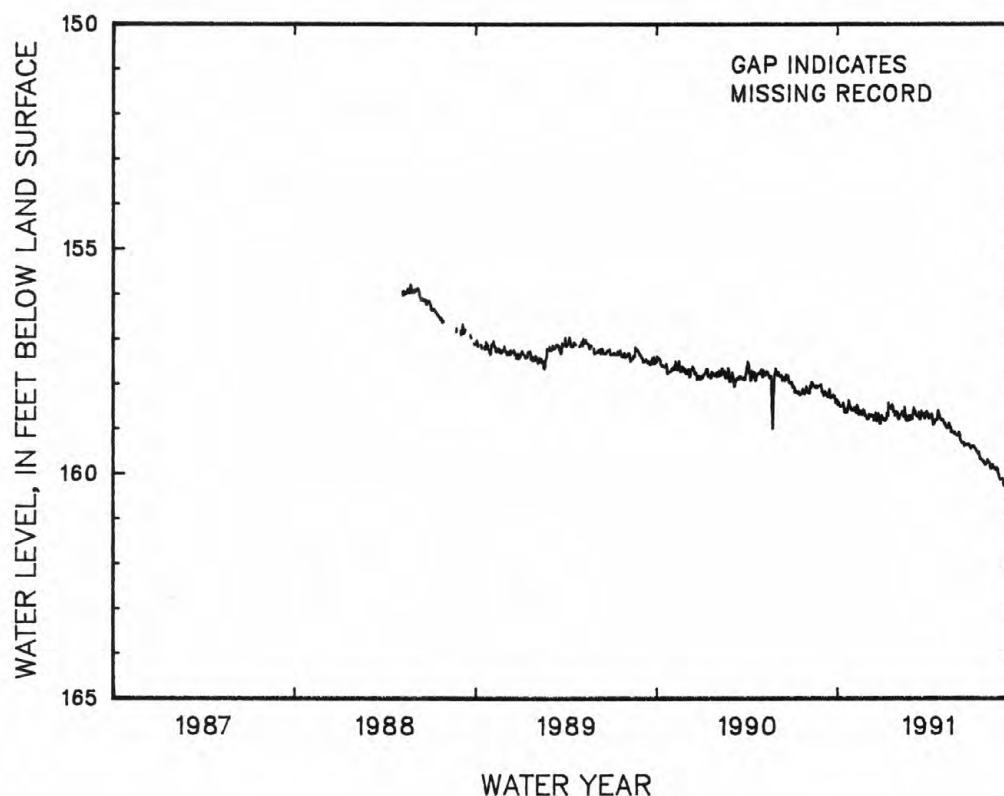
PERIOD OF RECORD.--May 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 155.79 ft below land-surface datum, May 25, 1988; lowest recorded, 160.52 ft below land-surface datum, Sept. 22, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5   | 158.47 | 158.54 | 158.72 | 158.83 | 158.71 | 158.63 | 158.75 | 158.91 | 159.22 | 159.42 | 159.85 | 160.18 |
| 10  | 158.50 | 158.49 | 158.70 | 158.72 | 158.64 | 158.71 | 158.75 | 158.97 | 159.33 | 159.53 | 159.81 | 160.32 |
| 15  | 158.56 | 158.69 | 158.81 | 158.53 | 158.65 | 158.75 | 158.85 | 158.96 | 159.37 | 159.65 | 159.88 | 160.37 |
| 20  | 158.65 | 158.69 | 158.83 | 158.48 | 158.75 | 158.68 | 158.79 | 159.09 | 159.37 | 159.70 | 159.91 | 160.44 |
| 25  | 158.39 | 158.64 | 158.81 | 158.70 | 158.73 | 158.74 | 158.75 | 159.09 | 159.41 | 159.78 | 160.14 | 160.34 |
| EOM | 158.57 | 158.79 | 158.79 | 158.73 | 158.79 | 158.66 | 158.81 | 159.15 | 159.39 | 159.69 | 160.12 | 160.38 |

WATER YEAR 1991      HIGHEST 158.31 OCT 23, 1990      LOWEST 160.52 SEP 22, 1991



## GROUND-WATER LEVELS

## JAMES CITY COUNTY

372314076480401. Local number, 56H 22 SOW 135A.

LOCATION.--Lat 37°23'14", long 76°48'04", Hydrologic Unit 02080107, 100 ft south of State Highway 754, 0.2 mi east of intersection of U.S. Highway 60 and State Highway 754, and 0.5 mi north of Toano. Owner: James City Service Authority.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 2 in., depth 645 ft, screened 625 to 645 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 105 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point; Top of casing, 0.50 ft above land-surface datum prior to Mar. 3, 1988; at land-surface datum Mar. 3, 1988, to Mar. 1, 1989; 0.50 ft below land surface datum thereafter.

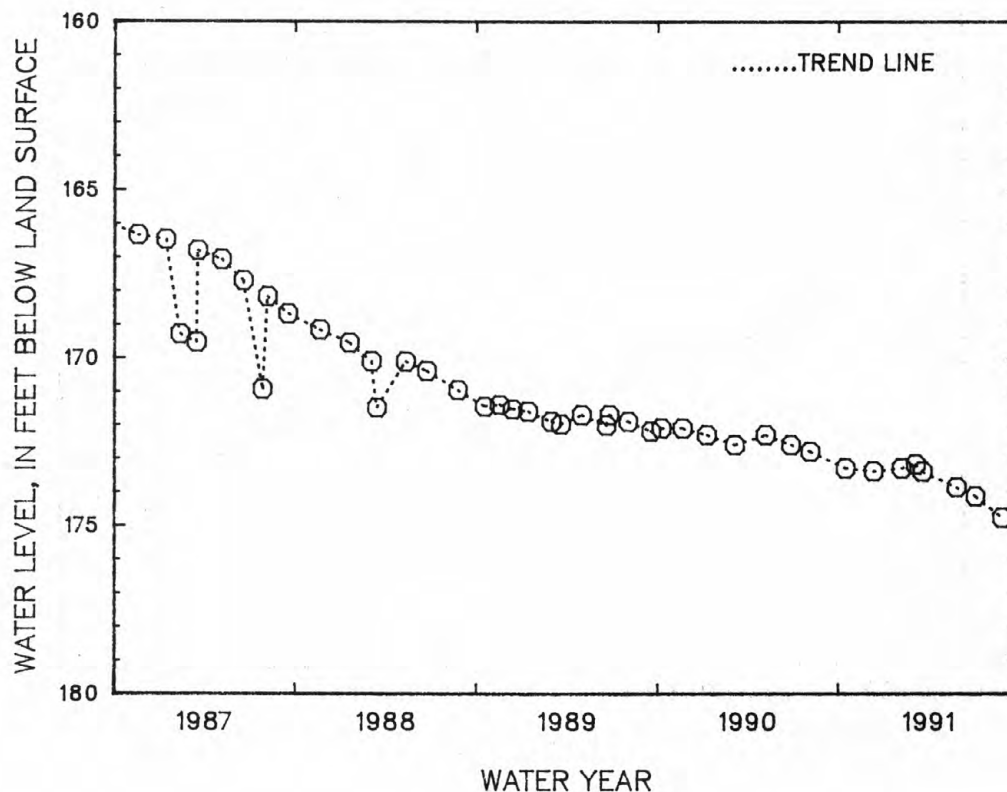
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--March 1979 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 154.85 ft below land-surface datum, Apr. 5, 1979; lowest measured, 174.78 ft below land-surface datum, Aug. 28, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 16          | 173.30      | FEB 07  | 173.30      | MAR 21       | 173.40      | MAY 28 | 173.87       | JUL 05 | 174.14      | AUG 28 | 174.78      |
| DEC 12          | 173.39      | MAR 07  | 173.18      |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 173.18      | MAR 07, 1991 | LOWEST      | 174.78 | AUG 28, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

165

## JAMES CITY COUNTY

372506076511701. Local number, 56H 25 SOW 177A.

LOCATION.--Lat 37°25'06", long 76°51'17", Hydrologic Unit 02080206, on the northwest side of State Highway 601 in James City County, 0.7 mi north of the intersection of State Highways 168 and 601, and 3.15 mi west of the intersection of U.S. Highway 60 and State Highway 168. Owner: Virginia Water Control Board.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 929 ft, screened 888 to 908 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel. Prior to Apr. 20, 1988, digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 103 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.15 ft above land-surface datum.

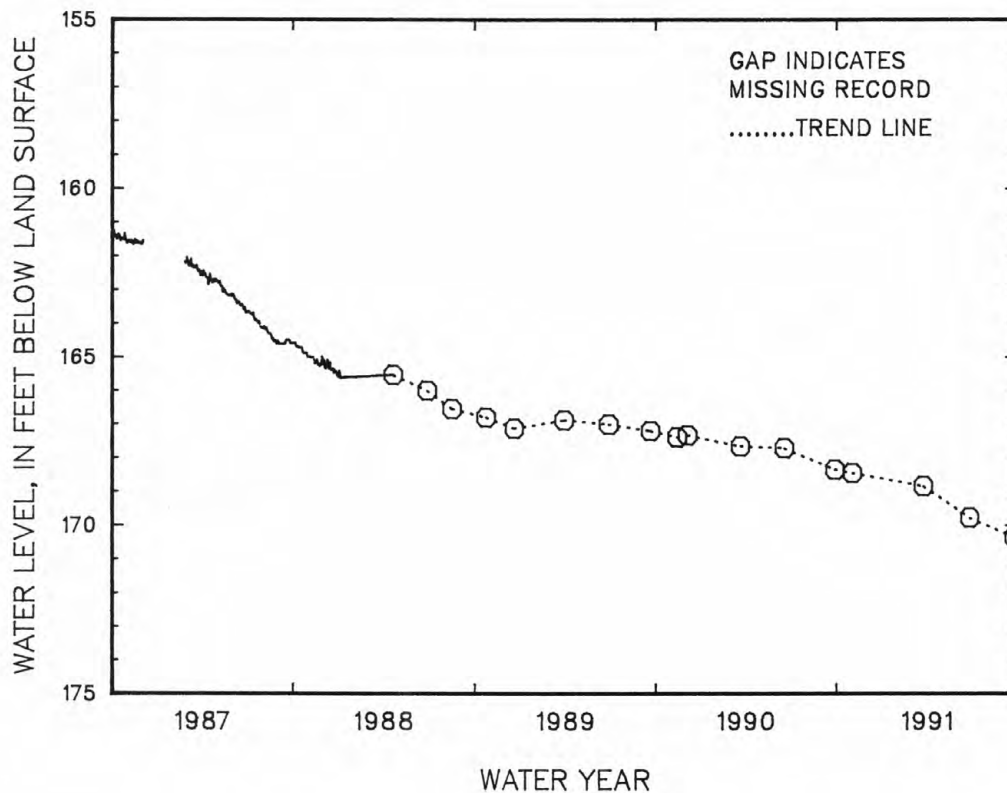
REMARKS.--Abrupt decline in water level in March 1986 probably the result of float hangup in well. Water level affected by regional drawdown.

PERIOD OF RECORD.--April 1985 to current year. Unpublished records available prior to October 1986 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 158.21 ft below land-surface datum, Mar. 19, 20, 1986; lowest measured, 170.37 ft below land-surface datum, Sept. 25, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE                           | WATER LEVEL | DATE         | WATER LEVEL | DATE          | WATER LEVEL | DATE         | WATER LEVEL |
|--------------------------------|-------------|--------------|-------------|---------------|-------------|--------------|-------------|
| NOV 02                         | 168.46      | MAR 25       | 168.85      | JUN 27        | 169.79      | SEP 25       | 170.37      |
| WATER YEAR 1991 HIGHEST 168.46 |             | NOV 02, 1990 |             | LOWEST 170.37 |             | SEP 25, 1991 |             |



## GROUND-WATER LEVELS

## JAMES CITY COUNTY

372506076511702. Local number, 56H 26 SOW 177B.

LOCATION.--Lat 37°25'06", long 76°51'17", Hydrologic Unit 02080206, on the northwest side of State Highway 601 in James City County, 0.7 mi north of the intersection of State Highways 168 and 601, and 3.15 mi west of the intersection of U.S. Highway 60 and State Highway 168. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 581 ft, screened 550 to 560 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel. Prior to Oct. 1, 1988, digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 103 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.15 ft above land-surface datum.

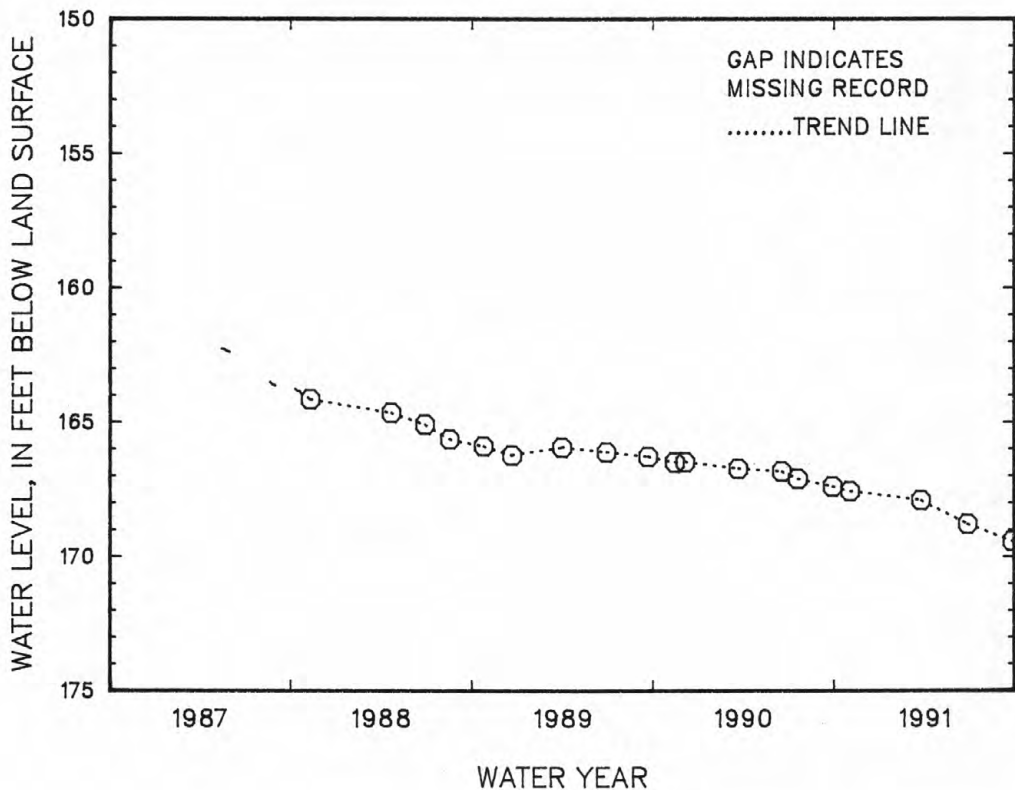
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--April 1985 to current year. Unpublished records prior to October 1986 and fragmentary periods of continuous record for water year 1989 available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 157.61 ft below land-surface datum, June 1, 2, 1985; lowest measured, 169.44 ft below land-surface datum, Sept. 25, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

|                 | DATE    | WATER<br>LEVEL | DATE         | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE         | WATER<br>LEVEL |
|-----------------|---------|----------------|--------------|----------------|--------|----------------|--------------|----------------|
|                 | NOV 02  | 167.58         | MAR 25       | 167.92         | JUN 27 | 168.80         | SEP 25       | 169.44         |
| WATER YEAR 1991 | HIGHEST | 167.58         | NOV 02, 1990 |                | LOWEST | 169.44         | SEP 25, 1991 |                |





## GROUND-WATER LEVELS

167

## JAMES CITY COUNTY

372506076511703. Local number, 56H 27 SOW 177C.

LOCATION.--Lat 37°25'06", long 76°51'17", Hydrologic Unit 02080206, on the northwest side of State Highway 601 in James City County, 0.7 mi north of the intersection of State Highways 168 and 601, and 3.15 mi west of the intersection of U.S. Highway 60 and State Highway 168. Owner: Virginia Water Control Board.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 401 ft, screened 370 to 380 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 103 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.95 ft above land-surface datum.

REMARKS.--Water level affected by regional drawdown.

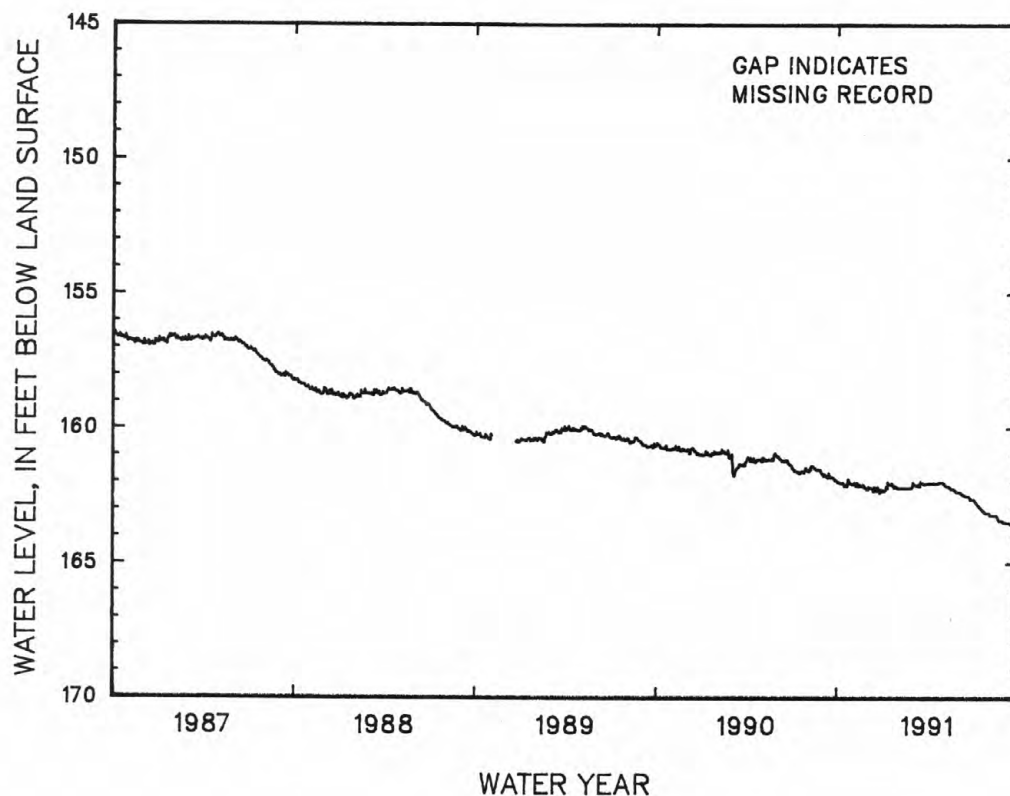
PERIOD OF RECORD.--April 1985 to current year. Unpublished records available prior to October 1986 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 153.47 ft below land-surface datum, June 1, 2, 1985; lowest recorded, 163.57 ft below land-surface datum, Sept. 22-25, 30, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV    | DEC    | JAN    | FEB | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-----|--------|--------|--------|--------|-----|--------|--------|--------|--------|--------|--------|--------|
| 5   | 161.99 | 162.03 | 162.20 | 162.33 | --- | 162.07 | ---    | 162.05 | 162.37 | 162.65 | 163.19 | 163.49 |
| 10  | 162.04 | 162.03 | 162.20 | 162.21 | --- | 162.12 | ---    | 162.14 | 162.44 | 162.80 | 163.23 | 163.51 |
| 15  | 162.09 | 162.16 | 162.33 | 162.08 | --- | 162.13 | ---    | 162.16 | 162.49 | 162.90 | 163.25 | 163.53 |
| 20  | 162.14 | 162.16 | 162.31 | 162.05 | --- | 162.02 | ---    | 162.25 | 162.53 | 162.99 | 163.25 | 163.56 |
| 25  | 161.90 | 162.14 | 162.26 | 162.19 | --- | 162.06 | 162.01 | 162.26 | 162.55 | 163.09 | 163.44 | 163.57 |
| EOM | 162.06 | 162.26 | 162.33 | 162.19 | --- | 162.04 | ---    | 162.37 | 162.65 | 163.15 | 163.44 | 163.57 |

WATER YEAR 1991      HIGHEST 161.89 NOV 10, 1990      LOWEST 163.57 SEP 22-25, 30, 1991



## GROUND-WATER LEVELS

## JAMES CITY COUNTY

372506076511704. Local number, 56H 28 SOW 177D.

LOCATION.--Lat 37°25'06", long 76°51'17", Hydrologic Unit 02080206, 3.15 mi west of the intersection of U.S. Highway 60 and State Highway 168, 0.7 mi north of the intersection of State Highways 168 and 601, and on the northwest side of State Highway 601 in James City County. Owner: Virginia Water Control Board.

AQUIFER.--Aquia aquifer of Paleocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 321 ft, screened 290 to 300 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel. Prior to Sept. 16, 1989, digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 193 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.90 ft above land-surface datum. Prior to Dec. 4, 1989, top of casing was 2.9 ft above land-surface datum.

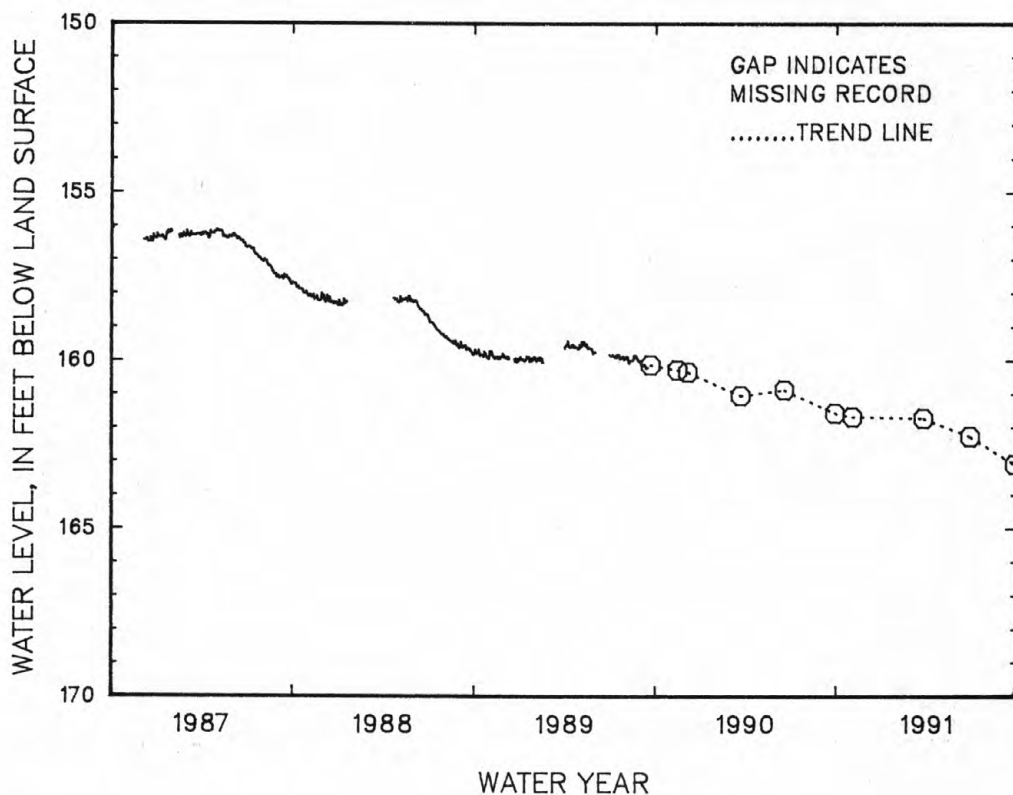
PERIOD OF RECORD.--April 1985 to current year. Unpublished records available prior to October 1986 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 153.20 ft below land-surface datum, May 31, 1985; lowest measured, 163.09 ft below land-surface datum, Sept. 25, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| NOV 02 | 161.69      | MAR 25 | 161.73      | JUN 27 | 162.27      | SEP 25 | 163.09      |

WATER YEAR 1991      HIGHEST 161.69 NOV 02, 1990      LOWEST 163.09 SEP 25, 1991



## GROUND-WATER LEVELS

169

## JAMES CITY COUNTY

372506076511705. Local number, 56H 29 SOW 177E.

LOCATION.--Lat 37°25'06", long 76°51'17", Hydrologic Unit 02080206, on the northwest side of State Highway 601 in James City County, 0.7 mi north of the intersection of State Highways 168 and 601, and 3.15 mi west of the intersection of U.S. Highway 60 and State Highway 168. Owner: Virginia Water Control Board.

AQUIFER.--Chickahominy-Piney Point aquifer of Eocene-Miocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 235 ft, screened 204 to 214 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel. Prior to Sept. 21, 1989, digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 103 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.75 ft above land-surface datum. Prior to Dec. 4, 1989, top of casing was 2.8 ft above land-surface datum.

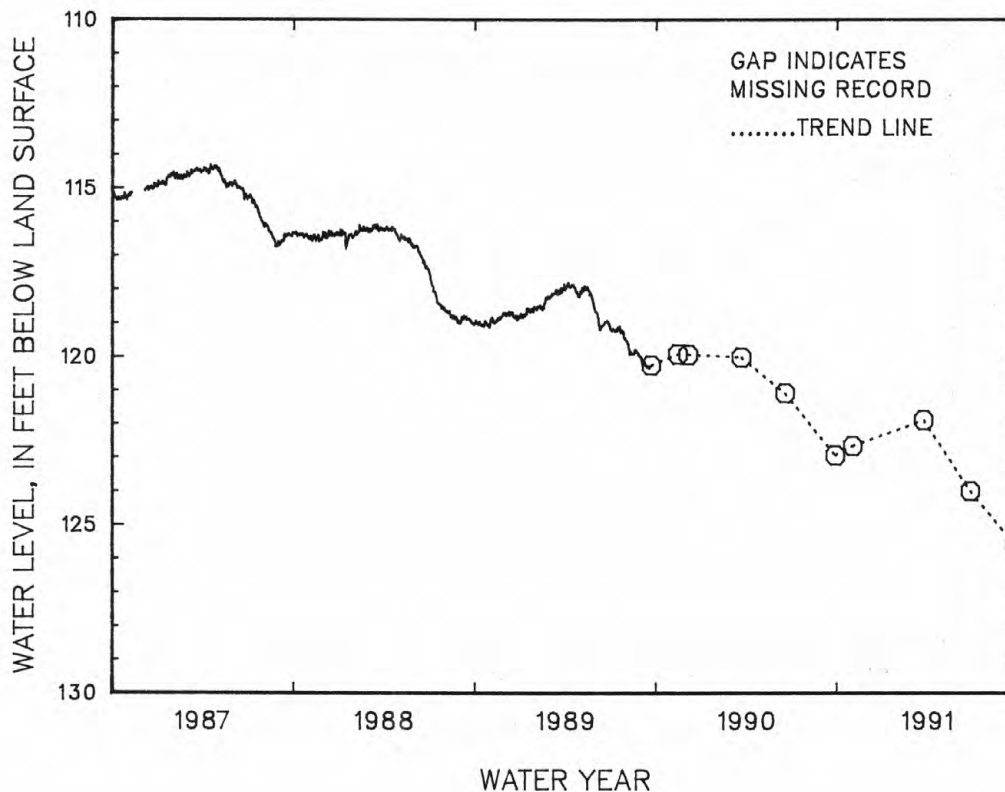
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--April 1985 to current year. Unpublished records available prior to October 1986 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 111.96 ft below land-surface datum, Feb. 27, 1986; lowest measured, 125.61 ft below land-surface datum, Sept. 25, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE                                                                                   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|----------------------------------------------------------------------------------------|-------------|--------|-------------|--------|-------------|--------|-------------|
| NOV 02                                                                                 | 122.67      | MAR 25 | 121.89      | JUN 27 | 124.01      | SEP 25 | 125.61      |
| WATER YEAR 1991      HIGHEST 121.89    MAR 25, 1991      LOWEST 125.61    SEP 25, 1991 |             |        |             |        |             |        |             |



## GROUND-WATER LEVELS

## JAMES CITY COUNTY

372506076511706. Local number, 56H 30 SOW 177F.

LOCATION.--Lat 37°25'06", long 76°51'17", Hydrologic Unit 02080206, on the northwest side of State Highway 601 in James City County, 0.7 mi north of the intersection of State Highways 168 and 601, and 3.15 mi west of the intersection of U.S. Highway 60 and State Highway 168. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 60 ft, screened 50 to 60 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel. Prior to Sept. 20, 1989, digital recorder--60-minute punch.

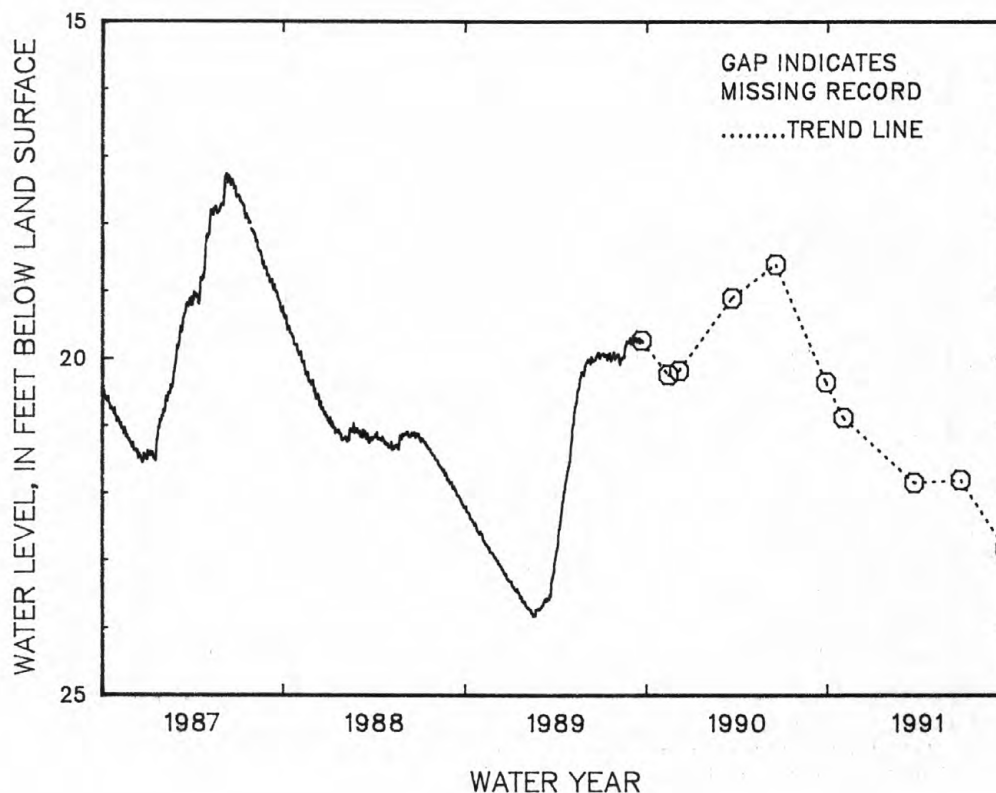
DATUM.--Elevation of land-surface datum is 103 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.1 ft above land-surface datum. Prior to Dec. 4, 1989, top of casing was 2.9 ft above land-surface datum.

PERIOD OF RECORD.--April 1985 to current year. Unpublished records available prior to October 1986 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 17.25 ft below land-surface datum, June 8, 9, 12, 13, 1987; lowest recorded, 23.83 ft below land-surface datum, Feb. 16, 17, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE                          | WATER LEVEL | DATE         | WATER LEVEL | DATE         | WATER LEVEL | DATE         | WATER LEVEL |
|-------------------------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|
| NOV 02                        | 20.88       | MAR 25       | 21.85       | JUN 27       | 21.81       | SEP 25       | 22.83       |
| WATER YEAR 1991 HIGHEST 20.88 |             | NOV 02, 1990 |             | LOWEST 22.83 |             | SEP 25, 1991 |             |



## GROUND-WATER LEVELS

171

## JAMES CITY COUNTY

372314076480402. Local number, 56H 31 SOW 135B.

LOCATION.--Lat 37°23'14", long 76°48'04", Hydrologic Unit 02080107, 100 ft south of State Highway 754, 0.2 mi east of intersection of State Highway 754 and U.S. Highway 60, and 0.5 mi north of Toano. Owner: James City Service Authority.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 4 in., depth 30 ft, screened 20 to 30 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 95 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.3 ft above land-surface datum prior to Mar. 3, 1988; at land-surface datum Mar. 3, 1988, to Mar. 1, 1989; 0.2 ft below land-surface datum thereafter.

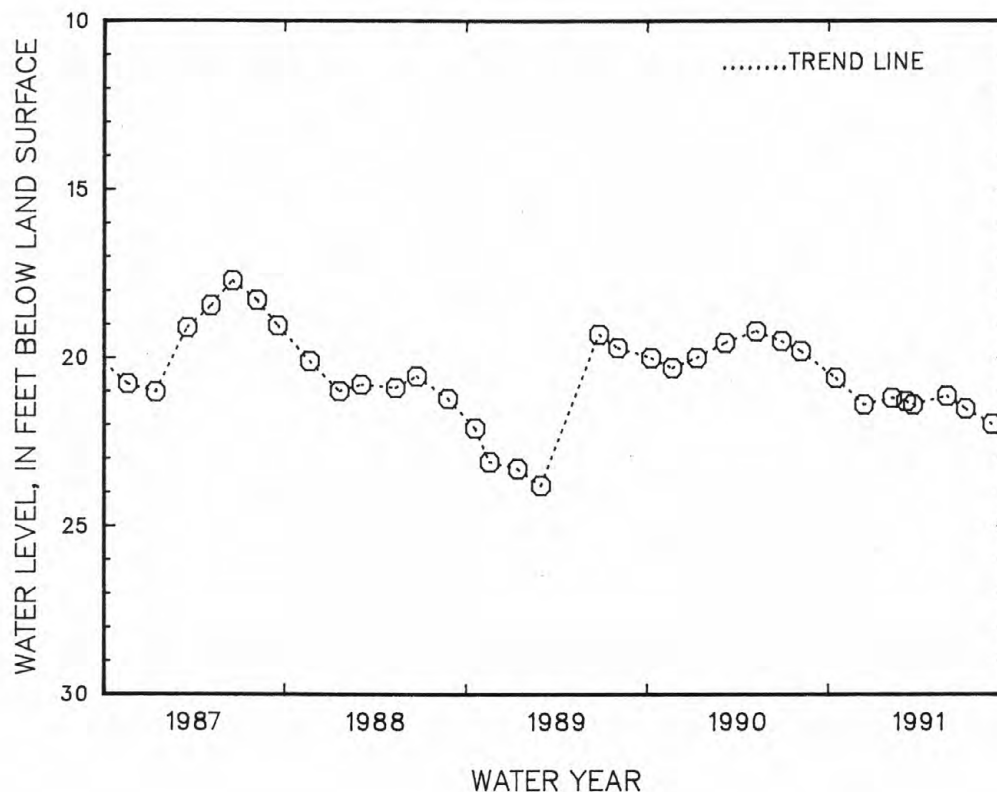
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--August 1979 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.28 ft below land-surface datum, June 8, 1984; lowest measured, 23.80 ft below land-surface datum, Mar. 1, 1989.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 16          | 20.60       | FEB 07  | 21.20       | MAR 21       | 21.40       | MAY 28 | 21.14       | JUL 05       | 21.52       | AUG 28 | 21.98       |
| DEC 12          | 21.40       | MAR 07  | 21.30       |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 20.60       | OCT 16, 1990 |             | LOWEST | 21.98       | AUG 28, 1991 |             |        |             |



## GROUND-WATER LEVELS

## JAMES CITY COUNTY

372315076415001. Local number 57H 14 SOW 095.

LOCATION.--Lat 37°23'15", long 76°41'50", Hydrologic Unit 02080107, 500 ft north of State Highway 606, 0.8 mi east of intersection of State Highway 606 and 646, and 3.3 mi east of Croaker. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 4 in., depth 123 ft, screened 118 to 123 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 95 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum prior to Mar. 3, 1988; 1.4 ft thereafter.

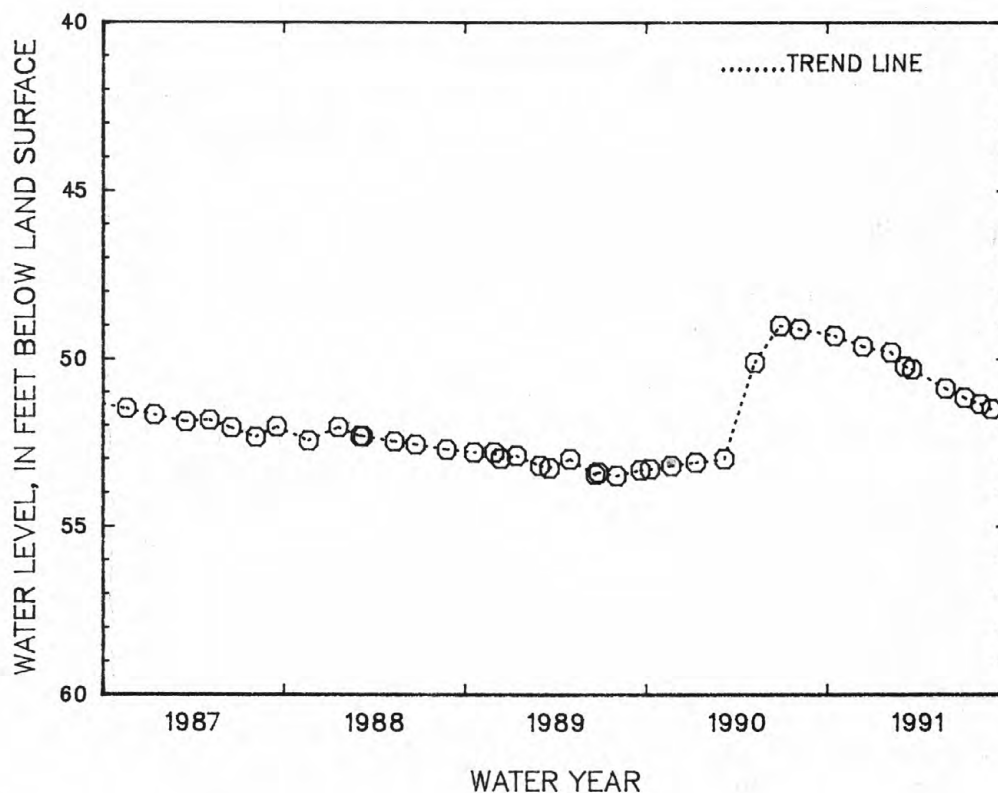
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--September 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 45.00 ft below land-surface datum, Sept. 21, 1978; lowest measured, 54.42 ft below land-surface datum, Nov. 9, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 16          | 49.30       | FEB 07  | 49.80       | MAR 21       | 50.30       | JUL 05 | 51.16       | AUG 06       | 51.35       | AUG 28 | 51.50       |
| DEC 12          | 49.62       | MAR 07  | 50.22       | MAY 28       | 50.88       |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 49.30       | OCT 16, 1990 |             | LOWEST | 51.50       | AUG 28, 1991 |             |        |             |





## GROUND-WATER LEVELS

173

## KING AND QUEEN COUNTY

374328077012801. Local number, 54K 6 SOW 064.

LOCATION.--Lat 37°43'28", long 77°01'28", Hydrologic Unit 02080105, 100 ft west of State Highway 629, 0.2 mi southeast of Walkerton, and 0.25 mi south of intersection of State Highways 629 and 634. Owner: C. L. Walker.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in. to 66 ft, diameter 4 in. from 66 to 390 ft, depth 390 ft, screened 341 to 372 ft, 376 to 387 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Apr. 30, 1979, to Oct. 2, 1985, occasional measurement with chalked tape. Jan. 5, 1974, to Apr. 30, 1979, continuous strip-chart recorder. Prior to Jan. 5, 1974, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.17 ft above land-surface datum prior to Nov. 18, 1985; 1.3 ft thereafter.

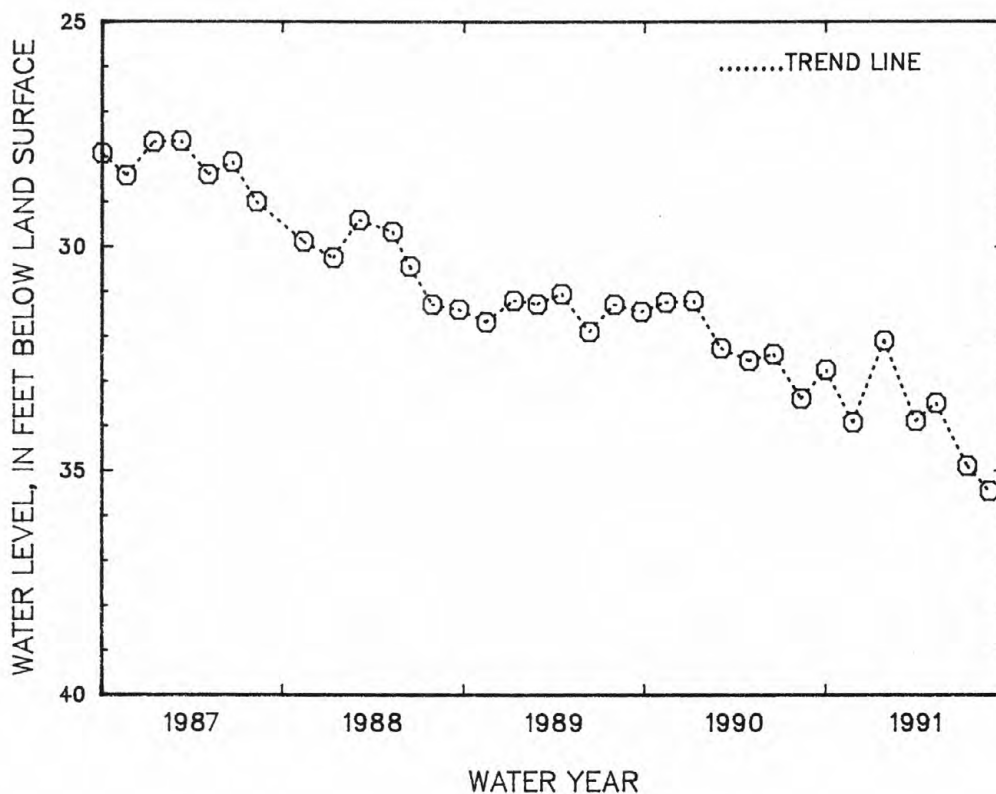
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage and regional drawdown.

PERIOD OF RECORD.--August 1972 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.82 ft below land-surface datum, Aug. 1, 1972; lowest measured, 35.46 ft below land-surface datum, Aug. 29, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 02          | 32.75       | JAN 28  | 32.10       | APR 02       | 33.90       | MAY 13 | 33.50        | JUL 15 | 34.90       | AUG 29 | 35.46       |
| NOV 26          | 33.93       |         |             |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 32.10       | JAN 28, 1991 | LOWEST      | 35.46  | AUG 29, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

## KING AND QUEEN COUNTY

374806077034801. Local number, 54L 5.

LOCATION.--Lat 37°48'06", long 77°03'48", Hydrologic Unit 02080105, 75 ft west of U.S. Highway 360 at St. Stephens Church and 0.4 mi southwest of the intersection of U.S. Highway 360 and State Highway 14. Owner: Nick Stolfi.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 4 in. to 252 ft, diameter 2 in. from 252 to 546 ft, depth 546 ft, screened 515 to 525 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 160 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 0.5 in. nipple, 5.05 ft below land-surface datum. Prior to Mar. 20, 1985, measuring point was top of casing, 5.5 ft below land-surface datum.

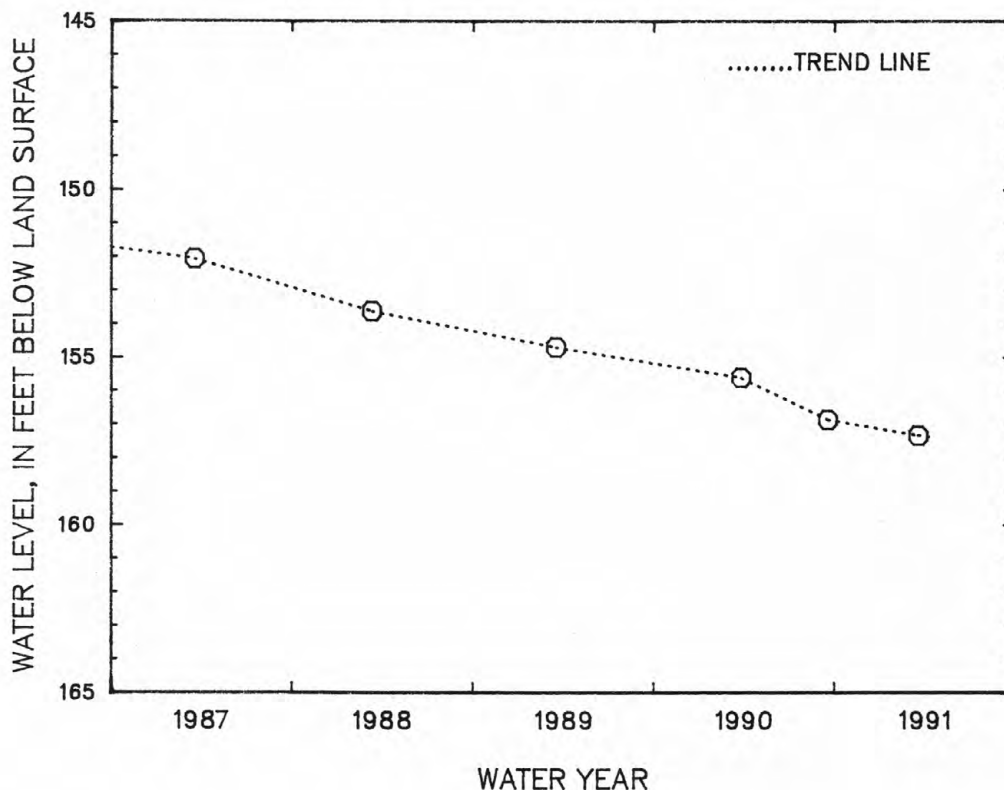
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--June 1969 to current year. Unpublished records available prior to October 1988 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 133.00 ft below land-surface datum, June 8, 1970; lowest measured, 157.34 ft below land-surface datum, Mar. 19, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 19 | 157.34         |



## GROUND-WATER LEVELS

175

## KING AND QUEEN COUNTY

373126076454101. Local number, 56J 11 SOW 073.

LOCATION.--Lat 37°31'26", long 76°45'41", Hydrologic Unit 02080105, at West Point Airport, 1.7 mi southeast of West Point. Owner: Chesapeake Corporation.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in., depth 1,254 ft, screened 1,233 to 1,248 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.6 ft above land-surface datum.

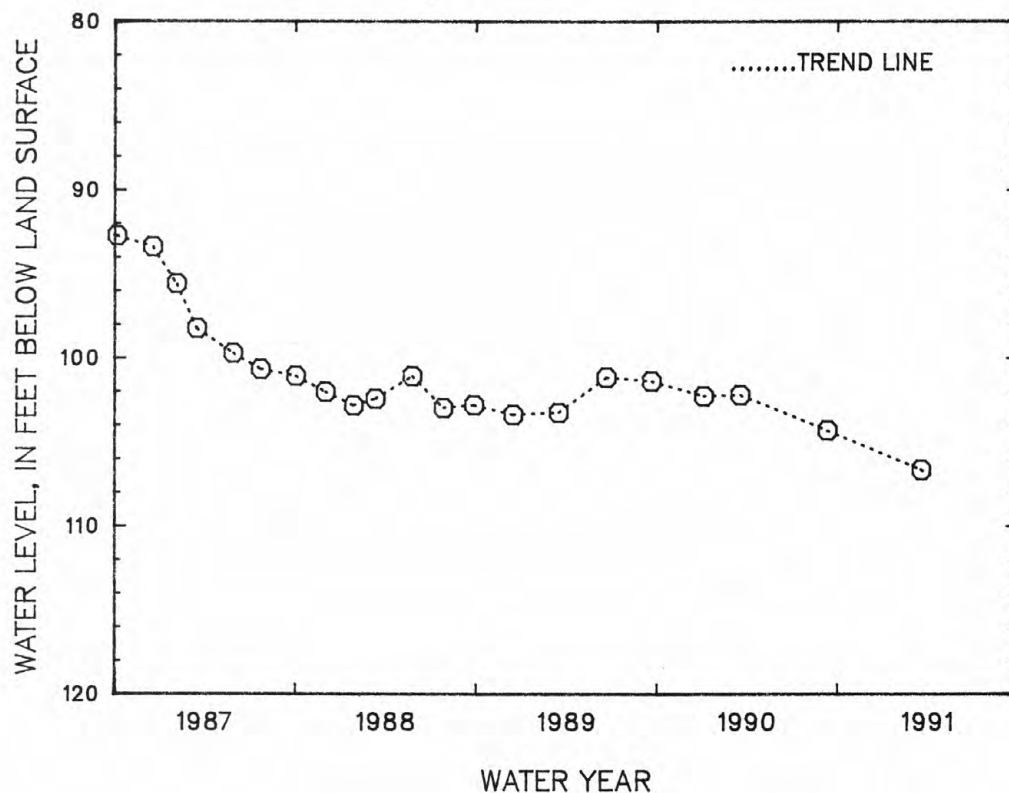
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--November 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 73.08 ft below land-surface datum, Apr. 25, 1975; lowest measured, 106.67 ft below land-surface datum, Mar. 20, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 20 | 106.67         |



GROUND-WATER LEVELS  
KING AND QUEEN COUNTY

373008076425601. Local number, 57J 3 SOW 074.

LOCATION.--Lat 37°30'08", long 76°42'56", Hydrologic Unit 02080107, off State Highway 606, 0.4 mi northeast of intersection of State Highways 606 and 605, and 2.8 mi south of Shacklefords. Owner: Chesapeake Corporation.

AQUIFER.--Aquia aquifer of Paleocene age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in. to 200 ft, diameter 4 in. from 200 to 760 ft, depth 760 ft, screened 741 to 756 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 51 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.20 ft above land-surface datum.

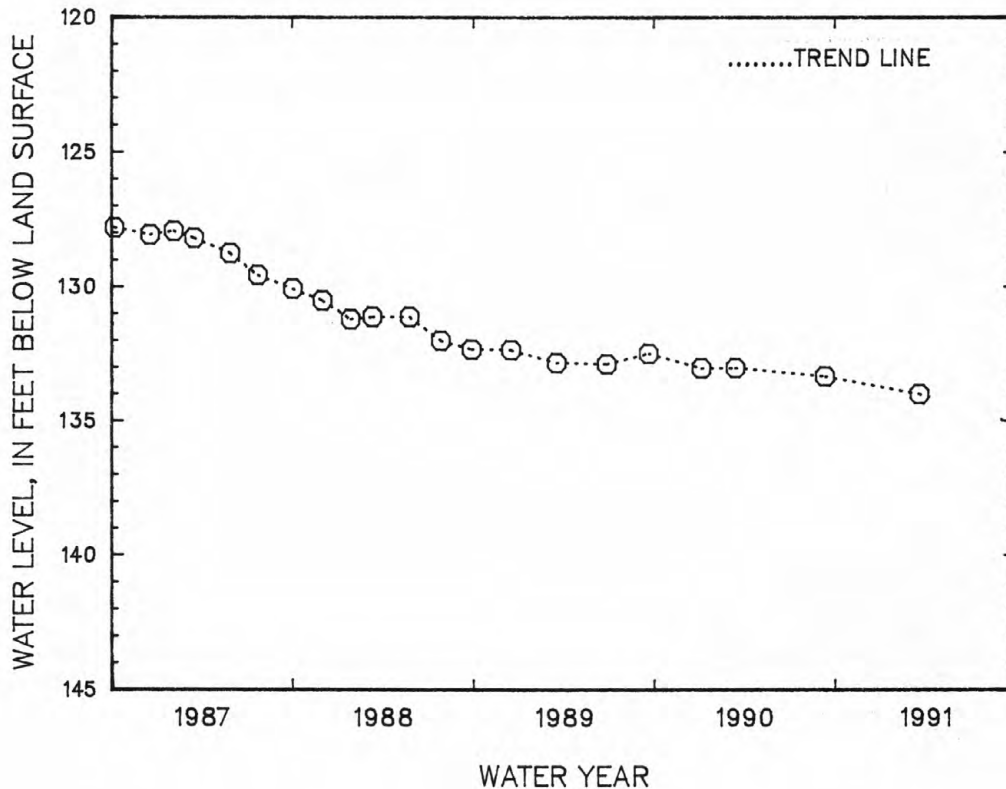
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--November 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 109.90 ft below land-surface datum, Jan. 26, 1975; lowest measured, 134.01 ft below land-surface datum, Mar. 20, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 20 | 134.01         |



## GROUND-WATER LEVELS

177

## KING GEORGE COUNTY

382341077032401. Local number, 54R 2.

LOCATION.--Lat 38°23'41", long 77°03'24", Hydrologic Unit 02070011, 50 ft southeast of steep bank of the Potomac River, 150 ft west of State Highway 687, 1.5 mi west of the intersection of U.S. Highway 301 and State Highway 614, 1.9 mi north of the intersection of State Highways 629 and 687, and near Dahlgren. Owner: E. V. Bruchez.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 4 in. to 210 ft, diameter 2 in. from 210 to 806 ft, depth 806 ft, screened 781 to 801 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 70 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

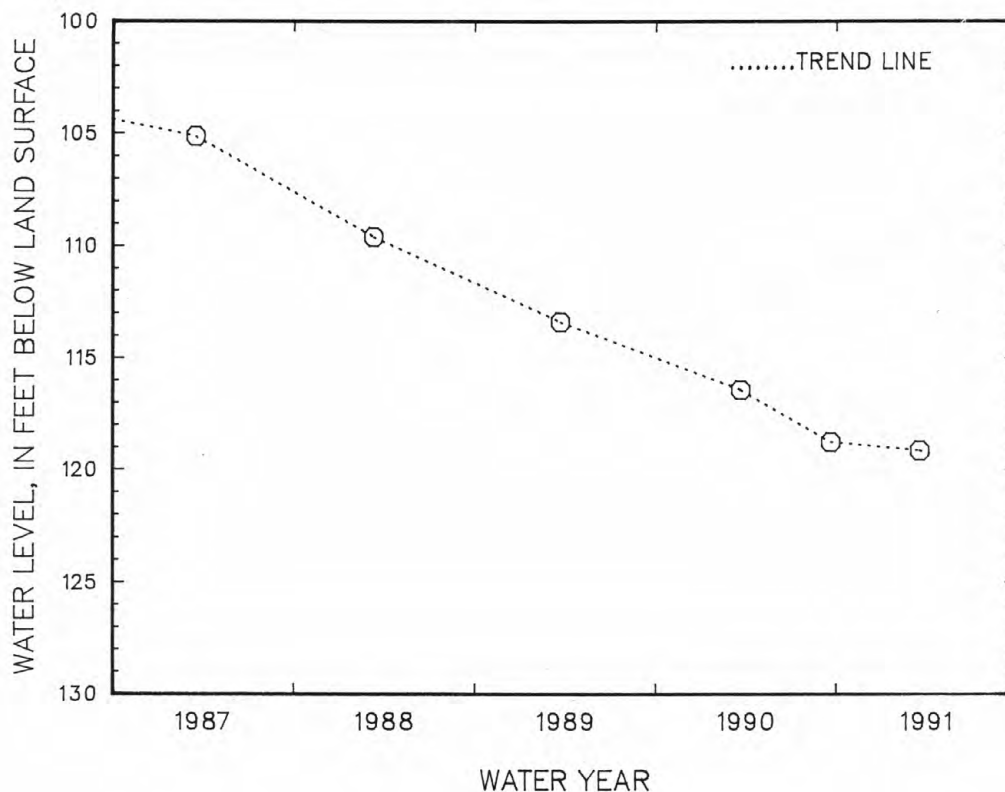
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--October 1969 to current year. Unpublished records available prior to October 1988 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 70.00 ft below land-surface datum, Oct. 15, 1969; lowest measured, 119.18 ft below land-surface datum, Mar. 19, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 19 | 119.18         |



## GROUND-WATER LEVELS

## KING WILLIAM COUNTY

373955077000501. Local number, 53K 9.

LOCATION.--Lat 37°41'18", long 77°10'43", Hydrologic Unit 02080106, 250 ft east of the intersection of U.S. Highways 60 and 360, 0.3 mi northeast of the Pamunkey River on U.S. Highway 360, and 2.0 mi southwest of Manquin. Owner: G. O. Townsend.

AQUIFER.--Middle Potomac and Brightseat-upper Potomac aquifers of Cretaceous-Tertiary age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 3 in., depth 290 ft, screen depth unknown.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

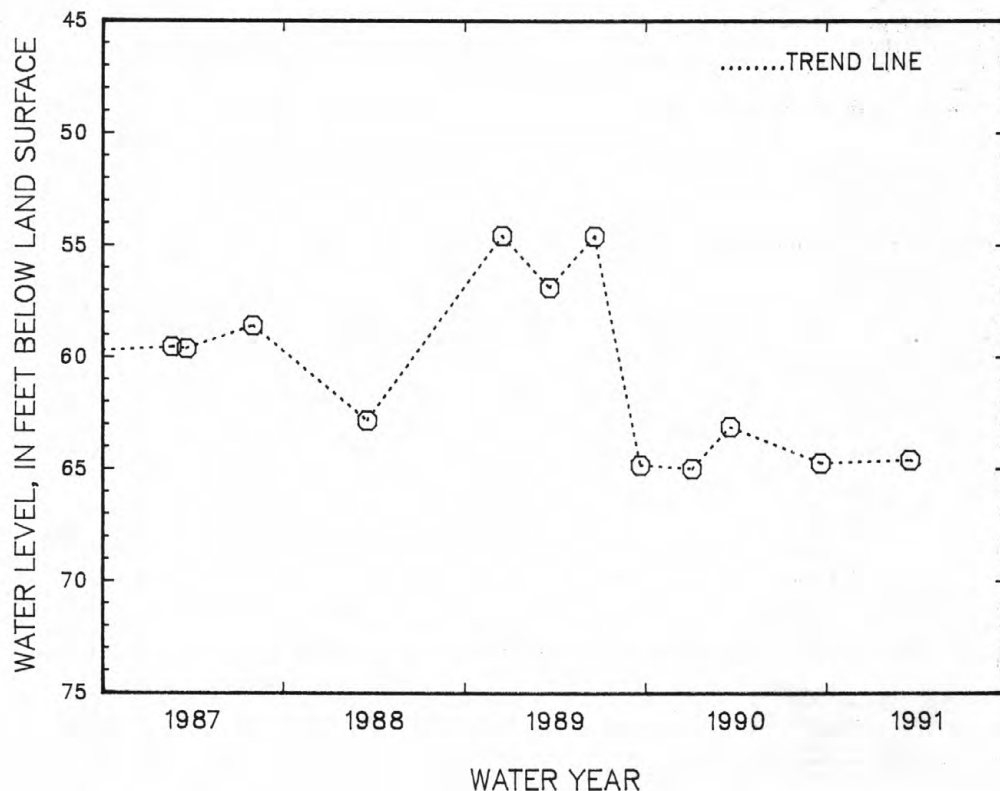
DATUM.--Elevation of land-surface datum is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.01 ft above land-surface datum.

PERIOD OF RECORD.--August 1972, December 1975, January 1984 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.54 ft below land-surface datum, Aug. 17, 1972; lowest measured, 64.99 ft below land-surface datum, Jan. 2, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 19 | 64.60          |





## GROUND-WATER LEVELS

179

## KING WILLIAM COUNTY

373226076481201. Local number, 56J 2.

LOCATION.--Lat 37°32'26", long 76°48'12", Hydrologic Unit 02080106, 0.1 mi west of State Highway 30, 0.3 mi north of State Highway 33, and in West Point. Owner: Chesapeake Corporation.

AQUIFER.--Brightseat-upper Potomac aquifer of Cretaceous-Tertiary age.

WELL CHARACTERISTICS.--Drilled unused withdrawal water well, diameter 18 in. to 300 ft, diameter 8 in. from 300 to 600 ft, depth 600 ft, screened 390 to 400 ft, 550 to 570 ft, 580 to 600 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

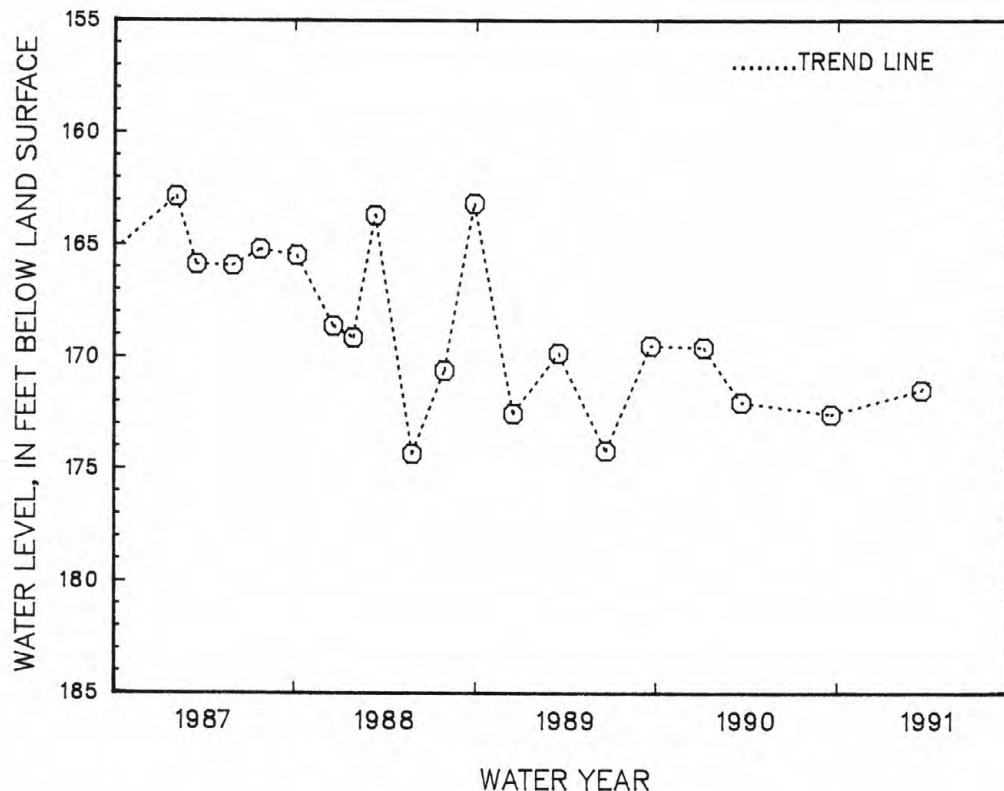
REMARKS.--Water levels affected by local pumpage and regional drawdown.

PERIOD OF RECORD.--November 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 141.48 ft below land-surface datum, Feb. 15, 1983; lowest measured, 174.36 ft below land-surface datum, May 25, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 20 | 171.50         |



## GROUND-WATER LEVELS

## KING WILLIAM COUNTY

373459076510201. Local number, 56J 10.

LOCATION.--Lat 37°34'59", long 76°51'02", Hydrologic Unit 02080105, 100 ft northeast of State Highway 30 at the Virginia State Police office, 4.2 mi west of the intersection of State Highways 30 and 33 in West Point. Owner: Virginia Department of State Police.

AQUIFER.--Brightseat-upper Potomac aquifer of Cretaceous-Tertiary age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 4 in., depth 437 ft, screened 417 to 437 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 101 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.2 ft below land-surface datum.

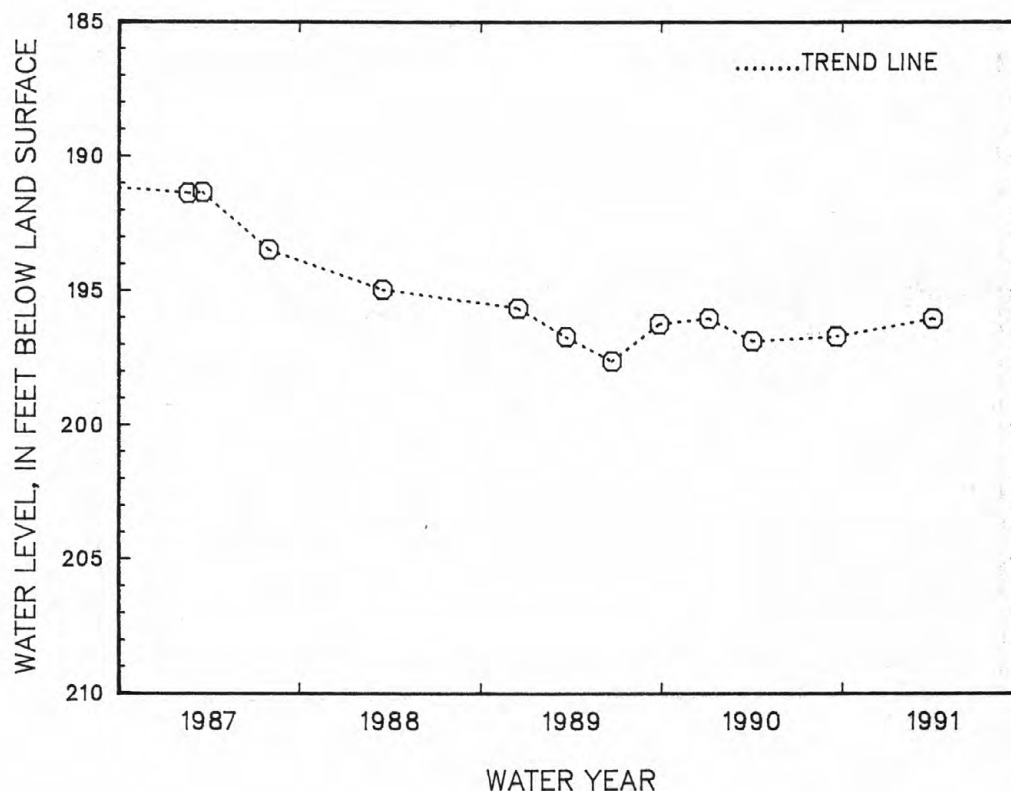
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--December 1972, December 1974, October 1983 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 176.00 ft below land-surface datum, Dec. 8, 1972; lowest measured, 197.63 ft below land-surface datum, June 23, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| APR 02 | 196.05         |



## GROUND-WATER LEVELS

181

## KING WILLIAM COUNTY

373206076481201. Local number, 56J 18.

LOCATION.--Lat 37°32'06", long 76°48'12", Hydrologic Unit 02080106, near State Highway 33 at Chesapeake Corporation, in brick pump house at northeast corner of 13th and A Streets in West Point. Owner: Chesapeake Corporation.

AQUIFER.--Brightseat-upper Potomac aquifer of Cretaceous-Tertiary age and Aquia aquifer of Paleocene age.

WELL CHARACTERISTICS.--Drilled unused withdrawal water well, diameter 18 in. to 180 ft, diameter 8 in. from 165 to 446 ft, depth 446 ft, screened 210 to 240 ft, 380 to 390 ft, 405 to 445 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.45 ft above land-surface datum.

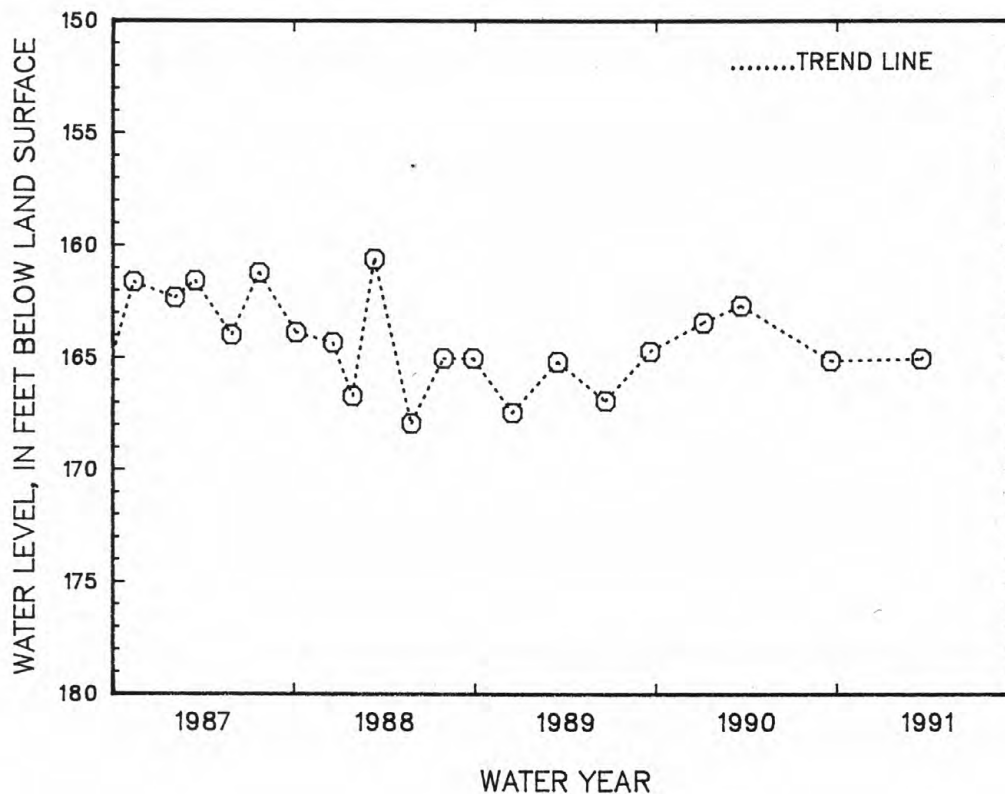
REMARKS.--Water levels affected by local pumpage.

PERIOD OF RECORD.--March 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 111.68 ft below land-surface datum, Dec. 29, 1978; lowest measured, 173.08 ft below land-surface datum, Feb. 23, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 20 | 165.07         |



## GROUND-WATER LEVELS

## LANCASTER COUNTY

374249076230101. Local number, 59K 1 SOW 015.

LOCATION.--Lat 37°42'49", long 76°23'01", Hydrologic Unit 02080104, at Lancaster County High School in Kilmarnock.  
Owner: Lancaster County Public Schools.

AQUIFER.--Upper Potomac and Brightseat-upper Potomac aquifers of Cretaceous-Tertiary age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 4 in. to 163 ft, diameter 2 in. from 163 to 716 ft, depth 716 ft, screened 706 to 716 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Sept. 30, 1976, to Oct. 1, 1985, occasional measurement with chalked tape. Prior to Sept. 30, 1976, continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 85 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, at land-surface datum.

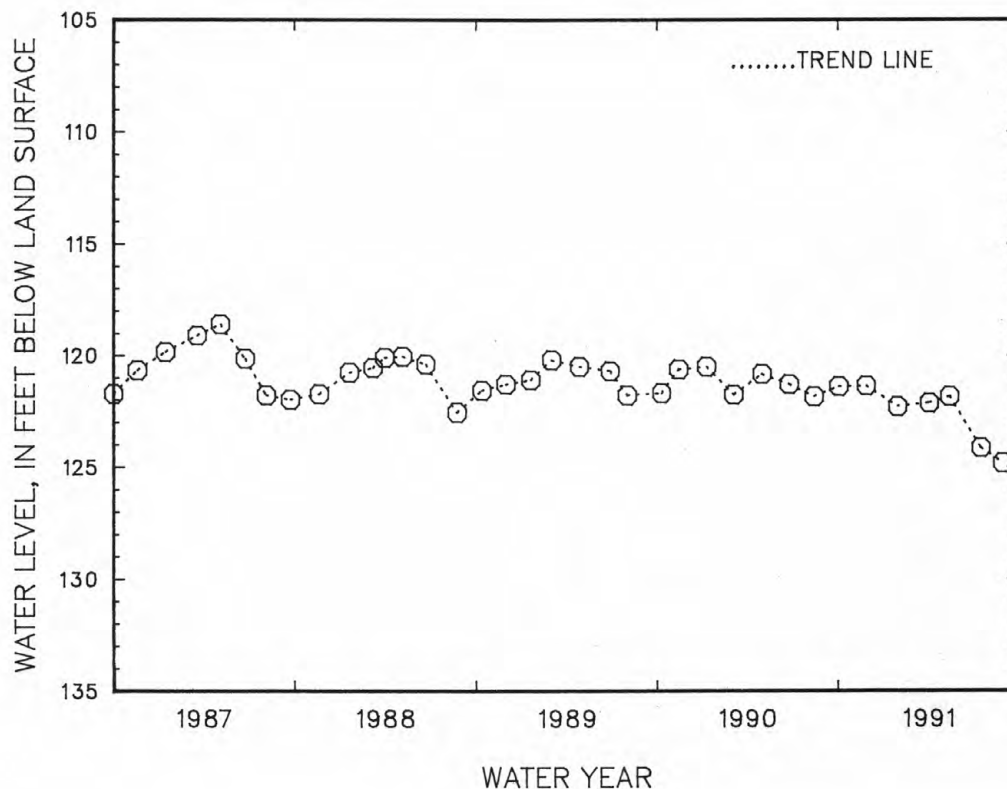
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage and regional drawdown.

PERIOD OF RECORD.--October 1967 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 95.89 ft below land-surface datum, Feb. 20, 1968; lowest measured, 124.83 ft below land-surface datum, Aug. 29, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 03          | 121.40      | JAN 29  | 122.31      | APR 03       | 122.15      | MAY 14 | 121.85      | JUL 16       | 124.15      | AUG 29 | 124.83      |
| NOV 27          | 121.37      |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 121.37      | NOV 27, 1990 |             | LOWEST | 124.83      | AUG 29, 1991 |             |        |             |



## GROUND-WATER LEVELS

183

## LANCASTER COUNTY

374142076272701. Local number, 59K 9.

LOCATION.--Lat 37°41'42", long 76°27'27", Hydrologic Unit 02080104, on the south bank of Moran Creek, 1,000 ft northwest of the intersection of State Highway 630 and a private dirt drive, 0.8 mi west of Wesley Church, 3 mi north of Weems, 4 mi west of Kilmarnock and the intersection of State Highways 629 and 630, and near Weems. Owner: Fred Hansen.

AQUIFER.--Brightseat-upper Potomac aquifer of Cretaceous-Tertiary age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 4 in. to 147 ft, diameter 2 in. from 147 to 585 ft, depth 585 ft, screened 565 to 580 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.2 ft above land-surface datum.

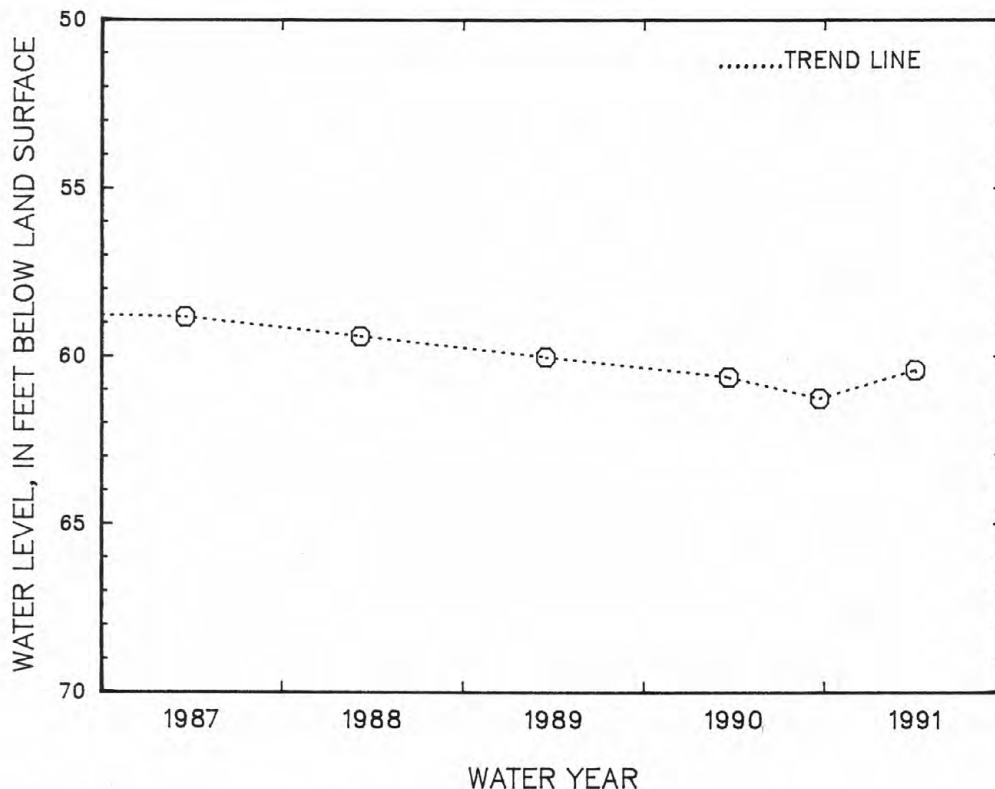
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--September 1969 to current year. Unpublished records available prior to October 1988 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.00 ft below land-surface datum, Sept. 16, 1969; lowest measured, 61.28 ft below land-surface datum, Sept. 21, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| APR 01 | 60.42          |



## GROUND-WATER LEVELS

## LANCASTER COUNTY

374941076254501. Local number, 59L 3.

LOCATION.--Lat 37°49'41", long 76°25'45", Hydrologic Unit 02080104, 100 ft southwest of State Highway 615 at Browns Store and 450 ft southeast of the intersection of State Highways 610 and 615. Owner: Alpha Water Company (Sydnor Hydrodynamics).

AQUIFER.--Brightseat-upper Potomac aquifer of Cretaceous-Tertiary age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 4 in. to 210 ft, diameter 2 in. from 210 to 802 ft, depth 802 ft, screened 770 to 800 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 101 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 0.5 in. copper nipple, 1.35 ft above land-surface datum. Prior to Feb. 10, 1981, measuring point was top of casing, 0.9 ft above land-surface datum.

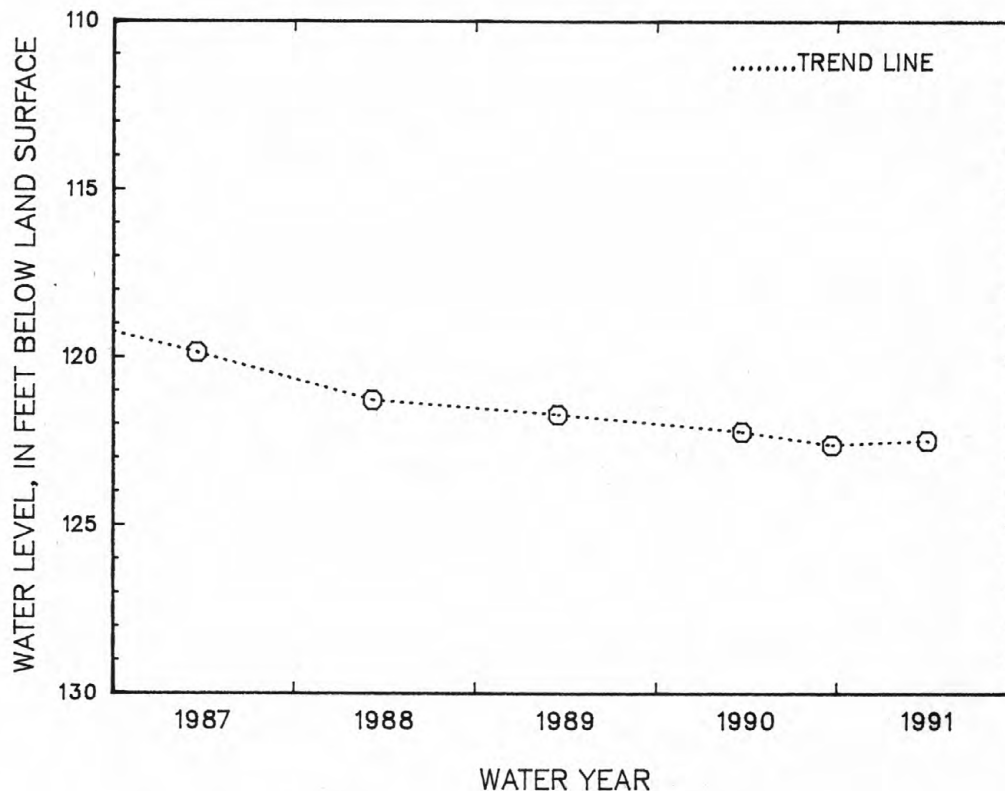
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--April 1966 to current year. Unpublished records available prior to October 1988 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 97.00 ft below land-surface datum, Apr. 26, 1966; lowest measured, 122.63 ft below land-surface datum, Sept. 21, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| APR 01 | 122.49         |





GROUND-WATER LEVELS  
LOUDOUN COUNTY

185

391542077423801. Local number, 49Y 1 SOW 022.

LOCATION.--Lat 39°15'42", long 77°42'38", Hydrologic Unit 02070008, 4.2 mi southeast of Harpers Ferry. Owner: American Telephone and Telegraph Company.

AQUIFER.--Bedrock of Precambrian or Cambrian age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6.5 in., depth 516 ft, cased to 45 ft, open hole 45 to 516 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Sept. 30, 1974, to Sept. 30, 1985, occasional measurement with chalked tape. Prior to Sept. 30, 1974, continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 1,100 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, at land-surface datum.

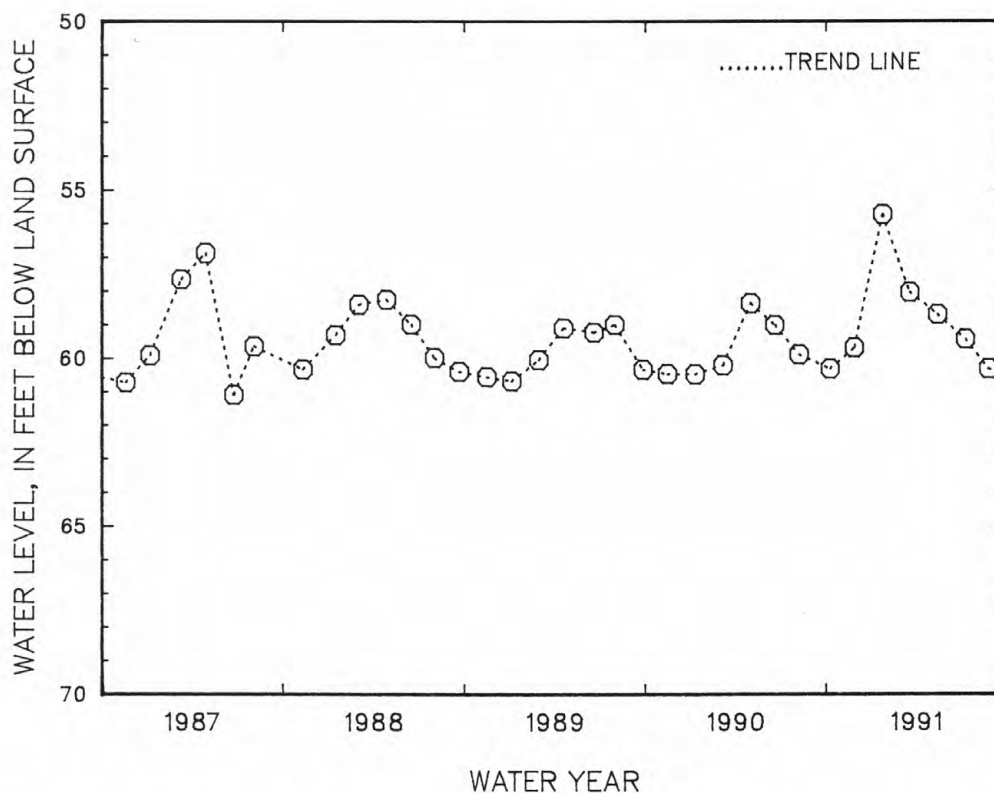
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--August 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 48.00 ft below land-surface datum, June 22, 1972; lowest measured, 61.70 ft below land-surface datum, Sept. 27, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 60.32       | JAN 24  | 55.72       | MAR 20       | 58.04       | MAY 15 | 58.70       | JUL 10       | 59.44       | AUG 26 | 60.33       |
| NOV 28          | 59.69       |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 55.72       | JAN 24, 1991 |             | LOWEST | 60.33       | AUG 26, 1991 |             |        |             |



## GROUND-WATER LEVELS

## LOUDOUN COUNTY

390623077314201. Local number, 50W 4C.

LOCATION.--Lat 39°06'23", long 77°31'42", Hydrologic Unit 02070008, under water tower 500 ft east of State Highway 7, 0.75 mi east of Leesburg. Owner: Town of Leesburg.

AQUIFER.--Slightly metamorphosed Balls Bluff Formation of Triassic age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in., depth 535 ft, cased to 6 ft, open hole 6 to 535 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

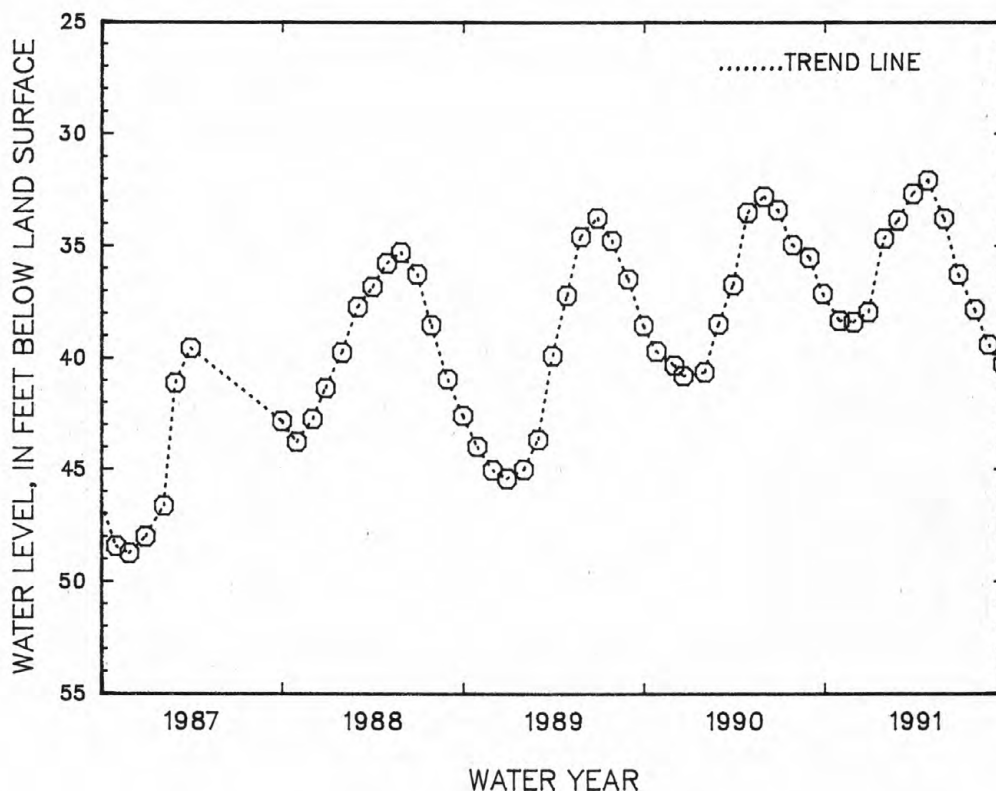
DATUM.--Elevation of land-surface datum is 400 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

PERIOD OF RECORD.--October 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.06 ft below land-surface datum, Apr. 26, 1991; lowest measured, 49.06 ft below land-surface datum, Nov. 27, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 30          | 38.34       | DEC 27  | 37.95       | FEB 25       | 33.85       | APR 26 | 32.06        | JUN 27 | 36.28       | AUG 27 | 39.41       |
| NOV 27          | 38.40       | JAN 28  | 34.67       | MAR 27       | 32.66       | MAY 29 | 33.78        | JUL 30 | 37.84       | SEP 25 | 40.30       |
| WATER YEAR 1991 |             | HIGHEST | 32.06       | APR 26, 1991 | LOWEST      | 40.30  | SEP 25, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

187

## LOUISA COUNTY

380217078133701. Local number, 45N 1.

LOCATION.--Lat 38°02'17", long 78°13'43", Hydrologic Unit 02080106, off State Highway 640 on Tyler property, 0.9 mi southeast of Thelma, and 3 mi southwest of Boswells Tavern. Owner: Tyler.

AQUIFER.--Wissahickon Formation of Late Precambrian (?) age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 56 ft, length of casing unknown.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 500 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.95 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board.

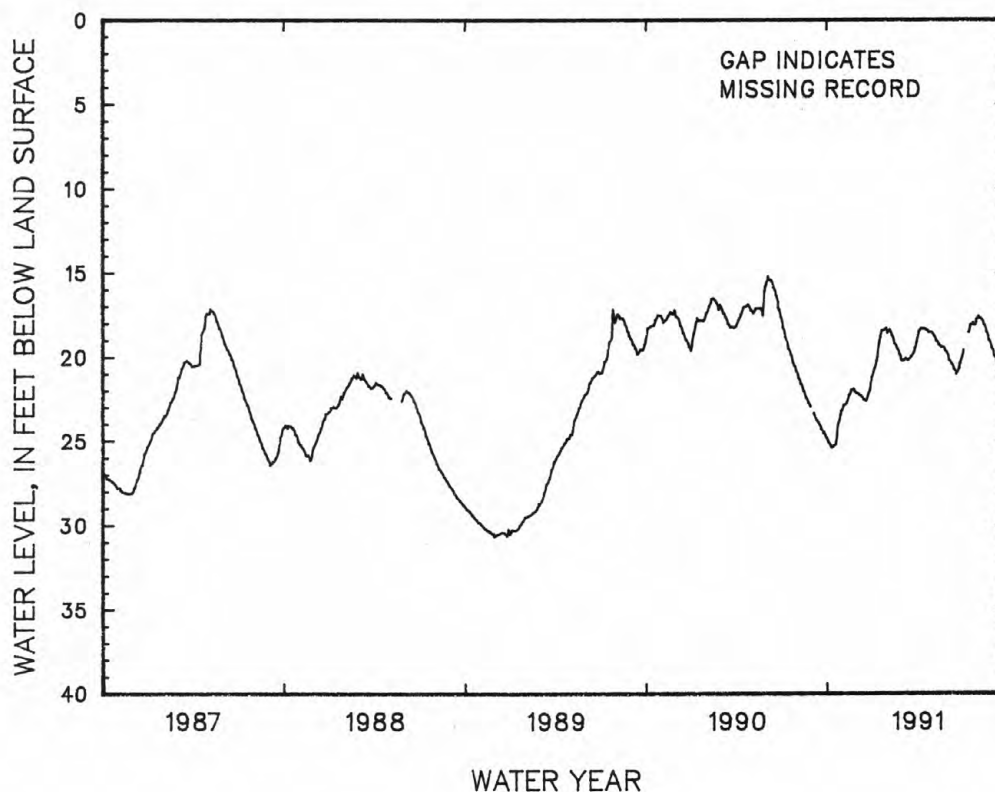
PERIOD OF RECORD.--July 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 11.97 ft below land-surface datum, Apr. 30, 1973; lowest measured, 35.17 ft below land-surface datum, Dec. 2, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 25.10 | 22.89 | 22.20 | 20.75 | 18.40 | 20.22 | 18.50 | 18.70 | 20.16 | 19.63 | 17.65 | 19.90 |
| 10  | 25.32 | 22.78 | 22.32 | 20.23 | 18.70 | 20.10 | 18.30 | 19.00 | 20.38 | ---   | 17.75 | 20.30 |
| 15  | 25.35 | 22.32 | 22.54 | 19.20 | 19.17 | 20.20 | 18.32 | 19.22 | 20.70 | ---   | 18.05 | 20.82 |
| 20  | 25.20 | 22.00 | 22.60 | 18.47 | 19.43 | 20.02 | 18.36 | 19.40 | 21.00 | 18.07 | 18.45 | 21.30 |
| 25  | 23.95 | 21.90 | 22.17 | 18.40 | 19.80 | 19.80 | 18.50 | 19.41 | 20.72 | 18.05 | 18.98 | 21.55 |
| EOM | 23.25 | 22.13 | 21.20 | 18.52 | 20.12 | 19.17 | 18.50 | 19.71 | 20.16 | 17.79 | 19.43 | 22.11 |

WATER YEAR 1991      HIGHEST 17.59 AUG 04, 1991      LOWEST 25.40 OCT 11-13, 1990



## GROUND-WATER LEVELS

## LOUISA COUNTY

380043078111301. Local number, 45N 4.

LOCATION.--Lat 38°00'45", long 78°11'14", Hydrologic Unit 02080106, 0.25 mi east of U.S. Highway 15, 4.1 mi south of Boswells Tavern. Owner: Virginia Department of Correction.

AQUIFER.--Metamorphosed sedimentary and volcanic rocks of unknown age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in., depth 200 ft, cased to 42 ft, open hole 42 to 200 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel.

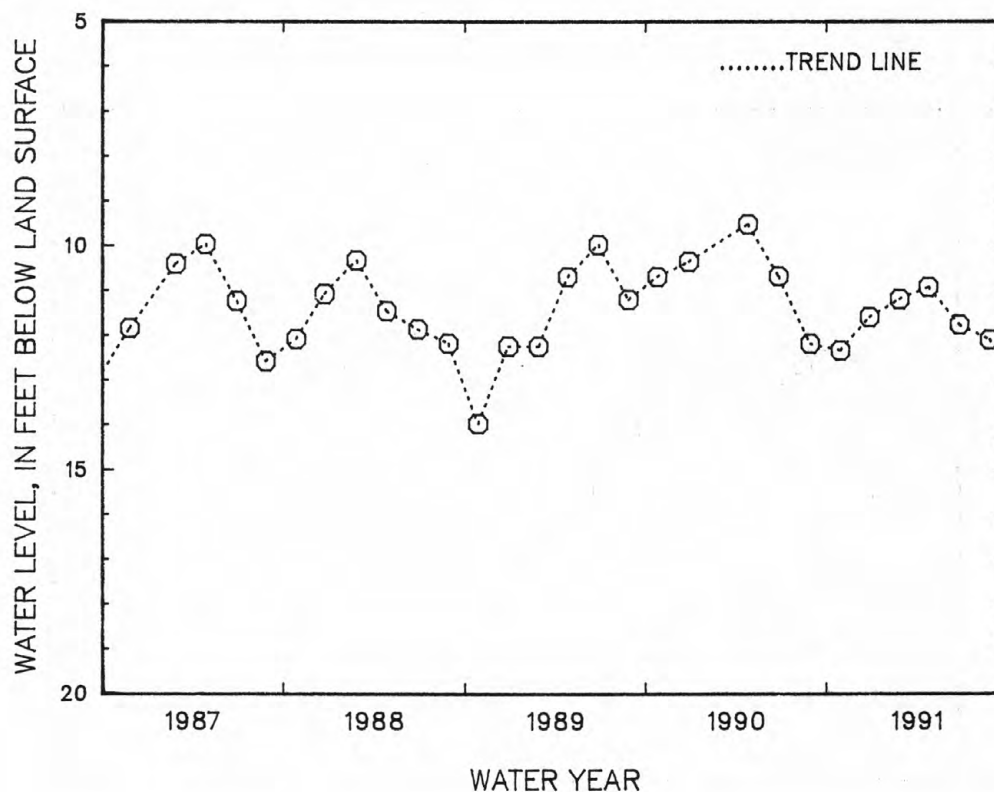
DATUM.--Elevation of land-surface datum is 415 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.3 ft above land-surface datum.

PERIOD OF RECORD.--February 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.40 ft below land-surface datum, Apr. 28, 1980; lowest measured, 14.43 ft below land-surface datum, Aug. 26, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 29          | 12.35       | DEC 27  | 11.60       | FEB 26       | 11.20       | APR 25 | 10.93       | JUN 27       | 11.77       | AUG 27 | 12.11       |
| WATER YEAR 1991 |             | HIGHEST | 10.93       | APR 25, 1991 |             | LOWEST | 12.35       | OCT 29, 1990 |             |        |             |



## GROUND-WATER LEVELS

189

## LOUISA COUNTY

380131078001001. Local number, 46N 1 SOW 056.

LOCATION.--Lat 38°01'31", long 78°00'10", Hydrologic Unit 02080106, 200 ft northeast of intersection of U.S. Highway 33 and State Highway 208 in Louisa. Owner: Town of Louisa.

AQUIFER.--Metamorphosed sedimentary and volcanic rocks of unknown age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in., depth 132 ft, length of casing unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Mar. 31, 1979, to Oct. 4, 1985, occasional measurement with chalked tape. Prior to Mar. 31, 1979, continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 455 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.6 ft above land-surface datum.

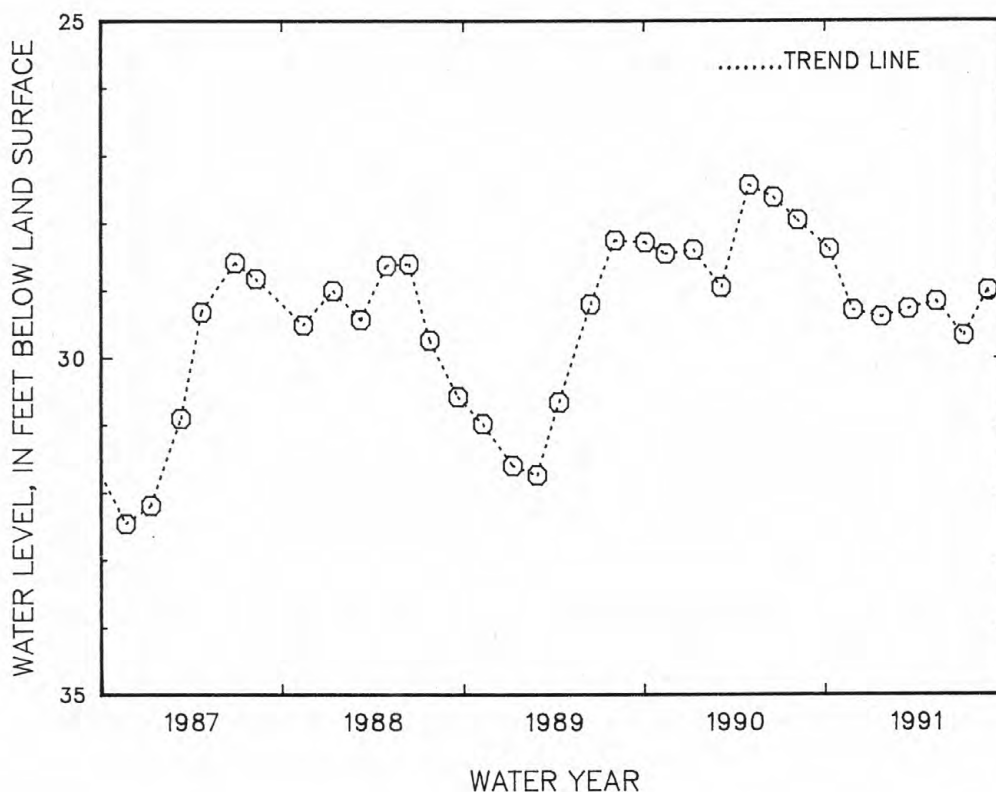
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--March 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 26.27 ft below land-surface datum, May 18, 1973; lowest measured, 34.78 ft below land-surface datum, Dec. 8, 1981.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 09          | 28.38       | JAN 22  | 29.39       | MAR 18       | 29.27       | MAY 13 | 29.16        | JUL 08 | 29.67       | AUG 26 | 28.99       |
| NOV 26          | 29.29       |         |             |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 28.38       | OCT 09, 1990 | LOWEST      | 29.67  | JUL 08, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

## MATHEWS COUNTY

372545076240101. Local number, 59H 1.

LOCATION.--Lat 37°25'45", long 76°24'01", Hydrologic Unit 02080102, 0.5 mi south of the intersection of State Highway 617 and private dirt road at the shore line of Greenmansion Cove at North and 0.7 mi southeast of the intersection of State Highways 14 and 617. Owner: G. T. Abernathy.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled flowing water well, diameter 4 in., depth 568 ft, depth of screen unknown.

INSTRUMENTATION.--Occasional measurement with manometer by USGS personnel.

DATUM.--Elevation of land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

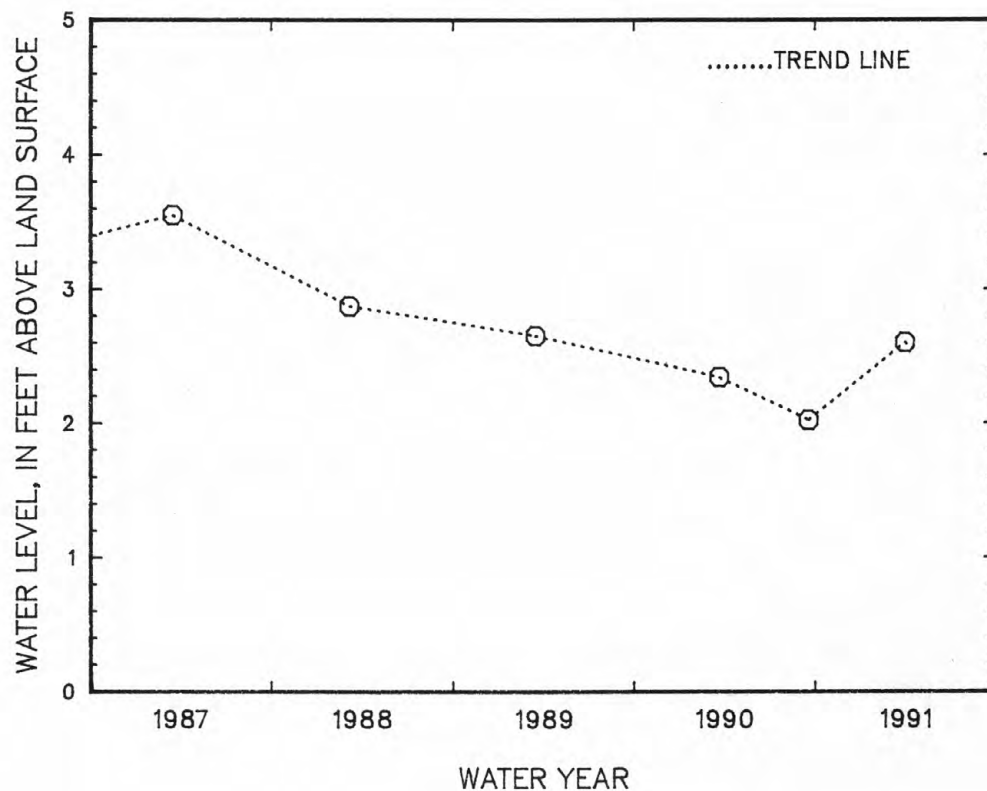
PERIOD OF RECORD.--January 1950 to current year. Unpublished records available prior to October 1988 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.70 ft above land-surface datum, Feb. 12, 1980; lowest measured, 1.00 ft above land-surface datum, Jan. 1, 1950.

WATER LEVEL, IN FEET ABOVE LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| APR 01 | 2.60           |

NOTE.--Flowing well; reading is above land-surface datum.





## GROUND-WATER LEVELS

191

## MIDDLESEX COUNTY

373809076342501. Local number, 58K 1 SOW 031.

LOCATION.--Lat 37°38'09", long 76°34'25", Hydrologic Unit 02080104, 500 ft southeast of intersection of State Highways 227 and 602 in Urbanna. Owner: Town of Urbanna.

AQUIFER.--Brightseat-upper Potomac aquifer of undifferentiated Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in., depth 552 ft, screen depth unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Jan. 25, 1979, to Oct. 1, 1985, occasional measurement with chalked tape. Prior to Jan. 25, 1979, continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board.

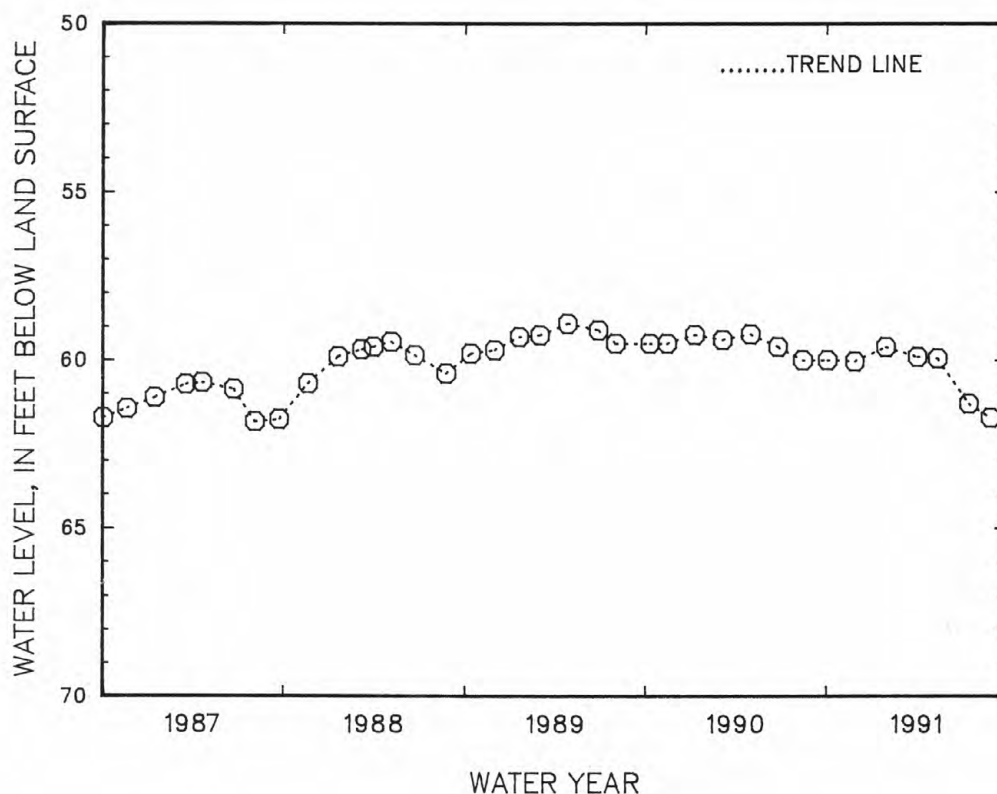
PERIOD OF RECORD.--May 1970 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 44.33 ft below land-surface datum, May 16, 1970; lowest measured, 63.12 ft below land-surface datum, July 16, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 03 | 60.00       | JAN 29 | 59.61       | APR 03 | 59.90       | MAY 14 | 59.95       | JUL 16 | 61.30       | AUG 29 | 61.72       |
| NOV 27 | 60.04       |        |             |        |             |        |             |        |             |        |             |

WATER YEAR 1991      HIGHEST 59.61 JAN 29, 1991      LOWEST 61.72 AUG 29, 1991



## GROUND-WATER LEVELS

## MIDDLESEX COUNTY

373802076340201. Local number, 58K 7.

LOCATION.--Lat 37°38'02", long 76°34'02", Hydrologic Unit 02080104, 1.9 mi northwest of the intersection of State Highways 33 and 227 and 0.7 mi north of intersection of State Highway 222 and private farm road near Urbanna. Owner: Strother and Alfred Scott (Rose Gill Farm).

AQUIFER.--Brightseat-upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 6 in., depth 650 ft, screened 571 to 582 ft, 588 to 603 ft, 630 to 635 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

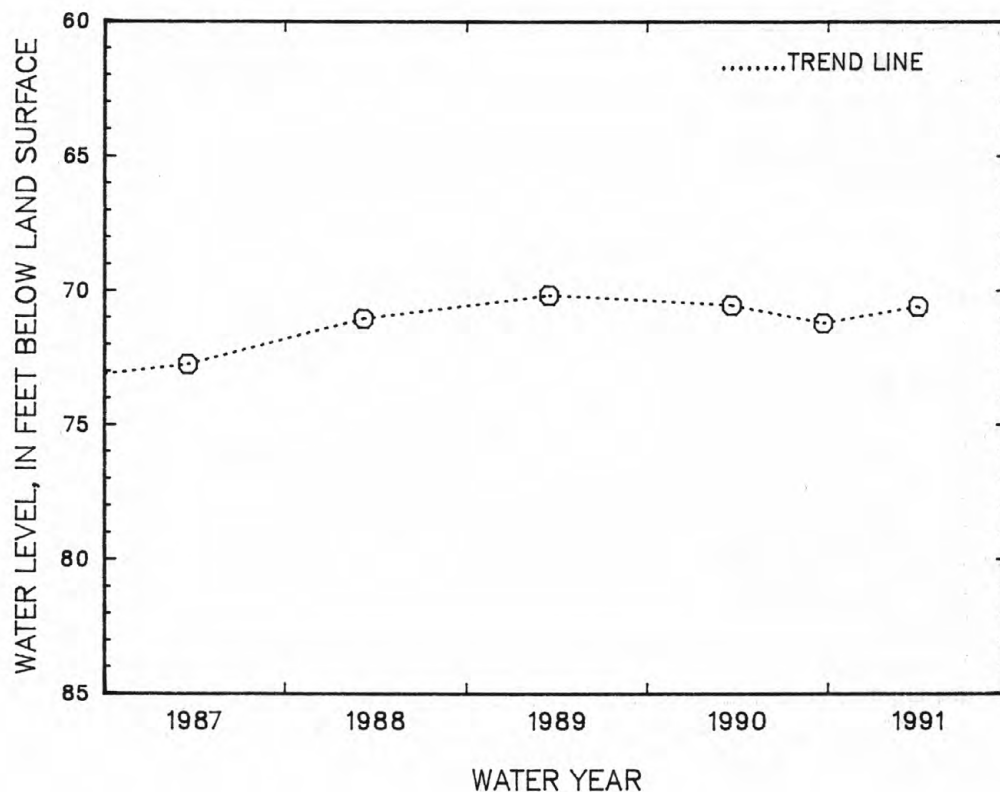
DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--November 1955 to current year. Unpublished records available prior to October 1988 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.00 ft below land-surface datum, Nov. 29, 1955; lowest measured, 73.54 ft below land-surface datum, Mar. 18, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| APR 01 | 70.59          |



## GROUND-WATER LEVELS

193

## MIDDLESEX COUNTY

373224076291001. Local number, 59J 3.

LOCATION.--Lat 37°32'24", long 76°29'10", Hydrologic Unit 02080102, 0.4 mi southeast of the intersection of State Highways 707 and 708 and 1.2 mi southwest of the intersection of State Highway 708 and private road near Grafton. Owner: Robert L. Beckwith (Woodstock Farm).

AQUIFER.--Aquia aquifer of Paleocene age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 4 in. to 147 ft, diameter 2 in. from 147 to 506 ft, depth 506 ft, screened 493 to 503 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

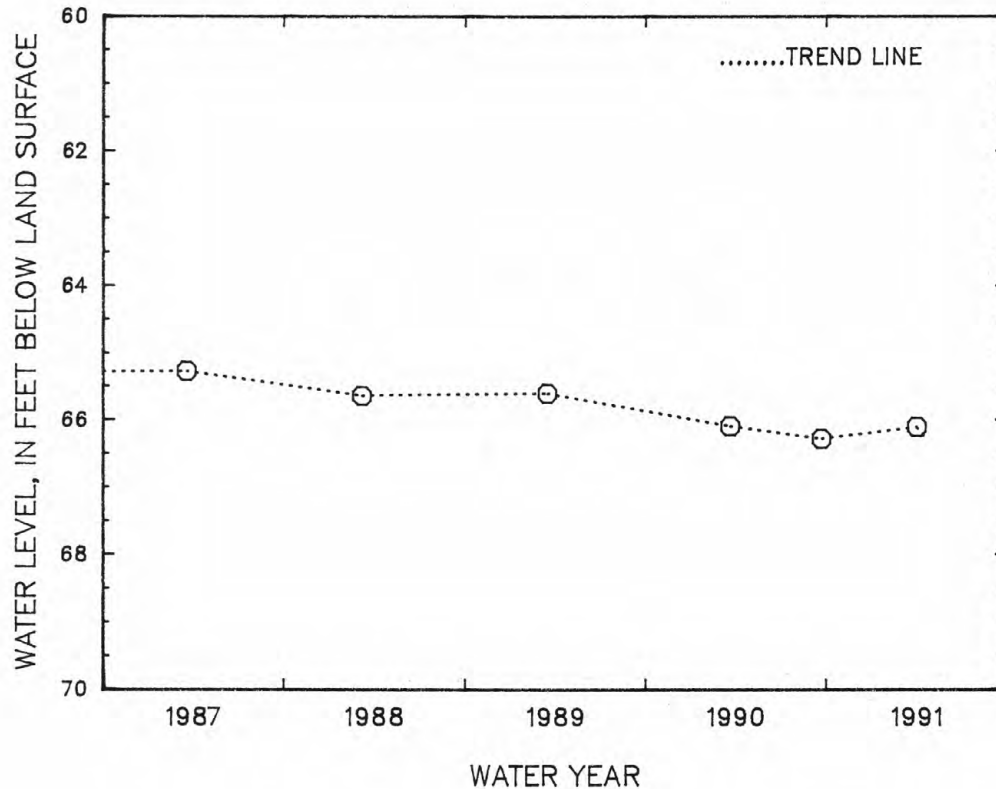
DATUM.--Elevation of land-surface datum is 18 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.8 ft above land-surface datum.

PERIOD OF RECORD.--September 1963 to current year. Unpublished records available prior to October 1988 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.00 ft below land-surface datum, Sept. 29, 1964; lowest measured, 66.29 ft below land-surface datum, Sept. 21, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| APR 01 | 66.11          |



## GROUND-WATER LEVELS

## MONTGOMERY COUNTY

370812080261901. Local number, 27F 2 SOW 019.

LOCATION.--Lat 37°08'12", long 80°26'19", Hydrologic Unit 05050001, off entrance road to Round Meadow Country Club, 400 ft north of State Highway 661, and 0.5 mi west of Christiansburg. Owner: Town of Christiansburg.

AQUIFER.--Beekmantown Formation of Early Ordovician age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 10 in., depth 450 ft, length of casing unknown.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to Apr. 5, 1969, one measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 1,970 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft below land-surface datum prior to May 1, 1990; 0.43 ft above land-surface datum thereafter.

REMARKS.--Records provided by the Virginia Water Control Board. Lowest recorded water level, 7.39 ft, is a result of the Mexico earthquake of Sept. 19, 1985, but is not shown as the minimum of record since it is an earthquake-induced measurement. Prior to May 1, 1990, brief periods when water flowed over top of casing.

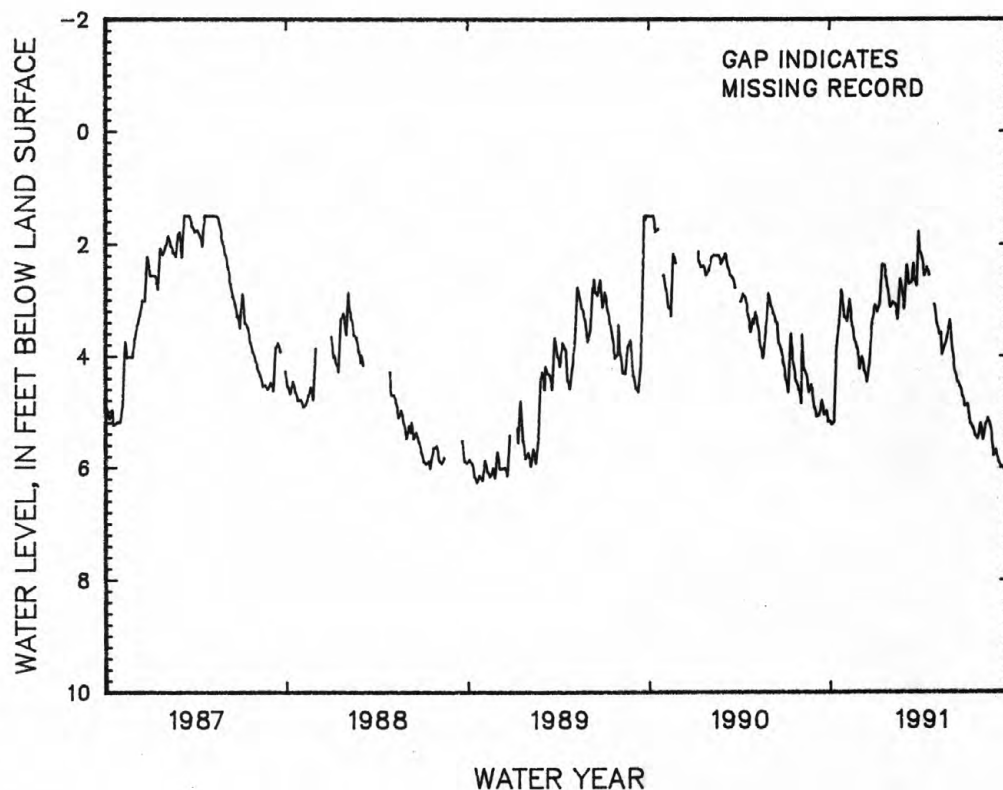
PERIOD OF RECORD.--July 1953, April 1969 to current year. Unpublished record available July 1953 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.50 ft below land-surface datum, several days in 1983, 1984, 1987, 1989, 1990, water flowing over top of casing; lowest recorded, 7.30 ft below land-surface datum, Dec. 5, 1969.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT  | NOV  | DEC  | JAN  | FEB  | MAR  | APR  | MAY  | JUN  | JUL  | AUG  | SEP  |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| 5   | 5.23 | 3.37 | 4.03 | 3.20 | 3.05 | 2.37 | 2.22 | 3.42 | 3.87 | 4.88 | 5.50 | 5.89 |
| 10  | 5.19 | 3.00 | 4.27 | 3.06 | 3.07 | 2.71 | 2.56 | 3.61 | 4.28 | 5.21 | 5.23 | 5.99 |
| 15  | 3.82 | 3.44 | 4.46 | 2.36 | 3.34 | 2.69 | 2.43 | 3.98 | 4.46 | 5.28 | 5.13 | 6.00 |
| 20  | 3.45 | 3.72 | 4.15 | 2.37 | 2.62 | 2.63 | 2.55 | 3.83 | 4.55 | 5.43 | 5.25 | 6.13 |
| 25  | 2.83 | 3.84 | 3.44 | 2.76 | 2.88 | 2.73 | ---  | 3.68 | 4.72 | 5.49 | 5.64 | 6.03 |
| ECM | 3.30 | 4.23 | 3.10 | 3.12 | 3.15 | 2.13 | 3.09 | 3.37 | 4.90 | 5.22 | 5.70 | 6.23 |

WATER YEAR 1991      HIGHEST 1.78 MAR 29, 1991      LOWEST 6.23 SEP 29, 30, 1991



## 195

374224078555601. Local number. 39K 1 SOW 006.

AQUIFER.--Lovingston (or Marshall?) Formation of Precambrian age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in., depth 275 ft., length of casing unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. June 25, 1974, to Oct. 3, 1985, occasional measurement with chalked tape. Prior to June 25, 1974, continuous strip-chart recorder.

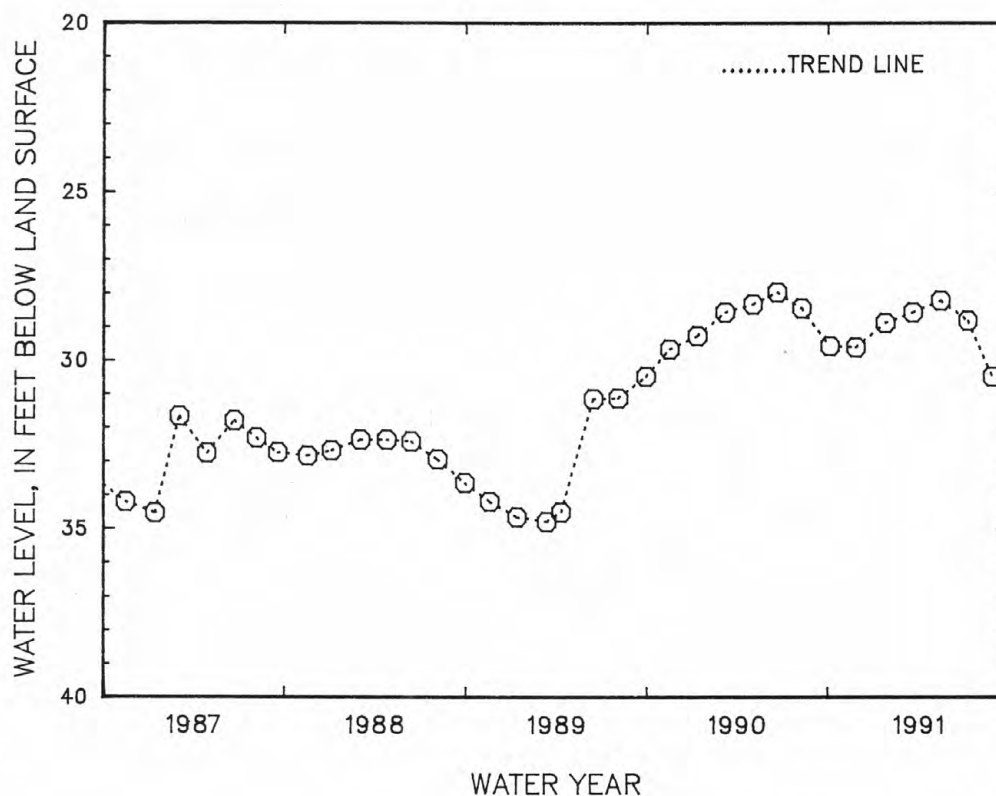
DATUM.--Elevation of land-surface datum is 770 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.94 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--October 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 27.08 ft below land-surface datum, June 29, 1973;  
lowest recorded, 35.66 ft below land-surface datum, Mar. 7, 1969.

| DATE             | WATER LEVEL    | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|------------------|----------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 05<br>NOV 26 | 29.57<br>29.61 | JAN 24  | 28.88       | MAR 21       | 28.56       | MAY 16 | 28.21       | JUL 10       | 28.81       | AUG 29 | 30.48       |
| WATER YEAR 1991  |                | HIGHEST | 28.21       | MAY 16, 1991 |             | LOWEST | 30.48       | AUG 29, 1991 |             |        |             |



## GROUND-WATER LEVELS

## NEW KENT COUNTY

373111077104601. Local number, 53J 6.

LOCATION.--Lat 37°31'11", long 77°10'46", Hydrologic Unit 02080206, 0.18 mi south of State Highway 249 in Brookwood Manor Subdivision, 0.7 mi northeast of the intersection of Interstate Highway 64 and State Highway 249, and 2.95 mi southwest of Quinton. Owner: Thomas M. Brooks.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 6 in., depth 305 ft, screened 285 to 305 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 115 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.3 ft above land-surface datum.

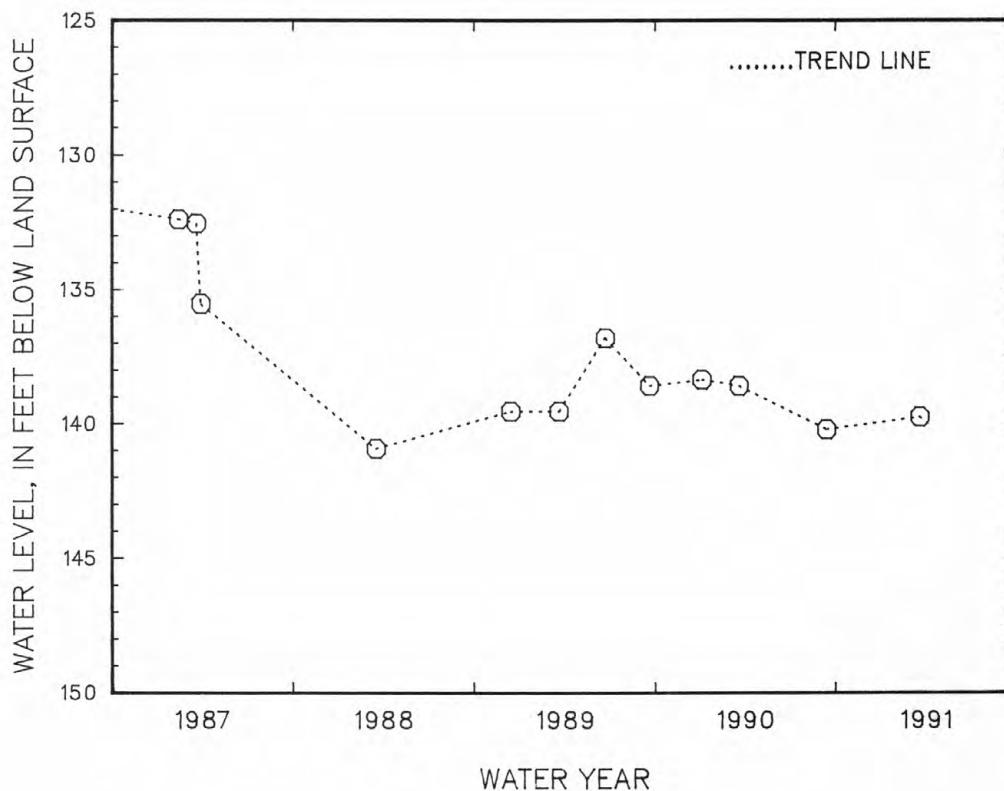
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--November 1983 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 129.91 ft below land-surface datum, Feb. 3, 1984; lowest measured, 140.95 ft below land-surface datum, Mar. 17, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 20 | 139.76         |





## GROUND-WATER LEVELS

197

## NEW KENT COUNTY

373421077012501. Local number, 54J 3.

LOCATION.--Lat 37°34'00", long 77°01'25", Hydrologic Unit 02080106, 0.8 mi northwest of the intersection of State Highway 608 and a private dirt road, 2.6 mi northwest of the intersection of State Highways 249 and 608, and 4.8 mi southeast of Tunstall. Owner: U.S. Department of the Navy.

AQUIFER.--Chickahominy-Piney Point aquifer of Eocene-Miocene age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 4 in., depth 125 ft, screen depth unknown.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

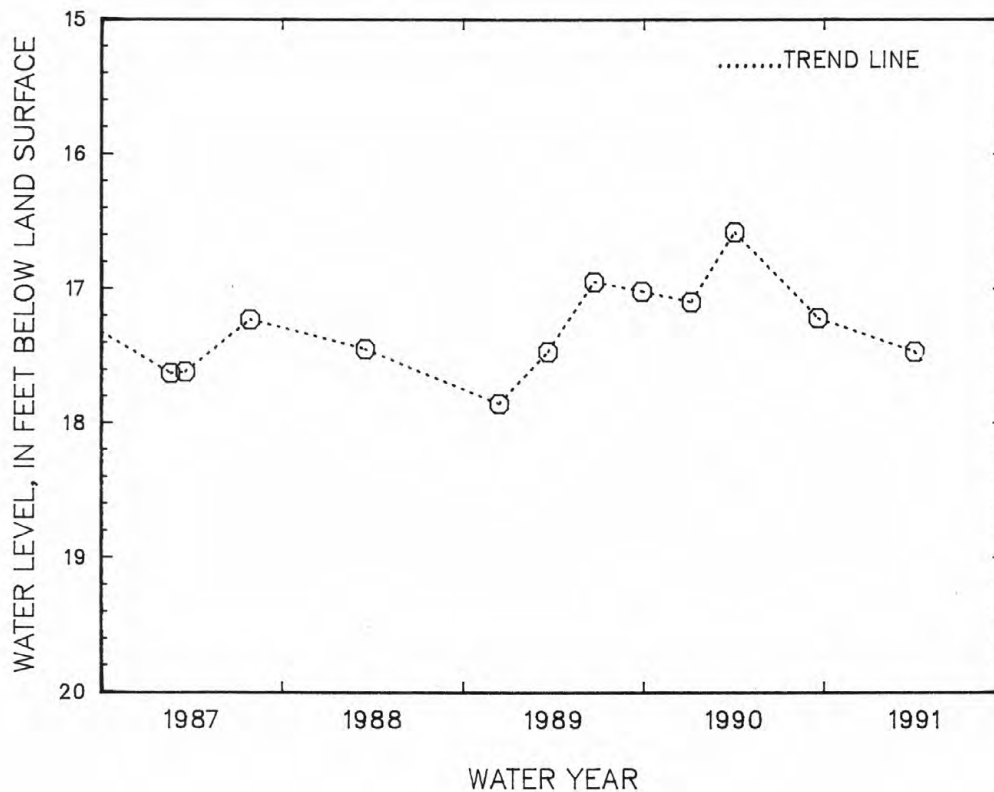
DATUM.--Elevation of land-surface datum is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.2 ft above land-surface datum.

PERIOD OF RECORD.--November 1983 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.23 ft below land-surface datum, Mar. 30, 1984; lowest measured, 17.86 ft below land-surface datum, Dec. 13, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| APR 02 | 17.47          |



## GROUND-WATER LEVELS

## NEW KENT COUNTY

372428076561501. Local number, 55H 1 SOW 017.

LOCATION.--Lat 37°24'28", long 76°56'15", Hydrologic Unit 02080206, at city of Newport News pump station, 500 ft upstream from Walkers Dam, and 0.6 mi southeast of Walkers. Owner: City of Newport News.

AQUIFER.--Middle and upper Potomac aquifers of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in. to 145 ft, diameter 4 in. from 145 to 630 ft, depth 630 ft, screened 252 to 257 ft, 339 to 344 ft, 439 to 444 ft, 615 to 625 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Apr. 5, 1979, to Sept. 30, 1985, occasional measurement with chalked tape. Prior to Apr. 5, 1979, continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 1.7 ft above land-surface datum.

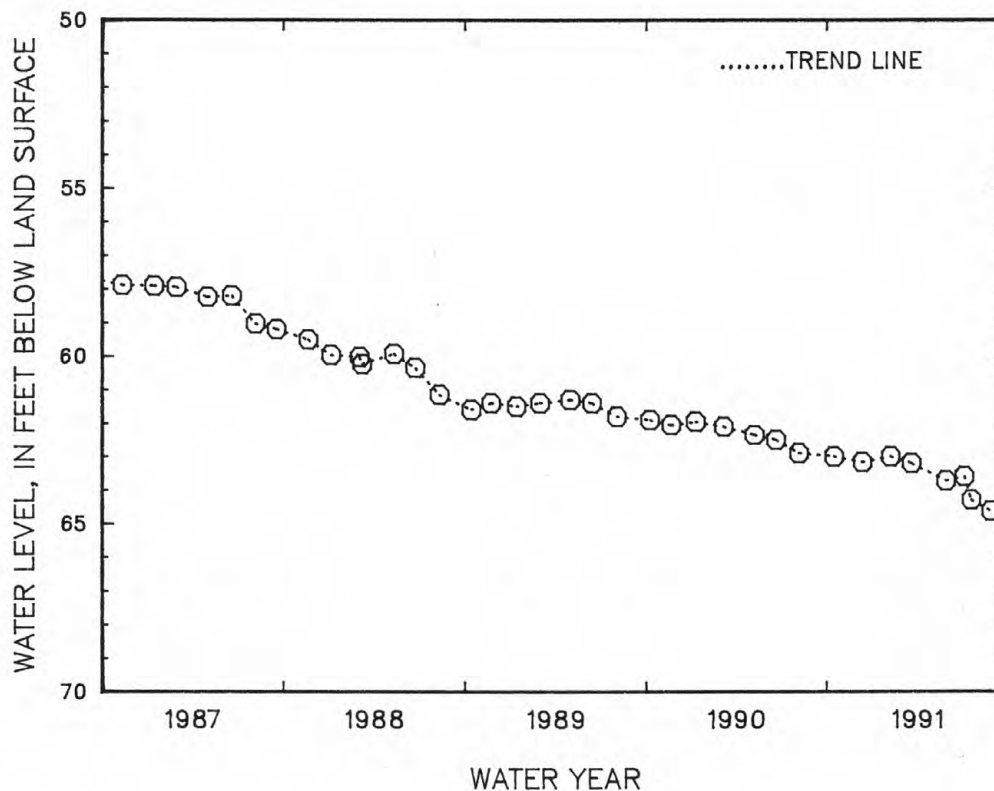
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--March 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 30.24 ft below land-surface datum, Apr. 10, 1969; lowest measured, 64.63 ft below land-surface datum, Aug. 28, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE          | WATER LEVEL | DATE                       | WATER LEVEL | DATE         | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------------|-------------|----------------------------|-------------|--------------|-------------|--------------|-------------|--------|-------------|
| OCT 16          | 63.00       | FEB 07        | 63.00       | MAY 29                     | 63.72       | JUL 05       | 63.59       | JUL 19       | 64.29       | AUG 28 | 64.63       |
| DEC 12          | 63.17       | MAR 21        | 63.20       |                            |             |              |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST 63.00 |             | OCT 16, 1990, FEB 07, 1991 |             | LOWEST 64.63 |             | AUG 28, 1991 |             |        |             |



## GROUND-WATER LEVELS

199

## NEW KENT COUNTY

373024076542201. Local number, 55J 6.

LOCATION.--Lat 37°30'24", long 76°54'22", Hydrologic Unit 02080106, 0.25 mi north of State Highway 249, 4.3 mi east of New Kent Courthouse. Owner: Chad Brunskole.

AQUIFER.--Aquia aquifer of Paleocene age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 4 in., depth 275 ft, screened 265 to 275 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 110 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.38 ft above land-surface datum.

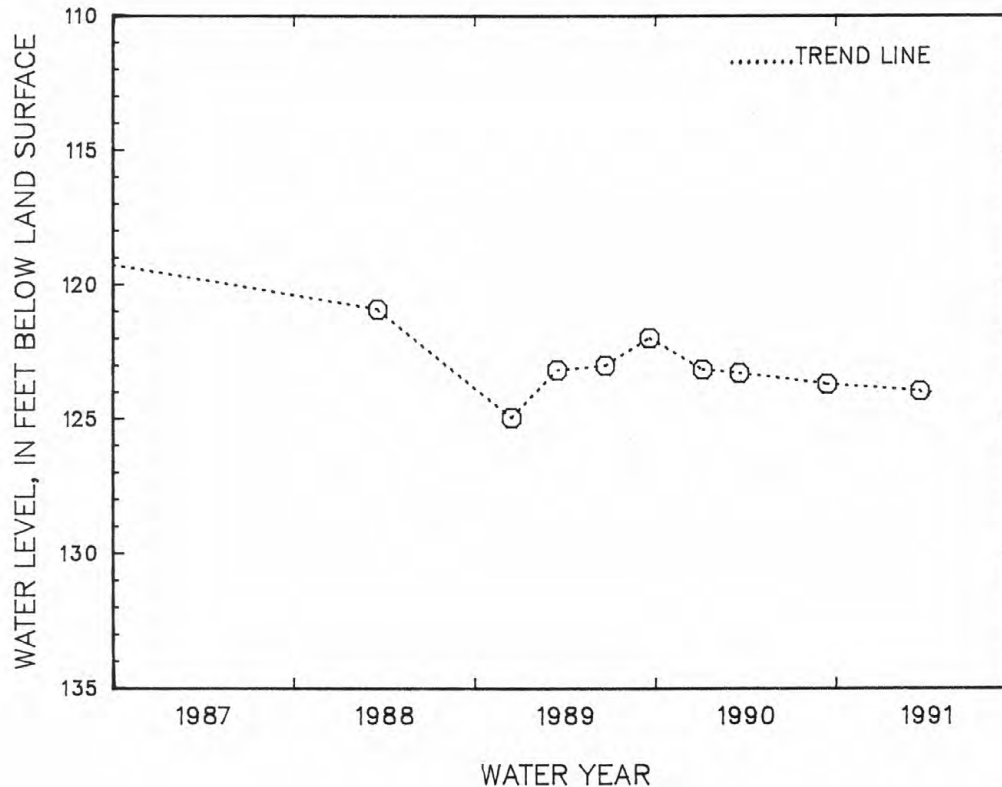
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--December 1972, April 1984 to March 1986, March 1988 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 114.10 ft below land-surface datum, Dec. 7, 1972; lowest measured, 124.98 ft below land-surface datum, Dec. 14, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 20 | 123.97         |



## GROUND-WATER LEVELS

## CITY OF NEWPORT NEWS

371027076335601. Local number, 58F 1 SOW 002.

LOCATION.--Lat 37°10'27", long 76°33'56", Hydrologic Unit 02080206, on shore of Lee Hall Reservoir, 0.15 mi north of intersection of State Highway 105 and U.S. Highway 60, and 0.65 mi northeast of Fort Eustis in Newport News. Owner: City of Newport News.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 10 in. to 431.3 ft, diameter 8 in. from 431.3 to 443 ft, diameter 6 in. from 443 to 497 ft, depth 497 ft, screened 476 to 493 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 2.3 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

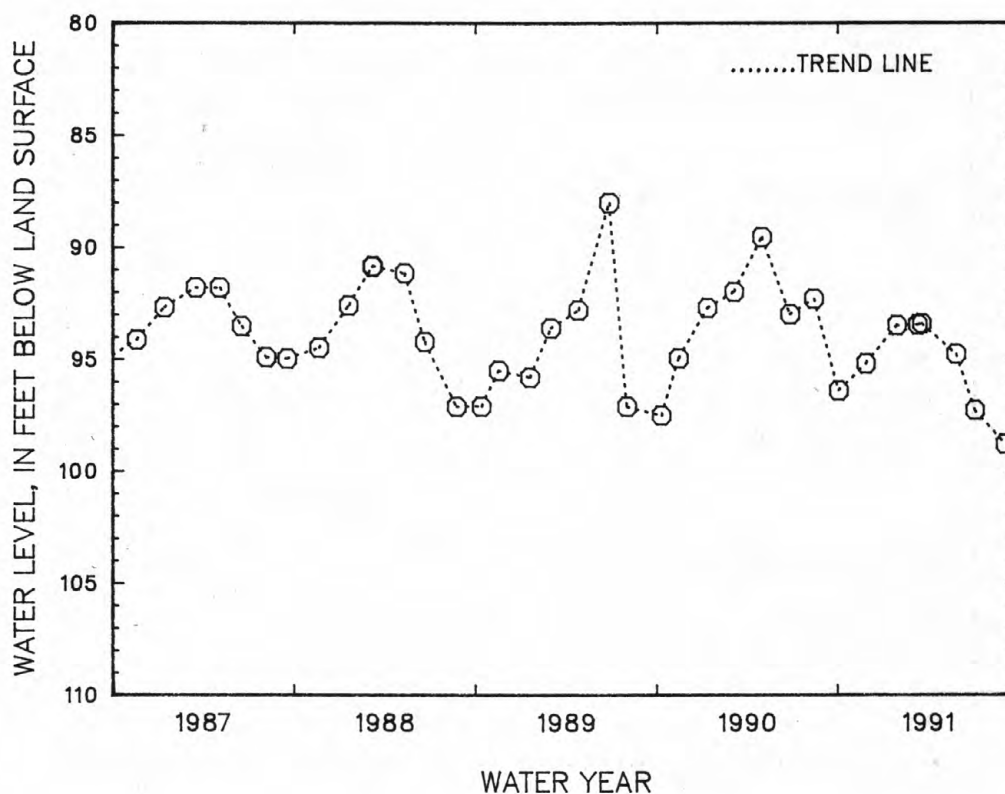
PERIOD OF RECORD.--January 1968 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 54.76 ft below land-surface datum, May 10, 1969; lowest measured, 98.80 ft below land-surface datum, Sept. 4, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 03 | 96.40       | JAN 29 | 93.48       | MAR 20 | 93.40       | MAY 28 | 94.77       | JUL 05 | 97.27       | SEP 04 | 98.80       |
| NOV 27 | 95.20       | MAR 12 | 93.45       |        |             |        |             |        |             |        |             |

WATER YEAR 1991      HIGHEST 93.40 MAR 20, 1991      LOWEST 98.80 SEP 04, 1991



## GROUND-WATER LEVELS

201

## CITY OF NEWPORT NEWS

371208076341101. Local number, 58F 50 SOW 171A.

LOCATION.--Lat 37°12'08", long 76°34'11", Hydrologic Unit 02080206, 0.4 mi south of the intersection of State Highways 143 and 238 and 150 ft north of State Highway 143 in the city of Newport News. Owner: Virginia Water Control Board.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 1,236 ft, screened 1,205 to 1,215 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 55 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

REMARKS.--Water levels in October and November 1990 may be affected by new well being drilled at site by Virginia Water Control Board. Water level affected by regional drawdown.

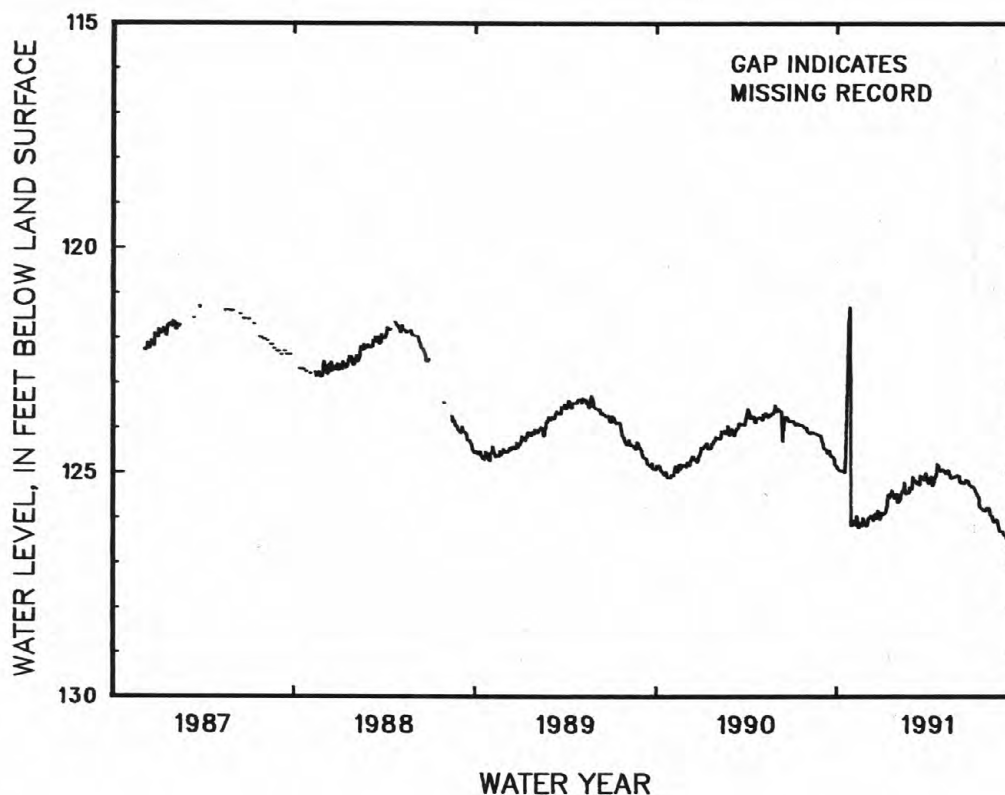
PERIOD OF RECORD.--July 1984 to current year. Unpublished records available prior to October 1986 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 117.05 ft below land-surface datum, Mar. 20, 1985; lowest recorded, 126.68 ft below land-surface datum, Sept. 30, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5   | 124.94 | 126.10 | 126.02 | 125.92 | 125.63 | 125.15 | 125.24 | 124.96 | 125.07 | 125.35 | 125.84 | 126.40 |
| 10  | 124.97 | 126.12 | 125.97 | 125.77 | 125.43 | 125.21 | 125.09 | 125.02 | 125.24 | 125.48 | 125.97 | 126.52 |
| 15  | 124.96 | 126.23 | 126.07 | 125.56 | 125.23 | 125.22 | 125.23 | 124.97 | 125.24 | 125.58 | 126.11 | 126.51 |
| 20  | 124.47 | 126.18 | 126.03 | 125.52 | 125.46 | 125.08 | 125.08 | 125.13 | 125.18 | 125.80 | 126.06 | 126.59 |
| 25  | 121.96 | 126.08 | 125.96 | 125.57 | 125.43 | 125.12 | 124.93 | 125.11 | 125.27 | 125.86 | 126.31 | 126.66 |
| EOM | 126.19 | 126.20 | 125.91 | 125.48 | 125.36 | 125.10 | 124.96 | 125.07 | 125.32 | 125.81 | 126.31 | 126.68 |

WATER YEAR 1991      HIGHEST 121.12 OCT 29, 1990      LOWEST 126.68 SEP 30, 1991



## GROUND-WATER LEVELS

## CITY OF NEWPORT NEWS

371208076341102. Local number, 58F 51 SOW 171B.

LOCATION.--Lat 37°12'08", long 76°34'11", Hydrologic Unit 02080206, 0.4 mi south of the intersection of State Highways 143 and 238 and 150 ft north of State Highway 143 in the city of Newport News. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 851 ft, screened 820 to 830 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 55 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

REMARKS.--Water levels in October and November 1990 may be affected by new well being drilled at site by Virginia Water Control Board. Water level affected by regional drawdown.

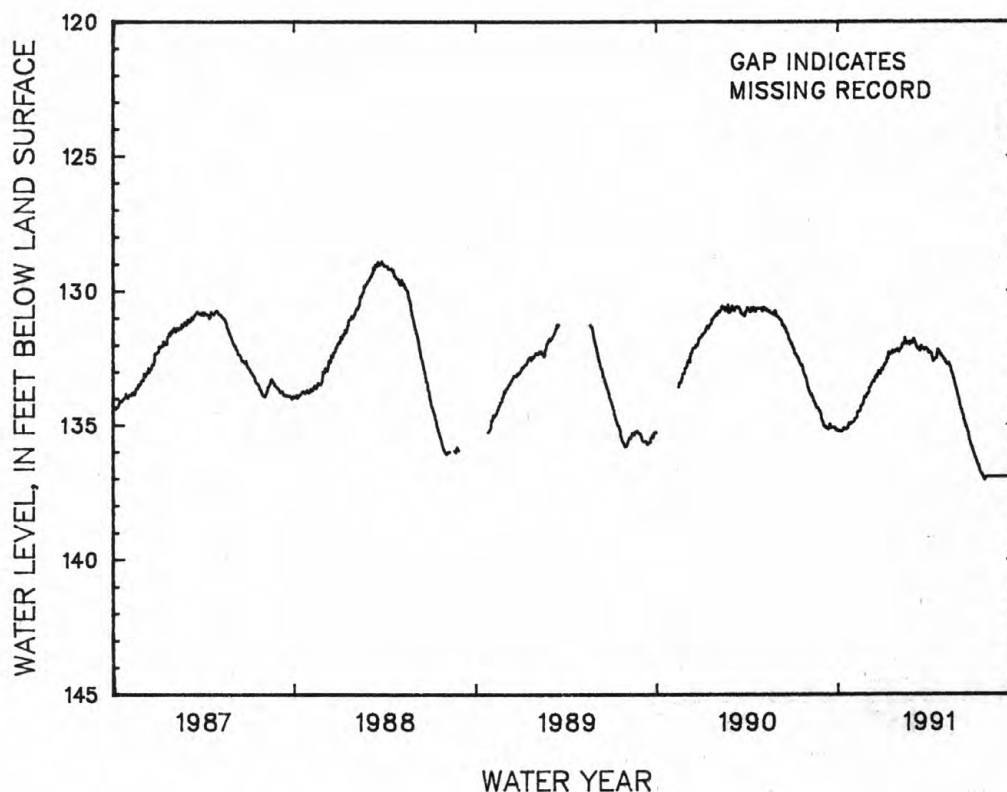
PERIOD OF RECORD.--July 1984 to current year. Unpublished records available prior to October 1986 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 126.35 ft below land-surface datum, Mar. 23-25, 1985; lowest recorded, 137.08 ft below land-surface datum, July 25, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG | SEP |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----|-----|
| 5   | 135.22 | 134.78 | 133.62 | 132.76 | 132.16 | 131.87 | 132.29 | 132.57 | 134.28 | 136.16 | --- | --- |
| 10  | 135.24 | 134.56 | 133.41 | 132.54 | 131.94 | 132.10 | 132.42 | 132.73 | 134.58 | 136.44 | --- | --- |
| 15  | 135.15 | 134.50 | 133.35 | 132.35 | 131.83 | 132.19 | 132.54 | 132.77 | 134.92 | 136.72 | --- | --- |
| 20  | 135.14 | 134.24 | 133.20 | 132.22 | 131.89 | 132.10 | 132.42 | 133.07 | 135.18 | 136.87 | --- | --- |
| 25  | 134.95 | 133.95 | 133.05 | 132.27 | 131.89 | 132.19 | 132.32 | 133.36 | 135.61 | 137.08 | --- | --- |
| EQM | 134.90 | 133.86 | 132.91 | 132.22 | 131.92 | 132.18 | 132.43 | 133.83 | 135.90 | 136.94 | --- | --- |

WATER YEAR 1991      HIGHEST 131.64 MAR 04, 1991      LOWEST 137.08 JUL 25, 1991





## GROUND-WATER LEVELS

203

## CITY OF NEWPORT NEWS

371208076341103. Local number, 58F 52 SOW 171C.

LOCATION.--Lat 37°12'08", long 76°34'11", Hydrologic Unit 02080206, 0.4 mi south of the intersection of State Highways 143 and 238 and 150 ft north of State Highway 143 in the city of Newport News. Owner: Virginia Water Control Board.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 537 ft, screened 527 to 537 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 55 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

REMARKS.--Water levels in October and November 1990 may be affected by new well being drilled at site by Virginia Water Control Board. Water level affected by regional drawdown.

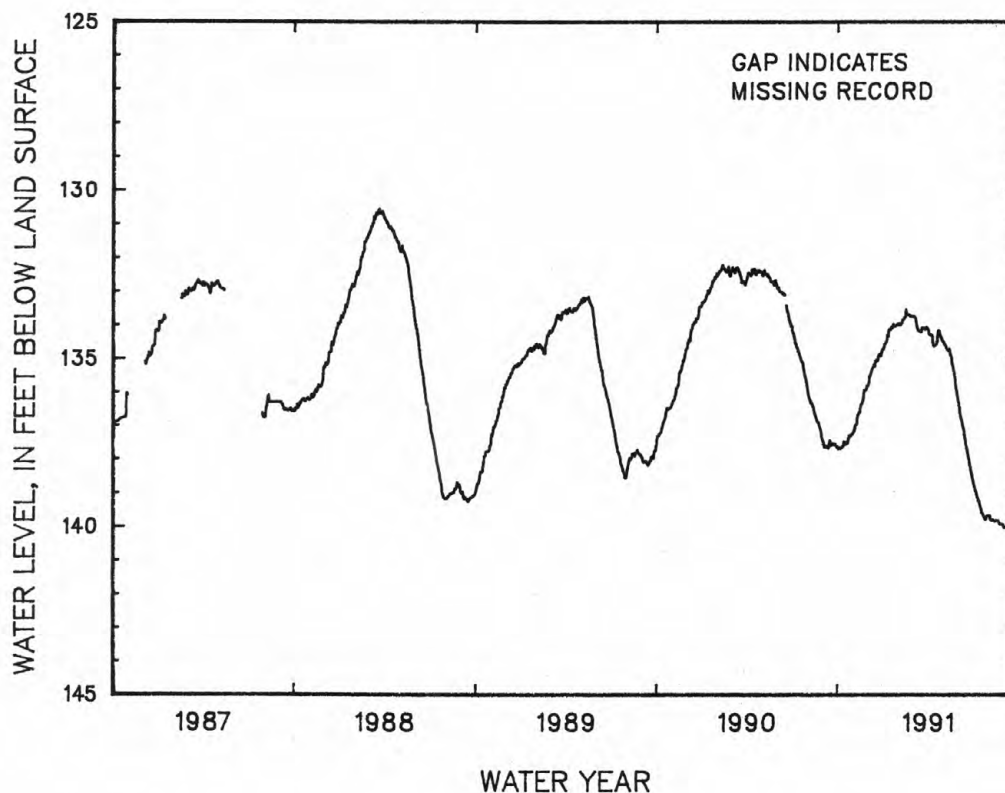
PERIOD OF RECORD.--June 1984 to current year. Unpublished records available prior to October 1986 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 128.12 ft below land-surface datum, Mar. 23, 1985; lowest recorded, 140.03 ft below land-surface datum, Sept. 2-9, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5   | 137.67 | 137.08 | 135.50 | 134.56 | 133.97 | 133.78 | 134.27 | 134.58 | 136.72 | 138.90 | 139.77 | 140.03 |
| 10  | 137.66 | 136.78 | 135.28 | 134.33 | 133.83 | 134.10 | 134.50 | 134.74 | 137.05 | 139.18 | 139.82 | 139.99 |
| 15  | 137.50 | 136.59 | 135.21 | 134.13 | 133.54 | 134.17 | 134.59 | 134.86 | 137.44 | 139.43 | 139.85 | 139.75 |
| 20  | 137.52 | 136.28 | 135.05 | 134.04 | 133.70 | 134.09 | 134.35 | 135.21 | 137.84 | 139.63 | 139.83 | 139.73 |
| 25  | 137.31 | 135.94 | 134.90 | 134.02 | 133.73 | 134.12 | 134.33 | 135.63 | 138.24 | 139.80 | 139.94 | 139.57 |
| EOM | 137.25 | 135.81 | 134.72 | 133.95 | 133.74 | 134.11 | 134.48 | 136.25 | 138.62 | 139.68 | 139.96 | 139.55 |

WATER YEAR 1991      HIGHEST 133.49 FEB 14, 15, 1991      LOWEST 140.03 SEP 02-09, 1991



## GROUND-WATER LEVELS

## CITY OF NEWPORT NEWS

371208076341104. Local number, 58F 53 SOW 171D.

LOCATION.--Lat 37°12'08", long 76°34'11", Hydrologic Unit 02080206, 0.4 mi south of the intersection of State Highways 143 and 238 and 150 ft north of State Highway 143 in the city of Newport News. Owner: Virginia Water Control Board.

AQUIFER.--Chickahominy-Piney Point aquifer of Eocene-Miocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 343 ft, screened 333 to 343 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 55 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

REMARKS.--Water levels in October and November 1990 may be affected by new well being drilled at site by Virginia Water Control Board. Water level affected by regional drawdown.

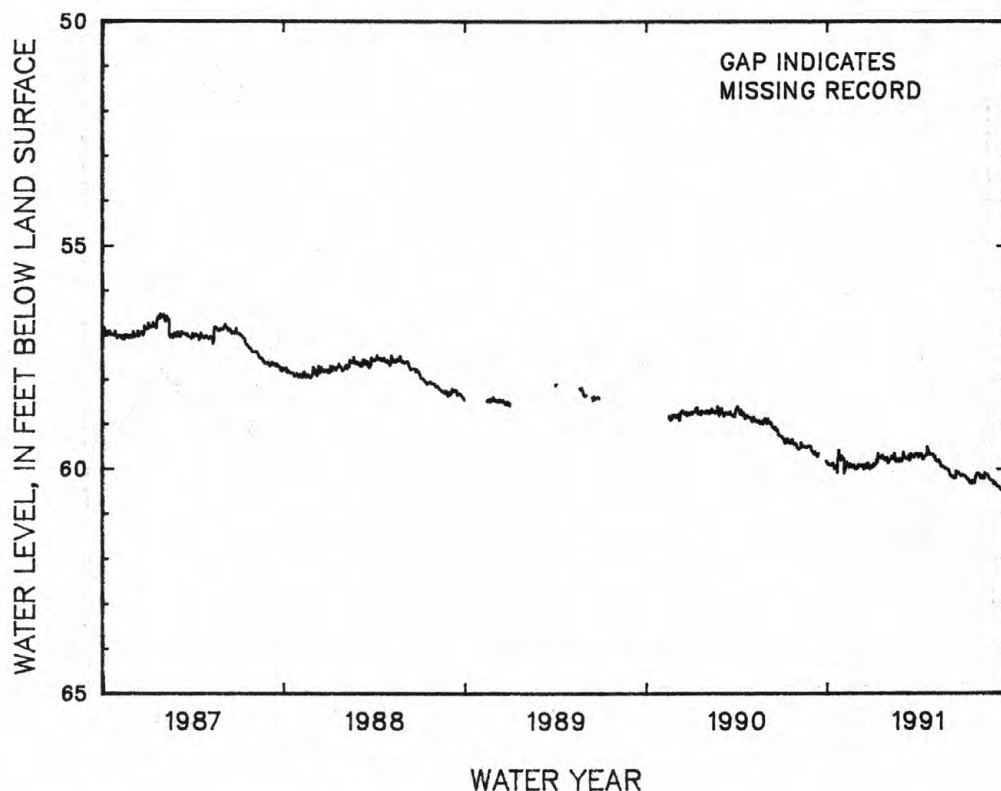
PERIOD OF RECORD.--July 1984 to current year. Unpublished records available prior to October 1986 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 55.18 ft below land-surface datum, Feb. 2, 1985; lowest recorded, 60.55 ft below land-surface datum, Sept. 9, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 59.89 | 60.10 | 59.93 | 59.93 | 59.80 | 59.72 | 59.71 | 59.75 | 60.11 | 60.15 | 60.19 | 60.33 |
| 10  | 59.92 | 59.86 | 59.91 | 59.84 | 59.72 | 59.76 | 59.69 | 59.82 | 60.19 | 60.23 | 60.17 | 60.40 |
| 15  | 59.95 | 59.97 | 60.00 | 59.75 | 59.73 | 59.78 | 59.73 | 59.84 | 60.21 | 60.31 | 60.10 | 60.46 |
| 20  | 59.96 | 59.96 | 59.98 | 59.71 | 59.79 | 59.72 | 59.69 | 59.95 | 60.07 | 60.27 | 60.13 | 60.50 |
| 25  | 59.60 | 59.95 | 59.95 | 59.80 | 59.79 | 59.74 | 59.66 | 59.97 | 60.13 | 60.32 | 60.25 | 60.41 |
| EOY | 59.72 | 60.00 | 59.96 | 59.83 | 59.83 | 59.68 | 59.67 | 60.00 | 60.13 | 60.10 | 60.27 | 60.54 |

WATER YEAR 1991      HIGHEST 59.49 APR 21, 22, 1991      LOWEST 60.55 SEP 09, 1991



## CITY OF NEWPORT NEWS

371208076341105. Local number, 58F 54 SOW 171E.

LOCATION.--Lat 37°12'08", long 76°34'11", Hydrologic Unit 02080206, 0.4 mi south of the intersection of State Highways 143 and 238 and 150 ft north of State Highway 143 in the city of Newport News. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 88 ft, screened 78 to 88 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 55 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

REMARKS.--Water levels in October and November 1990 may be affected by new well being drilled at site by Virginia Water Control Board.

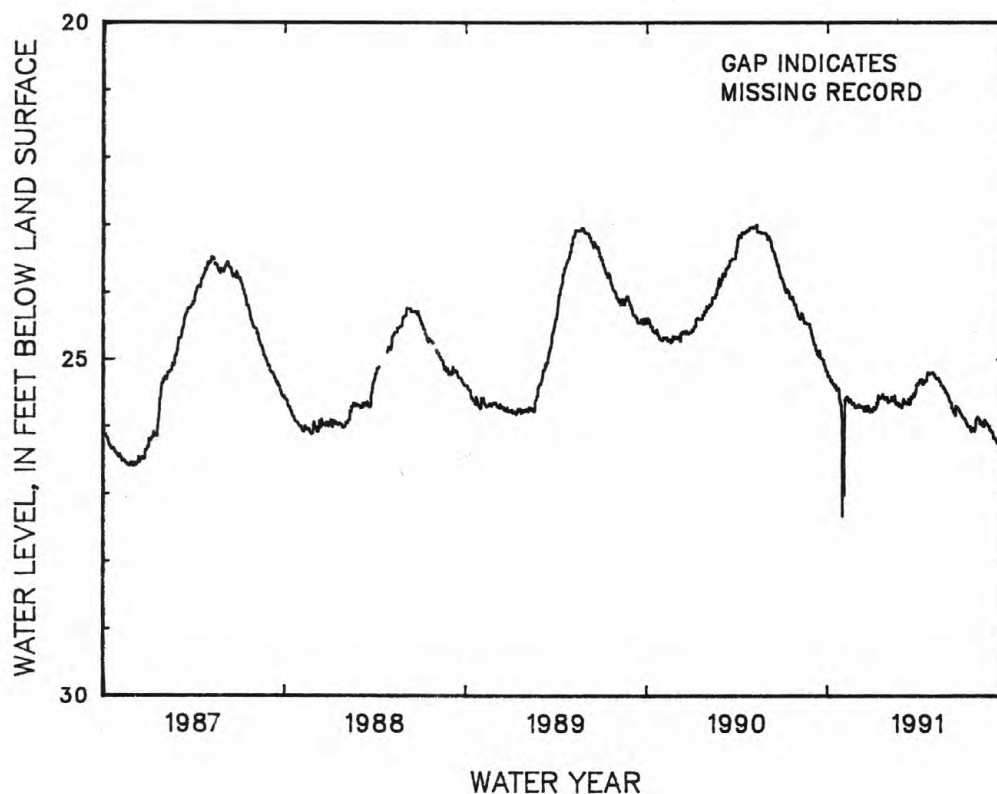
PERIOD OF RECORD.--June 1984 to current year. Unpublished records available prior to October 1986 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 22.92 ft below land-surface datum, May 10, 1990; lowest recorded, 27.34 ft below land-surface datum, Nov. 1, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 25.25 | 27.03 | 25.70 | 25.75 | 25.62 | 25.64 | 25.34 | 25.22 | 25.62 | 25.88 | 25.95 | 26.18 |
| 10  | 25.32 | 25.56 | 25.70 | 25.66 | 25.58 | 25.65 | 25.29 | 25.28 | 25.72 | 25.96 | 25.95 | 26.25 |
| 15  | 25.39 | 25.63 | 25.77 | 25.58 | 25.60 | 25.65 | 25.32 | 25.32 | 25.80 | 26.00 | 25.91 | 26.34 |
| 20  | 25.46 | 25.65 | 25.77 | 25.54 | 25.65 | 25.58 | 25.31 | 25.39 | 25.71 | 26.04 | 25.96 | 26.40 |
| 25  | 25.45 | 25.68 | 25.75 | 25.59 | 25.68 | 25.55 | 25.21 | 25.43 | 25.77 | 26.08 | 26.05 | 26.42 |
| EOM | 25.86 | 25.70 | 25.77 | 25.61 | 25.71 | 25.39 | 25.20 | 25.51 | 25.84 | 25.86 | 26.11 | 26.48 |

WATER YEAR 1991      HIGHEST 25.04 OCT 04, 1990      LOWEST 27.34 NOV 01, 1990



## GROUND-WATER LEVELS

## CITY OF NEWPORT NEWS

371208076341106. Local number, 58F 55 SOW 171F.

LOCATION.--Lat 37°12'08", long 76°34'11", Hydrologic Unit 02080206, 0.4 mi south of the intersection of State Highways 143 and 238 and 150 ft north of State Highway 143 in the city of Newport News. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 60 ft, screened 50 to 60 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 55 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.9 ft above land-surface datum.

REMARKS.--Water levels in October and November 1990 may be affected by new well being drilled at site by Virginia Water Control Board.

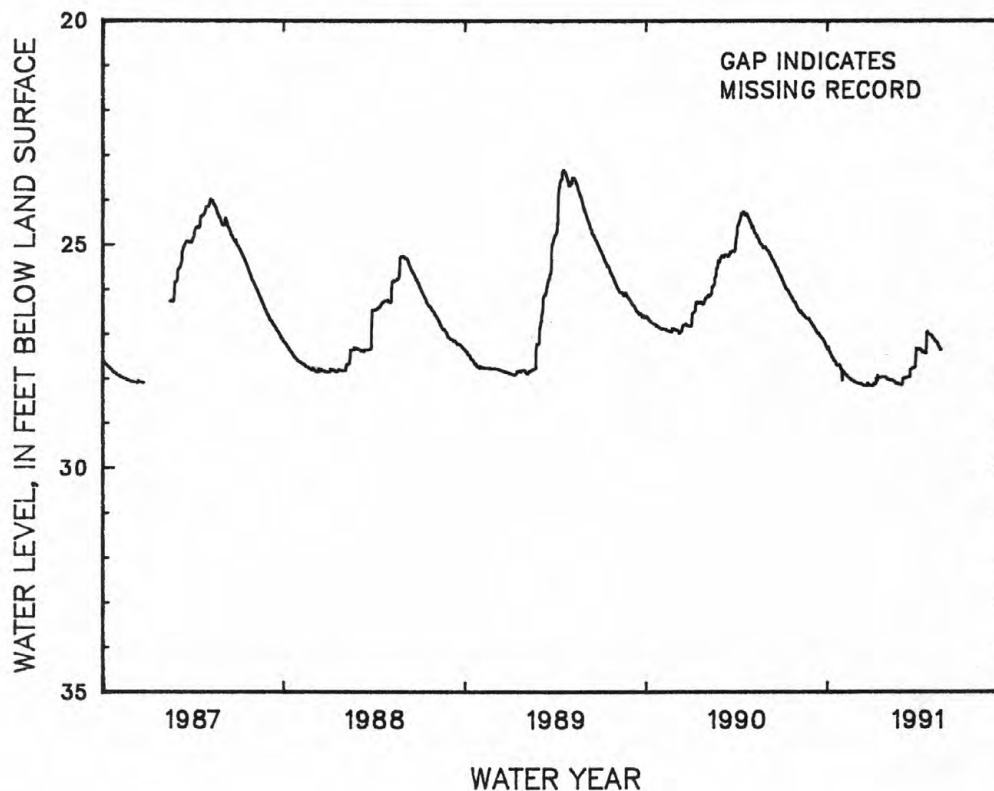
PERIOD OF RECORD.--June 1984 to current year. Unpublished records available prior to October 1986 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 23.30 ft below land-surface datum, Apr. 18, 19, 1989; lowest recorded, 28.17 ft below land-surface datum, Dec. 21, 31, 1990, Jan. 1, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN | JUL | AUG | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----|-----|-----|
| 5   | 27.35 | 27.87 | 28.11 | 28.14 | 28.03 | 27.99 | 27.34 | 27.10 | --- | --- | --- | --- |
| 10  | 27.49 | 27.92 | 28.13 | 28.04 | 28.04 | 27.98 | 27.36 | 27.17 | --- | --- | --- | --- |
| 15  | 27.59 | 27.99 | 28.16 | 27.97 | 28.07 | 27.97 | 27.39 | 27.27 | --- | --- | --- | --- |
| 20  | 27.69 | 28.04 | 28.17 | 27.97 | 28.11 | 27.79 | 27.43 | 27.35 | --- | --- | --- | --- |
| 25  | 27.71 | 28.07 | 28.14 | 27.97 | 28.13 | 27.76 | 27.00 | ---   | --- | --- | --- | --- |
| EQM | 27.80 | 28.10 | 28.17 | 28.01 | 28.14 | 27.33 | 27.02 | ---   | --- | --- | --- | --- |

WATER YEAR 1991      HIGHEST 26.09 OCT 03, 1990      LOWEST 28.17 DEC 21, 31, 1990, JAN 01, 1991



## GROUND-WATER LEVELS

207

## CITY OF NORFOLK

365221076121303. Local number, 61C 3.

LOCATION.--Lat 36°52'21", long 76°12'15", Hydrologic Unit 02080108, at Moores Bridge Filter Plant, 0.3 mi east of intersection of State Highway 165 and U.S. Highway 13 in Norfolk. Owner: U.S. Geological Survey.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 991 ft, screened 900 to 980.7 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 7 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.22 ft above land-surface datum.

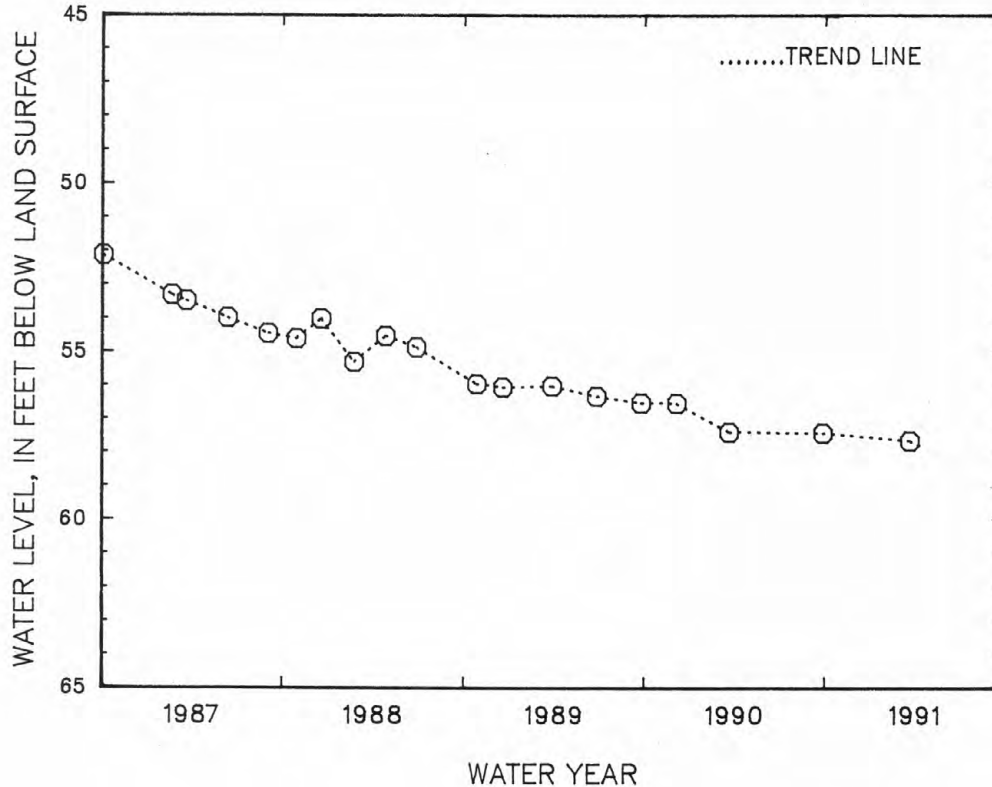
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--February 1969 to current year. Unpublished records available prior to October 1985 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.30 ft below land-surface datum, Feb. 19, 1969; lowest measured, 57.68 ft below land-surface datum, Mar. 22, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 22 | 57.68          |



## GROUND-WATER LEVELS

## NORTHAMPTON COUNTY

371543076003401. Local number, 62G 15 SOW 121.

LOCATION.--Lat 37°15'43", long 76°00'34", Hydrologic Unit 02080110, 100 ft southwest of State Highway 642, 0.5 mi south of intersection of State Highways 184 and 642, and 0.7 mi southeast of Cape Charles. Owner: Brown and Root Corporation.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 190 ft, screened 180 to 190 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to July 15, 1985, occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 12 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 1.5 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

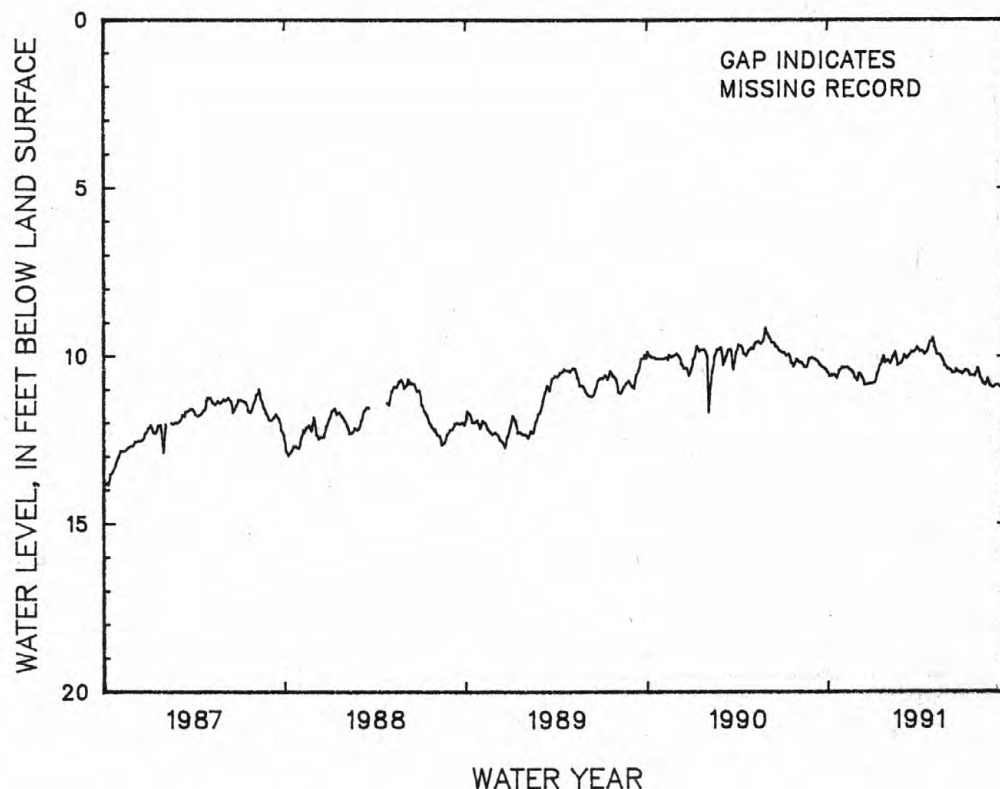
PERIOD OF RECORD.--November 1980 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 9.16 ft below land-surface datum, May 29, 30, 1990; lowest recorded, 14.31 ft below land-surface datum, Jan. 16, 17, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR  | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|
| 5   | 10.59 | 10.35 | 10.52 | 10.79 | 10.21 | 9.98  | 9.84 | 9.71  | 10.40 | 10.44 | 10.63 | 10.88 |
| 10  | 10.58 | 10.33 | 10.63 | 10.52 | 10.04 | 10.06 | 9.83 | 9.94  | 10.49 | 10.45 | 10.80 | 10.87 |
| 15  | 10.55 | 10.40 | 10.85 | 10.30 | 9.88  | 9.98  | 9.93 | 9.96  | 10.48 | 10.57 | 10.87 | 10.94 |
| 20  | 10.65 | 10.45 | 10.85 | 10.14 | 10.27 | 9.87  | 9.86 | 10.07 | 10.46 | 10.57 | 10.69 | 10.93 |
| 25  | 10.44 | 10.63 | 10.83 | 10.19 | 10.23 | 9.88  | 9.58 | 10.27 | 10.48 | 10.58 | 10.88 | 10.74 |
| EOY | 10.34 | 10.72 | 10.82 | 10.13 | 10.18 | 9.74  | 9.54 | 10.38 | 10.53 | 10.38 | 10.94 | 10.78 |

WATER YEAR 1991      HIGHEST 9.47 MAY 01, 02, 1991      LOWEST 10.97 SEP 19, 1991





## GROUND-WATER LEVELS

209

## NORTHAMPTON COUNTY

371307075583501. Local number, 63F 15 SOW 105A.

LOCATION.--Lat 37°13'07", 75°58'35", Hydrologic Unit 02080109, 50 ft south of State Highway 644, 0.3 mi west of intersection of State Highway 644 and U.S. Highway 13, and 1.3 mi north of Cheapside. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 130 ft, screened 120 to 130 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to Oct. 5, 1985, occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 31.97 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 1.1 ft above land-surface datum prior to July 21, 1987; 1.4 ft thereafter.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

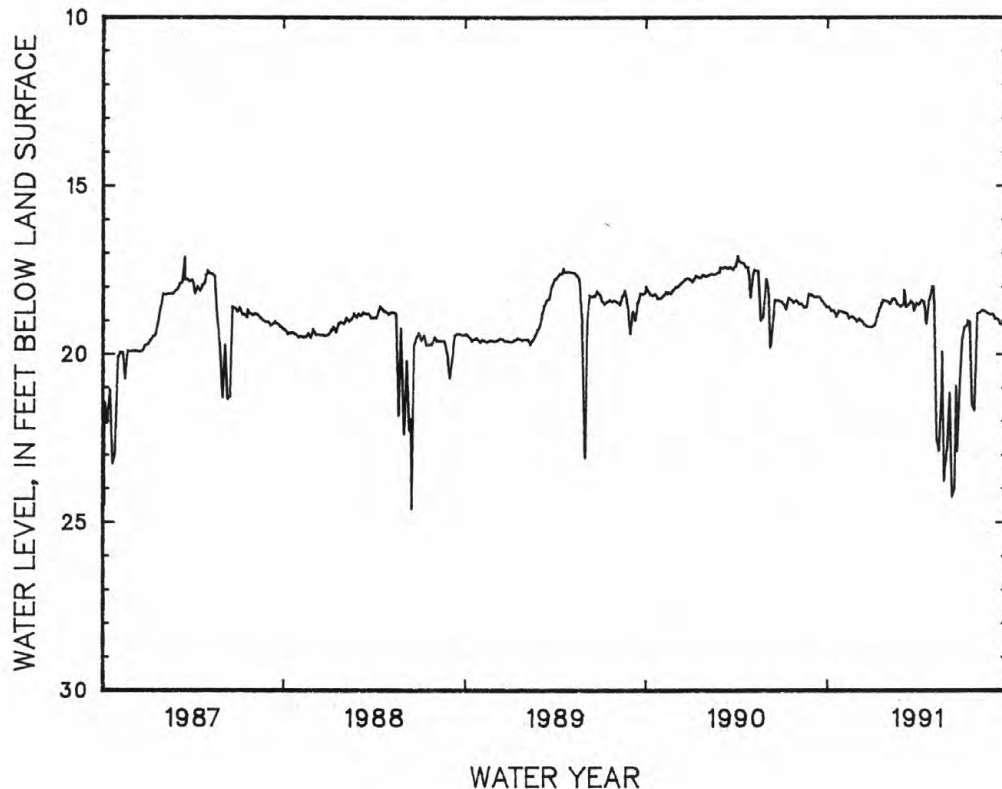
PERIOD OF RECORD.--June 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.44 ft below land-surface datum, Apr. 12, 1982; lowest recorded, 24.62 ft below land-surface datum, June 15, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 18.60 | 18.76 | 18.97 | 19.14 | 18.50 | 18.50 | 18.52 | 18.37 | 21.15 | 19.21 | 18.75 | 18.93 |
| 10  | 18.71 | 18.78 | 19.01 | 18.91 | 18.38 | 18.58 | 18.40 | 22.53 | 24.26 | 19.13 | 18.68 | 18.95 |
| 15  | 18.71 | 18.93 | 19.11 | 18.65 | 18.35 | 18.53 | 18.42 | 22.88 | 23.98 | 19.03 | 18.71 | 19.08 |
| 20  | 18.87 | 18.88 | 19.17 | 18.50 | 18.50 | 18.43 | 19.09 | 21.18 | 22.88 | 21.53 | 18.77 | 19.13 |
| 25  | 18.73 | 18.92 | 19.20 | 18.41 | 18.57 | 18.50 | 18.39 | 23.79 | 20.91 | 21.66 | 18.80 | 19.10 |
| EOM | 18.73 | 19.02 | 19.19 | 18.42 | 18.56 | 18.50 | 18.10 | 22.88 | 19.54 | 18.79 | 18.80 | 19.17 |

WATER YEAR 1991      HIGHEST 17.99 MAY 01-03, 1991      LOWEST 24.26 JUN 10, 1991



## GROUND-WATER LEVELS

## NORTHAMPTON COUNTY

371307075583502. Local number, 63F 16 SOW 105C.

LOCATION.--Lat 37°13'07", long 75°58'35", Hydrologic Unit 02080109, 50 ft south of State Highway 644, 0.3 mi west of intersection of State Highway 644 and U.S. Highway 13, and 1.3 mi north of Cheapside. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 285 ft, screened 275 to 285 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 31.16 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.1 ft above land-surface datum.

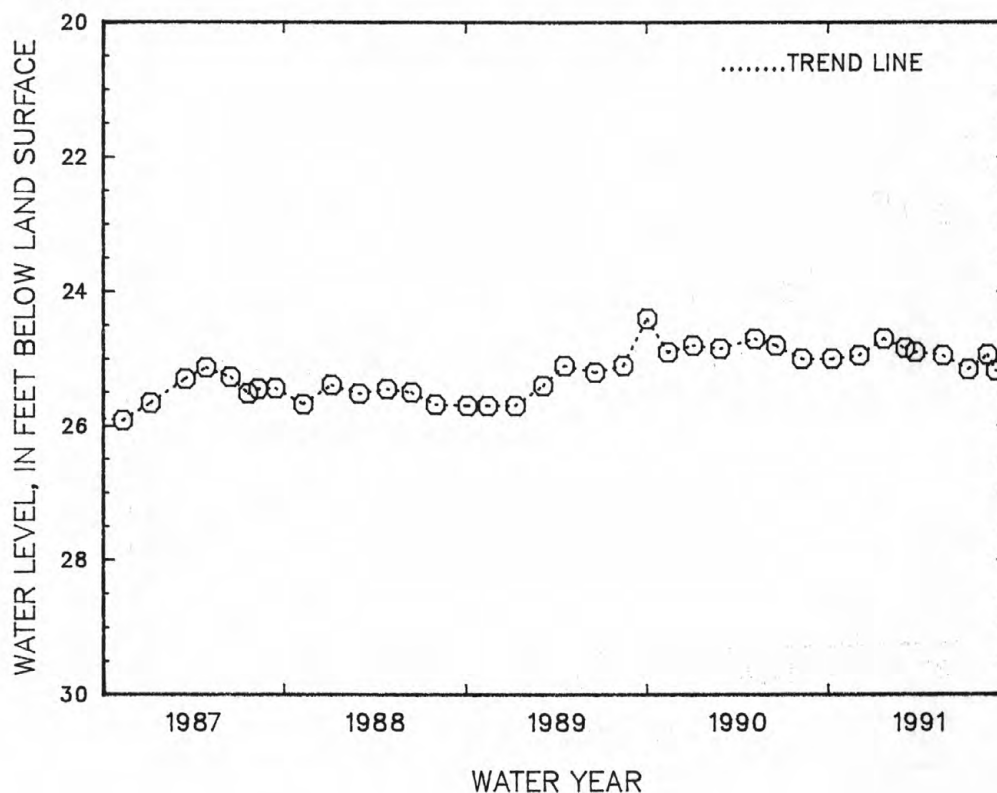
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--June 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.91 ft below land-surface datum, Jan. 9, 1979; lowest measured, 29.58 ft below land-surface datum, May 23, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 09          | 25.00       | JAN 22  | 24.70       | MAR 26       | 24.90       | JUL 11 | 25.16        | AUG 19 | 24.94       | SEP 05 | 25.18       |
| DEC 03          | 24.95       | MAR 06  | 24.84       | MAY 21       | 24.95       |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 24.70       | JAN 22, 1991 | LOWEST      | 25.18  | SEP 05, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

211

## NORTHAMPTON COUNTY

371307075583503. Local number, 63F 17 SOW 105B.

LOCATION.--Lat 37°13'07", long 75°58'35", Hydrologic Unit 02080109, 50 ft south of State Highway 644, 0.3 mi west of intersection of State Highway 644 and U.S. Highway 13, and 1.3 mi north of Cheapside. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 196 ft, screened 186 to 196 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 31.50 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.5 ft above land-surface datum.

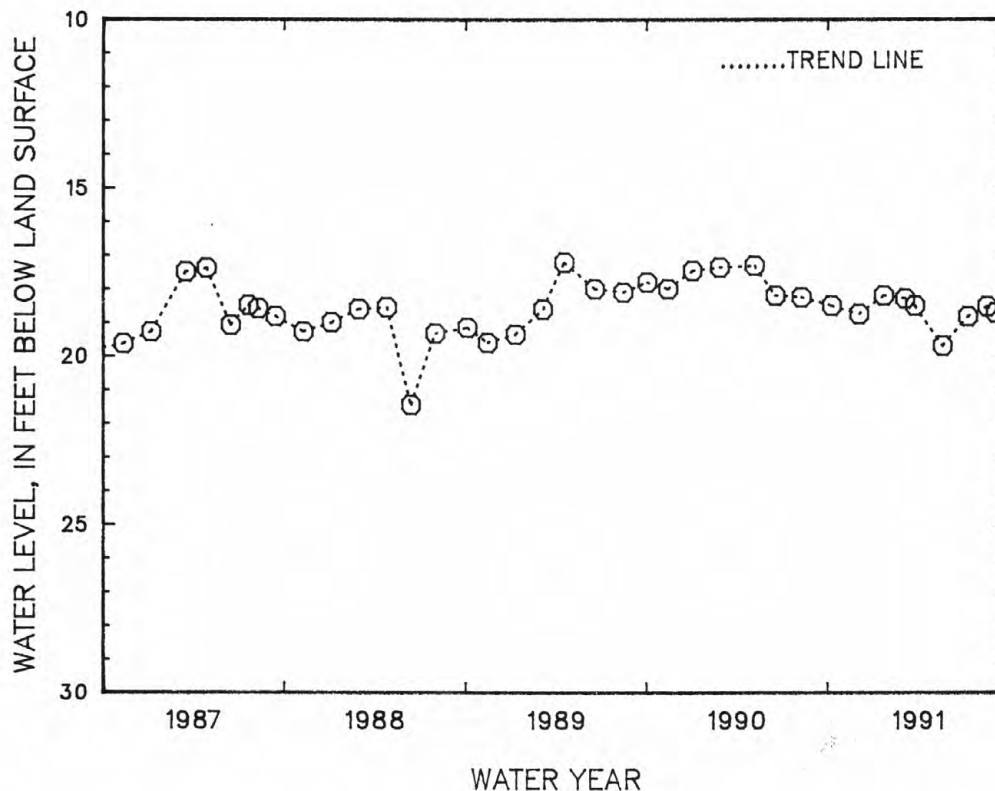
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

PERIOD OF RECORD.--June 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.78 ft below land-surface datum, Apr. 25, 1984; lowest measured, 21.68 ft below land-surface datum, Feb. 11, 1982.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 09          | 18.50       | JAN 22  | 18.20       | MAR 26       | 18.50       | JUL 11 | 18.82       | AUG 19       | 18.52       | SEP 05 | 18.71       |
| DEC 03          | 18.75       | MAR 06  | 18.29       | MAY 21       | 19.70       |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 18.20       | JAN 22, 1991 |             | LOWEST | 19.70       | MAY 21, 1991 |             |        |             |



## GROUND-WATER LEVELS

## NORTHAMPTON COUNTY

371145075565901. Local number, 63F 25.

LOCATION.--Lat 37°11'45", long 75°56'59", Hydrologic Unit 02080110, 0.4 mi east of State Highway 600 and 0.9 mi northeast of the intersection of State Highways 600 and 646 at Townsend along Walls Landing Creek. Owner: U.S. Geological Survey.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Driven observation water well, diameter 2 in., depth 7 ft, screened 4 to 7 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Nov. 13, 1987, to Nov. 14, 1990, digital recorder--60-minute punch. Prior to Nov. 13, 1987, bimonthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 12.38 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.2 ft above land-surface datum.

PERIOD OF RECORD.--September 1987 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.03 ft above land-surface datum, Apr. 15, 1989; lowest recorded, 1.96 ft below land-surface datum, Aug. 4, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, OCTOBER TO NOVEMBER 1990  
LOWEST VALUES

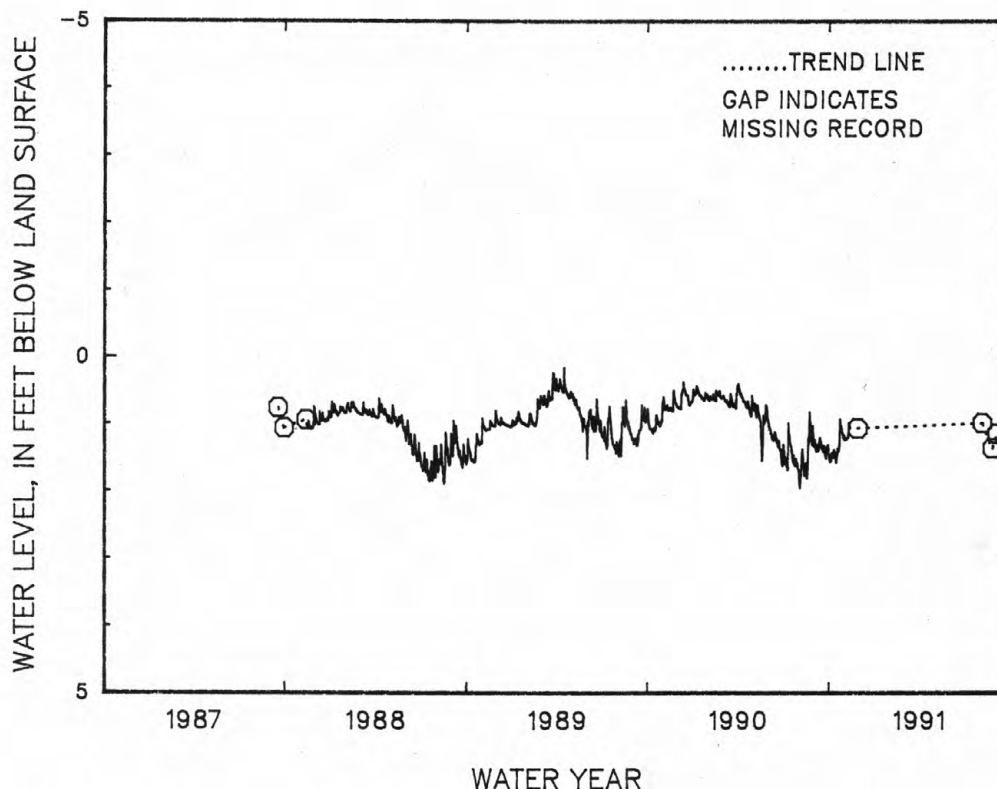
| DAY | OCT  | NOV  |
|-----|------|------|
| 5   | 1.52 | 1.22 |
| 10  | 1.45 | 1.17 |
| 15  | 1.51 | ---  |
| 20  | 1.40 | ---  |
| 25  | 1.02 | ---  |
| EOM | 1.21 | ---  |

PERIOD OCTOBER TO NOVEMBER 1990      HIGHEST 0.61 OCT 24, 1990      LOWEST 1.58 OCT 16, 1990

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, NOVEMBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| NOV 28 | 1.07        | AUG 07 | 0.99        | AUG 27 | 1.37        | SEP 06 | 1.15        |

PERIOD NOVEMBER 1990 TO SEPTEMBER 1991      HIGHEST 0.99 AUG 07, 1991      LOWEST 1.37 AUG 27, 1991



## GROUND-WATER LEVELS

213

## NORTHAMPTON COUNTY

371121075565001. Local number, 63F 29.

LOCATION.--Lat 37°11'21", long 75°56'50", Hydrologic Unit 02080110, 0.15 mi from the end of a private dirt road, 0.5 mi southeast of the intersection of State Highway 600 and a private dirt road, 0.5 mi northeast of the intersection of State Highway 600 and 646, and 0.7 mi northeast of Townsend. Owner: U.S. Geological Survey.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Driven observation water well, diameter 2 in., depth 9.5 ft, screened 6.5 to 9.5 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by USGS personnel. Dec. 8, 1988, to July 20, 1990, digital recorder--60-minute punch. Prior to Dec. 8, 1988, bimonthly measurement with chalked tape.

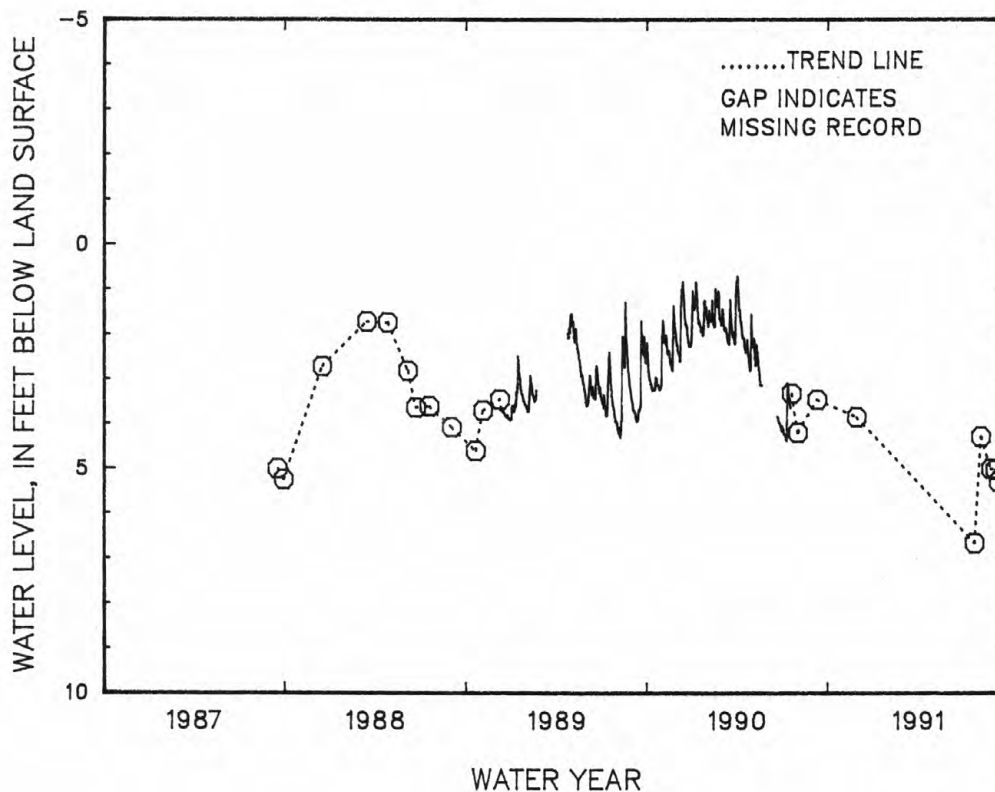
DATUM.--Elevation of land-surface datum is 13.19 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.8 ft above land-surface datum.

PERIOD OF RECORD.--September 1987 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.41 ft below land-surface datum, Apr. 3, 1990; lowest measured, 6.67 ft below land-surface datum, July 25, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE         | WATER LEVEL | DATE         | WATER LEVEL | DATE        | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|--------------|-------------|--------------|-------------|-------------|-------------|--------------|-------------|--------|-------------|
| NOV 28          | 3.86        | JUL 25       | 6.67        | AUG 07       | 4.30        | AUG 27      | 5.02        | SEP 05       | 5.04        | SEP 11 | 5.31        |
| WATER YEAR 1991 |             | HIGHEST 3.86 |             | NOV 28, 1990 |             | LOWEST 6.67 |             | JUL 25, 1991 |             |        |             |



## GROUND-WATER LEVELS

## NORTHAMPTON COUNTY

371128075572101. Local number, 63F 30.

LOCATION.--Lat 37°11'28", long 75°57'21", Hydrologic Unit 02080110, 50 ft east of intersection of State Highway 600 and a private dirt road, 0.5 mi northeast of intersection of State Highways 600 and 646, and 0.75 mi northeast of Townsend. Owner: U.S. Geological Survey.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Driven observation water well, diameter 2 in., depth 15 ft, screened 12 to 15 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Dec. 8, 1988, to July 20, 1990, digital recorder--60-minute punch. Prior to Dec. 8, 1988, bimonthly measurement with chalked tape.

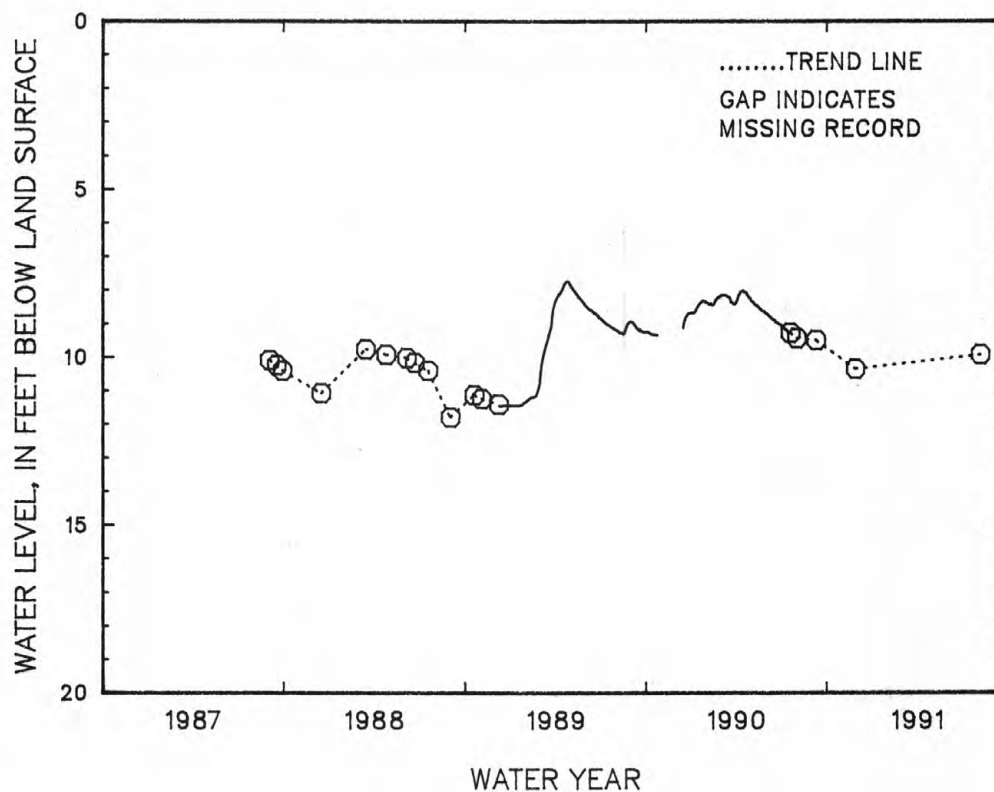
DATUM.--Elevation of land-surface datum is 28.97 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.55 ft above land-surface datum.

PERIOD OF RECORD.--September 1987 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 7.74 ft below land-surface datum, Apr. 24-28, 1989; lowest measured, 11.81 ft below land-surface datum, Sept. 2, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

|                 | DATE    | WATER<br>LEVEL | DATE         | WATER<br>LEVEL |       |
|-----------------|---------|----------------|--------------|----------------|-------|
|                 | NOV 28  | 10.36          | AUG 07       | 9.93           |       |
| WATER YEAR 1991 | HIGHEST | 9.93           | AUG 07, 1991 | LOWEST         | 10.36 |
|                 |         |                | NOV 28, 1990 |                |       |





## GROUND-WATER LEVELS

215

## NORTHAMPTON COUNTY

371136075580201. Local number, 63F 31.

LOCATION.--Lat 37°11'36", long 75°58'02", Hydrologic Unit 02080110, 200 ft southeast of the intersection of U.S. Highway 13 and a private dirt road, 0.5 mi north of the intersection of U.S. Highway 13 and State Highway 646, and 0.6 mi northwest of Townsend. Owner: U.S. Geological Survey.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Driven observation water well, diameter 2 in., depth 12 ft, screened 9 to 12 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Jan. 22, 1988, to June 21, 1990, digital recorder--60-minute punch. Prior to Jan. 22, 1988, bimonthly measurement with chalked tape.

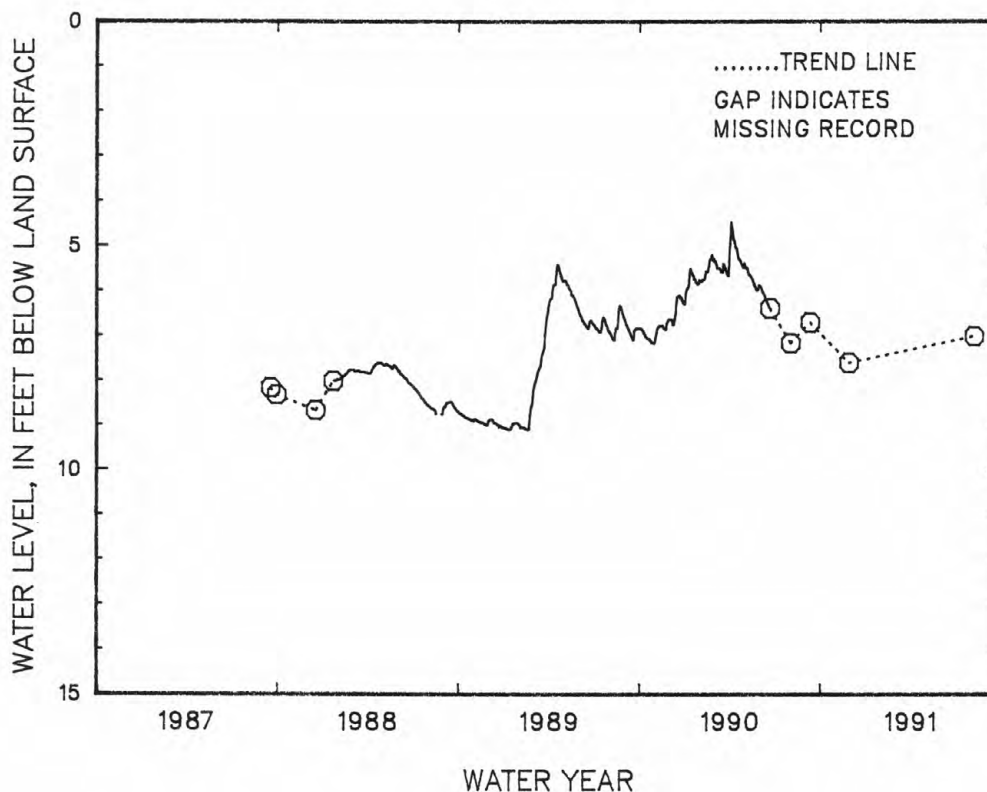
DATUM.--Elevation of land-surface datum is 31.79 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.8 ft above land-surface datum.

PERIOD OF RECORD.--September 1987 to current year. Unpublished records prior to October 1987 available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 4.43 ft below land-surface datum, Apr. 4, 1990; lowest recorded, 9.12 ft below land-surface datum, Jan. 10-14, Feb. 18-21, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

|                 | DATE    | WATER LEVEL | DATE         | WATER LEVEL |      |
|-----------------|---------|-------------|--------------|-------------|------|
|                 | NOV 28  | 7.62        | AUG 07       | 7.02        |      |
| WATER YEAR 1991 | HIGHEST | 7.02        | AUG 07, 1991 | LOWEST      | 7.62 |
|                 |         |             | NOV 28, 1990 |             |      |



## GROUND-WATER LEVELS

## NORTHAMPTON COUNTY

371136075574801. Local number, 63F 32.

LOCATION.--Lat 37°11'36", long 75°57'48", Hydrologic Unit 02080110, 0.3 mi southeast of intersection of U.S.

Highway 13 and a private dirt road, 0.5 mi north of intersection of U.S. Highway 13 and State Highway 646, and 0.6 mi northwest of Townsend. Owner: U.S. Geological Survey.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Driven observation water well, diameter 2 in., depth 12 ft, screened 9 to 12 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Apr. 6, 1988, to Nov. 14, 1990, digital recorder--60-minute punch. Prior to Apr. 6, 1988, bimonthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 28.95 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.4 ft above land-surface datum.

PERIOD OF RECORD.--September 1987 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 3.33 ft below land-surface datum, Apr. 3, 1990; lowest recorded, 7.80 ft below land-surface datum, Jan. 11, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, OCTOBER TO NOVEMBER 1990  
LOWEST VALUES

| DAY | OCT  | NOV  |
|-----|------|------|
| 5   | 6.00 | 6.04 |
| 10  | 6.04 | 6.12 |
| 15  | 6.10 | ---  |
| 20  | 6.16 | ---  |
| 25  | 5.86 | ---  |
| EOM | 5.99 | ---  |

PERIOD OCTOBER TO NOVEMBER 1990

HIGHEST 5.65 OCT 24, 1990

LOWEST 6.18 OCT 22, 23, 1990

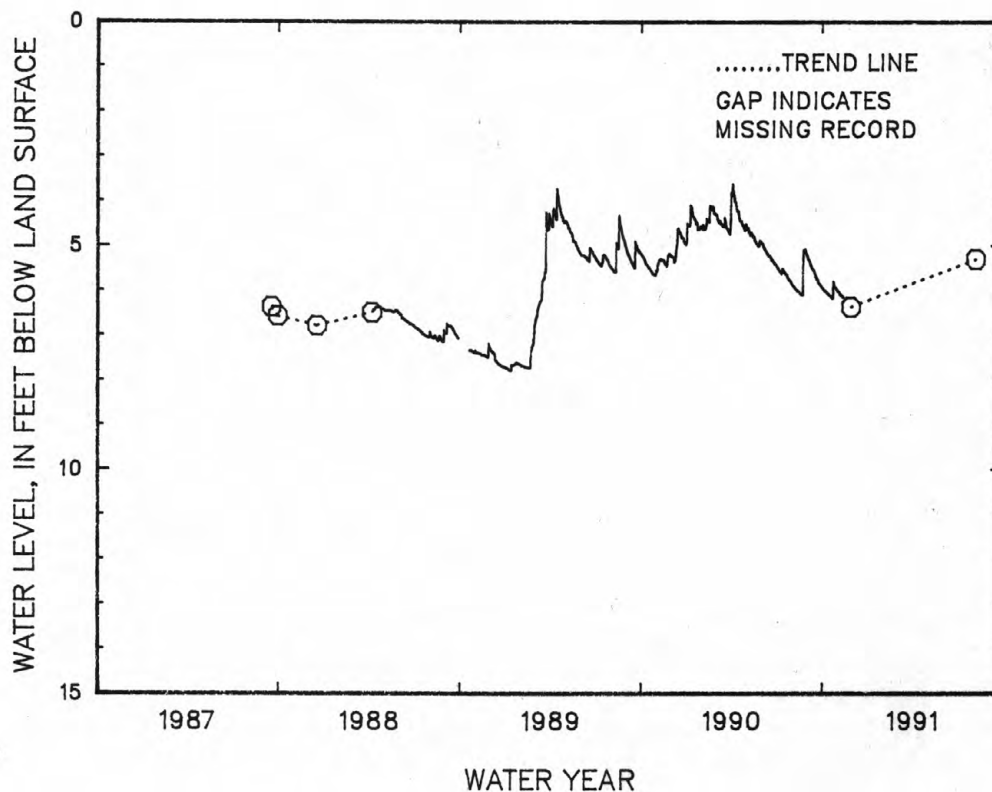
## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, NOVEMBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL |
|--------|----------------|--------|----------------|
| NOV 28 | 6.37           | AUG 07 | 5.29           |

PERIOD NOVEMBER 1990 TO SEPTEMBER 1991

HIGHEST 5.29 AUG 07, 1991

LOWEST 6.37 NOV 28, 1990



## GROUND-WATER LEVELS

217

## NORTHAMPTON COUNTY

371145075580301. Local number, 63F 33.

LOCATION.--Lat 37°11'45", long 75°58'03", Hydrologic Unit 02080110, 100 ft east of U.S. Highway 13, 0.6 mi north of the intersection of U.S. Highway 13 and State Highway 646, and 0.9 mi northwest of Townsend. Owner: U.S. Geological Survey.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Driven observation water well, diameter 2 in., depth 13 ft, screened 10 to 13 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Jan. 22, 1988, to Aug. 15, 1989, digital recorder--60-minute punch and bimonthly measurement with chalked tape. Prior to Jan. 22, 1988, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 29.03 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.3 ft above land-surface datum.

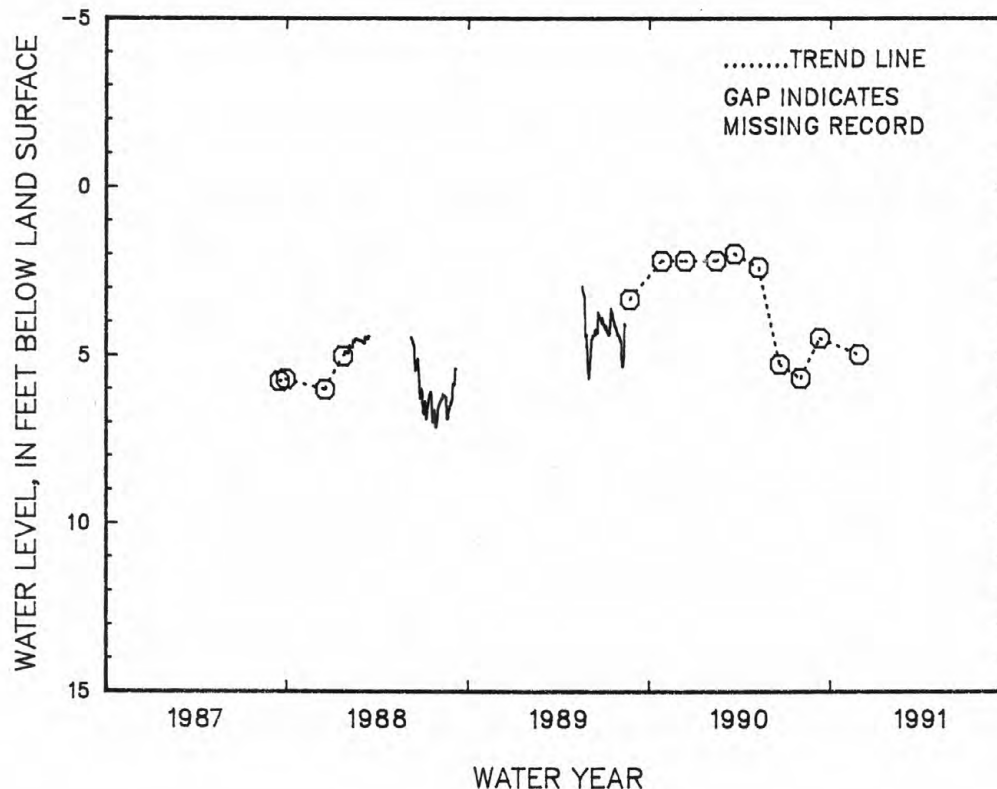
REMARKS.--Water level affected by local pumpage.

PERIOD OF RECORD.--September 1987 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.99 ft below land-surface datum, Mar. 22, 1990; lowest recorded, 7.16 ft below land-surface datum, July 28, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| NOV 28 | 4.99           |



## GROUND-WATER LEVELS

## NORTHAMPTON COUNTY

371307075583601. Local number, 63F 34.

LOCATION.--Lat 37°13'07", long 75°58'36", Hydrologic Unit 02080109, 50 ft south of State Highway 644, 0.35 mi west of intersection of U.S. Highway 13 and State Highway 644, and 1.55 mi northwest of Capeville. Owner: U.S. Geological Survey.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Driven observation water well, diameter 2 in., depth 13 ft, screened 10 to 13 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS and Virginia Water Control Board personnel. Aug. 16 to Sept. 30, 1989, bimonthly measurement with chalked tape by USGS personnel. Jan. 22, 1988, to Aug 16, 1989, digital recorder--60-minute punch. Prior to Jan. 22, 1988, bimonthly measurement with chalked tape.

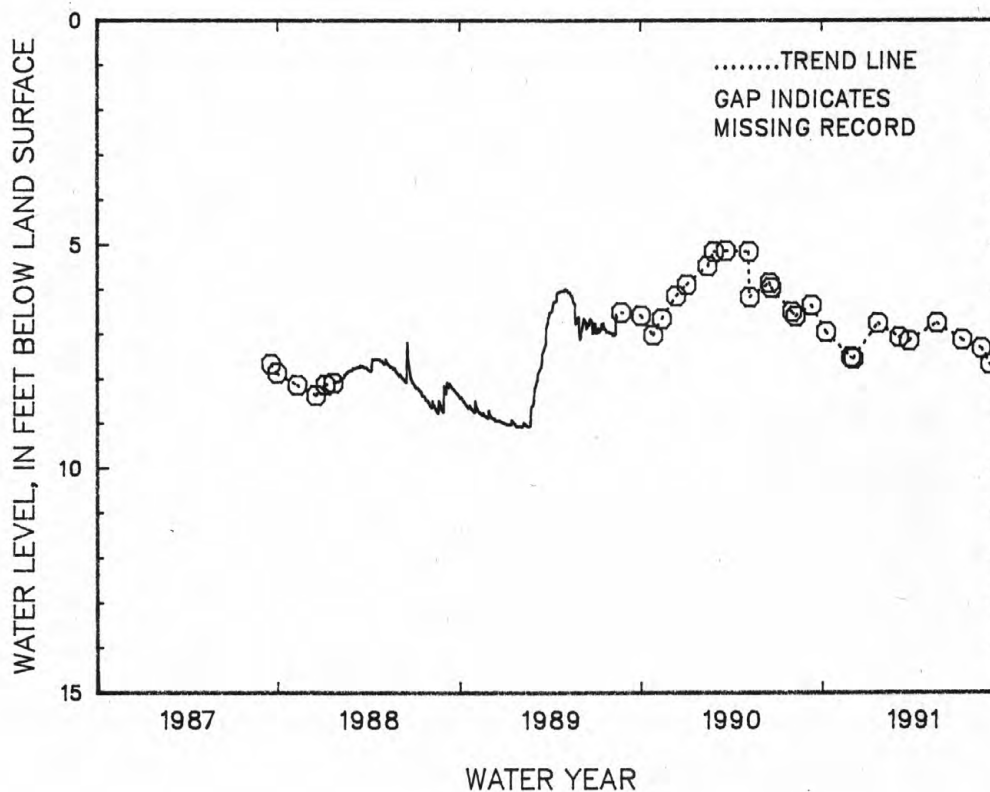
DATUM.--Elevation of land-surface datum is 31.15 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.85 ft above land-surface datum.

PERIOD OF RECORD.--September 1987 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.13 ft below land-surface datum, Mar. 22, 1990; lowest recorded, 9.08 ft below land-surface datum, Feb. 4, 5, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE                 | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|----------------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 09          | 6.95        | DEC 03  | 7.55        | MAR 06               | 7.07        | MAY 21 | 6.75        | AUG 19       | 7.32        | SEP 05 | 7.68        |
| NOV 28          | 7.52        | JAN 22  | 6.75        | 26                   | 7.15        | JUL 11 | 7.13        |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 6.75        | JAN 22, MAY 21, 1991 |             | LOWEST | 7.68        | SEP 05, 1991 |             |        |             |



## GROUND-WATER LEVELS

219

## NORTHAMPTON COUNTY

371301075584401. Local number, 63F 35.

LOCATION.--Lat 37°13'01", long 75°58'44", Hydrologic Unit 02080109, 0.1 mi south of intersection of State Highway 644 and a private dirt road, 0.45 mi west of intersection of U.S. Highway 13 and State Highway 644, and 1.5 mi northwest of Capeville. Owner: U.S. Geological Survey.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Driven observation water well, diameter 2 in., depth 13 ft, screened 10 to 13 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Jan. 22 to Dec. 8, 1988, digital recorder--60-minute punch. Prior to Jan. 22, 1988, bimonthly measurement with chalked tape.

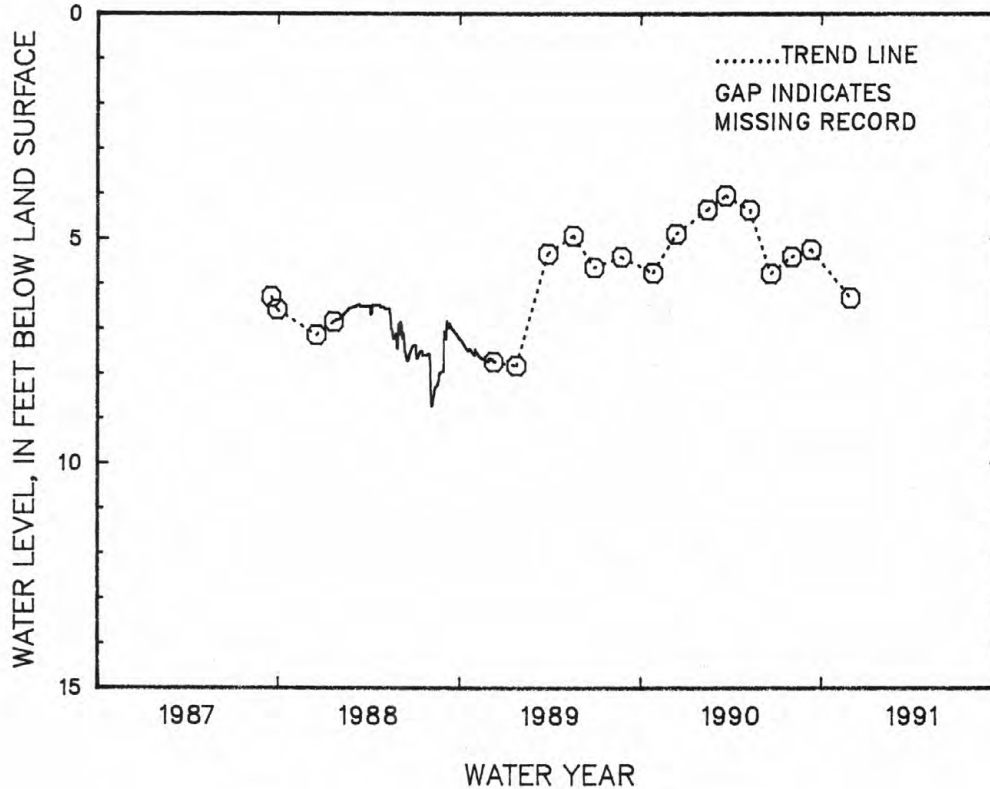
DATUM.--Elevation of land-surface datum is 29.50 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.7 ft above land-surface datum.

PERIOD OF RECORD.--September 1987 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.04 ft below land-surface datum, Mar. 22, 1990; lowest recorded, 8.74 ft below land-surface datum, Aug. 6, 7, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| NOV 28 | 6.32           |



## GROUND-WATER LEVELS

## NORTHAMPTON COUNTY

371125075570205. Local number, 63F 49.

LOCATION.--Lat 37°11'25", long 75°57'02", Hydrologic Unit 02080110, 0.35 mi southeast of the intersection of State Highway 600 and a private dirt road, 0.5 mi northeast of the intersection of State Highways 600 and 646, and 0.6 mi northeast of Townsend. Owner: U.S. Geological Survey.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 17 ft, screened 14 to 17 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Nov. 14, 1990, digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 27.35 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.8 ft above land-surface datum.

PERIOD OF RECORD.--June 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 9.41 ft below land-surface datum, Apr. 19-22, 1989; lowest measured, 13.05 ft below land-surface datum, Nov. 28, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, OCTOBER TO NOVEMBER 1990  
LOWEST VALUES

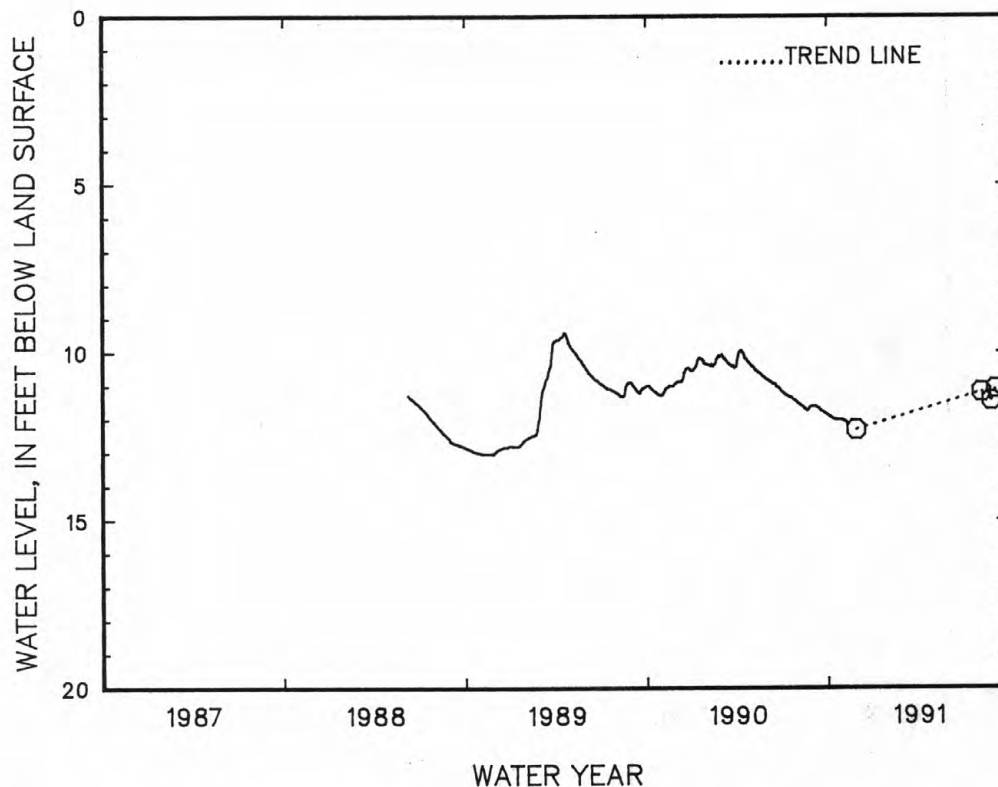
| DAY | OCT   | NOV   |
|-----|-------|-------|
| 5   | 11.91 | 12.06 |
| 10  | 11.96 | 12.11 |
| 15  | 12.01 | ---   |
| 20  | 12.02 | ---   |
| 25  | 12.02 | ---   |
| ECM | 12.03 | ---   |

PERIOD OCTOBER TO NOVEMBER 1990      HIGHEST 11.86 OCT. 1, 1990      LOWEST 12.18 NOV. 14, 1990

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, NOVEMBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| NOV 28 | 12.32       | AUG 07 | 11.19       | AUG 27 | 11.45       | SEP 05 | 11.09       |

PERIOD NOVEMBER 1990 TO SEPTEMBER 1991      HIGHEST 11.09 SEP 05, 1991      LOWEST 12.32 NOV 28, 1990





## NORTHAMPTON COUNTY

370807075570802. Local number, 63F 51 SOW 182A

LOCATION.--Lat 37°08'07", long 75°57'08", Hydrologic Unit 02080110, at Kiptopeke Wildlife Refuge, 0.6 mi southeast of State Highway 600, 0.8 mi southeast of Kiptopeke, and 0.9 mi southeast of intersection of State Highway 600 and U.S. Highway 13. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 1,730 ft, screened 1,720 to 1,730 ft. INSTRUMENTATION.--Bimonthly measurement with manometer and/or chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.2 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--May 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured. 1.35 ft above land-surface datum, May 7, 1990; lowest measured, 0.80 ft above land-surface datum, Dec. 3, 1990.

## WATER LEVEL, IN FEET ABOVE LAND-SURFACE DATUM, MAY TO SEPTEMBER 1990

| DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL |
|--------|----------------|--------|----------------|--------|----------------|
| MAY 07 | 1.35           | JUN 18 | 1.25           | AUG 09 | 1.20           |

NOTE.--Flowing well, readings given are above land-surface datum.

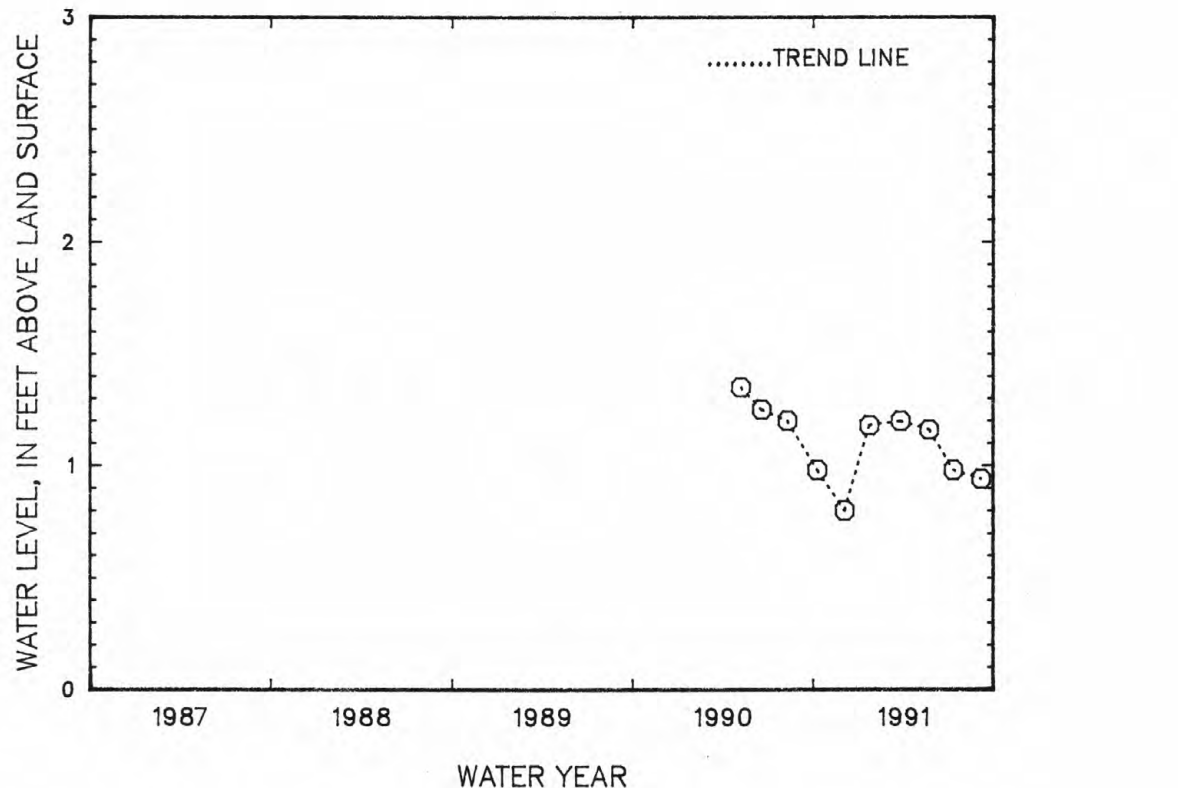
PERIOD MAY TO SEPTEMBER 1990      HIGHEST 1.35 MAY 07, 1990      LOWEST 1.20 AUG 09, 1990

## WATER LEVEL, IN FEET ABOVE LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL |
|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|
| OCT 09 | 0.98           | JAN 22 | 1.18           | MAR 26 | 1.20           | MAY 23 | 1.16           | JUL 11 | 0.98           | SEP 05 | 0.94           |
| DEC 03 | .80            |        |                |        |                |        |                |        |                |        |                |

NOTE.--Flowing well, readings given are above land-surface datum.

WATER YEAR 1991      HIGHEST 1.20 MAR 26, 1991      LOWEST 0.80 DEC 03, 1990



## GROUND-WATER LEVELS

## NORTHAMPTON COUNTY

370807075570803. Local number, 63F 52 SOW 182B.

LOCATION.--Lat 37°08'07", long 75°57'08", Hydrologic Unit 02080110, at Kiptopeke Wildlife Refuge, 0.6 mi southeast of State Highway 600, 0.8 mi southeast of Kiptopeke, and 0.9 mi southeast of intersection of State Highway 600 and U.S. Highway 13. Owner: Virginia Water Control Board.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in. to 1,040 ft, diameter 2 in. from 1,040 to 1,320 ft, depth 1,320 ft, screened 1,300 to 1,320 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.3 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--May 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.12 ft below land-surface datum, Dec. 3, 1990; lowest measured, 27.10 ft below land-surface datum, May 7, 1990.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, MAY TO SEPTEMBER 1990

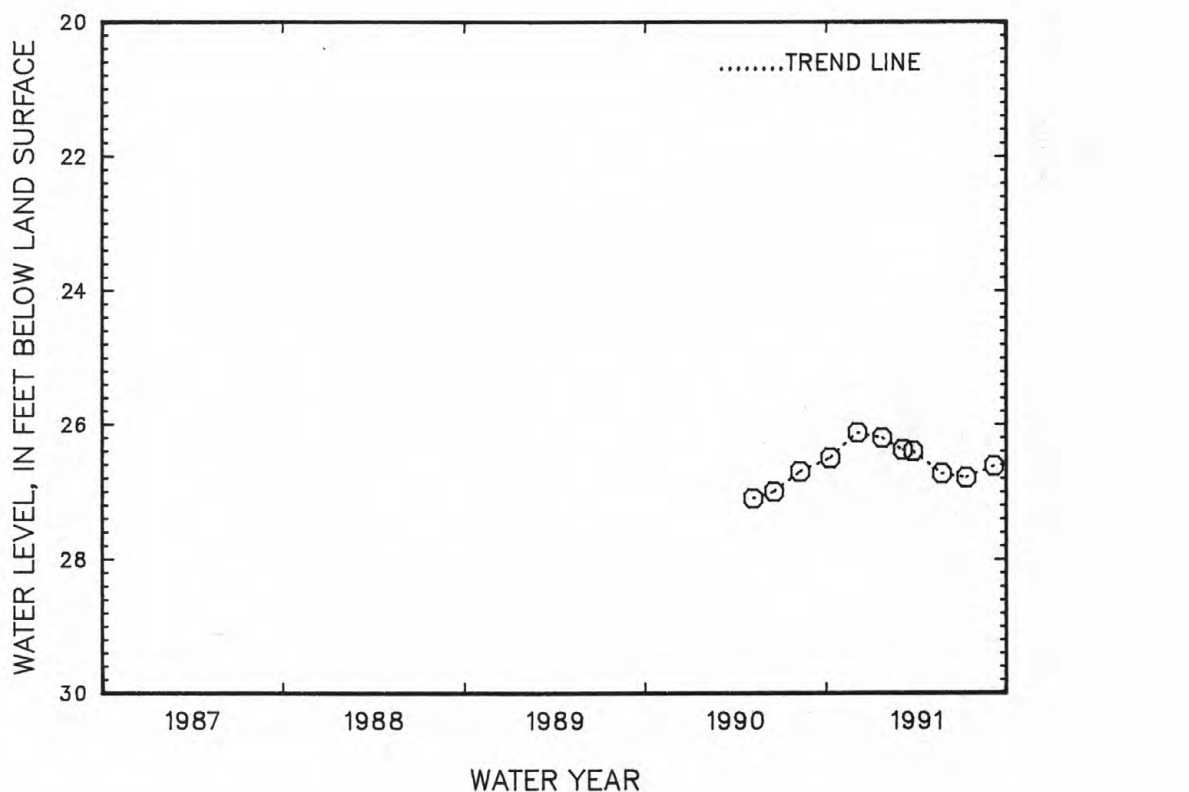
| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|
| MAY 07 | 27.10       | JUN 18 | 27.00       | AUG 09 | 26.70       |

PERIOD MAY TO SEPTEMBER 1990      HIGHEST 26.70    AUG 09, 1990      LOWEST 27.10    MAY 07, 1990

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 09 | 26.50       | JAN 22 | 26.20       | MAR 26 | 26.40       | MAY 23 | 26.73       | JUL 11 | 26.79       | SEP 05 | 26.62       |
| DEC 03 | 26.12       | MAR 05 | 26.38       |        |             |        |             |        |             |        |             |

WATER YEAR 1991      HIGHEST 26.12    DEC 03, 1990      LOWEST 26.79    JUL 11, 1991



## NORTHAMPTON COUNTY

370807075570804. Local number, 63F 53 SOW 182C.

LOCATION.--Lat 37°08'07", long 75°57'08", Hydrologic Unit 02080110, at Kiptopeke Wildlife Refuge, 0.6 mi southeast of State Highway 600, 0.8 mi southeast of Kiptopeke, and 0.9 mi southeast of intersection of State Highway 600 and U.S. Highway 13. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in. to 188 ft, diameter 2 in. from 188 to 220 ft, depth 220 ft, screened 210 to 220 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.4 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--May 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.90 ft below land-surface datum, Jan. 22, 1991; lowest measured, 5.90 ft below land-surface datum, Sept. 5, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, MAY TO SEPTEMBER 1990

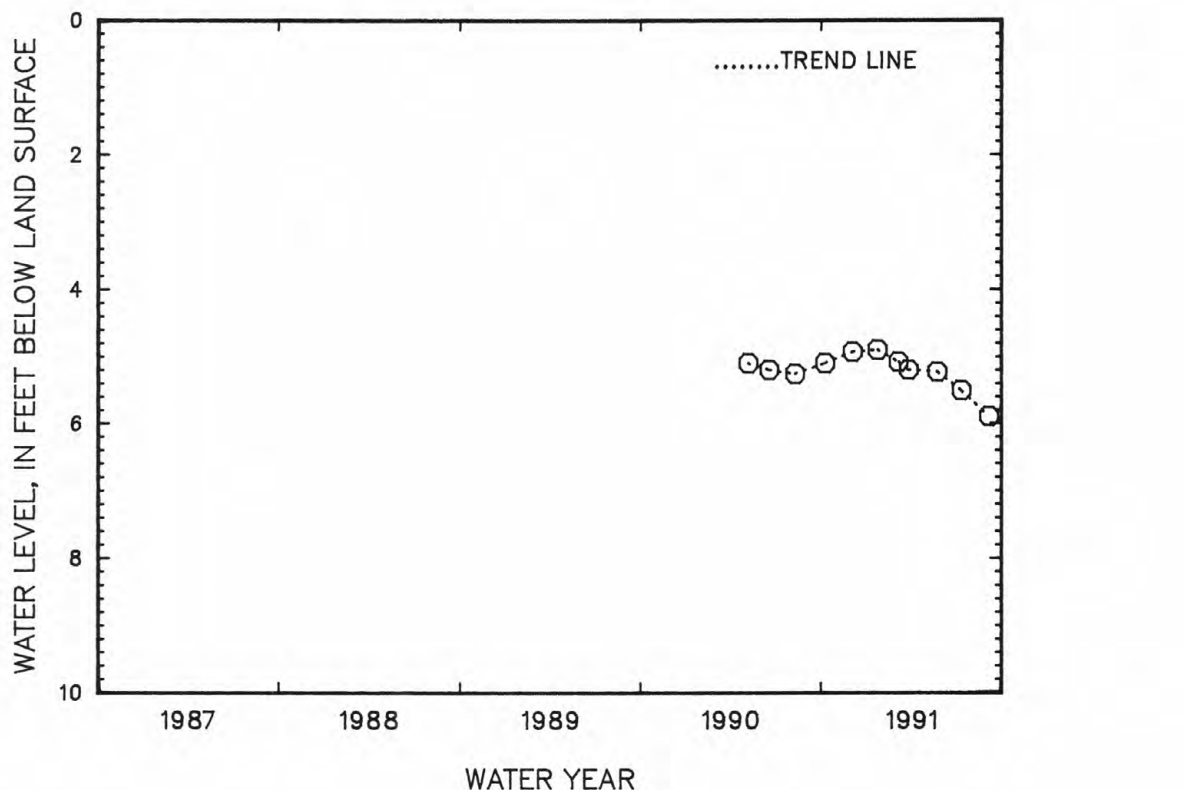
| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|
| MAY 07 | 5.10        | JUN 18 | 5.20        | AUG 09 | 5.26        |

PERIOD MAY TO SEPTEMBER 1990      HIGHEST 5.10 MAY 07, 1990      LOWEST 5.26 AUG 09, 1990

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 09 | 5.10        | JAN 22 | 4.90        | MAR 26 | 5.20        | MAY 23 | 5.23        | JUL 11 | 5.51        | SEP 05 | 5.90        |
| DEC 03 | 4.93        | MAR 05 | 5.08        |        |             |        |             |        |             |        |             |

WATER YEAR 1991      HIGHEST 4.90 JAN 22, 1991      LOWEST 5.90 SEP 05, 1991



## GROUND-WATER LEVELS

## NORTHAMPTON COUNTY

370807075570805. Local number, 63F 54 SOW 182D.

LOCATION.--Lat 37°08'07", long 75°57'08", Hydrologic Unit 02080110, at Kiptopeke Wildlife Refuge, 0.6 mi southeast of State Highway 600, 0.8 mi southeast of Kiptopeke, and 0.9 mi southeast of intersection of State Highway 600 and U.S. Highway 13. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 55 ft, screened 45 to 55 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.3 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--May 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.20 ft below land-surface datum, May 7, 1990; lowest measured, 7.06 ft below land-surface datum, July 11, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, MAY TO SEPTEMBER 1990

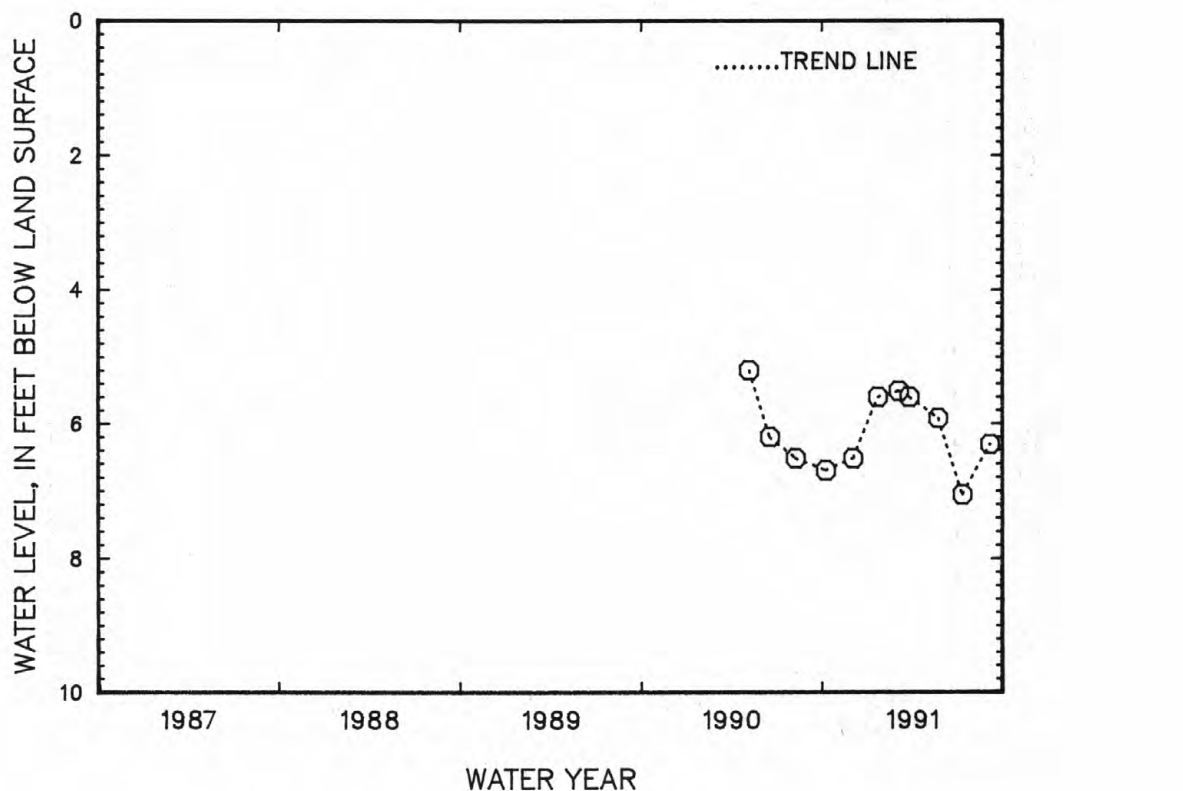
| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|
| MAY 07 | 5.20        | JUN 18 | 6.20        | AUG 09 | 6.52        |

PERIOD MAY TO SEPTEMBER 1990      HIGHEST 5.20 MAY 07, 1990      LOWEST 6.52 AUG 09, 1990

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 09 | 6.70        | JAN 22 | 5.60        | MAR 26 | 5.60        | MAY 23 | 5.92        | JUL 11 | 7.06        | SEP 05 | 6.31        |
| DEC 03 | 6.52        | MAR 05 | 5.51        |        |             |        |             |        |             |        |             |

WATER YEAR 1991      HIGHEST 5.51 MAR 05, 1991      LOWEST 7.06 JUL 11, 1991



## GROUND-WATER LEVELS

225

## NORTHAMPTON COUNTY

370807075570806. Local number, 63F 55 SOW 182E.

LOCATION.--Lat 37°08'07", long 75°57'08", Hydrologic Unit 02080110, at Kiptopeke Wildlife Refuge, 0.6 mi southeast of State Highway 600, 0.8 mi southeast of Kiptopeke, and 0.9 mi southeast of intersection of State Highway 600 and U.S. Highway 13. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

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

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.3 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--May 1990 to current year.

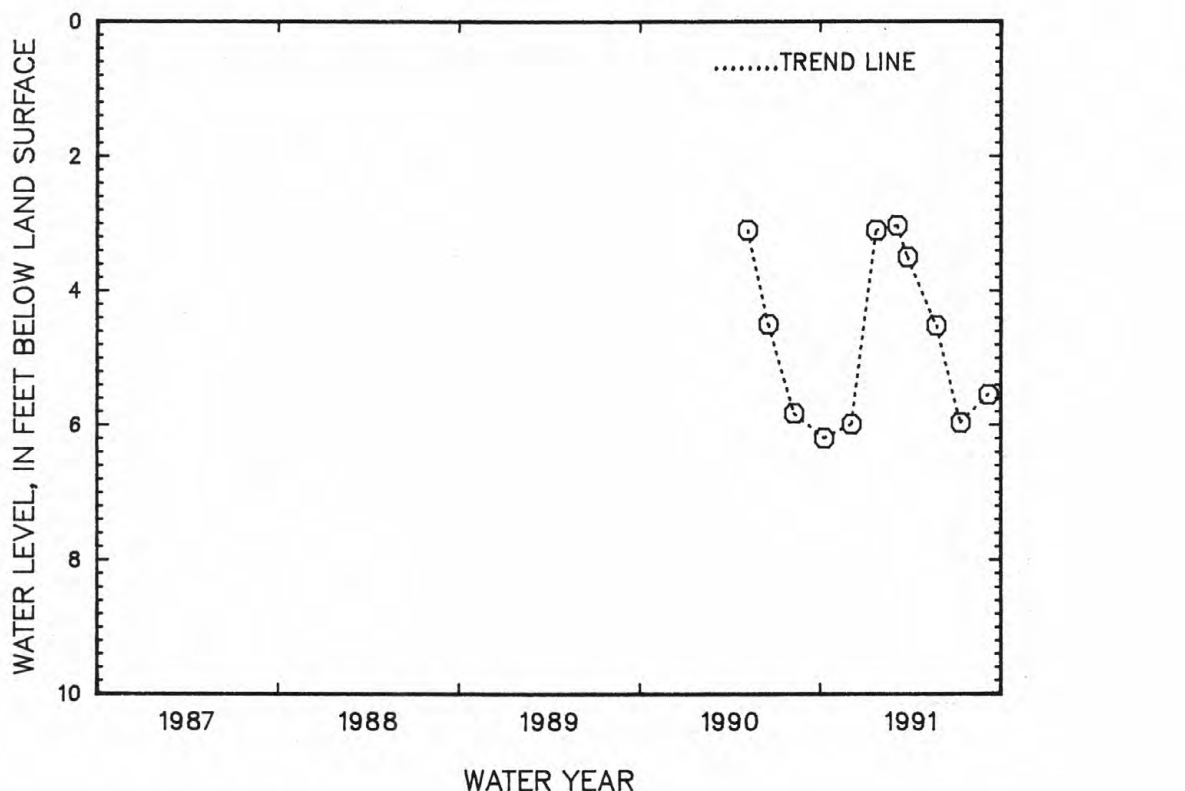
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.03 ft below land-surface datum, Mar. 5, 1991; lowest measured, 6.20 ft below land surface datum, Oct. 9, 1990.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, MAY TO SEPTEMBER 1990

| DATE                                                                                      | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-------------------------------------------------------------------------------------------|-------------|--------|-------------|--------|-------------|
| MAY 07                                                                                    | 3.10        | JUN 18 | 4.50        | AUG 09 | 5.83        |
| PERIOD MAY TO SEPTEMBER 1990      HIGHEST 3.10 MAY 07, 1990      LOWEST 5.83 AUG 09, 1990 |             |        |             |        |             |

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE                                                                         | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|------------------------------------------------------------------------------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 09                                                                       | 6.20        | JAN 22 | 3.10        | MAR 26 | 3.50        | MAY 23 | 4.52        | JUL 11 | 5.97        | SEP 05 | 5.55        |
| DEC 03                                                                       | 5.99        | MAR 05 | 3.03        |        |             |        |             |        |             |        |             |
| WATER YEAR 1991      HIGHEST 3.03 MAR 05, 1991      LOWEST 6.20 OCT 09, 1990 |             |        |             |        |             |        |             |        |             |        |             |



## GROUND-WATER LEVELS

## NORTHAMPTON COUNTY

371709075560801. Local number, 63G 15 SOW 104C.

LOCATION.--Lat 37°17'09", long 75°56'08", Hydrologic Unit 02080110, 50 ft north of State Highway 639, 0.1 mi east of intersection of State Highways 600 and 639, and 0.7 mi west of Oyster. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 310 ft, screened 300 to 310 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to July 15, 1985, occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 28 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 1.24 ft above land-surface datum prior to Nov. 10, 1986; 1.75 ft thereafter.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by pumpage.

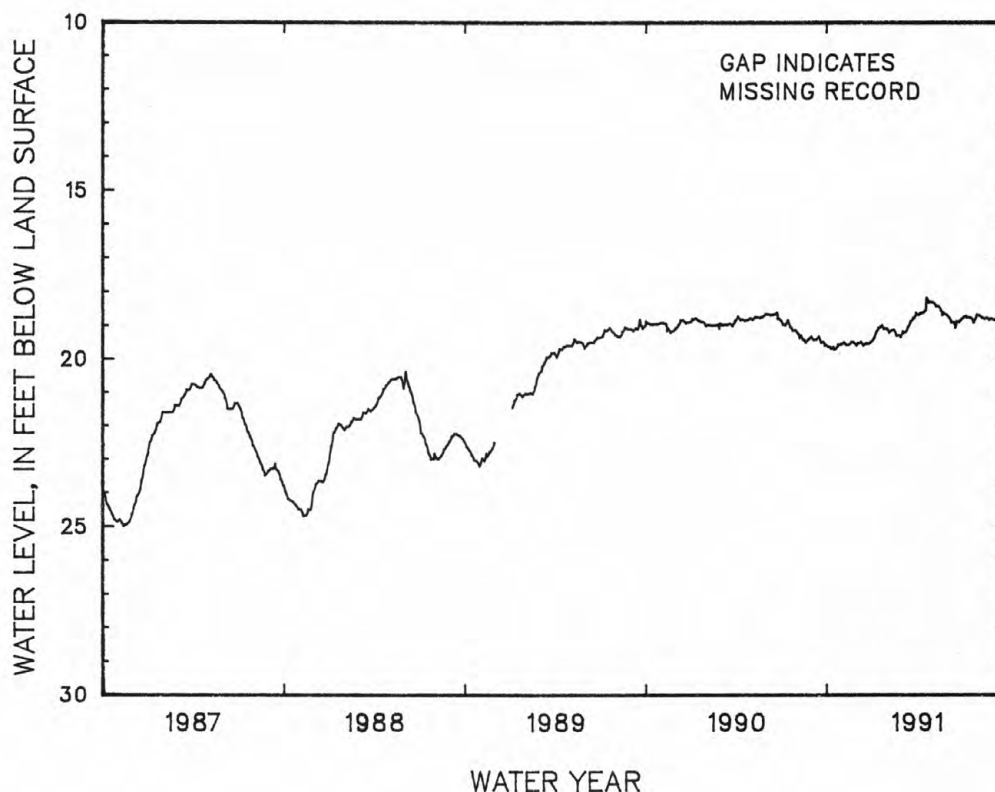
PERIOD OF RECORD.--October 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 18.20 ft below land-surface datum, Apr. 21, 22, 1991; lowest measured, 27.96 ft below land-surface datum, Oct. 8, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 19.65 | 19.52 | 19.54 | 19.40 | 19.20 | 19.20 | 18.68 | 18.32 | 18.76 | 18.75 | 18.70 | 18.84 |
| 10  | 19.70 | 19.58 | 19.50 | 19.20 | 19.15 | 19.20 | 18.63 | 18.42 | 18.90 | 18.72 | ---   | 18.80 |
| 15  | 19.66 | 19.59 | 19.60 | 19.08 | 19.13 | 19.06 | 18.62 | 18.44 | 18.91 | 18.76 | 18.80 | 18.80 |
| 20  | 19.70 | 19.51 | 19.55 | 19.03 | 19.30 | 18.90 | 18.53 | 18.55 | 18.90 | 18.78 | 18.77 | 19.23 |
| 25  | 19.59 | 19.50 | 19.56 | 19.09 | 19.30 | 18.80 | 18.31 | 18.63 | 18.90 | 18.90 | 18.82 | 19.37 |
| EOY | 19.57 | 19.59 | 19.49 | 19.10 | 19.34 | 18.65 | 18.30 | 18.68 | 18.82 | 18.70 | 18.80 | 19.40 |

WATER YEAR 1991      HIGHEST 18.20 APR 21, 22, 1991      LOWEST 19.72 OCT 16-18, 1990





## GROUND-WATER LEVELS

227

## NORTHAMPTON COUNTY

371709075560802. Local number, 63G 16 SOW 104B.

LOCATION.--Lat 37°17'09", 75°56'08", Hydrologic Unit 02080110, 50 ft north of State Highway 639, 0.1 mi east of intersection of State Highways 600 and 639, and 0.7 mi west of Oyster. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 240 ft, screened 230 to 240 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 28 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.4 ft above land-surface datum prior to Feb. 29, 1988; 0.9 ft thereafter.

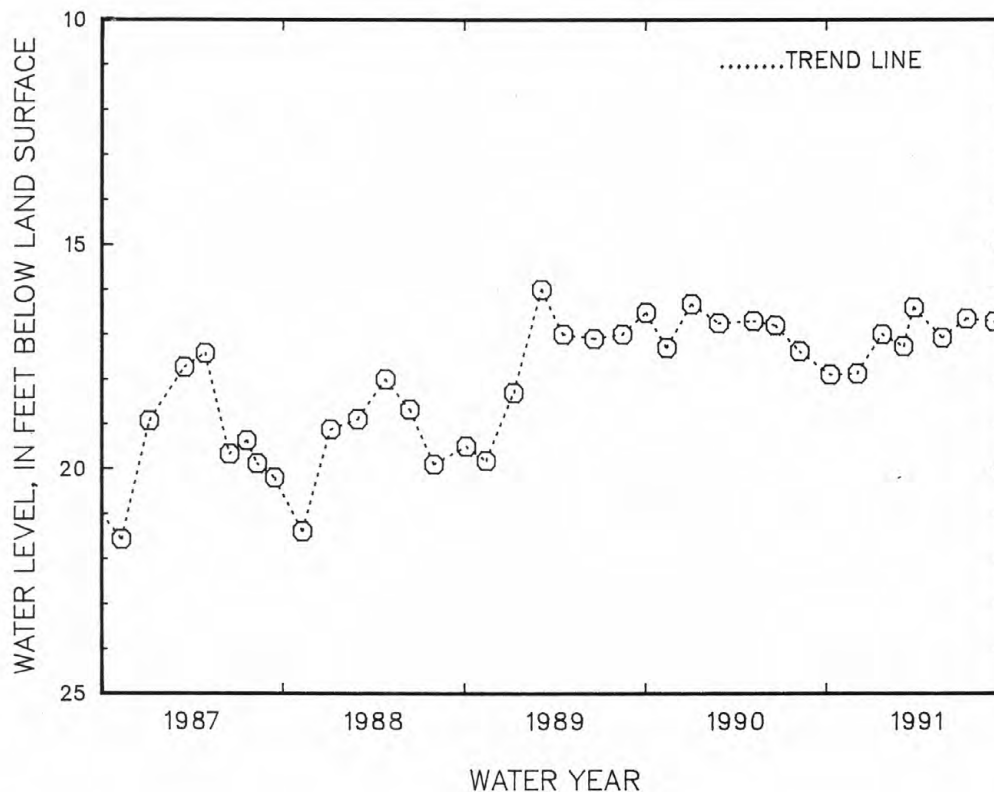
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by pumpage.

PERIOD OF RECORD.--October 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.93 ft below land-surface datum, May 25, 1983; lowest measured, 23.47 ft below land-surface datum, Oct. 8, 1982.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 09          | 17.90       | JAN 22  | 17.00       | MAR 27       | 16.40       | MAY 23 | 17.08       | JUL 11       | 16.65       | SEP 05 | 16.72       |
| DEC 03          | 17.88       | MAR 06  | 17.27       |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 16.40       | MAR 27, 1991 |             | LOWEST | 17.90       | OCT 09, 1990 |             |        |             |



## GROUND-WATER LEVELS

## NORTHAMPTON COUNTY

371709075560803. Local number, 63G 17 SOW 104A.

LOCATION.--Lat 37°17'09", long 75°56'08", Hydrologic Unit 02080110, 50 ft north of State Highway 639, 0.1 mi east of intersection of State Highways 600 and 639, and 0.7 mi west of Oyster. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 140 ft, screened 130 to 140 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 28 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.05 ft above land-surface datum prior to Feb. 29, 1988; 0.5 ft thereafter.

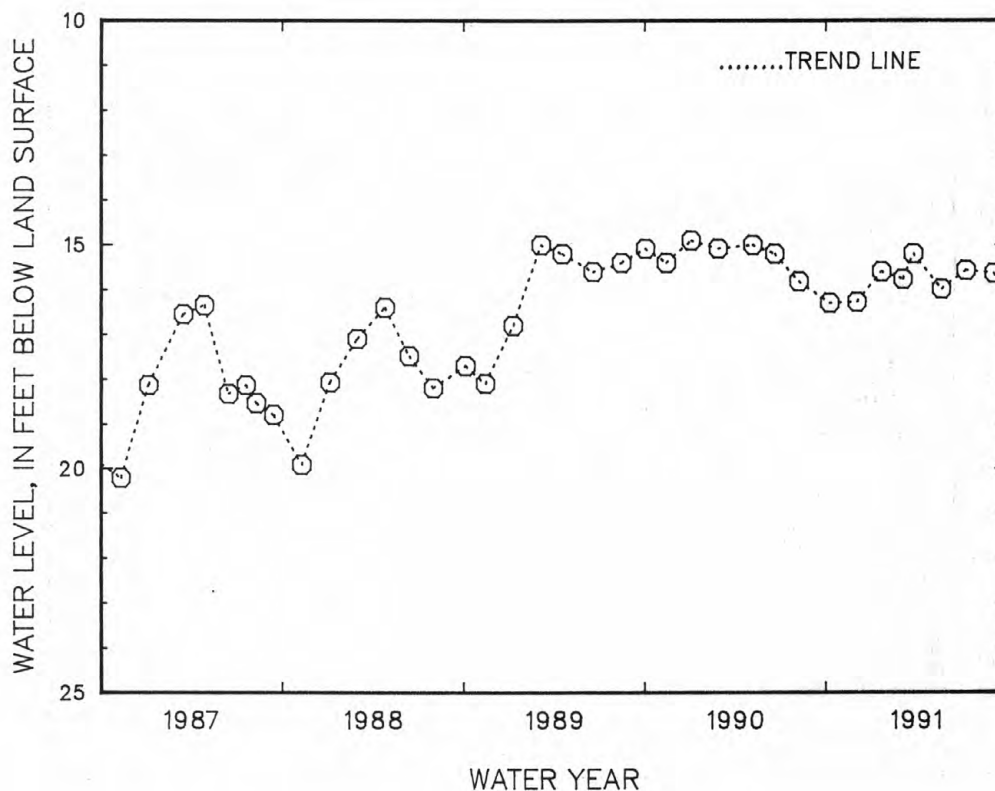
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by pumpage.

PERIOD OF RECORD.--October 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.45 ft below land-surface datum, Apr. 13, 1978; lowest measured, 21.99 ft below land-surface datum, Oct. 8, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 09          | 16.30       | JAN 22  | 15.60       | MAR 27       | 15.20       | MAY 23 | 15.99       | JUL 11       | 15.57       | SEP 05 | 15.64       |
| DEC 03          | 16.28       | MAR 06  | 15.77       |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 15.20       | MAR 27, 1991 |             | LOWEST | 16.30       | OCT 09, 1990 |             |        |             |



## GROUND-WATER LEVELS

229

## NORTHAMPTON COUNTY

371735075572601. Local number, 63G 20 SOW 075.

LOCATION.--Lat 37°17'35", long 75°57'26", Hydrologic Unit 02080101, at Kane Miller Corporation plant 0.4 mi north of State Highway 639, 0.7 mi northwest of intersection of State Highways 637 and 639, and 0.9 mi east of Cheriton. Owner: Kane Miller Corporation.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 20 in. to 56 ft, diameter 10 in. from 56 to 240 ft, depth 240 ft, screened 56 to 61 ft, 95 to 100 ft, 160 to 165 ft, 188 to 193 ft, 210 to 215 ft, 235 to 240 ft.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 35 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 2.6 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

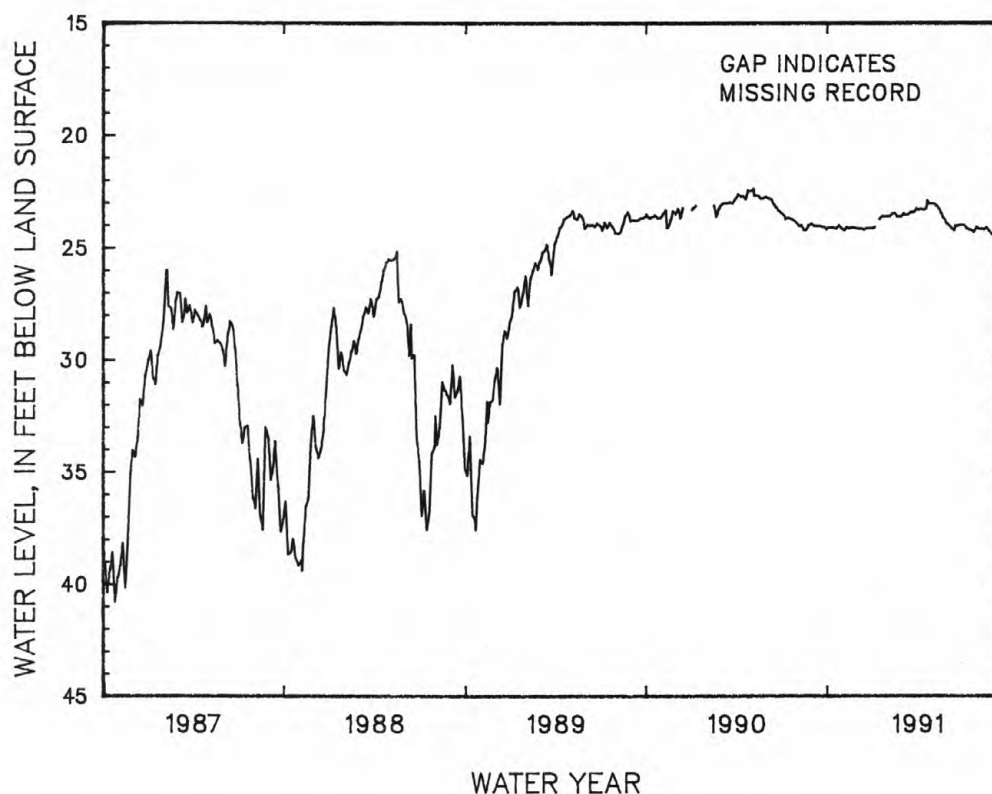
PERIOD OF RECORD.--November 1974 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 22.37 ft below land-surface datum, May 6, 1990; lowest recorded, 85.57 ft below land-surface datum, Aug. 5, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 24.10 | 24.20 | 24.15 | 24.10 | 23.58 | 23.47 | 23.30 | 23.02 | 23.99 | 24.00 | 24.15 | 24.35 |
| 10  | 24.10 | 24.09 | 24.13 | ---   | 23.48 | 23.50 | 23.26 | 23.10 | 24.12 | 24.11 | 24.14 | 24.32 |
| 15  | 24.10 | 24.12 | 24.20 | 23.72 | 23.45 | 23.49 | 23.30 | 23.24 | 24.22 | 24.18 | 24.18 | 24.90 |
| 20  | 24.15 | 24.10 | 24.12 | 23.61 | 23.58 | 23.40 | 23.24 | 23.46 | 24.02 | 24.22 | 24.10 | ---   |
| 25  | 24.01 | 24.09 | 24.13 | 23.59 | 23.58 | 23.40 | 23.00 | 23.68 | 24.01 | 24.30 | 24.23 | ---   |
| EOM | 24.15 | 24.13 | 24.13 | 23.58 | 23.60 | 23.26 | 23.00 | 23.90 | 23.98 | 24.10 | 24.40 | ---   |

WATER YEAR 1991      HIGHEST 22.91 APR 22, 1991      LOWEST 24.90 SEP 12, 15, 1991



## GROUND-WATER LEVELS

## NORTHAMPTON COUNTY

371709075560804. Local number, 63G 21 SOW 104S.

LOCATION.--Lat 37°17'09", long 75°56'08", Hydrologic Unit 02080110, 50 ft north of State Highway 639, 0.1 mi east of intersection of State Highways 600 and 639, and 0.7 mi west of Oyster. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 36 ft, screened 26 to 36 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 28 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.4 ft above land-surface datum.

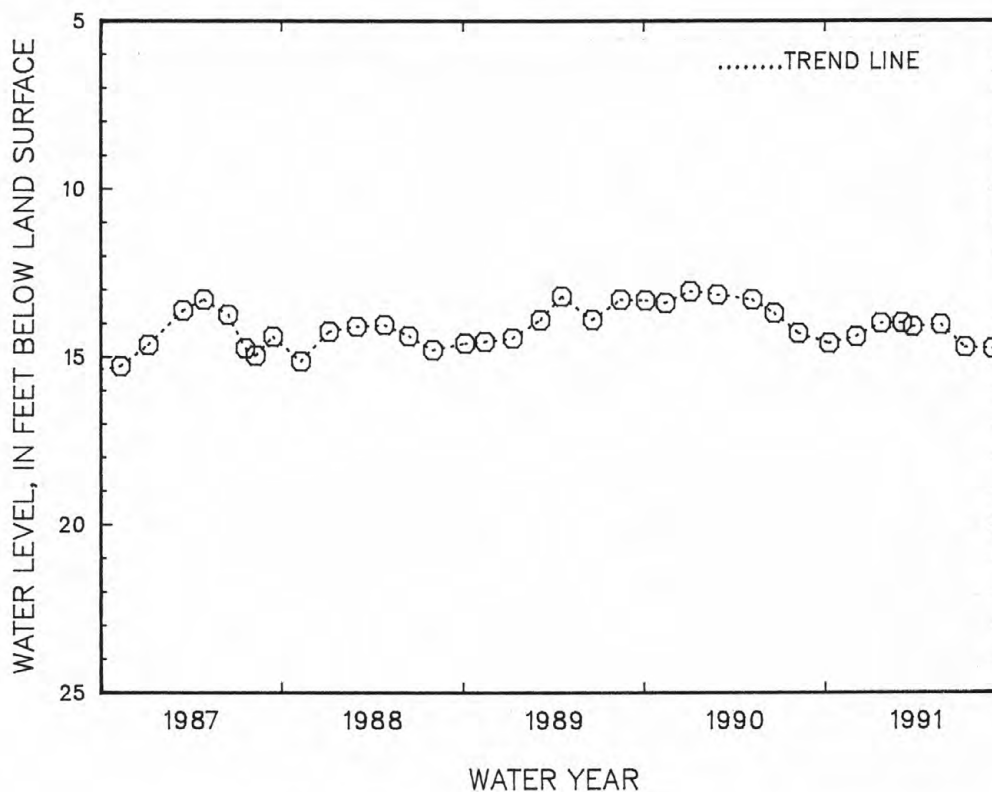
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--October 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.25 ft below land-surface datum, Nov. 23, 1979; lowest measured, 16.35 ft below land-surface datum, Nov. 15, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE                       | WATER LEVEL | DATE                      | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|----------------------------|-------------|---------------------------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 09          | 14.60       | JAN 22                     | 14.00       | MAR 27                    | 14.10       | MAY 23 | 14.04       | JUL 11 | 14.72       | SEP 05 | 14.76       |
| DEC 03          | 14.40       | MAR 06                     | 13.99       |                           |             |        |             |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST 13.99 MAR 06, 1991 |             | LOWEST 14.76 SEP 05, 1991 |             |        |             |        |             |        |             |



## GROUND-WATER LEVELS

231

## NORTHAMPTON COUNTY

371653075584801. Local number, 63G 22 SOW 111A.

LOCATION.--Lat 37°16'53", long 75°58'48", Hydrologic Unit 02080109, 50 ft west of U.S. Highway 13, 0.4 mi north of intersection of U.S. Highway 13 and State Highway 641, and 0.7 mi southwest of Cheriton. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 150 ft, screened 140 to 150 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, at land-surface datum prior to Apr. 27, 1987; 1.60 ft Apr. 27, 1987, to Feb. 29, 1988; 1.1 ft Mar. 1, 1988, to June 19, 1989; 0.80 ft thereafter.

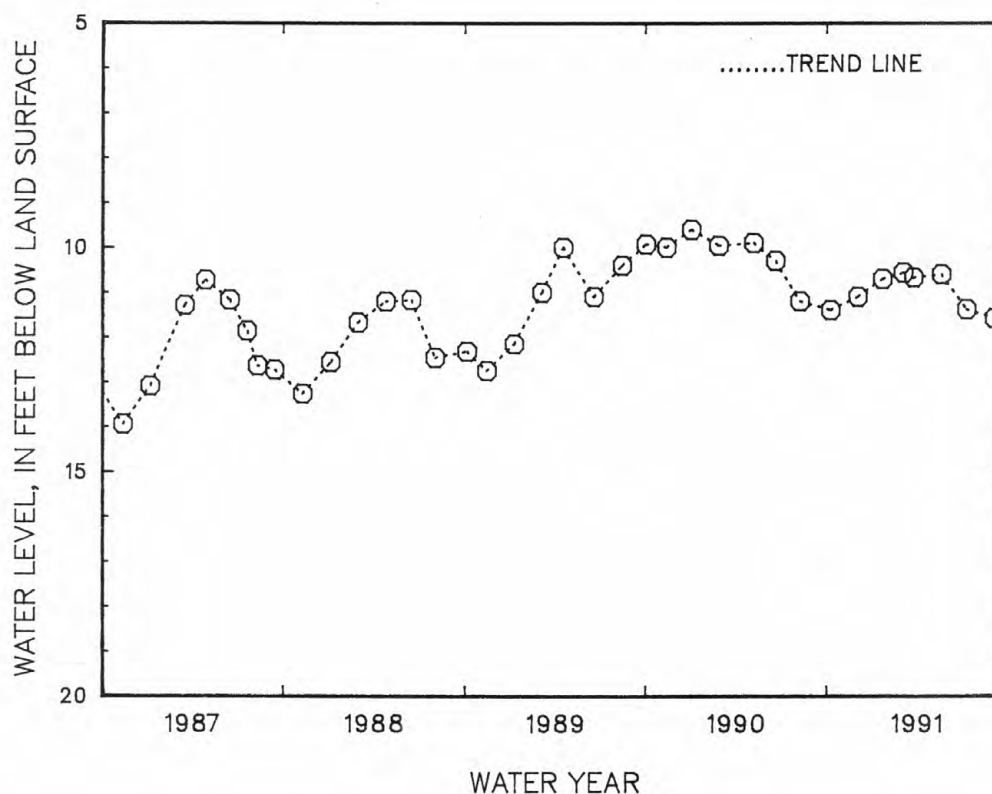
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by pumpage.

PERIOD OF RECORD.--July 1979 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.80 ft below land-surface datum, Feb. 2, 1984; lowest measured, 14.51 ft below land-surface datum, Feb. 17, 1981.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 09          | 11.40       | JAN 22  | 10.70       | MAR 26       | 10.67       | MAY 21 | 10.60       | JUL 11       | 11.38       | SEP 05 | 11.58       |
| DEC 03          | 11.10       | MAR 05  | 10.56       |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 10.56       | MAR 05, 1991 |             | LOWEST | 11.58       | SEP 05, 1991 |             |        |             |



## GROUND-WATER LEVELS

## NORTHAMPTON COUNTY

371653075584802. Local number, 63G 23 SOW 111B.

LOCATION.--Lat 37°16'53", long 75°58'48", Hydrologic Unit 02080109, 50 ft west of U.S. Highway 13, 0.4 mi north of intersection of U.S. Highway 13 and State Highway 641, and 0.7 mi southwest of Cheriton. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 280 ft, screened 270 to 280 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to July 20, 1985, occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 1.42 ft above land-surface datum prior to July 20, 1987; 1.56 ft thereafter.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by pumpage.

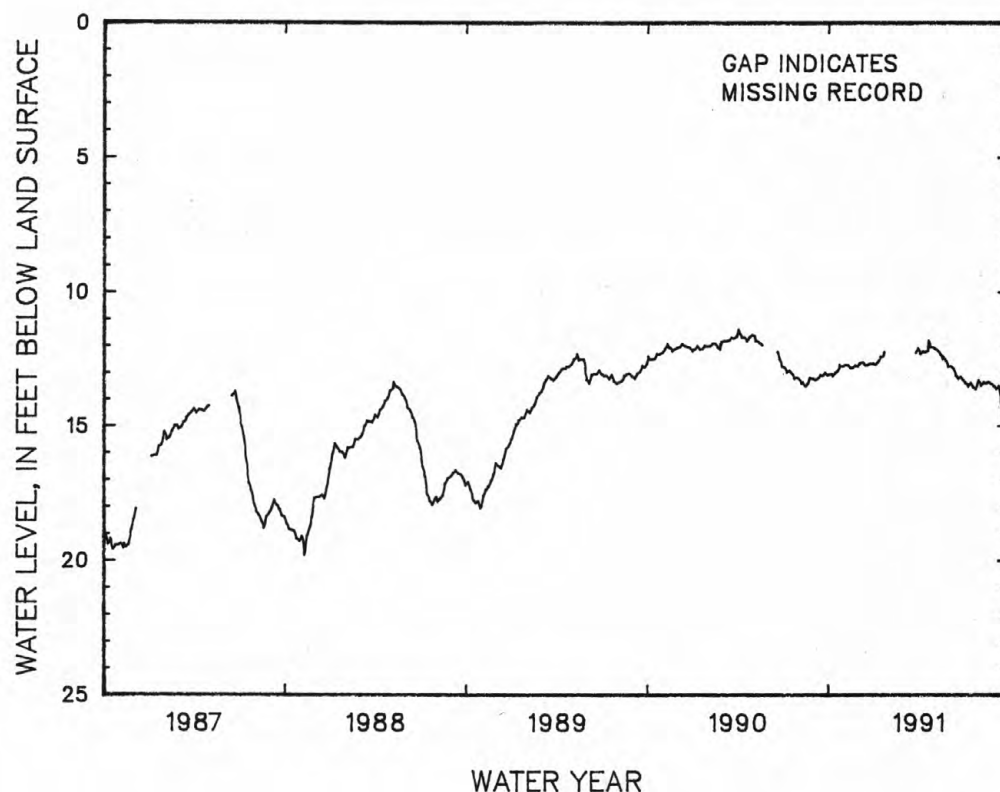
PERIOD OF RECORD.--July 1979 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.01 ft below land-surface datum, Dec. 30, 1982; lowest measured, 22.47 ft below land-surface datum, Sept. 15, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|-------|
| 5   | 13.05 | 12.70 | 12.63 | 12.68 | --- | 12.21 | 12.28 | 12.10 | 12.76 | 13.38 | 13.47 | 13.61 |
| 10  | 13.11 | 12.69 | 12.60 | 12.59 | --- | ---   | 12.20 | 12.17 | 12.83 | 13.50 | 13.37 | 13.52 |
| 15  | 13.00 | 12.80 | 12.70 | 12.41 | --- | ---   | 12.22 | 12.31 | 13.08 | 13.40 | 13.40 | 14.11 |
| 20  | 12.93 | 12.80 | 12.70 | 12.37 | --- | ---   | 12.18 | 12.47 | 13.21 | 13.54 | 13.34 | 14.81 |
| 25  | 12.72 | 12.72 | 12.65 | ---   | --- | ---   | 12.02 | 12.52 | 13.15 | 13.62 | 13.41 | 14.30 |
| EOM | 12.75 | 12.75 | 12.65 | ---   | --- | 12.10 | 12.05 | 12.75 | 13.27 | 13.30 | 13.50 | 14.08 |

WATER YEAR 1991      HIGHEST 11.80 APR 21, 1991      LOWEST 14.82 SEP 19, 1991





## GROUND-WATER LEVELS

233

## NORTHAMPTON COUNTY

371653075584803. Local number, 63G 24 SOW 111C.

LOCATION.--Lat 37°16'53", long 75°58'48", Hydrologic Unit 02080109, 50 ft west of U.S. Highway 13, 0.4 mi north of intersection of U.S. Highway 13 and State Highway 641, and 0.7 mi southwest of Cheriton. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 330 ft, screened 320 to 330 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.67 ft above land-surface datum prior to Feb. 28, 1988; 1.95 ft thereafter.

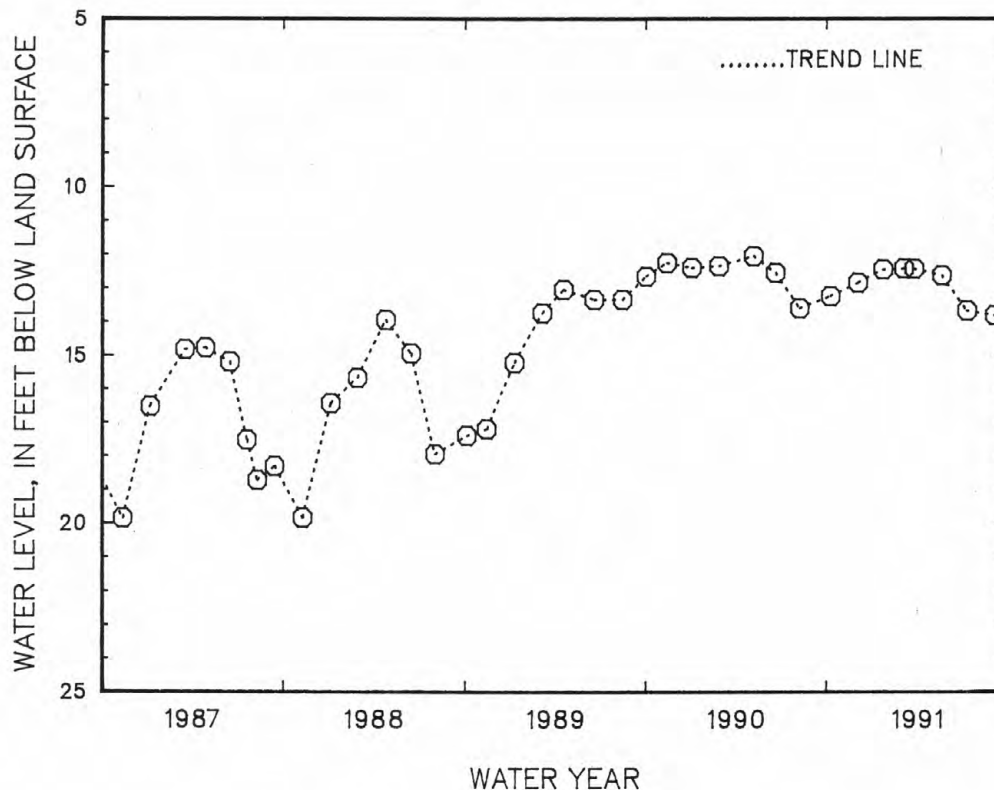
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by pumpage.

PERIOD OF RECORD.--July 1979 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.01 ft below land-surface datum, Feb. 17, 1981; lowest measured, 22.71 ft below land-surface datum, Sept. 15, 1982.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 09          | 13.25       | JAN 22  | 12.45       | MAR 26       | 12.43       | MAY 21 | 12.63       | JUL 11       | 13.68       | SEP 05 | 13.82       |
| DEC 03          | 12.85       | MAR 05  | 12.42       |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 12.42       | MAR 05, 1991 |             | LOWEST | 13.82       | SEP 05, 1991 |             |        |             |



## GROUND-WATER LEVELS

## NORTHAMPTON COUNTY

371653075584804. Local number, 63G 25 SOW 111S.

LOCATION.--Lat 37°16'53", long 75°58'48", Hydrologic Unit 02080109, 50 ft west of U.S. Highway 13, 0.4 mi north of intersection of U.S. Highway 13 and State Highway 641, and 0.7 mi southwest of Cheriton. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 1.5 in., depth 70 ft, screened 60 to 70 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.64 ft above land-surface datum.

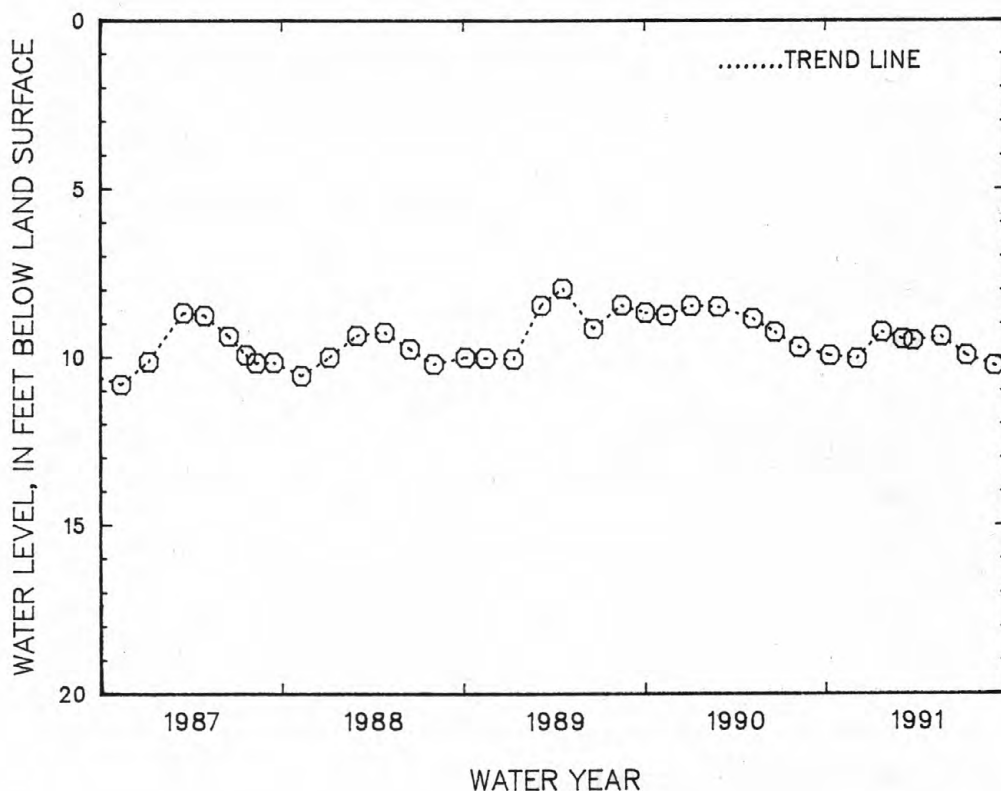
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--July 1979 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.96 ft below land-surface datum, Apr. 18, 1989; lowest measured, 10.82 ft below land-surface datum, Nov. 11, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 09          | 9.96        | JAN 22  | 9.26        | MAR 26       | 9.51        | MAY 21 | 9.39         | JUL 11 | 9.96        | SEP 05 | 10.26       |
| DEC 03          | 10.06       | MAR 05  | 9.47        |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 9.26        | JAN 22, 1991 | LOWEST      | 10.26  | SEP 05, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

235

## NORTHAMPTON COUNTY

371726075572801. Local number, 63G 26 SOW 160.

LOCATION.--Lat 37°17'26", long 75°57'28", Hydrologic Unit 02080110, at Kane Miller Corporation plant, 0.4 mi north of State Highway 639, 0.7 mi northwest of intersection of State Highways 637 and 639, and 0.8 mi east of Cheriton. Owner: Kane Miller Corporation.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 2 in., depth 320 ft, screened 310 to 320 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 34 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.5 ft above land-surface datum.

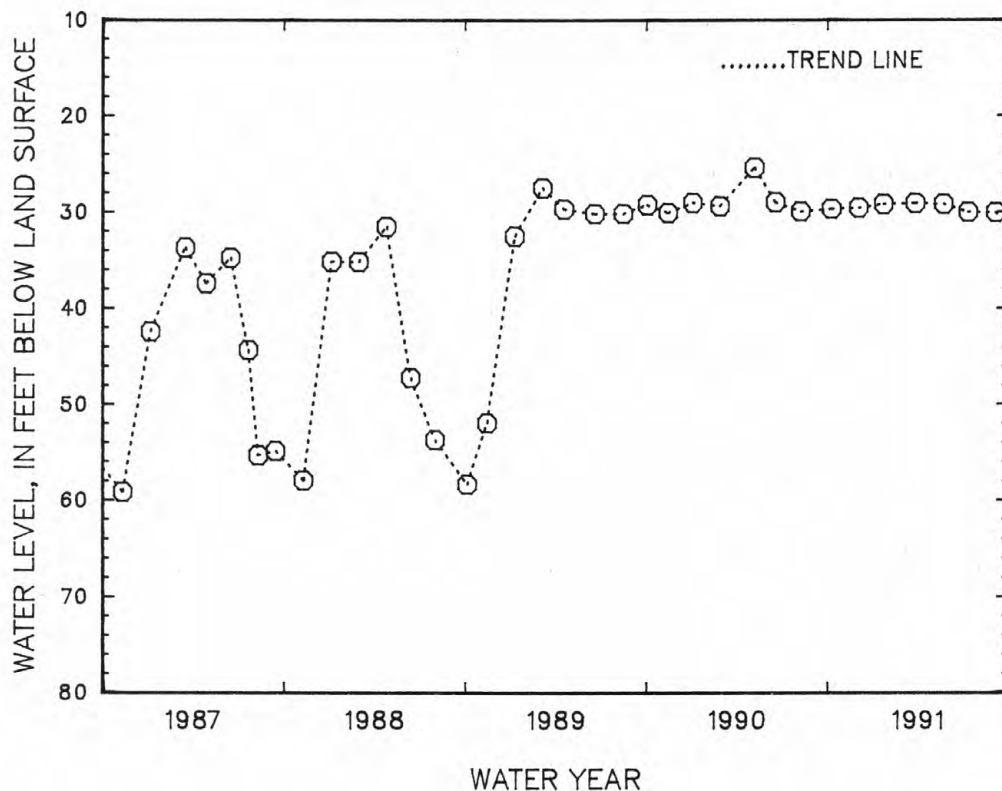
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by pumpage.

PERIOD OF RECORD.--June 1979 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.99 ft below land-surface datum, July 23, 1980; lowest measured, 74.90 ft below land-surface datum, Oct. 16, 1981.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE          | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|---------------|-------------|--------|-------------|
| OCT 09          | 29.70       | JAN 22  | 29.20       | MAR 27       | 29.10       | MAY 23 | 29.19       | JUL 11        | 30.05       | SEP 05 | 30.09       |
| DEC 03          | 29.60       |         |             |              |             |        |             |               |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 29.10       | MAR 27, 1991 |             | LOWEST | 30.09       | SEPT 05, 1991 |             |        |             |



## GROUND-WATER LEVELS

## NORTHAMPTON COUNTY

371710075552201. Local number, 63G 27 SOW 161.

LOCATION.--Lat 37°17'10", long 75°55'22", Hydrologic Unit 02080110, 15 ft south of State Highway 639, 100 ft southeast of intersection of State Highways 639 and 1801, and at town of Oyster. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 185 ft, screened 175 to 185 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 5.5 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.8 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

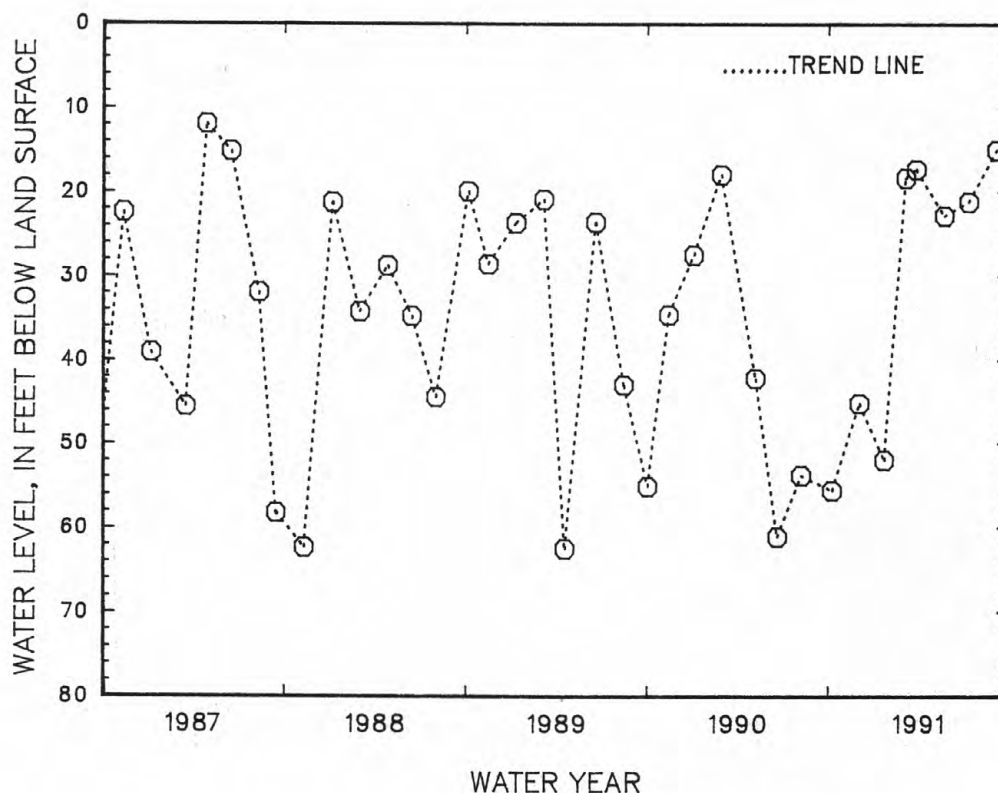
PERIOD OF RECORD.--April 1980 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.45 ft below land-surface datum, Dec. 5, 1980; lowest measured, 70.91 ft below land-surface datum, Dec. 18, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 09 | 55.60       | JAN 22 | 52.00       | MAR 27 | 17.30       | MAY 23 | 22.83       | JUL 11 | 21.17       | SEP 05 | 15.02       |
| DEC 03 | 45.17       | MAR 06 | 18.34       |        |             |        |             |        |             |        |             |

WATER YEAR 1991      HIGHEST 15.02 SEP 05, 1991      LOWEST 55.60 OCT 09, 1990



## GROUND-WATER LEVELS

237

## NORTHAMPTON COUNTY

372705075555901. Local number, 63H 4 SOW 103C.

LOCATION.--Lat 37°27'06", long 75°55'59", Hydrologic Unit 02080109, 0.2 mi north of State Highway 619, 0.5 mi northwest of intersection of State Highways 619 and 622, and 0.5 mi northwest of Bridgetown. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 235 ft, screened 225 to 235 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 17 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.5 ft above land-surface datum prior to Mar 1, 1988; 0.8 ft thereafter.

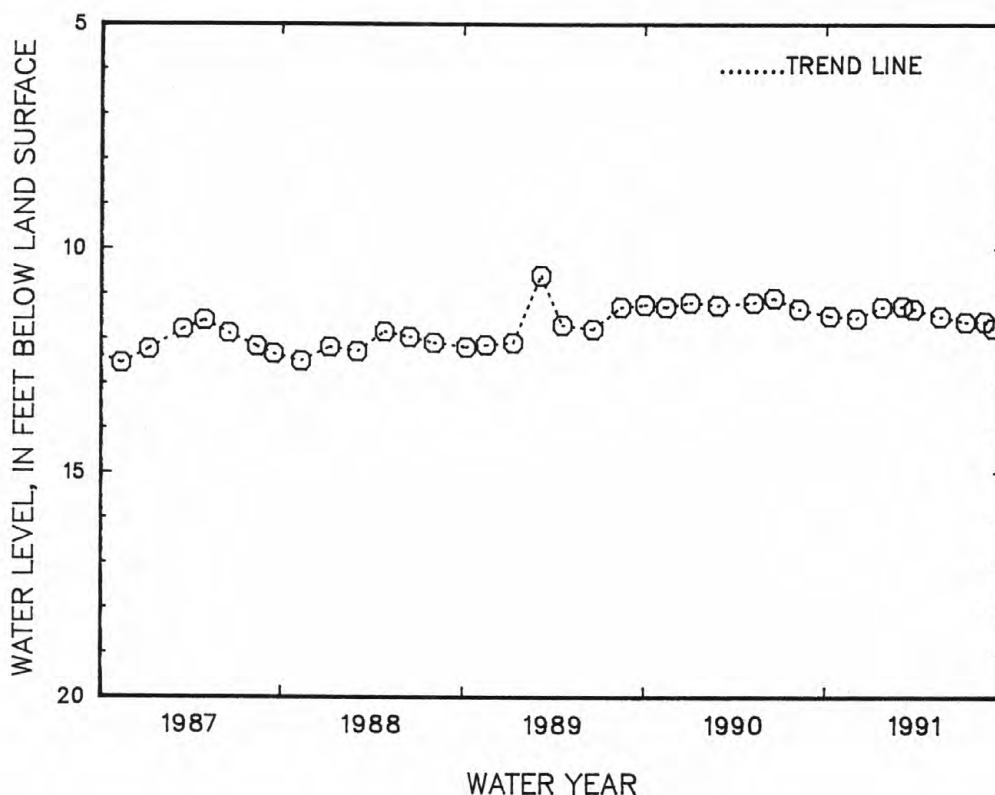
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--October 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.15 ft below land-surface datum, May 1, 1979; lowest measured, 12.56 ft below land-surface datum, Nov. 11, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 10          | 11.50       | JAN 23  | 11.30       | MAR 28       | 11.34       | JUL 11 | 11.63        | AUG 19 | 11.62       | SEP 05 | 11.77       |
| DEC 03          | 11.55       | MAR 06  | 11.28       | MAY 21       | 11.51       |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 11.28       | MAR 06, 1991 | LOWEST      | 11.77  | SEP 05, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

## NORTHAMPTON COUNTY

37270507555902. Local number, 63H 5 SOW 103B.

LOCATION.--Lat 37°27'05", long 75°55'59", Hydrologic Unit 02080109, 0.2 mi north of State Highway 619, 0.5 mi northwest of intersection of State Highways 619 and 622, and 0.5 mi northwest of Bridgetown. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 132 ft, screened 122 to 132 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 17 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.55 ft above land-surface datum prior to Mar. 1, 1988; 1.25 ft thereafter.

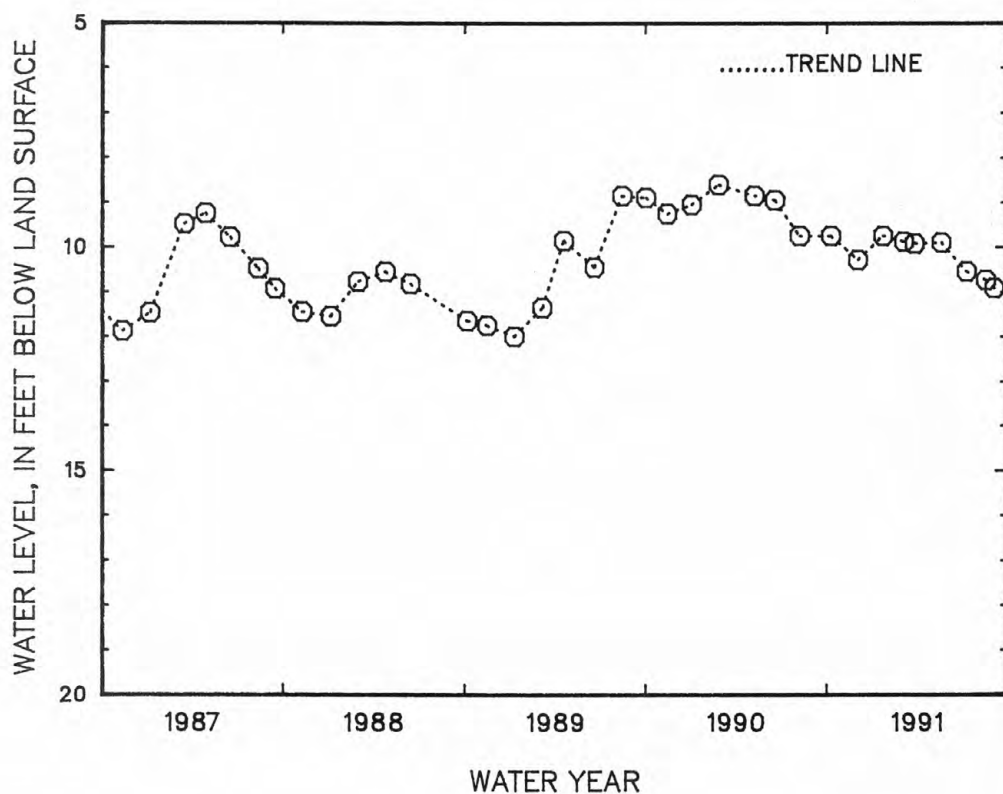
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--October 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.90 ft below land-surface datum, Feb. 1, 1979; lowest measured, 12.00 ft below land-surface datum, Jan. 9, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE                       | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|----------------------------|-------------|--------|-------------|--------|--------------|--------|-------------|
| OCT 10          | 9.75        | JAN 23  | 9.75        | MAR 28                     | 9.92        | JUL 11 | 10.55       | AUG 19 | 10.74        | SEP 05 | 10.92       |
| DEC 03          | 10.29       | MAR 06  | 9.88        | MAY 21                     | 9.90        |        |             |        |              |        |             |
| WATER YEAR 1991 |             | HIGHEST | 9.75        | OCT 10, 1990, JAN 23, 1991 |             |        | LOWEST      | 10.92  | SEP 05, 1991 |        |             |





## GROUND-WATER LEVELS

239

## NORTHAMPTON COUNTY

372705075555903. Local number, 63H 6 SOW 103A.

LOCATION.--Lat 37°27'05", long 75°55'59", Hydrologic Unit 02080109, 0.2 mi north of State Highway 619, 0.5 mi northwest of intersection of State Highways 619 and 622, and 0.5 mi northwest of Bridgetown. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 37 ft, screened 27 to 37 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 17 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.2 ft above land-surface datum.

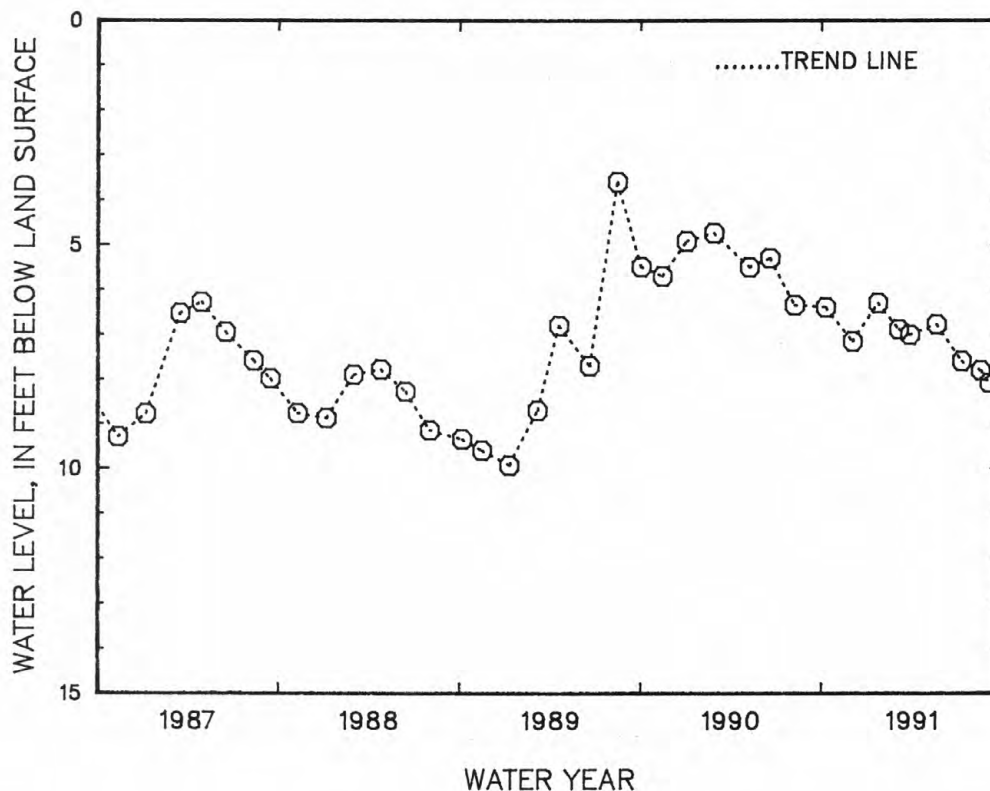
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--October 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.94 ft below land-surface datum, Aug. 2, 1979; lowest measured, 9.93 ft below land-surface datum, Jan. 9, 1989.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 6.40        | JAN 23  | 6.30        | MAR 28       | 7.01        | JUL 11 | 7.60        | AUG 19       | 7.81        | SEP 05 | 8.09        |
| DEC 03          | 7.16        | MAR 06  | 6.89        | MAY 21       | 6.78        |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 6.30        | JAN 23, 1991 |             | LOWEST | 8.09        | SEP 05, 1991 |             |        |             |



## GROUND-WATER LEVELS

## NORTHAMPTON COUNTY

373230075541001. Local number, 63J 1 SOW 113A.

LOCATION.--Lat 37°32'16", long 75°54'07", Hydrologic Unit 02080109, 0.15 mi north of State Highway 183, 0.4 mi east of intersection of State Highways 183 and 611, and 1.3 mi west of Wardtown. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 120 ft, screened 110 to 120 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 22 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.32 ft above land-surface datum prior to Oct. 6, 1988; 1.5 ft thereafter.

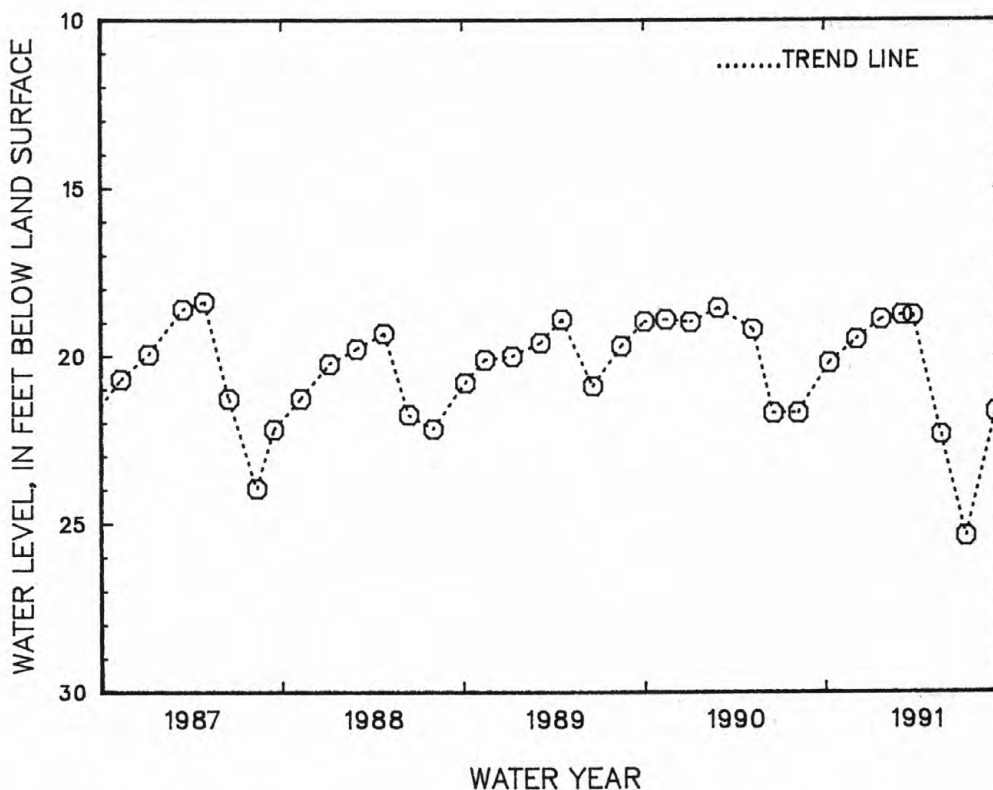
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

PERIOD OF RECORD.--July 1981 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.79 ft below land-surface datum, Apr. 21, 1983; lowest measured, 28.00 ft below land-surface datum, July 15, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 20.20       | JAN 23  | 18.90       | MAR 28       | 18.78       | MAY 23 | 22.35       | JUL 11       | 25.37       | SEP 10 | 21.66       |
| DEC 04          | 19.50       | MAR 06  | 18.77       |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 18.77       | MAR 06, 1991 |             | LOWEST | 25.37       | JUL 11, 1991 |             |        |             |



## GROUND-WATER LEVELS

241

## NORTHAMPTON COUNTY

373230075541002. Local number, 63J 2 SOW 113B.

LOCATION.--Lat 37°32'16", long 75°54'07", Hydrologic Unit 02080109, 0.15 mi north of State Highway 183, 0.40 mi east of intersection of State Highways 183 and 611, and 1.3 mi west of Wardtown. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 225 ft, screened 215 to 225 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 22 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.52 ft above land-surface datum prior to Oct. 6, 1988; 1.3 ft thereafter.

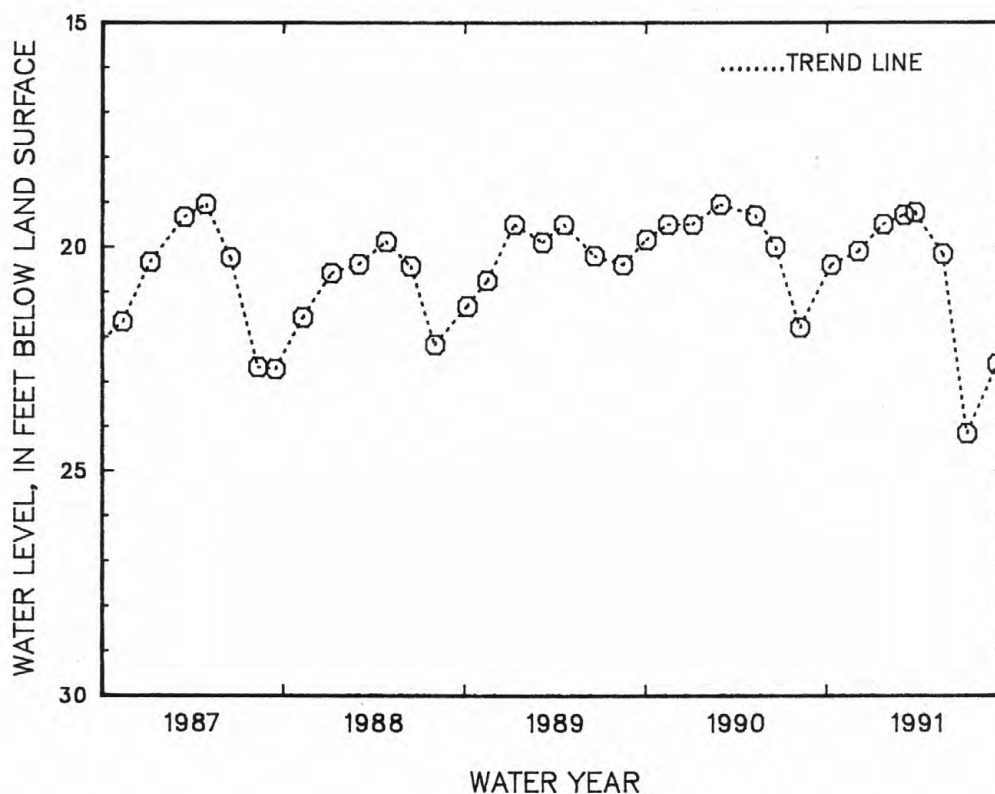
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

PERIOD OF RECORD.--July 1981 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.20 ft below land-surface datum, Apr. 21, 1983; lowest measured, 24.52 ft below land-surface datum, Aug. 4, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 20.40       | JAN 23  | 19.50       | MAR 28       | 19.23       | MAY 23 | 20.16       | JUL 11       | 24.17       | SEP 10 | 22.61       |
| DEC 04          | 20.10       | MAR 06  | 19.29       |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 19.23       | MAR 28, 1991 |             | LOWEST | 24.17       | JUL 11, 1991 |             |        |             |



## GROUND-WATER LEVELS

## NORTHAMPTON COUNTY

373230075541003. Local number, 63J 3 SOW 113C.

LOCATION.--Lat 37°32'16", long 75°54'07", Hydrologic Unit 02080109, 0.15 mi north of State Highway 183, 0.4 mi east of intersection of State Highways 183 and 611, and 1.3 mi west of Wardtown. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 290 ft, screened 280 to 290 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 22 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.44 ft above land-surface datum.

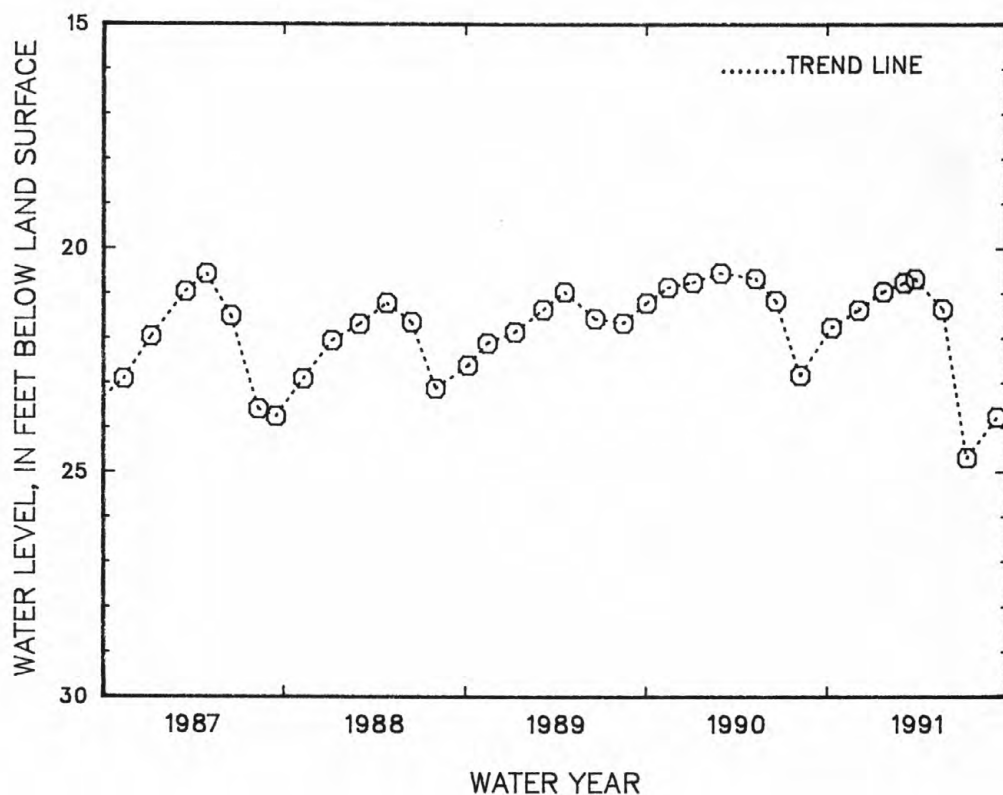
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

PERIOD OF RECORD.--July 1981 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.26 ft below land-surface datum, Apr. 21, 1983; lowest measured, 24.84 ft below land-surface datum, Aug. 4, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 10          | 21.76       | JAN 23  | 20.96       | MAR 28       | 20.67       | MAY 23 | 21.35        | JUL 11 | 24.69       | SEP 10 | 23.77       |
| DEC 04          | 21.37       | MAR 06  | 20.76       |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 20.67       | MAR 28, 1991 | LOWEST      | 24.69  | JUL 11, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

243

## NORTHAMPTON COUNTY

373059075484501. Local number, 64J 9 SOW 112A.

LOCATION.--Lat 37°30'59", long 75°48'45", Hydrologic Unit 02080109, 100 ft northeast of State Highway 660, 0.3 mi southeast of intersection of State Highways 660 and 600, and 0.3 mi west of Willis Wharf. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 135 ft, screened 125 to 135 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 30 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, at land-surface datum prior to Feb. 29, 1988; 0.7 ft thereafter.

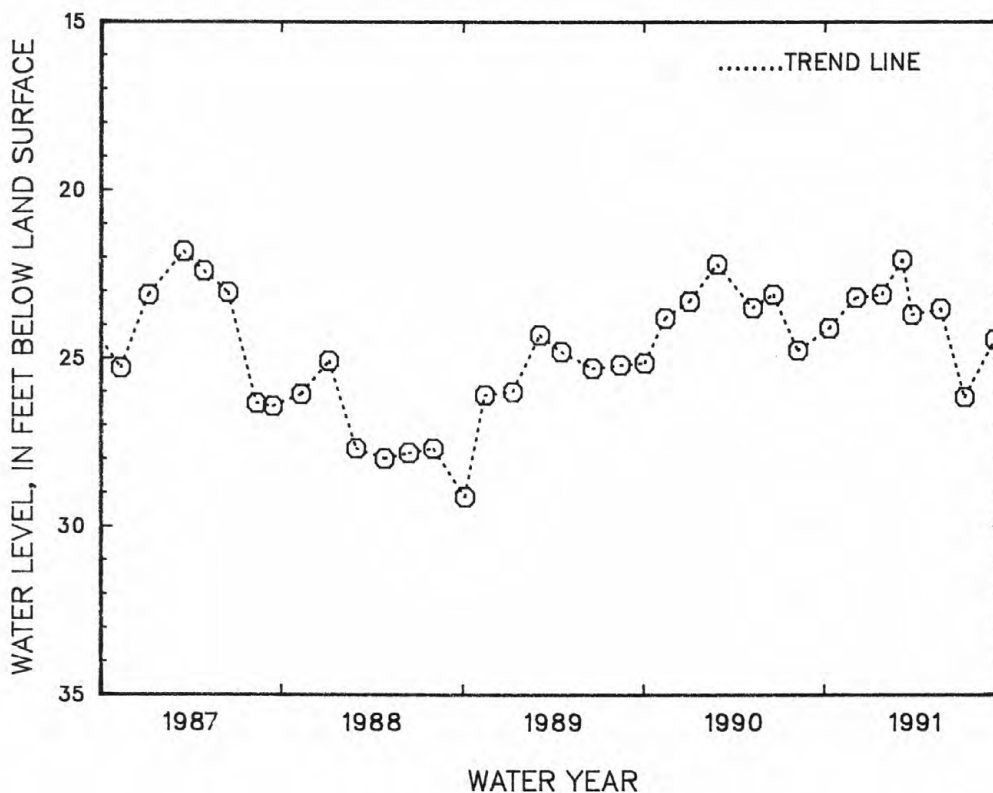
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--July 1979 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.25 ft below land-surface datum, Oct. 29, 1981; lowest measured, 33.57 ft below land-surface datum, July 18, 1980.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 10          | 24.10       | JAN 24  | 23.10       | MAR 26       | 23.70       | MAY 23 | 23.53        | JUL 11 | 26.17       | SEP 10 | 24.44       |
| DEC 03          | 23.19       | MAR 06  | 22.07       |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 22.07       | MAR 06, 1991 | LOWEST      | 26.17  | JUL 11, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

## NORTHAMPTON COUNTY

373059075484502. Local number, 64J 10 SOW 112B.

LOCATION.--Lat 37°30'59", long 75°48'45", Hydrologic Unit 02080109, 100 ft northeast of State Highway 660, 0.3 mi southeast of intersection of State Highways 600 and 660, and 0.3 mi west of Willis Wharf. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 210 ft, screened 200 to 210 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to Oct. 5, 1985, occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 30 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 1.5 ft above land-surface datum prior to Aug. 12, 1987; 1.6 ft thereafter.

REMARKS.--Records provided by the Virginia Water Control Board.

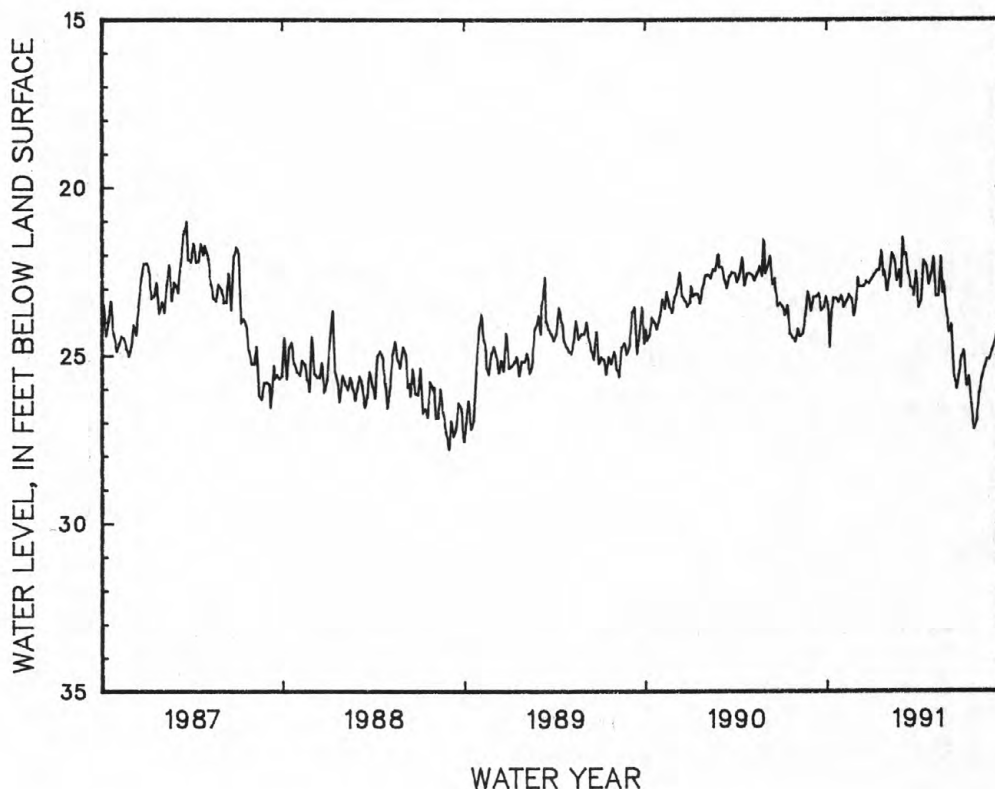
PERIOD OF RECORD.--July 1979 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 21.02 ft below land-surface datum, Mar. 22, 1987; lowest measured, 31.29 ft below land-surface datum, Oct. 1, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 23.63 | 23.54 | 22.93 | 22.59 | 22.60 | 21.72 | 23.56 | 22.09 | 24.29 | 24.87 | 26.12 | 24.62 |
| 10  | 23.81 | 23.38 | 22.92 | 22.47 | 21.96 | 21.95 | 23.37 | 23.22 | 24.09 | 25.88 | 25.65 | 24.28 |
| 15  | 23.28 | 23.19 | 22.93 | 22.45 | 22.12 | 22.54 | 22.15 | 23.21 | 25.68 | 25.65 | 25.37 | 24.24 |
| 20  | 23.28 | 23.29 | 22.79 | 21.89 | 22.75 | 22.95 | 22.28 | 22.07 | 25.99 | 26.43 | 25.12 | 24.21 |
| 25  | 23.38 | 23.80 | 22.84 | 22.48 | 22.47 | 23.04 | 22.86 | 22.82 | 25.60 | 27.20 | 25.11 | 23.83 |
| EQM | 23.22 | 23.33 | 22.71 | 23.05 | 22.95 | 22.50 | 22.56 | 23.63 | 25.06 | 26.95 | 24.87 | 23.97 |

WATER YEAR 1991 HIGHEST 21.50 MAR 04, 1991 LOWEST 27.20 JUL 25, 1991





## GROUND-WATER LEVELS

245

## NORTHAMPTON COUNTY

373059075484503. Local number, 64J 11 SOW 112C.

LOCATION.--Lat 37°30'59", long 75°48'45", Hydrologic Unit 02080109, 100 ft northeast of State Highway 660, 0.3 mi southeast of intersection of State Highways 600 and 660, and 0.3 mi west of Willis Wharf. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 313 ft, screened 303 to 313 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 30, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 30 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.4 ft above land-surface datum prior to Apr. 27, 1987; 0.65 ft thereafter.

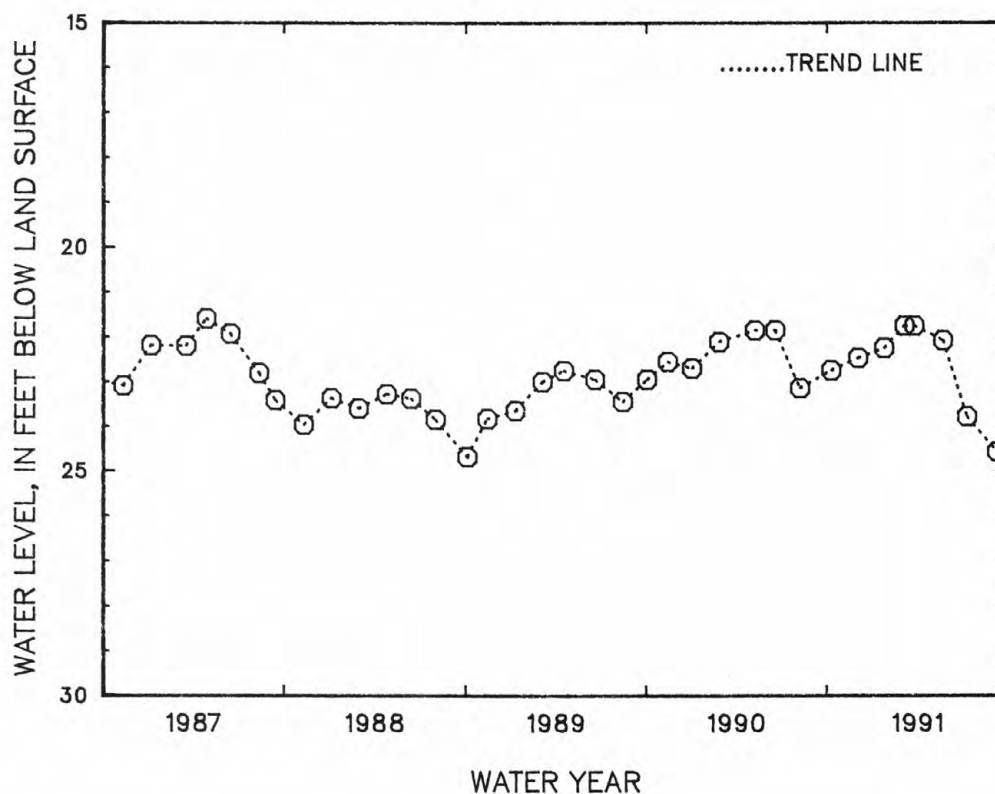
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--July 1979 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.78 ft below land-surface datum, Mar. 29, 1984; lowest measured, 35.70 ft below land-surface datum, Dec. 5, 1980.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE             | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|------------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 22.75       | JAN 24  | 22.25       | MAR 26           | 21.75       | MAY 23 | 22.08       | JUL 11       | 23.79       | SEP 10 | 24.58       |
| DEC 03          | 22.47       | MAR 06  | 21.75       |                  |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 21.75       | MAR 06, 26, 1991 |             | LOWEST | 24.58       | SEP 10, 1991 |             |        |             |



## NORTHAMPTON COUNTY

373046075482501. Local number, 64J 13 SOW 120.

LOCATION.--Lat 37°30'46", long 75°48'25", Hydrologic Unit 02080110, at American Original Corporation plant, 10 ft east of State Highway 603, 0.1 mi northeast of intersection of State Highways 603 and 660, and 0.3 mi south of Willis Wharf. Owner: American Original Corporation.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 8 in., depth 105 ft, screened 95 to 105 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to Aug. 31, 1985, occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 7 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 0.7 ft above land-surface datum prior to Aug. 11, 1987; 1.5 ft thereafter.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

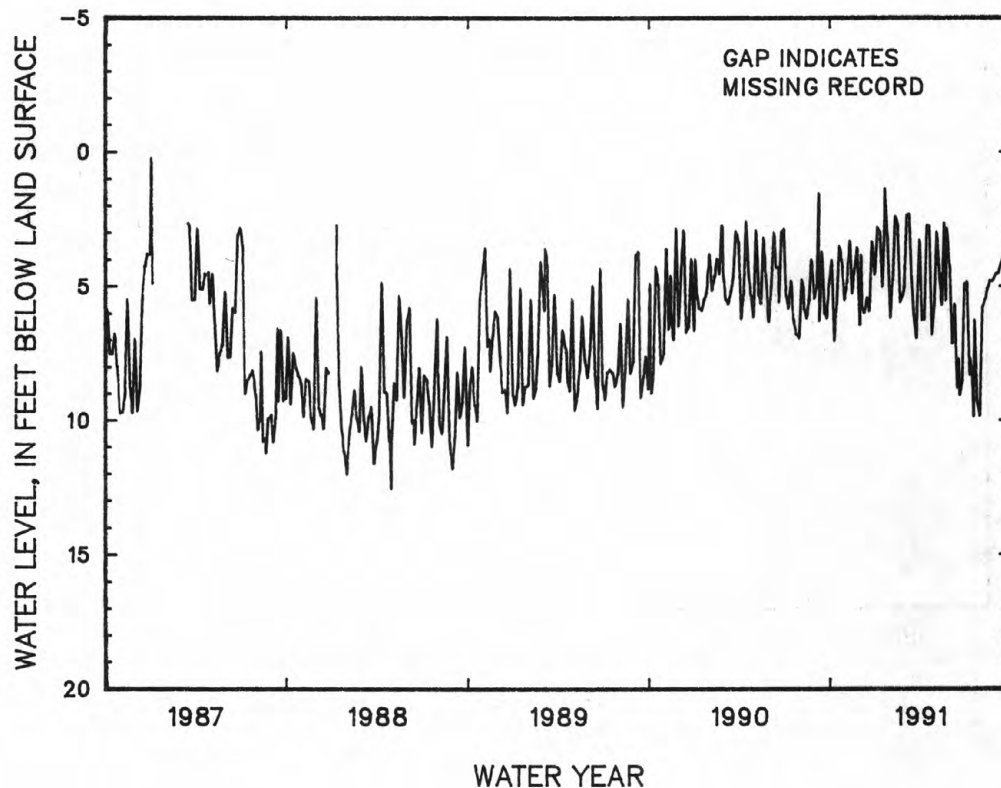
PERIOD OF RECORD.--August 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.24 ft below land-surface datum, Jan. 2, 1987; lowest measured, 17.90 ft below land-surface datum, Dec. 1, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT  | NOV  | DEC  | JAN  | FEB  | MAR  | APR  | MAY  | JUN  | JUL  | AUG  | SEP  |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| 5   | 4.04 | 4.86 | 5.83 | 2.81 | 4.79 | 2.37 | 6.26 | 2.99 | 7.12 | 4.85 | 5.78 | 4.50 |
| 10  | 7.03 | 3.33 | 5.97 | 3.00 | 2.40 | 2.32 | 6.24 | 4.55 | 5.68 | 8.31 | 5.50 | 4.21 |
| 15  | 5.60 | 5.27 | 5.45 | 5.02 | 2.70 | 4.62 | 2.76 | 5.68 | 8.79 | 8.24 | 5.10 | 3.94 |
| 20  | 3.50 | 4.35 | 5.91 | 2.43 | 5.60 | 6.10 | 2.76 | 2.65 | 9.06 | 6.26 | 4.80 | 3.82 |
| 25  | 4.00 | 3.58 | 3.35 | 3.08 | 5.35 | 6.93 | 6.80 | 2.84 | 8.60 | 9.34 | 4.81 | 3.72 |
| EOM | 5.49 | 6.42 | 4.56 | 6.17 | 5.05 | 3.28 | 5.75 | 4.23 | 4.92 | 9.83 | 4.57 | 3.74 |

WATER YEAR 1991      HIGHEST 1.39 JAN 20, 1991      LOWEST 9.87 JUL 18, 1991



## GROUND-WATER LEVELS

247

## ORANGE COUNTY

381002078094201. Local number, 45P 1 SOW 030.

LOCATION.--Lat 38°10'02", long 78°09'42", Hydrologic Unit 02080106, off U.S. Highway 15, 2.3 mi north of Gordonsville. Owner: M. L. Johnson.

AQUIFER.--Phyllite of Evington Group of Cambrian or Precambrian age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 98 ft, length of casing unknown.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 480 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.4 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board.

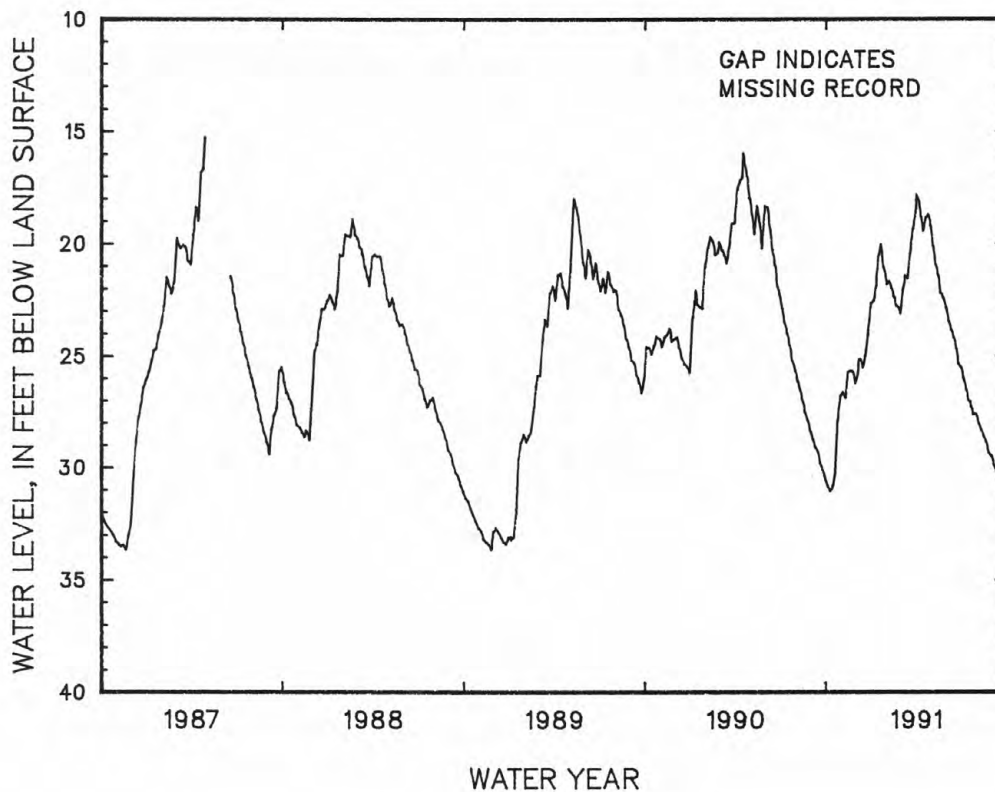
PERIOD OF RECORD.--February 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 11.83 ft below land-surface datum, Apr. 10, 1973; lowest recorded, 35.90 ft below land-surface datum, Jan. 31, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 30.81 | 26.66 | 25.78 | 22.57 | 21.70 | 22.08 | 18.06 | 20.10 | 23.46 | 26.00 | 28.03 | 29.89 |
| 10  | 31.05 | 26.86 | 25.15 | 21.96 | 21.95 | 21.44 | 18.79 | 20.94 | 23.83 | 26.50 | 28.32 | 30.20 |
| 15  | 30.90 | 25.73 | 25.50 | 20.58 | 22.34 | 21.53 | 19.44 | 21.38 | 24.18 | 27.00 | 28.61 | 30.50 |
| 20  | 30.33 | 25.65 | 25.00 | 20.06 | 22.77 | 20.43 | 18.87 | 22.19 | 24.65 | 27.26 | 28.86 | 31.10 |
| 25  | 27.96 | 25.70 | 24.09 | 21.04 | 22.86 | 19.36 | 18.72 | 22.40 | 25.35 | 27.63 | 29.34 | 31.23 |
| EOM | 26.80 | 26.20 | 22.67 | 21.63 | 23.11 | 18.48 | 19.20 | 22.86 | 25.50 | 27.63 | 29.52 | 31.69 |

WATER YEAR 1991      HIGHEST 17.85 APR 01, 1991      LOWEST 31.69 SEP 30, 1991



## GROUND-WATER LEVELS

## PATRICK COUNTY

364732080070301. Local number, 30C 1 SOW 010.

LOCATION.--Lat 36°47'32", long 80°07'03", Hydrologic Unit 03010103, 300 ft west of State Highway 623, 1.0 mi northeast of intersection of State Highways 57 and 623, and 6.2 mi west of Philpott. Owner: Commonwealth of Virginia.

AQUIFER.--Lynchburg Group of Late Proterozoic age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6.25 in., depth 250 ft, cased to 9 ft, open hole 9 to 250 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 1,060 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.5 ft above land-surface datum.

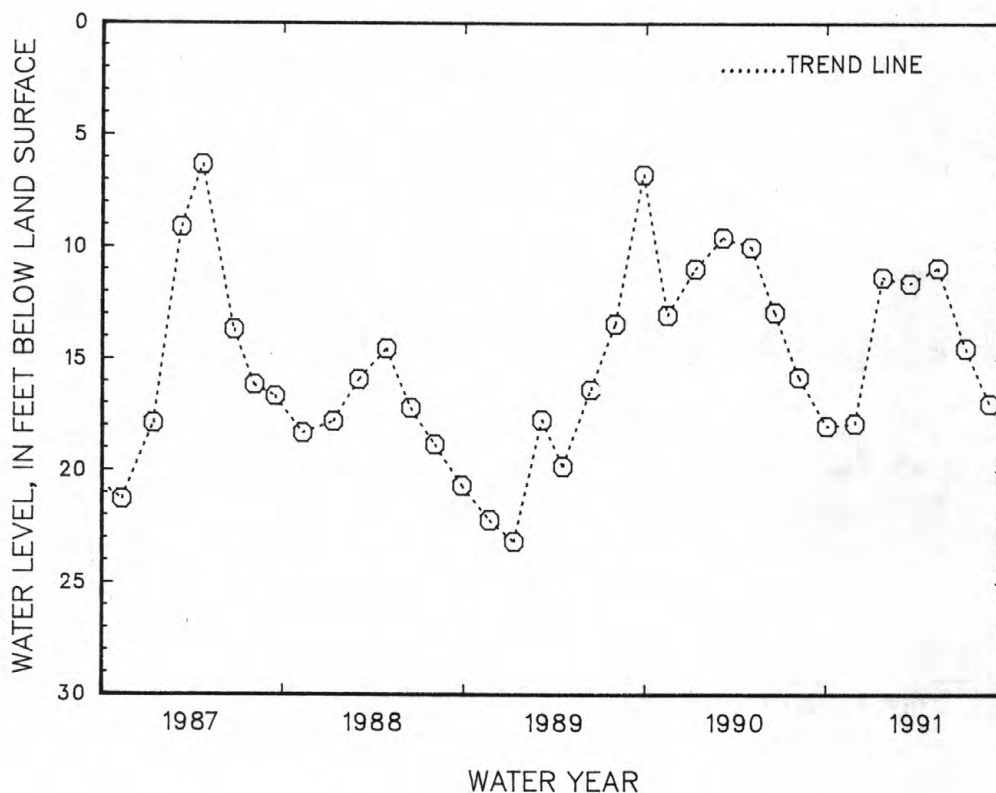
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--May 1966 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.04 ft below land-surface datum, Apr. 4, 1973; lowest measured, 23.15 ft below land-surface datum, Jan. 10, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 02          | 18.00       | JAN 23  | 11.33       | MAR 19       | 11.60       | MAY 14 | 10.90        | JUL 09 | 14.50       | AUG 27 | 17.00       |
| NOV 28          | 17.89       |         |             |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 10.90       | MAY 14, 1991 | LOWEST      | 18.00  | OCT 02, 1990 |        |             |        |             |



## GROUND-WATER LEVELS

249

## CITY OF PORTSMOUTH

364823076181501. Local number, 60C 27.

LOCATION.--Lat 36°48'23", long 76°18'15", Hydrologic Unit 02080208, 100 ft east of State Highway 239 (Victory Boulevard), 0.1 mi south of the intersection of State Highway 239 (Victory Boulevard) and State Highway 337 (Elem Avenue) in the city of Portsmouth. Owner: U.S. Department of the Navy.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 908 ft, screened 903 to 908 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 18 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.5 ft above land-surface datum.

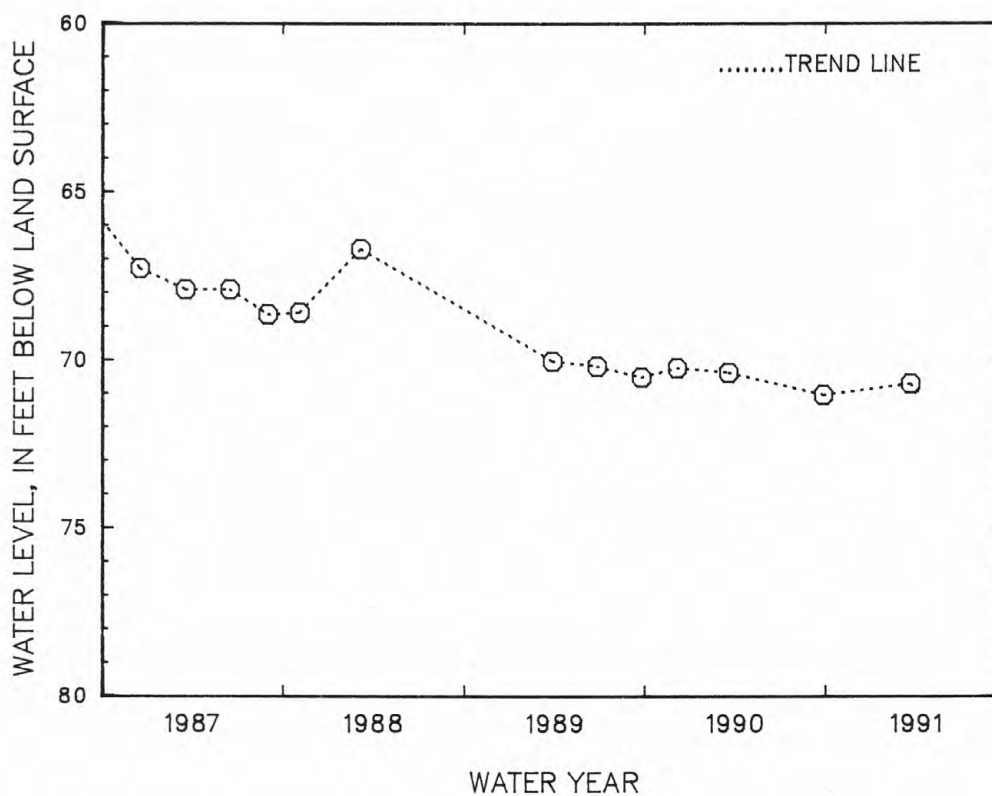
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--June 1985 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.65 ft below land-surface datum, June 19, 1985; lowest measured, 71.06 ft below land-surface datum, Sept. 27, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 22 | 70.72          |



## GROUND-WATER LEVELS

## CITY OF PORTSMOUTH

365313076215101. Local number, 60D 2.

LOCATION.--Lat 36°53'13", long 76°21'51", Hydrologic Unit 02080208, 1.1 mi east of the main gate of the U.S. Naval Supply Center on Main Street in Building 285, 2.0 mi northwest of West Norfolk in the city of Portsmouth, and 2.25 mi north of the intersection of U.S. Highway 17 and Cedar Lane (Craney Island Road). Owner: U.S. Department of the Navy.

AQUIFER.--Chickahominy-Piney Point aquifer of Eocene-Miocene age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 8 in. to 170 ft, diameter 4 in. from 170 to 565 ft, depth 565 ft, screened 545 to 565 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

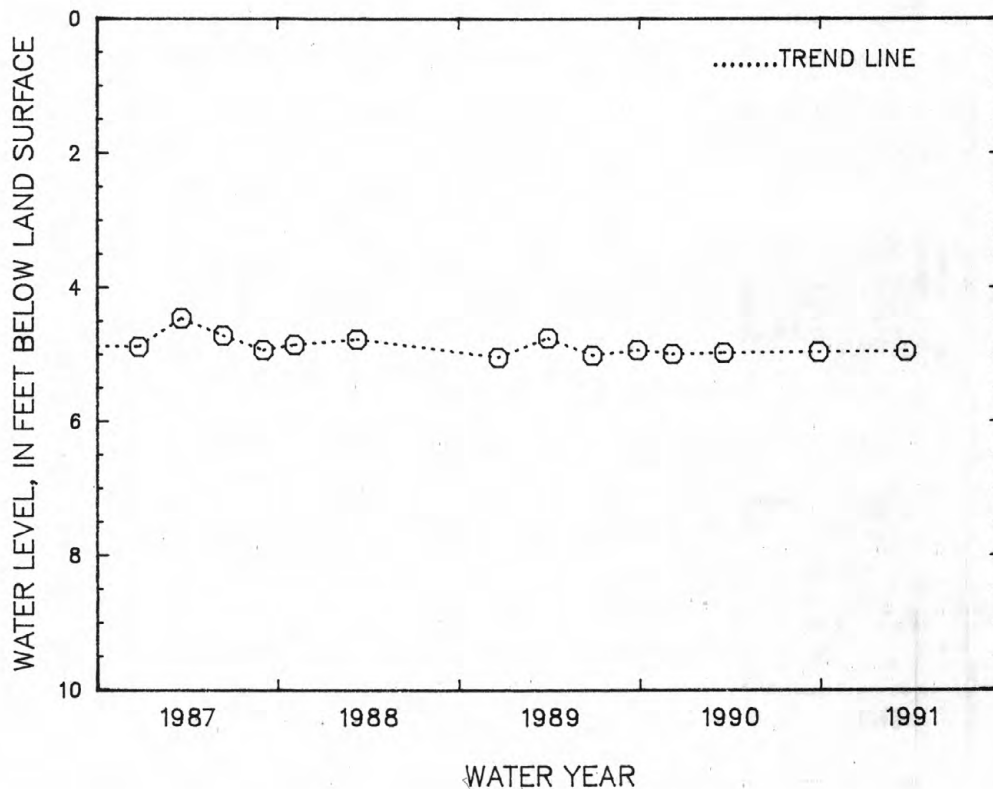
DATUM.--Elevation of land-surface datum is 12 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.6 ft above land-surface datum.

PERIOD OF RECORD.--January 1984 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.01 ft below land-surface datum, Sept. 18, 1985; lowest measured, 5.05 ft below land-surface datum, Dec. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 22 | 4.96           |





## GROUND-WATER LEVELS

251

## PRINCE GEORGE COUNTY

371315077171901. Local number, 52F 1 SOW 038.

LOCATION.--Lat 37°13'15", long 77°17'19", Hydrologic Unit 03010202, 0.1 mi north of State Highway 106 in Prince George. Owner: Prince George County.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 4 in., depth 180 ft, cased to 170 ft, open hole 170 to 180 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. May 25, 1974, to Oct. 9, 1985, occasional measurement with chalked tape. Jan. 31, 1971, to May 25, 1974, continuous strip-chart recorder. Prior to Jan. 31, 1971, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 132 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 3.4 ft above land-surface datum.

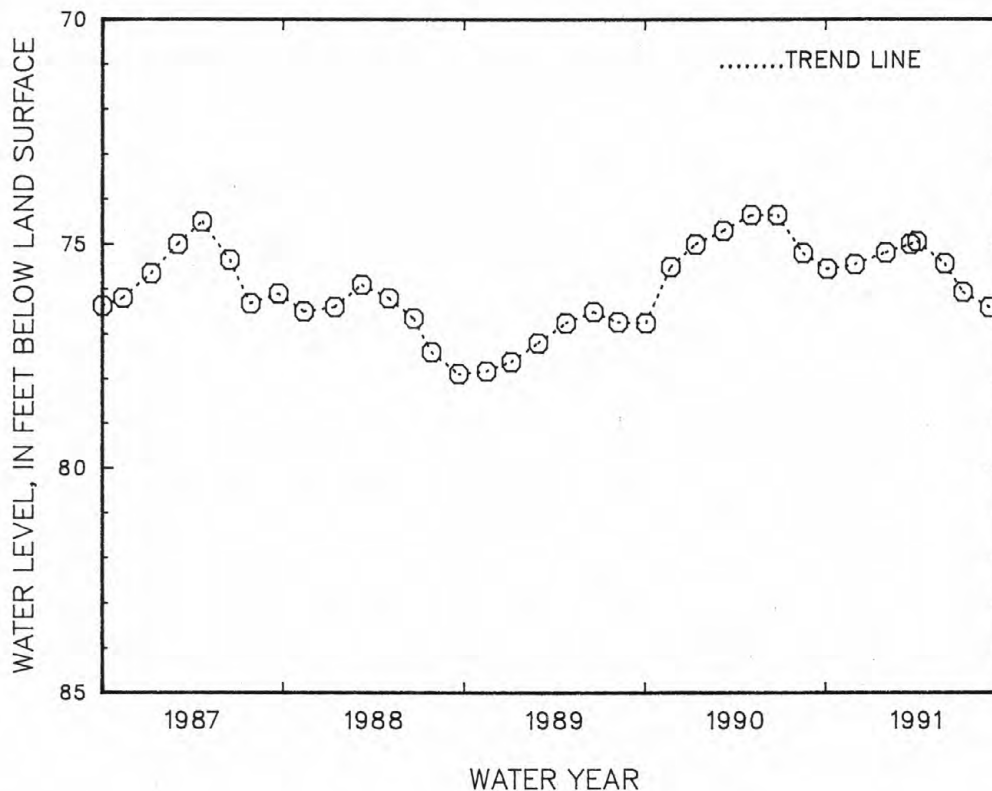
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--December 1970 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 69.32 ft below land-surface datum, Feb. 4, 1980; lowest measured, 77.89 ft below land-surface datum, Sept. 20, 1988.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 04          | 75.55       | JAN 30  | 75.19       | APR 03       | 74.94       | MAY 29 | 75.43       | JUL 05       | 76.07       | AUG 28 | 76.41       |
| NOV 29          | 75.45       | MAR 21  | 75.00       |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 74.94       | APR 03, 1991 |             | LOWEST | 76.41       | AUG 28, 1991 |             |        |             |



## GROUND-WATER LEVELS

## PRINCE WILLIAM COUNTY

384931077420301. Local number, 49U 1.

LOCATION.--Lat 38°49'30", long 77°42'08", Hydrologic Unit 02070010, 500 ft north of State Highway 55, 0.8 mi east of Thoroughfare Gap, and 3.7 mi west of Haymarket. Owner: Virginia Department of Transportation.

AQUIFER.--Shale and sandstone of Newark Group of Triassic age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 7 in., depth 345 ft, cased to 20 ft, open hole 20 to 345 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel. Prior to February 1980, continuous strip-chart recorder.

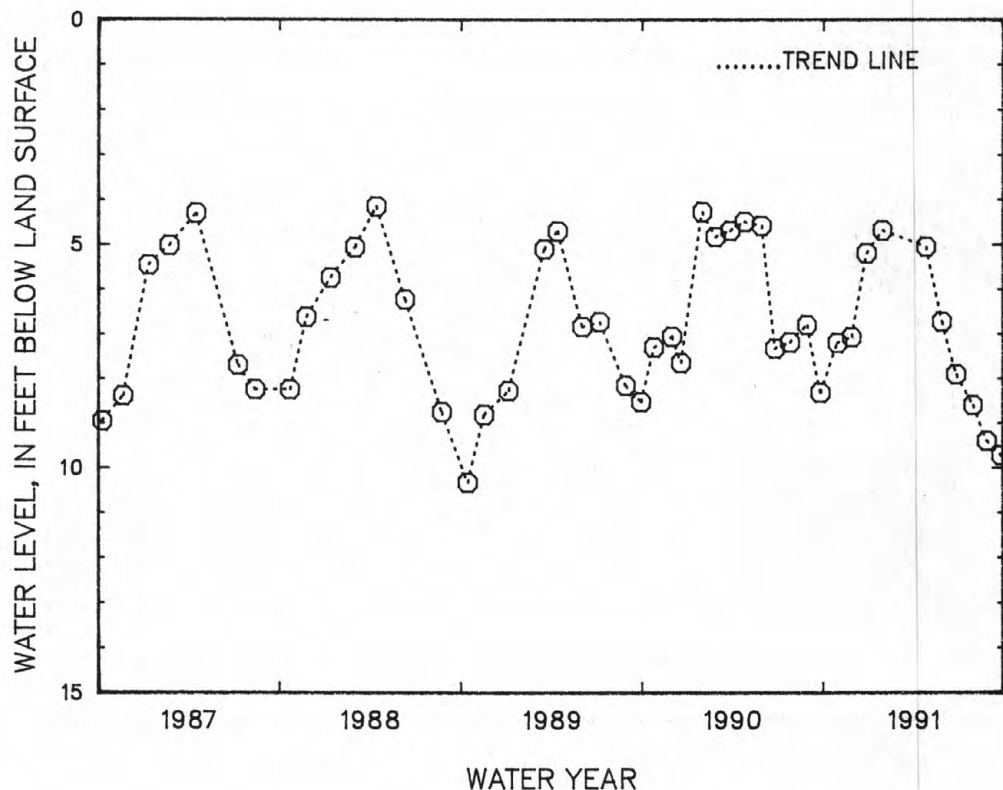
DATUM.--Elevation of land-surface datum is 383 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

PERIOD OF RECORD.--October 1968 to current year. Unpublished records available prior to May 1969 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.59 ft below land-surface datum, Mar. 19, 1975; lowest measured, 10.33 ft below land-surface datum, Oct. 14, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 29          | 7.20        | DEC 27  | 5.19        | APR 26       | 5.05        | JUN 26 | 7.91        | AUG 27       | 9.40        | SEP 25 | 9.73        |
| NOV 27          | 7.07        | JAN 28  | 4.68        | MAY 28       | 6.73        | JUL 30 | 8.60        |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 4.68        | JAN 28, 1991 |             | LOWEST | 9.73        | SEP 25, 1991 |             |        |             |



## GROUND-WATER LEVELS

253

## PRINCE WILLIAM COUNTY

385607077381101. Local number, 49V 1.

LOCATION.--Lat 38°56'07", long 77°38'11", Hydrologic Unit 02070010, near intersection of State Highways 600 and 615, 2.8 mi south of Aldie. Owner: J. H. Hutchison.

AQUIFER.--Shale and sandstone of Newark Group of Triassic age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 7 in., depth 165 ft, cased to 10 ft, open hole 10 to 165 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch. Prior to June 19, 1979, continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 420 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum. Readings from 1979 to 1981 should be 0.7 ft lower than previously published.

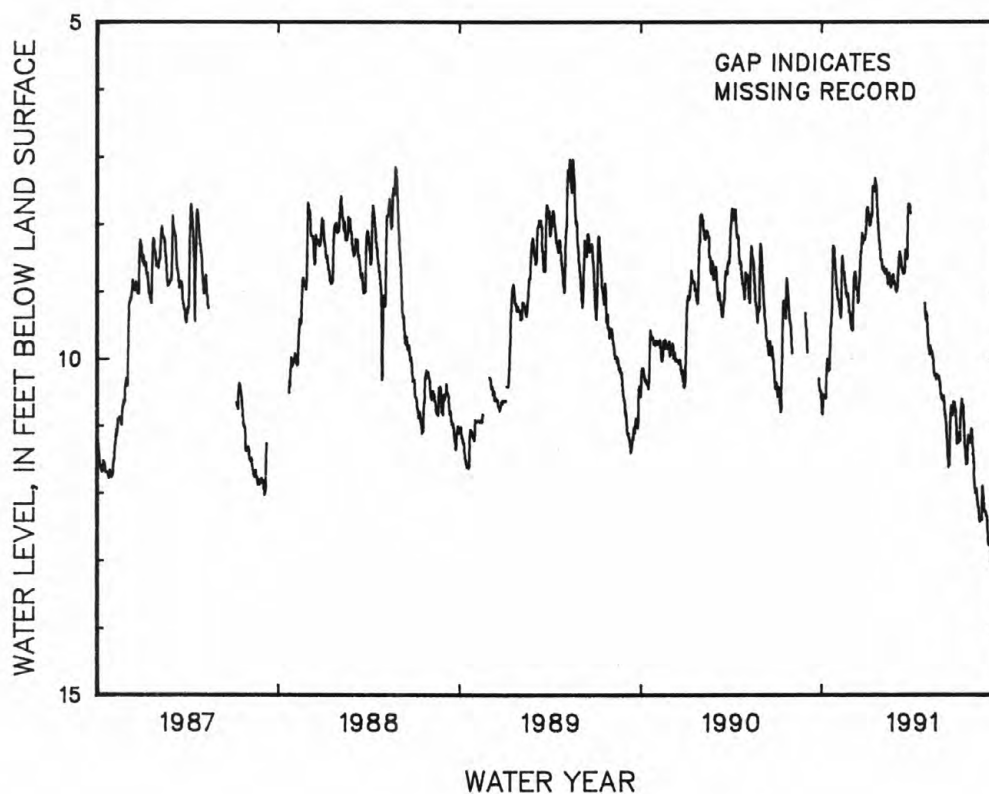
PERIOD OF RECORD.--November 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.85 ft below land-surface datum, Oct. 12, 1979; lowest recorded, 13.09 ft below land-surface datum, Sept. 16, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV  | DEC  | JAN  | FEB  | MAR  | APR  | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|------|------|------|------|------|------|-------|-------|-------|-------|-------|
| 5   | 10.62 | 9.13 | 8.96 | 7.95 | 8.71 | 8.65 | ---  | 9.85  | 10.66 | 11.16 | 11.77 | 12.73 |
| 10  | 10.58 | 9.26 | 8.96 | 7.88 | 8.77 | 8.54 | ---  | 9.88  | 11.08 | 10.68 | 12.04 | 12.96 |
| 15  | 10.10 | 8.74 | 9.14 | 7.50 | 8.82 | 8.73 | ---  | 10.15 | 11.49 | 10.95 | 12.40 | 13.08 |
| 20  | 9.54  | 9.03 | 8.41 | 7.50 | 8.78 | 8.41 | ---  | 10.30 | 10.71 | 11.57 | 12.40 | 12.42 |
| 25  | 8.33  | 9.18 | 8.24 | 8.25 | 8.89 | 7.70 | ---  | 10.26 | 10.67 | 11.15 | 12.26 | 12.44 |
| EOM | 8.88  | 9.54 | 7.78 | 8.65 | 8.99 | ---  | 9.32 | 10.59 | 10.98 | 11.05 | 12.41 | 11.87 |

WATER YEAR 1991      HIGHEST 7.17    JAN 16, 17, 1991      LOWEST 13.09    SEP 16, 1991



## GROUND-WATER LEVELS

## PRINCE WILLIAM COUNTY

383423077245901. Local number, 51S 7.

LOCATION.--Lat 38°34'23", long 77°24'59", Hydrologic Unit 02070011, in Prince William Forest Park, 700 ft north of State Highway 619, 0.7 mi southeast of Belfair Crossroads, and 4.6 mi south of Independent Hill. Owner: National Park Service.

AQUIFER.--Lunga Reservoir Formation of Ordovician or Cambrian age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 490 ft, cased to 50 ft, open hole 50 to 490 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch. Recorder installed Dec. 21, 1982. Prior to Dec. 21, 1982, manual measurements with chalked tape by USGS personnel. Manual readings only published prior to 1985 water year. Recorded readings for 1985 water year published in addition to manual readings.

DATUM.--Elevation of land-surface datum is 295 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

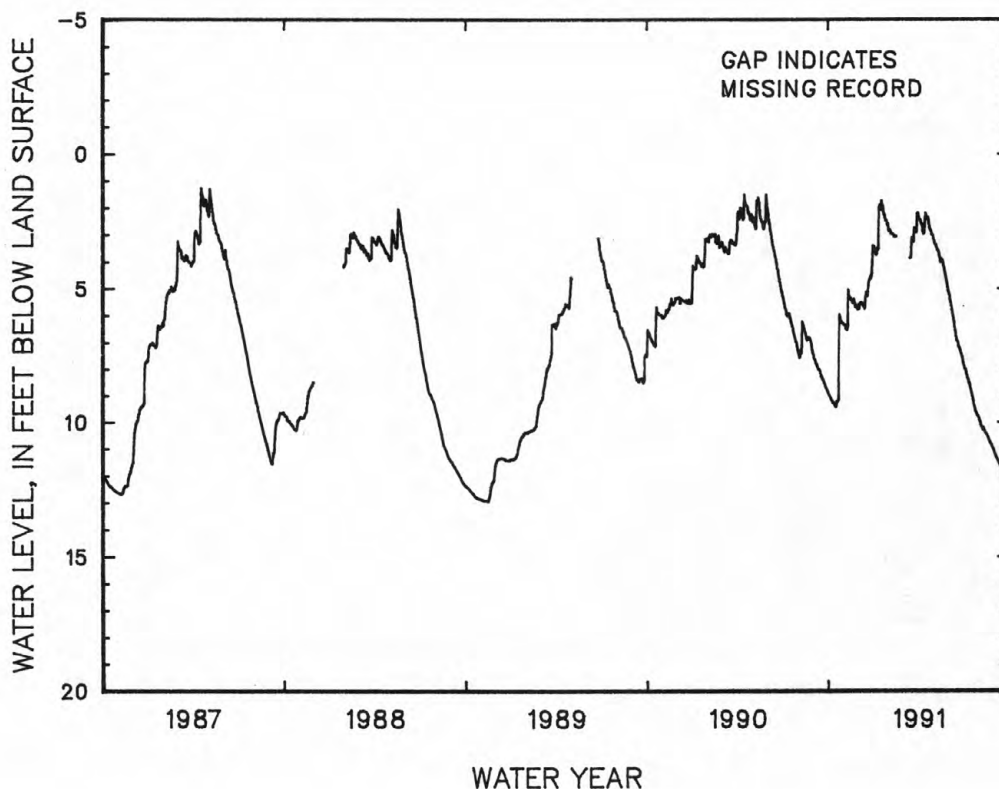
PERIOD OF RECORD.--September 1973 to November 1975, December 1977 to current year. Unpublished records available prior to December 1977 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.14 ft below land-surface datum, Apr. 20, 1983; lowest recorded, 12.95 ft below land-surface datum, Nov. 16, 17, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT  | NOV  | DEC  | JAN  | FEB  | MAR  | APR  | MAY  | JUN  | JUL  | AUG   | SEP   |
|-----|------|------|------|------|------|------|------|------|------|------|-------|-------|
| 5   | 9.03 | 6.33 | 5.59 | 3.65 | 2.97 | ---  | 2.43 | 3.35 | 5.51 | 8.00 | 10.11 | 11.34 |
| 10  | 9.23 | 6.38 | 5.58 | 3.54 | 3.00 | ---  | 2.84 | 3.58 | 6.03 | 8.37 | 10.22 | 11.52 |
| 15  | 9.38 | 5.38 | 5.69 | 2.07 | 3.06 | 3.87 | 2.45 | 3.95 | 6.64 | 8.73 | 10.43 | 11.73 |
| 20  | 9.22 | 5.51 | 5.27 | 1.94 | ---  | 3.19 | 2.40 | 3.96 | 7.03 | 9.15 | 10.62 | 11.89 |
| 25  | 6.00 | 5.60 | 4.59 | 2.46 | ---  | 2.83 | 2.80 | 4.43 | 7.35 | 9.59 | 10.83 | 11.93 |
| EOY | 6.29 | 5.76 | 3.42 | 2.83 | ---  | 2.20 | 3.00 | 5.06 | 7.73 | 9.82 | 11.07 | 11.97 |

WATER YEAR 1991      HIGHEST 1.62 JAN 17, 1991      LOWEST 11.97 SEP 30, 1991



## GROUND-WATER LEVELS

255

## PRINCE WILLIAM COUNTY

383634077151301. Local number, 52S 4.

LOCATION.--Lat 38°36'34", long 77°15'13", Hydrologic Unit 02070010, 193 ft east of Richmond, Fredericksburg, and Potomac (RFP) railroad tracks, 1.1 mi southeast of the intersection of U.S. Highway 1 and State Highway 636 (Featherstone Road), 1.4 mi south of the intersection of State Highway 636 (Featherstone Road) and RFP railroad tracks, and near Woodbridge. Owner: District of Columbia Department of Sanitary Engineering.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 10 in., depth 186 ft, screened 156 to 176 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Aug. 1, 1971, to July 10, 1978, continuous strip-chart recorder. Prior to Aug. 1, 1971, occasional measurement with chalked tape.

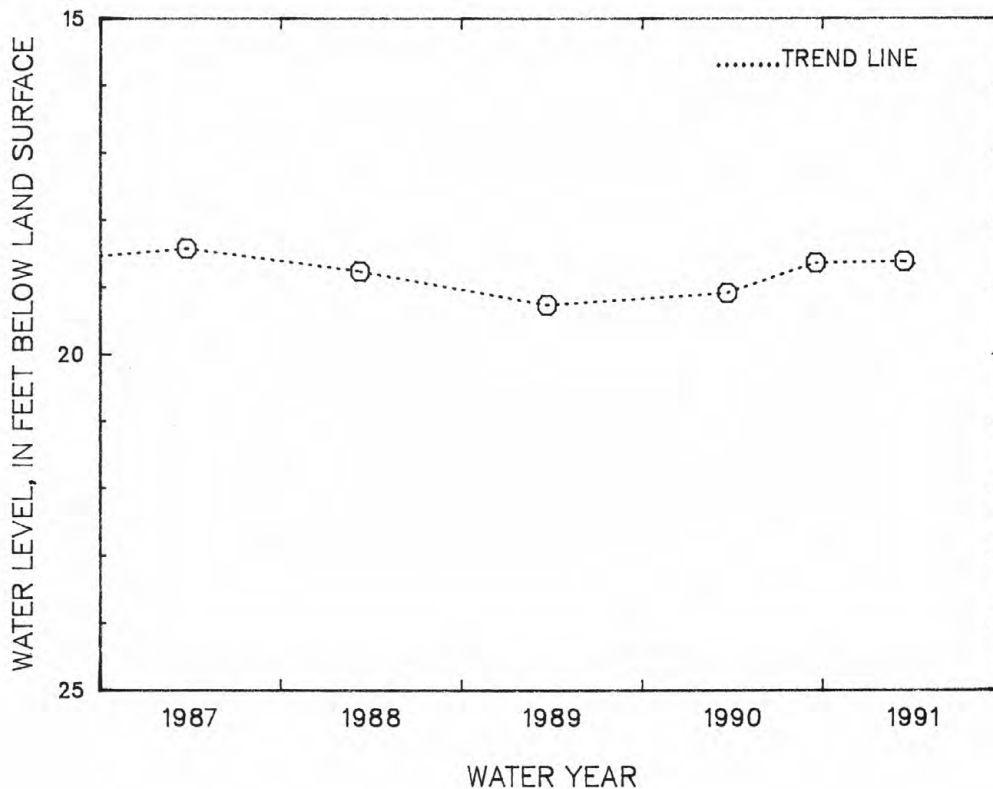
DATUM.--Elevation of land-surface datum is 28 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.9 ft above land-surface datum. Measuring point change from 3.30 ft above land-surface datum Aug. 28, 1978.

PERIOD OF RECORD.--June 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 17.17 ft below land-surface datum, Apr. 28, 1973; lowest measured, 22.17 ft below land-surface datum, July 1, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 15 | 18.62          |



GROUND-WATER LEVELS  
PRINCE WILLIAM COUNTY

383634077151302. Local number, 52S 5.

LOCATION.--Lat 38°36'34", long 77°15'13", Hydrologic Unit 02070010, 193 ft east of Richmond, Fredericksburg, and Potomac (RFP) railroad tracks, 1.1 mi southeast of the intersection of U.S. Highway 1 and State Highway 636 (Featherstone Road), 1.4 mi south of the intersection of State Highway 636 (Featherstone Road) and RFP railroad tracks, and near Woodbridge. Owner: District of Columbia Department of Sanitary Engineering.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 114 ft, screened 95 to 105 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

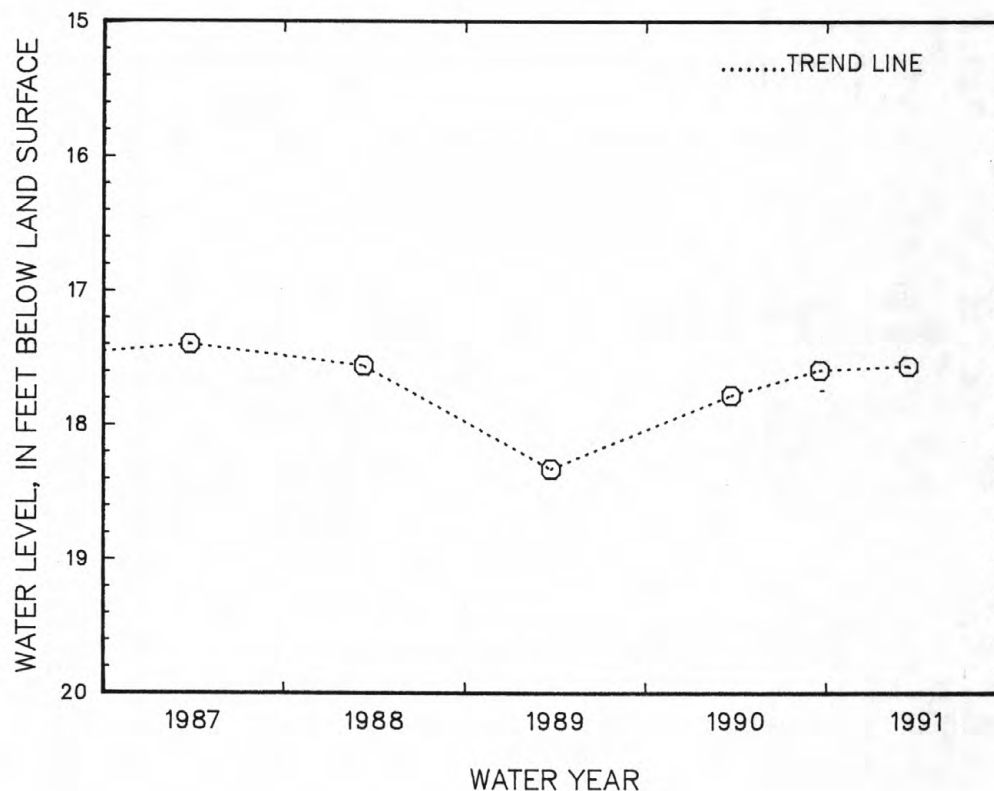
DATUM.--Elevation of land-surface datum is 28 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.2 ft above land-surface datum.

PERIOD OF RECORD.--July 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.44 ft below land-surface datum, Apr. 1, 1980; lowest measured, 19.62 ft below land-surface datum, Jan. 9, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 15 | 17.56          |





## GROUND-WATER LEVELS

257

## PRINCE WILLIAM COUNTY

383830077135502. Local number, 53T 2 SOW 029.

LOCATION.--Lat 38°38'30", long 77°13'55", Hydrologic Unit 02070010, at U.S. Army Woodbridge Research Facility, 1.5 mi east of Woodbridge. Owner: U.S. Department of the Army.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 10 in., depth 162 ft, screened 130 to 156 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Sept. 25, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

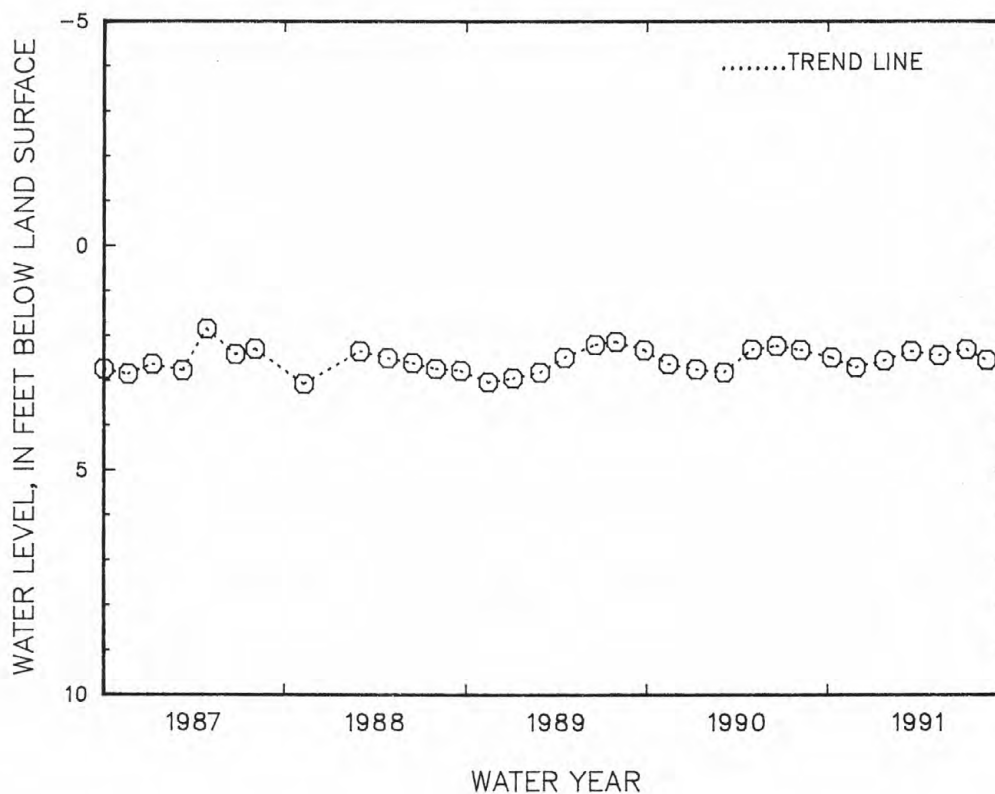
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--March 1970 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.60 ft below land-surface datum, Apr. 4, 1973; lowest measured, 10.35 ft below land-surface datum, Oct. 12, 1977.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 09          | 2.49        | JAN 23  | 2.56        | MAR 19       | 2.35        | MAY 14 | 2.44         | JUL 09 | 2.31        | AUG 19 | 2.55        |
| NOV 27          | 2.71        |         |             |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 2.31        | JUL 09, 1991 | LOWEST      | 2.71   | NOV 27, 1990 |        |             |        |             |



## GROUND-WATER LEVELS

## PULASKI COUNTY

370254080374401. Local number, 25E 1 SOW 009.

LOCATION.--Lat 37°02'54", long 80°37'44", Hydrologic Unit 05050001, 300 ft east of State Highway 100, 0.3 mi south of intersection of State Highways 682 and 700, and 1.1 mi south of Dublin. Owner: Commonwealth of Virginia.

AQUIFER.--Elbrook Formation of Middle to Late Cambrian age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in., depth 318 ft, cased to 56 ft, open hole 56 to 318 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 1, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 1,880 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, at land-surface datum.

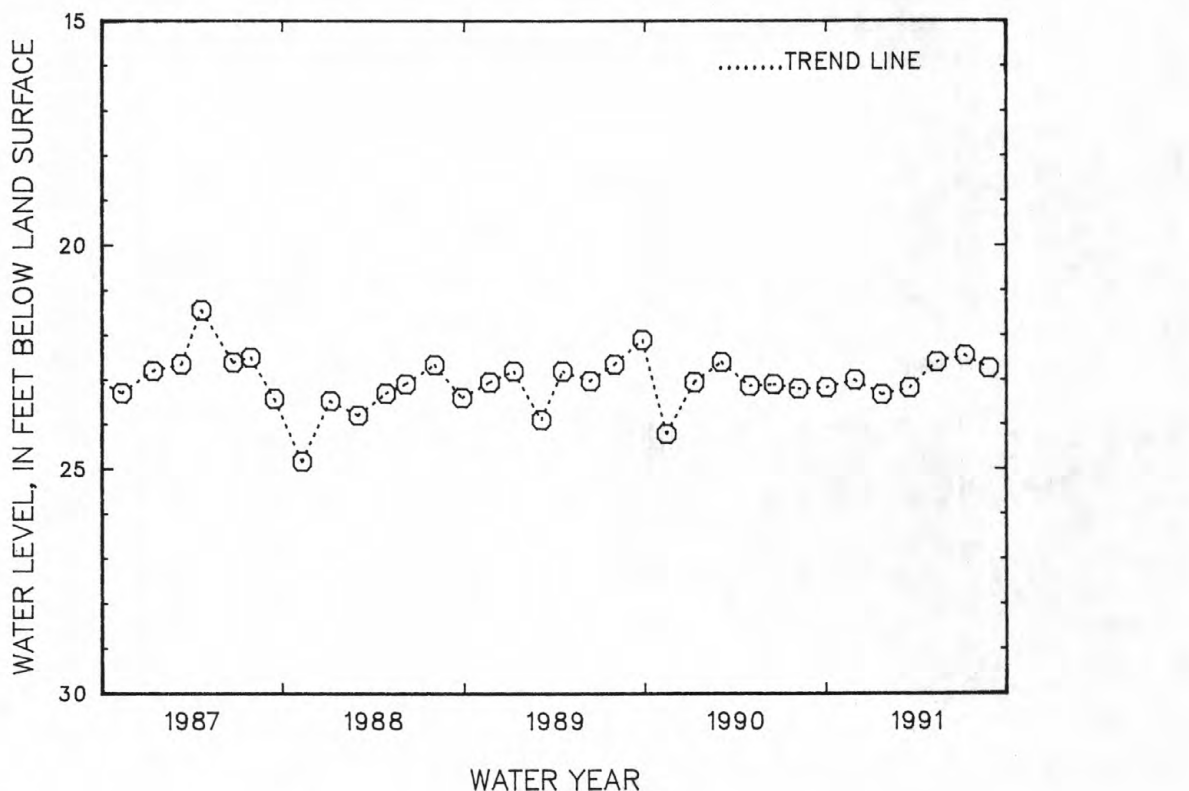
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--October 1969 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.15 ft below land-surface datum, Mar. 31, Apr. 30, 1975; lowest measured, 27.25 ft below land-surface datum, Dec. 13, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 02          | 23.17       | JAN 22  | 23.33       | MAR 19       | 23.18       | MAY 13 | 22.60        | JUL 09 | 22.45       | AUG 26 | 22.74       |
| NOV 28          | 23.00       |         |             |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 22.45       | JUL 09, 1991 | LOWEST      | 23.33  | JAN 22, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

259

## PULASKI COUNTY

370516080411501. Local number, 25E 2 SOW 059.

LOCATION.--Lat 37°05'16", long 80°41'15", Hydrologic Unit 05050001, 400 ft east of State Highway 100, 0.5 mi south of Dublin. Owner: Town of Dublin.

AQUIFER.--Conococheague Formation of Late Cambrian age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 4 in., depth 370 ft, length of casing unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. July 20, 1974, to Oct. 1, 1985, occasional measurement with chalked tape. Prior to July 20, 1974, continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 2,170 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, at land-surface datum.

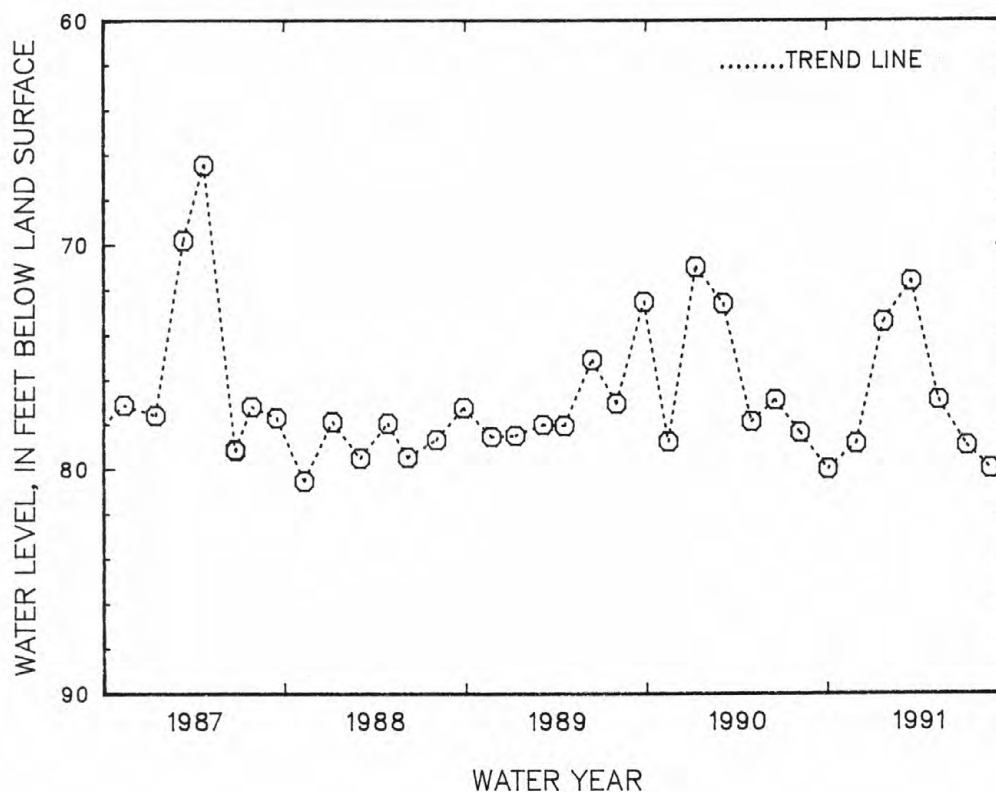
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--April 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 60.00 ft below land-surface datum, Mar. 18, 1973; lowest measured, 82.50 ft below land-surface datum, Oct. 5, 1982.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 02          | 80.00       | JAN 22  | 73.40       | MAR 19       | 71.60       | MAY 13 | 76.90        | JUL 09 | 78.95       | AUG 26 | 79.98       |
| NOV 28          | 78.85       |         |             |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 71.60       | MAR 19, 1991 | LOWEST      | 80.00  | OCT 02, 1990 |        |             |        |             |



## GROUND-WATER LEVELS

## RICHMOND COUNTY

375755076505601. Local number, 56M 7.

LOCATION.--Lat 37°57'55", long 76°50'56", Hydrologic Unit 02080104, 400 ft west of State Highway 634 near Warsaw and 2.7 mi west of the intersection of State Highways 624 and 634. Owner: Robert H. Mallory.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 4 in. to 105 ft, diameter 2 in. from 105 to 456 ft, depth 456 ft, screened 398 to 408 ft, 429 to 439 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 18 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.5 ft above land-surface datum.

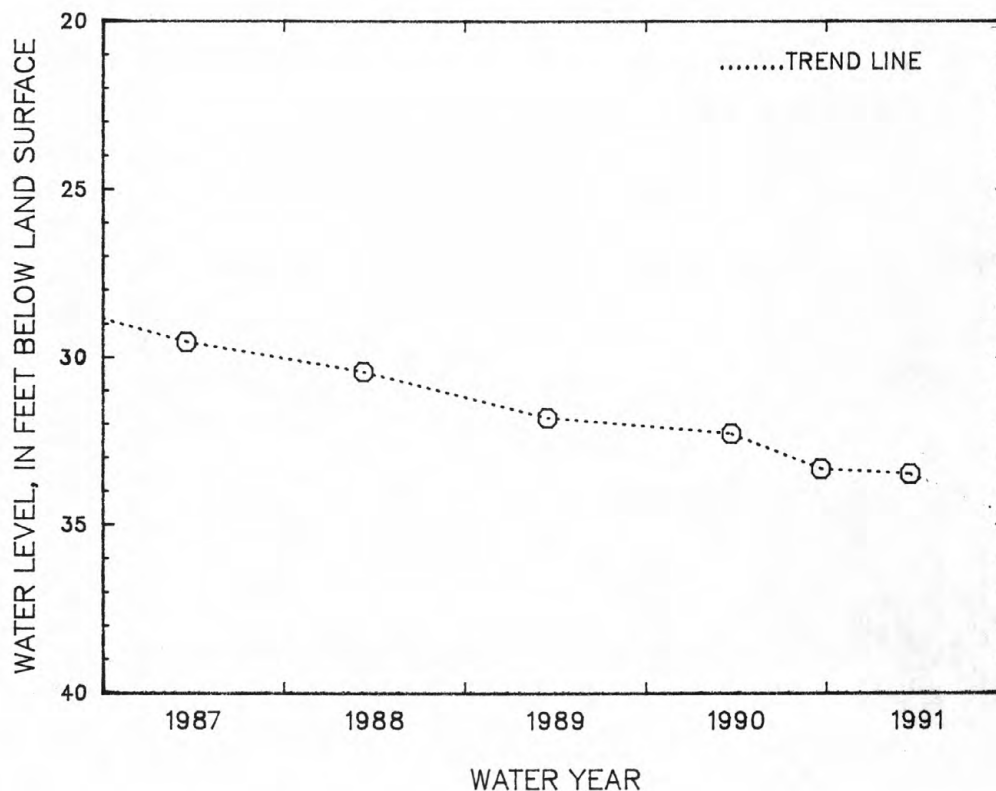
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--November 1965 to current year. Unpublished records available prior to October 1988 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.00 ft below land-surface datum, Nov. 5, 1965; lowest measured, 33.50 ft below land-surface datum, Mar. 19, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 19 | 33.50          |



## GROUND-WATER LEVELS

261

## CITY OF ROANOKE

371653079552101. Local number, 31G 1 SOW 008.

LOCATION.--Lat 37°16'53", long 79°55'21", Hydrologic Unit 03010101, 700 ft south of intersection of 10th Street and Orange Avenue in Roanoke. Owner: Nelson-Roanoke Corporation.

AQUIFER.--Rome Formation of Cambrian age. Prior to 1974, reported as Elbrook Formation.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in., depth 48 ft, length of casing unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. July 20, 1974, to Sept. 30, 1985, occasional measurement with chalked tape. Prior to July 20, 1974, continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 930 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.94 ft above land-surface datum.

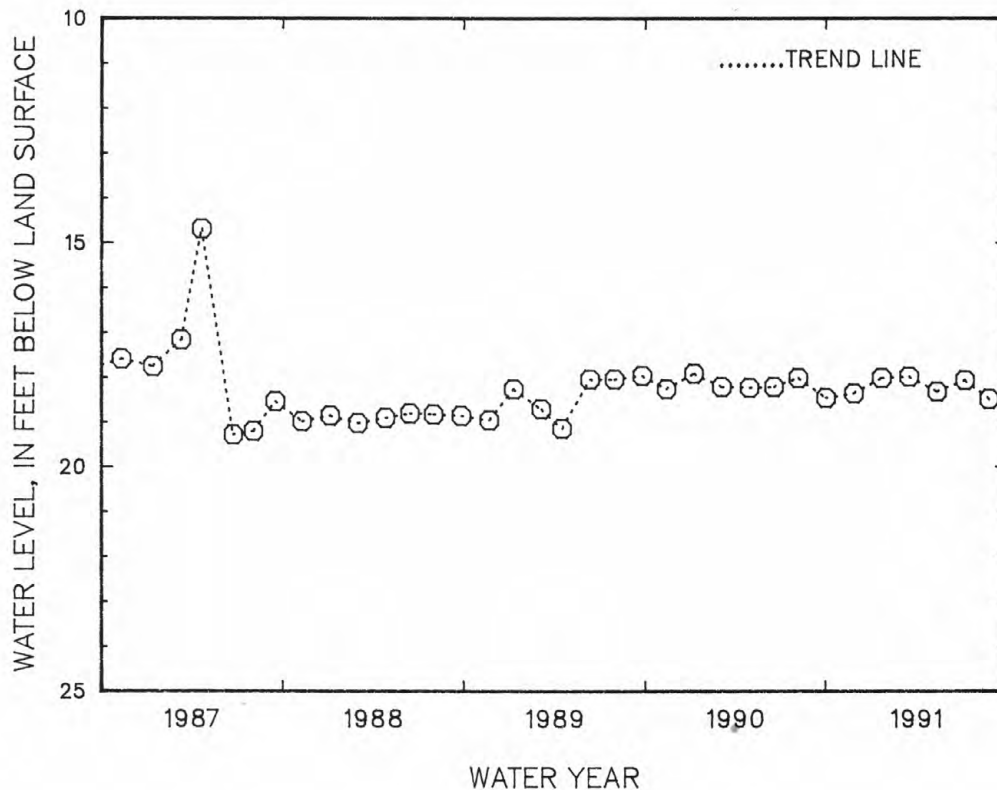
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--August 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.36 ft below land-surface datum, Feb. 18, 1986; lowest measured, 23.15 ft below land-surface datum, May 23, 1977.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 01          | 18.46       | JAN 22  | 18.01       | MAR 18       | 17.98       | MAY 13 | 18.32       | JUL 08       | 18.06       | AUG 26 | 18.49       |
| NOV 27          | 18.36       |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 17.98       | MAR 18, 1991 |             | LOWEST | 18.49       | AUG 26, 1991 |             |        |             |



## GROUND-WATER LEVELS

## ROCKBRIDGE COUNTY

373758079271601. Local number, 35K 1 SOW 063.

LOCATION.--Lat 37°37'58", long 79°27'16", Hydrologic Unit 02080202, 0.35 mi northwest of intersection of State Highways 130 and 684 in Glasgow. Owner: Town of Glasgow.

AQUIFER.--Rome Formation of Cambrian age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in., depth 695 ft, cased to 101 ft, open hole from 101 to 695 ft.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 745 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board.

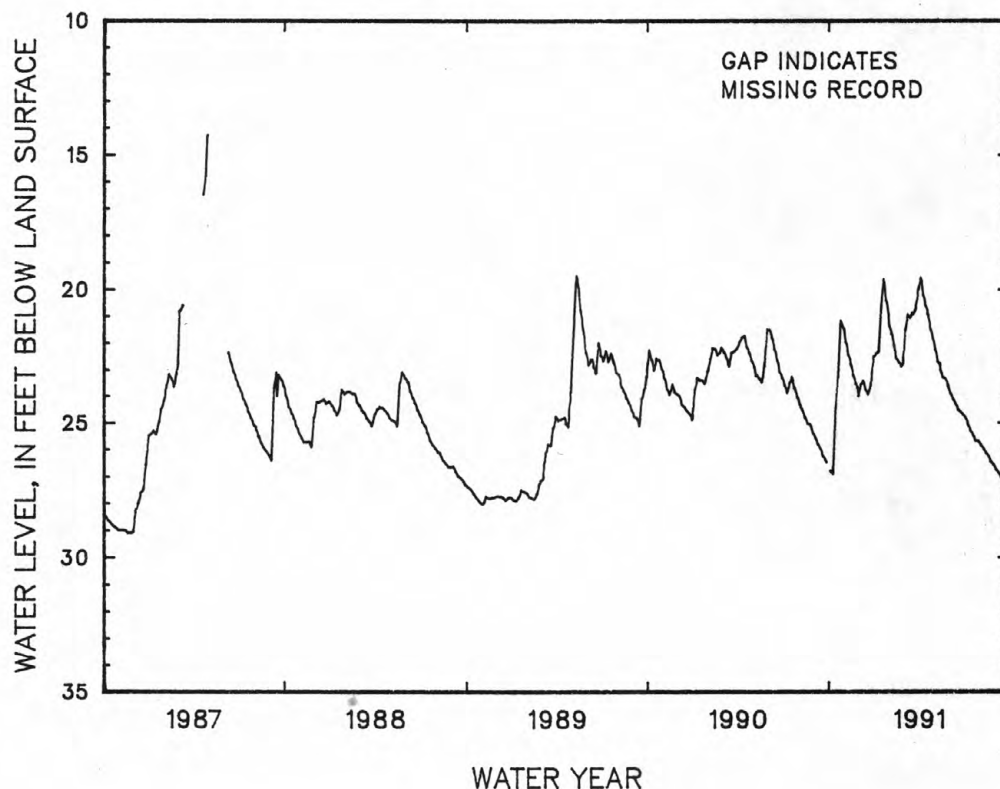
PERIOD OF RECORD.--June 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 14.27 ft below land-surface datum, Apr. 29, 1987; lowest recorded, 29.13 ft below land-surface datum, Dec. 13, 14, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 26.80 | 21.96 | 23.57 | 22.40 | 21.64 | 21.52 | 19.58 | 22.26 | 23.90 | 24.81 | 25.83 | 26.74 |
| 10  | 26.90 | 22.43 | 23.44 | 22.32 | 22.06 | 20.96 | 20.20 | 22.69 | 24.13 | 25.06 | 25.98 | 26.87 |
| 15  | 24.43 | 22.79 | 23.75 | 20.60 | 22.57 | 21.03 | 20.58 | 23.00 | 24.30 | 25.29 | 26.13 | 27.03 |
| 20  | 23.27 | 23.22 | 23.92 | 19.62 | 22.71 | 20.87 | 20.91 | 23.30 | 24.51 | 25.45 | 26.25 | 27.21 |
| 25  | 21.15 | 23.53 | 23.60 | 20.40 | 22.86 | 20.77 | 21.50 | 23.34 | 24.60 | 25.67 | 26.46 | 27.28 |
| EOY | 21.41 | 23.99 | 22.52 | 21.32 | 22.80 | 20.00 | 21.86 | 23.62 | 24.69 | 25.69 | 26.57 | 27.48 |

WATER YEAR 1991      HIGHEST 19.50 APR 01, 1991      LOWEST 27.48 SEP 30, 1991





## GROUND-WATER LEVELS

263

## ROCKINGHAM COUNTY

382150078424001. Local number, 41Q 1.

LOCATION.--Lat 38°21'50", long 78°42'40", Hydrologic Unit 02070005, at Virginia Department of Transportation garage, 1.3 mi southeast of McGaheysville. Owner: U.S. Geological Survey.

AQUIFER.--Conococheague Formation of Late Cambrian age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6.25 in., depth 310 ft, cased to 131 ft, open hole 131 to 310 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch. Prior to June 27, 1979, continuous strip-chart recorder.

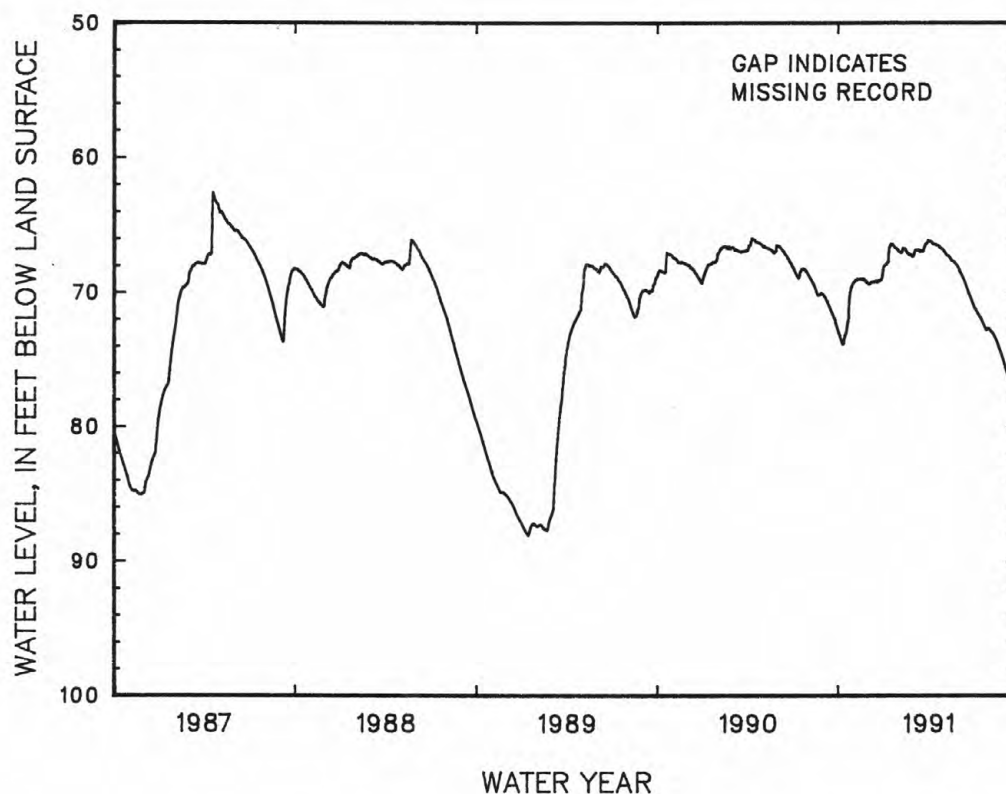
DATUM.--Elevation of land-surface datum is 1,105 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top edge of recorder shelf, 3.5 ft above land-surface datum.

PERIOD OF RECORD.--August 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 60.38 ft below land-surface datum, Dec. 26, 1972; lowest recorded, 88.08 ft below land-surface datum, Jan. 14, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY             | OCT   | NOV   | DEC     | JAN   | FEB          | MAR    | APR   | MAY          | JUN   | JUL   | AUG   | SEP   |
|-----------------|-------|-------|---------|-------|--------------|--------|-------|--------------|-------|-------|-------|-------|
| 5               | 73.25 | 69.11 | 69.38   | 67.94 | 67.03        | 66.98  | 66.18 | 67.00        | 68.49 | 71.18 | 72.83 | 75.65 |
| 10              | 73.84 | 69.01 | 69.21   | 67.75 | 66.72        | 66.86  | 66.32 | 67.25        | 68.86 | 71.51 | 73.05 | 76.28 |
| 15              | 73.30 | 69.02 | 69.21   | 66.49 | 66.87        | 66.93  | 66.42 | 67.43        | 69.29 | 71.82 | 73.40 | 76.80 |
| 20              | 72.56 | 69.04 | 69.22   | 66.41 | 67.12        | 66.92  | 66.50 | 67.66        | 69.82 | 72.17 | 73.84 | 77.38 |
| 25              | 70.37 | 69.10 | 69.11   | 66.70 | 67.20        | 66.55  | 66.67 | 67.79        | 70.31 | 72.59 | 74.37 | 77.92 |
| EOY             | 69.40 | 69.29 | 68.41   | 66.92 | 67.30        | 66.24  | 66.80 | 68.11        | 70.76 | 72.69 | 75.03 | 78.39 |
| WATER YEAR 1991 |       |       | HIGHEST | 66.11 | APR 01, 1991 | LOWEST | 78.39 | SEP 30, 1991 |       |       |       |       |



## GROUND-WATER LEVELS

## SOUTHAMPTON COUNTY

364109077230701. Local number, 51B 3.

LOCATION.--Lat 36°41'09", long 77°23'07", Hydrologic Unit 03010201, 150 ft west of the intersection of State Highway 615 and U.S. Highway 58, 0.5 mi south of Adams Grove. Owner: U.S. Geological Survey.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 253 ft, screened 165 to 175 ft, open hole 175 to 253 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch. July 1975 to July 1977, continuous strip-chart recorder. Prior to July 1975, occasional measurement with chalked tape by USGS personnel.

REMARKS.--Water level affected by regional drawdown.

DATUM.--Elevation of land-surface datum is 126 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 3.2 ft above land-surface datum.

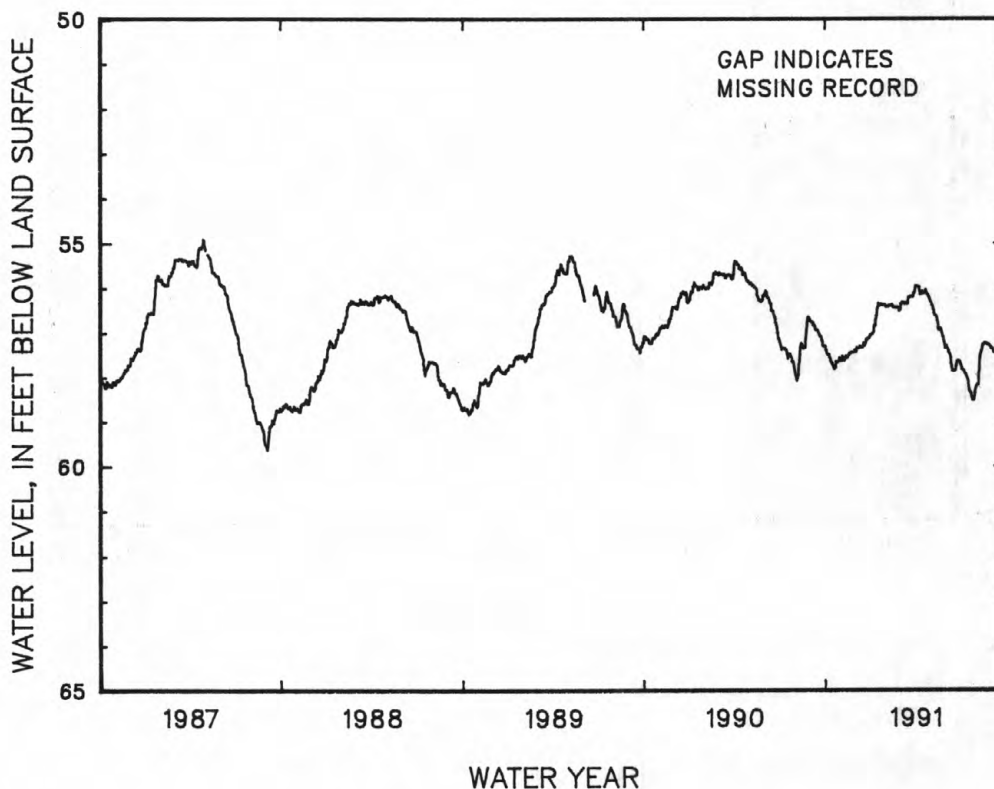
PERIOD OF RECORD.--October 1974 to current year. Unpublished records available prior to July 1975 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 54.21 ft below land-surface datum, Apr. 30, 1978; lowest recorded, 60.03 ft below land-surface datum, Oct. 24, 25, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 57.45 | 57.62 | 57.34 | 57.02 | 56.40 | 56.36 | 55.96 | 56.37 | 57.34 | 57.82 | 58.17 | 57.36 |
| 10  | 57.49 | 57.61 | 57.34 | 56.84 | 56.39 | 56.33 | 55.98 | 56.56 | 57.47 | 57.90 | 57.56 | 57.45 |
| 15  | 57.66 | 57.55 | 57.32 | 56.49 | 56.38 | 56.34 | 56.13 | 56.66 | 57.81 | 58.01 | 57.31 | 57.63 |
| 20  | 57.80 | 57.46 | 57.28 | 56.38 | 56.43 | 56.22 | 56.12 | 56.93 | 57.86 | 58.31 | 57.23 | 57.75 |
| 25  | 57.67 | 57.44 | 57.14 | 56.37 | 56.43 | 56.18 | 56.12 | 56.99 | 57.67 | 58.47 | 57.26 | 57.75 |
| EOY | 57.57 | 57.40 | 57.09 | 56.37 | 56.50 | 56.12 | 56.22 | 57.27 | 57.65 | 58.37 | 57.30 | 57.69 |

WATER YEAR 1991      HIGHEST 55.96 APR 02-07, 1991      LOWEST 58.52 JUL 26-29, 1991



## GROUND-WATER LEVELS

265

## SOUTHAMPTON COUNTY

363410077150801. Local number, 52A 1.

LOCATION.--Lat 36°34'10", long 77°15'08", Hydrologic Unit 03010204, along Seaboard Coastline railroad, 0.15 mi northwest of intersection of State Highways 195 and 701 in Branchville. Owner: L. W. Grizzard.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 4 in., depth 217 ft, screened 204 to 217 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

REMARKS.--Water level affected by regional drawdown.

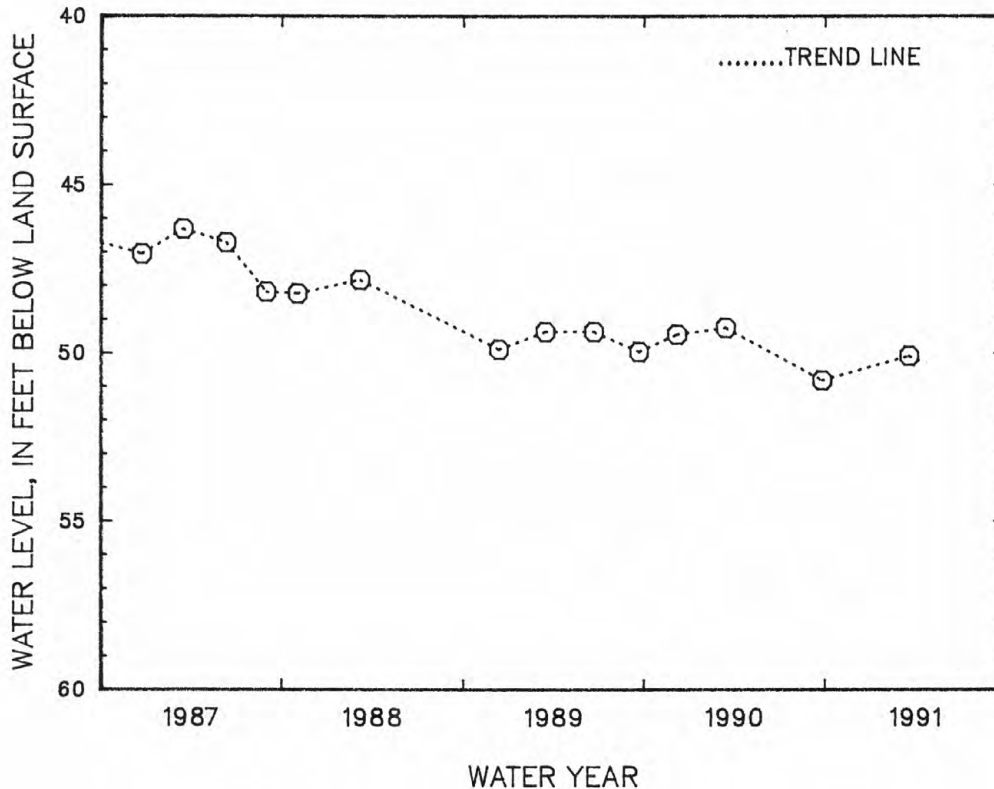
DATUM.--Elevation of land-surface datum is 44 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.8 ft above land-surface datum.

PERIOD OF RECORD.--September 1970 to December 1975, January 1978 to current year. Unpublished records available prior to October 1985 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.85 ft below land-surface datum, Sept. 9, 1970; lowest measured, 50.82 ft below land-surface datum, Sept. 25, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 20 | 50.09          |



## GROUND-WATER LEVELS

## SOUTHAMPTON COUNTY

363916077201001. Local number, 52B 8 SOW 178A.

LOCATION.--Lat 36°39'16", long 77°20'10", Hydrologic Unit 03010204, 0.25 mi northeast of State Highway 661, 0.6 mi south of the intersection of State Highways 652 and 661, and 4.5 mi southeast of Drewryville. Owner: Virginia Water Control Board.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 316 ft, screened 285 to 295 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

REMARKS.--Water level may be affected by regional drawdown.

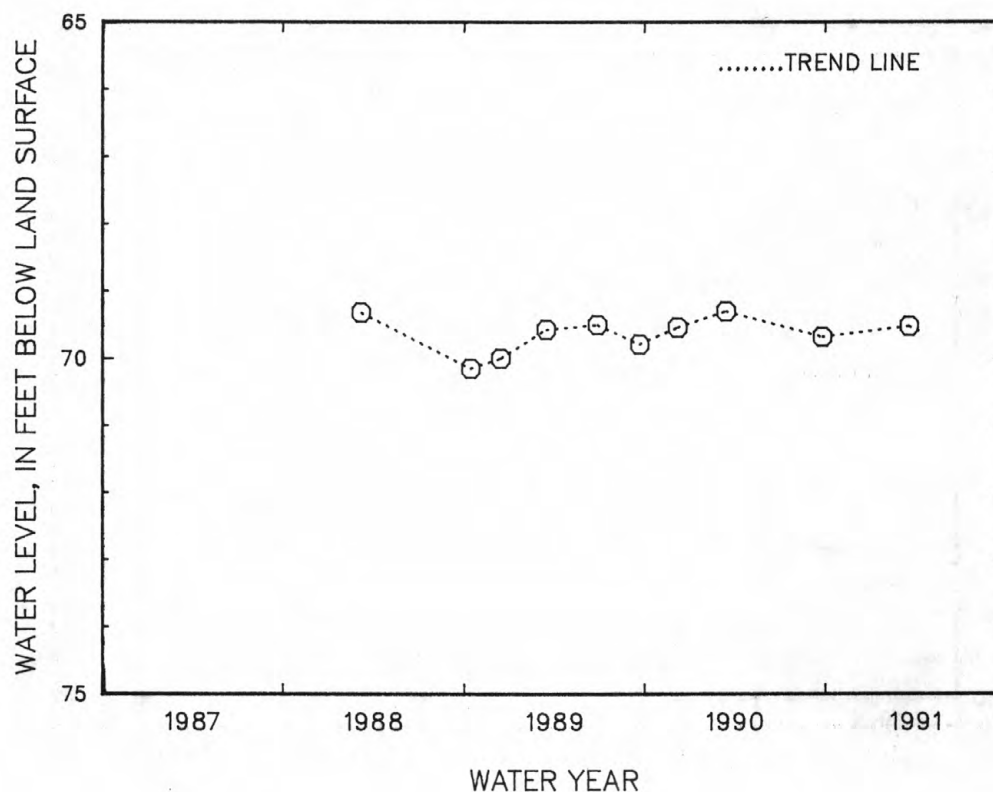
DATUM.--Elevation of land-surface datum is 120 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.6 ft above land-surface datum.

PERIOD OF RECORD.--March 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 69.30 ft below land-surface datum, Mar. 15, 1990; lowest measured, 70.15 ft below land-surface datum, Oct. 14, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 20 | 69.52          |



## GROUND-WATER LEVELS

267

## SOUTHAMPTON COUNTY

363916077201002. Local number, 52B 9 SOW 178B.

LOCATION.--Lat 36°39'16", long 77°20'10", Hydrologic Unit 03010204, 0.25 mi northeast of State Highway 661, 0.6 mi south of intersection of State Highways 652 and 661, and 4.5 mi southeast of Drewryville. Owner: Virginia Water Control Board.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 329 ft, screened 298 to 308 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Oct. 1, 1987, digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 120 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

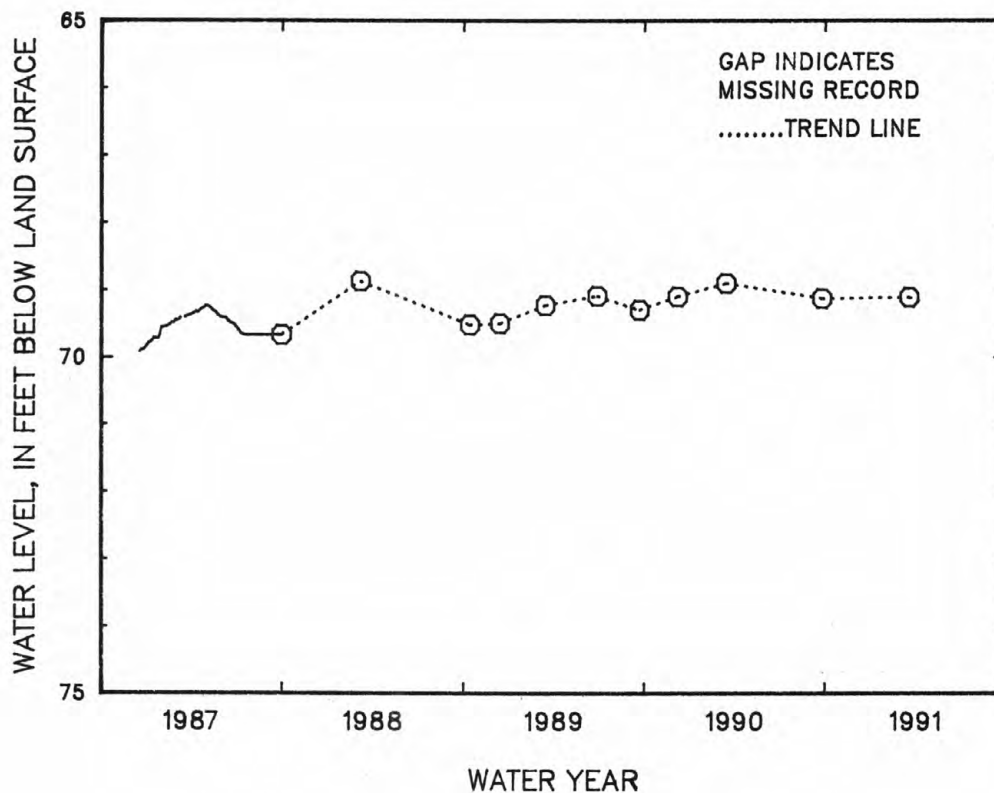
REMARKS.--Water level may be affected by regional drawdown.

PERIOD OF RECORD.--December 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 68.87 ft below land-surface datum, Mar. 7, 1988; lowest recorded, 70.44 ft below land-surface datum, Dec. 10-12, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 20 | 69.11          |



## GROUND-WATER LEVELS

## SOUTHAMPTON COUNTY

363916077201003. Local number, 52B 10, SOW 178C.

LOCATION.--Lat 36°39'16", long 77°20'10", Hydrologic Unit 03010204, 0.25 mi northeast of State Highway 661, 0.6 mi south of intersection of State Highways 652 and 661, and 4.5 mi southeast of Drewryville. Owner: Virginia Water Control Board.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 233 ft, screened 218 to 228 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Oct. 1, 1987, digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 120 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.9 ft above land-surface datum.

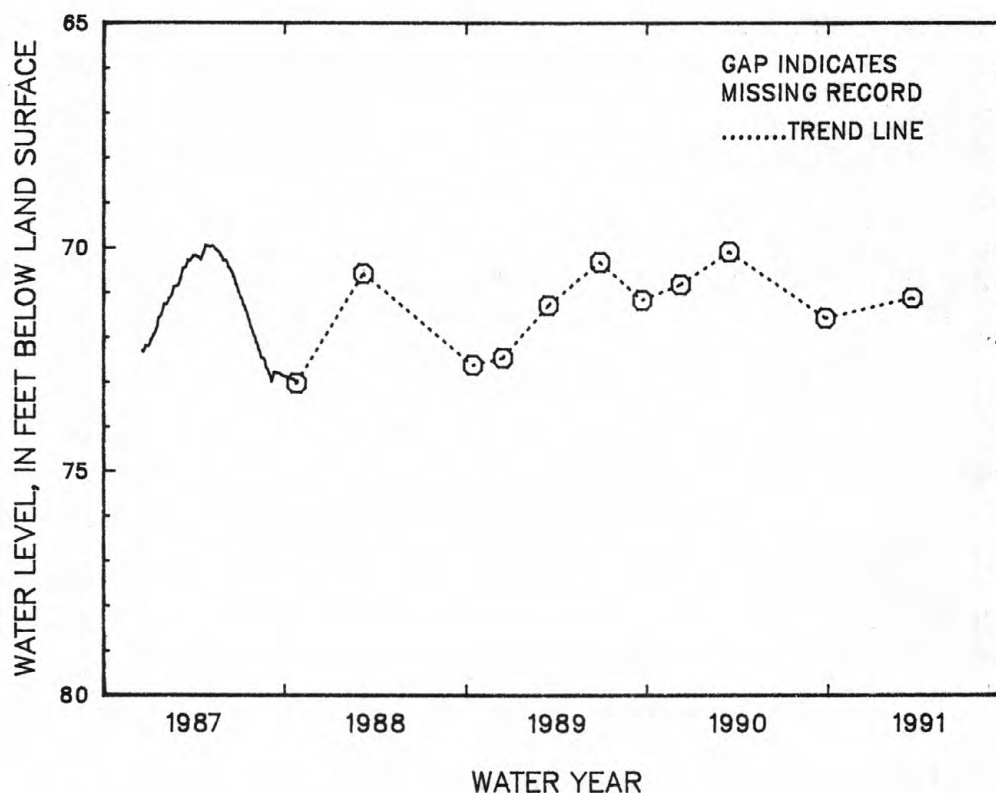
REMARKS.--Water level may be affected by regional drawdown.

PERIOD OF RECORD.--December 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 69.75 ft below land-surface datum, Apr. 16, 1987; lowest recorded, 72.97 ft below land-surface datum, Oct. 1, 24, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 20 | 71.10          |





## GROUND-WATER LEVELS

269

## SOUTHAMPTON COUNTY

363916077201004. Local number, 52B 11 SOW 178D.

LOCATION.--Lat 36°39'16", long 77°20'10", Hydrologic Unit 03010204, 0.25 mi northeast of State Highway 661, 0.6 mi south of intersection of State Highways 652 and 661, and 4.5 mi southeast of Drewryville. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 190 ft, screened 160 to 170 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to October 1987, digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 120 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.1 ft above land-surface datum.

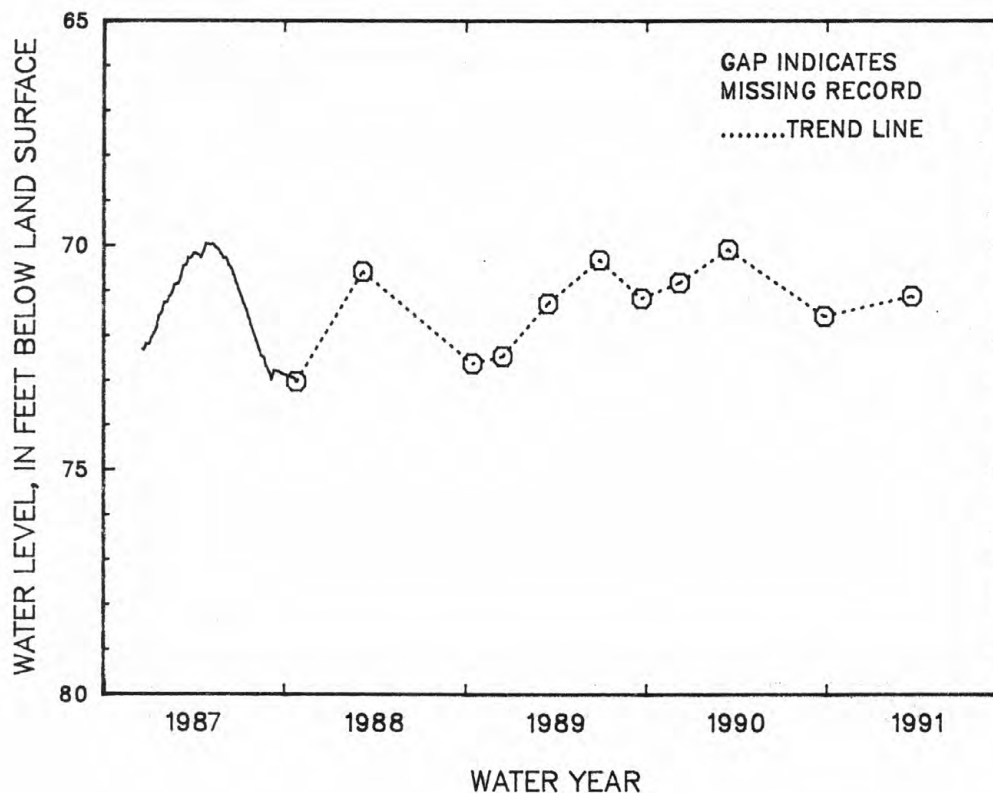
REMARKS.--Water level may be affected by regional drawdown.

PERIOD OF RECORD.--December 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 69.81 ft below land-surface datum, Apr. 16, 1987; lowest recorded, 73.03 ft below land-surface datum, Oct. 25, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 20 | 71.12          |



## GROUND-WATER LEVELS

## SOUTHAMPTON COUNTY

363916077201005. Local number, 52B 12 SOW 178E.

LOCATION.--Lat 36°39'16", long 77°20'10", Hydrologic Unit 03010204, 0.25 mi northeast of State Highway 661, 0.6 mi south of intersection of State Highways 652 and 661, and 4.5 mi southeast of Drewryville. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 135 ft, screened 120 to 130 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Oct. 1, 1987, digital recorder--60-minute punch.

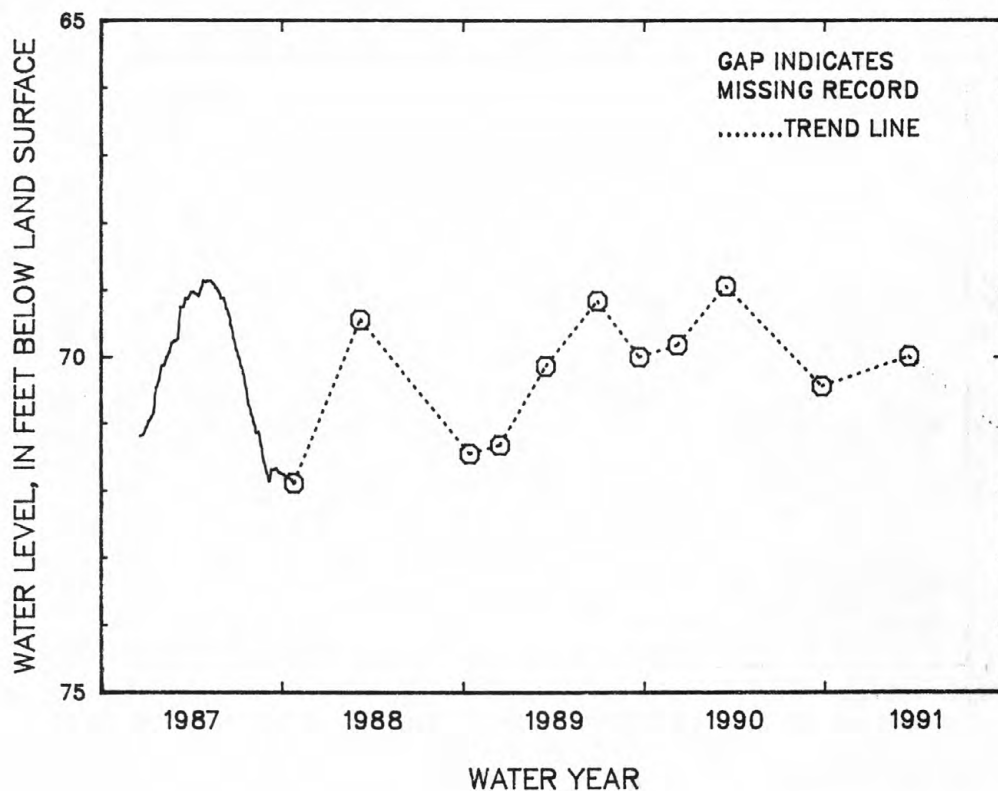
DATUM.--Elevation of land-surface datum is 120 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.2 ft above land-surface datum.

PERIOD OF RECORD.--December 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 68.75 ft below land-surface datum, Apr. 16, 1987; lowest recorded, 71.90 ft below land-surface datum, Oct. 23, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 20 | 69.99          |



## GROUND-WATER LEVELS

271

## SOUTHAMPTON COUNTY

363916077201006. Local number, 52B 13 SOW 178F.

LOCATION.--Lat 36°39'16", long 77°20'10", Hydrologic Unit 03010204, 0.25 mi northeast of State Highway 661, 0.6 mi south of intersection of State Highways 652 and 661, and 4.5 mi southeast of Drewryville. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 65 ft, screened 40 to 50 ft.

INSTRUMENTATION.--Occasional measurements with chalked tape by USGS personnel. Prior to Oct. 1, 1987, digital recorder--60-minute punch.

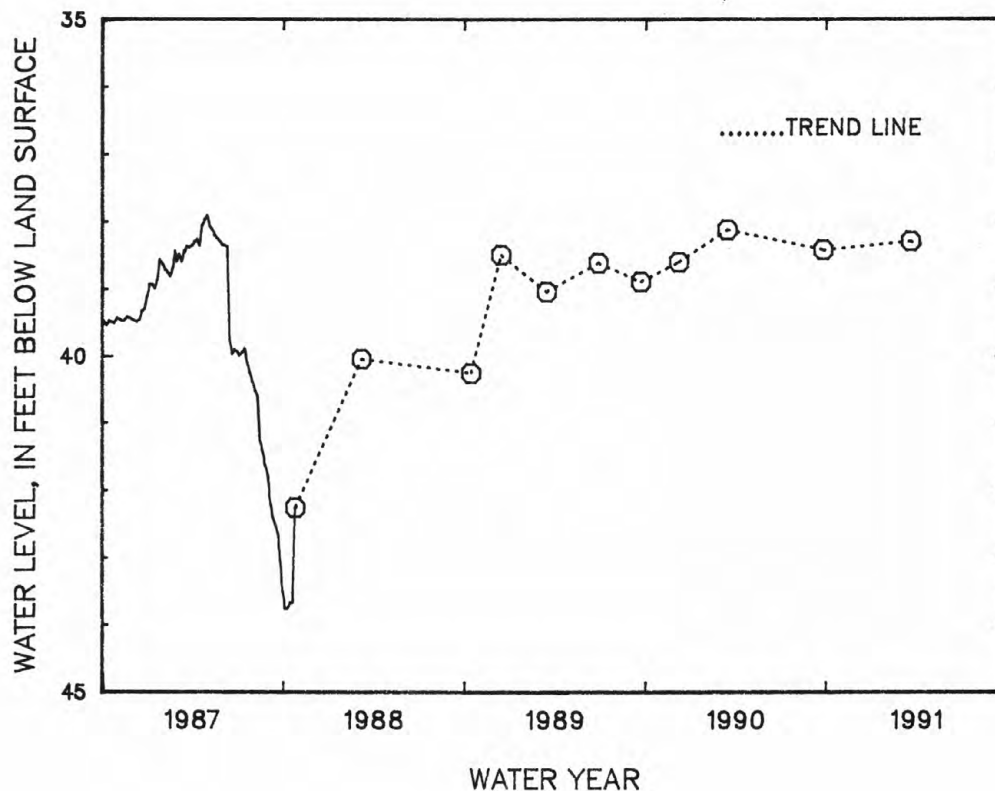
DATUM.--Elevation of land-surface datum is 120 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.9 ft above land-surface datum.

PERIOD OF RECORD.--December 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 37.90 ft below land-surface datum, Apr. 29, 1987; lowest recorded, 43.77 ft below land-surface datum, Oct. 6-9, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 20 | 38.29          |



## GROUND-WATER LEVELS

## SOUTHAMPTON COUNTY

363722077014601. Local number, 54A 1.

LOCATION.--Lat 36°37'22", long 77°01'46", Hydrologic Unit 03010201, 100 ft west of State Highway 681, 0.5 mi north of intersection of State Highways 672 and 681, and 2.4 mi north of Sunbeam. Owner: William Britt.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 4 in., depth 254 ft, screened 244 to 254 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 35 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.03 ft above land-surface datum.

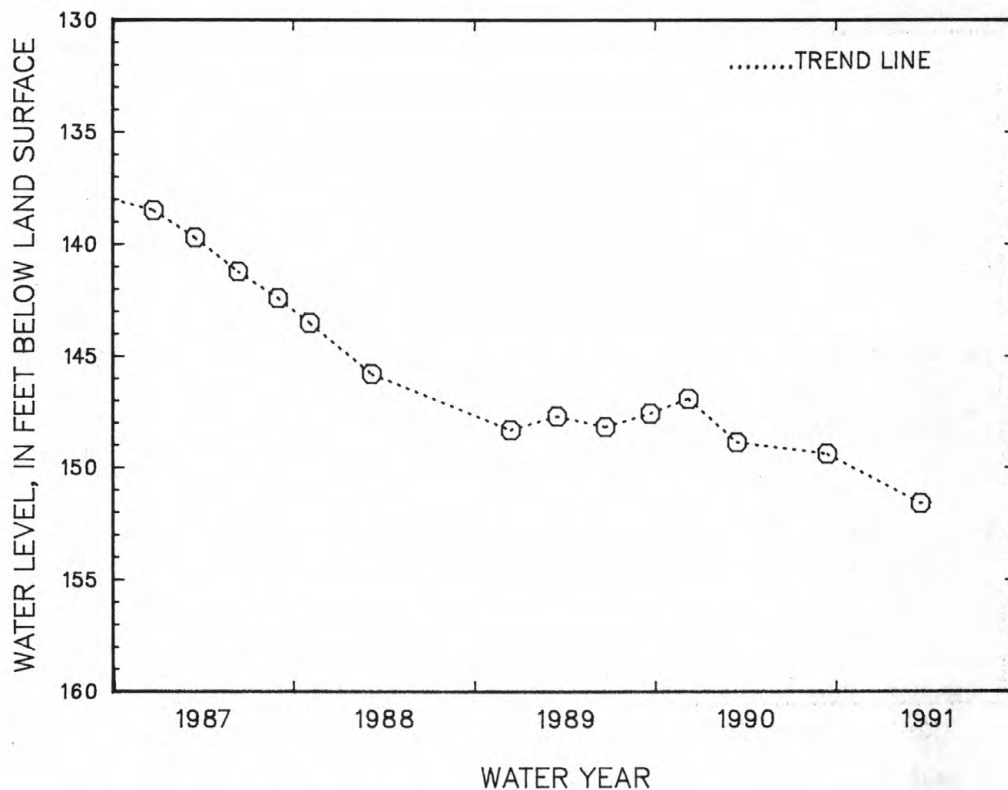
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--August 1970 to December 1975, January 1978 to current year. Unpublished records available prior to October 1985 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 113.40 ft below land-surface datum, Aug. 17, 1970; lowest measured, 151.60 ft below land-surface datum, Mar. 20, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 20 | 151.60         |



## GROUND-WATER LEVELS

273

## SOUTHAMPTON COUNTY

364121077013701. Local number, 54B 24 SOW 034.

LOCATION.--Lat 36°41'21", long 77°01'37", Hydrologic Unit 03010201, off U.S. Highway 58, 1.7 mi southeast of Courtland. Owner: Clarence Pittman.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in. to 71 ft, diameter 2 in. from 71 to 224 ft, depth 224 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 29 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.2 ft above land-surface datum.

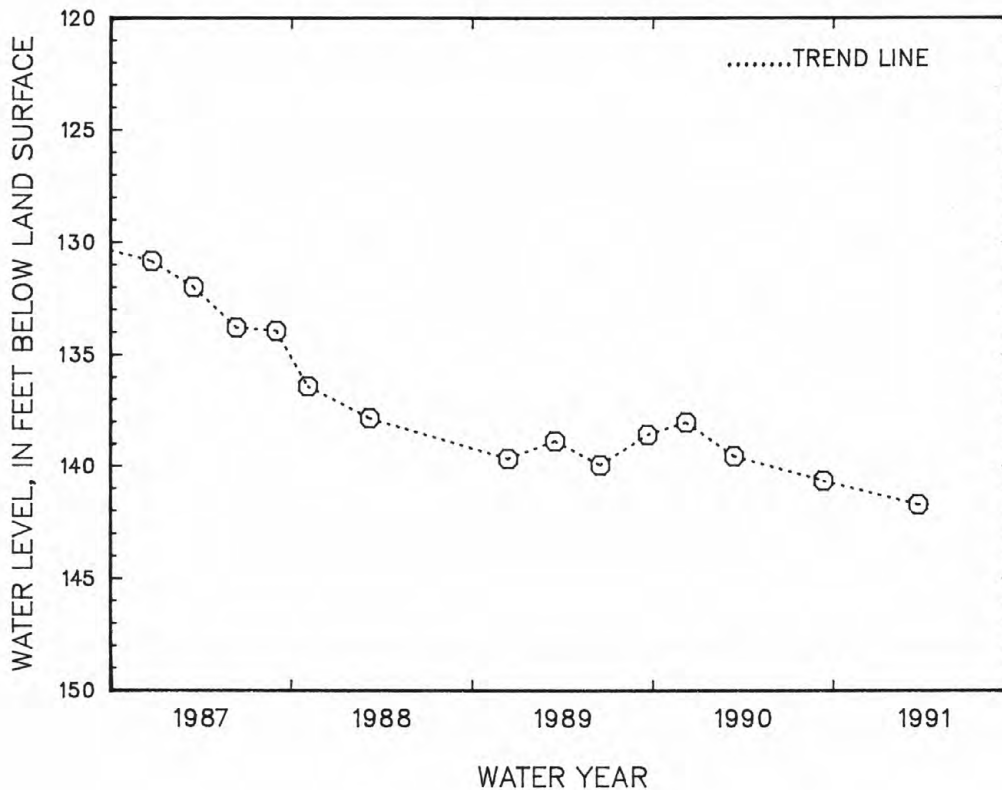
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--September 1970 to August 1974, December 1975, January 1978 to current year. Unpublished records available prior to October 1985 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 111.82 ft below land-surface datum, Dec. 29, 1970; lowest measured, 141.73 ft below land-surface datum, Mar. 21, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 21 | 141.73         |



## GROUND-WATER LEVELS

## SOUTHAMPTON COUNTY

364706077072301. Local number, 54C 1.

LOCATION.--Lat 36°47'06", long 77°07'23", Hydrologic Unit 03010201, 0.25 mi northwest of intersection of State Highways 35 and 713 in Sebrell. Owner: Norfolk and Western Railway.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 10 in., depth 344 ft, screen depth unknown.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 58.4 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, at land-surface datum.

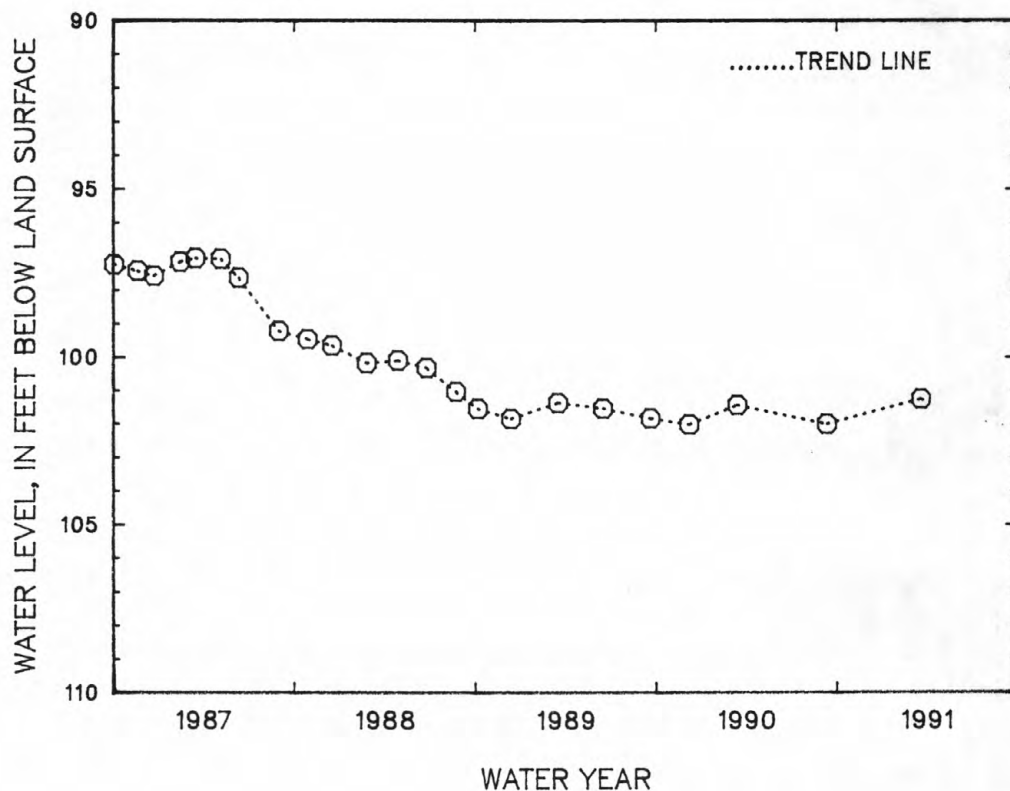
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--1907, July 1938, April 1940 to December 1946, October 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.00 ft below land-surface datum, 1907; lowest measured, 102.02 ft below land-surface datum, Dec. 7, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 21 | 101.26         |





## GROUND-WATER LEVELS

275

## SOUTHAMPTON COUNTY

363632076580101. Local number, 55A 3 SOW 086.

LOCATION.--Lat 36°36'32", long 76°58'01", Hydrologic Unit 03010201, 0.1 mi southeast of intersection of State Highways 687 and 689, 4.0 mi southwest of Franklin. Owner: Virginia Water Control Board.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 4 in., depth 745 ft, screened 714 to 724 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Dec. 1, 1988, bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 18 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum prior to Jan. 11, 1988; 1.3 ft thereafter.

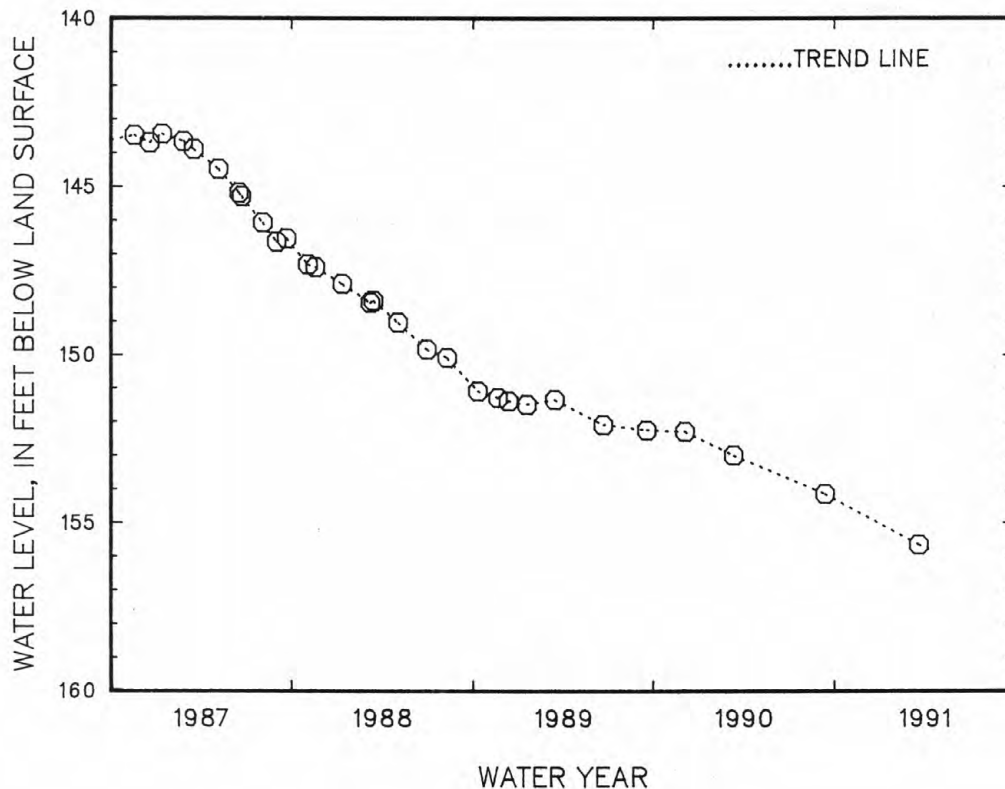
REMARKS.--Records provided by the Virginia Water Control Board prior to Mar. 1, 1989; U.S. Geological Survey thereafter. Water level affected by regional drawdown.

PERIOD OF RECORD.--March 1977, October 1978 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 125.00 ft below land-surface datum, Mar. 18, 1977; lowest measured, 155.67 ft below land-surface datum, Mar. 21, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 21 | 155.67         |



## GROUND-WATER LEVELS

## SOUTHAMPTON COUNTY

365120076585101. Local number, 55C 10.

LOCATION.--Lat 36°51'20", long 76°58'51", Hydrologic Unit 03010202, 100 ft west of State Highway 616, 0.3 mi south of Berlin. Owner: R. L. Hurrup.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 4 in., depth 326 ft, screened 316 to 326 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 65 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

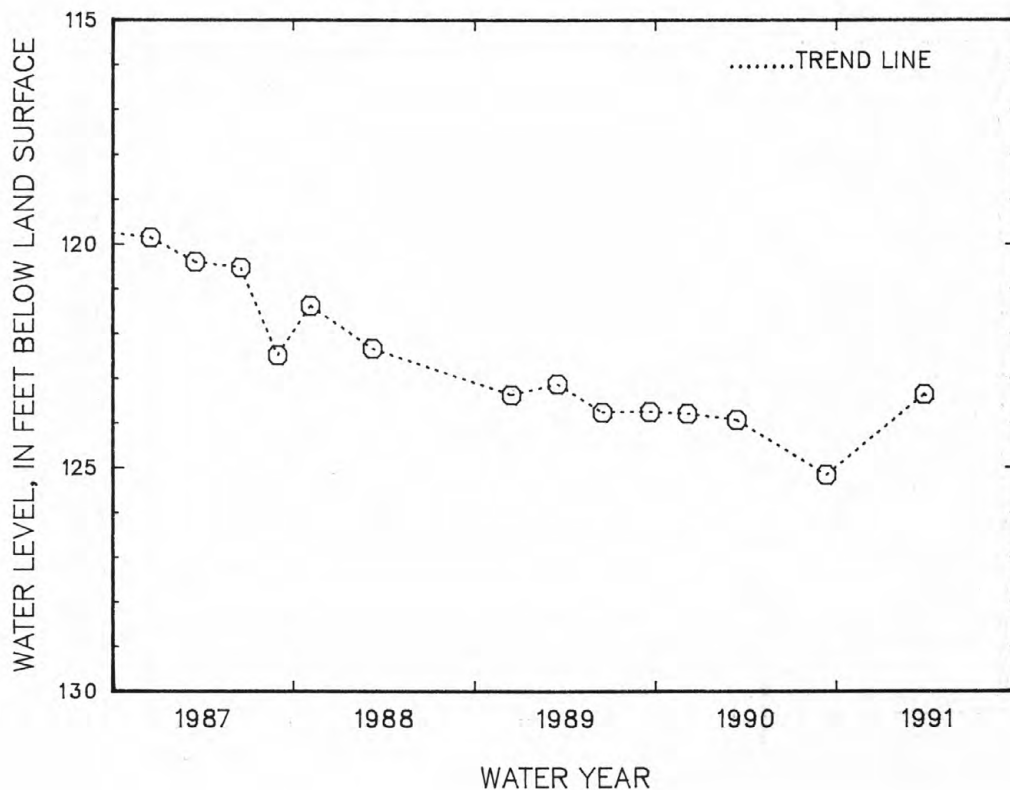
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--August 1970 to December 1975, January 1978 to current year. Unpublished records available prior to October 1985 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 94.62 ft below land-surface datum, Aug. 21, 1970; lowest measured, 125.17 ft below land-surface datum, Sept. 11, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 28 | 123.36         |



## GROUND-WATER LEVELS

277

## SOUTHAMPTON COUNTY

365415076535201. Local number, 55D 5.

LOCATION.--Lat 36°54'15", long 76°53'20", Hydrologic Unit 03010202, off State Highway 616, 0.25 mi southwest of intersection of State Highway 616 and U.S. Highway 460 in Ivor. Owner: Town of Ivor.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 8 in., depth 450 ft, screened 384 to 394 ft, 425 to 440 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 90 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of water-level access line, 1.75 ft above land-surface datum.

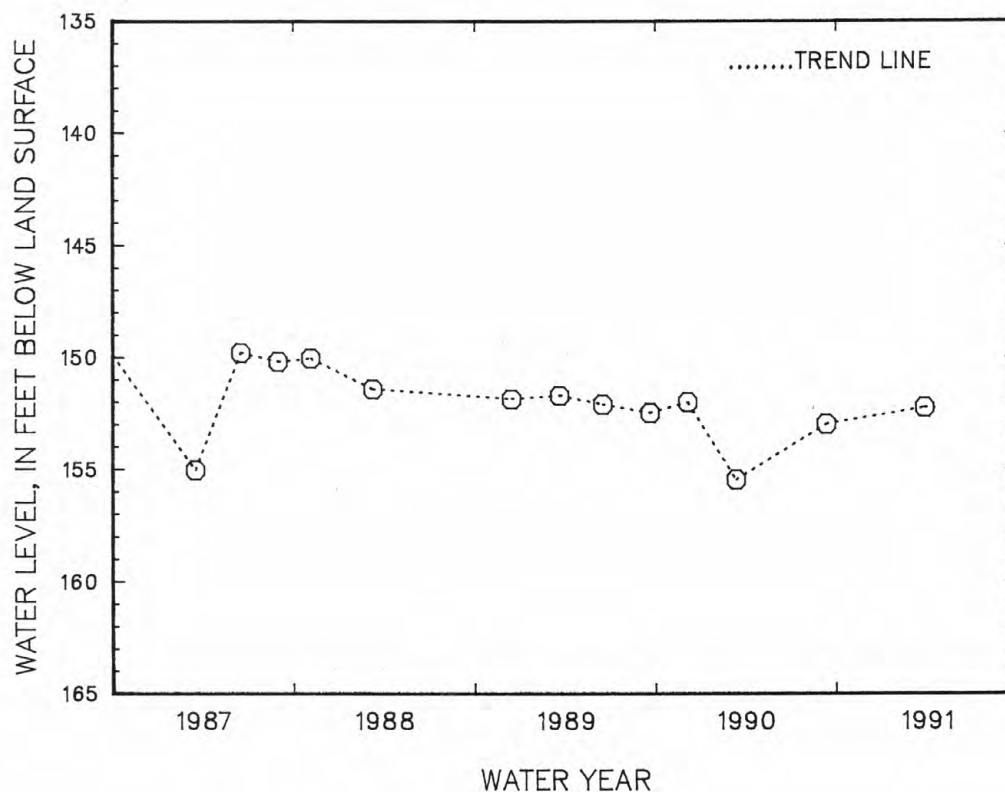
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--October 1970 to December 1975, January 1978 to current year. Unpublished records available prior to October 1985 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 120.47 ft below land-surface datum, Nov. 2, 1970; lowest measured, 155.49 ft below land-surface datum, Mar. 13, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 28 | 152.26         |



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

363511076492901. Local number, 56A 1 SOW 047.

LOCATION.--Lat 36°35'11", long 76°49'29", Hydrologic Unit 03010203, at intersection of State Highways 666 and 667, 0.5 mi southeast of Cleopus. Owner: Virginia Water Control Board.

AQUIFER.--Lower, middle, and upper Potomac aquifers of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 1,149.5 ft, screened 401 to 406 ft, 495 to 500 ft, 628 to 633 ft, 727 to 732 ft, 989 to 999 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Mar. 1, 1989, bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 37 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

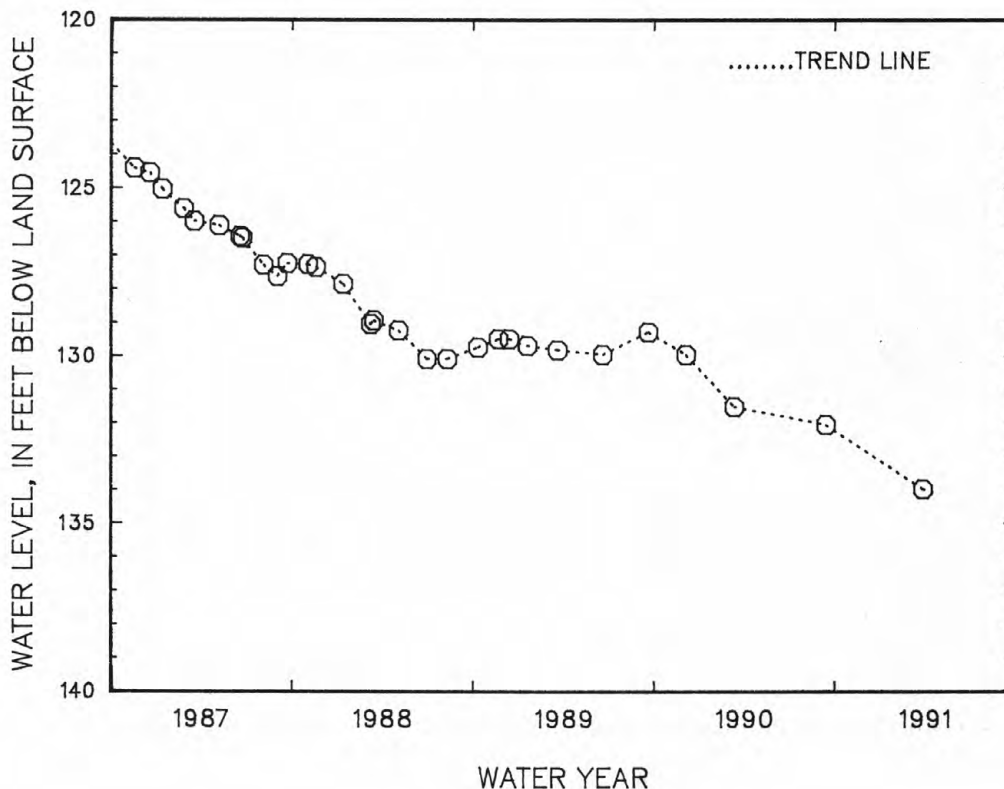
REMARKS.--Records provided by the Virginia Water Control Board prior to Mar. 1, 1989; U.S. Geological Survey thereafter.

PERIOD OF RECORD.--June 1971 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 101.00 ft below land-surface datum, Nov. 15, 1973; lowest measured, 133.99 ft below land-surface datum, Mar. 28, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 28 | 133.99         |



## GROUND-WATER LEVELS

279

## CITY OF SUFFOLK

363625076522601. Local number, 56A 9 SOW 076A.

LOCATION.--Lat 36°36'25", long 76°52'26", Hydrologic Unit 03010203, 700 ft west of State Highway 615, 8.1 mi south of Holland. Owner: Virginia Water Control Board.

AQUIFER.--Lower, middle, and upper Potomac aquifers of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 519 ft, screened 452 to 457 ft, 500 to 505 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Mar. 1, 1989, bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 80 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.5 ft above land-surface datum prior to Jan. 12, 1988; 2.0 ft thereafter.

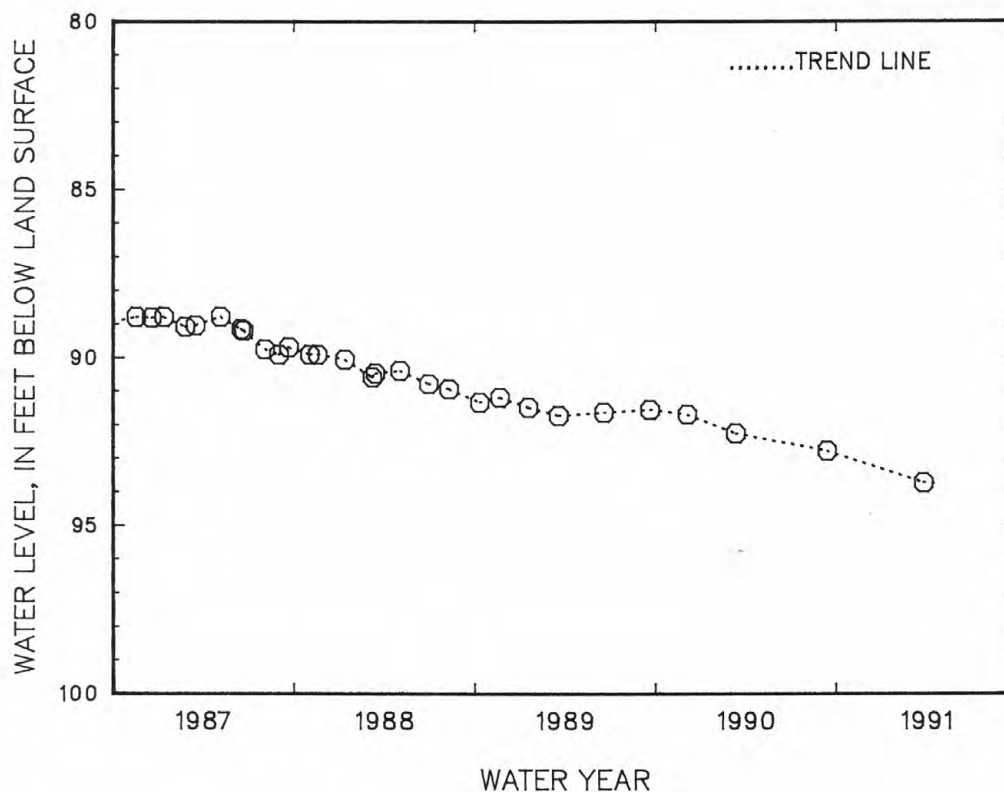
REMARKS.--Records provided by the Virginia Water Control Board prior to Mar. 1, 1989; U.S. Geological Survey thereafter.

PERIOD OF RECORD.--July 1978 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 81.99 ft below land-surface datum, Jan. 8, 1979; lowest measured, 93.75 ft below land-surface datum, Mar. 27, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 27 | 93.75          |



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

363345076470201. Local number, 56A 10 SOW 088A.

LOCATION.--Lat 36°33'45", long 76°47'02", Hydrologic Unit 03010203, 0.1 mi north of intersection of State Highways 668 and 669, 1.9 mi west of Somerton. Owner: Virginia Water Control Board.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 1,060 ft, screened 1,050 to 1,060 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Mar. 1, 1989, semiannual measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum prior to Jan. 12, 1988; 1.3 ft thereafter.

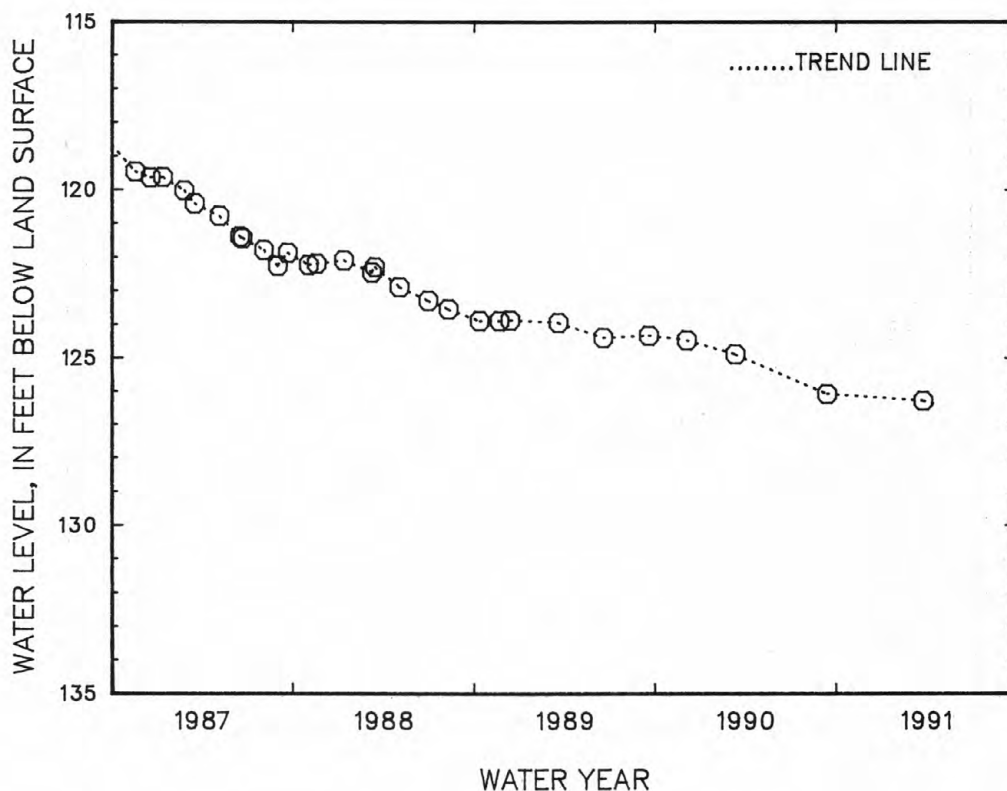
REMARKS.--Records provided by the Virginia Water Control Board prior to Mar. 1, 1989; U.S. Geological Survey thereafter. Water level affected by regional drawdown.

PERIOD OF RECORD.--June 1977 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 104.70 ft below land-surface datum, June 30, 1980; lowest measured, 126.30 ft below land-surface datum, Mar. 27, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 27 | 126.30         |





## GROUND-WATER LEVELS

281

## CITY OF SUFFOLK

363653076455401. Local number, 56A 11 SOW 089.

LOCATION.--Lat 36°36'53", long 76°45'54", Hydrologic Unit 03010203, off State Highway 616, 1.1 mi east of Holy Neck Church, and 3.4 mi north of Somerton. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 861 ft, screened 830 to 840 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Mar. 1, 1989, bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 79 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum prior to Nov. 18, 1987; 0.6 ft Nov. 18, 1987, to Jan. 12, 1988; 1.3 ft thereafter.

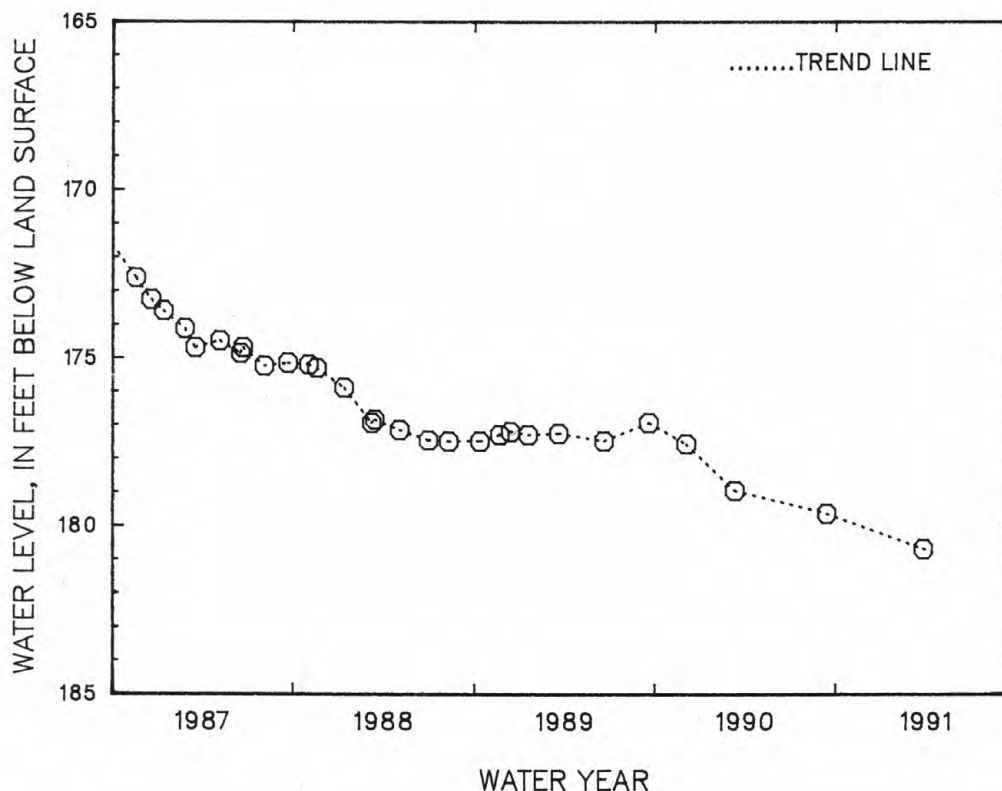
REMARKS.--Records provided by the Virginia Water Control Board prior to Mar. 1, 1989; U.S. Geological Survey thereafter. Water level affected by regional drawdown.

PERIOD OF RECORD.--August 1977 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 154.00 ft below land-surface datum, Aug. 9, 1977; lowest measured, 180.70 ft below land-surface datum, Mar. 28, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 28 | 180.70         |



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

363345076470202. Local number, 56A 12 SOW 088B.

LOCATION.--Lat 36°33'45", long 76°47'02", Hydrologic Unit 03010203, 0.1 mi north of intersection of State Highways 668 and 669, 1.9 mi west of Somerton. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 580 ft, screened 570 to 580 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Mar. 1, 1989, bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum prior to Jan. 12, 1988; 1.3 ft thereafter.

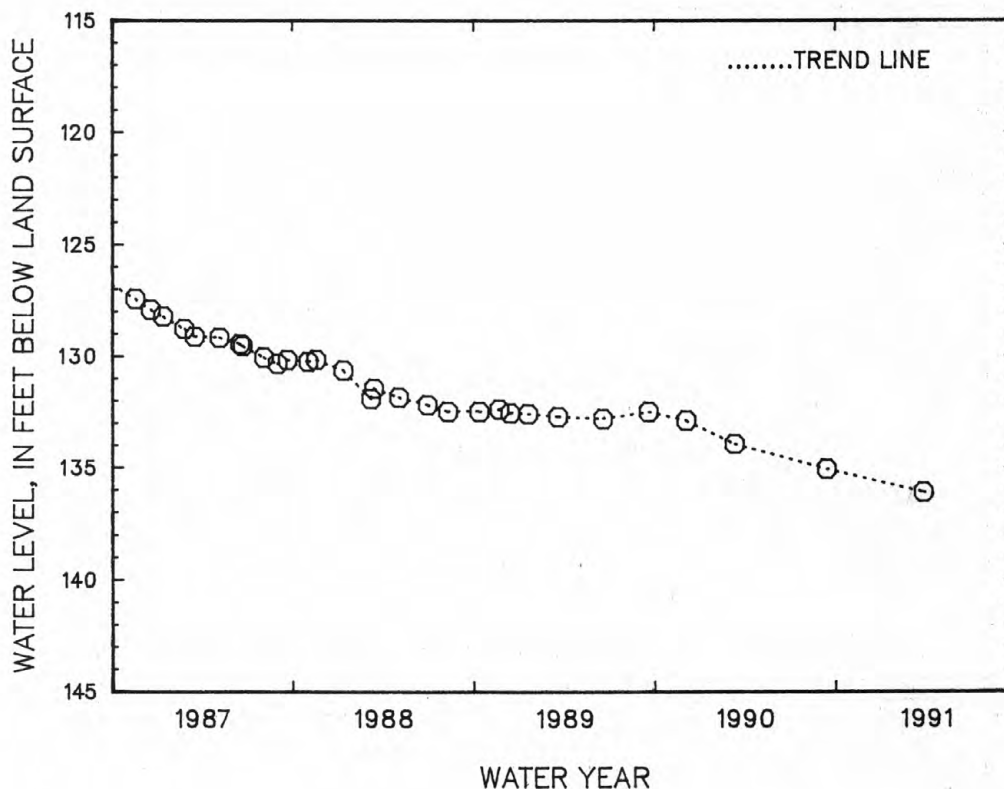
REMARKS.--Records provided by the Virginia Water Control Board prior to Mar. 1, 1989; U.S. Geological Survey thereafter. Water level affected by regional drawdown.

PERIOD OF RECORD.--June 1977 to November 1982, June 1985 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 103.00 ft below land-surface datum, June 30, 1977; lowest measured, 136.13 ft below land-surface datum, Mar. 27, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 27 | 136.13         |



## GROUND-WATER LEVELS

283

## CITY OF SUFFOLK

363625076522602. Local number, 56A 13 SOW 076B.

LOCATION.--Lat 36°36'25", long 76°52'26", Hydrologic Unit 03010203, 700 ft west of State Highway 615, 0.5 mi southwest of Olive Branch Church, and 8.1 mi south of Holland. Owner: Virginia Water Control Board.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 807 ft, screened 797 to 802 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Mar. 1, 1989, bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 75 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum prior to Jan. 12, 1988; 0.8 ft thereafter.

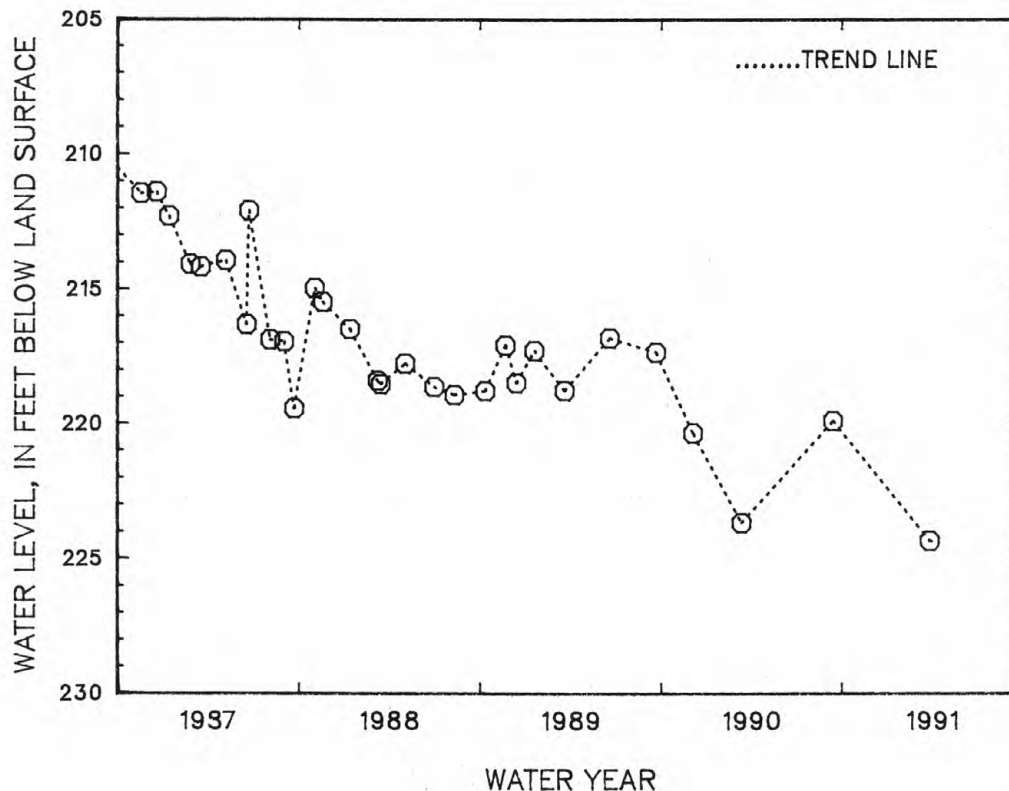
REMARKS.--Records provided by the Virginia Water Control Board prior to Mar. 1, 1989; U.S. Geological Survey thereafter. Water level affected by local pumpage and regional drawdown.

PERIOD OF RECORD.--May 1979 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 204.34 ft below land-surface datum, Oct. 26, 1982; lowest measured, 224.37 ft below land-surface datum, Mar. 27, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 27 | 224.37         |



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

363625076522603. Local number, 56A 14 SOW 076C.

LOCATION.--Lat 36°36'25", long 76°52'26", Hydrologic Unit 03010203, 700 ft west of State Highway 615, 0.5 mi southwest of Olive Branch Church, and 8.1 mi south of Holland. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 735 ft, screened 730 to 735 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Mar. 1, 1989, bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 75 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum prior to Jan. 12, 1988; 1.2 ft thereafter.

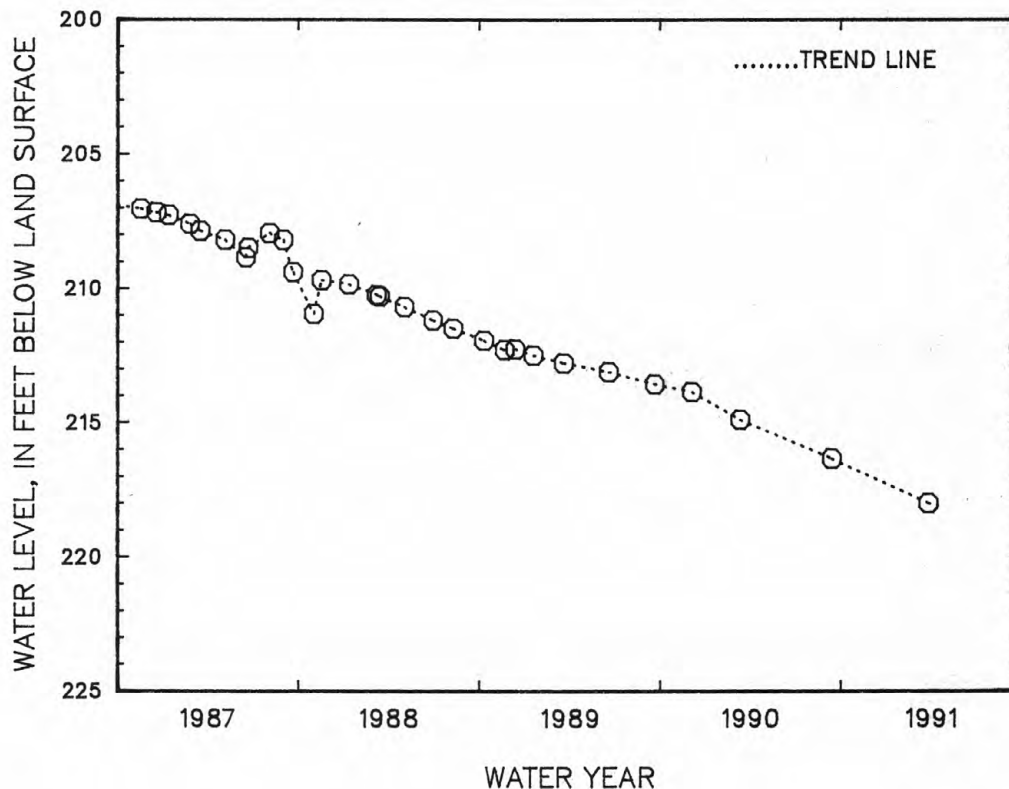
REMARKS.--Records provided by the Virginia Water Control Board prior to Mar. 1, 1989; U.S. Geological Survey thereafter. Water level affected by regional drawdown.

PERIOD OF RECORD.--March 1979 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 205.62 ft below land-surface datum, Mar. 7, 1979; lowest measured, 218.02 ft below land-surface datum, Mar. 27, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 27 | 218.02         |



## GROUND-WATER LEVELS

285

## CITY OF SUFFOLK

363611076400901. Local number, 57A 6 SOW 085.

LOCATION.--Lat 36°36'11", long 76°40'09", Hydrologic Unit 03010203, at Virginia Department of Transportation shop off U.S. Highway 13, 0.3 mi northeast of Whaleyville. Owner: Virginia Water Control Board.

AQUIFER.--Lower and middle Potomac aquifers of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 1,095 ft, screened 660 to 665 ft, 833 to 838 ft, 988 to 993 ft, 1,069 to 1,074 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Mar. 1, 1989, bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 73 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.25 ft above land-surface datum.

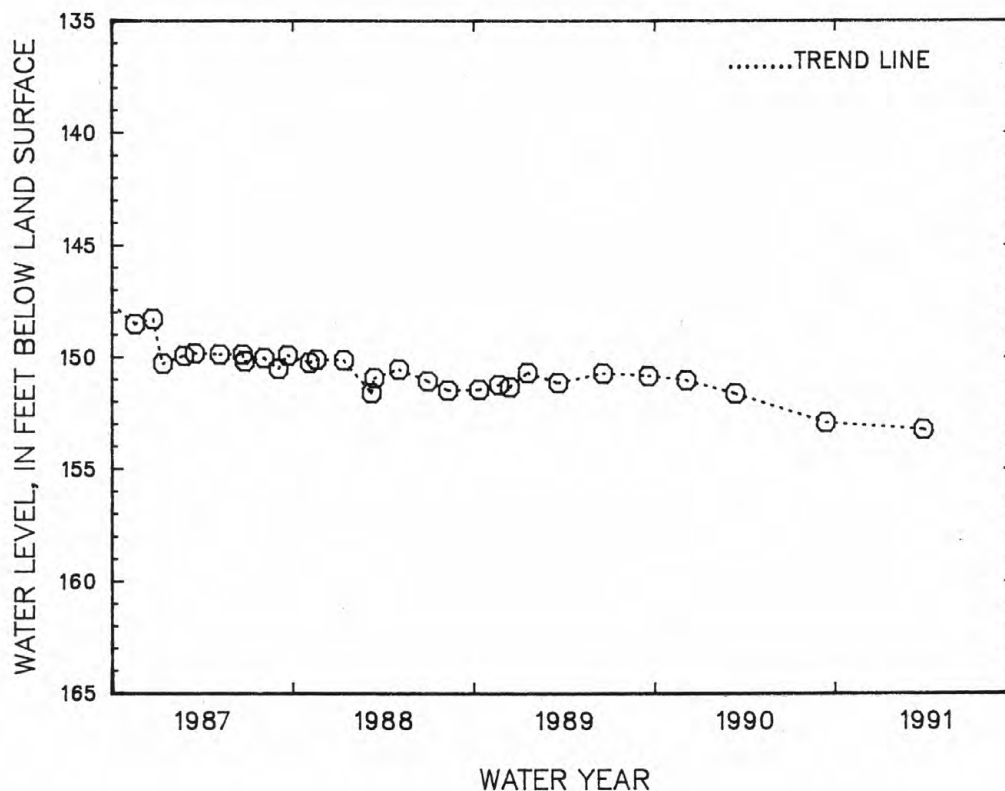
REMARKS.--Records provided by the Virginia Water Control Board prior to Mar. 1, 1989; U.S. Geological Survey thereafter. Water level affected by regional drawdown.

PERIOD OF RECORD.--February 1978 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 137.54 ft below land-surface datum, Mar. 22, 1978; lowest measured, 153.27 ft below land-surface datum, Mar. 28, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 28 | 153.27         |



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

364013076434601. Local number, 57B 1.

LOCATION.--Lat 36°40'13", long 76°43'46", Hydrologic Unit 03010202, at the Virginia Swine Evaluation Station, 0.2 mi east of State Highway 610, and 2.3 mi southwest of Lummis. Owner: Virginia Cooperative Extension Service.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 4 in., depth 496 ft, screened 472 to 496 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Dec. 1, 1988, bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 65 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.7 ft above land-surface datum.

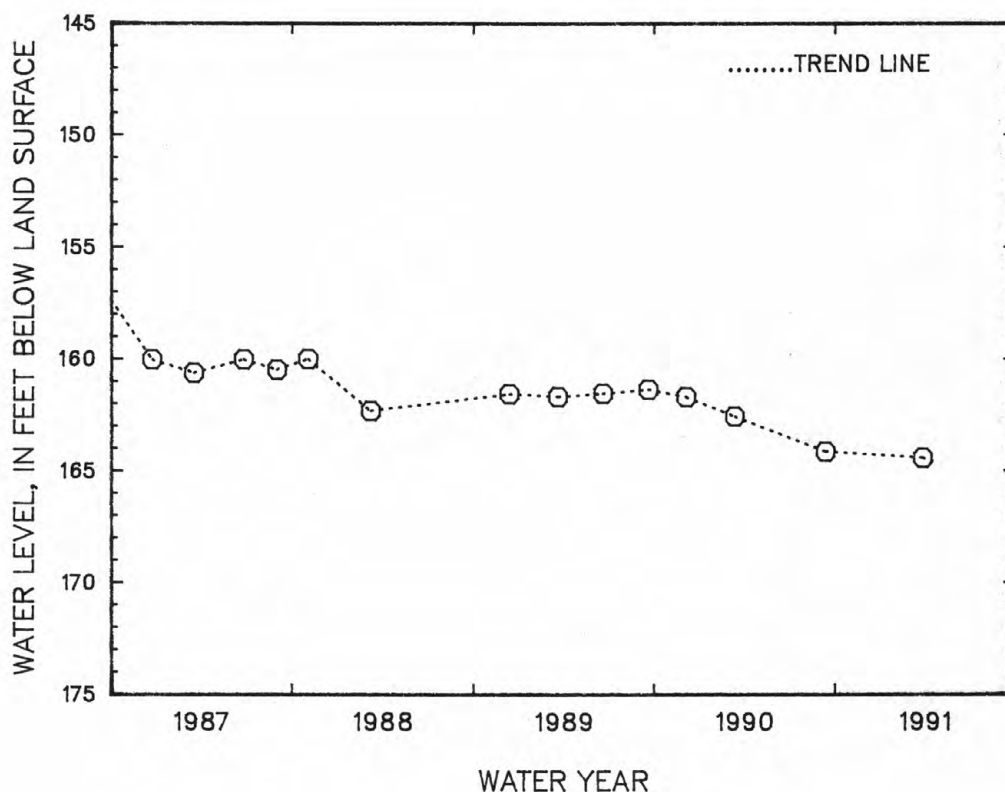
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--August 1970 to December 1975, January 1978 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 127.09 ft below land-surface datum, Aug. 26, 1970; lowest measured, 164.45 ft below land-surface datum, Mar. 28, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 28 | 164.45         |





## GROUND-WATER LEVELS

287

## CITY OF SUFFOLK

363834076382301. Local number, 57B 8.

LOCATION.--Lat 36°38'27", long 76°38'05", Hydrologic Unit 03010205, 0.3 mi southwest of State Highway 664, 0.8 mi southeast of U.S. Highway 13, and 1.1 mi south of Nurneysville. Owner: Soren F. Andresen.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled flowing water well, diameter 2 in., depth 65 ft, screened 50 to 65 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Dec. 1, 1988, to June 1, 1990, quarterly measurement with a manometer. Prior to Dec. 1, 1988, bimonthly measurement with a manometer.

DATUM.--Elevation of land-surface datum is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: At land-surface datum.

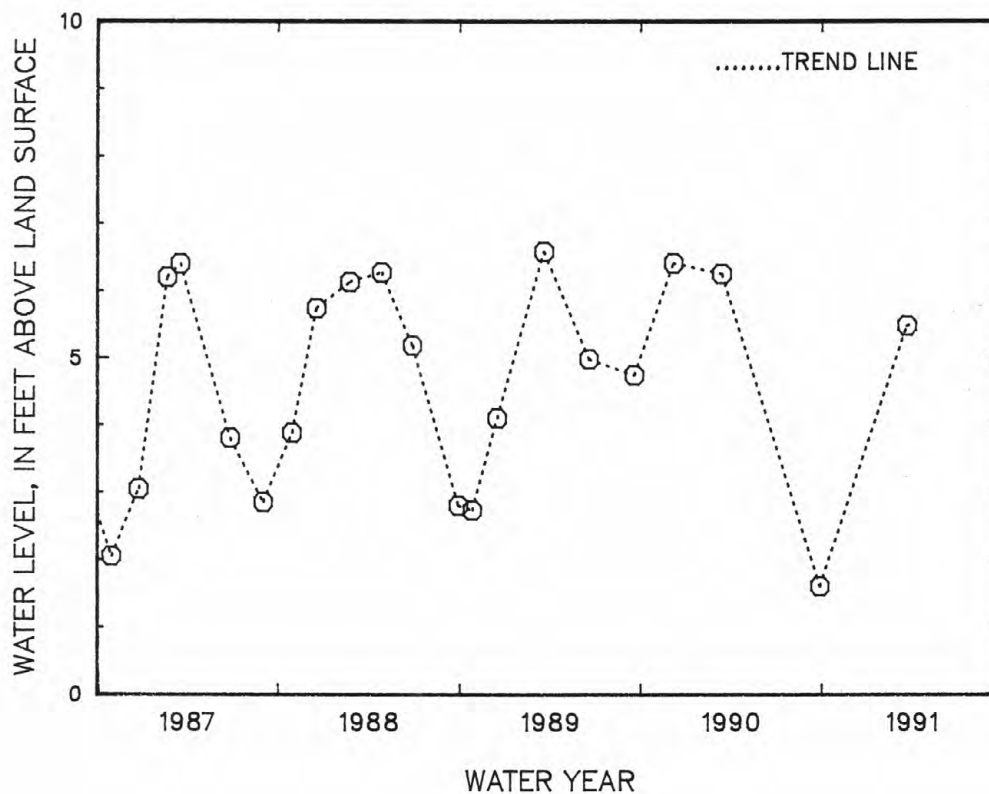
PERIOD OF RECORD.--March 1975, November 1977 to current year. Unpublished records available March 1975 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.58 ft above land-surface datum, Mar. 20, 1989; lowest measured, at land-surface datum, Sept. 26, 1980.

WATER LEVEL, IN FEET ABOVE LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 22 | 5.48           |

NOTE.--Flowing well; readings given are above land-surface datum.



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

364703076383701. Local number, 57C 21 SOW 099A.

LOCATION.--Lat 36°47'03", long 76°38'37", Hydrologic Unit 02080208, 700 ft south of U.S. Highway 460, 0.5 mi west of Providence Church, and 1.0 mi west of Kings Fork. Owner: Virginia Water Control Board.

AQUIFER.--Aquia aquifer of Paleocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 248 ft, screened 233 to 248 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 7, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 72 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum prior to Jan. 12, 1988; 1.1 ft thereafter.

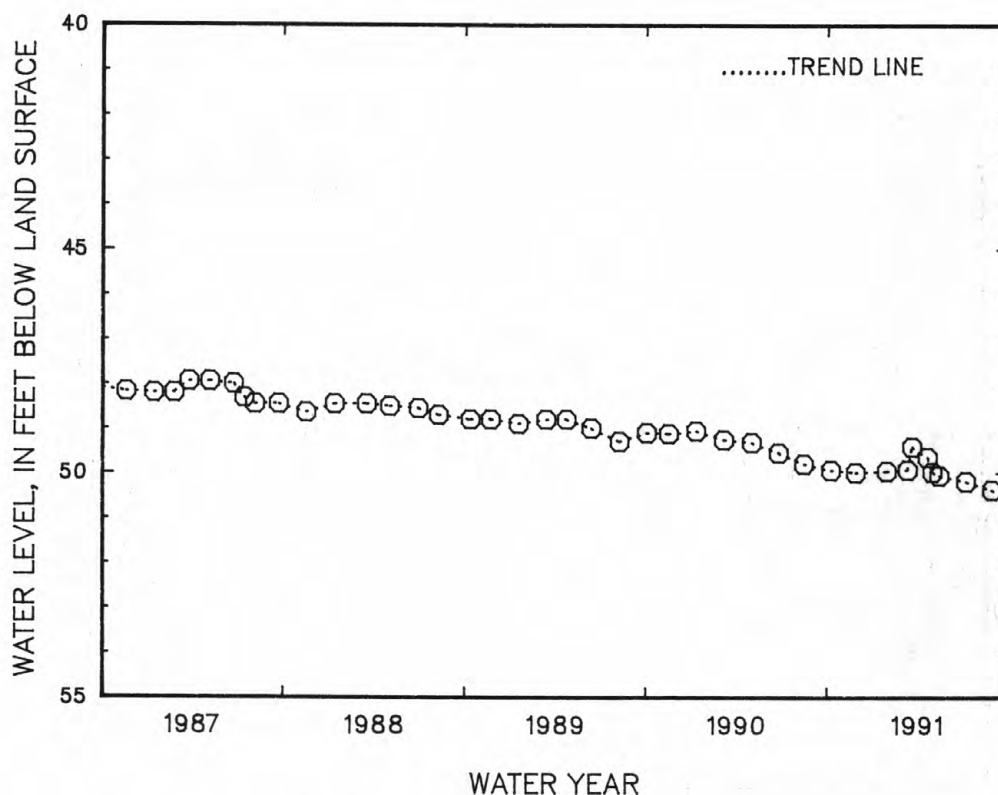
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--September 1983 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.32 ft below land-surface datum, Apr. 19, 1984; lowest measured, 50.38 ft below land-surface datum, Aug. 30, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE                       | WATER LEVEL | DATE                      | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|----------------------------|-------------|---------------------------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 09          | 49.94       | JAN 30                     | 49.96       | MAR 22                    | 49.41       | MAY 02 | 49.98       | JUL 09 | 50.19       | AUG 30 | 50.38       |
| NOV 28          | 49.99       | MAR 13                     | 49.93       | APR 22                    | 49.65       | MAY 16 | 50.06       |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST 49.41 MAR 22, 1991 |             | LOWEST 50.38 AUG 30, 1991 |             |        |             |        |             |        |             |



## GROUND-WATER LEVELS

289

## CITY OF SUFFOLK

364703076383702. Local number, 57C 22 SOW 099B.

LOCATION.--Lat 36°47'03", long 76°38'37", Hydrologic Unit 02080208, 700 ft south of U.S. Highway 460, 0.5 mi west of Providence Church, and 1.0 mi west of Kings Fork. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 694 ft, screened 684 to 694 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to Aug. 5, 1981, occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 72 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 2.0 ft above land-surface datum prior to July 14, 1987; 1.7 ft thereafter.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage and regional drawdown.

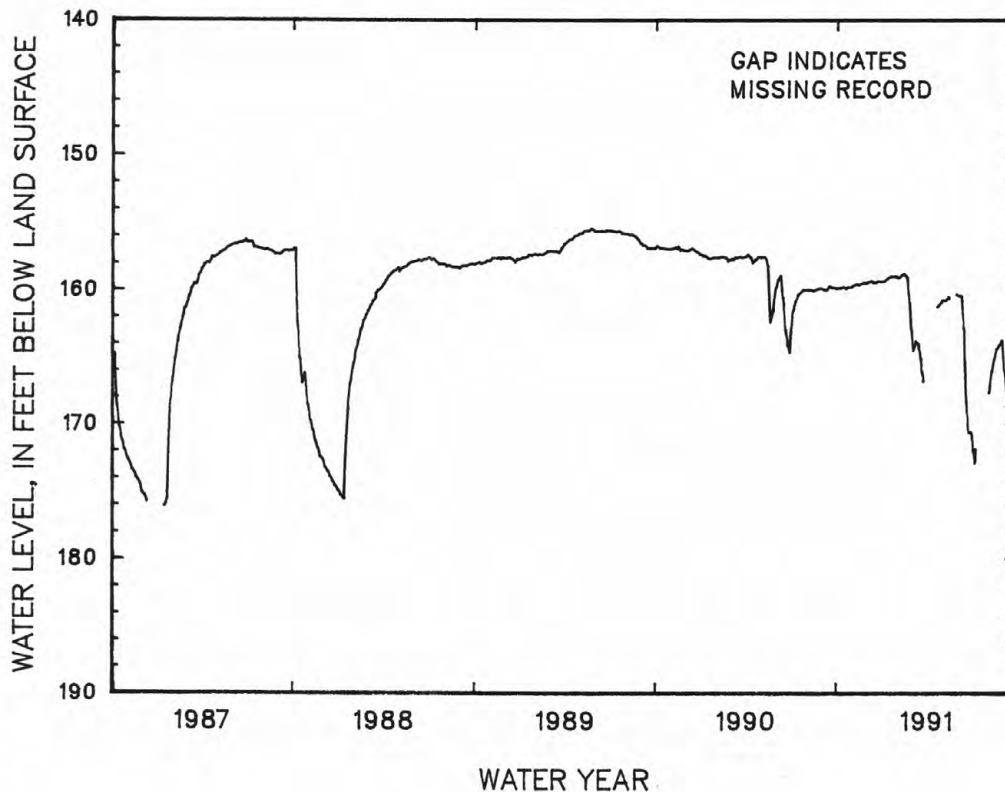
PERIOD OF RECORD.--February 1980 to current year. Unpublished records available prior to August 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 128.24 ft below land-surface datum, Feb. 18, 1980; lowest recorded, 176.13 ft below land-surface datum, Jan. 13, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5   | 159.88 | 159.66 | 159.40 | 159.35 | 159.09 | 164.50 | ---    | 160.81 | 160.42 | 172.03 | 167.65 | 165.90 |
| 10  | 159.84 | 159.59 | 159.35 | 159.22 | 158.90 | 163.87 | ---    | 160.77 | 160.46 | ---    | 166.15 | 167.45 |
| 15  | 159.80 | 159.63 | 159.44 | 159.06 | 158.87 | 164.11 | ---    | 160.55 | 162.81 | ---    | 165.21 | 168.51 |
| 20  | 159.90 | 159.55 | 159.42 | 159.00 | 159.04 | 165.08 | ---    | ---    | 168.40 | ---    | 164.45 | 169.85 |
| 25  | 159.80 | 159.49 | 159.35 | 159.02 | 160.91 | 166.80 | 161.17 | ---    | 170.61 | ---    | 164.18 | 169.66 |
| EOM | 159.78 | 159.51 | 159.39 | 159.06 | 162.90 | ---    | 160.97 | 160.35 | 170.63 | ---    | 163.80 | 170.35 |

WATER YEAR 1991      HIGHEST 158.79 FEB 14, 1991      LOWEST 172.89 JUL 08, 1991



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

364703076383703. Local number, 57C 23 SOW 099C.

LOCATION.--Lat 36°47'03", Long 76°38'37", Hydrologic Unit 02080208, 700 ft south of U.S. Highway 460, 0.5 mi west of Providence Church, and 1.0 mi west of Kings Fork. Owner: Virginia Water Control Board.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 478 ft, screened 468 to 478 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Feb. 15, 1986, to Sept. 30, 1988, continuous strip-chart recorder. Prior to Feb. 15, 1986, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 72 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.6 ft above land-surface datum.

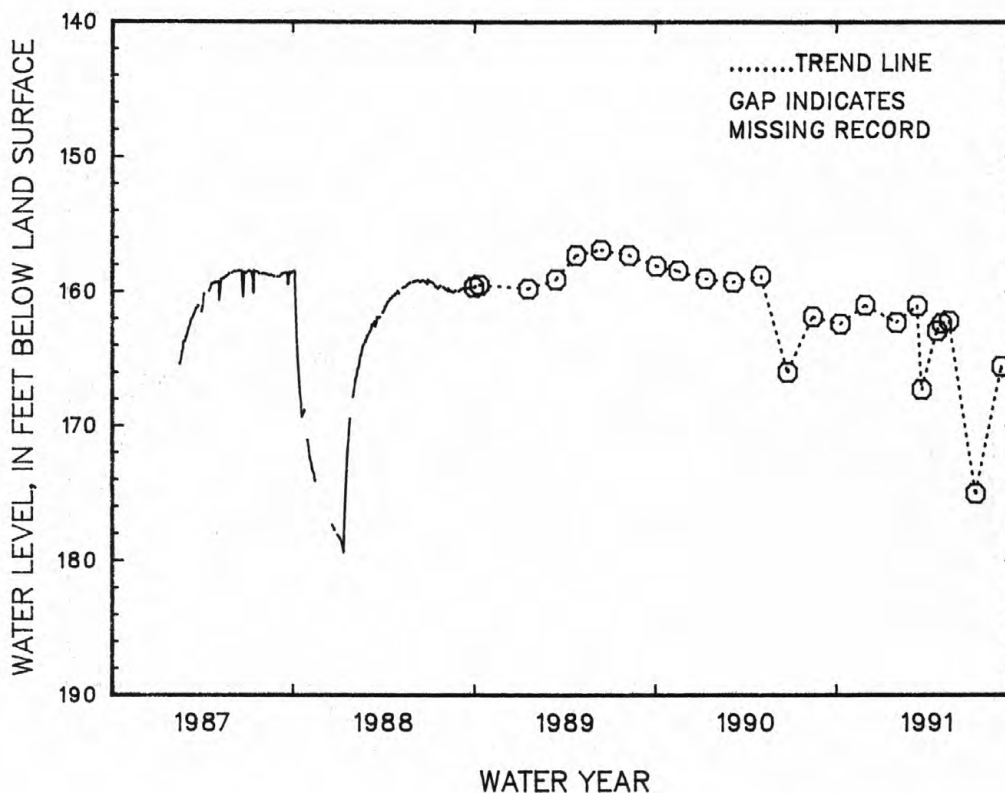
REMARKS.--Records provided by the Virginia Water Control Board. Water level may be affected by local pumpage.

PERIOD OF RECORD.--February 1981 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 147.67 ft below land-surface datum, Nov. 5, 1984; lowest recorded, 179.38 ft below land-surface datum, Jan. 12, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 09          | 162.40      | JAN 30  | 162.29      | MAR 22       | 167.30      | MAY 02 | 162.36      | JUL 09       | 175.05      | AUG 30 | 165.56      |
| NOV 28          | 161.00      | MAR 13  | 161.04      | APR 22       | 162.91      | MAY 16 | 162.16      |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 161.00      | NOV 28, 1990 |             | LOWEST | 175.05      | JUL 09, 1991 |             |        |             |



## GROUND-WATER LEVELS

291

## CITY OF SUFFOLK

364703076383704. Local number, 57C 24 SOW 099D.

LOCATION.--Lat 36°47'03", long 76°38'37", Hydrologic Unit 02080208, 700 ft south of U.S. Highway 460, 0.5 mi west of Providence Church, and 1.0 mi west of Kings Fork. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

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

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 7, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 72 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.5 ft above land-surface datum prior to Mar. 25, 1987; 2.0 ft Mar. 25, 1987, to Jan. 12, 1988; 1.3 ft Jan. 13, 1988, to June 25, 1990; 0.3 ft thereafter.

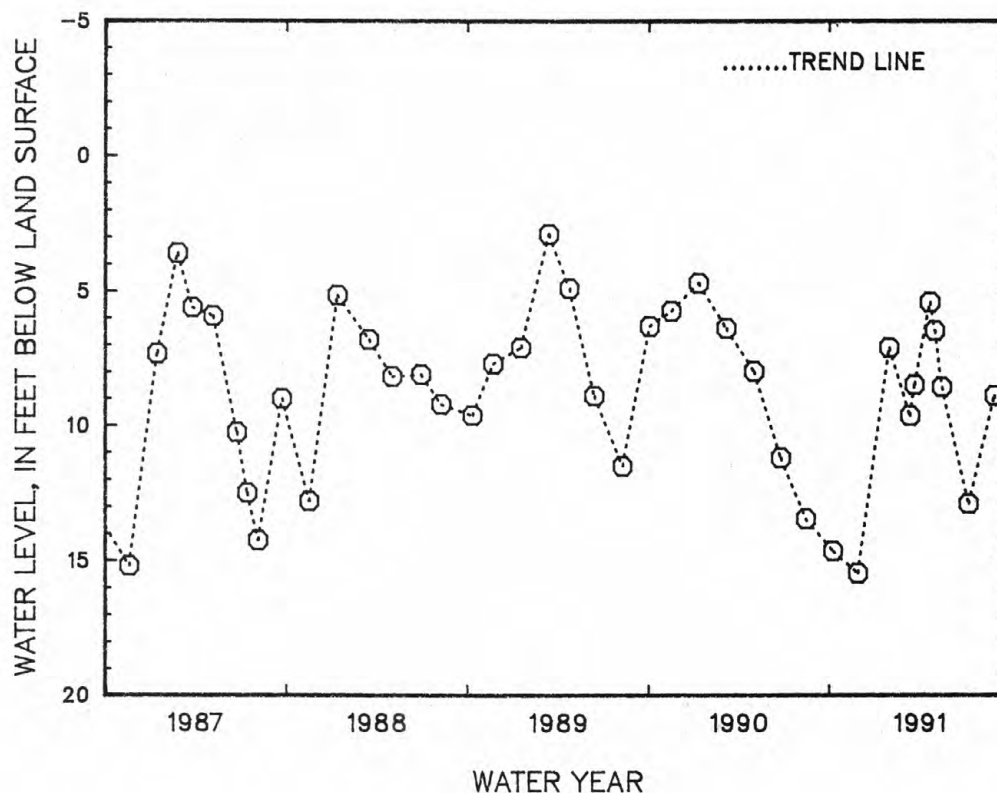
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--September 1983 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.90 ft below land-surface datum, Mar. 14, 1989; lowest measured, 15.47 ft below land-surface datum, Nov. 28, 1990.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 09          | 14.65       | JAN 30  | 7.10        | MAR 22       | 8.48        | MAY 02 | 6.47        | JUL 09       | 12.90       | AUG 30 | 8.89        |
| NOV 28          | 15.47       | MAR 13  | 9.64        | APR 22       | 5.41        | MAY 16 | 8.57        |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 5.41        | APR 22, 1991 |             | LOWEST | 15.47       | NOV 28, 1990 |             |        |             |



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

363704076334501. Local number, 58A 1 SOW 036.

LOCATION.--Lat 36°37'02", long 76°33'45", Hydrologic Unit 03010205, 200 ft west of State Highway 604, 1.9 mi east of Cypress Chapel. Owner: Union Camp Corporation.

AQUIFER.--Virginia Beach aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Jetted unused water well, diameter 3 in., depth 420 ft, screened 410 to 420 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Mar. 1, 1989, bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 32 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.5 ft above land-surface datum prior to Jan. 12, 1988; 2.1 ft thereafter.

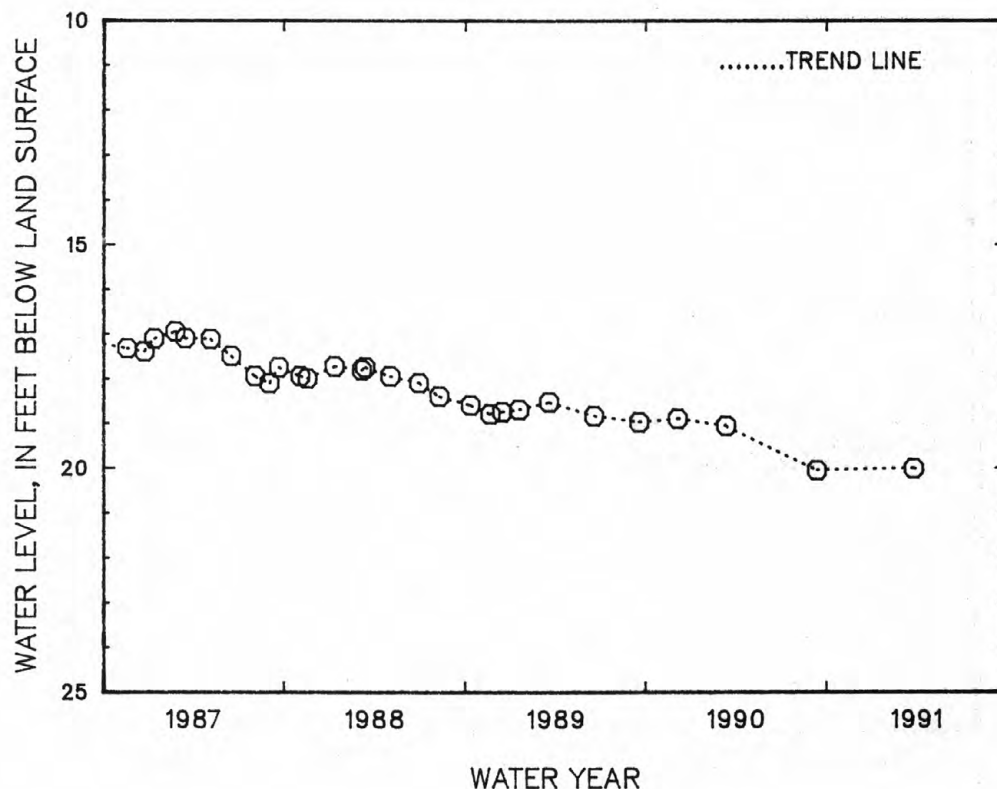
REMARKS.--Records provided by the Virginia Water Control Board prior to Mar. 1, 1989; U.S. Geological Survey thereafter. Water level affected by regional drawdown.

PERIOD OF RECORD.--January 1938, February 1960, September 1970 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.05 ft below land-surface datum, Jan. 1, 1938; lowest measured, 20.06 ft below land-surface datum, Sept. 12, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 27 | 20.02          |





## GROUND-WATER LEVELS

293

## CITY OF SUFFOLK

363408076350001. Local number, 58A 2 SOW 042.

LOCATION.--Lat 36°34'08", long 76°35'00", Hydrologic Unit 03010205, 200 ft southwest of intersection of State Highways 32 and 678, 1.3 mi north of North Carolina State line, and 3.4 mi south of Cypress Chapel. Owner: Virginia Water Control Board.

AQUIFER.--Lower, middle, and upper Potomac and Virginia Beach aquifers of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 4 in., depth 1,920 ft, screened 481 to 486 ft, 730 to 735 ft, 947 to 952 ft, 1,115 to 1,120 ft, 1,222 to 1,227 ft, 1,427 to 1,432 ft, 1,537 to 1,542 ft, 1,874 to 1,879 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Mar. 1, 1989, bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 58 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.5 ft above land-surface datum.

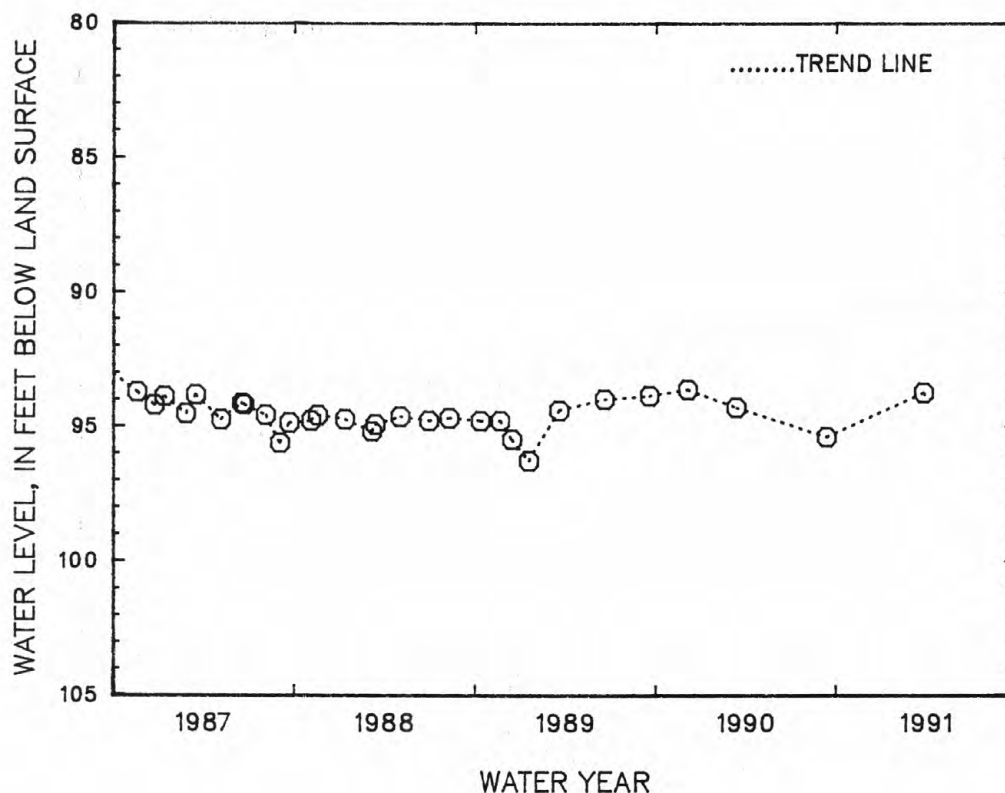
REMARKS.--Records provided by the Virginia Water Control Board prior to Mar. 1, 1989; U.S. Geological Survey thereafter.

PERIOD OF RECORD.--December 1971 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 72.52 ft below land-surface datum, Dec. 1, 1971; lowest measured, 96.30 ft below land-surface datum, Jan. 18, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 27 | 93.74          |



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

363303076330201. Local number, 58A 75 SOW 170.

LOCATION.--Lat 36°33'03", long 76°33'02", Hydrologic Unit 03010205, 100 ft north of North Carolina State line, 0.4 mi east of Desert Road, and 5.0 mi southeast of Cypress Chapel. Owner: Virginia Water Control Board.

AQUIFER.--Virginia Beach aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 535 ft, screened 525 to 535 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. July 1, 1985, to Feb. 28, 1989, bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

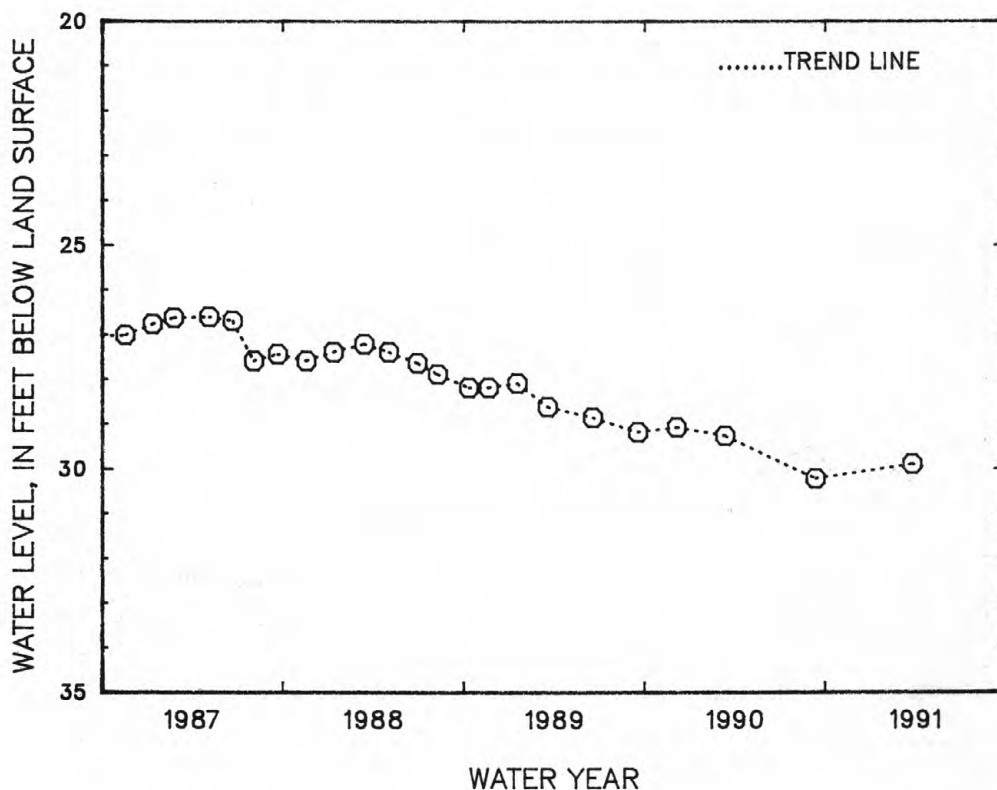
REMARKS.--Records provided by the Virginia Water Control Board prior to Mar. 1, 1989; U.S. Geological Survey thereafter. Water level affected by regional drawdown.

PERIOD OF RECORD.--July 1985 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.52 ft below land-surface datum, July 11, 1985; lowest measured, 30.23 ft below land-surface datum, Sept. 12, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 27 | 29.90          |



## GROUND-WATER LEVELS

295

## CITY OF SUFFOLK

363655076332002. Local number, 58A 77 SOW 180A.

LOCATION.--Lat 36°36'55", long 76°33'20", Hydrologic Unit 03010205, 0.3 mi north of Great Dismal Swamp Wildlife Refuge Headquarters on Desert Road, 2.0 mi east of Cypress Chapel. Owner: Virginia Water Control Board.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in. to 1,158 ft, diameter 3 in. from 1,136 to 1,209 ft, depth 1,209 ft, screened 1,199 to 1,209 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 34.02 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.5 ft above land-surface datum.

REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--February 1987 to current year.

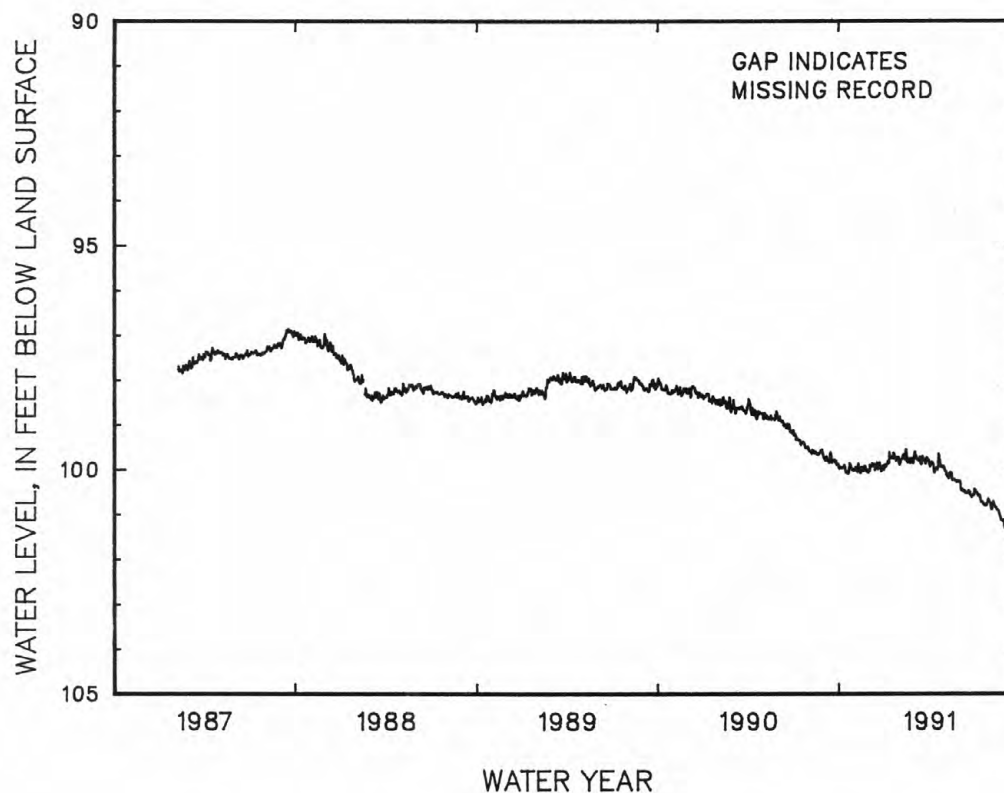
REVISED RECORDS.--WDR VA-89-1: 1987.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 96.83 ft below land-surface datum, Sept. 30, 1987; lowest recorded, 101.58 ft below land-surface datum, Sept. 30, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV    | DEC    | JAN   | FEB   | MAR   | APR   | MAY    | JUN    | JUL    | AUG    | SEP    |
|-----|--------|--------|--------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| 5   | 99.95  | 99.96  | 99.94  | 99.95 | 99.79 | 99.71 | 99.91 | 100.05 | 100.41 | 100.46 | 100.84 | 101.29 |
| 10  | 99.96  | 99.88  | 99.89  | 99.88 | 99.68 | 99.79 | 99.89 | 100.17 | 100.50 | 100.60 | 100.73 | 101.37 |
| 15  | 100.01 | 100.08 | 99.99  | 99.75 | 99.69 | 99.84 | 99.99 | 100.07 | 100.52 | 100.70 | 100.86 | 101.41 |
| 20  | 100.09 | 100.03 | 100.00 | 99.65 | 99.79 | 99.78 | 99.98 | 100.24 | 100.52 | 100.76 | 100.93 | 101.46 |
| 25  | 99.88  | 99.98  | 99.98  | 99.81 | 99.78 | 99.86 | 99.93 | 100.25 | 100.59 | 100.82 | 101.14 | 101.40 |
| EQM | 100.00 | 100.07 | 100.00 | 99.85 | 99.87 | 99.82 | 99.96 | 100.26 | 100.57 | 100.67 | 101.14 | 101.58 |

WATER YEAR 1991      HIGHEST 99.48 MAR 4, 1991      LOWEST 101.58 SEP 30, 1991



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

363655076332003. Local number, 58A 78 SOW 180B.

LOCATION.--Lat 36°36'55", long 76°33'20", Hydrologic Unit 03010205, 0.3 mi north of Great Dismal Swamp Wildlife Refuge Headquarters on Desert Road, 2.0 mi east of Cypress Chapel. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in. to 811 ft, diameter 2 in. from 766 to 880 ft, depth 880 ft, screened 850 to 860 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 34.02 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.5 ft above land-surface datum.

REMARKS.--Water level affected by regional drawdown.

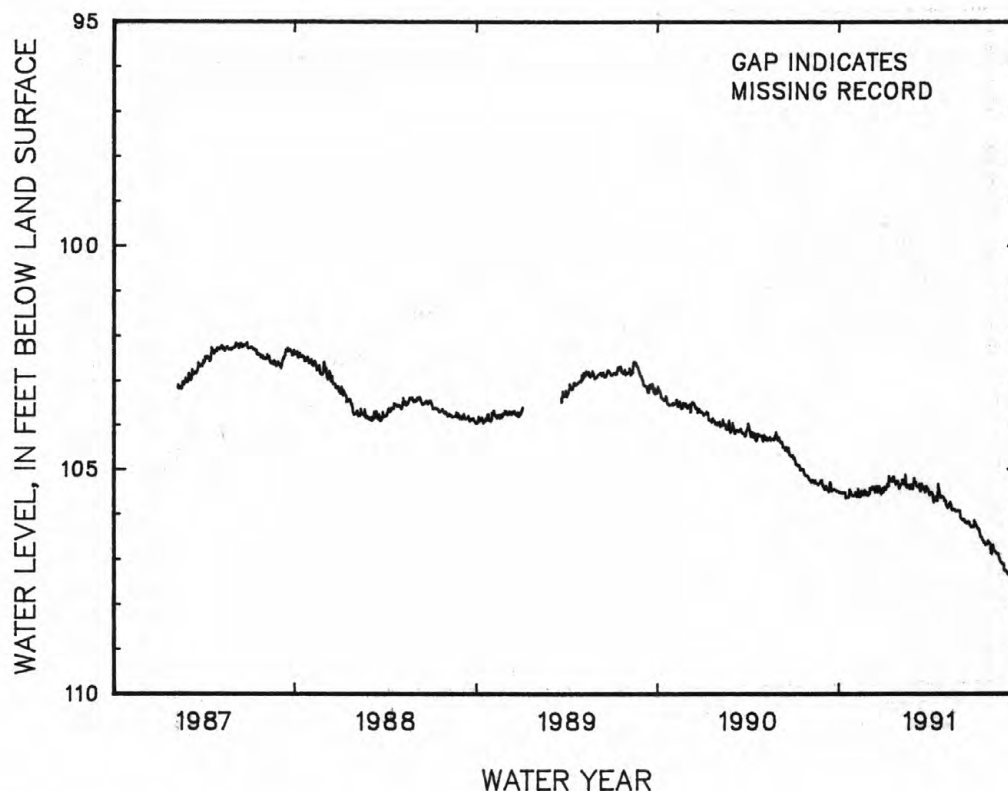
PERIOD OF RECORD.--February 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 102.14 ft below land-surface datum, June 5, 27, 1987; lowest recorded, 107.60 ft below land-surface datum, Sept. 29, 30, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5   | 105.53 | 105.53 | 105.46 | 105.46 | 105.34 | 105.29 | 105.57 | 105.71 | 106.07 | 106.20 | 106.79 | 107.27 |
| 10  | 105.54 | 105.46 | 105.41 | 105.38 | 105.24 | 105.38 | 105.57 | 105.85 | 106.15 | 106.34 | 106.70 | 107.35 |
| 15  | 105.54 | 105.62 | 105.51 | 105.27 | 105.26 | 105.44 | 105.69 | 105.75 | 106.18 | 106.49 | 106.85 | 107.43 |
| 20  | 105.64 | 105.57 | 105.51 | 105.19 | 105.37 | 105.40 | 105.71 | 105.92 | 106.19 | 106.59 | 106.89 | 107.49 |
| 25  | 105.47 | 105.52 | 105.49 | 105.33 | 105.36 | 105.49 | 105.60 | 105.92 | 106.26 | 106.69 | 107.08 | 107.46 |
| EQM | 105.58 | 105.59 | 105.51 | 105.37 | 105.44 | 105.45 | 105.63 | 105.93 | 106.27 | 106.60 | 107.11 | 107.60 |

WATER YEAR 1991      HIGHEST 105.09 FEB 14, 1991      LOWEST 107.60 SEP 29, 30, 1991



## GROUND-WATER LEVELS

297

## CITY OF SUFFOLK

363655076332004. Local number, 58A 79 SOW 180C.

LOCATION.--Lat 36°36'55", long 76°33'20", Hydrologic Unit 03010205, 0.3 mi north of Great Dismal Swamp Wildlife Refuge Headquarters on Desert Road, 2.0 mi east of Cypress Chapel. Owner: Virginia Water Control Board.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in. to 670 ft, diameter 2 in. from 657 to 710 ft, depth 710 ft, screened 700 to 710 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 33.97 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.4 ft above land-surface datum.

REMARKS.--Water level affected by regional drawdown.

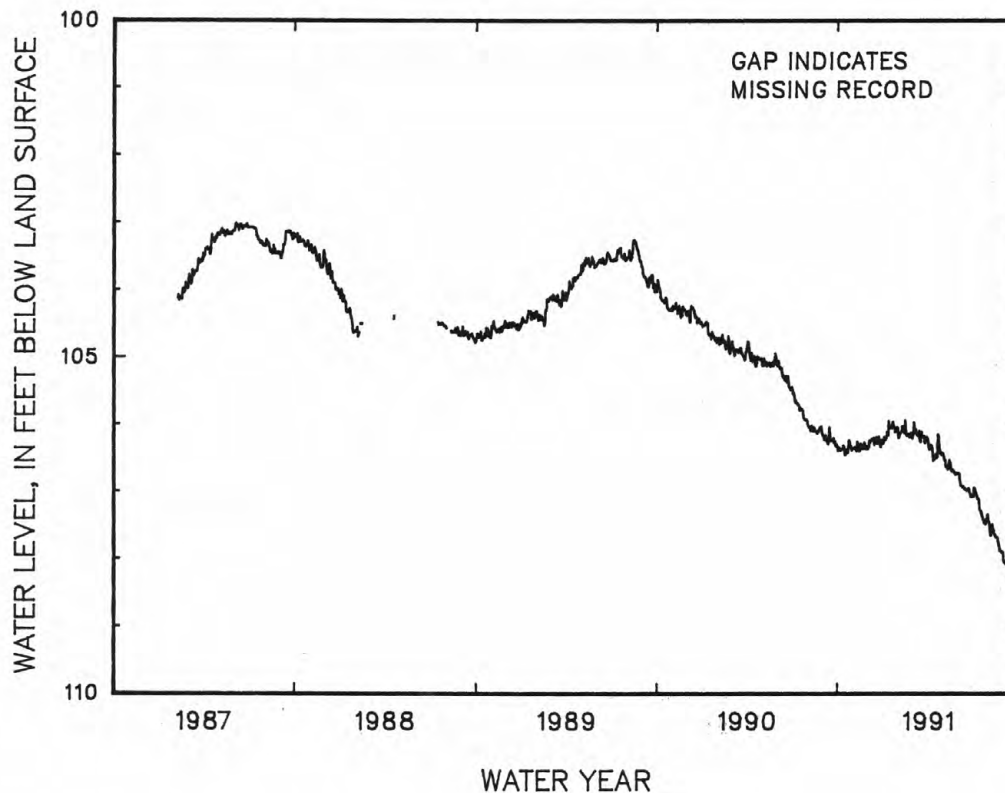
PERIOD OF RECORD.--February 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 102.72 ft below land-surface datum, May 11, 1987; lowest recorded, 108.39 ft below land-surface datum, Sept. 30, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5   | 106.36 | 106.35 | 106.27 | 106.24 | 106.13 | 106.07 | 106.37 | 106.54 | 106.86 | 106.96 | 107.58 | 108.05 |
| 10  | 106.37 | 106.27 | 106.22 | 106.16 | 106.03 | 106.15 | 106.37 | 106.65 | 106.94 | 107.11 | 107.50 | 108.14 |
| 15  | 106.39 | 106.40 | 106.30 | 106.06 | 106.03 | 106.20 | 106.49 | 106.54 | 106.97 | 107.26 | 107.65 | 108.23 |
| 20  | 106.43 | 106.35 | 106.29 | 106.00 | 106.15 | 106.17 | 106.49 | 106.70 | 106.98 | 107.37 | 107.69 | 108.26 |
| 25  | 106.24 | 106.32 | 106.27 | 106.11 | 106.14 | 106.25 | 106.41 | 106.71 | 107.03 | 107.47 | 107.88 | 108.24 |
| EQM | 106.37 | 106.37 | 106.29 | 106.15 | 106.20 | 106.23 | 106.46 | 106.73 | 107.06 | 107.35 | 107.91 | 108.39 |

WATER YEAR 1991      HIGHEST 105.89 FEB 14, 1991      LOWEST 108.39 SEP 30, 1991



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

363655076332005. Local number, 58A 80 SOW 180D.

LOCATION.--Lat 36°36'55", long 76°33'20", Hydrologic Unit 03010205, 0.3 mi north of Great Dismal Swamp Wildlife Refuge Headquarters on Desert Road, 2.0 mi east of Cypress Chapel. Owner: Virginia Water Control Board.

AQUIFER.--Virginia Beach aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in. to 397 ft, diameter 2 in. from 388 to 440 ft, depth 440 ft, screened 430 to 440 ft.

INSTRUMENTATION.--Prior to Mar. 27, 1991, digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 34.26 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.3 ft above land-surface datum.

REMARKS.--Low-water levels in February 1988 were caused by pumping of well for water-quality samples. Water level affected by regional drawdown.

PERIOD OF RECORD.--June 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.55 ft below land-surface datum, June 17, 1987; lowest recorded, 24.18 ft below land-surface datum, Oct. 15, Nov. 2-5, 14-16, 20-22, 26-30, Dec. 1-3, 1990.

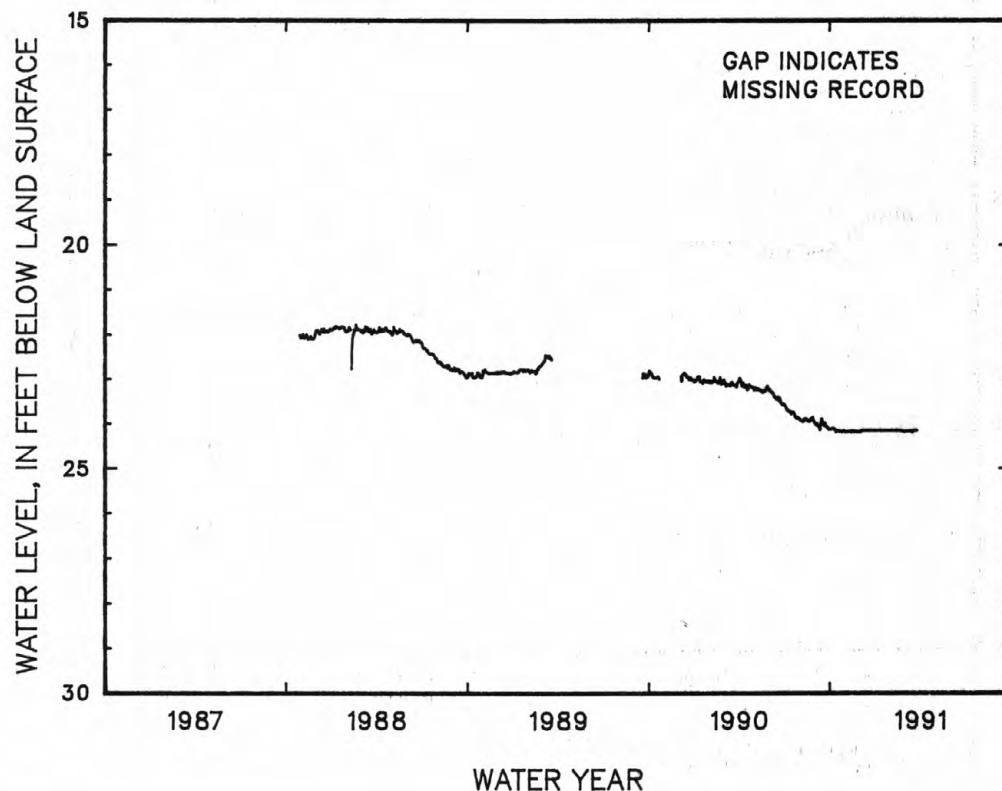
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, OCTOBER 1990 TO MARCH 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   |
|-----|-------|-------|-------|-------|-------|-------|
| 5   | 24.12 | 24.18 | 24.16 | 24.16 | 24.16 | 24.16 |
| 10  | 24.12 | 24.17 | 24.16 | 24.16 | 24.16 | 24.16 |
| 15  | 24.18 | 24.18 | 24.16 | 24.16 | 24.16 | 24.17 |
| 20  | 24.16 | 24.18 | 24.16 | 24.16 | 24.16 | 24.15 |
| 25  | 24.17 | 24.17 | 24.16 | 24.16 | 24.16 | 24.15 |
| EOM | 24.17 | 24.18 | 24.16 | 24.16 | 24.17 | ---   |

PERIOD OCTOBER 1990 TO MARCH 1991

HIGHEST 24.10 OCT 07-09, 1990

LOWEST 24.18 OCT 15, NOV 02-05, 14-16, 20-22, 26-30, DEC 01-03, 1990





## GROUND-WATER LEVELS

299

## CITY OF SUFFOLK

363655076332006. Local number, 58A 81 SOW 180E.

LOCATION.--Lat 36°36'55", long 76°33'20", Hydrologic Unit 03010205, 0.3 mi north of Great Dismal Swamp Wildlife Refuge Headquarters on Desert Road, 2.0 mi east of Cypress Chapel. Owner: Virginia Water Control Board.

AQUIFER.--Chickahominy-Piney Point aquifer of Eocene-Miocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in. to 309 ft, diameter 2 in. from 298 to 329 ft, depth 329 ft, screened 319 to 329 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 34.00 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.4 ft above land-surface datum.

REMARKS.--Water level affected by regional drawdown.

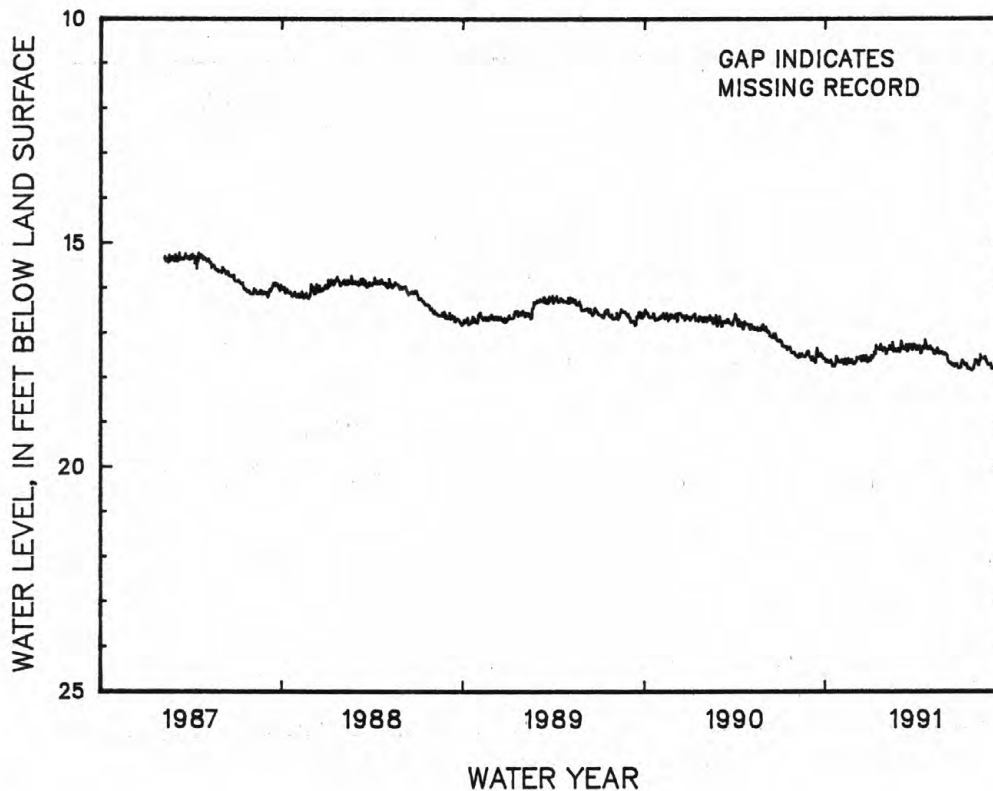
PERIOD OF RECORD.--February 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 15.07 ft below land-surface datum, Feb. 23, 1987; lowest recorded, 17.88 ft below land-surface datum, Sept. 18, 19, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 17.62 | 17.61 | 17.59 | 17.56 | 17.38 | 17.30 | 17.37 | 17.38 | 17.60 | 17.62 | 17.68 | 17.78 |
| 10  | 17.65 | 17.60 | 17.54 | 17.47 | 17.29 | 17.35 | 17.30 | 17.45 | 17.69 | 17.72 | 17.50 | 17.81 |
| 15  | 17.69 | 17.70 | 17.63 | 17.36 | 17.28 | 17.37 | 17.38 | 17.35 | 17.72 | 17.79 | 17.56 | 17.85 |
| 20  | 17.76 | 17.66 | 17.62 | 17.31 | 17.38 | 17.32 | 17.33 | 17.47 | 17.72 | 17.81 | 17.55 | 17.84 |
| 25  | 17.54 | 17.63 | 17.61 | 17.40 | 17.37 | 17.35 | 17.35 | 17.44 | 17.76 | 17.84 | 17.71 | 17.76 |
| EOM | 17.64 | 17.69 | 17.60 | 17.40 | 17.42 | 17.32 | 17.34 | 17.47 | 17.76 | 17.61 | 17.69 | 17.84 |

WATER YEAR 1991      HIGHEST 16.76 APR 20, 1991      LOWEST 17.88 SEP 18, 19, 1991



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

363655076332007. Local number, 58A 82 SOW 180F.

LOCATION.--Lat 36°36'55", long 76°33'20", Hydrologic Unit 03010205, 0.3 mi north of Great Dismal Swamp Wildlife Refuge Headquarters on Desert Road, 2.0 mi east of Cypress Chapel. Owner: Virginia Water Control Board.

AQUIFER.--Chickahominy-Piney Point aquifer of Eocene-Miocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in. to 274 ft, diameter 2 in. from 262 to 306 ft, depth 306 ft, screened 286 to 306 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 33.87 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.5 ft above land-surface datum.

REMARKS.--Low-water levels in February 1988 were caused by pumping of well for water-quality samples. Water level affected by regional drawdown.

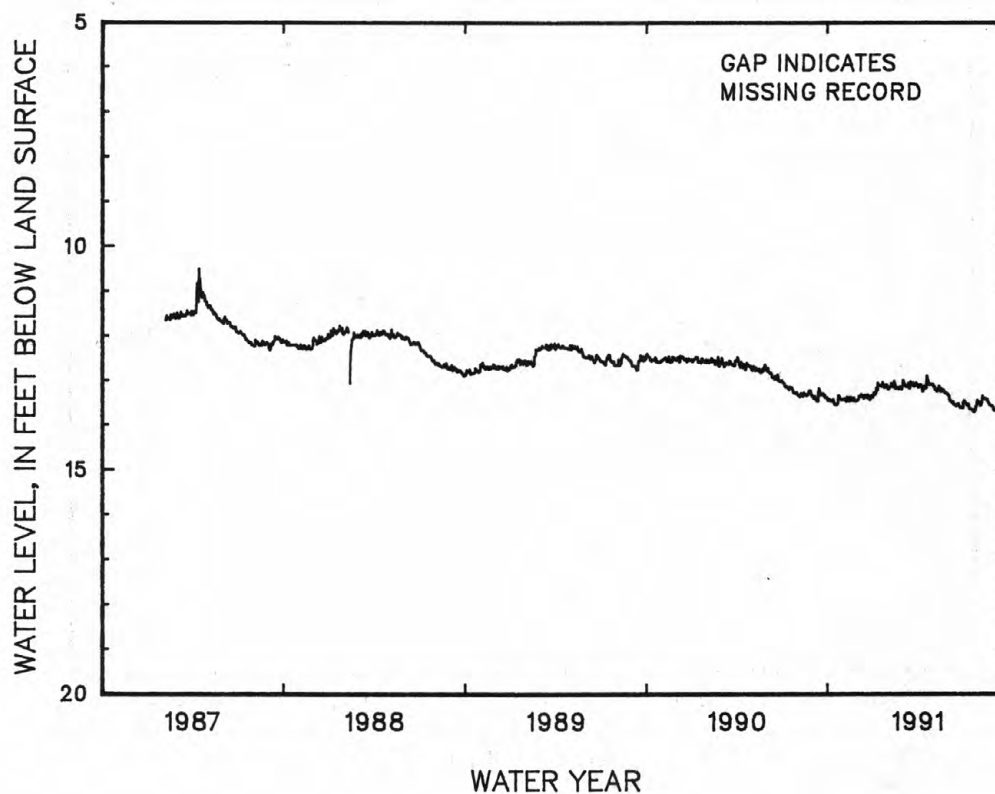
PERIOD OF RECORD.--February 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.12 ft below land-surface datum, Apr. 13, 1987; lowest recorded, 13.97 ft below land-surface datum, Feb. 11, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 13.43 | 13.41 | 13.37 | 13.32 | 13.15 | 13.07 | 13.15 | 13.14 | 13.42 | 13.47 | 13.53 | 13.66 |
| 10  | 13.45 | 13.39 | 13.33 | 13.21 | 13.07 | 13.13 | 13.13 | 13.22 | 13.50 | 13.56 | 13.36 | 13.68 |
| 15  | 13.50 | 13.47 | 13.40 | 13.12 | 13.08 | 13.14 | 13.20 | 13.14 | 13.55 | 13.63 | 13.41 | 13.74 |
| 20  | 13.55 | 13.44 | 13.39 | 13.10 | 13.16 | 13.08 | 13.17 | 13.25 | 13.56 | 13.66 | 13.42 | 13.71 |
| 25  | 13.35 | 13.42 | 13.38 | 13.15 | 13.16 | 13.12 | 13.08 | 13.23 | 13.59 | 13.71 | 13.56 | 13.63 |
| EOM | 13.43 | 13.45 | 13.37 | 13.16 | 13.19 | 13.09 | 13.09 | 13.29 | 13.61 | 13.46 | 13.58 | 13.69 |

WATER YEAR 1991      HIGHEST 12.89 APR 21, 22, 1991      LOWEST 13.78 SEP 19, 1991



## GROUND-WATER LEVELS

301

## CITY OF SUFFOLK

363655076332008. Local number, 58A 83 SOW 180G.

LOCATION.--Lat 36°36'55", long 76°33'20", Hydrologic Unit 03010205, 0.3 mi north of Great Dismal Swamp Wildlife Refuge Headquarters on Desert Road, 2.0 mi east of Cypress Chapel. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in. to 145 ft, diameter 2 in. from 135 to 165 ft, depth 165 ft, screened 155 to 165 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 33.84 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.5 ft above land-surface datum.

REMARKS.--Low-water levels in April 1987 were caused by pumping of well for water-quality samples.

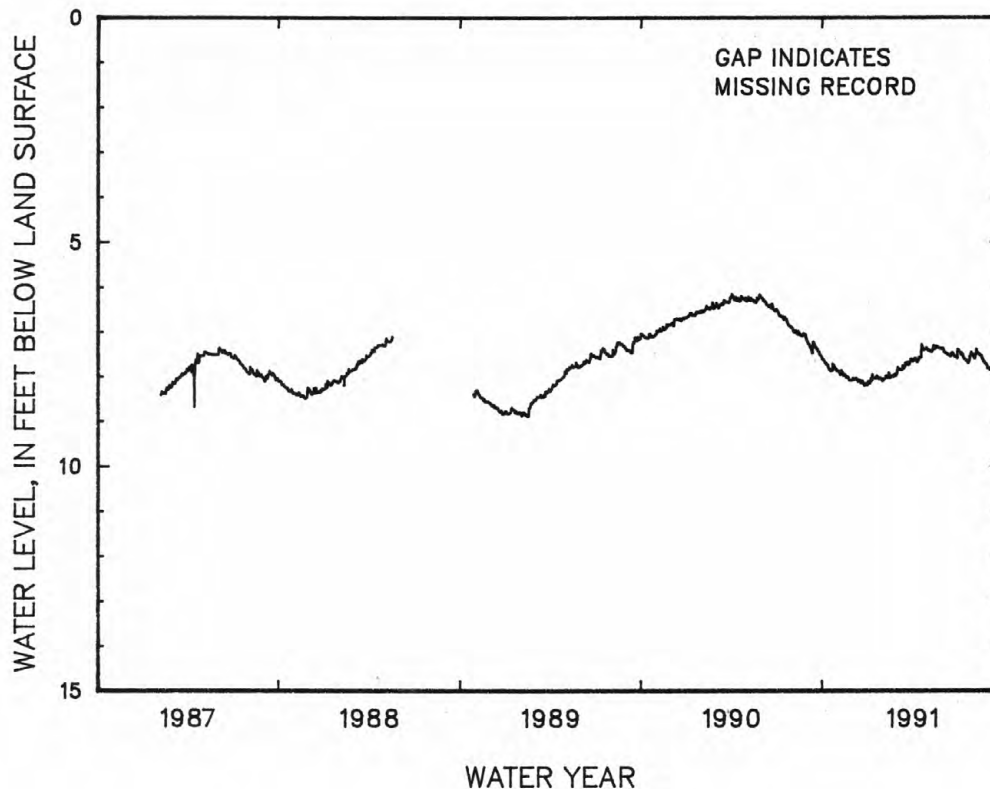
PERIOD OF RECORD.--February 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.09 ft below land-surface datum, May 29, 1990; lowest recorded, 8.90 ft below land-surface datum, Feb. 16, 17, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT  | NOV  | DEC  | JAN  | FEB  | MAR  | APR  | MAY  | JUN  | JUL  | AUG  | SEP  |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| 5   | 7.63 | 7.88 | 8.06 | 8.16 | 8.06 | 7.84 | 7.64 | 7.41 | 7.44 | 7.41 | 7.56 | 7.83 |
| 10  | 7.70 | 7.88 | 8.04 | 8.09 | 7.99 | 7.84 | 7.61 | 7.44 | 7.49 | 7.51 | 7.40 | 7.86 |
| 15  | 7.80 | 7.98 | 8.12 | 8.03 | 7.98 | 7.81 | 7.62 | 7.32 | 7.52 | 7.58 | 7.48 | 7.93 |
| 20  | 7.88 | 8.02 | 8.15 | 8.02 | 7.99 | 7.73 | 7.57 | 7.36 | 7.49 | 7.63 | 7.54 | 7.86 |
| 25  | 7.73 | 8.05 | 8.17 | 8.06 | 7.97 | 7.73 | 7.40 | 7.35 | 7.52 | 7.70 | 7.67 | 7.83 |
| EQM | 7.85 | 8.08 | 8.20 | 8.08 | 7.98 | 7.63 | 7.39 | 7.37 | 7.56 | 7.47 | 7.74 | 7.89 |

WATER YEAR 1991      HIGHEST 7.27 APR 20, 1991      LOWEST 8.21 DEC 27, 1990



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

363655076332009. Local number, 58A 84 SOW 180H.

LOCATION.--Lat 36°36'55", long 76°33'20", Hydrologic Unit 03010205, 0.3 mi north of Great Dismal Swamp Wildlife Refuge Headquarters on Desert Road, 2.0 mi east of Cypress Chapel. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 20 ft, screened 10 to 20 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 33.87 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.5 ft above land-surface datum.

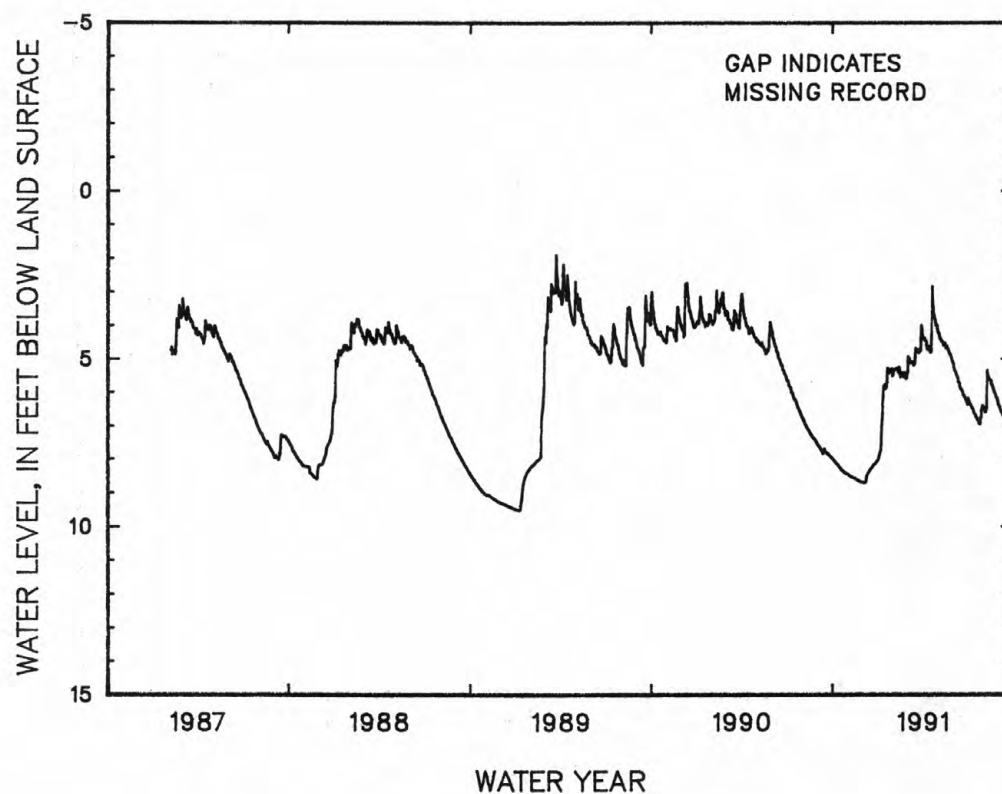
PERIOD OF RECORD.--February 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.47 ft below land-surface datum, Mar. 24, 1989; lowest recorded, 9.52 ft below land-surface datum, Jan. 5-9, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT  | NOV  | DEC  | JAN  | FEB  | MAR  | APR  | MAY  | JUN  | JUL  | AUG  | SEP  |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| 5   | 8.05 | 8.49 | 8.72 | 7.85 | 5.32 | 5.01 | 4.38 | 4.23 | 5.33 | 6.30 | 6.54 | 6.49 |
| 10  | 8.14 | 8.54 | 8.52 | 6.83 | 5.26 | 5.09 | 4.59 | 4.48 | 5.51 | 6.46 | 5.35 | 6.64 |
| 15  | 8.23 | 8.58 | 8.38 | 5.85 | 5.45 | 5.17 | 4.64 | 4.55 | 5.73 | 6.63 | 5.63 | 6.84 |
| 20  | 8.33 | 8.62 | 8.26 | 5.71 | 5.44 | 4.74 | 4.73 | 4.66 | 5.93 | 6.77 | 5.77 | 6.96 |
| 25  | 8.38 | 8.67 | 8.16 | 5.40 | 5.42 | 4.81 | 3.71 | 4.79 | 6.12 | 6.92 | 6.01 | 7.04 |
| EOM | 8.45 | 8.71 | 8.05 | 5.50 | 5.58 | 4.10 | 3.98 | 5.03 | 6.29 | 6.45 | 6.25 | 7.15 |

WATER YEAR 1991      HIGHEST 1.83 APR 20, 1991      LOWEST 8.72 DEC 04, 05, 1990



## GROUND-WATER LEVELS

303

## CITY OF SUFFOLK

363928076332901. Local number, 58B 13.

LOCATION.--Lat 36°39'28", long 76°33'29", Hydrologic Unit 03010205, 700 ft east of State Highway 642, 4.0 mi south of Suffolk. Owner: Melvin Brinkley.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Dug unused water well, diameter 22 in., depth 15 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch. Prior to Jan. 23, 1981, continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 1.9 ft above land-surface datum.

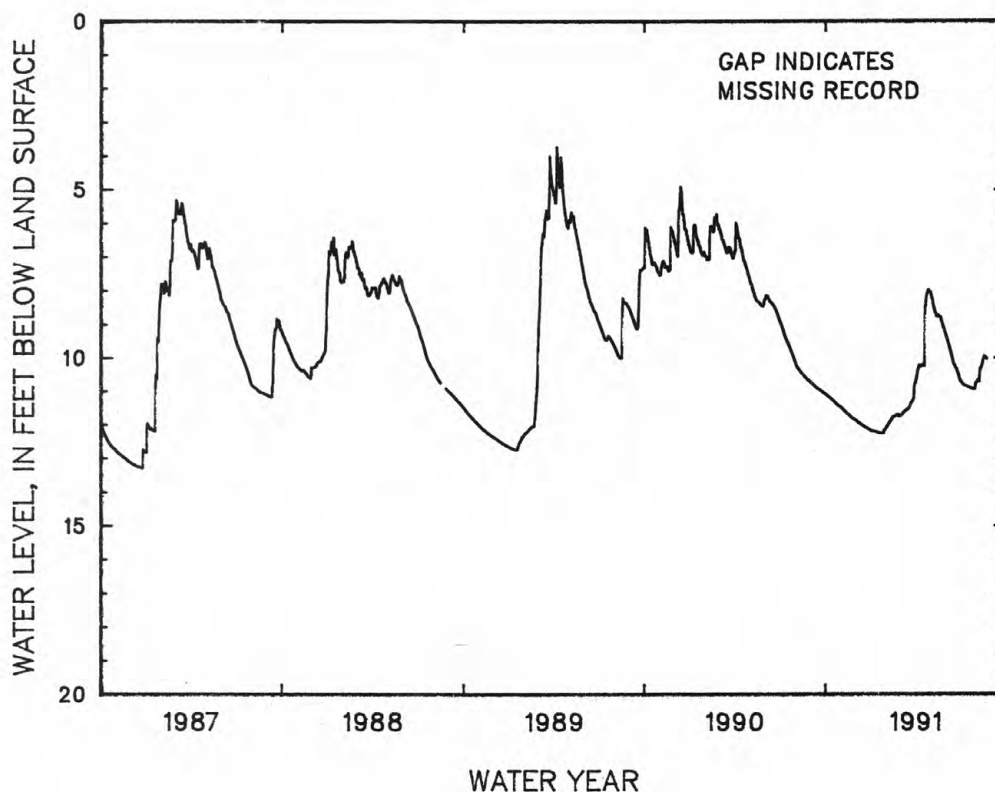
PERIOD OF RECORD.--March 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.95 ft below land-surface datum, May 25, 1979; lowest recorded, 13.44 ft below land-surface datum, Jan. 23-26, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY  | JUN   | JUL   | AUG   | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-----|
| 5   | 11.12 | 11.52 | 11.90 | 12.19 | 12.01 | 11.70 | 10.49 | 8.22 | 9.46  | 10.76 | 10.71 | --- |
| 10  | 11.18 | 11.60 | 11.96 | 12.21 | 11.89 | 11.62 | 10.21 | 8.55 | 9.72  | 10.83 | 10.40 | --- |
| 15  | 11.25 | 11.67 | 12.01 | 12.23 | 11.77 | 11.55 | 10.22 | 8.76 | 10.00 | 10.86 | 10.18 | --- |
| 20  | 11.32 | 11.73 | 12.06 | 12.25 | 11.74 | 11.49 | 10.23 | 8.77 | 10.23 | 10.89 | 9.95  | --- |
| 25  | 11.39 | 11.80 | 12.10 | 12.26 | 11.70 | 11.32 | 8.08  | 8.91 | 10.40 | 10.92 | ---   | --- |
| EOM | 11.45 | 11.85 | 12.15 | 12.13 | 11.74 | 10.79 | 8.02  | 9.22 | 10.63 | 10.93 | ---   | --- |

WATER YEAR 1991      HIGHEST 7.57 APR 20, 1991      LOWEST 12.26 JAN 23-26, 1991



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

364318076365501. Local number, 58B268 SOW 169A.

LOCATION.--Lat 36°43'18", long 76°36'55", Hydrologic Unit 02080208, 500 ft north of Norfolk and Western Railroad near Lake Kilby, 0.5 mi west of Suffolk. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quarternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 20 ft, screened 12 to 20 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 35 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.5 ft above land-surface datum.

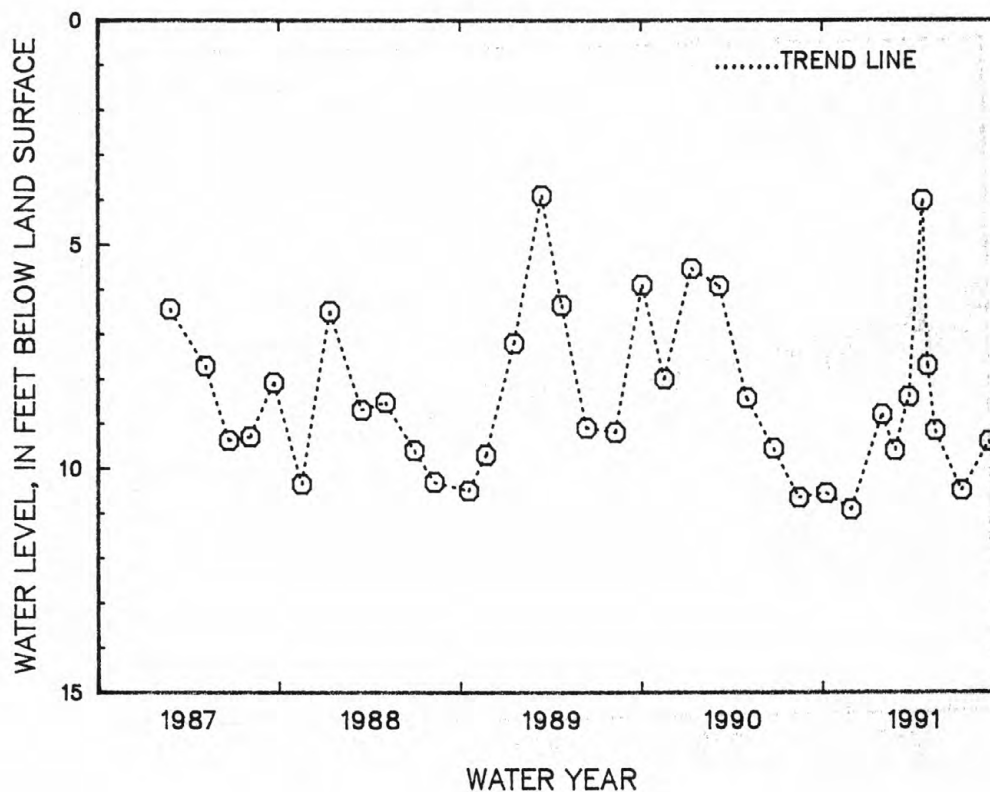
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--February 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.90 ft below land-surface datum, Mar. 15, 1989; lowest measured, 10.92 ft below land-surface datum, Nov. 28, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 09          | 10.55       | JAN 30  | 8.80        | MAR 25       | 8.40        | MAY 02 | 7.70        | JUL 09       | 10.49       | SEP 03 | 9.40        |
| NOV 28          | 10.92       | FEB 25  | 9.60        | APR 22       | 4.01        | MAY 17 | 9.16        |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 4.01        | APR 22, 1991 |             | LOWEST | 10.92       | NOV 28, 1990 |             |        |             |





## GROUND-WATER LEVELS

305

## CITY OF SUFFOLK

364318076365502. Local number, 58B269 SOW 169B.

LOCATION.--Lat 36°43'18", long 76°36'55", Hydrologic Unit 02080202, 500 ft north of Norfolk and Western Railroad near Lake Kilby, 0.5 mi west of Suffolk. Owner: Virginia Water Control Board.

AQUIFER.--Aquia aquifer of Paleocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 360 ft, screened 350 to 360 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 35 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.4 ft above land-surface datum.

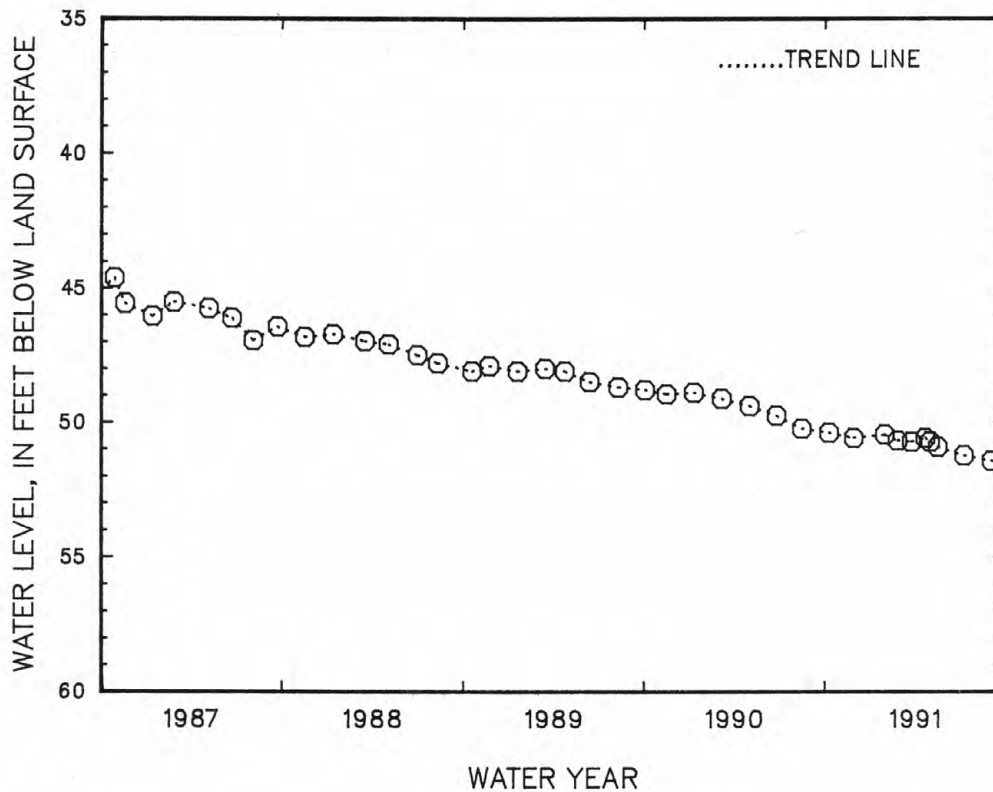
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--July 1985 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.06 ft below land-surface datum, July 8, 1985; lowest measured, 51.45 ft below land-surface datum, Sept. 3, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 09          | 50.40       | JAN 30  | 50.47       | MAR 25       | 50.74       | MAY 02 | 50.73        | JUL 09 | 51.25       | SEP 03 | 51.45       |
| NOV 28          | 50.60       | FEB 25  | 50.70       | APR 22       | 50.60       | MAY 17 | 50.93        |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 50.40       | OCT 09, 1990 | LOWEST      | 51.45  | SEP 03, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

364318076365503. Local number, 58B270 SOW 169C.

LOCATION.--Lat 36°43'18", long 76°36'55", Hydrologic Unit 02080208, 500 ft north of Norfolk and Western Railroad near Lake Kilby, 0.5 mi west of Suffolk. Owner: Virginia Water Control Board.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 500 ft, screened 490 to 500 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 35 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.4 ft above land-surface datum.

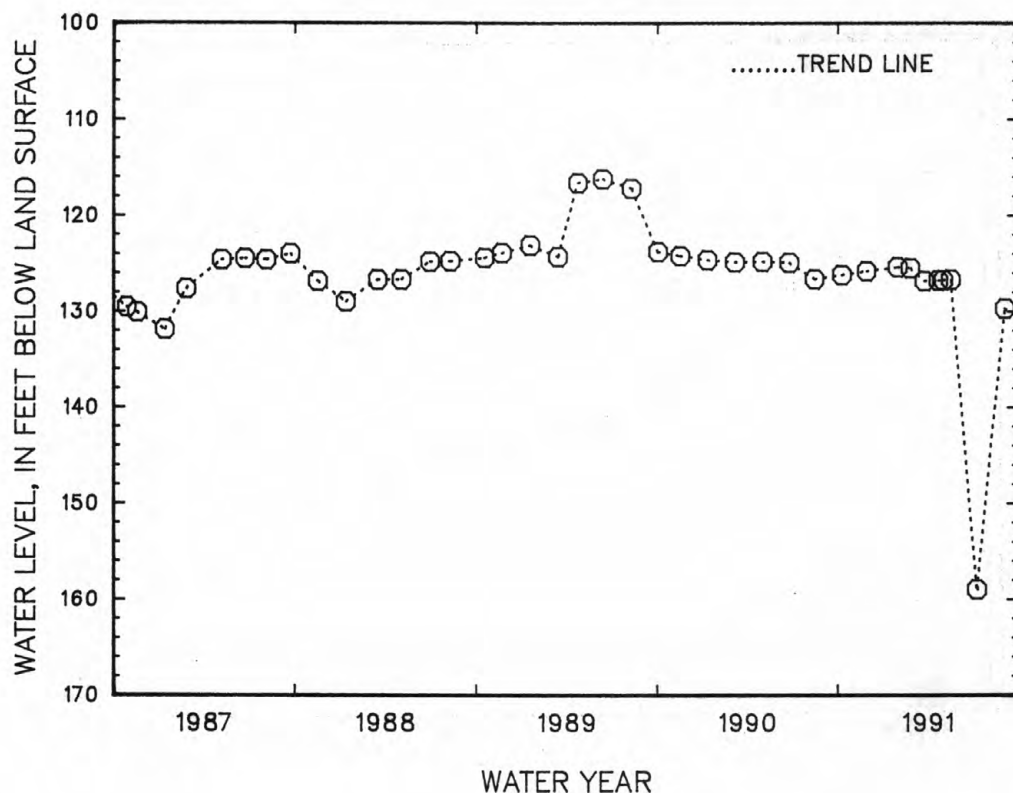
REMARKS.--Records provided by the Virginia Water Control Board. Water level may be affected by local pumpage.

PERIOD OF RECORD.--July 1985 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 112.59 ft below land-surface datum, Feb. 25, 1986; lowest measured, 159.00 ft below land-surface datum, July 9, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 09          | 126.21      | JAN 30  | 125.40      | MAR 25       | 126.84      | MAY 02 | 126.75      | JUL 09       | 159.00      | SEP 03 | 129.69      |
| NOV 28          | 125.82      | FEB 25  | 125.50      | APR 22       | 126.80      | MAY 17 | 126.70      |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 125.40      | JAN 30, 1991 |             | LOWEST | 159.00      | JUL 09, 1991 |             |        |             |



## GROUND-WATER LEVELS

307

## CITY OF SUFFOLK

364317076363501. Local number, 58B271 SOW 169D.

LOCATION.--Lat 36°43'17", long 76°36'35", Hydrologic Unit 02080208, 200 ft south of Norfolk and Western Railroad near Lake Kilby, 0.5 mi west of Suffolk. Owner: Virginia Water Control Board.

AQUIFER.--Middle and upper Potomac aquifers of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 710 ft, screened 501 to 506 ft, 632 to 637 ft, 700 to 710 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to Nov. 5, 1986, bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 29 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.4 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

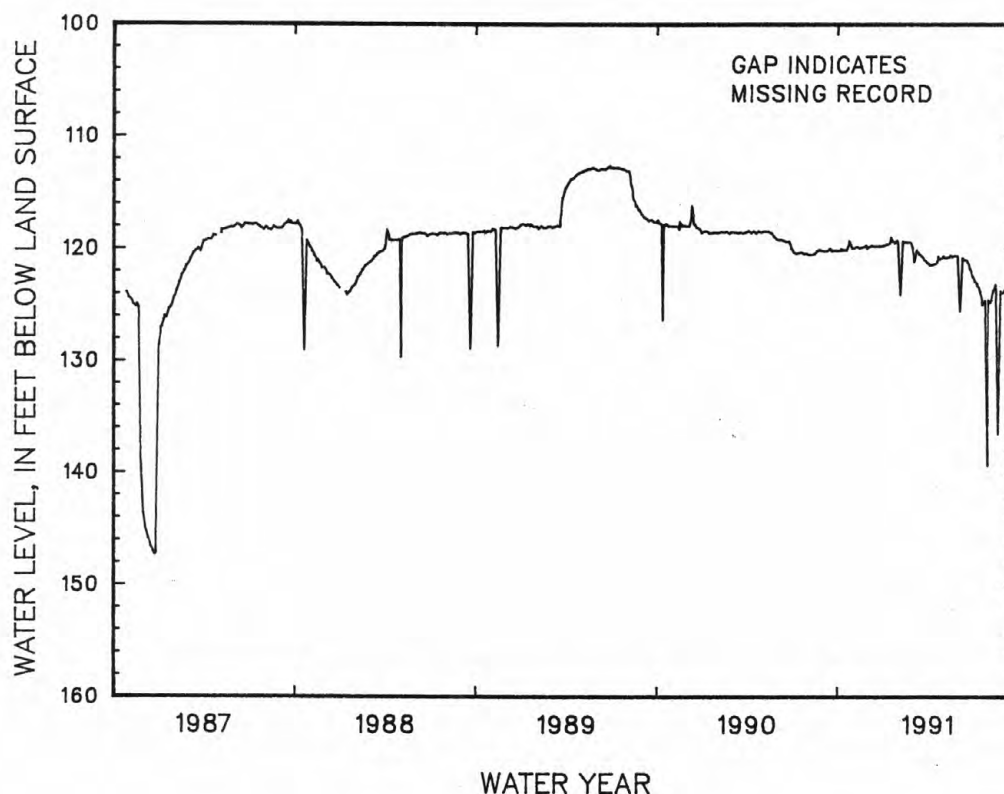
PERIOD OF RECORD.--July 1985 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 107.70 ft below land-surface datum, Feb. 25, 1986; lowest recorded, 147.30 ft below land-surface datum, Dec. 23, 24, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5   | 120.20 | 119.93 | 119.81 | 119.70 | 124.21 | 121.15 | 121.40 | 120.77 | 125.60 | 122.87 | 124.76 | 123.52 |
| 10  | 120.10 | 119.83 | 119.72 | 119.61 | 119.34 | 120.17 | 121.39 | 120.80 | 120.81 | 123.29 | 123.71 | 138.10 |
| 15  | 120.12 | 119.96 | 119.80 | 119.53 | 119.39 | 120.46 | 121.36 | 120.70 | 120.95 | 123.74 | 123.19 | 124.42 |
| 20  | 120.12 | 119.90 | 119.78 | 119.29 | 119.43 | 120.62 | 121.19 | 120.68 | 121.16 | 125.00 | 136.53 | 124.41 |
| 25  | 119.40 | 119.82 | 119.77 | 119.46 | 119.45 | 120.96 | 120.90 | 120.60 | 121.76 | 124.68 | 123.75 | 124.40 |
| EQM | 119.94 | 119.97 | 119.75 | 119.52 | 119.67 | 121.22 | 120.82 | 120.60 | 122.41 | 124.57 | 123.90 | 124.60 |

WATER YEAR 1991      HIGHEST 119.04 JAN 17, 1991      LOWEST 139.43 JUL 30, 1991



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

364319076365501. Local number, 58B272 SOW 169E.

LOCATION.--Lat 36°43'19", long 76°36'55", Hydrologic Unit 02080208, 400 ft south of Norfolk and Western Railroad near Lake Kilby, 0.6 mi west of Suffolk. Owner: Virginia Water Control Board.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 733 ft, screened 498 to 508 ft, 550 to 555 ft, 702 to 712 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 41 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

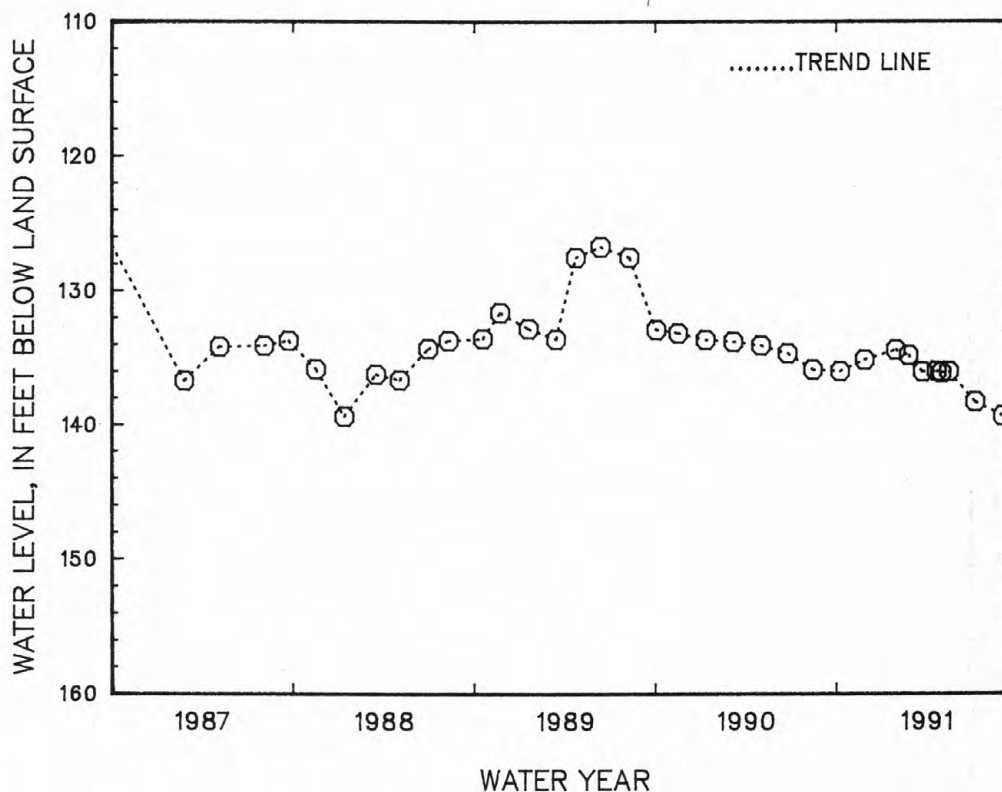
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

PERIOD OF RECORD.--July 1985 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 111.54 ft below land-surface datum, Feb. 25, 1986; lowest measured, 139.40 ft below land-surface datum, Jan. 12, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 09          | 136.00      | JAN 30  | 134.40      | MAR 25       | 136.04      | MAY 02 | 136.10      | JUL 09       | 138.30      | SEP 03 | 139.36      |
| NOV 28          | 135.15      | FEB 25  | 134.80      | APR 22       | 136.00      | MAY 17 | 136.01      |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 134.40      | JAN 30, 1991 |             | LOWEST | 139.36      | SEP 03, 1991 |             |        |             |



## GROUND-WATER LEVELS

309

## CITY OF SUFFOLK

364348076363201. Local number, 58B273 SOW 169F.

LOCATION.--Lat 36°43'48", long 76°36'32", Hydrologic Unit 02080208, 100 ft south of U.S. Highway 58 near Lake Kilby, 0.2 mi west of Suffolk. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 661 ft, screened 541 to 546 ft, 567 to 572 ft, 635 to 640 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to Nov. 5, 1986, bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 26 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.2 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

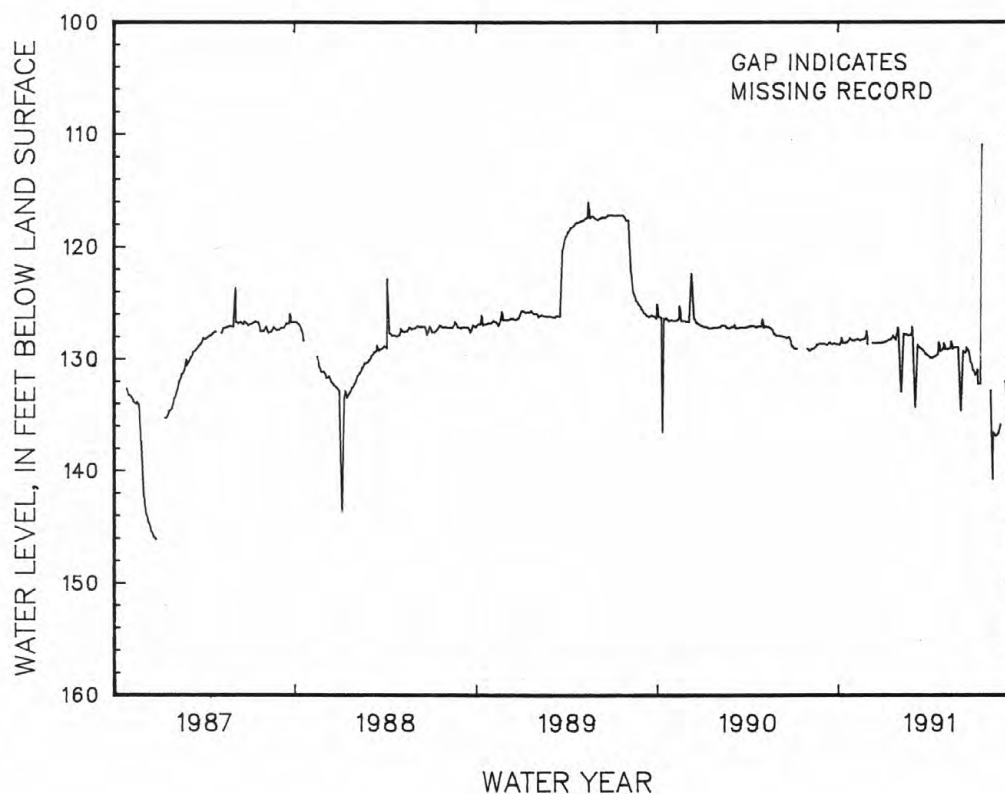
PERIOD OF RECORD.--July 1985 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 111.00 ft below land-surface datum, July 18, 1991; lowest recorded, 146.11 ft below land-surface datum, Dec. 24, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5   | 128.73 | 128.33 | ---    | 128.50 | 132.94 | 134.34 | 129.89 | 129.09 | 134.66 | 131.42 | 132.87 | 132.19 |
| 10  | 128.53 | 128.23 | 128.59 | 128.38 | 127.78 | 128.74 | 129.88 | 129.15 | 129.34 | 132.67 | 136.60 | 135.89 |
| 15  | 128.59 | 128.38 | 128.63 | 128.30 | 127.80 | 129.00 | 129.75 | 129.06 | 129.43 | 132.24 | 136.87 | 133.51 |
| 20  | 128.53 | 128.27 | 128.58 | 128.00 | 127.88 | 129.16 | 129.60 | 129.06 | 129.26 | ---    | 136.70 | 133.56 |
| 25  | 128.22 | 128.21 | 128.57 | 128.27 | 127.85 | 129.52 | 129.30 | 129.00 | 130.25 | ---    | 135.91 | 133.34 |
| EQM | 128.35 | 128.67 | 128.55 | 127.93 | 128.10 | 129.72 | 129.17 | 128.99 | 130.99 | ---    | ---    | 133.71 |

WATER YEAR 1991      HIGHEST 111.00 JUL 18, 1991      LOWEST 140.74 AUG 09, 1991



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

364512076343702. Local number, 58C 53 SOW 162B.

LOCATION.--Lat 36°45'12", long 76°34'37", Hydrologic Unit 02080208, 750 ft northeast of Virginia Department of Transportation fuel storage area, 2,000 ft east of U.S. Highway 460, and 0.8 mi southeast of Elephant Fork.  
Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in. to 294 ft, diameter 2 in. from 294 to 896 ft, depth 896 ft, screened 881 to 896 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.4 ft above land-surface datum.

REMARKS.--Water level affected by local pumpage. Well casing collapsed.

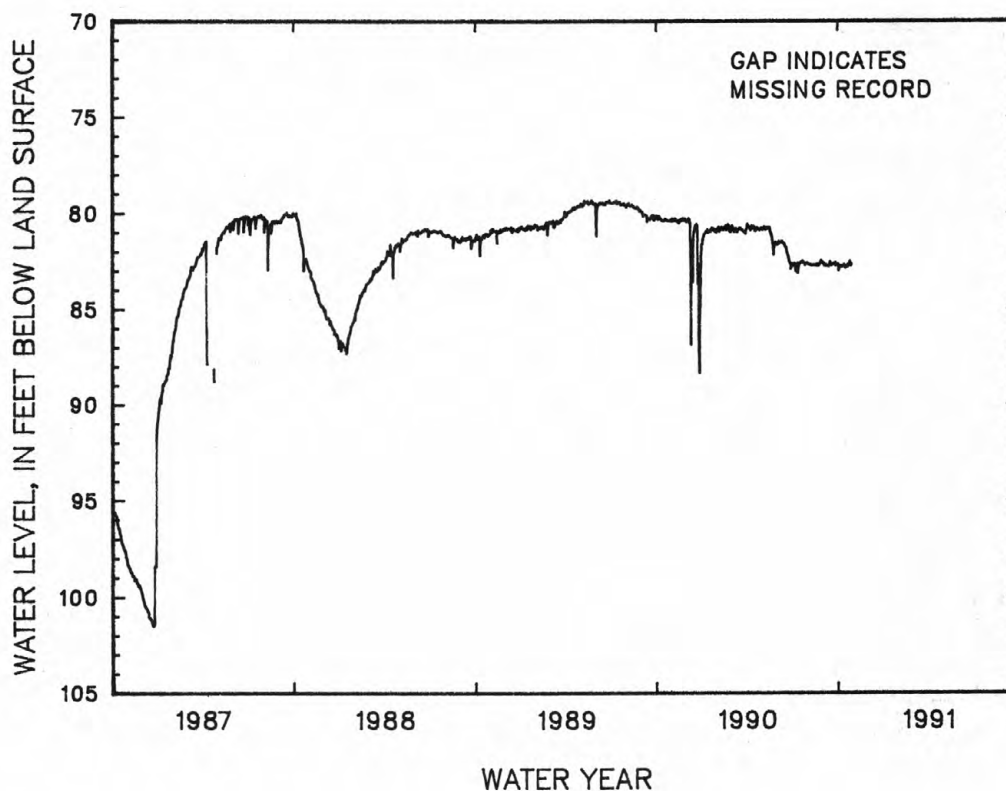
PERIOD OF RECORD.--February 1983 to October 1990 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 69.41 ft below land-surface datum, Apr. 24, 1983; lowest recorded, 101.39 ft below land-surface datum, Dec. 20, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, OCTOBER 1990  
LOWEST VALUES

| DAY | OCT   |
|-----|-------|
| 5   | 82.76 |
| 10  | 82.79 |
| 15  | 82.73 |
| 20  | 82.79 |
| 25  | 82.52 |

PERIOD OCTOBER 1990      HIGHEST 81.67 OCT 26, 1990      LOWEST 82.98 OCT 03, 1990





## GROUND-WATER LEVELS

311

## CITY OF SUFFOLK

364512076343705. Local number, 58C 56 SOW 162D.

LOCATION.--Lat 36°45'12", long 76°34'37", Hydrologic Unit 02080208, 750 ft northeast of Virginia Department of Transportation fuel storage area, 2,000 ft east of U.S. Highway 460, and 0.8 mi southeast of Elephant Fork.  
Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 567 ft, screened 557 to 567 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.35 ft above land-surface datum.

REMARKS.--Water level affected by local pumpage.

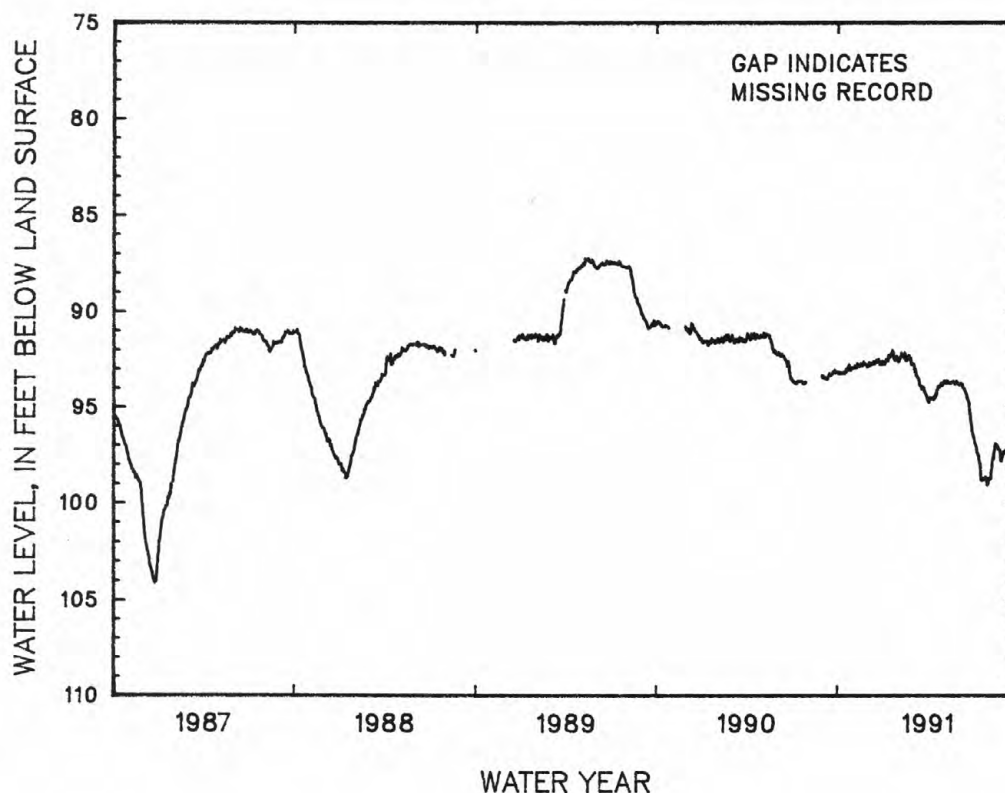
PERIOD OF RECORD.--February 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 77.24 ft below land-surface datum, Oct. 1, 1984;  
lowest measured, 104.14 ft below land-surface datum, Dec. 23, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 93.17 | 92.85 | 92.77 | 92.67 | 92.38 | 92.99 | 94.62 | 93.62 | 93.79 | 96.83 | 98.69 | 97.28 |
| 10  | 93.22 | 92.73 | 92.67 | ---   | 92.27 | 93.35 | 94.53 | 93.63 | 93.85 | 97.36 | 97.69 | 97.58 |
| 15  | 93.16 | 92.85 | 92.69 | 92.37 | 92.35 | 93.76 | 94.47 | 93.75 | 94.17 | 97.90 | 97.05 | 98.30 |
| 20  | 93.08 | 92.81 | 92.62 | 92.05 | 92.38 | 94.06 | 94.11 | 93.72 | 94.55 | 98.82 | 97.01 | 98.40 |
| 25  | 92.78 | 92.69 | 92.66 | 92.53 | 92.45 | 94.17 | 93.92 | 93.67 | 95.33 | 98.77 | 97.21 | 98.39 |
| EOM | 92.95 | 92.87 | 92.60 | 92.47 | 92.77 | 94.59 | 93.84 | 93.74 | 96.26 | 99.06 | 97.47 | 98.52 |

WATER YEAR 1991      HIGHEST 91.68 JAN 22, 1991      LOWEST 99.06 JUL 31, 1991



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

365133076351201. Local number, 58C 57 SOW 141A.

LOCATION.--Lat 36°51'33", long 76°35'12", Hydrologic Unit 02080208, 500 ft west of old Chuckatuck High School in Chuckatuck. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 122 ft, screened 112 to 122 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 8, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 52 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.5 ft above land-surface datum prior to Jan. 12, 1988; 1.0 ft thereafter.

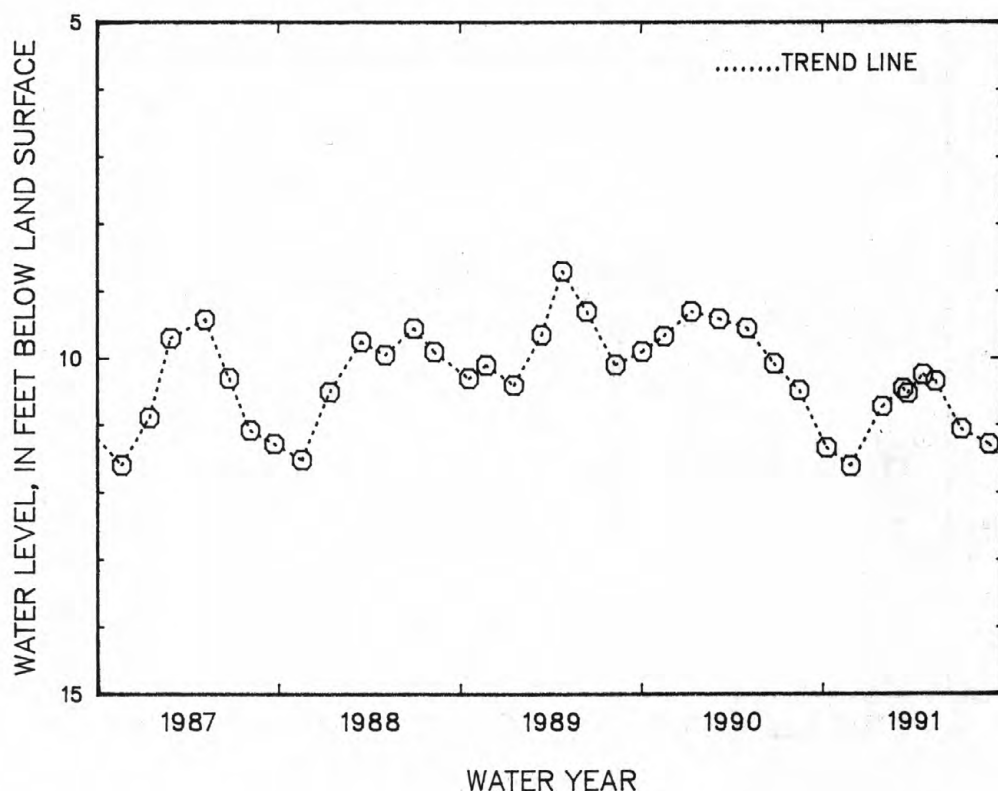
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--February 1980 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.70 ft below land-surface datum, Apr. 25, 1989; lowest measured, 11.65 ft below land-surface datum, Nov. 26, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 09          | 11.34       | JAN 30  | 10.72       | MAR 22       | 10.52       | MAY 17 | 10.34       | JUL 08       | 11.06       | SEP 03 | 11.29       |
| NOV 27          | 11.61       | MAR 13  | 10.45       | APR 22       | 10.24       |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 10.24       | APR 22, 1991 |             | LOWEST | 11.61       | NOV 27, 1990 |             |        |             |



## GROUND-WATER LEVELS

313

## CITY OF SUFFOLK

365133076351202. Local number, 58C 58 SOW 141B.

LOCATION.--Lat 36°51'33", long 76°35'12", Hydrologic Unit 02080208, 500 ft west of old Chuckatuck High School in Chuckatuck. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 605 ft, screened 595 to 605 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 8, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 52 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.5 ft above land-surface datum prior to Jan. 12, 1988; 1.5 ft thereafter.

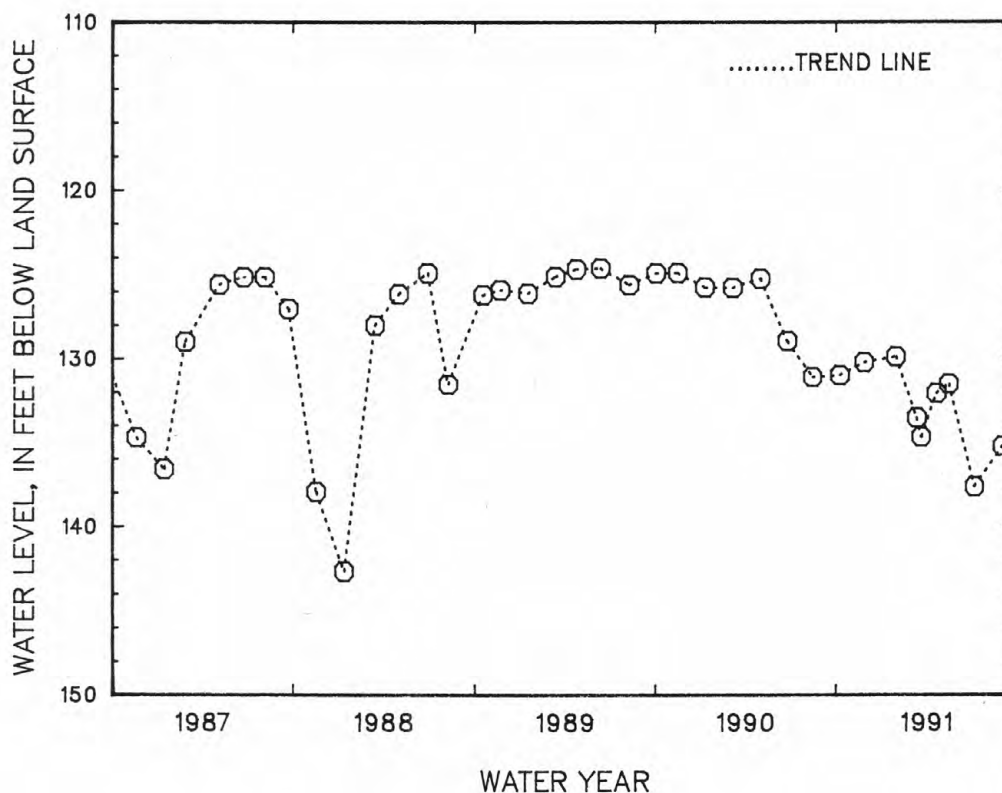
REMARKS.--Records provided by the Virginia Water Control Board. Water level may be affected by local pumpage.

PERIOD OF RECORD.--April 1980 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 108.60 ft below land-surface datum, Apr. 24, 1980; lowest measured, 142.67 ft below land-surface datum, Jan. 12, 1988.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 09          | 131.00      | JAN 30  | 129.88      | MAR 22       | 134.68      | MAY 17 | 131.51      | JUL 08       | 137.64      | SEP 03 | 135.24      |
| NOV 27          | 130.22      | MAR 13  | 133.54      | APR 22       | 132.07      |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 129.88      | JAN 30, 1991 |             | LOWEST | 137.64      | JUL 08, 1991 |             |        |             |



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

365133076351203. Local number, 58C 59 SOW 141C.

LOCATION.--Lat 36°51'33", long 76°35'12", Hydrologic Unit 02080208, 500 ft west of old Chuckatuck High School in Chuckatuck. Owner: Virginia Water Control Board.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 447 ft, screened 437 to 447 ft.

INSTRUMENTATION.--Continuous strip-chart recorder. Prior to May 5, 1981, occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 52 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage.

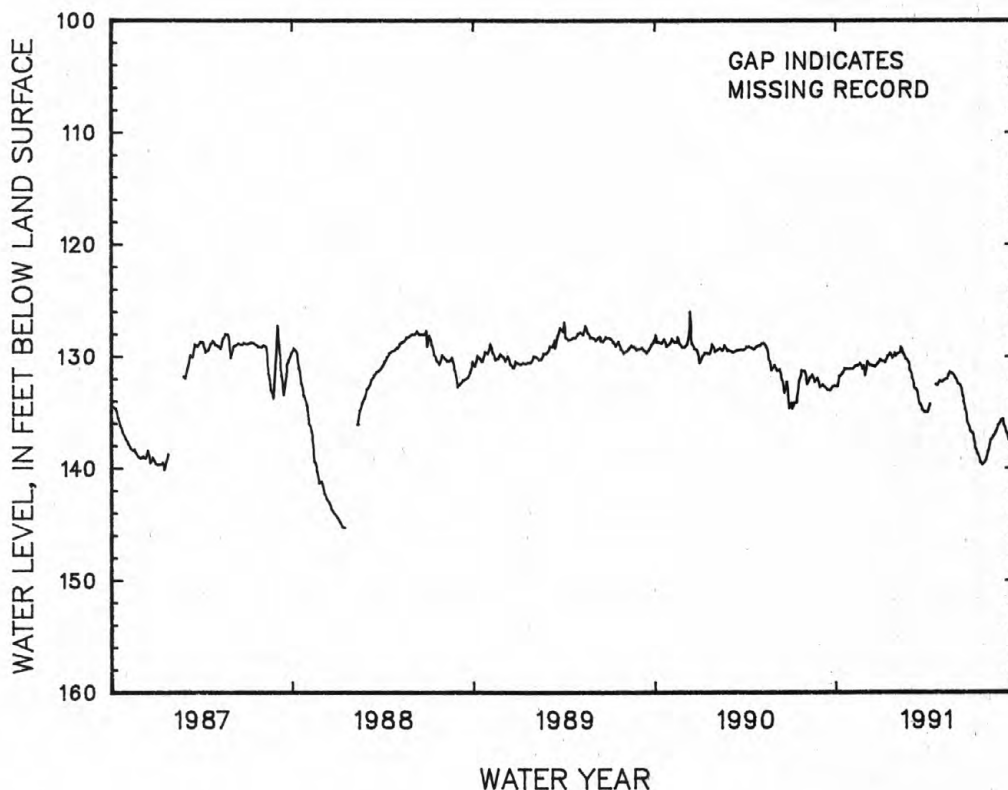
PERIOD OF RECORD.--April 1980 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 108.80 ft below land-surface datum, June 30, 1980; lowest recorded, 145.32 ft below land-surface datum, Jan. 15, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5   | 132.68 | 131.13 | 130.50 | 130.40 | 129.70 | 131.88 | 135.00 | 132.26 | 132.38 | 136.87 | 138.54 | 136.08 |
| 10  | 131.76 | 130.88 | 130.73 | 130.48 | 129.60 | 132.84 | 134.32 | 132.06 | 132.58 | 138.20 | 137.50 | 136.72 |
| 15  | 131.51 | 130.80 | 130.81 | 130.00 | 129.65 | 133.10 | ---    | 131.98 | 133.50 | 138.70 | 137.16 | 137.40 |
| 20  | 131.10 | 130.61 | 130.91 | 129.70 | 130.18 | 134.22 | ---    | 131.39 | 134.74 | 139.40 | 136.80 | 138.11 |
| 25  | 131.13 | 131.07 | 130.66 | 130.10 | 130.42 | 134.75 | 132.55 | 131.51 | 135.97 | 139.66 | 136.19 | 138.26 |
| EOM | 131.13 | 131.67 | 130.30 | 129.91 | 131.20 | 134.99 | 132.20 | 131.88 | 136.64 | 139.35 | 135.71 | 138.48 |

WATER YEAR 1991      HIGHEST 129.20 FEB 11, 12, 1991      LOWEST 139.70 JUL 24, 1991



## GROUND-WATER LEVELS

315

## CITY OF SUFFOLK

365133076351204. Local number, 58C 60 SOW 141D.

LOCATION.--Lat 36°51'33", long 76°35'12", Hydrologic Unit 02080208, 500 ft west of old Chuckatuck High School in Chuckatuck. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

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

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 8, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum prior to Jan 12, 1988; 1.0 ft thereafter.

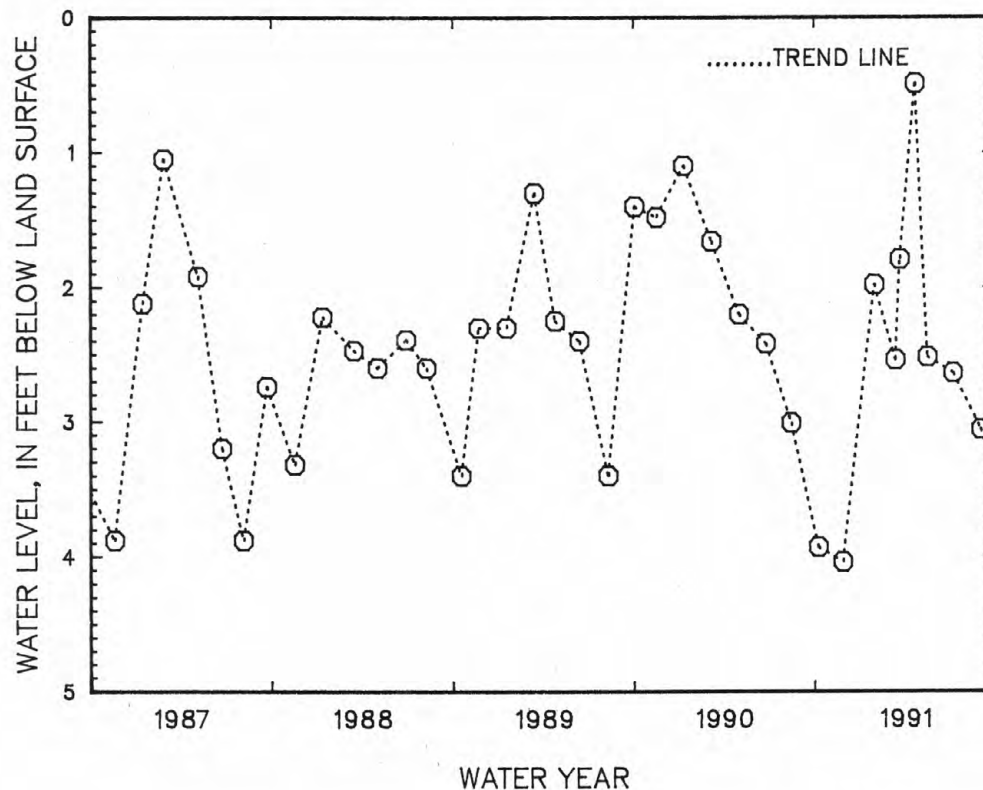
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--February 1980 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.49 ft below land-surface datum, Apr. 22, 1991; lowest measured, 4.18 ft below land-surface datum, Nov. 4, 1984.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE         | WATER LEVEL | DATE         | WATER LEVEL | DATE        | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|--------------|-------------|--------------|-------------|-------------|-------------|--------------|-------------|--------|-------------|
| OCT 09          | 3.93        | JAN 30       | 1.98        | MAR 22       | 1.79        | MAY 17      | 2.52        | JUL 08       | 2.64        | SEP 03 | 3.06        |
| NOV 27          | 4.04        | MAR 13       | 2.54        | APR 22       | .49         |             |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST 0.49 |             | APR 22, 1991 |             | LOWEST 4.04 |             | NOV 27, 1990 |             |        |             |



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

364731076355501. Local number, 58C 61 SOW 159A.

LOCATION.--Lat 36°47'31", long 76°35'55", Hydrologic Unit 02080208, 0.5 mi northwest of intersection of State Highways 622 and 634, 2.3 mi northwest of Elephant Fork. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 25 ft, screened 20 to 25 ft, sounded to 17.50 ft on July 8, 1985, redrilled to 25 ft on May 15, 1990.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 7, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.85 ft above land-surface datum prior to June 25, 1990; 1.55 ft thereafter.

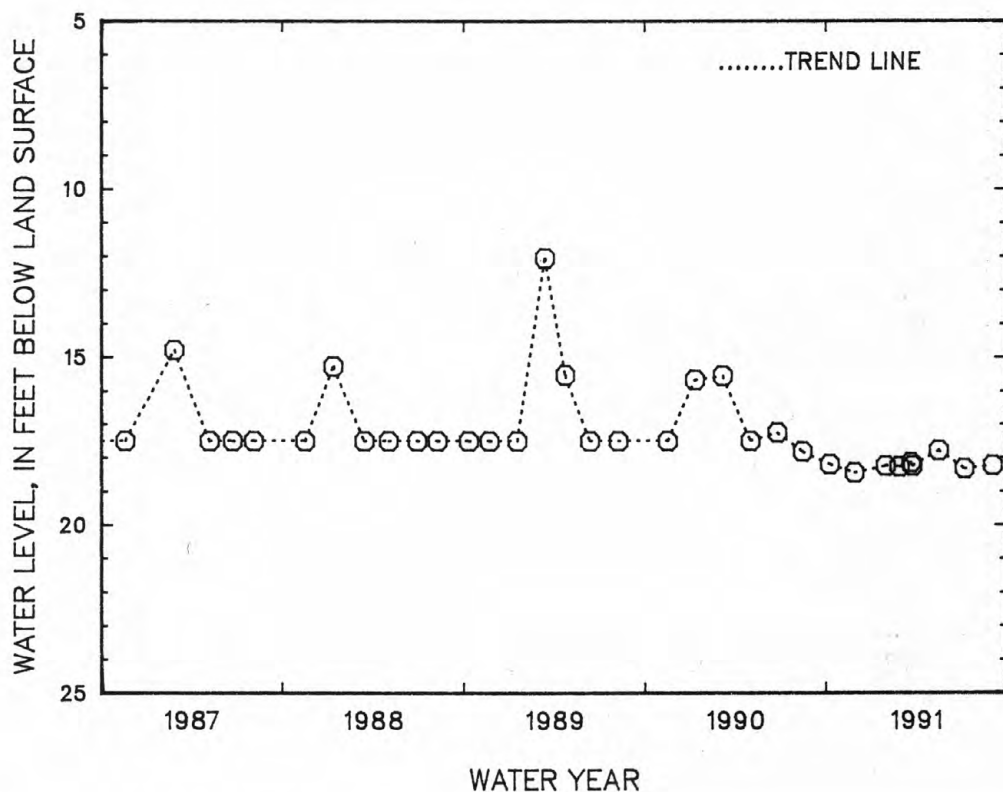
REMARKS.--Records provided by the Virginia Water Control Board. Well reported dry several days in 1985-1990.

PERIOD OF RECORD.--June 1981 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.95 ft below land-surface datum, Apr. 19, 1984; lowest measured, 18.45 ft below land-surface datum, Nov. 28, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 09          | 18.20       | JAN 30  | 18.25       | MAR 22       | 18.15       | MAY 17 | 17.78       | JUL 08       | 18.33       | SEP 03 | 18.23       |
| NOV 28          | 18.45       | FEB 27  | 18.27       | 25           | 18.25       |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 17.78       | MAY 17, 1991 |             | LOWEST | 18.45       | NOV 28, 1990 |             |        |             |





## GROUND-WATER LEVELS

317

## CITY OF SUFFOLK

364731076355502. Local number, 58C 62 SOW 159B.

LOCATION.--Lat 36°47'31", long 76°35'55", Hydrologic Unit 02080208, 0.5 mi northwest of intersection of State Highways 622 and 634, 2.3 mi northwest of Elephant Fork. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 575 ft, screened 555 to 575 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 7, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.6 ft above land-surface datum.

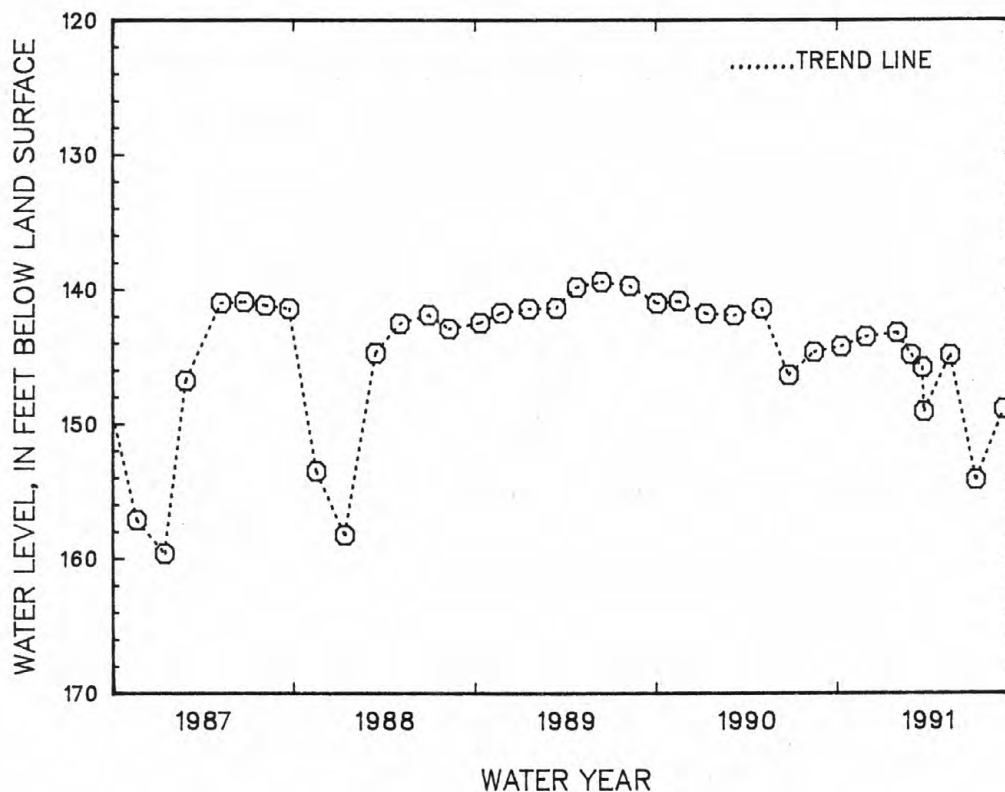
REMARKS.--Records provided by the Virginia Water Control Board. Water level may be affected by local pumpage.

PERIOD OF RECORD.--June 1981 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 129.90 ft below land-surface datum, Aug. 28, 1984; lowest measured, 159.63 ft below land-surface datum, Jan. 13, 1987.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 09          | 144.25      | JAN 30  | 143.20      | MAR 22       | 145.81      | MAY 17 | 144.87      | JUL 08       | 154.16      | SEP 03 | 148.90      |
| NOV 28          | 143.50      | FEB 27  | 144.86      | 25           | 149.10      |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 143.20      | JAN 30, 1991 |             | LOWEST | 154.16      | JUL 08, 1991 |             |        |             |



## GROUND-WATER LEVELS

## CITY OF SUFFOLK

364731076355503. Local number, 58C 63 SOW 159C.

LOCATION.--Lat 36°47'31", long 76°35'55", Hydrologic Unit 02080208, 0.5 mi northwest of intersection of State Highways 622 and 634, 2.3 mi northwest of Elephant Fork. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 650 ft, screened 630 to 650 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 7, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.6 ft above land-surface datum.

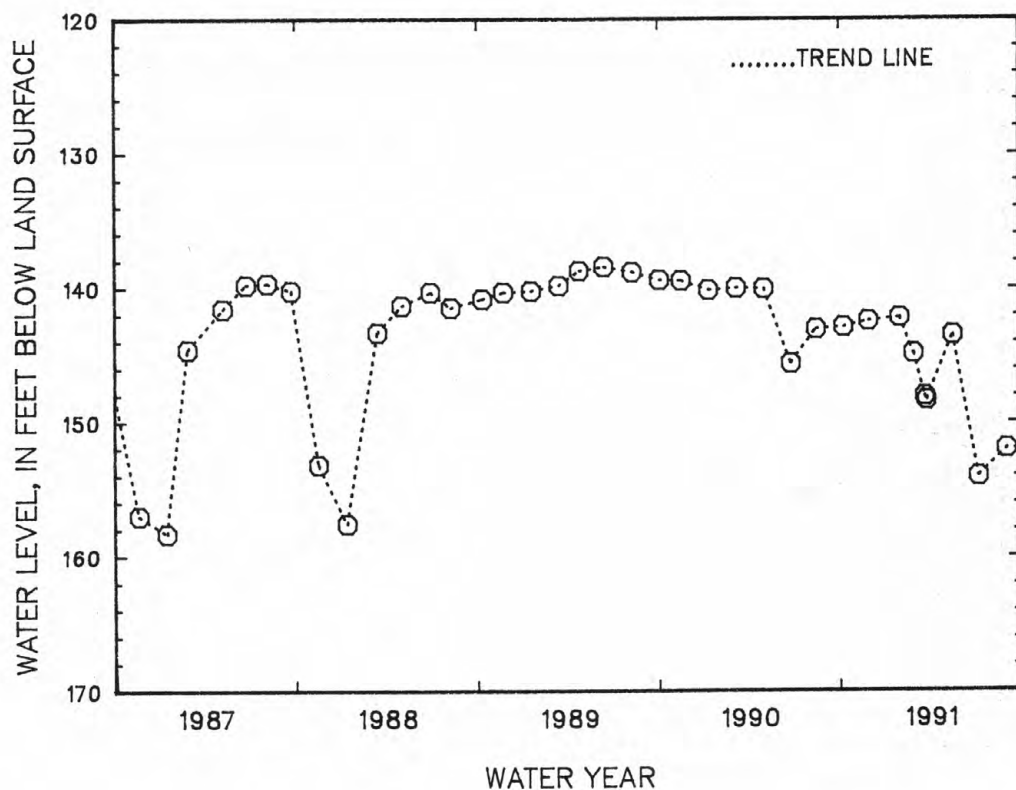
REMARKS.--Records provided by the Virginia Water Control Board. Water level may be affected by local pumpage.

PERIOD OF RECORD.--May 1981 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 127.75 ft below land-surface datum, Dec. 23, 1981; lowest measured, 182.80 ft below land-surface datum, July 1, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 09          | 142.90      | JAN 30  | 142.20      | MAR 22       | 148.10      | MAY 17 | 143.50      | JUL 08       | 154.08      | SEP 03 | 151.99      |
| NOV 28          | 142.45      | FEB 27  | 144.88      | 25           | 148.40      |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 142.20      | JAN 30, 1991 |             | LOWEST | 154.08      | JUL 08, 1991 |             |        |             |



## GROUND-WATER LEVELS

319

## SURREY COUNTY

370408076460101. Local number, 56E 1.

LOCATION.--Lat 37°04'08", long 76°40'01", Hydrologic Unit 03010202, off State Highway 617, 3.2 mi southwest of Bacons Castle. Owner: Buster E. Cox.

AQUIFER.--Middle and upper Potomac aquifers of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 18 in. to 360 ft, diameter 8 in. from 333.5 to 705 ft, depth 705 ft, screened 401 to 411 ft, 431 to 441 ft, 463 to 473 ft, 495 to 505 ft, 540 to 555 ft, 700 to 705 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch. August 7, 1969, to June 7, 1977, continuous strip-chart recorder. Occasional measurement with chalked tape by USGS personnel March 1942, April, July, and August, 1969.

DATUM.--Elevation of land-surface datum is 93 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top edge of recorder shelf, 3.6 ft above land-surface datum.

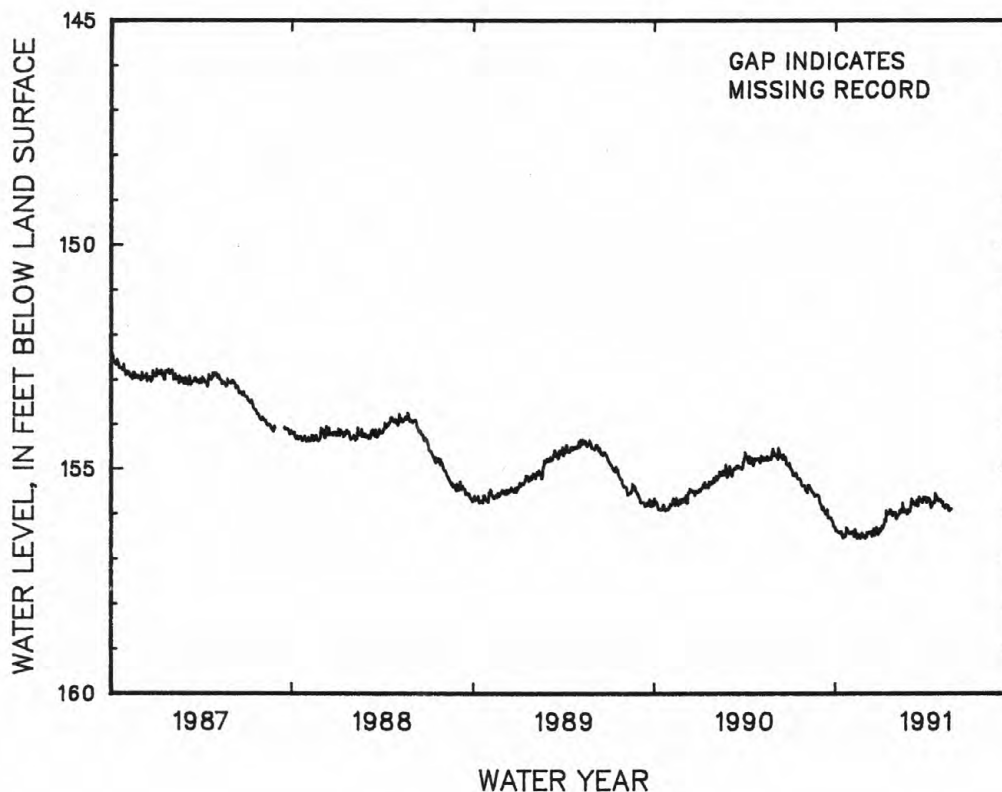
PERIOD OF RECORD.--March 1942, April 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 73.52 ft below land-surface datum, Mar. 10, 1942; lowest recorded, 156.54 ft below land-surface datum, Nov. 14, 15, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN | JUL | AUG | SEP |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|-----|-----|-----|-----|
| 5   | 156.37 | 156.40 | 156.44 | 156.32 | 156.02 | 155.75 | 155.71 | 155.76 | --- | --- | --- | --- |
| 10  | 156.42 | 156.36 | 156.41 | 156.17 | 155.92 | 155.78 | 155.71 | 155.85 | --- | --- | --- | --- |
| 15  | 156.48 | 156.54 | 156.48 | 156.01 | 155.86 | 155.79 | 155.78 | 155.83 | --- | --- | --- | --- |
| 20  | 156.51 | 156.54 | 156.47 | 155.92 | 155.93 | 155.68 | 155.73 | 155.93 | --- | --- | --- | --- |
| 25  | 156.32 | 156.45 | 156.39 | 156.04 | 155.93 | 155.73 | 155.68 | ---    | --- | --- | --- | --- |
| EOM | 156.42 | 156.54 | 156.38 | 156.07 | 155.95 | 155.67 | 155.70 | ---    | --- | --- | --- | --- |

WATER YEAR 1991      HIGHEST 155.44 MAR 30, 1991      LOWEST 156.54 NOV 14, 15, 1990



## GROUND-WATER LEVELS

## SURRY COUNTY

370800076500701. Local number, 56F 2 SOW 039.

LOCATION.--Lat 37°08'00", long 76°50'07", Hydrologic Unit 02080206, off State Highway 10, at Surry County Administration building in Surry. Owner: Town of Surry.

AQUIFER.--Aquia aquifer of Paleocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 367 ft, screened 350 to 362 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Jan. 10, 1976, to Oct. 7, 1985, occasional measurement with chalked tape. Mar. 15, 1971, to Jan. 10, 1976, continuous strip-chart recorder. Prior to Mar. 15, 1971, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 122 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.1 ft above land-surface datum.

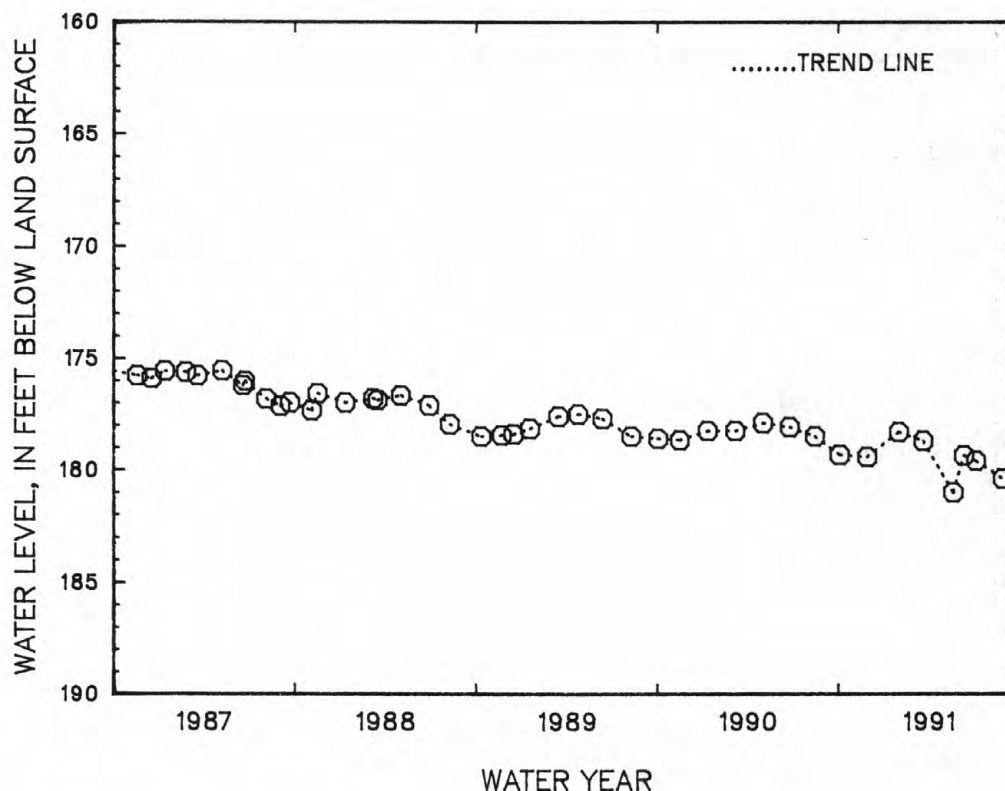
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--December 1970 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 146.43 ft below land-surface datum, Mar. 25, 1971; lowest measured, 181.01 ft below land-surface datum, May 20, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 04          | 179.33      | JAN 31  | 178.30      | MAY 20       | 181.01      | JUN 11 | 179.36      | JUL 05       | 179.59      | AUG 28 | 180.40      |
| NOV 28          | 179.43      | MAR 21  | 178.70      |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 178.30      | JAN 31, 1991 |             | LOWEST | 181.01      | MAY 20, 1991 |             |        |             |



## GROUND-WATER LEVELS

321

## SURRY COUNTY

370712076413201. Local number, 57E 11 SOW 094A.

LOCATION.--Lat 37°07'12", long 76°41'32", Hydrologic Unit 02080206, 0.5 mi east of State Highway 690, 2.5 mi northwest of Bacons Castle. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 605 ft, screened 595 to 605 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 7, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

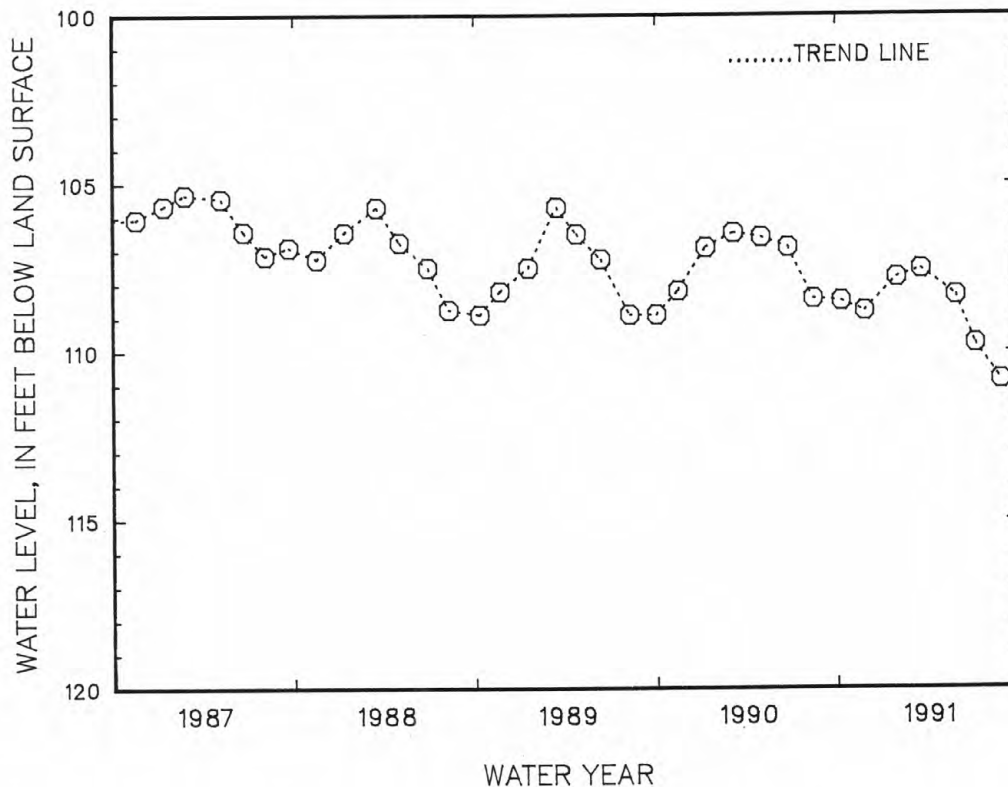
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage and regional drawdown.

PERIOD OF RECORD.--July 1978 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 92.19 ft below land-surface datum, July 24, 1980; lowest measured, 110.86 ft below land-surface datum, Aug. 28, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 11          | 108.50      | JAN 31  | 107.80      | MAR 21       | 107.55      | MAY 30 | 108.34      | JUL 08       | 109.78      | AUG 28 | 110.86      |
| NOV 27          | 108.80      |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 107.55      | MAR 21, 1991 |             | LOWEST | 110.86      | AUG 28, 1991 |             |        |             |



## GROUND-WATER LEVELS

## SURRY COUNTY

370712076413202. Local number, 57E 12 SOW 094B.

LOCATION.--Lat 37°07'12", long 76°41'32", Hydrologic Unit 02080206, 0.5 mi east of State Highway 690, 2.5 mi northwest of Bacons Castle. Owner: Virginia Water Control Board.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in. to 430 ft, diameter 3 in. from 430 to 440 ft, depth 440 ft, screened 430 to 440 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 7, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

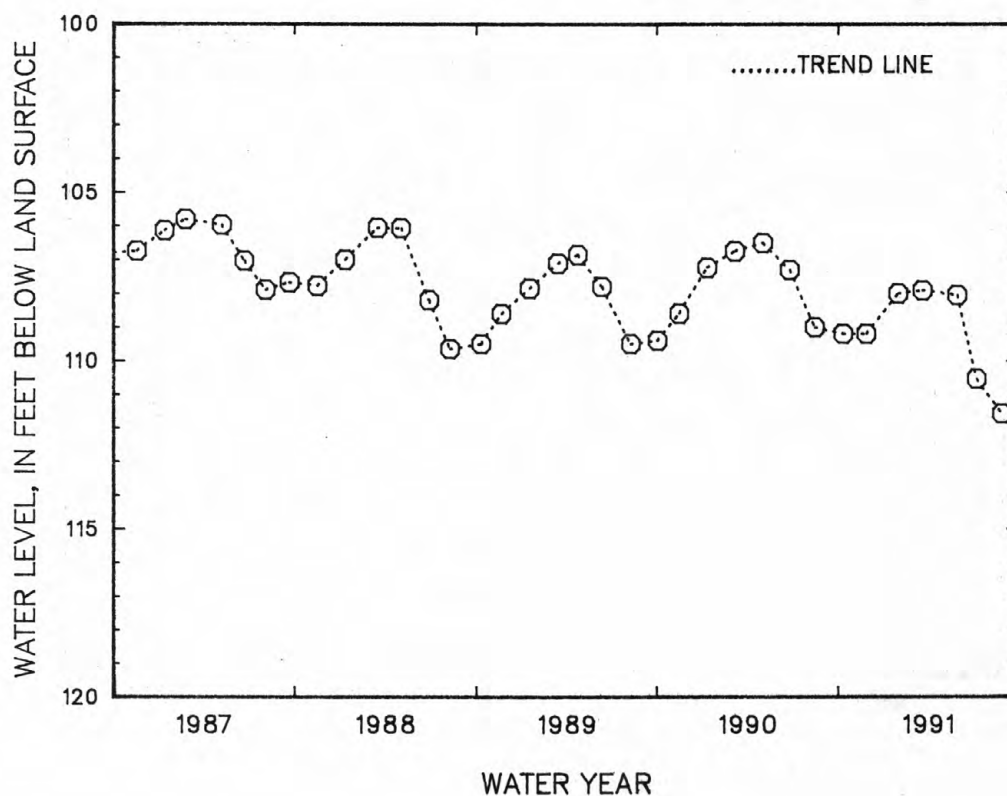
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage and regional drawdown.

PERIOD OF RECORD.--July 1978 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 92.90 ft below land-surface datum, May 29, 1980; lowest measured, 111.58 ft below land-surface datum, Aug. 28, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 11          | 109.20      | JAN 31  | 108.00      | MAR 21       | 107.91      | MAY 30 | 108.05       | JUL 08 | 110.54      | AUG 28 | 111.58      |
| NOV 27          | 109.20      |         |             |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 107.91      | MAR 21, 1991 | LOWEST      | 111.58 | AUG 28, 1991 |        |             |        |             |





## GROUND-WATER LEVELS

323

## SURRY COUNTY

370712076413203. Local number, 57E 13 SOW 094C.

LOCATION.--Lat 37°07'12", long 76°41'32", Hydrologic Unit 02080206, 0.5 mi east of State Highway 690, 2.5 mi northwest of Bacons Castle. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in. to 41 ft, diameter 3 in. from 41 to 46 ft, depth 46 ft, screened 41 to 46 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 7, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.6 ft above land-surface datum.

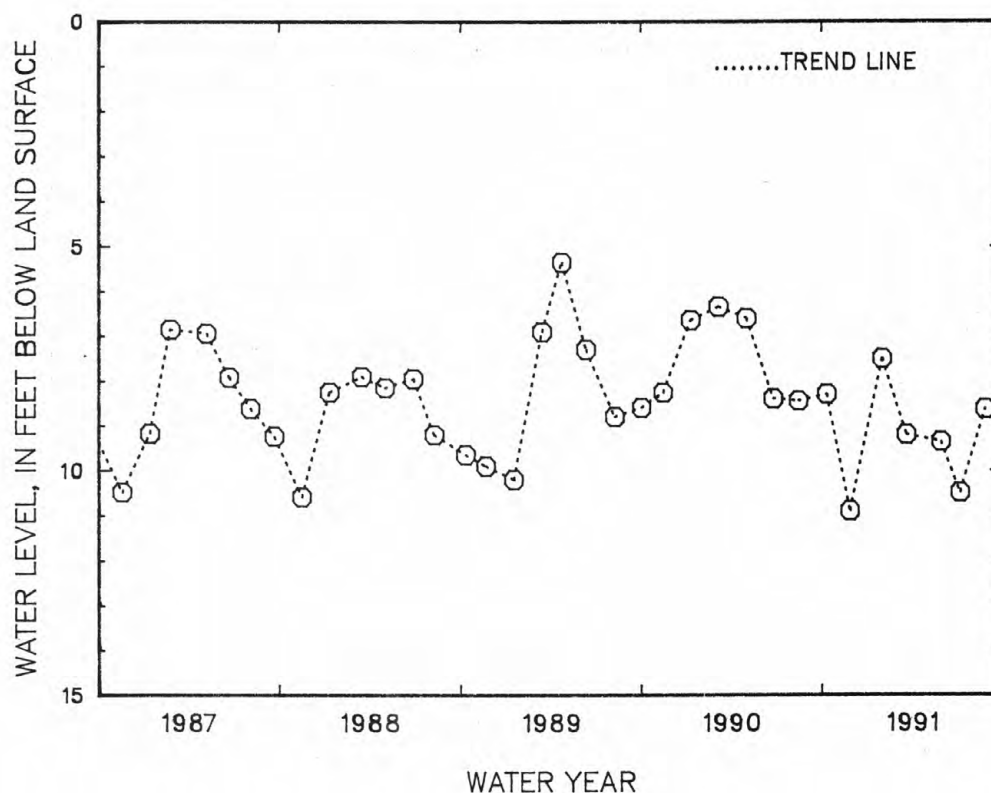
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--July 1978 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.90 ft below land-surface datum, May 29, 1980; lowest measured, 11.17 ft below land-surface datum, Dec. 13, 1981.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 11          | 8.30        | JAN 31  | 7.50        | MAR 21       | 9.20        | MAY 30 | 9.36         | JUL 08 | 10.49       | AUG 28 | 8.63        |
| NOV 27          | 10.90       |         |             |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 7.50        | JAN 31, 1991 | LOWEST      | 10.90  | NOV 27, 1990 |        |             |        |             |



## GROUND-WATER LEVELS

## SURRY COUNTY

371132076405501. Local number, 57F 16 SOW 087A.

LOCATION.--Lat 37°11'32", long 76°40'55", Hydrologic Unit 02080206, at the end of State Highway 650 in Homewood, 7.6 mi northeast of Bacons Castle. Owner: Virginia State Water Control Board.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 1,206 ft, screened 1,170 to 1,185 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 7, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

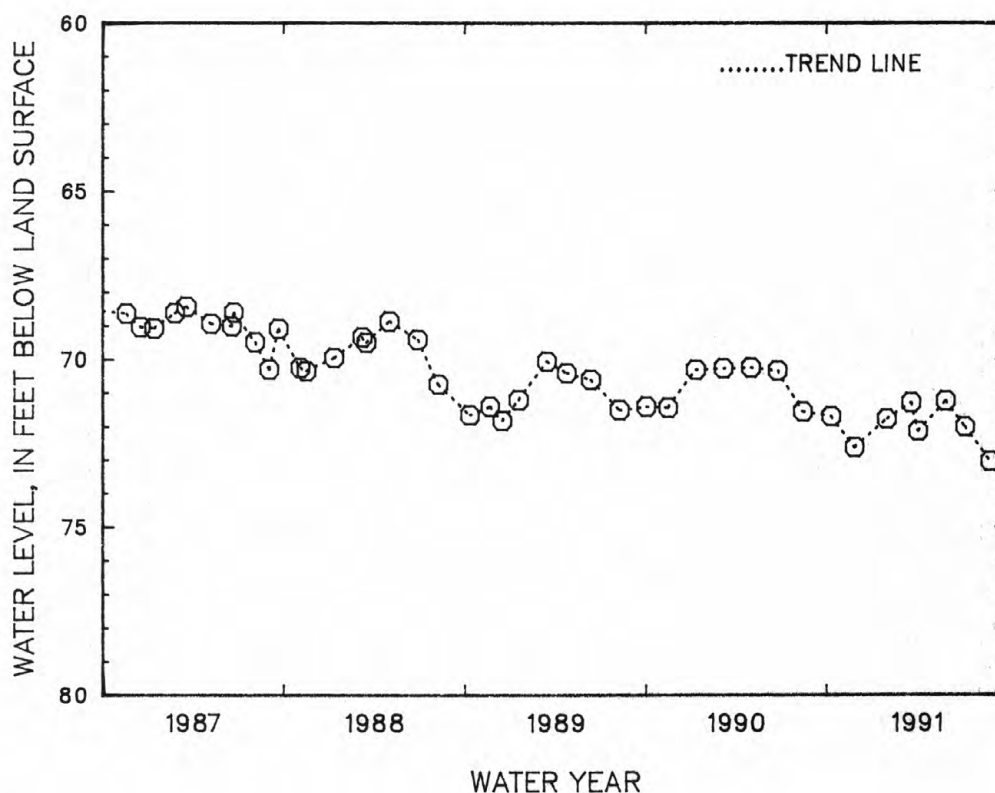
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage and regional drawdown.

PERIOD OF RECORD.--July 1978 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.22 ft below land-surface datum, July 20, 1978; lowest measured, 73.05 ft below land-surface datum, Aug. 28, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE          | WATER LEVEL | DATE         | WATER LEVEL | DATE         | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|--------|-------------|
| OCT 11          | 71.69       | JAN 31        | 71.77       | APR 04       | 72.14       | MAY 30       | 71.23       | JUL 08       | 72.01       | AUG 28 | 73.05       |
| NOV 27          | 72.63       | MAR 21        | 71.28       |              |             |              |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST 71.23 |             | MAY 30, 1991 |             | LOWEST 73.05 |             | AUG 28, 1991 |             |        |             |



## GROUND-WATER LEVELS

325

## SURRY COUNTY

371132076405502. Local number, 57F 24 SOW 087B.

LOCATION.--Lat 37°11'32", long 76°40'55", Hydrologic Unit 02080206, at the end of State Highway 650 in Homewood, 7.6 mi northeast of Bacons Castle. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 520 ft, screened 510 to 520 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 7, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

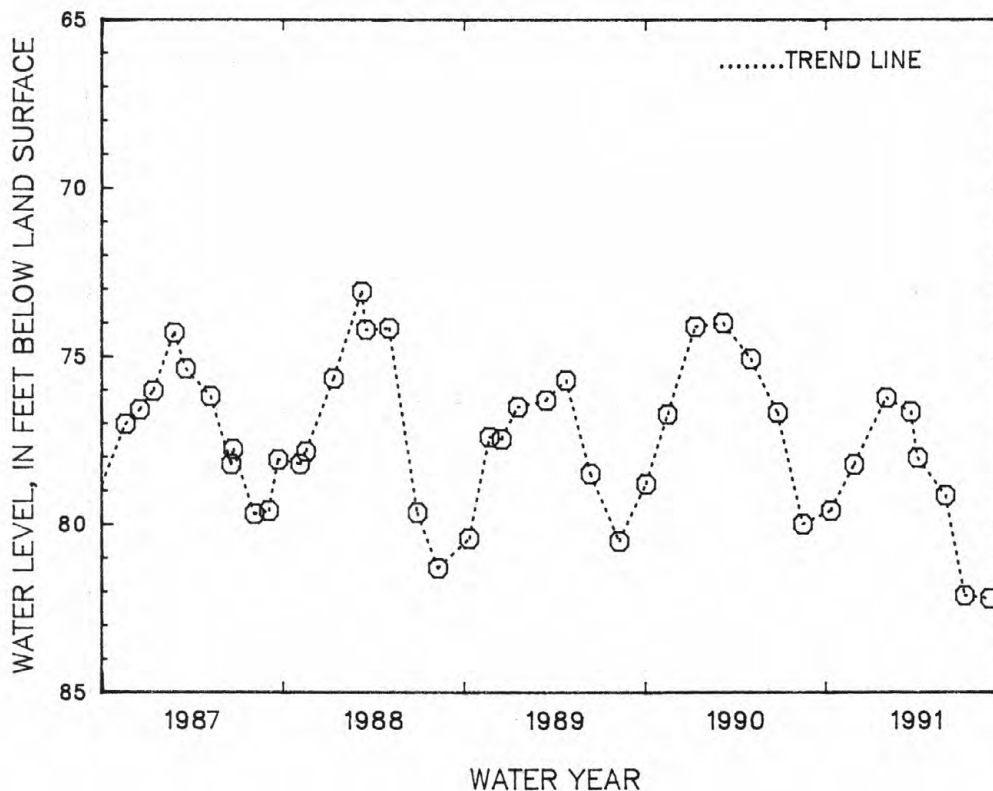
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by local pumpage and regional drawdown.

PERIOD OF RECORD.--July 1978 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.17 ft below land-surface datum, Aug. 17, 1982; lowest measured, 82.21 ft below land-surface datum, Aug. 28, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 11          | 79.60       | JAN 31  | 76.23       | APR 04       | 78.03       | MAY 30 | 79.15       | JUL 08       | 82.12       | AUG 28 | 82.21       |
| NOV 27          | 78.22       | MAR 21  | 76.65       |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 76.23       | JAN 31, 1991 |             | LOWEST | 82.21       | AUG 28, 1991 |             |        |             |



365843077090201. Local number, 53D 3 SOW 048.

**AQUIFER.**--Lower and middle Potomac aquifers of Cretaceous age.

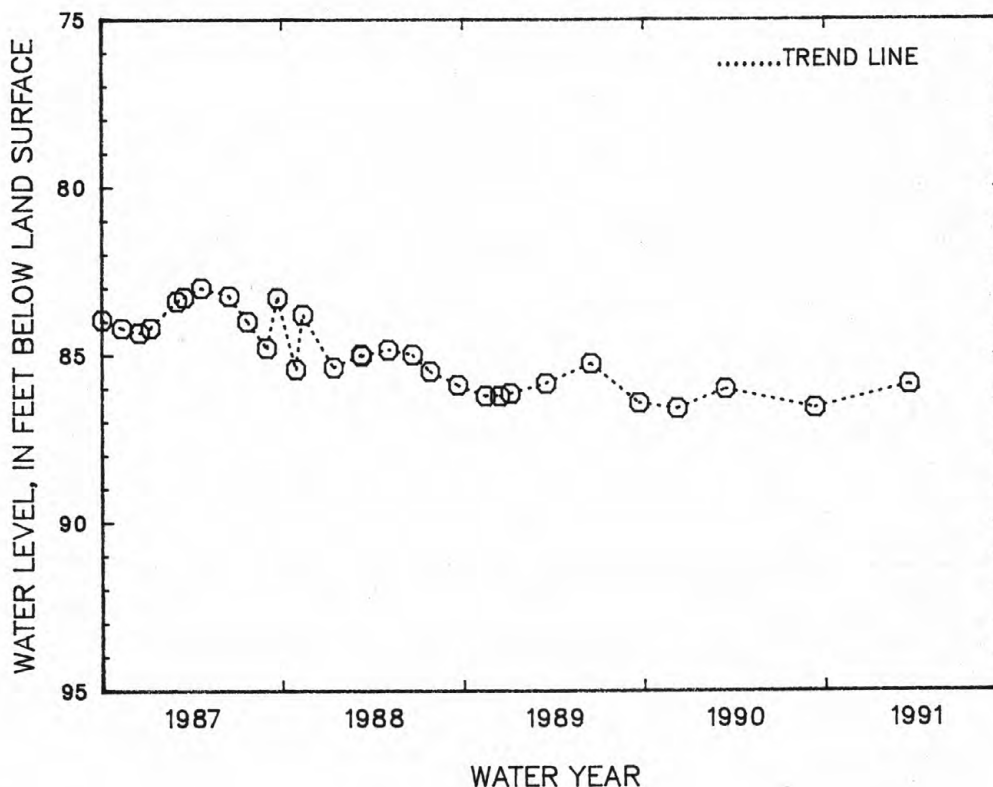
INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Mar. 1, 1989, bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

REMARKS.--Records provided by the Virginia Water Control Board prior to Mar. 1, 1989; U.S. Geological Survey thereafter. Water level affected by regional drawdown.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 72.39 ft below land-surface datum, May 15, 1972; lowest measured, 86.62 ft below land-surface datum, Dec. 7, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 21 | 85.90          |



## GROUND-WATER LEVELS

327

## SUSSEX COUNTY

365530077104002. Local number, 53D 6 SOW 179A

LOCATION.--Lat 36°55'30", long 77°10'40", Hydrologic Unit 03010201, off State Highway 634, 1.4 mi south of State Highway 35, and 1.7 mi southeast of Homeville. Owner: Virginia Water Control Board.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 470 ft, screened 460 to 470 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Mar. 1, 1988, digital recorder--60-minute punch.

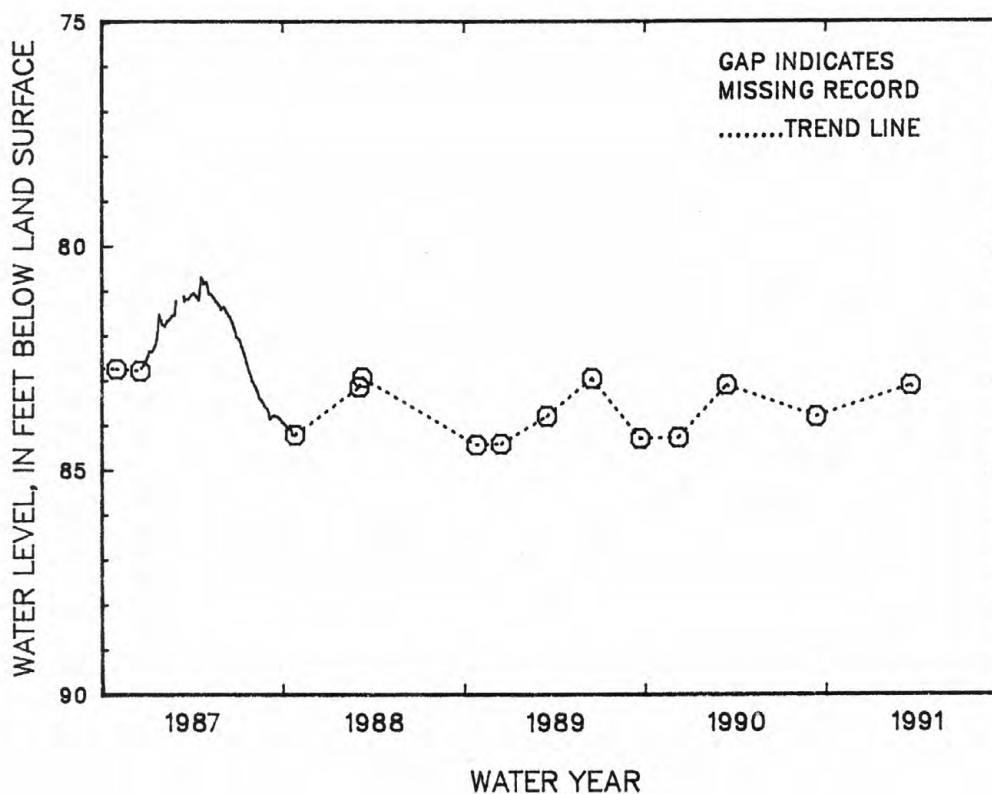
DATUM.--Elevation of land-surface datum is 90 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 78.50 ft below land-surface datum, Feb. 12, 1988; lowest measured, 84.44 ft below land-surface datum, Oct. 25, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 21 | 83.11          |



## GROUND-WATER LEVELS

## SUSSEX COUNTY

365530077104003. Local number, 53D 7 SOW 179B.

LOCATION.--Lat 36°55'30", long 77°10'40", Hydrologic Unit 03010201, off State Highway 634, 1.4 mi south of State Highway 35, and 1.7 mi southeast of Homeville. Owner: Virginia Water Control Board.

AQUIFER.--Lower Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in. to 398 ft, diameter 2 in. from 394 to 425 ft, depth 425 ft, screened 415 to 425 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 90 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

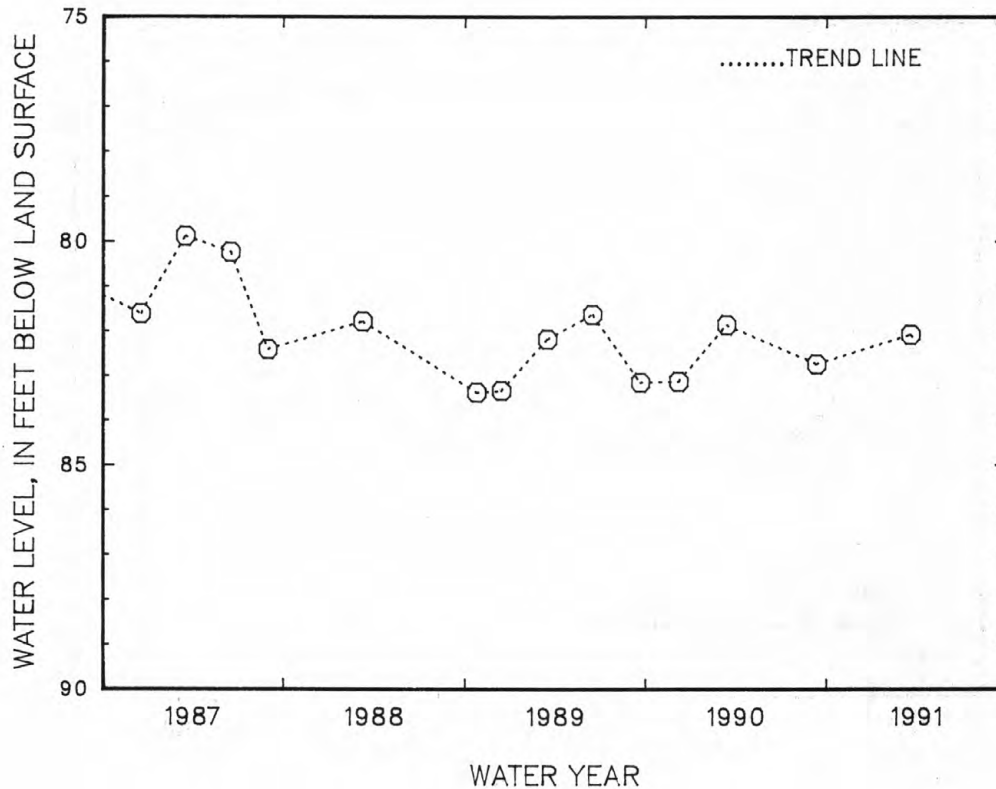
REMARKS.--Water level affected by local pumpage and regional drawdown.

PERIOD OF RECORD.--December 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 79.47 ft below land-surface datum, Dec. 17, 1985; lowest measured, 83.38 ft below land-surface datum, Oct. 25, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 21 | 82.08          |





## GROUND-WATER LEVELS

329

## SUSSEX COUNTY

365530077104005. Local number, 53D 9 SOW 179D.

LOCATION.--Lat 36°55'30", long 77°10'40", Hydrologic Unit 03010201, off State Highway 634, 1.4 mi south of State Highway 35, and 1.7 mi southeast of Homeville. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in. to 185 ft, diameter 2 in. from 178 to 209 ft, depth 209 ft, screened 199 to 209 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Mar. 1, 1988, digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 90 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.1 ft above land-surface datum.

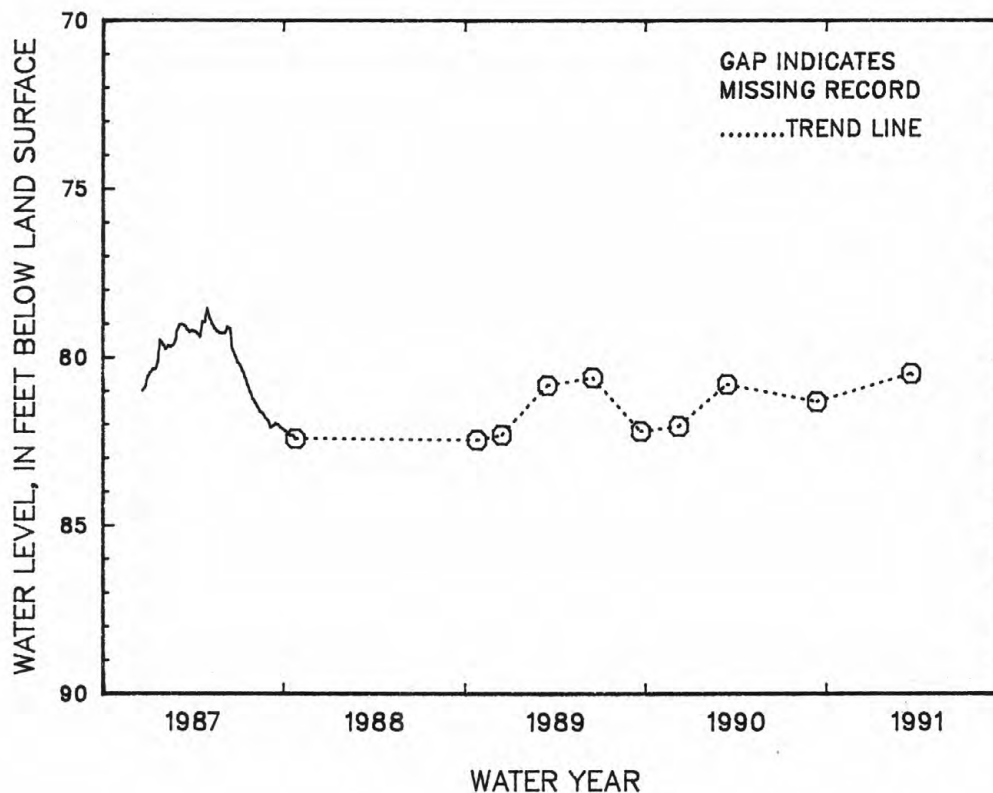
REMARKS.--Water level affected by local pumpage and regional drawdown.

PERIOD OF RECORD.--December 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 76.51 ft below land-surface datum, Apr. 17, 1987; lowest recorded, 82.56 ft below land-surface datum, Nov. 25, 26, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 21 | 80.47          |



## GROUND-WATER LEVELS

## SUSSEX COUNTY

365530077104006. Local number, 53D 10 SOW 179E.

LOCATION.--Lat 36°55'30", long 77°10'40", Hydrologic Unit 03010201, off State Highway 634, 1.4 mi south of State Highway 35, and 1.7 mi southeast of Homeville. Owner: Virginia Water Control Board.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in. to 130 ft, diameter 4 in. from 140 to 145 ft, depth 145 ft, screened 130 to 140 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Mar. 1, 1988, digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 90 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.3 ft above land-surface datum.

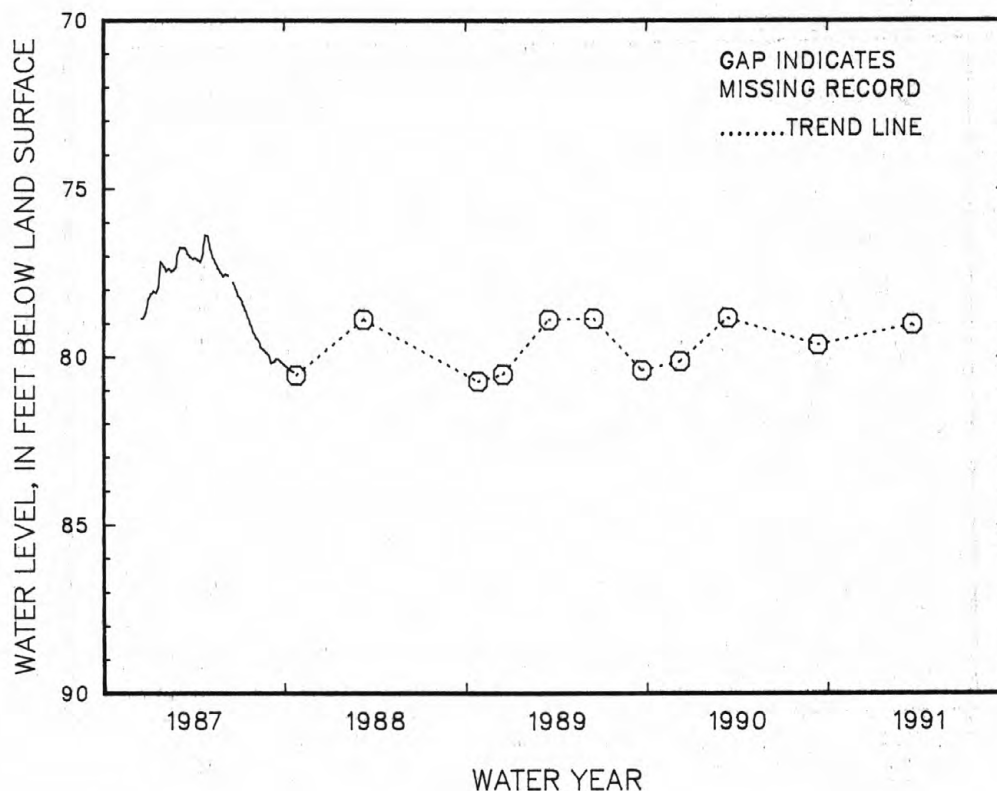
REMARKS.--Water level affected by local pumpage and regional drawdown.

PERIOD OF RECORD.--December 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 76.25 ft below land-surface datum, Apr. 24, 1987; lowest measured, 80.73 ft below land-surface datum, Oct. 25, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 21 | 79.03          |



## GROUND-WATER LEVELS

331

## SUSSEX COUNTY

365530077104007. Local number, 53D 11 SOW 179F.

LOCATION.--Lat 36°55'30", long 77°10'40", Hydrologic Unit 03010201, off State Highway 634, 1.4 mi south of State Highway 35, and 1.7 mi southeast of Homeville. Owner: Virginia Water Control Board.

AQUIFER.--Aquia aquifer of Paleocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in. to 82 ft, diameter 4 in. from 92 to 97 ft, depth 97 ft, screened 82 to 92 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Mar. 1, 1988, digital recorder--60-minute punch.

REMARKS.--Water level affected by local pumpage.

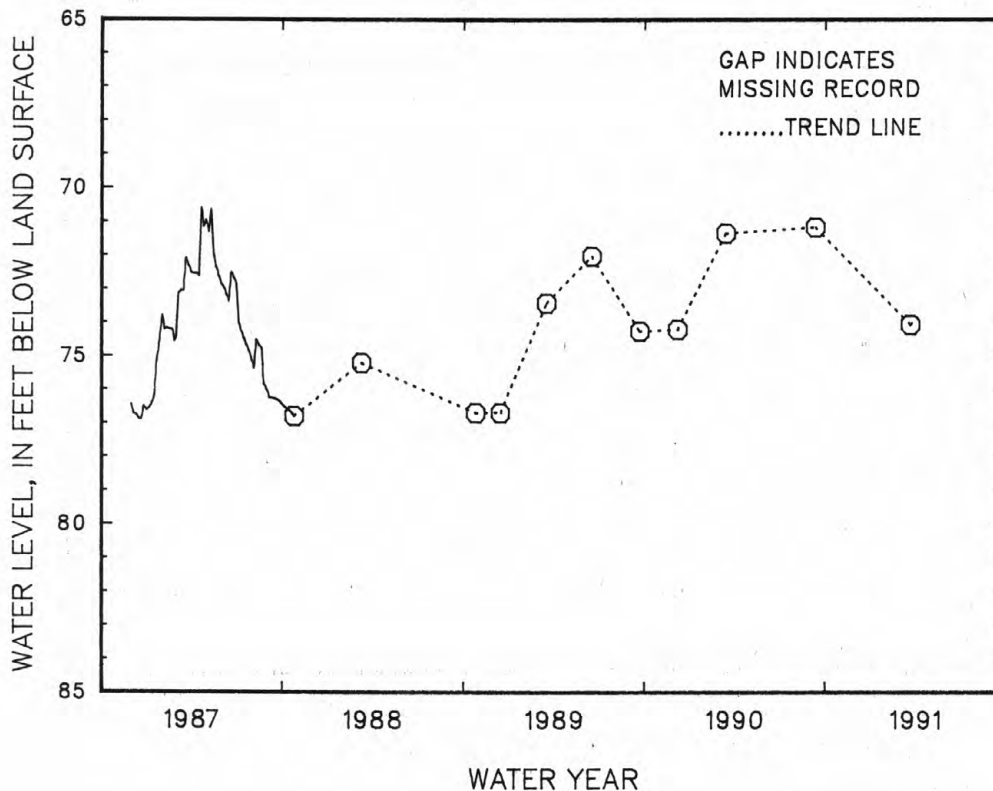
DATUM.--Elevation of land-surface datum is 90 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--December 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 70.60 ft below land-surface datum, Apr. 20, 1987; lowest recorded, 77.16 ft below land-surface datum, Nov. 28-30, Dec. 1, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 21 | 74.08          |



## GROUND-WATER LEVELS

## SUSSEX COUNTY

365530077104008. Local number, 53D 12 SOW 179G.

LOCATION.--Lat 36°55'30", long 77°10'40", Hydrologic Unit 03010201, off State Highway 634, 1.4 mi south of State Highway 35, and 1.7 mi south of Homeville. Owner: Virginia Water Control Board.

AQUIFER.--Aquia aquifer of Paleocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in. to 47 ft, diameter 4 in. from 47 to 67 ft, depth 67 ft, screened 47 to 57 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Mar. 1, 1988, digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 90 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

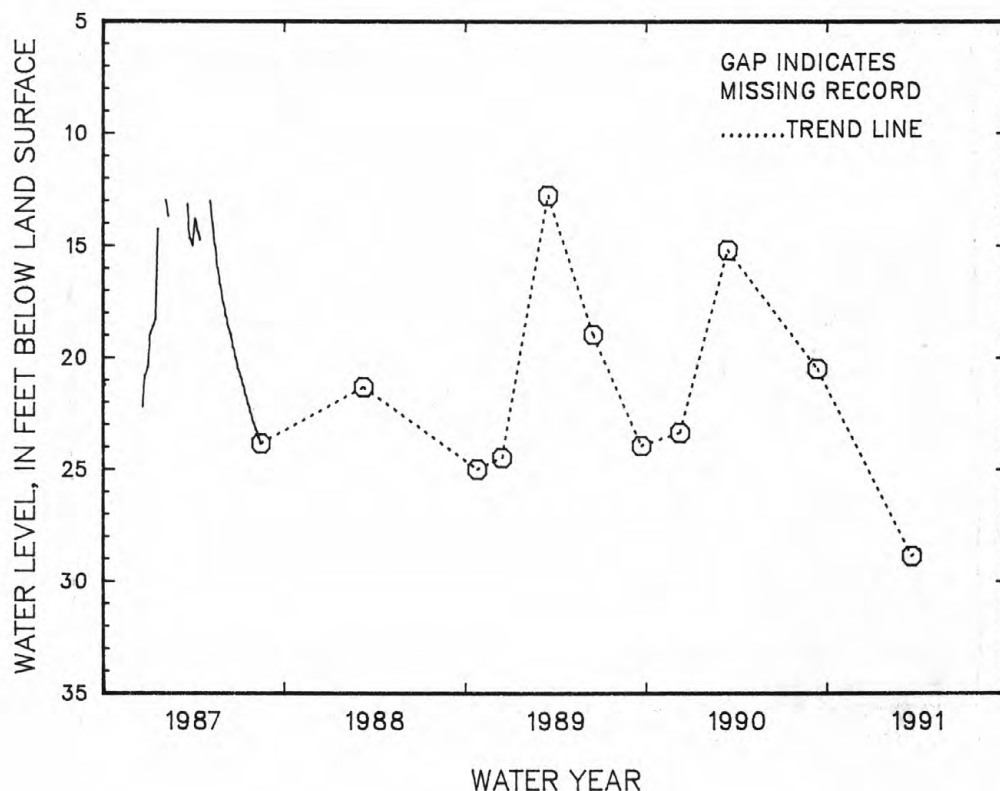
REMARKS.--Water level affected by local pumpage.

PERIOD OF RECORD.--December 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 11.46 ft below land-surface datum, Apr. 29, 1987; lowest measured, 28.89 ft below land-surface datum, Mar. 21, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 21 | 28.89          |



## GROUND-WATER LEVELS

333

## SUSSEX COUNTY

365235077150501. Local number, 53E 5 SOW 045.

LOCATION.--Lat 37°02'37", long 77°11'30", Hydrologic Unit 03010201, 400 ft northeast of State Highway 625, 2.5 mi north of Newville. Owner: Butler Lumber Company.

AQUIFER.--Aquia aquifer of Paleocene age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 4 in., depth 172 ft, screened 162 to 172 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel. Prior to Mar. 1, 1989, bimonthly measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 126.65 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.3 ft above land-surface datum prior to Mar. 8, 1988; 1.2 ft thereafter.

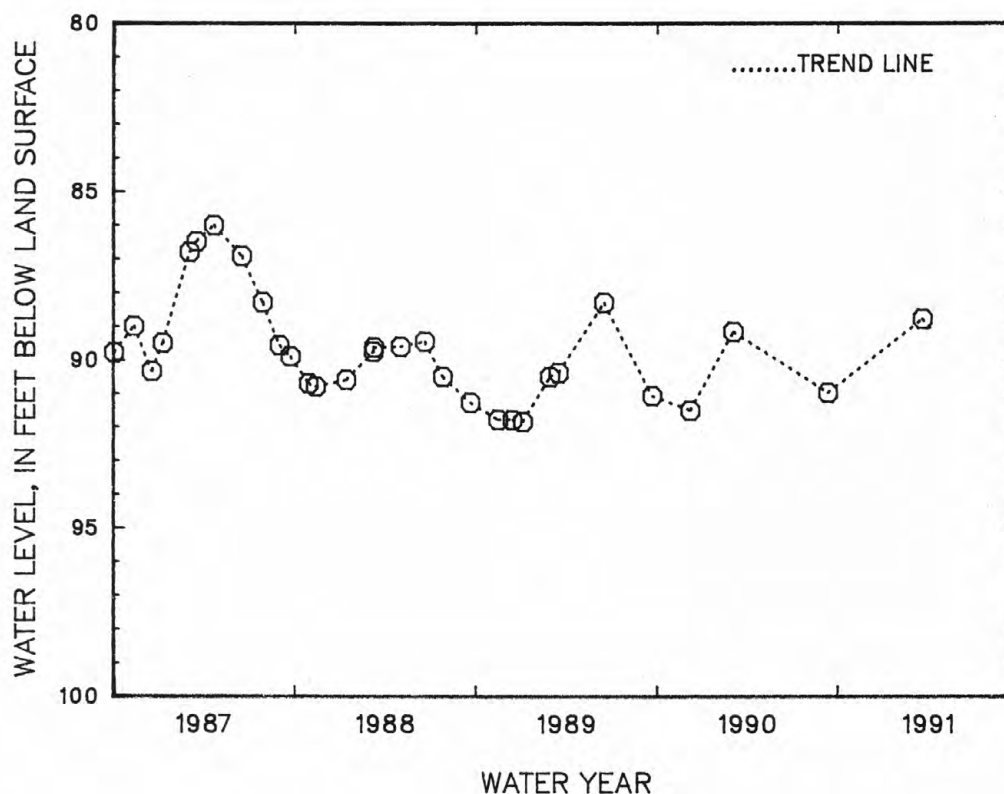
REMARKS.--Records provided by the Virginia Water Control Board prior to Mar. 1, 1989; U.S. Geological Survey thereafter. Water level affected by local pumpage and regional drawdown.

PERIOD OF RECORD.--September 1971, October 1974 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 81.90 ft below land-surface datum, Mar. 16, 1976; lowest measured, 91.85 ft below land-surface datum, Jan. 4, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 21 | 88.78          |



## GROUND-WATER LEVELS

## CITY OF VIRGINIA BEACH

364850076120701. Local number, 61C 23 SOW 129.

LOCATION.--Lat 36°48'50", long 76°12'07", Hydrologic Unit 02080208, at Woodstock Elementary School in Virginia Beach. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 8 in. to 68 ft, diameter 6 in. from 68 to 78 ft, depth 78 ft, screened 68 to 73 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 9, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.1 ft above land-surface datum.

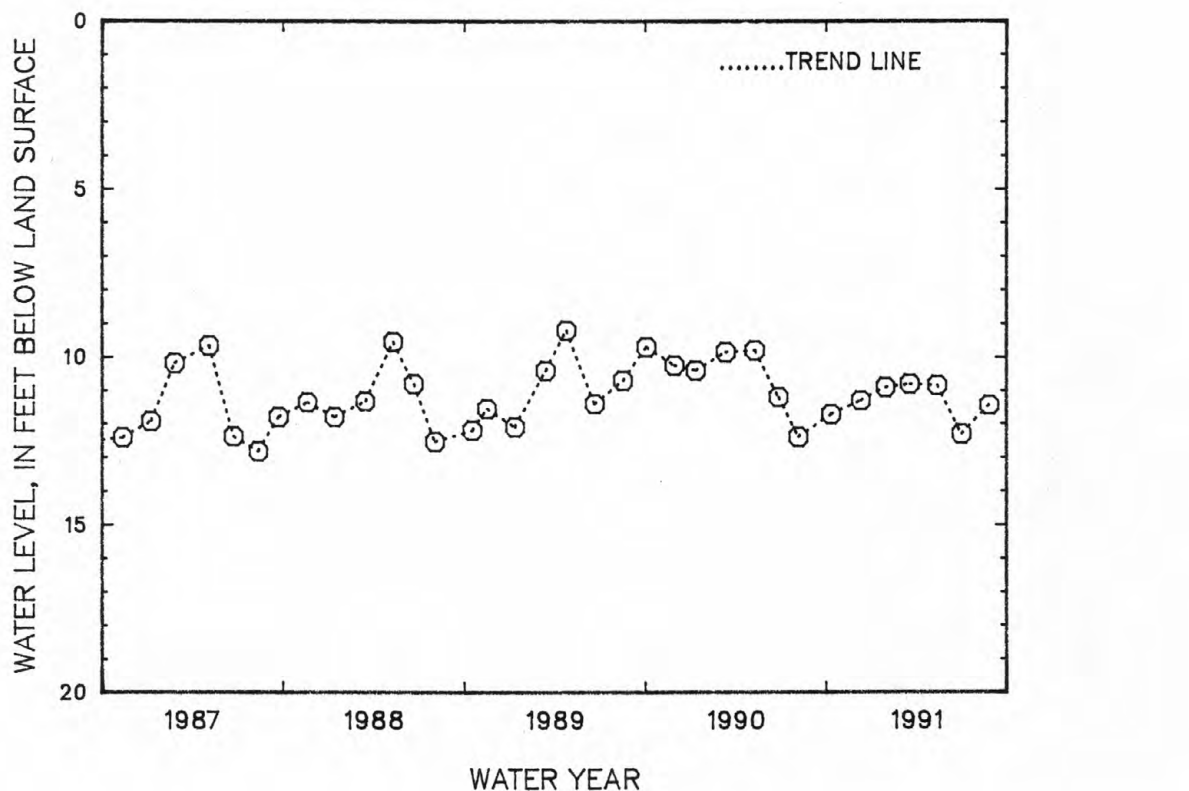
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--April 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.20 ft below land-surface datum, Apr. 25, 1989; lowest measured, 17.77 ft below land-surface datum, Aug. 26, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 11          | 11.72       | JAN 29  | 10.90       | MAR 19       | 10.80       | MAY 13 | 10.84       | JUL 01       | 12.31       | AUG 26 | 11.44       |
| DEC 10          | 11.30       |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 10.80       | MAR 19, 1991 |             | LOWEST | 12.31       | JUL 01, 1991 |             |        |             |





## GROUND-WATER LEVELS

335

## CITY OF VIRGINIA BEACH

364920076093601. Local number, 61C 25 SOW 130.

LOCATION.--Lat 36°49'20", long 76°09'36", Hydrologic Unit 02080208, at Kempsville Elementary School in Virginia Beach. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 71 ft, screened 61 to 66 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 9, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.12 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board.

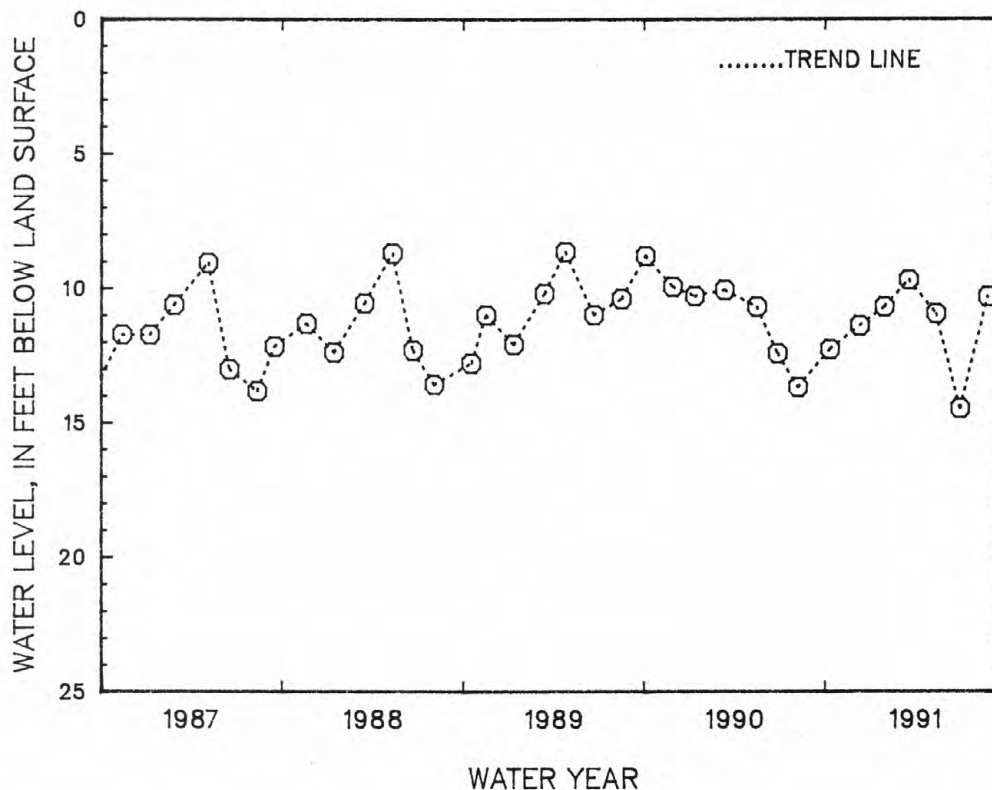
PERIOD OF RECORD.--April 1978 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.12 ft below land-surface datum, Feb. 20, 1980; lowest measured, 17.76 ft below land-surface datum, July 18, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 11 | 12.26       | JAN 29 | 10.68       | MAR 19 | 9.68        | MAY 13 | 10.94       | JUL 01 | 14.48       | AUG 26 | 10.31       |
| DEC 10 | 11.38       |        |             |        |             |        |             |        |             |        |             |

WATER YEAR 1991      HIGHEST 9.68 MAR 19, 1991      LOWEST 14.48 JUL 01, 1991



## GROUND-WATER LEVELS

## CITY OF VIRGINIA BEACH

364920076093201. Local number, 61C 27 SOW 174A.

LOCATION.--Lat 36°49'20", long 76°09'32", Hydrologic Unit 02080208, at Kempville High School in Virginia Beach.  
Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 3 in., depth 175 ft, screened 160 to 170 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 9, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.8 ft above land-surface datum.

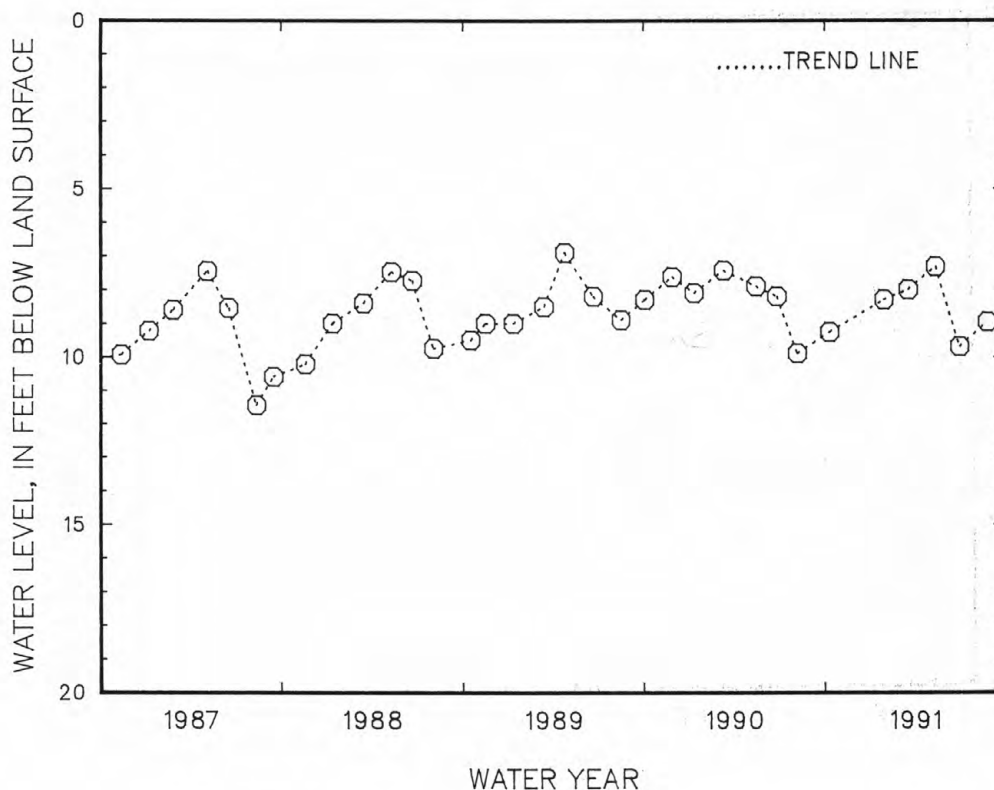
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--April 1984 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.09 ft below land-surface datum, Apr. 25, 1984; lowest measured, 11.73 ft below land-surface datum, Aug. 6, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 11          | 9.26        | JAN 29  | 8.30        | MAR 19       | 8.00        | MAY 13 | 7.32        | JUL 01       | 9.70        | AUG 26 | 8.96        |
| DEC 10          | 8.80        |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 7.32        | MAY 13, 1991 |             | LOWEST | 9.70        | JUL 01, 1991 |             |        |             |



## GROUND-WATER LEVELS

337

## CITY OF VIRGINIA BEACH

364920076093202. Local number, 61C 28 SOW 174B.

LOCATION.--Lat 36°49'20", long 76°09'32", Hydrologic Unit 02080208, at Kempsville High School in Virginia Beach.  
 Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 3 in., depth 80 ft, screened 65 to 75 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 9, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.2 ft above land-surface datum.

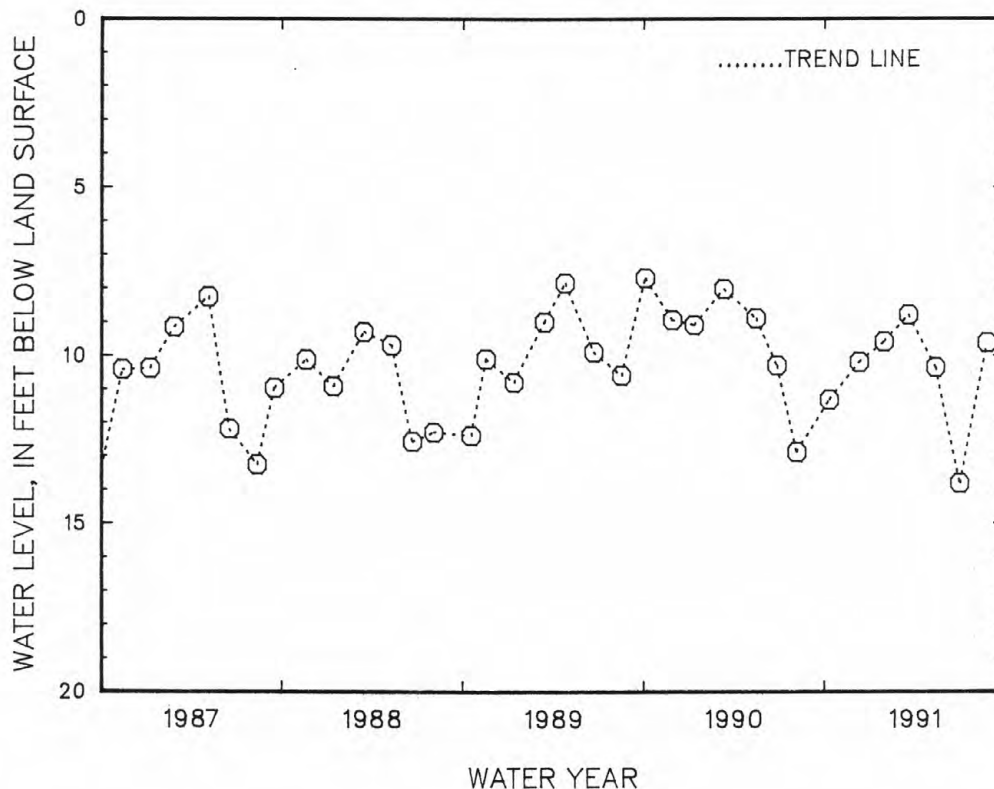
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--April 1984 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.51 ft below land-surface datum, Apr. 25, 1984; lowest measured, 17.99 ft below land-surface datum, July 18, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 11          | 11.33       | JAN 29  | 9.60        | MAR 19       | 8.80        | MAY 13 | 10.36       | JUL 01       | 13.83       | AUG 26 | 9.63        |
| DEC 10          | 10.20       |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 8.80        | MAR 19, 1991 |             | LOWEST | 13.83       | JUL 01, 1991 |             |        |             |



## GROUND-WATER LEVELS

## CITY OF VIRGINIA BEACH

364837076092001. Local number, 61C 29 SOW 175.

LOCATION.--Lat 36°48'37", long 76°09'20", Hydrologic Unit 02080208, at Providence Elementary School in Virginia Beach. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 3 in., depth 105 ft, screened 90 to 100 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 9, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.1 ft above land-surface datum.

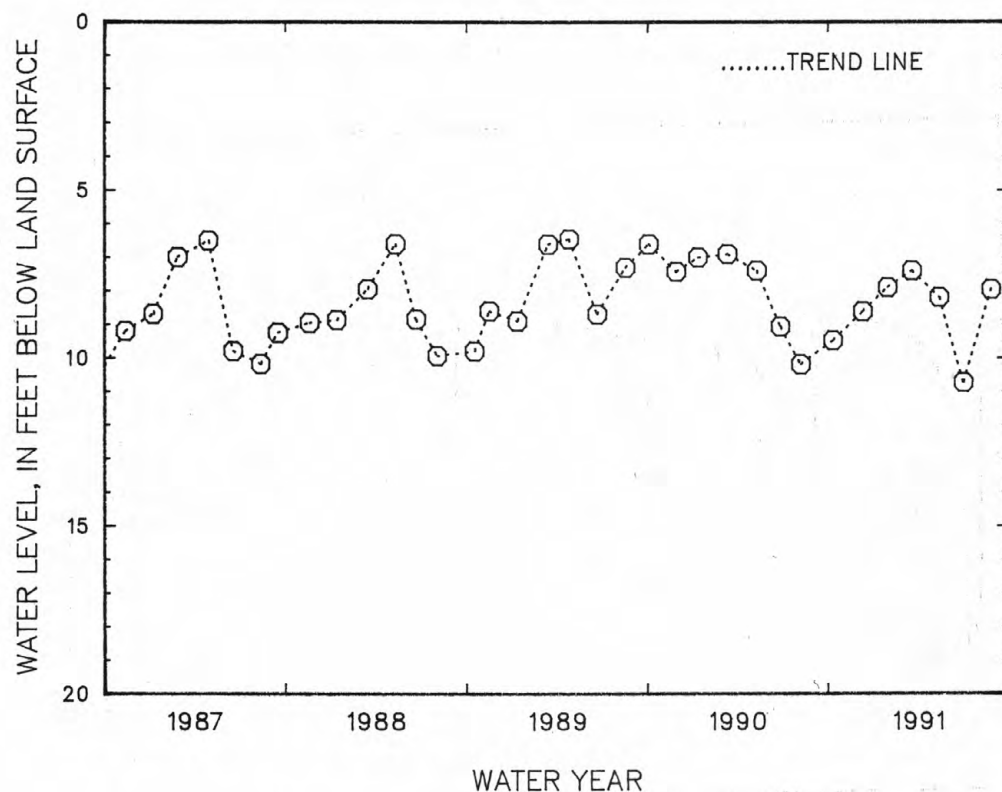
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--April 1984 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.17 ft below land-surface datum, Apr. 25, 1984; lowest measured, 13.09 ft below land-surface datum, July 18, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 11          | 9.48        | JAN 29  | 7.90        | MAR 19       | 7.40        | MAY 13 | 8.20        | JUL 01       | 10.74       | AUG 26 | 7.96        |
| DEC 10          | 8.62        |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 7.40        | MAR 19, 1991 |             | LOWEST | 10.74       | JUL 01, 1991 |             |        |             |



## GROUND-WATER LEVELS

339

## CITY OF VIRGINIA BEACH

365325076114001. Local number, 61D 4 SOW 154.

LOCATION.--Lat 36°53'25", long 76°11'40", Hydrologic Unit 02080108, 200 ft west of Barrs Road, 0.4 mi north of Burton Station Road in Virginia Beach. Owner: City of Virginia Beach.

AQUIFER.--Upper Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 8 in. to 200 ft, diameter 4 in. from 200 to 1,130 ft, depth 1,130 ft, screened 1,000 to 1,010 ft, 1,020 to 1,070 ft, 1,080 to 1,120 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 9, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 24 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.17 ft above land-surface datum.

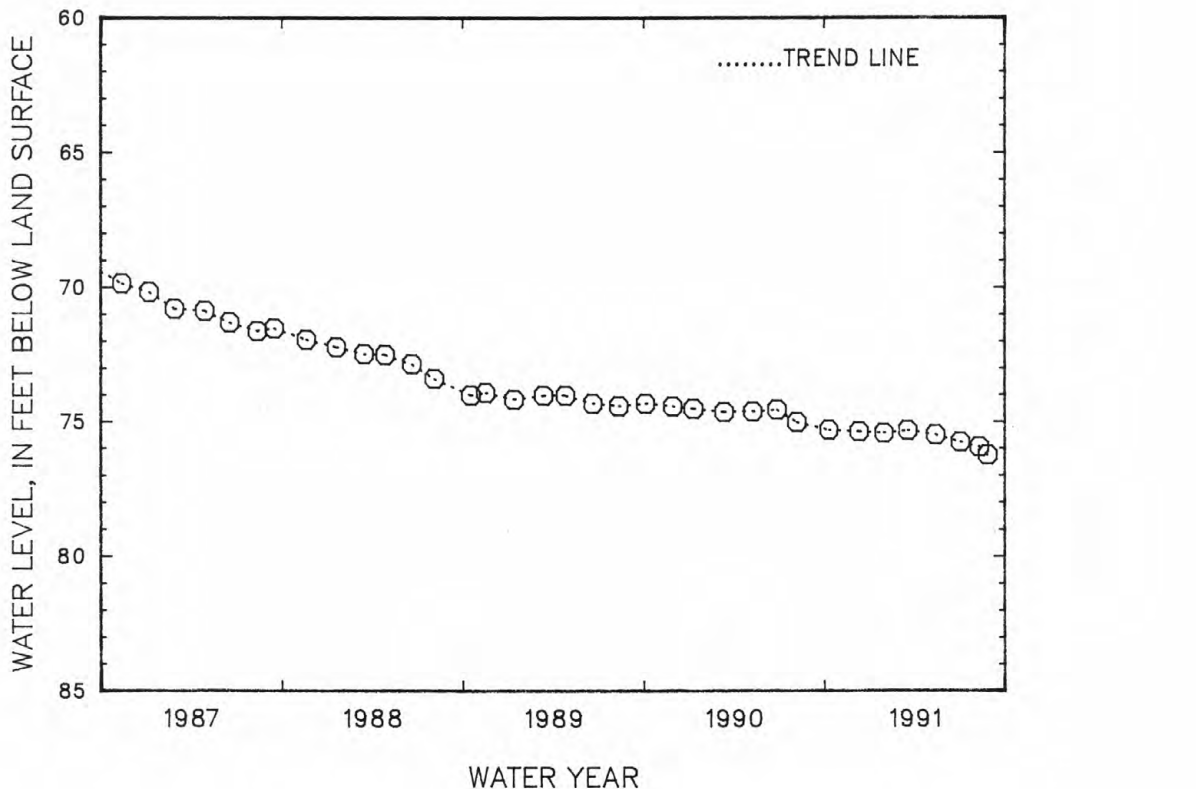
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--December 1980 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.47 ft below land-surface datum, Mar. 20, 1981; lowest measured, 76.25 ft below land-surface datum, Aug. 26, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 10          | 75.32       | JAN 29  | 75.43       | MAY 13       | 75.49       | JUL 02 | 75.77        | AUG 09 | 75.95       | AUG 26 | 76.25       |
| DEC 10          | 75.38       | MAR 18  | 75.33       |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 75.32       | OCT 10, 1990 | LOWEST      | 76.25  | AUG 26, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

## CITY OF VIRGINIA BEACH

365425076105001. Local number, 61D 5 SOW 155.

LOCATION.--Lat 36°54'25", long 76°10'50", Hydrologic Unit 02080108, 100 ft east of Ferry Road, 0.3 mi northwest of Diamond Springs Road in Virginia Beach. Owner: City of Virginia Beach.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 12 in. to 102 ft, diameter 6 in. from 102 to 150 ft, diameter 4 in. from 150 to 1,380 ft, depth 1,380 ft, screened 1,207 to 1,229 ft, 1,250 to 1,264 ft, 1,286 to 1,306 ft, 1,345 to 1,367 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 9, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 11 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.8 ft above land-surface datum.

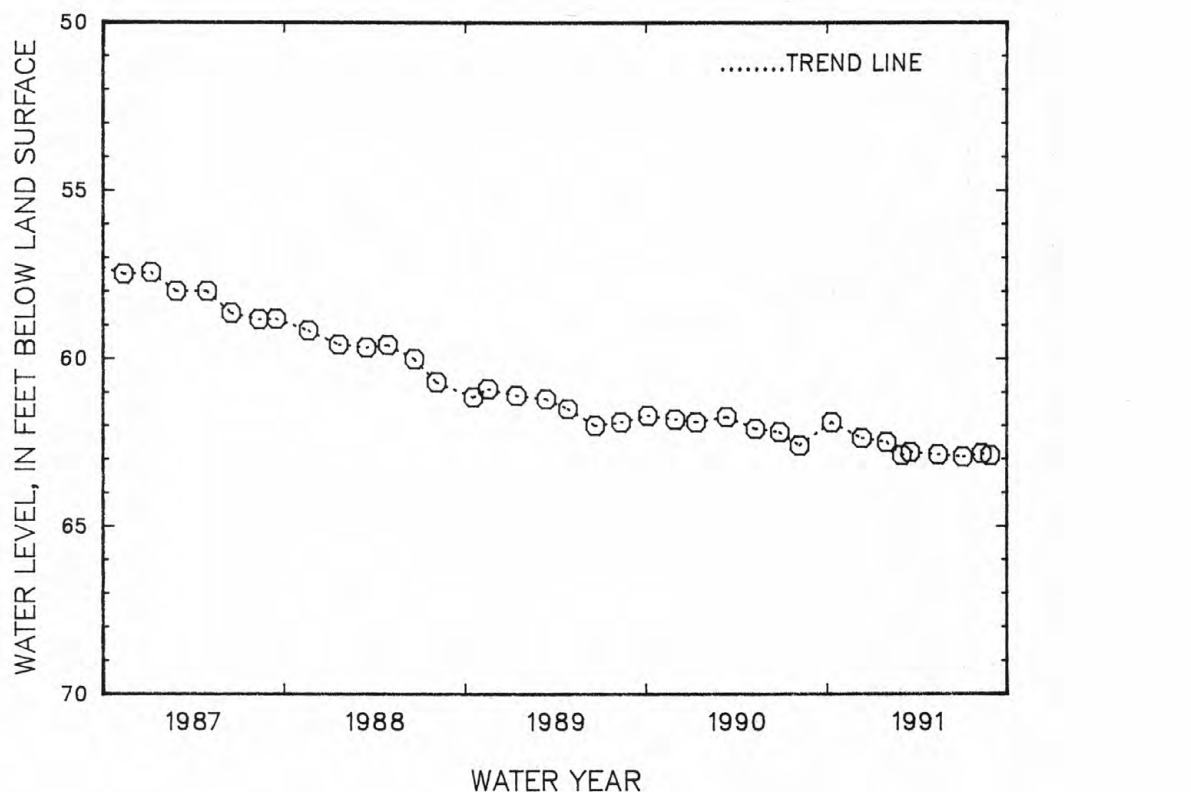
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--December 1980 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.75 ft below land-surface datum, Dec. 17, 1980; lowest measured, 62.94 ft below land-surface datum, July 2, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 61.90       | JAN 29  | 62.50       | MAR 18       | 62.80       | JUL 02 | 62.94       | AUG 09       | 62.84       | AUG 26 | 62.90       |
| DEC 10          | 62.38       | MAR 01  | 62.89       | MAY 13       | 62.87       |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 61.90       | OCT 10, 1990 |             | LOWEST | 62.94       | JUL 02, 1991 |             |        |             |





## GROUND-WATER LEVELS

341

## CITY OF VIRGINIA BEACH

365327076080501. Local number, 61D 6 SOW 124.

LOCATION.--Lat 36°53'27", long 76°08'05", Hydrologic Unit 02080108, at Thoroughgood School in Virginia Beach.  
Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 8 in. to 25 ft, diameter 6 in. from 25 to 40 ft, depth 40 ft, screened 25 to 30 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 9, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.8 ft above land-surface datum.

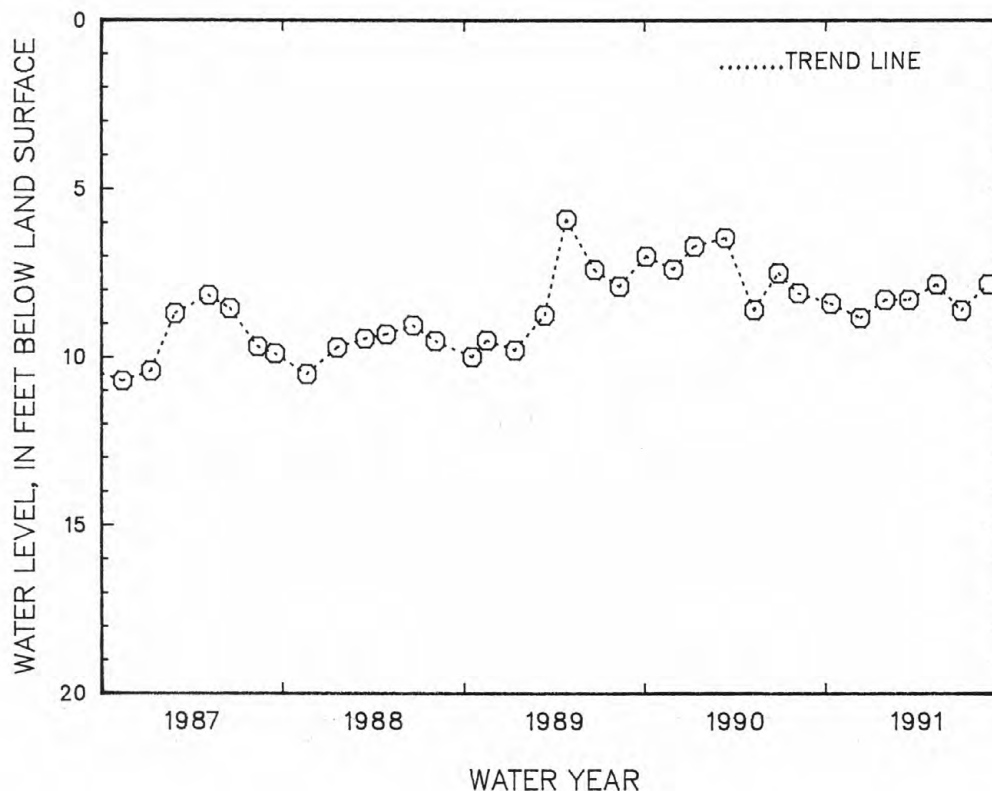
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--April 1978 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.85 ft below land-surface datum, Apr. 27, 1984; lowest measured, 10.72 ft below land-surface datum, Nov. 12, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE                              | WATER LEVEL | DATE                     | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|-----------------------------------|-------------|--------------------------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 11          | 8.41        | JAN 29                            | 8.30        | MAR 18                   | 8.30        | MAY 13 | 7.84        | JUL 02 | 8.62        | AUG 26 | 7.84        |
| DEC 10          | 8.84        |                                   |             |                          |             |        |             |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST 7.84 MAY 13, AUG 26, 1991 |             | LOWEST 8.84 DEC 10, 1990 |             |        |             |        |             |        |             |



363537076061001. Local number. 62A 2 SOW 097A.

**AQUIFER.**--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 76 ft., screened 66 to 76 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 9, 1985, occasional measurement with chalked tape.

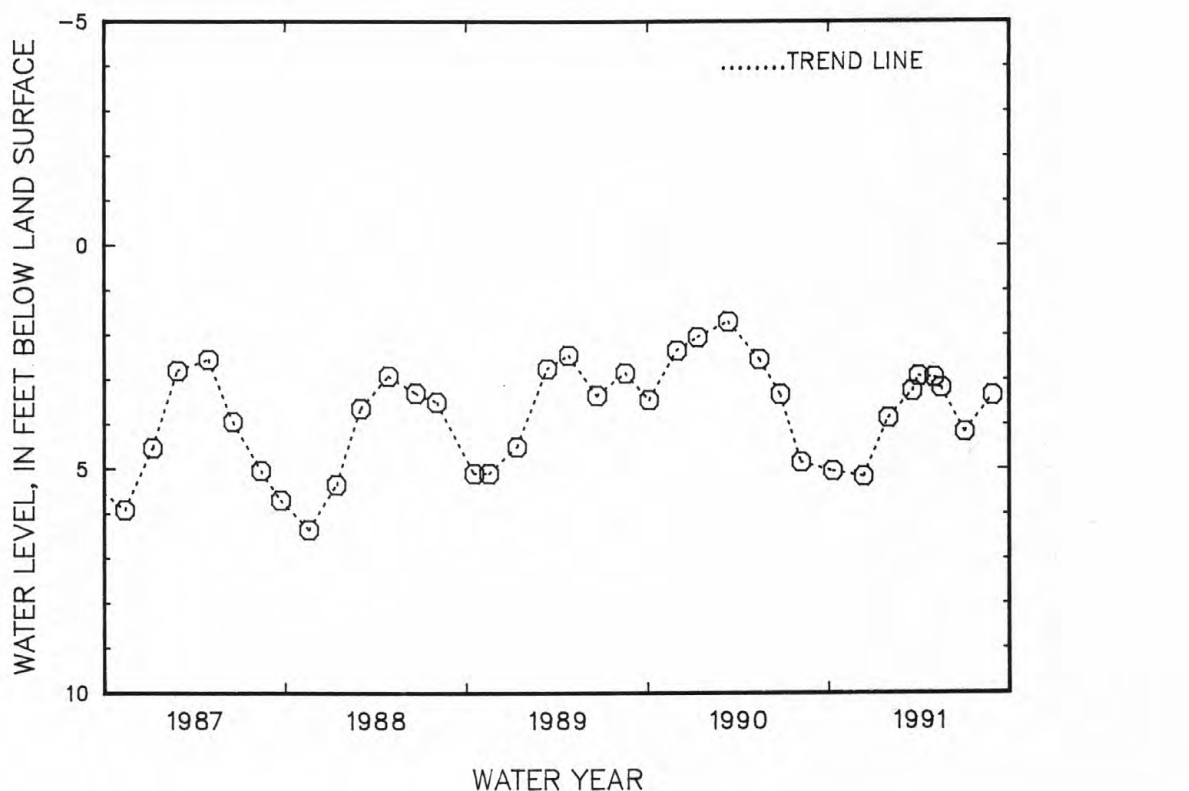
DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum prior to Aug. 3, 1988; 0.65 ft thereafter.

REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--July 1979 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.18 ft below land-surface datum, Apr. 30, 1980;  
lowest measured, 6.68 ft below land-surface datum, Nov. 28, 1983.

| DATE            |      | WATER LEVEL |      | DATE         |      | WATER LEVEL |      | DATE         |      | WATER LEVEL |      |
|-----------------|------|-------------|------|--------------|------|-------------|------|--------------|------|-------------|------|
| OCT 10          | 5.05 | JAN 30      | 3.85 | APR 01       | 2.92 | MAY 16      | 3.18 | JUL 02       | 4.17 | AUG 27      | 3.35 |
| DEC 11          | 5.17 | MAR 19      | 3.25 | MAY 02       | 2.95 |             |      |              |      |             |      |
| WATER YEAR 1991 |      | HIGHEST     | 2.92 | APR 01. 1991 |      | LOWEST      | 5.17 | DEC 11. 1990 |      |             |      |



## GROUND-WATER LEVELS

343

## CITY OF VIRGINIA BEACH

363537076061002. Local number, 62A 3 SOW 097B.

LOCATION.--Lat 36°33'54", long 76°06'14", Hydrologic Unit 03010205, 0.2 mi south of Baum Road, 0.25 mi west of Craggs Causeway in Virginia Beach. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 24 ft, screened 20 to 24 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 9, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

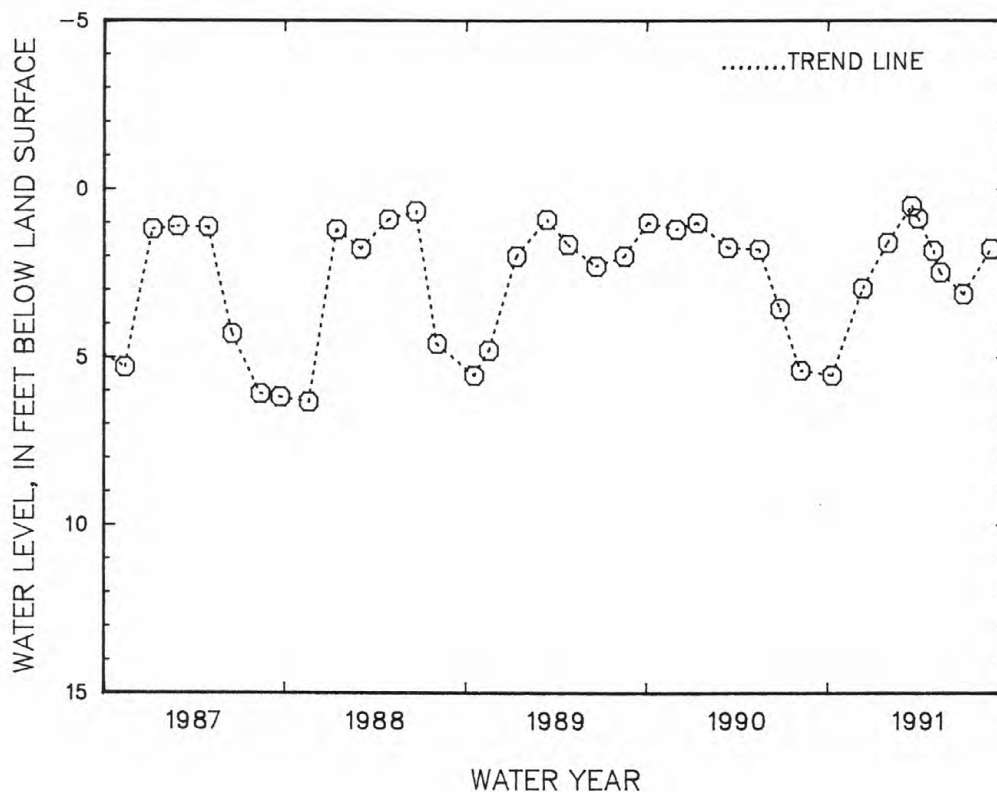
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--July 1979 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.50 ft below land-surface datum, Mar. 19, 1991; lowest measured, 6.50 ft below land-surface datum, Oct. 17, 1983.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 5.55        | JAN 30  | 1.60        | APR 01       | 0.87        | MAY 16 | 2.48        | JUL 02       | 3.13        | AUG 27 | 1.78        |
| DEC 11          | 2.95        | MAR 19  | .50         | MAY 02       | 1.84        |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 0.50        | MAR 19, 1991 |             | LOWEST | 5.55        | OCT 10, 1990 |             |        |             |



## GROUND-WATER LEVELS

## CITY OF VIRGINIA BEACH

364126076003501. Local number, 62B 1 SOW 098A.

LOCATION.--Lat 36°41'26", long 76°00'35", Hydrologic Unit 03010205, on north side of Pleasant Ridge Road at the Virginia Department of Transportation shop, 0.9 mi east of Pleasant Ridge in Virginia Beach. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 24 ft, screened 20 to 24 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 9, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.8 ft above land-surface datum prior to Mar. 2, 1988; 1.05 ft thereafter.

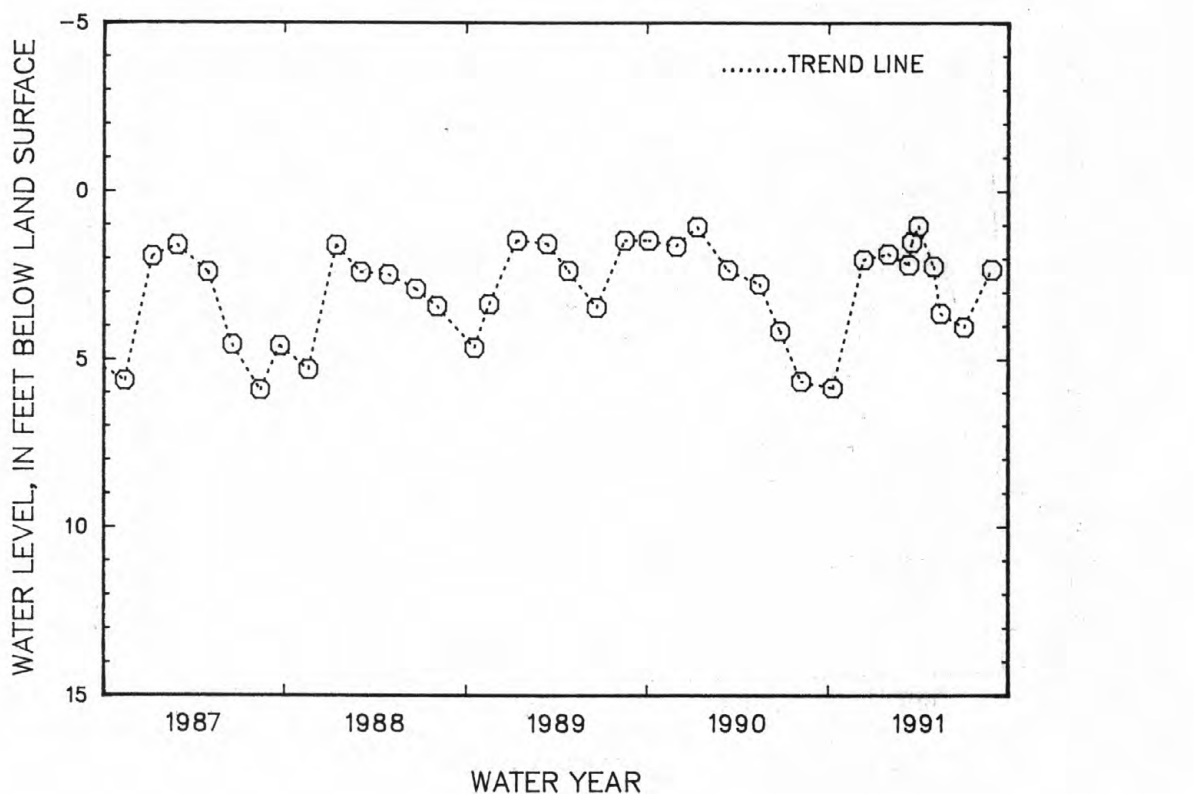
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--June 1979 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.02 ft below land-surface datum, Apr. 1, 1991; lowest measured, 11.95 ft below land-surface datum, Sept. 16, 1980.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 10          | 5.85        | JAN 30  | 1.85        | MAR 19       | 1.50        | MAY 02 | 2.22         | JUL 02 | 4.03        | AUG 27 | 2.32        |
| DEC 11          | 2.02        | MAR 13  | 2.17        | APR 01       | 1.02        | MAY 16 | 3.62         |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 1.02        | APR 01, 1991 | LOWEST      | 5.85   | OCT 10, 1990 |        |             |        |             |



## GROUND-WATER LEVELS

345

## CITY OF VIRGINIA BEACH

364126076003502. Local number, 62B 2 SOW 098B.

LOCATION.--Lat 36°41'26", long 76°00'35", Hydrologic Unit 03010205, on north side of Pleasant Ridge Road at the Virginia Department of Transportation shop, 0.9 mi east of Pleasant Ridge in Virginia Beach. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 98 ft, screened 88 to 98 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 9, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.8 ft above land-surface datum prior to Mar. 2, 1988; 1.2 ft thereafter.

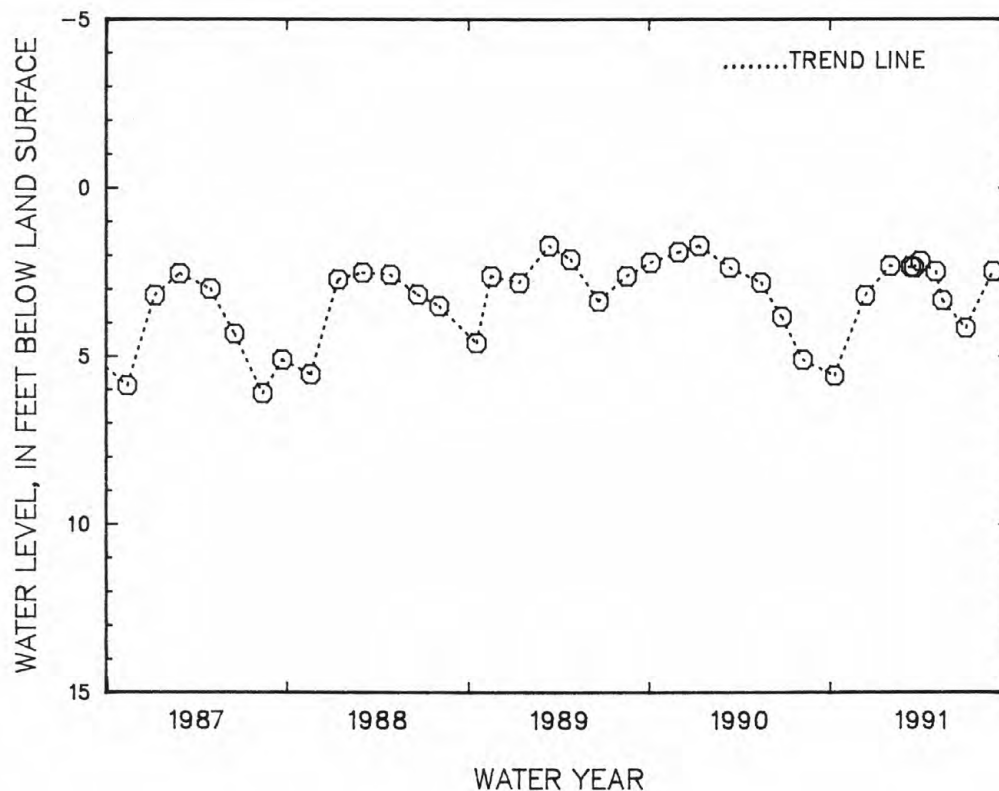
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--June 1979 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.70 ft below land-surface datum, Mar. 13, 1989, Jan. 10, 1990; lowest measured, 11.76 ft below land-surface datum, Sept. 16, 1980.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 10          | 5.58        | JAN 30  | 2.30        | MAR 19       | 2.35        | MAY 02 | 2.47         | JUL 02 | 4.16        | AUG 27 | 2.47        |
| DEC 11          | 3.18        | MAR 13  | 2.33        | APR 01       | 2.16        | MAY 16 | 3.33         |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 2.16        | APR 01, 1991 | LOWEST      | 5.58   | OCT 10, 1990 |        |             |        |             |



## GROUND-WATER LEVELS

## CITY OF VIRGINIA BEACH

364713076030701. Local number, 62C 2 SOW 092A.

LOCATION.--Lat 36°47'15", long 76°03'08", Hydrologic Unit 03010205, at entrance to Oceana Naval Air Station on London Bridge Road in Virginia Beach. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 102 ft, screened 97 to 102 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 10, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.08 ft above land-surface datum prior to Mar. 2, 1988; 0.7 ft thereafter.

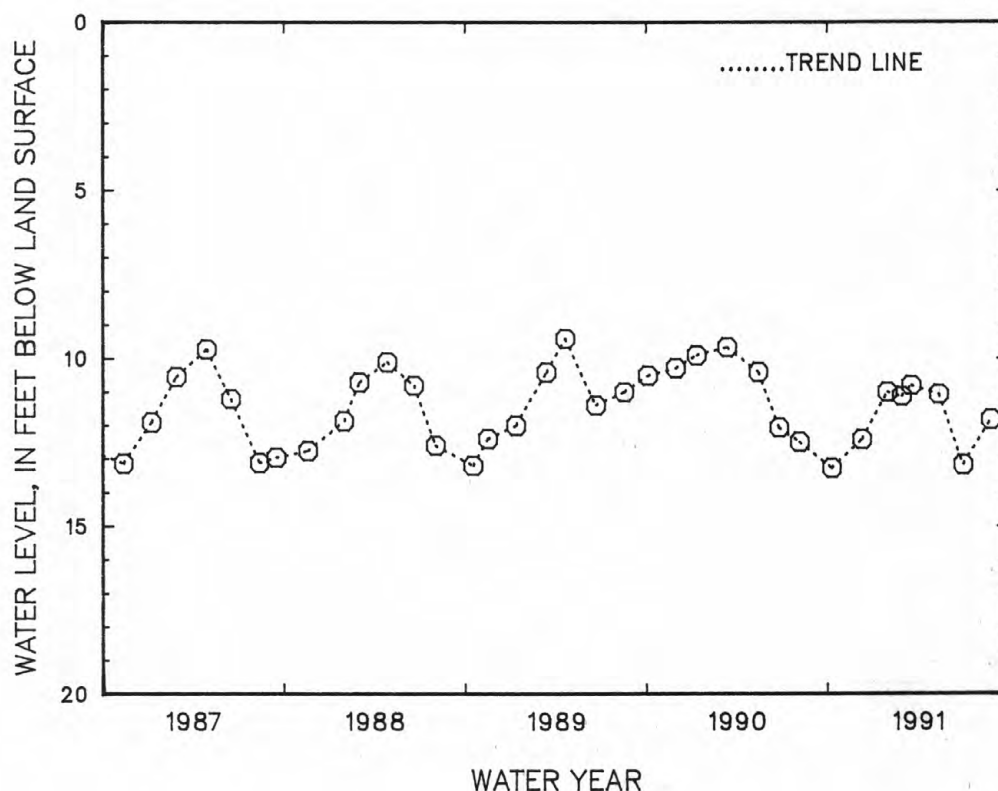
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--December 1977 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.00 ft below land-surface datum, Dec. 1, 1977; lowest measured, 15.29 ft below land-surface datum, July 17, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 13.28       | JAN 30  | 11.00       | MAR 19       | 10.80       | MAY 13 | 11.07       | JUL 01       | 13.18       | AUG 26 | 11.83       |
| DEC 10          | 12.42       | FEB 28  | 11.13       |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 10.80       | MAR 19, 1991 |             | LOWEST | 13.28       | OCT 10, 1990 |             |        |             |





## GROUND-WATER LEVELS

347

## CITY OF VIRGINIA BEACH

364715076030801. Local number, 62C 3 SOW 092B.

LOCATION.--Lat 36°47'15", long 76°03'08", Hydrologic Unit 03010205, at entrance to Oceana Naval Air Station on London Bridge Road in Virginia Beach. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 58 ft, screened 53 to 58 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 10, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.05 ft above land-surface datum prior to Mar. 2, 1988; 0.9 ft thereafter.

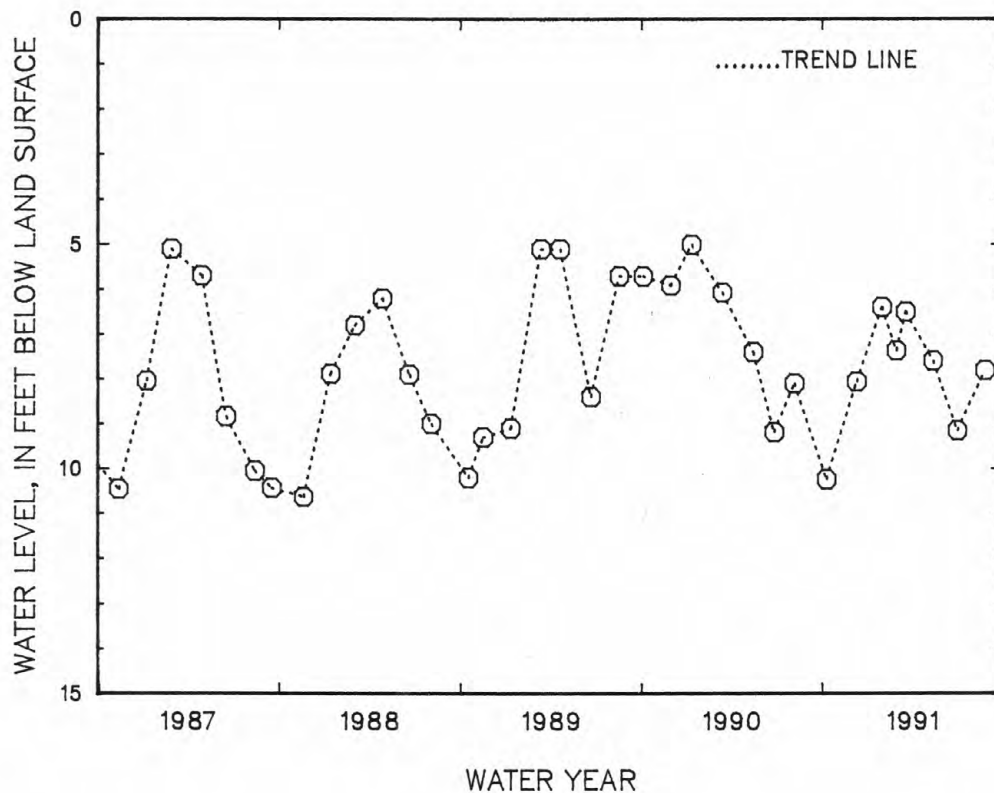
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--February 1978 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.36 ft below land-surface datum, Feb. 16, 1983; lowest measured, 11.07 ft below land-surface datum, Aug. 6, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 10.24       | JAN 30  | 6.40        | MAR 19       | 6.50        | MAY 13 | 7.60        | JUL 01       | 9.16        | AUG 26 | 7.81        |
| DEC 10          | 8.06        | FEB 28  | 7.37        |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 6.40        | JAN 30, 1991 |             | LOWEST | 10.24       | OCT 10, 1990 |             |        |             |



## GROUND-WATER LEVELS

## CITY OF VIRGINIA BEACH

364711076060001. Local number, 62C 4 SOW 083.

LOCATION.--Lat 36°47'11", long 76°06'00", Hydrologic Unit 03010205, 0.3 mi northeast of State Highway 165, 3.5 mi northwest of Princess Anne, and in Virginia Beach. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 149 ft, screened 118 to 128 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 10, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 13 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.8 ft above land-surface datum prior to Mar. 14, 1989; 0.90 ft thereafter.

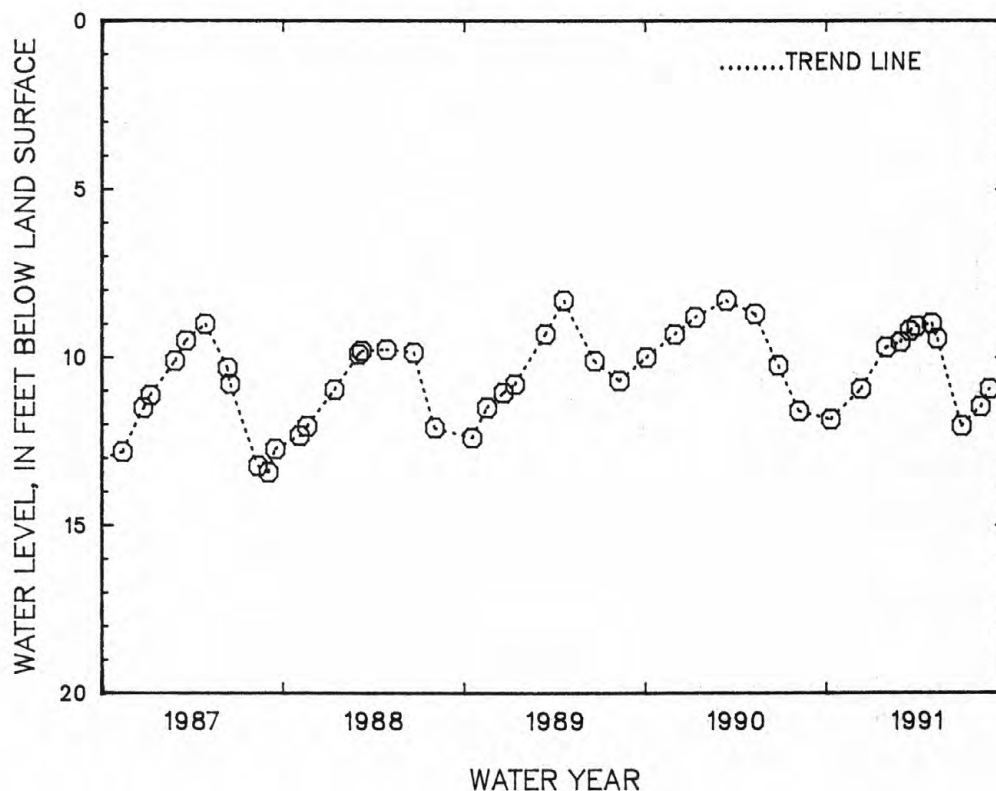
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--March 1978 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.10 ft below land-surface datum, Feb. 20, 1980; lowest measured, 14.87 ft below land-surface datum, July 17, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 10          | 11.85       | JAN 30  | 9.70        | MAR 19       | 9.20        | MAY 02 | 8.98         | JUL 01 | 12.05       | AUG 26 | 10.94       |
| DEC 10          | 10.94       | FEB 28  | 9.54        | APR 01       | 9.06        | MAY 13 | 9.44         | AUG 08 | 11.47       |        |             |
| WATER YEAR 1991 |             | HIGHEST | 8.98        | MAY 02, 1991 | LOWEST      | 12.05  | JUL 01, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

349

## CITY OF VIRGINIA BEACH

364504076031301. Local number, 62C 5 SOW 093.

LOCATION.--Lat 36°45'04", long 76°03'13", Hydrologic Unit 03010205, 200 ft southeast of intersection of State Highways 149 and 165 in Princess Anne, in Virginia Beach. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 65 ft, screened 60 to 65 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 9, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 7 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.91 ft above land-surface datum prior to Mar. 2, 1988; 0.6 ft thereafter.

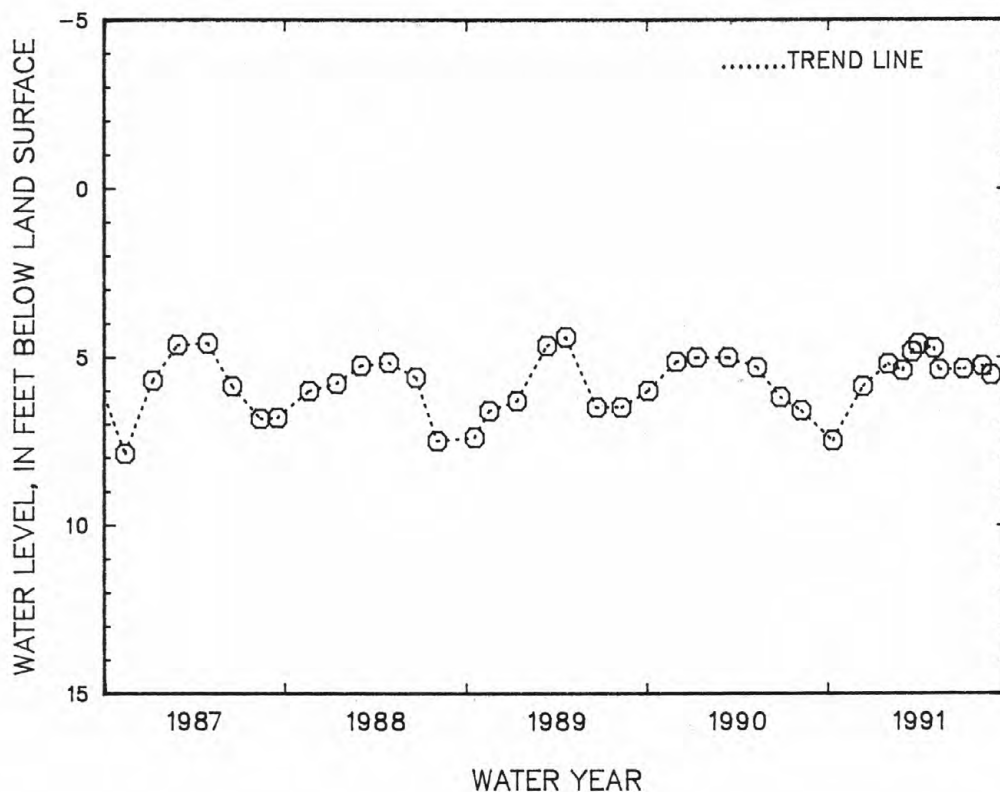
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--February 1978 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.84 ft below land-surface datum, Feb. 8, 1978; lowest measured, 7.88 ft below land-surface datum, Nov. 12, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |  |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|--|
| OCT 10          | 7.50        | JAN 30  | 5.20        | MAR 19       | 4.84        | MAY 02 | 4.73        | JUL 01       | 5.35        | AUG 26 | 5.53        |  |
| DEC 10          | 5.87        | FEB 28  | 5.39        | APR 01       | 4.61        | MAY 13 | 5.37        | AUG 08       | 5.26        |        |             |  |
| WATER YEAR 1991 |             | HIGHEST | 4.61        | APR 01, 1991 |             | LOWEST | 7.50        | OCT 10, 1990 |             |        |             |  |



## GROUND-WATER LEVELS

## CITY OF VIRGINIA BEACH

365158076030401. Local number, 62C 6 SOW 125.

LOCATION.--Lat 36°51'58", long 76°03'04", Hydrologic Unit 02080108, at Trantwood Elementary School in Virginia Beach. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 57 ft, screened 52 to 57 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 10, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.1 ft above land-surface datum.

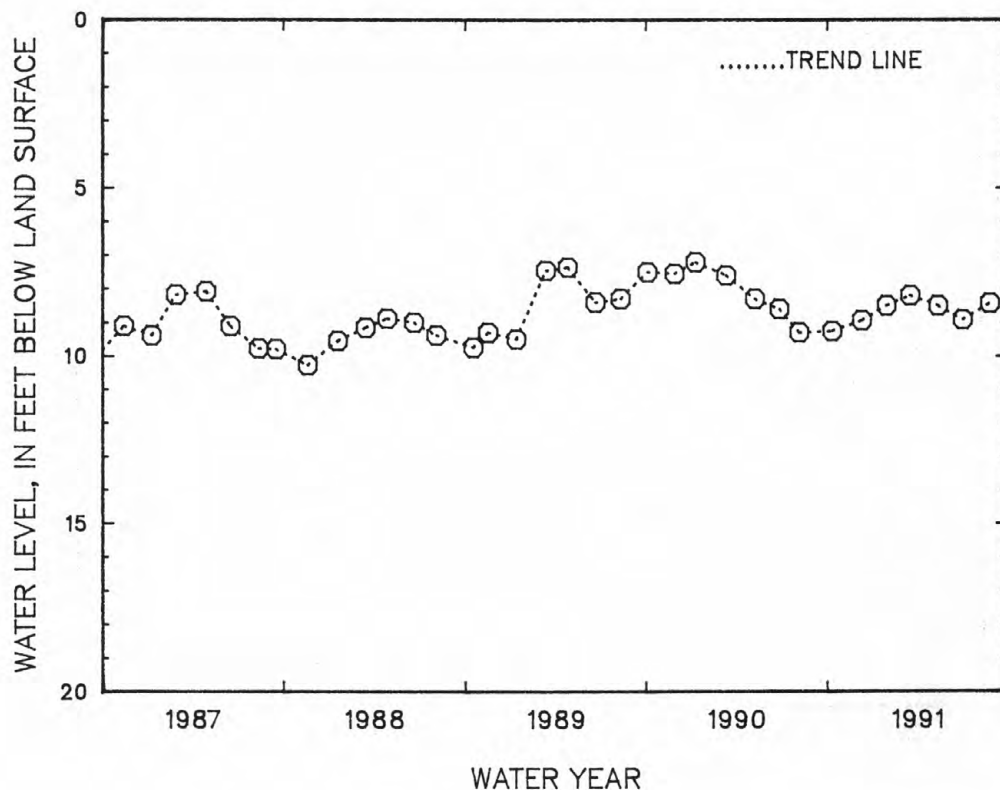
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--April 1978 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.86 ft below land-surface datum, Feb. 28, 1979; lowest measured, 11.19 ft below land-surface datum, July 17, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 11          | 9.26        | JAN 29  | 8.50        | MAR 18       | 8.20        | MAY 13 | 8.50        | JUL 02       | 8.92        | AUG 26 | 8.43        |
| DEC 10          | 8.94        |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 8.20        | MAR 18, 1991 |             | LOWEST | 9.26        | OCT 11, 1990 |             |        |             |



## GROUND-WATER LEVELS

351

## CITY OF VIRGINIA BEACH

364906076043901. Local number, 62C 7 SOW 126.

LOCATION.--Lat 36°49'06", long 76°04'39", Hydrologic Unit 02080108, at Plaza Elementary School in Virginia Beach.  
Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 67 ft, screened 55 to 60 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 10, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.1 ft above land-surface datum.

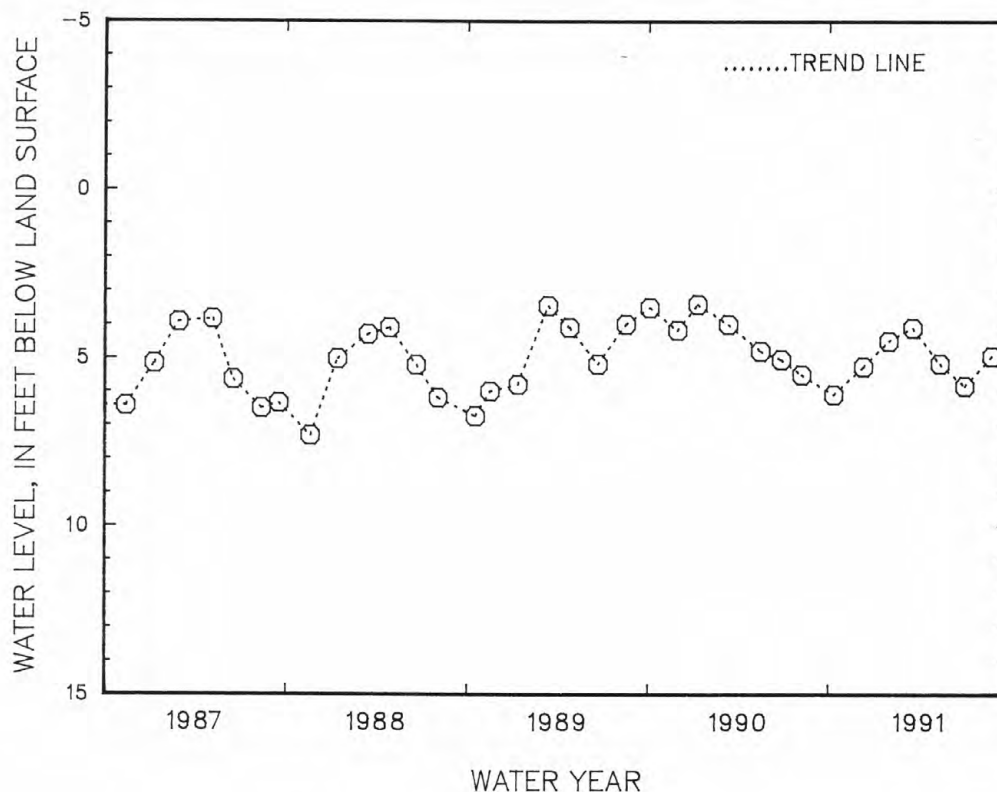
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--April 1978 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.84 ft below land-surface datum, Feb. 16, 1983; lowest measured, 7.32 ft below land-surface datum, July 17, 1986, Nov. 19, 1987.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 11          | 6.10        | JAN 30  | 4.50        | MAR 19       | 4.10        | MAY 13 | 5.17        | JUL 02       | 5.84        | AUG 26 | 4.95        |
| DEC 10          | 5.26        |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 4.10        | MAR 19, 1991 |             | LOWEST | 6.10        | OCT 11, 1990 |             |        |             |



## GROUND-WATER LEVELS

## CITY OF VIRGINIA BEACH

364745076004301. Local number, 62C 9 SOW 172A.

LOCATION.--Lat 36°47'45", long 76°00'43", Hydrologic Unit 03010205, at the end of Phantom Boulevard, 0.25 mi south of Harpers Road and Oceana Naval Air Station in Virginia Beach. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 3 in., depth 170 ft, screened 155 to 165 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 10, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 17 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.6 ft above land-surface datum.

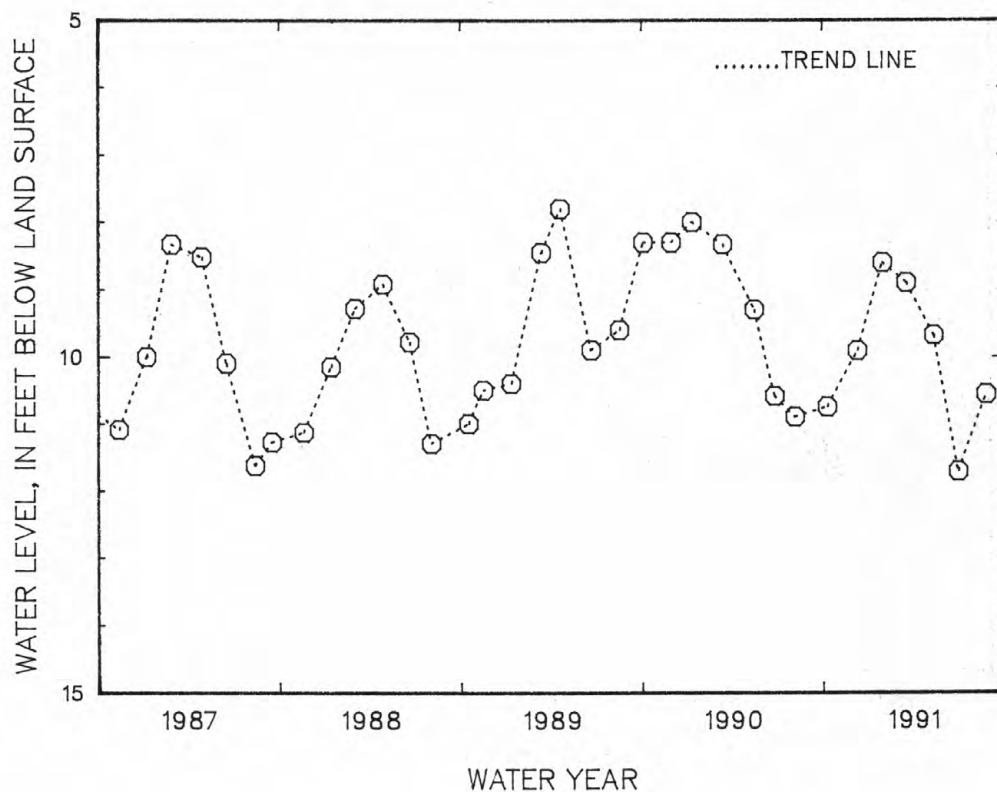
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--April 1984 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.46 ft below land-surface datum, Apr. 25, 1984; lowest measured, 12.37 ft below land-surface datum, Aug. 6, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 10.75       | JAN 30  | 8.60        | MAR 19       | 8.90        | MAY 13 | 9.68        | JUL 01       | 11.72       | AUG 26 | 10.56       |
| DEC 10          | 9.91        |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 8.60        | JAN 30, 1991 |             | LOWEST | 11.72       | JUL 01, 1991 |             |        |             |





## GROUND-WATER LEVELS

353

## CITY OF VIRGINIA BEACH

364745076004302. Local number, 62C 10 SOW 172B.

LOCATION.--Lat 36°47'45", long 76°00'43", Hydrologic Unit 03010205, at the end of Phantom Boulevard, 0.25 mi south of Harpers Road and Oceana Naval Air Station in Virginia Beach. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 3 in., depth 280 ft, screened 270 to 280 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 10, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 17 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.8 ft above land-surface datum.

REMARKS.--Records provided by the Virginia Water Control Board.

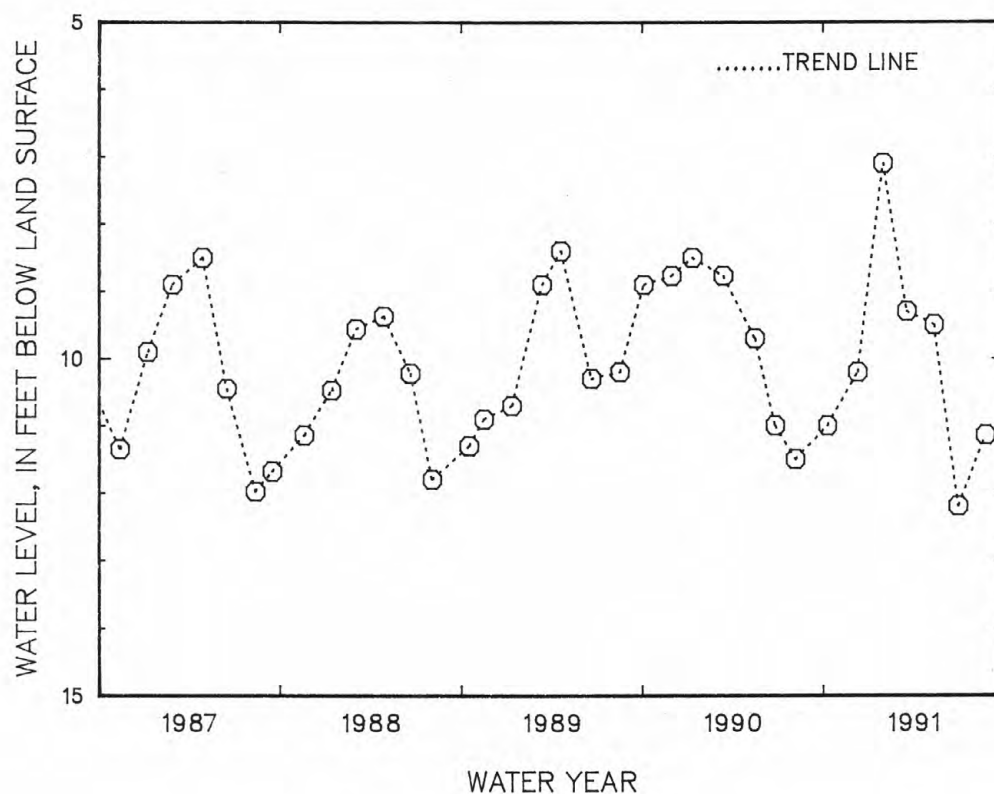
PERIOD OF RECORD.--April 1984 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.10 ft below land-surface datum, Jan. 30, 1991; lowest measured, 12.75 ft below land-surface datum, Aug. 6, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 10 | 11.00       | JAN 30 | 7.10        | MAR 19 | 9.30        | MAY 13 | 9.50        | JUL 01 | 12.20       | AUG 26 | 11.14       |
| DEC 10 | 10.20       |        |             |        |             |        |             |        |             |        |             |

WATER YEAR 1991      HIGHEST 7.10 JAN 30, 1991      LOWEST 12.20 JUL 01, 1991



## GROUND-WATER LEVELS

## CITY OF VIRGINIA BEACH

364745076004303. Local number, 62C 11 SOW 172C.

LOCATION.--Lat 36°47'45", long 76°00'43", Hydrologic Unit 03010205, at the end of Phantom Boulevard, 0.25 mi south of Harpers Road and Oceana Naval Air Station in Virginia Beach. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 3 in., depth 35 ft, screened 20 to 30 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 10, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 17 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.7 ft above land-surface datum.

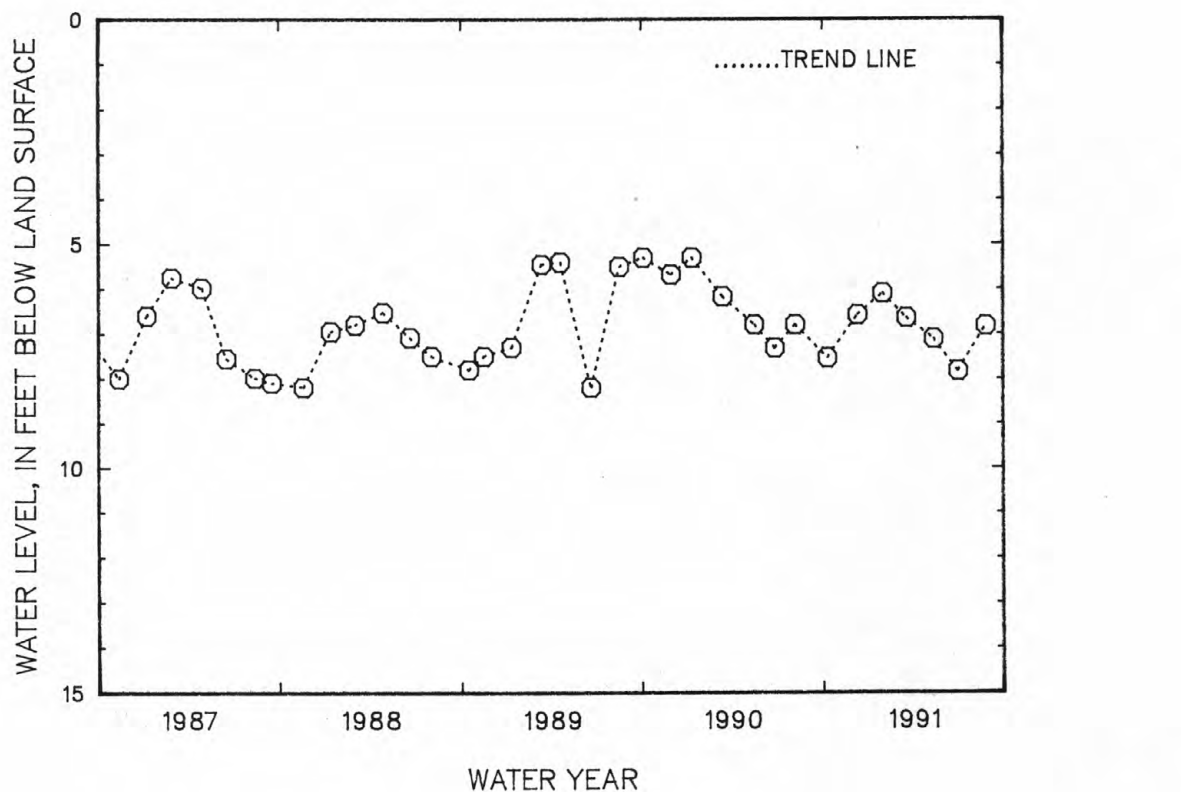
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--May 1984 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.89 ft below land-surface datum, Feb. 28, 1985; lowest measured, 8.20 ft below land-surface datum, Nov. 19, 1987, June 21, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 7.54        | JAN 30  | 6.10        | MAR 19       | 6.65        | MAY 13 | 7.12        | JUL 01       | 7.84        | AUG 26 | 6.83        |
| DEC 10          | 6.58        |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 6.10        | JAN 30, 1991 |             | LOWEST | 7.84        | JUL 01, 1991 |             |        |             |



## GROUND-WATER LEVELS

355

## CITY OF VIRGINIA BEACH

364745076004304. Local number, 62C 12 SOW 172D.

LOCATION.--Lat 36°47'45", long 76°00'43", Hydrologic Unit 03010205, at the end of Phantom Boulevard, 0.25 mi south of Harpers Road and Oceana Naval Air Station in Virginia Beach. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 3 in., depth 75 ft, screened 60 to 70 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 10, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 17 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.9 ft above land-surface datum.

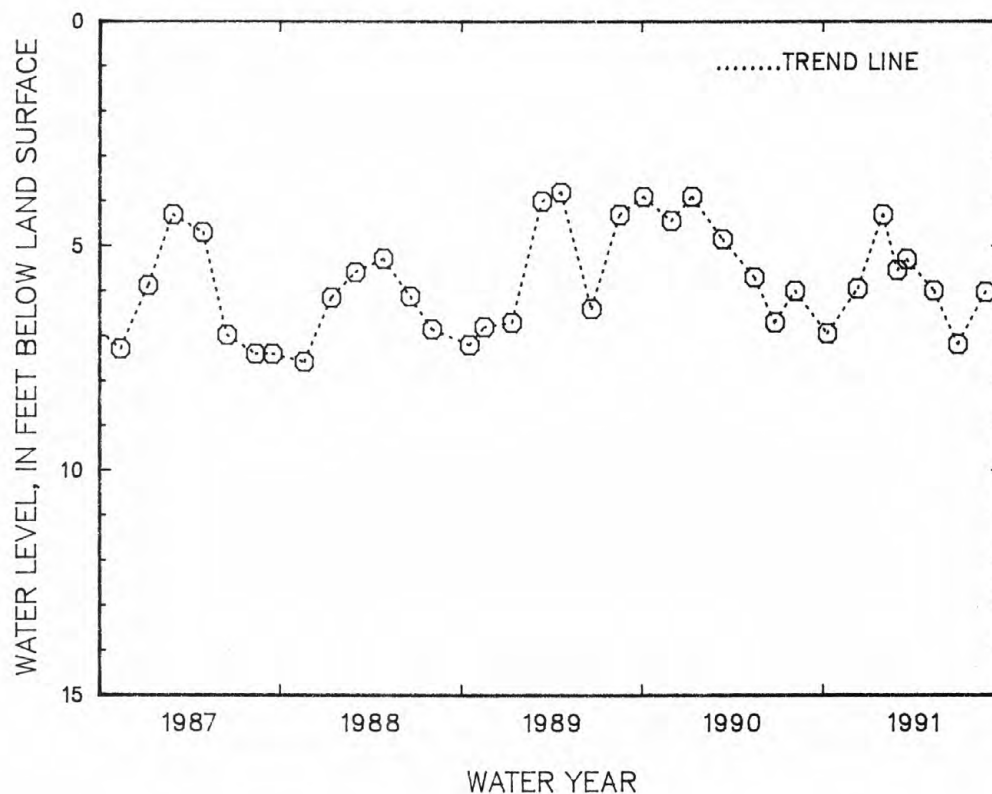
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--April 1984 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.56 ft below land-surface datum, Apr. 25, 1984; lowest measured, 7.99 ft below land-surface datum, July 17, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 6.95        | JAN 30  | 4.30        | MAR 19       | 5.30        | MAY 13 | 6.00        | JUL 01       | 7.19        | AUG 26 | 6.03        |
| DEC 10          | 5.95        | FEB 28  | 5.54        |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 4.30        | JAN 30, 1991 |             | LOWEST | 7.19        | JUL 01, 1991 |             |        |             |



## GROUND-WATER LEVELS

## CITY OF VIRGINIA BEACH

364613075583201. Local number, 63C 2 SOW 100B.

LOCATION.--Lat 36°46'13", long 75°58'32", Hydrologic Unit 03010205, at Hampton Roads Sanitary District sludge disposal site off Old Dam Neck Road, 1.7 mi southeast of intersection of Oceana Boulevard and Old Dam Neck Road in Virginia Beach. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 1.25 in., depth 54 ft, screened 49 to 54 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 10, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 8 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.85 ft above land-surface datum.

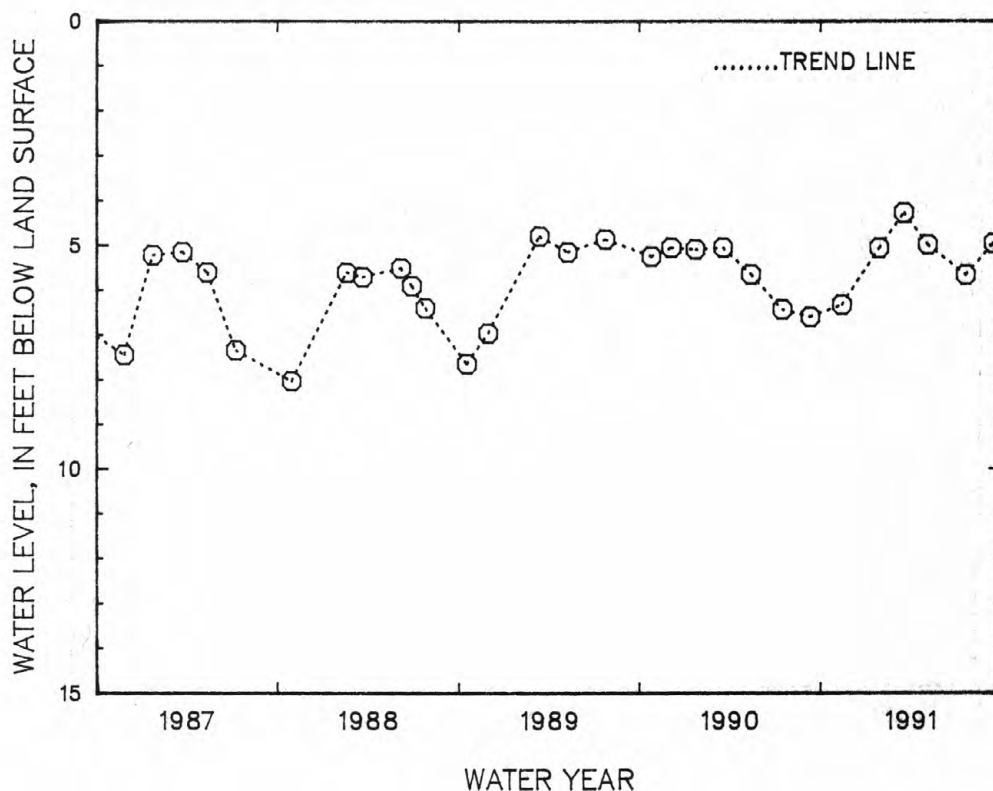
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--March 1981 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.27 ft below land-surface datum, Mar. 19, 1991; lowest measured, 10.58 ft below land-surface datum, Mar. 20, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|
| NOV 13          | 6.33        | JAN 28  | 5.06        | MAR 19       | 4.27        | MAY 06 | 4.99         | JUL 22 | 5.67        |
| WATER YEAR 1991 |             | HIGHEST | 4.27        | MAR 19, 1991 | LOWEST      | 6.33   | NOV 13, 1990 |        |             |



## GROUND-WATER LEVELS

357

## CITY OF VIRGINIA BEACH

364613075583202. Local number, 63C 3 SOW 100C.

LOCATION.--Lat 36°46'13", long 75°58'32", Hydrologic Unit 03010205, at Hampton Roads Sanitary District sludge disposal site off Old Dam Neck Road, 1.7 mi southeast of intersection of Oceana Boulevard and Old Dam Neck Road in Virginia Beach. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 1.25 in., depth 35 ft, screened 30 to 35 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 10, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 8 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.63 ft above land-surface datum.

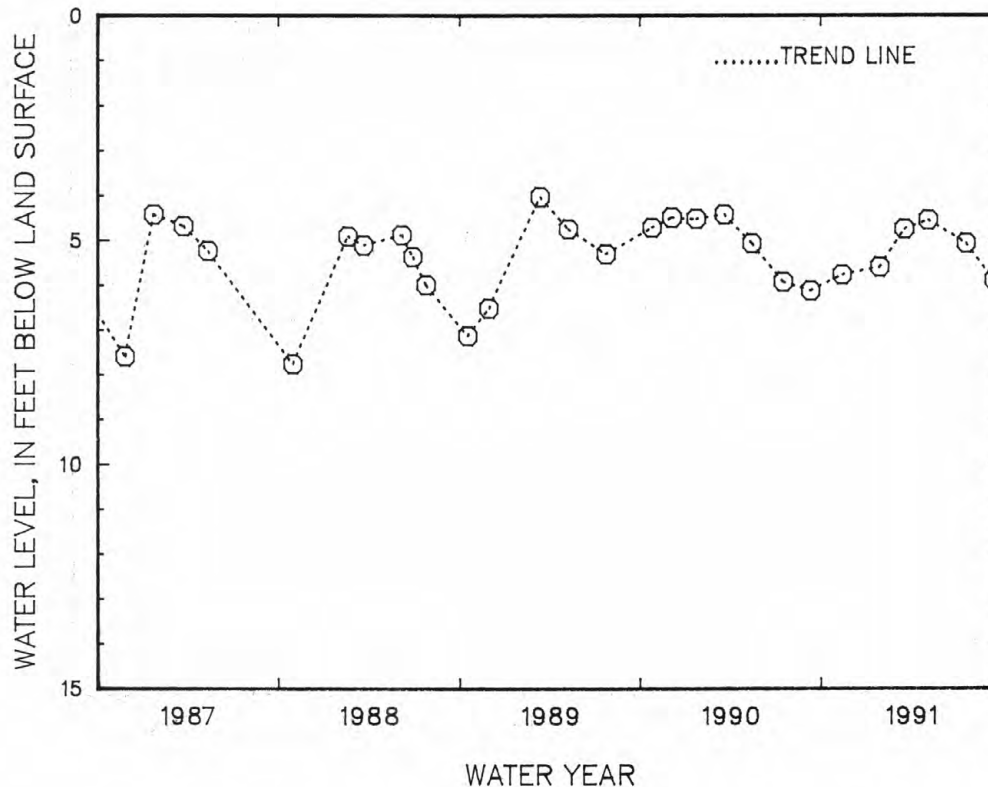
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--April 1981 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.79 ft below land-surface datum, Feb. 16, Apr. 20, 1983; lowest measured, 12.35 ft below land-surface datum, Apr. 20, 1981.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|
| NOV 13          | 5.77        | JAN 28  | 5.60        | MAR 19       | 4.75        | MAY 06 | 4.55         | JUL 22 | 5.07        |
| WATER YEAR 1991 |             | HIGHEST | 4.55        | MAY 06, 1991 | LOWEST      | 5.77   | NOV 13, 1990 |        |             |



## GROUND-WATER LEVELS

## CITY OF VIRGINIA BEACH

364722075591801. Local number, 63C 4 SOW 173A.

LOCATION.--Lat 36°47'22", long 75°59'18", Hydrologic Unit 02080108, at Redwing Park, 0.7 mi northeast of intersection of Oceana Boulevard and Dam Neck Road in Virginia Beach. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 3 in., depth 291 ft, screened 281 to 291 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 10, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 8 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.8 ft above land-surface datum.

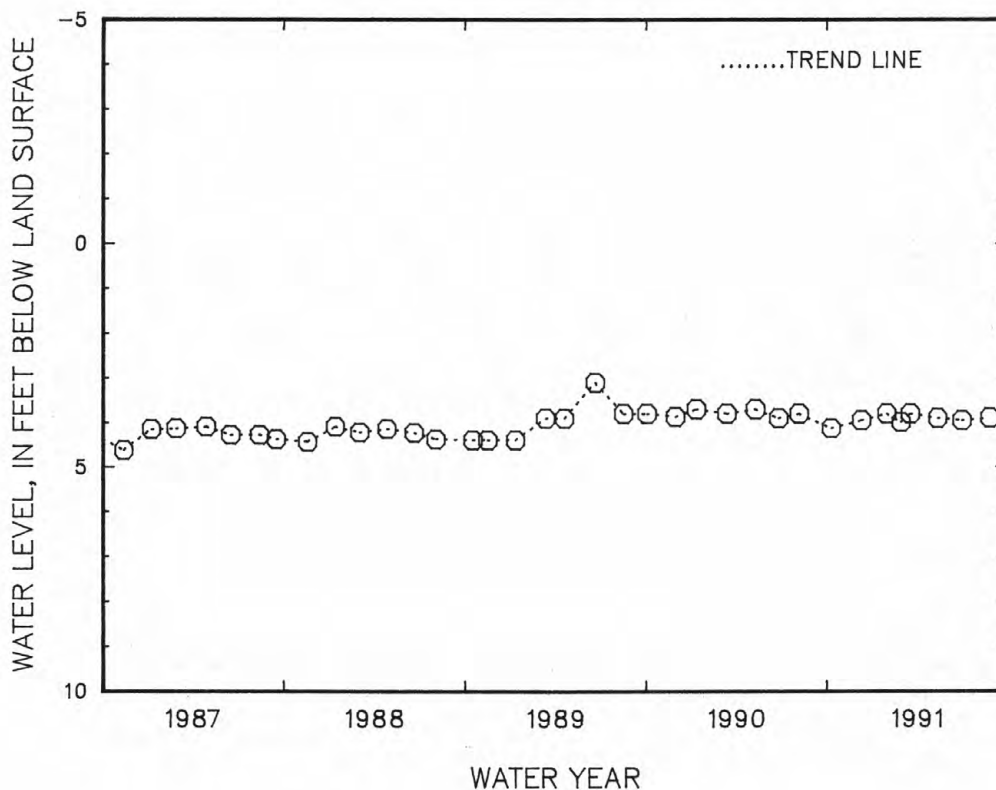
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--April 1984 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.10 ft below land-surface datum, June 21, 1989; lowest measured, 4.63 ft below land-surface datum, Nov. 12, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE                 | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|----------------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 4.13        | JAN 30  | 3.80        | MAR 19               | 3.80        | MAY 13 | 3.90        | JUL 01       | 3.95        | AUG 26 | 3.89        |
| DEC 10          | 3.95        | FEB 28  | 3.99        |                      |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 3.80        | JAN 30, MAR 19, 1991 |             | LOWEST | 4.13        | OCT 10, 1990 |             |        |             |





## GROUND-WATER LEVELS

359

## CITY OF VIRGINIA BEACH

364722075591802. Local number, 63C 5 SOW 173B.

LOCATION.--Lat 36°47'22", long 75°59'18", Hydrologic Unit 02080108, at Redwing Park, 0.7 mi northeast of intersection of Oceana Boulevard and Dam Neck Road in Virginia Beach. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 3 in., depth 95 ft, screened 80 to 90 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Prior to Oct. 10, 1985, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 9 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.9 ft above land-surface datum.

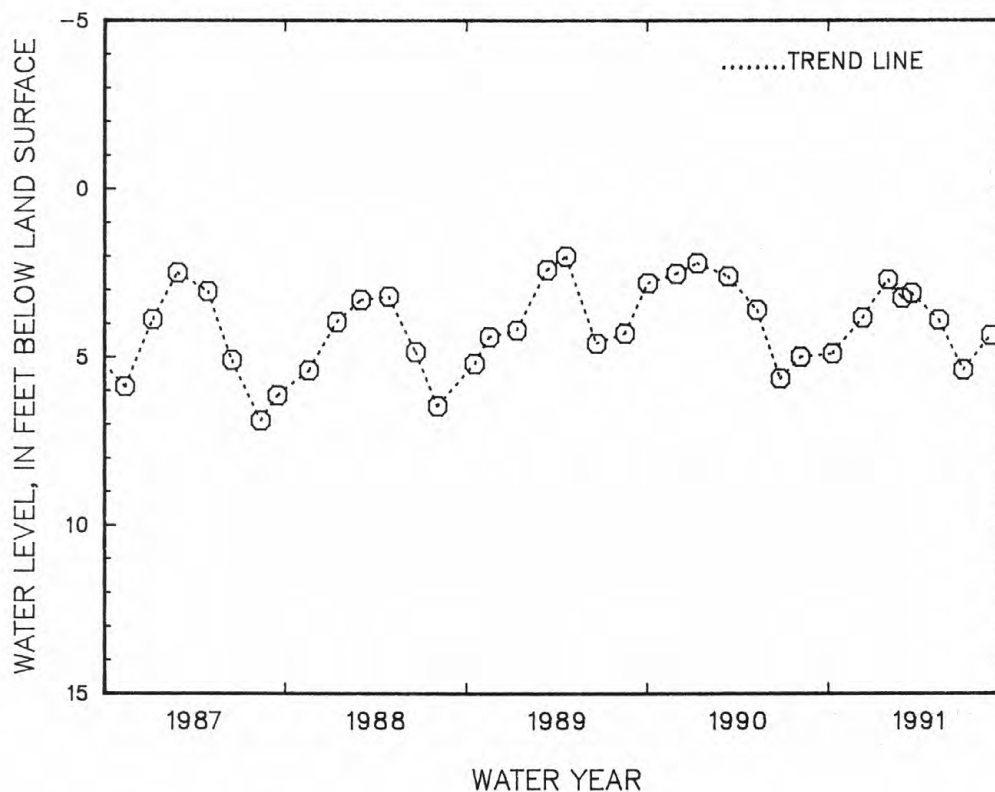
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--April 1984 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.00 ft below land-surface datum, Apr. 20, 1989; lowest measured, 7.63 ft below land-surface datum, Aug. 6, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 10          | 4.90        | JAN 30  | 2.70        | MAR 19       | 3.10        | MAY 13 | 3.90        | JUL 01       | 5.39        | AUG 26 | 4.36        |
| DEC 10          | 3.83        | FEB 28  | 3.25        |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 2.70        | JAN 30, 1991 |             | LOWEST | 5.39        | JUL 01, 1991 |             |        |             |



## GROUND-WATER LEVELS

## WESTMORELAND COUNTY

381110076550501. Local number, 55P 5.

LOCATION.--Lat 38°11'10", long 76°55'05", Hydrologic Unit 02070011, behind craft shop at George Washington Birthplace National Monument, 3.8 mi southeast of Colonial Beach. Owner: National Park Service.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 471 ft, screened 451 to 466 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch. Prior to Apr. 24, 1979, continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 24 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 3.0 ft above land-surface datum.

REMARKS.--Water level affected by local pumpage and regional drawdown.

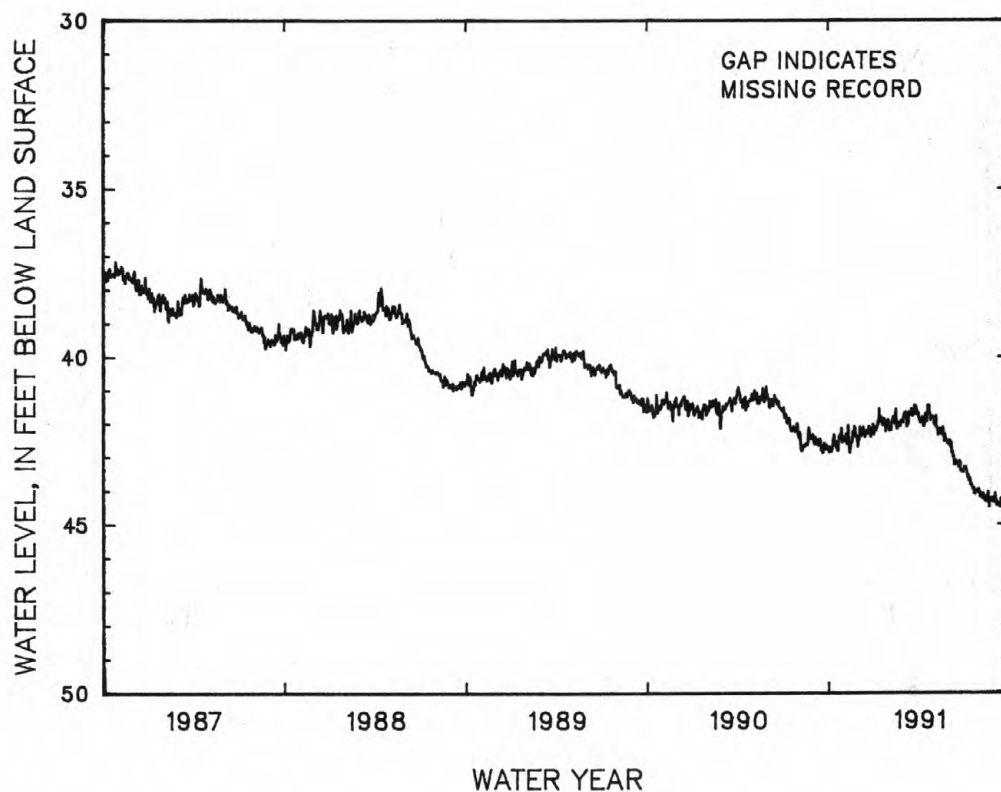
PERIOD OF RECORD.--June 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.05 ft below land-surface datum, June 24, 1974; lowest recorded, 44.64 ft below land-surface datum, Sept. 20, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 42.80 | 42.44 | 42.33 | 42.22 | 42.19 | 41.79 | 41.98 | 41.98 | 42.71 | 43.32 | 44.17 | 44.45 |
| 10  | 42.67 | 42.07 | 42.12 | 42.01 | 41.79 | 41.91 | 41.89 | 42.23 | 43.03 | 43.58 | 44.22 | 44.45 |
| 15  | 42.55 | 42.71 | 42.27 | 41.94 | 41.87 | 41.72 | 41.72 | 42.18 | 43.14 | 43.84 | 44.26 | 44.34 |
| 20  | 42.81 | 42.25 | 42.32 | 41.99 | 41.98 | 41.76 | 41.45 | 42.13 | 43.25 | 43.95 | 44.23 | 44.64 |
| 25  | 42.35 | 42.33 | 42.39 | 42.23 | 41.92 | 41.70 | 41.89 | 42.47 | 43.43 | 44.04 | 44.25 | 44.35 |
| EOM | 42.42 | 42.69 | 42.33 | 42.10 | 41.95 | 41.67 | 41.80 | 42.62 | 43.47 | 43.98 | 44.23 | 44.56 |

WATER YEAR 1991      HIGHEST 40.93 MAR 19, 1991      LOWEST 44.64 SEP 20, 1991



## GROUND-WATER LEVELS

361

## WESTMORELAND COUNTY

381132076551001. Local number, 55P 9.

LOCATION.--Lat 38°11'32", long 76°55'10", Hydrologic Unit 02070011, at George Washington Birthplace National Monument, 500 ft east of park road, 0.6 mi north of the end of State Highway 204, and 3.4 mi southeast of Colonial Beach. Owner: National Park Service.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Dug unused water well, diameter 36 in., depth 22.6 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 17 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of concrete lip on casing, 1.65 ft above land-surface datum.

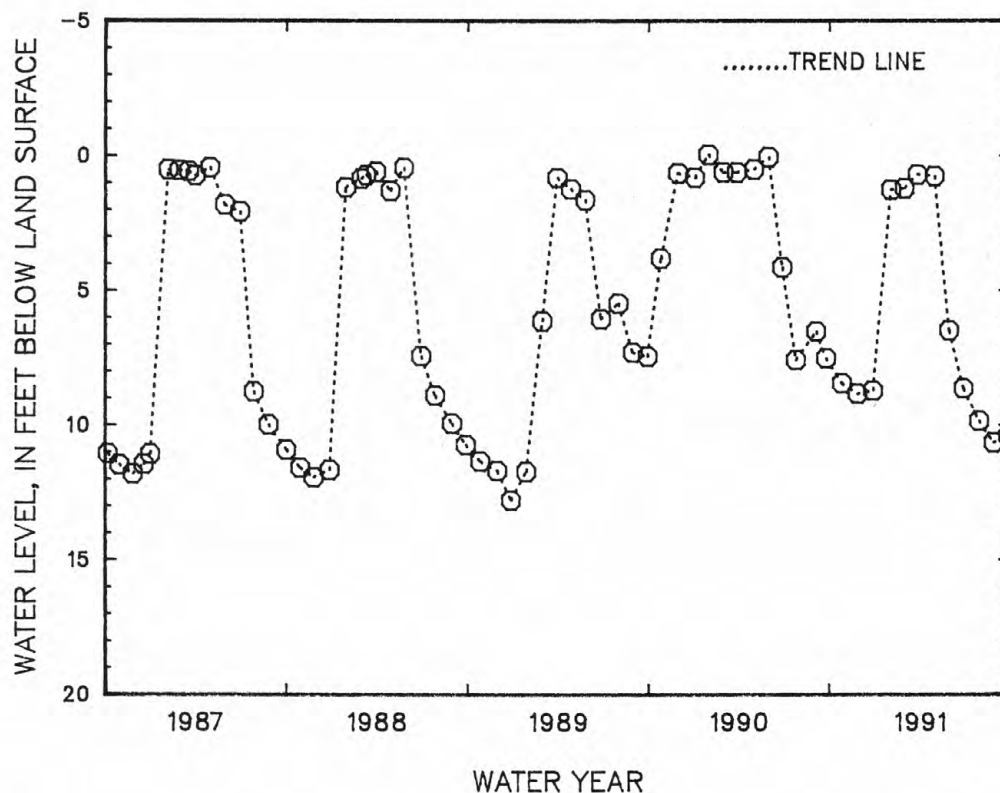
PERIOD OF RECORD.--July 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.04 ft above land-surface datum, Jan. 29, 1990; lowest measured, 12.80 ft below land-surface datum, Dec. 27, 1988.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| OCT 26 | 8.46        | DEC 27 | 8.73        | FEB 28 | 1.21        | APR 29 | 0.76        | JUN 27 | 8.65        | AUG 27 | 10.66       |
| NOV 26 | 8.85        | FEB 01 | 1.27        | MAR 26 | .70         | MAY 29 | 6.50        | JUL 29 | 9.85        | SEP 25 | 10.42       |

WATER YEAR 1991      HIGHEST 0.70 MAR 26, 1991      LOWEST 10.66 AUG 27, 1991



## GROUND-WATER LEVELS

## WESTMORELAND COUNTY

381530076584401. Local number, 55Q 2.

LOCATION.--Lat 38°15'30", long 76°58'44", Hydrologic Unit 02070011, 200 ft southwest of State Highway 205 (McKinney Boulevard) at Colonial Beach and 0.3 mi northwest of the intersection of State Highways 205 (McKinney Boulevard) and 632. Owner: Darl Concrete and Contracting Company.

AQUIFER.--Middle Potomac aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled withdrawal water well, diameter 4 in. to 210 ft, diameter 2 in. from 210 to 890 ft, depth 890 ft, screened 844 to 874 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 24 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of 0.75 in. nipple in top of casing, 2.8 ft above land-surface datum. Prior to Dec. 10, 1974, measuring point was top of casing, 2.2 ft above land-surface datum.

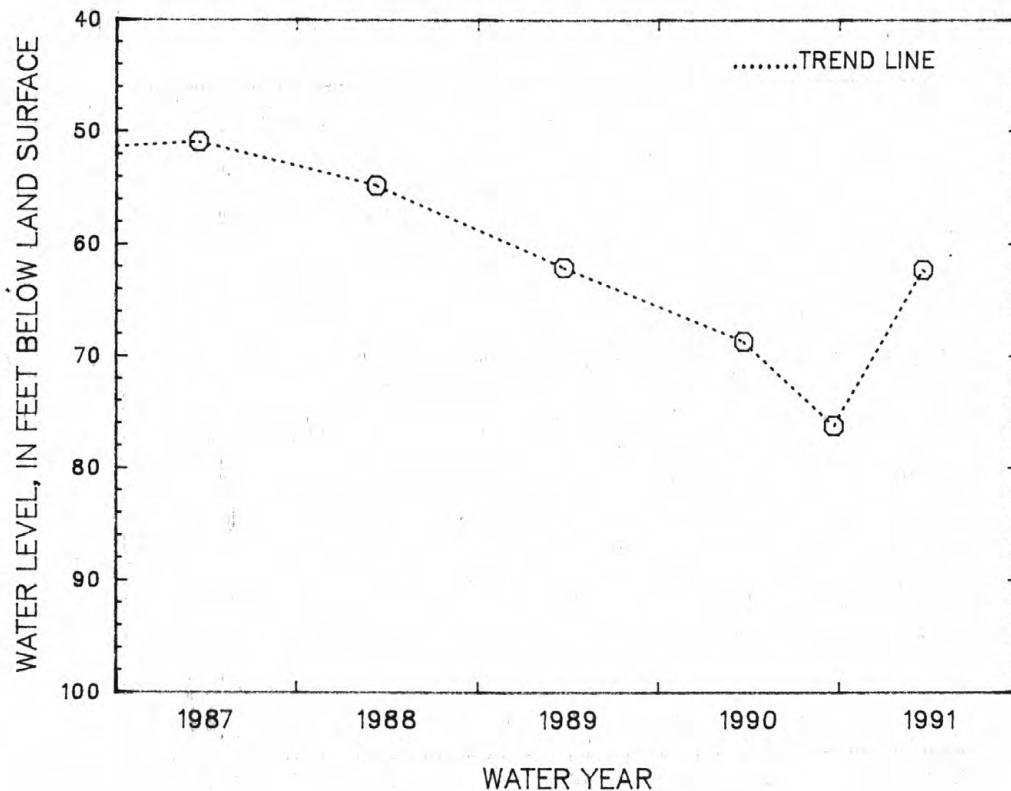
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--December 1971 to current year. Unpublished records available prior to October 1988 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.37 ft below land-surface datum, Dec. 10, 1971; lowest measured, 76.28 ft below land-surface datum, Sept. 20, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 19 | 62.29          |



## GROUND-WATER LEVELS

363

## WESTMORELAND COUNTY

380538076490801. Local number, 56N 1 SOW 016.

LOCATION.--Lat 38°05'38", long 76°49'08", Hydrologic Unit 02080104, at Washington and Lee School, 0.5 mi east of Montross. Owner: Westmoreland County Public Schools.

AQUIFER.--Brightseat-upper Potomac aquifer of Cretaceous-Tertiary age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 4 in. to 189 ft, diameter 2 in. from 189 to 641 ft, depth 641 ft, screened 608 to 628 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Mar. 31, 1979, to Oct. 2, 1985, occasional measurement with chalked tape. Prior to Mar. 31, 1979, continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 149 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

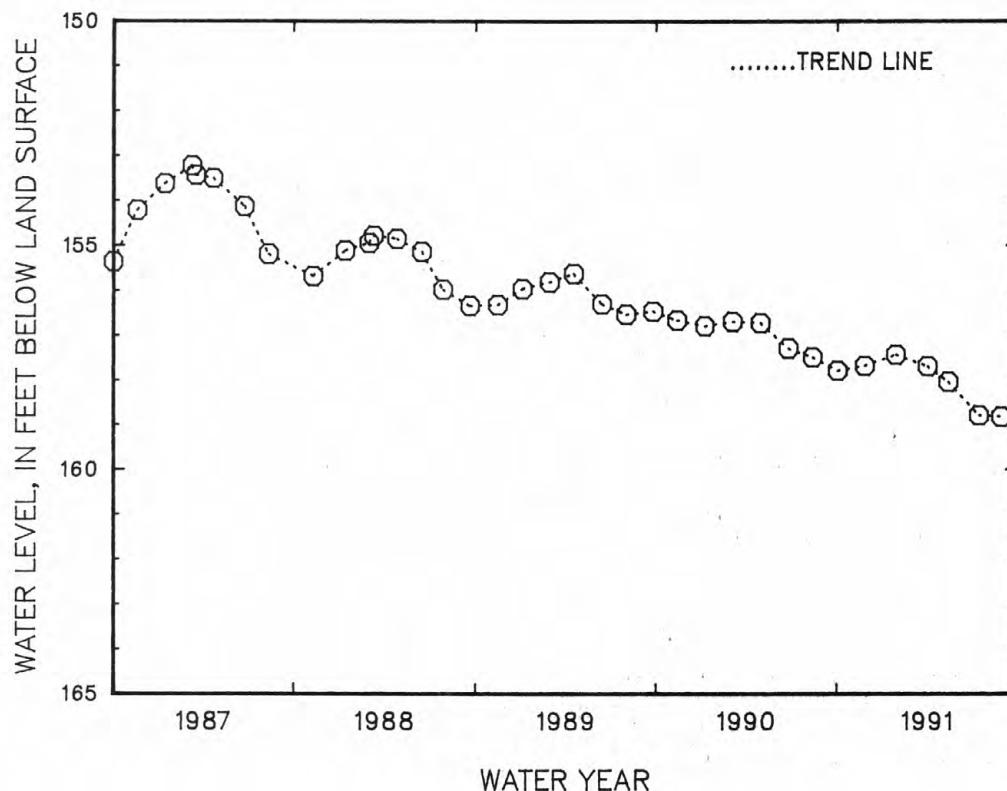
REMARKS.--Records provided by the Virginia Water Control Board. Water level affected by regional drawdown.

PERIOD OF RECORD.--August 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 133.47 ft below land-surface datum, Aug. 28, 1967; lowest measured, 158.83 ft below land-surface datum, Aug. 29, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| OCT 02          | 157.80      | JAN 28  | 157.44      | APR 02       | 157.70      | MAY 14 | 158.05       | JUL 15 | 158.80      | AUG 29 | 158.83      |
| NOV 26          | 157.69      |         |             |              |             |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 157.44      | JAN 28, 1991 | LOWEST      | 158.83 | AUG 29, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

## YORK COUNTY

371916076375901. Local number, 57G 2.

LOCATION.--Lat 37°19'16", long 76°37'59", Hydrologic Unit 02080107, at Building 3101 on Camp Peary Naval Reservation, 3.3 mi northeast of Williamsburg. Owner: U.S. Department of the Navy.

AQUIFER.--Sand and gravel of undifferentiated Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 10 in. to 352 ft, diameter 8 in. from 352 to 387 ft, depth 387 ft, screen depth unknown.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.2 ft above land-surface datum.

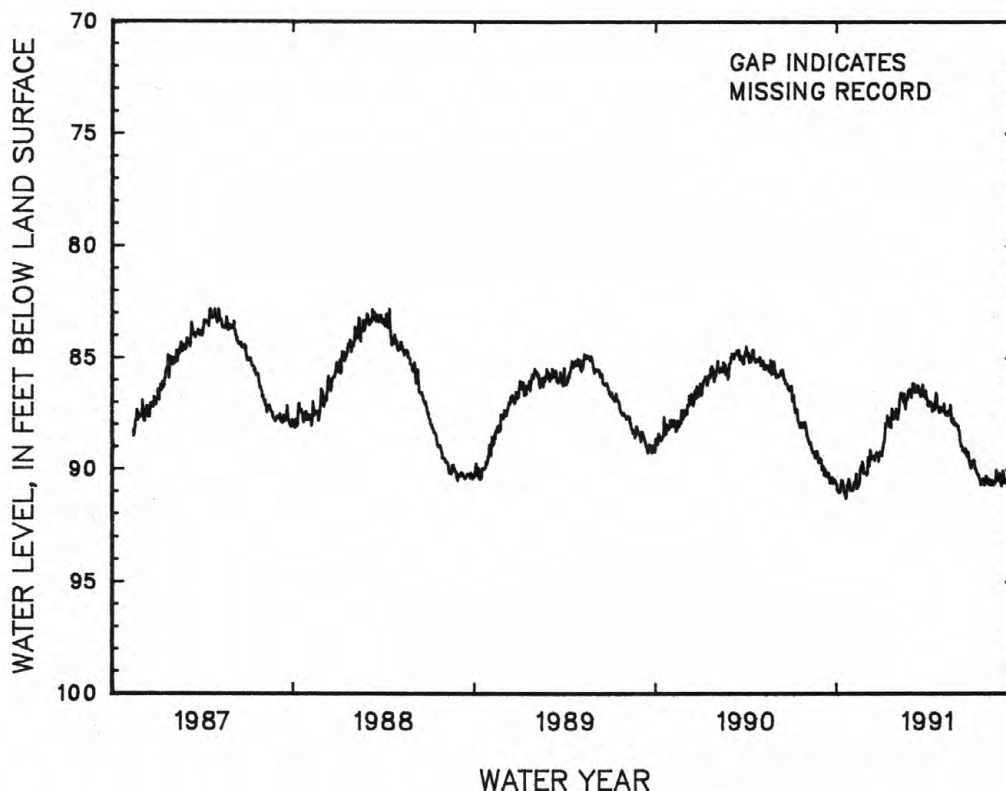
PERIOD OF RECORD.--January 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 43.09 ft below land-surface datum, Mar. 7, 1968; lowest recorded, 91.31 ft below land-surface datum, Oct. 20, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5   | 90.97 | 90.71 | 89.74 | 88.77 | 87.10 | 86.30 | 87.10 | 87.30 | 88.26 | 89.61 | 90.44 | 90.61 |
| 10  | 90.72 | 90.21 | 89.39 | 88.01 | 86.58 | 86.35 | 87.03 | 87.50 | 88.96 | 90.09 | 90.51 | 90.59 |
| 15  | 90.77 | 90.70 | 89.53 | 88.04 | 86.60 | 86.27 | 87.09 | 87.39 | 89.15 | 90.34 | 90.54 | 90.21 |
| 20  | 91.31 | 89.85 | 89.36 | 87.71 | 86.85 | 86.68 | 86.58 | 87.50 | 89.36 | 90.57 | 90.22 | 90.41 |
| 25  | 90.59 | 90.13 | 89.62 | 87.70 | 86.41 | 86.67 | 87.37 | 87.81 | 89.61 | 90.47 | 90.42 | 90.52 |
| EOM | 90.90 | 90.17 | 89.34 | 87.35 | 86.65 | 86.74 | 87.24 | 88.03 | 89.91 | 90.40 | 90.44 | 90.62 |

WATER YEAR 1991      HIGHEST 85.07 MAR 03, 1991      LOWEST 91.31 OCT 20, 1990





## GROUND-WATER LEVELS

365

## YORK COUNTY

371654076401601. Local number, 57G 17 SOW 068.

LOCATION.--Lat 37°16'54", long 76°40'16", Hydrologic Unit 02080107, 0.05 mi east of State Highway 716 at Parkway Estates, 0.5 mi east of Williamsburg. Owner: Sydnor Hydrodynamics.

AQUIFER.--Upper Potomac aquifer of Cretaceous age and Aquia aquifer of Paleocene age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 8 in., depth 452.3 ft, screened 411 to 426 ft, 442.2 to 452.3 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Apr. 30, 1978, to Sept. 30, 1985, occasional measurement with chalked tape. Jan. 15, 1974, to Apr. 30, 1978, continuous strip-chart recorder. Prior to Jan. 15, 1974, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.85 ft above land-surface datum.

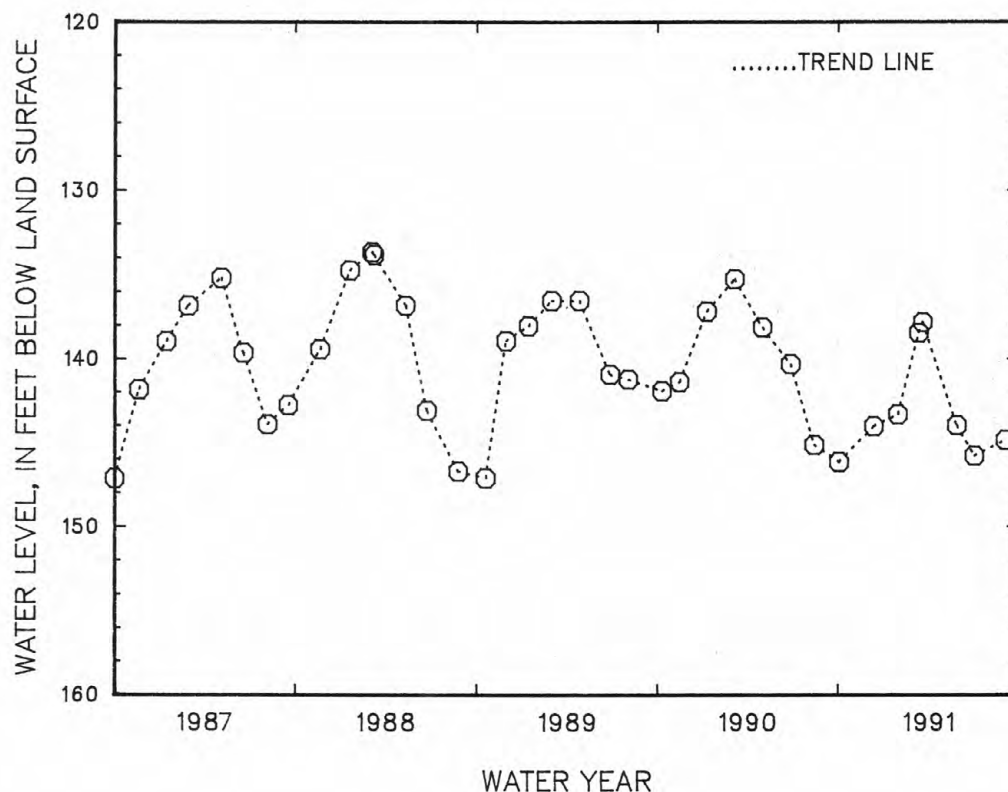
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--November 1972 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 106.09 ft below land-surface datum, Nov. 22, 1972; lowest measured, 148.26 ft below land-surface datum, Aug. 11, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 03          | 146.20      | JAN 29  | 143.35      | MAR 20       | 137.85      | MAY 28 | 144.01      | JUL 03       | 145.83      | SEP 04 | 144.89      |
| DEC 12          | 144.05      | MAR 12  | 138.47      |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 137.85      | MAR 20, 1991 |             | LOWEST | 146.20      | OCT 03, 1990 |             |        |             |



## GROUND-WATER LEVELS

## YORK COUNTY

371735076391501. Local number, 57G 19 SOW 069.

LOCATION.--Lat 37°17'35", long 76°39'15", Hydrologic Unit 02080107, 250 ft east of State Highway 716 at Queens Lake Subdivision, 1.6 mi east of Williamsburg. Owner: Sydnor Hydrodynamics.

AQUIFER.--Middle and upper Potomac aquifers of Cretaceous age and Aquia aquifer of Paleocene age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 6 in., depth 515 ft, screened 420 to 430 ft, 445 to 460 ft, 505 to 515 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Apr. 30, 1979, to Sept. 30, 1985, occasional measurement with chalked tape. July 31, 1974, to Apr. 30, 1979, continuous strip-chart recorder. Prior to July 31, 1974, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 64 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.1 ft above land-surface datum prior to Aug. 14, 1990; 2.05 ft thereafter.

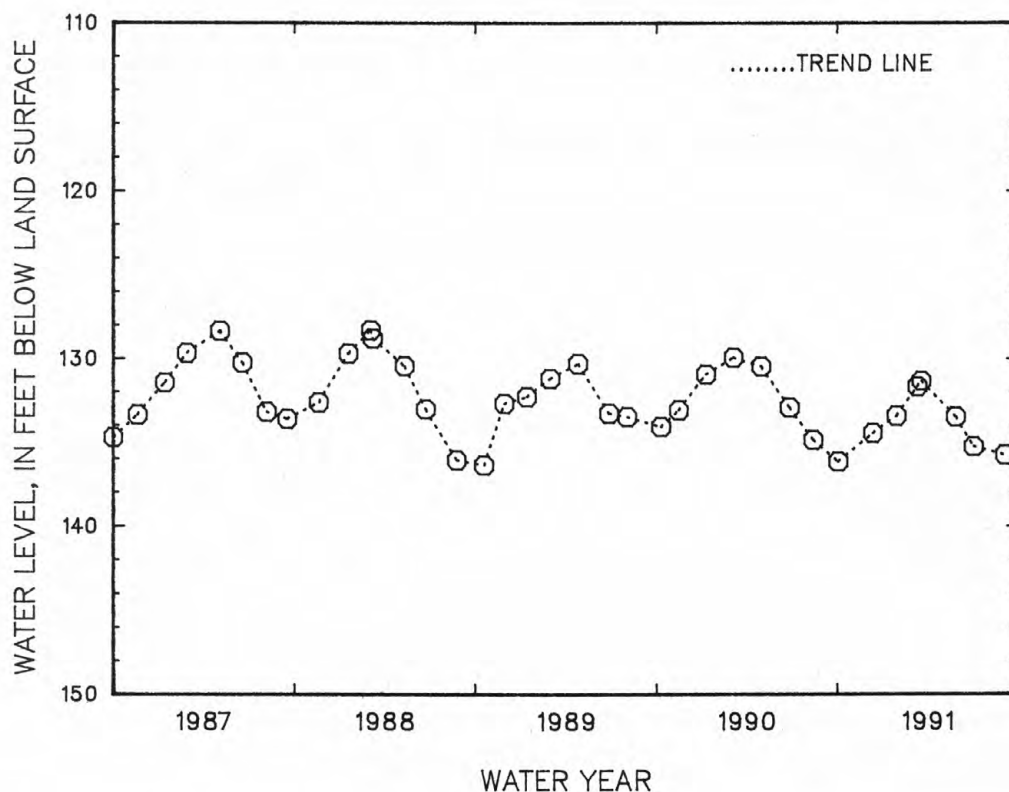
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--November 1972 to current year. Unpublished records available prior to October 1985 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 109.95 ft below land-surface datum, Nov. 29, 1972; lowest measured, 136.40 ft below land-surface datum, Oct. 19, 1988.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 03          | 136.20      | JAN 29  | 133.45      | MAR 20       | 131.35      | MAY 28 | 133.51      | JUL 03       | 135.30      | SEP 04 | 135.80      |
| DEC 12          | 134.48      | MAR 12  | 131.69      |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 131.35      | MAR 20, 1991 |             | LOWEST | 136.20      | OCT 03, 1990 |             |        |             |



## YORK COUNTY

371045076310702. Local number, 58F 62 SOW 187A.

LOCATION.--Lat 37°10'45", long 76°31'07", Hydrologic Unit 02080206, 300 ft north of State Highway 105, 1.8 mi east of intersection of State Highways 105 and 143, and 3.1 mi southeast of Lee Hall. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 140 ft, screened 120 to 140 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS and Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 55 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--September 1990 to current year. Unpublished records available in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.56 ft below land-surface datum, Apr. 26, 1991; lowest measured, 14.25 ft below land-surface datum, Jan. 4, 1991.

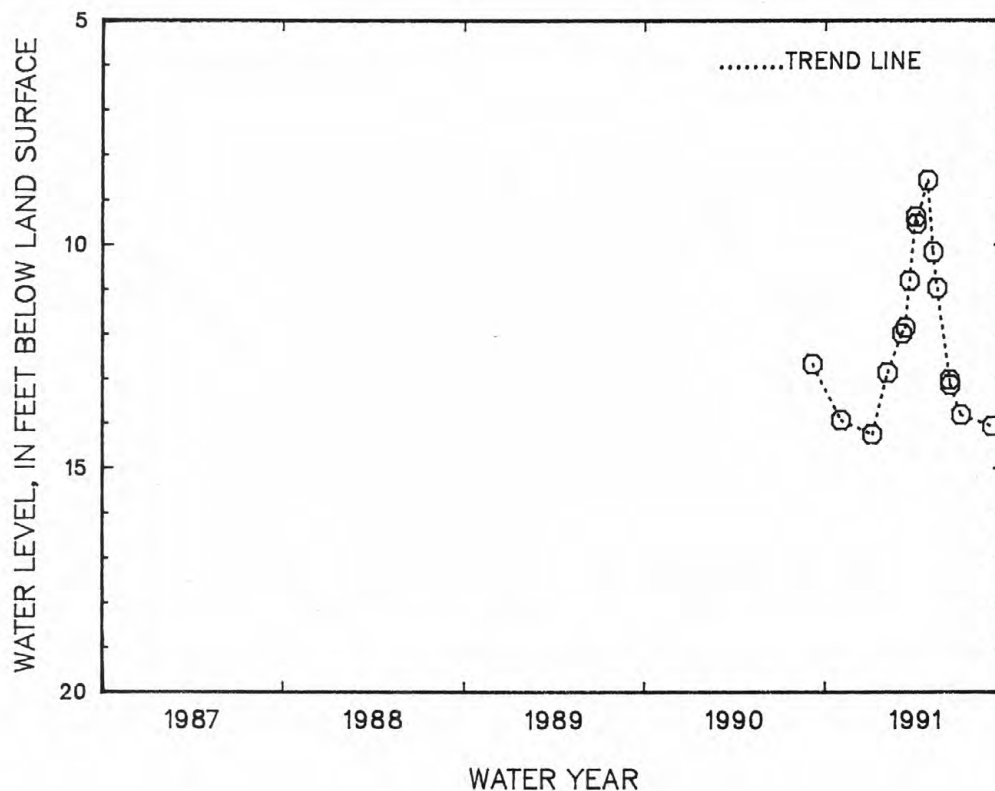
## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, SEPTEMBER 1990

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| SEP 05 | 12.67          |

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL |
|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|
| NOV 02 | 13.93          | MAR 05 | 11.98          | APR 02 | 9.37           | MAY 07 | 10.16          | JUN 10 | 13.02          | JUL 03 | 13.81          |
| JAN 04 | 14.25          | 12     | 11.85          | 03     | 9.53           | 15     | 10.97          | 11     | 13.14          | SEP 04 | 14.07          |
| FEB 04 | 12.86          | 20     | 10.80          | 26     | 8.56           |        |                |        |                |        |                |

WATER YEAR 1991      HIGHEST 8.56    APR 26, 1991      LOWEST 14.25    JAN 04, 1991



## GROUND-WATER LEVELS

## YORK COUNTY

371045076310703. Local number, 58F 63 SOW 187B.

LOCATION.--Lat 37°10'45", long 76°31'07", Hydrologic Unit 02080206, 300 ft north of State Highway 105, 1.8 mi east of intersection of State Highways 105 and 143, and 3.1 mi southeast of Lee Hall. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 28 ft, screened 18 to 28 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS and Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 55 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.6 ft above land-surface datum.

PERIOD OF RECORD.--September 1990 to current year. Unpublished records available in files of the Virginia Water Control Board.

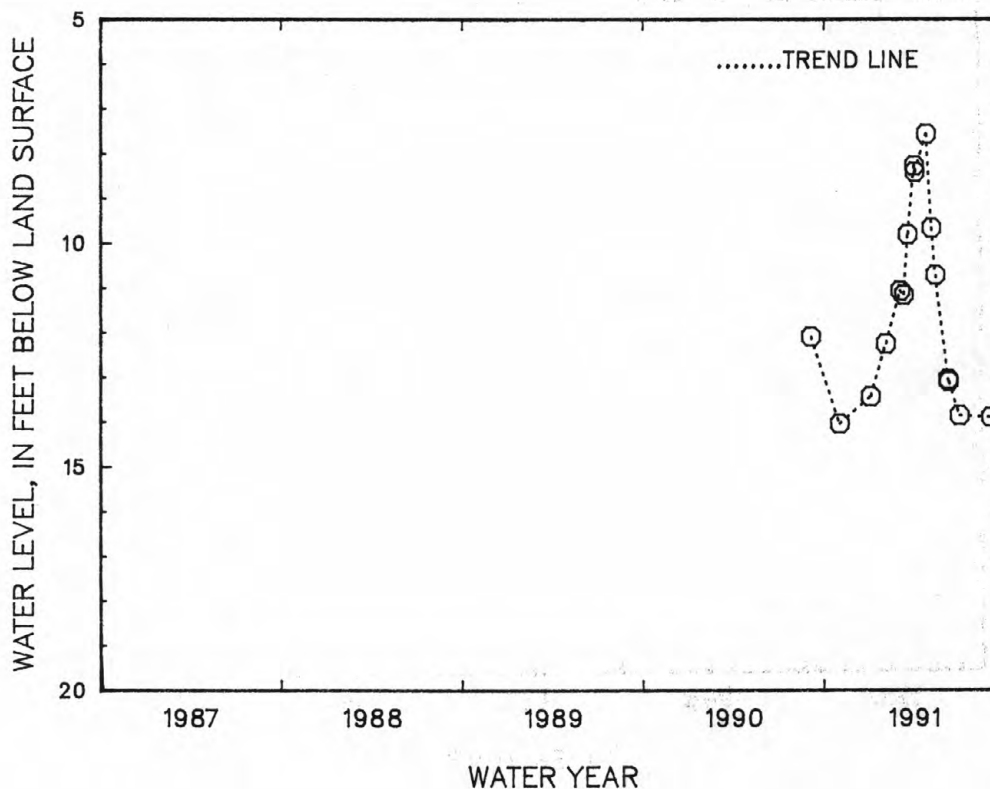
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.56 ft below land-surface datum, Apr. 26, 1991; lowest measured, 14.04 ft below land-surface datum, Nov. 2, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, SEPTEMBER 1990

| DATE   | WATER LEVEL |
|--------|-------------|
| SEP 05 | 12.09       |

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| NOV 02          | 14.04       | MAR 05  | 11.06       | APR 02       | 8.27        | MAY 07 | 9.66         | JUN 10 | 13.05       | JUL 03 | 13.86       |
| JAN 04          | 13.43       | 12      | 11.15       | 03           | 8.41        | 15     | 10.71        | 11     | 13.10       | SEP 04 | 13.90       |
| FEB 04          | 12.25       | 20      | 9.80        | 26           | 7.56        |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 7.56        | APR 26, 1991 | LOWEST      | 14.04  | NOV 02, 1990 |        |             |        |             |



## YORK COUNTY

371250076300502. Local number, 58F 65 SOW 191A.

LOCATION.--Lat 37°12'05", long 76°30'05", Hydrologic Unit 02080107, 300 ft east of State Highway 704, 1.2 mi north of intersection of State Highway 704 and U.S. Highway 17, and 1.5 mi south of Yorktown. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 110 ft, screened 90 to 110 ft.

INSTRUMENTATION.--Continuous strip-chart recorder since May 7, 1991. Occasional measurement with chalked tape by USGS and Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 55 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.8 ft above land-surface datum.

REMARKS.--Continuous strip-chart records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--November 1990 to September 1991. Unpublished records available in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.31 ft below land-surface datum, Nov. 2, 1990; lowest recorded, 37.75 ft below land-surface datum, Sept. 25, 30, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, NOVEMBER 1990 TO SEPTEMBER 1991

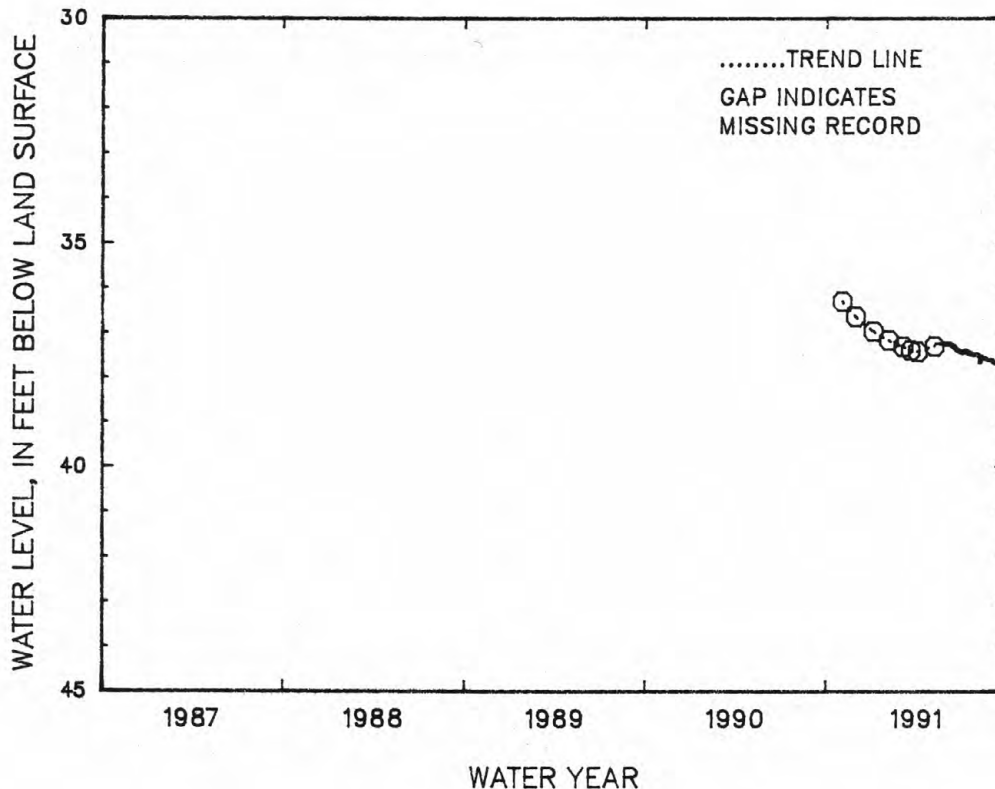
| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| NOV 02 | 36.31       | FEB 04 | 37.18       | APR 02 | 37.38       | MAY 07 | 37.31       | JUL 03 | 37.40       | SEP 04 | 37.68       |
| 29     | 36.65       | MAR 05 | 37.32       | 03     | 37.43       | JUN 06 | 37.31       | 06     | 37.61       |        |             |
| JAN 04 | 36.98       | 20     | 37.40       | 26     | 37.40       |        |             |        |             |        |             |

PERIOD NOVEMBER 1990 TO SEPTEMBER 1991      HIGHEST 36.31 NOV 02, 1990      LOWEST 37.68 SEP 04, 1991

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, MAY TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|-------|-------|
| 5   | --- | --- | --- | --- | --- | --- | --- | ---   | 37.27 | 37.40 | 37.53 | 37.69 |
| 10  | --- | --- | --- | --- | --- | --- | --- | 37.26 | 37.32 | 37.42 | 37.58 | 37.70 |
| 15  | --- | --- | --- | --- | --- | --- | --- | 37.25 | 37.36 | 37.45 | 37.59 | 37.72 |
| 20  | --- | --- | --- | --- | --- | --- | --- | 37.25 | 37.37 | 37.48 | 37.60 | 37.74 |
| 25  | --- | --- | --- | --- | --- | --- | --- | 37.24 | 37.38 | 37.49 | 37.61 | 37.75 |
| EQM | --- | --- | --- | --- | --- | --- | --- | 37.23 | 37.39 | 37.50 | 37.65 | 37.75 |

PERIOD MAY TO SEPTEMBER 1991      HIGHEST 37.23 MAY 31, 1991      LOWEST 37.75 SEP 25, 30, 1991



## GROUND-WATER LEVELS

## YORK COUNTY

371601076343501. Local number, 58G 2.

LOCATION.--Lat 37°16'01", long 76°34'35", Hydrologic Unit 02080107, 3.2 mi northwest of the intersection of State Highway 238 and Main Road at Gate 1 on the Yorktown Naval Weapons Station in Lackey. Owner: U.S. Department of the Navy.

AQUIFER.--Brightseat-upper Potomac aquifer of late Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 18 in., depth 445 ft, screen depth unknown.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.7 ft above land-surface datum.

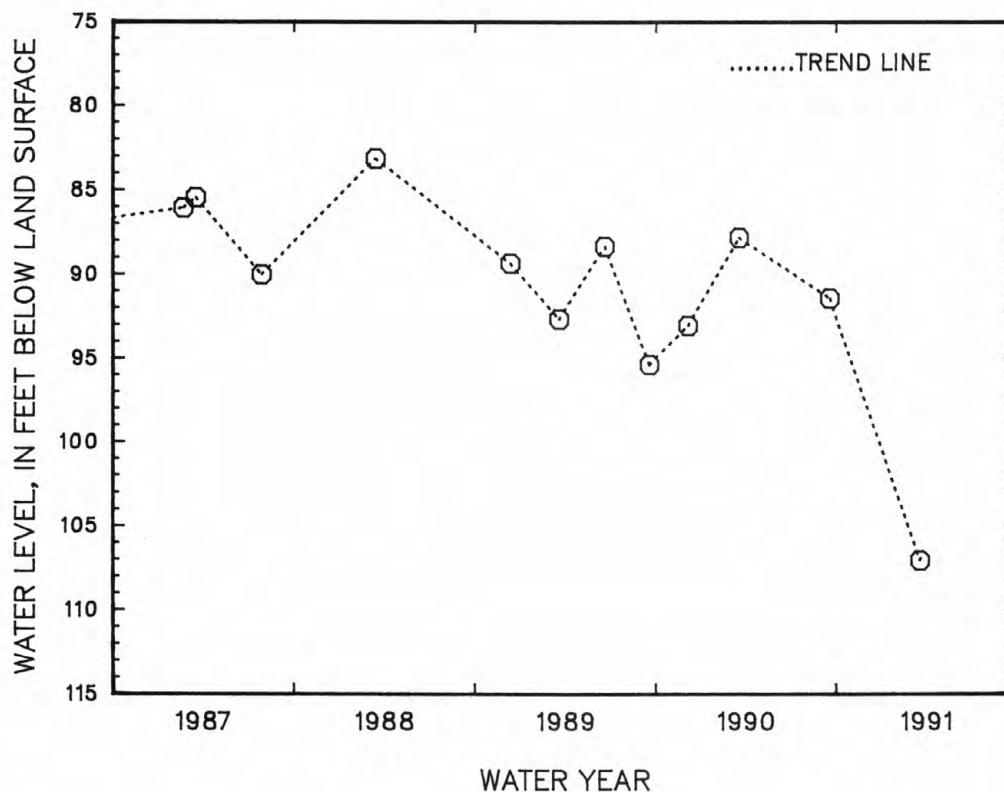
REMARKS.--Water level affected by regional drawdown.

PERIOD OF RECORD.--August 1918, December 1971, December 1983 to July 1985, February 1987 to current year. Unpublished records available prior to October 1987 in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.41 ft below land-surface datum, Dec. 7, 1971; highest reported, 2 ft above land-surface datum, Aug. 1, 1918; lowest measured, 107.08 ft below land-surface datum, Mar. 20, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| MAR 20 | 107.08         |





## GROUND-WATER LEVELS

371

## YORK COUNTY

371535076373501. Local number, 59F 1 SOW 027.

LOCATION.--Lat 37°13'04", long 76°29'19", Hydrologic Unit 02080107, at U.S. Naval Supply Center, 1.6 mi southeast of Yorktown. Owner: U.S. Naval Supply Center.

AQUIFER.--Chickahominy-Piney Point aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled unused water well, diameter 10 in., depth 446 ft, screened 421 to 446 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape by Virginia Water Control Board personnel. Sept. 10, 1971, to Oct. 10, 1985, occasional measurement with chalked tape. Apr. 10, 1970, to Sept. 10, 1971, continuous strip-chart recorder. Prior to Apr. 10, 1970, occasional measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.8 ft above land-surface datum.

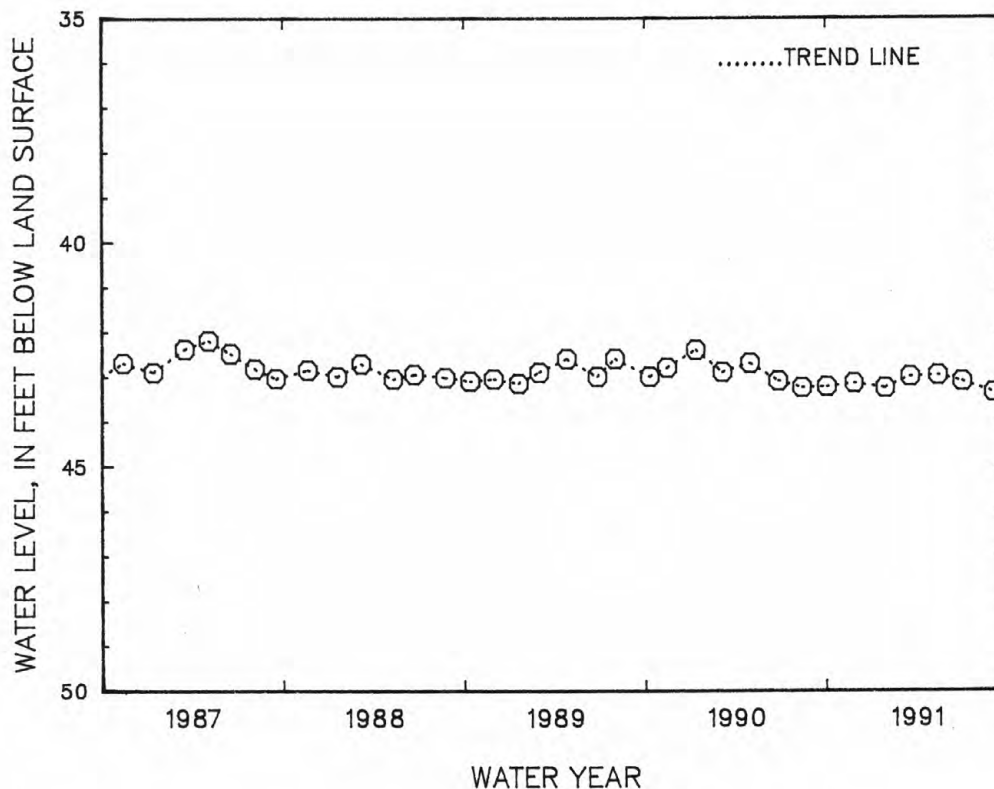
REMARKS.--Records provided by the Virginia Water Control Board.

PERIOD OF RECORD.--October 1969 to current year. Unpublished records available prior to October 1987 in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.00 ft below land-surface datum, Oct. 27, 1969; lowest measured, 44.69 ft below land-surface datum, July 9, 1981.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|-------------|--------------|-------------|--------|-------------|
| OCT 03          | 43.23       | JAN 29  | 43.26       | MAR 20       | 43.00       | MAY 15 | 42.97       | JUL 03       | 43.11       | SEP 04 | 43.36       |
| NOV 27          | 43.15       |         |             |              |             |        |             |              |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 42.97       | MAY 15, 1991 |             | LOWEST | 43.36       | SEP 04, 1991 |             |        |             |



## GROUND-WATER LEVELS

## YORK COUNTY

370841076275202. Local number, 59F 72 SOW 184A.

LOCATION.--Lat 37°08'41", long 76°27'52", Hydrologic Unit 02080108, 800 ft south of State Highway 620, 0.4 mi southwest of intersection of State Highway 620 and U.S. Highway 17, and 2.2 mi southwest of Dare. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in. to 98 ft, diameter 3.5 in. from 98 to 131 ft, depth 131 ft, screened 121 to 131 ft.

INSTRUMENTATION.--Prior to Sept. 12, 1991, digital recorder--60-minute punch. Occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 42 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 2.8 ft above land-surface datum.

PERIOD OF RECORD.--July 1990 to current year. Unpublished records available in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 7.70 ft below land-surface datum, Apr. 27, 28, 1991; lowest recorded, 13.99 ft below land-surface datum, Nov. 27, 30, Dec. 1, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, JULY TO SEPTEMBER 1990  
LOWEST VALUES

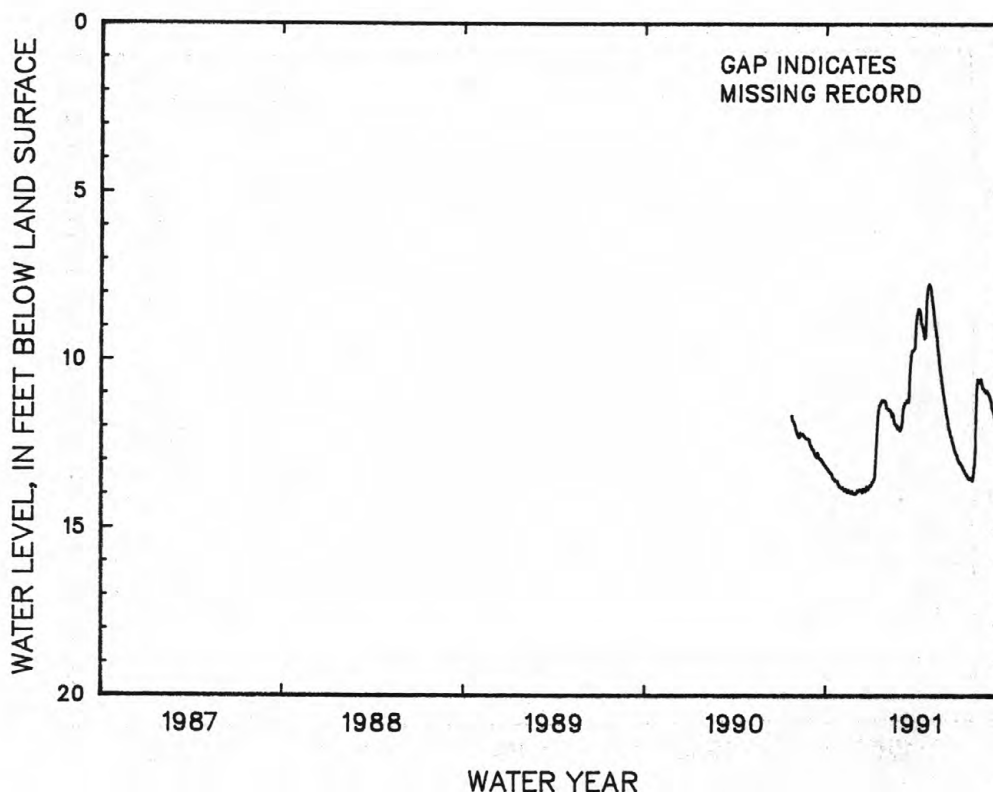
| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL   | AUG   | SEP   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|
| 5   | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---   | 12.21 | 12.67 |
| 10  | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---   | 12.25 | 12.82 |
| 15  | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---   | 12.23 | 12.78 |
| 20  | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---   | 12.30 | 12.94 |
| 25  | --- | --- | --- | --- | --- | --- | --- | --- | --- | 11.74 | 12.34 | 13.04 |
| EOM | --- | --- | --- | --- | --- | --- | --- | --- | --- | 11.95 | 12.52 | 13.14 |

PERIOD JULY TO SEPTEMBER 1990      HIGHEST 11.50 JUL 23, 1990      LOWEST 13.14 SEP 29, 30, 1990

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR  | MAY   | JUN   | JUL   | AUG   | SEP   |
|-----|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|
| 5   | 13.24 | 13.80 | 13.91 | 13.63 | 11.46 | 11.82 | 8.53 | 8.32  | 11.88 | 13.22 | 10.57 | 11.56 |
| 10  | 13.34 | 13.85 | 13.86 | 13.14 | 11.54 | 11.28 | 8.61 | 8.95  | 12.24 | 13.38 | 10.56 | 11.83 |
| 15  | 13.48 | 13.94 | 13.94 | 11.67 | 11.67 | 11.23 | 8.99 | 9.54  | 12.49 | 13.49 | 10.81 | ---   |
| 20  | 13.61 | 13.95 | 13.91 | 11.31 | 11.92 | 10.61 | 9.34 | 10.25 | 12.76 | 13.52 | 10.93 | ---   |
| 25  | 13.61 | 13.95 | 13.81 | 11.21 | 12.00 | 9.70  | 7.87 | 10.79 | 12.96 | 13.60 | 10.98 | ---   |
| EOM | 13.78 | 13.99 | 13.74 | 11.31 | 12.09 | 9.41  | 7.80 | 11.40 | 13.10 | 11.88 | 11.23 | ---   |

WATER YEAR 1991      HIGHEST 7.70 APR 27, 28, 1991      LOWEST 13.99 NOV 27, 30, DEC 01, 1990



## YORK COUNTY

370841076275203. Local number, 59F 73 SOW 184B.

LOCATION.--Lat 37°08'41", long 76°27'52", Hydrologic Unit 02080108, 800 ft south of State Highway 620, 0.4 mi southwest of intersection of State Highway 620 and U.S. Highway 17, and 2.2 mi southwest of Dare. Owner: Virginia Water Control Board.

AQUIFER.--Sand of Yorktown Formation of Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in. to 39 ft, diameter 2.0 in. from 39 to 60 ft, depth 60 ft, screened 50 to 60 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS and Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 42 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.7 ft above land-surface datum.

PERIOD OF RECORD.--July 1990 to current year. Unpublished records available in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.98 ft below land-surface datum, Apr. 25, 1991; lowest measured, 12.62 ft below land-surface datum, Nov. 2, 1990.

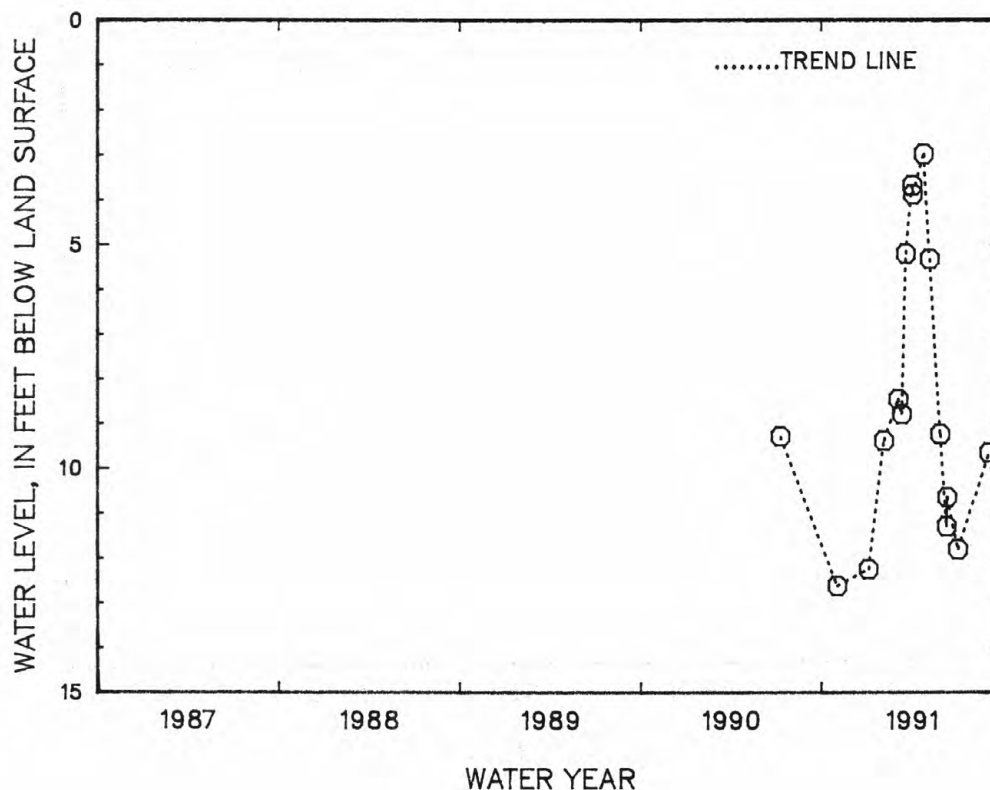
## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, JULY TO SEPTEMBER 1990

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| JUL 10 | 9.29           |

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL |
|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|
| NOV 02 | 12.62          | MAR 05 | 8.45           | APR 02 | 3.68           | MAY 07 | 5.32           | JUN 10 | 11.29          | JUL 03 | 11.80          |
| JAN 04 | 12.25          | 12     | 8.79           | 03     | 3.88           | 28     | 9.24           | 11     | 10.64          | SEP 04 | 9.65           |
| FEB 04 | 9.38           | 20     | 5.20           | 25     | 2.98           |        |                |        |                |        |                |

WATER YEAR 1991      HIGHEST 2.98    APR 25, 1991      LOWEST 12.62    NOV 02, 1990



## GROUND-WATER LEVELS

## YORK COUNTY

370841076275204. Local number, 59F 74 SOW 184C.

LOCATION.--Lat 37°08'41", long 76°27'52", Hydrologic Unit 02080108, 800 ft south of State Highway 620, 0.4 mi southwest of intersection of State Highway 620 and U.S. Highway 17, and 2.2 mi southwest of Dare. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 20 ft, screened 10 to 20 ft.

INSTRUMENTATION.--Prior to Sept. 12, 1991, digital recorder--60-minute punch. Occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 42 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 2.8 ft above land-surface datum.

PERIOD OF RECORD.--July 1990 to current year. Unpublished records available in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.32 ft below land-surface datum, Apr. 25, 1991; lowest recorded, 13.20 ft below land-surface datum, Dec. 14, 15, 20, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, JULY TO SEPTEMBER 1990  
LOWEST VALUES

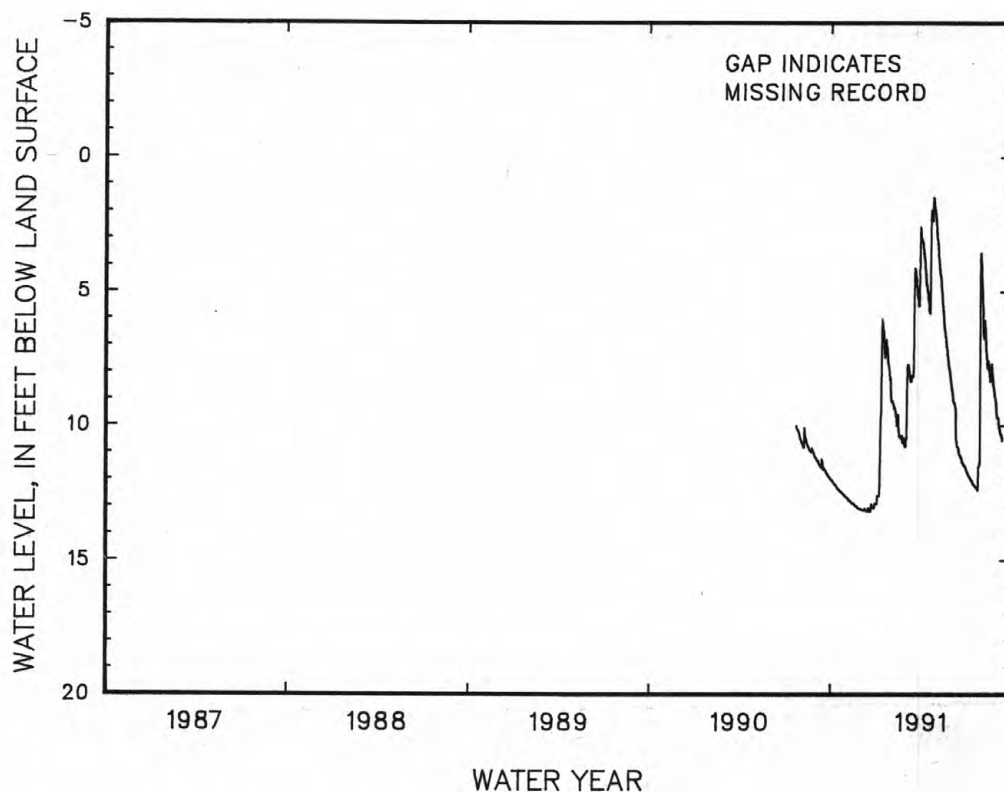
| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL   | AUG   | SEP   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|
| 5   | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---   | 10.66 | 11.29 |
| 10  | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---   | 10.09 | 11.50 |
| 15  | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---   | 10.67 | 11.36 |
| 20  | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---   | 10.92 | 11.68 |
| 25  | --- | --- | --- | --- | --- | --- | --- | --- | --- | 10.10 | 10.86 | 11.81 |
| EOM | --- | --- | --- | --- | --- | --- | --- | --- | --- | 10.40 | 11.18 | 11.94 |

PERIOD JULY TO SEPTEMBER 1990      HIGHEST 9.86 JUL 23, 1990      LOWEST 11.94 SEP 30, 1990

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR  | APR  | MAY  | JUN   | JUL   | AUG  | SEP   |
|-----|-------|-------|-------|-------|-------|------|------|------|-------|-------|------|-------|
| 5   | 12.08 | 12.70 | 13.14 | 12.63 | 9.25  | 7.84 | 3.16 | 3.17 | 9.04  | 11.81 | 6.16 | 9.93  |
| 10  | 12.19 | 12.80 | 13.13 | 9.71  | 9.63  | 8.11 | 4.20 | 4.34 | 9.36  | 11.99 | 6.83 | 10.35 |
| 15  | 12.34 | 12.90 | 13.20 | 6.41  | 10.11 | 8.14 | 5.02 | 5.49 | 10.83 | 12.18 | 7.61 | ---   |
| 20  | 12.45 | 12.98 | 13.20 | 7.31  | 10.42 | 4.11 | 5.80 | 6.54 | 11.15 | 12.28 | 8.33 | ---   |
| 25  | 12.50 | 13.05 | 13.03 | 7.66  | 10.49 | 5.11 | 2.34 | 7.36 | 11.42 | 12.42 | 8.45 | ---   |
| EOM | 12.64 | 13.11 | 12.92 | 8.93  | 10.80 | 2.59 | 2.06 | 8.26 | 11.56 | 3.52  | 9.23 | ---   |

WATER YEAR 1991      HIGHEST 1.32 APR 25, 1991      LOWEST 13.20 DEC 14, 15, 20, 1990



## YORK COUNTY

370934076251402. Local number, 59F 76 SOW 185A.

LOCATION.--Lat 37°09'34", long 76°25'14", Hydrologic Unit 02080108, 300 ft west of Kings Grant Road, 0.2 mi south of intersection of Kings Grant Road and State Highway 621, and 1.2 mi southeast of Dare. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 120 ft, screened 100 to 120 ft.

INSTRUMENTATION.--Prior to Sept. 3, 1991, digital recorder--60-minute punch. Occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 9.79 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--July 1990 to current year. Unpublished records available in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 15.57 ft below land-surface datum, Apr. 24, 1991; lowest recorded, 22.45 ft below land-surface datum, July 12, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, JULY TO SEPTEMBER 1990  
LOWEST VALUES

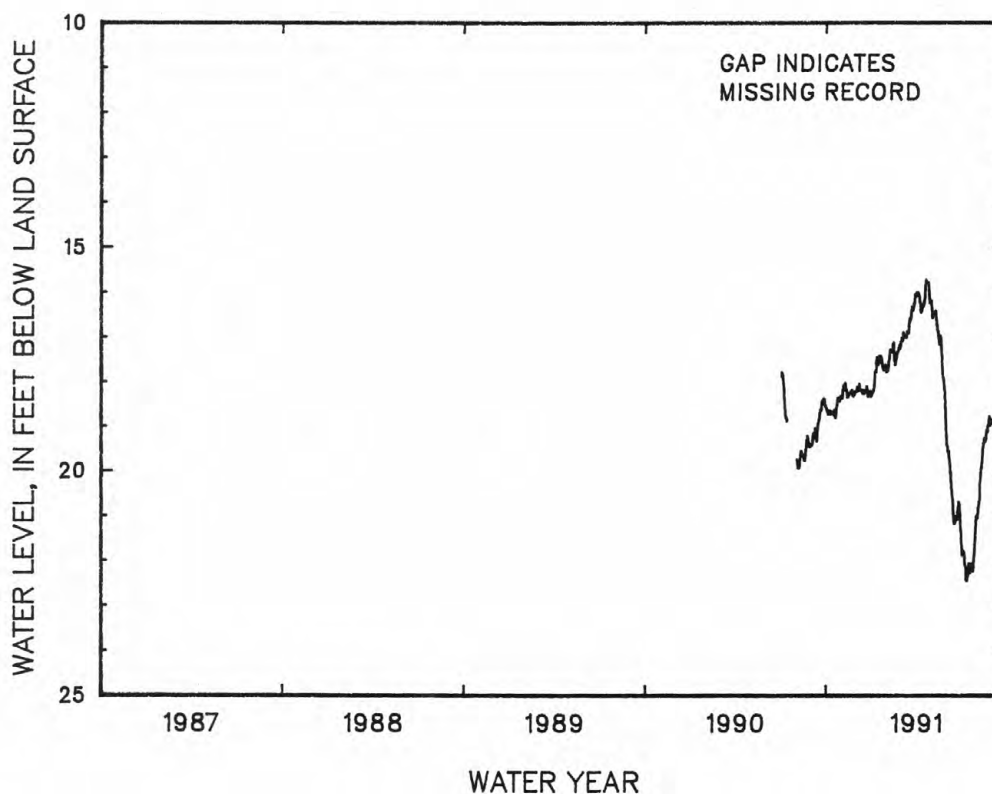
| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL   | AUG   | SEP   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|
| 5   | --- | --- | --- | --- | --- | --- | --- | --- | --- | 17.80 | 19.81 | 19.24 |
| 10  | --- | --- | --- | --- | --- | --- | --- | --- | --- | 18.36 | 19.78 | 19.06 |
| 15  | --- | --- | --- | --- | --- | --- | --- | --- | --- | 18.88 | 19.68 | 19.00 |
| 20  | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---   | 19.77 | 18.65 |
| 25  | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---   | 19.23 | 18.49 |
| EOM | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---   | 19.45 | 18.54 |

PERIOD JULY TO SEPTEMBER 1990      HIGHEST 17.66 JUL 04, 1990      LOWEST 19.93 AUG 06, 08, 1990

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| 5   | 18.65 | 18.25 | 18.18 | 18.22 | 17.67 | 17.07 | 16.01 | 16.57 | 19.59 | 21.79 | 20.80 | --- |
| 10  | 18.66 | 18.04 | 18.16 | 17.79 | 17.30 | 16.97 | 16.39 | 16.42 | 20.07 | 22.16 | 19.96 | --- |
| 15  | 18.71 | 18.34 | 18.26 | 17.61 | 17.13 | 16.90 | 16.27 | 16.86 | 20.94 | 22.30 | 19.39 | --- |
| 20  | 18.75 | 18.24 | 18.24 | 17.44 | 17.50 | 16.63 | 15.96 | 16.98 | 21.03 | 22.22 | 19.27 | --- |
| 25  | 18.42 | 18.30 | 18.31 | 17.71 | 17.28 | 16.39 | 15.78 | 17.89 | 20.85 | 22.23 | 19.00 | --- |
| EOM | 18.35 | 18.23 | 18.22 | 17.64 | 17.24 | 16.09 | 16.19 | 18.95 | 21.33 | 21.02 | 18.89 | --- |

WATER YEAR 1991      HIGHEST 15.57 APR 24, 1991      LOWEST 22.45 JUL 12, 1991



## GROUND-WATER LEVELS

## YORK COUNTY

370934076251403. Local number, 59F 77 SOW 185B.

LOCATION.--Lat 37°09'34", long 76°25'14", Hydrologic Unit 02080108, 300 ft west of Kings Grant Road, 0.2 mi south of intersection of Kings Grant Road and State Highway 621, and 1.2 mi southeast of Dare. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2.0 in., depth 120 ft, screened 110 to 120 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS and Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 10.05 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.3 ft above land-surface datum.

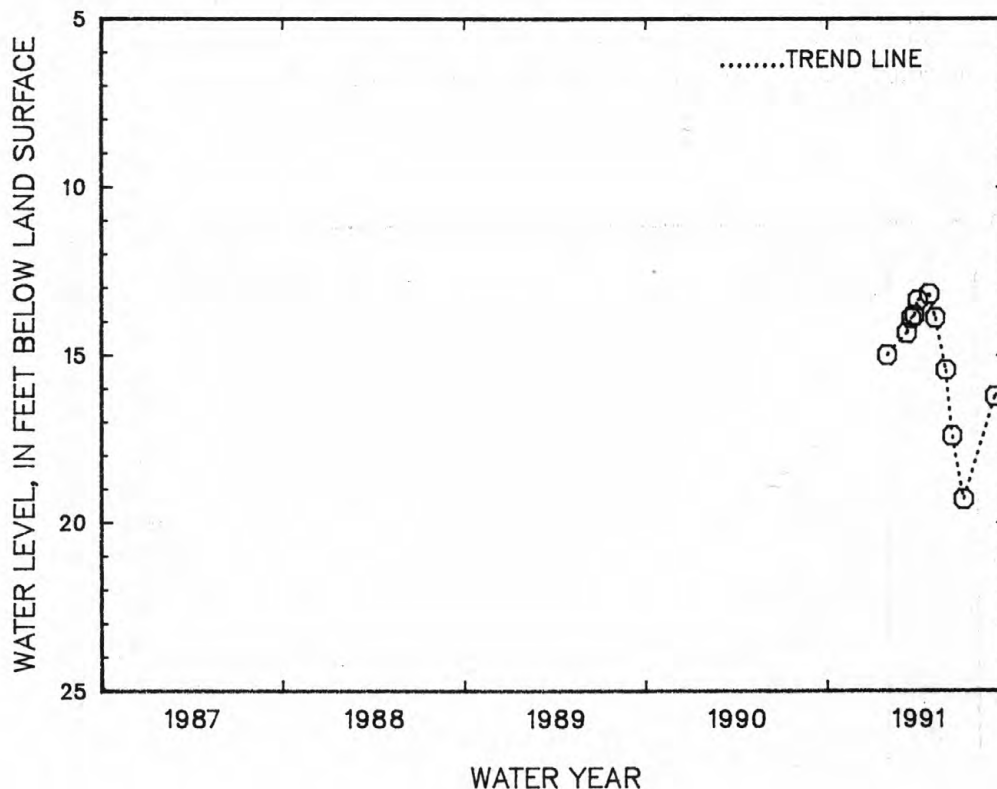
PERIOD OF RECORD.--January to September 1991. Unpublished records available in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.19 ft below land-surface datum, Apr. 25, 1991; lowest measured, 19.31 ft below land-surface datum, July 3, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, JANUARY TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| JAN 30 | 15.00       | MAR 20 | 13.90       | APR 02 | 13.37       | MAY 07 | 13.89       | JUN 10 | 17.41       | SEP 04 | 16.23       |
| MAR 11 | 14.34       | 26     | 13.82       | 25     | 13.19       | 28     | 15.44       | JUL 03 | 19.31       |        |             |

PERIOD JANUARY TO SEPTEMBER 1991      HIGHEST 13.19 APR 25, 1991      LOWEST JUL 03, 1991





## YORK COUNTY

370934076251404. Local number, 59F 78 SOW 185C.

LOCATION.--Lat 37°09'34", 76°25'14", Hydrologic Unit 02080108, 300 ft west of Kings Grant Road, 0.2 mi south of intersection of Kings Grant Road and State Highway 621, and 1.2 mi southeast of Dare. Owner: Virginia Water Control Board.

AQUIFER.--Sand of Yorktown Formation of Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 50 ft, screened 40 to 50 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS and Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 9.88 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.8 ft above land-surface datum.

PERIOD OF RECORD.--September 1990 to current year. Unpublished records available in files of the Virginia Water Control Board.

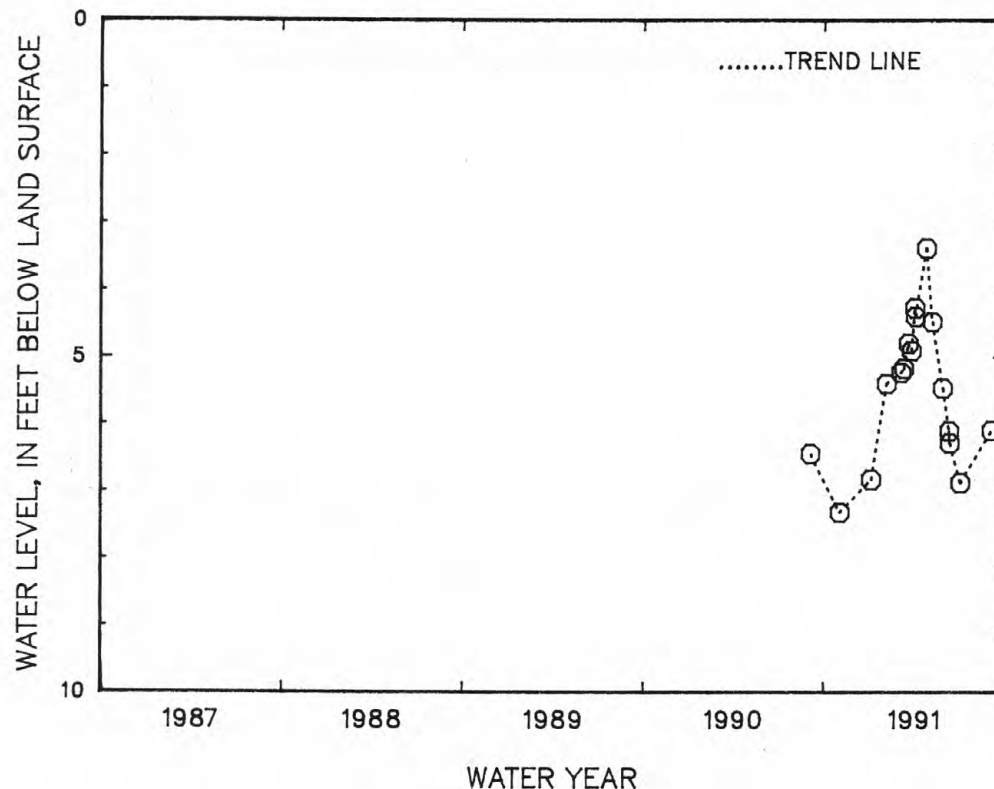
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.38 ft below land-surface datum, Apr. 25, 1991; lowest measured, 7.32 ft below land-surface datum, Nov. 2, 1990.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, SEPTEMBER 1990

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| SEP 04 | 6.45           |

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER<br>LEVEL | DATE    | WATER<br>LEVEL | DATE         | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL |
|-----------------|----------------|---------|----------------|--------------|----------------|--------|----------------|--------|----------------|--------|----------------|
| NOV 02          | 7.32           | MAR 05  | 5.23           | MAR 26       | 4.91           | APR 25 | 3.38           | JUN 10 | 6.11           | JUL 03 | 6.88           |
| JAN 04          | 6.83           | 11      | 5.17           | APR 02       | 4.27           | MAY 07 | 4.48           | 11     | 6.29           | SEP 04 | 6.10           |
| FEB 04          | 5.40           | 20      | 4.80           | 03           | 4.40           | 28     | 5.47           |        |                |        |                |
| WATER YEAR 1991 |                | HIGHEST | 3.38           | APR 25, 1991 | LOWEST         | 7.32   | NOV 02, 1990   |        |                |        |                |



## GROUND-WATER LEVELS

## YORK COUNTY

370934076251405. Local number, 59F 79 SOW 185D.

LOCATION.--Lat 37°09'34", long 76°25'14", Hydrologic Unit 02080108, 300 ft west of Kings Grant Road, 0.2 mi south of intersection of Kings Grant Road and State Highway 621, and 1.2 mi southeast of Dare. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 15 ft, screened 5 to 15 ft.

INSTRUMENTATION.--Prior to Sept. 3, 1991, digital recorder--60-minute punch. Occasional measurement with chalked tape by Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 9.70 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 3.2 ft above land-surface datum.

PERIOD OF RECORD.--July 1990 to current year. Unpublished records available in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 4.54 ft below land-surface datum, Apr. 21, 1991; lowest recorded, 9.94 ft below land-surface datum, Dec. 6-8, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, JULY TO SEPTEMBER 1990  
LOWEST VALUES

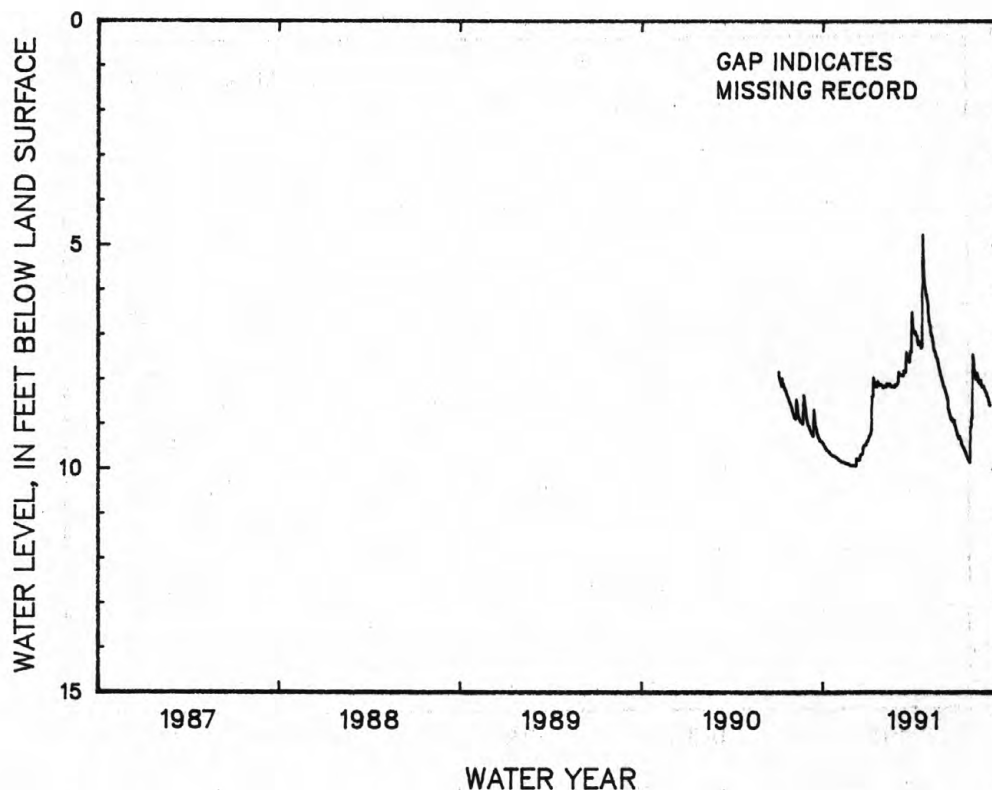
| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL  | AUG  | SEP  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| 5   | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.92 | 8.83 | 9.08 |
| 10  | --- | --- | --- | --- | --- | --- | --- | --- | --- | 8.11 | 8.47 | 9.23 |
| 15  | --- | --- | --- | --- | --- | --- | --- | --- | --- | 8.12 | 8.86 | 8.84 |
| 20  | --- | --- | --- | --- | --- | --- | --- | --- | --- | 8.28 | 8.96 | 9.18 |
| 25  | --- | --- | --- | --- | --- | --- | --- | --- | --- | 8.44 | 8.37 | 9.33 |
| EOM | --- | --- | --- | --- | --- | --- | --- | --- | --- | 8.63 | 8.90 | 9.39 |

PERIOD JULY TO SEPTEMBER 1990      HIGHEST 7.32 JUL 03, 1990      LOWEST 9.39 SEP 28-30, 1990

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
LOWEST VALUES

| DAY | OCT  | NOV  | DEC  | JAN  | FEB  | MAR  | APR  | MAY  | JUN  | JUL  | AUG  | SEP |
|-----|------|------|------|------|------|------|------|------|------|------|------|-----|
| 5   | 9.49 | 9.82 | 9.93 | 9.25 | 8.17 | 7.86 | 6.93 | 6.77 | 8.25 | 9.31 | 7.96 | --- |
| 10  | 9.58 | 9.85 | 9.79 | 8.39 | 8.10 | 7.90 | 7.11 | 7.06 | 8.46 | 9.50 | 7.99 | --- |
| 15  | 9.63 | 9.87 | 9.81 | 8.10 | 8.14 | 7.83 | 7.16 | 7.37 | 8.82 | 9.61 | 8.03 | --- |
| 20  | 9.69 | 9.89 | 9.67 | 8.14 | 8.15 | 7.47 | 7.26 | 7.54 | 8.91 | 9.75 | 8.19 | --- |
| 25  | 9.72 | 9.91 | 9.48 | 8.13 | 8.13 | 7.60 | 5.93 | 7.81 | 9.04 | 9.87 | 8.29 | --- |
| EOM | 9.76 | 9.93 | 9.39 | 8.18 | 8.13 | 6.66 | 6.25 | 8.08 | 9.25 | 7.51 | 8.48 | --- |

WATER YEAR 1991      HIGHEST 4.54 APR 21, 1991      LOWEST 9.94 DEC 06-08, 1990



## YORK COUNTY

370958076291502. Local number, 59F 81 SOW 186A.

LOCATION.--Lat 37°09'58", long 76°29'15", Hydrologic Unit 02080108, 100 ft south of State Highway 173, 0.8 mi southwest of intersection of U.S. Highway 17 and State Highway 173, and 2.8 mi west of Dare. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 132 ft, screened 112 to 132 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS and Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 50.77 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.6 ft above land-surface datum.

PERIOD OF RECORD.--September 1990 to current year. Unpublished records available in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.90 ft below land-surface datum, May 7, 1991; lowest measured, 21.01 ft below land-surface datum, Mar. 11, 1991.

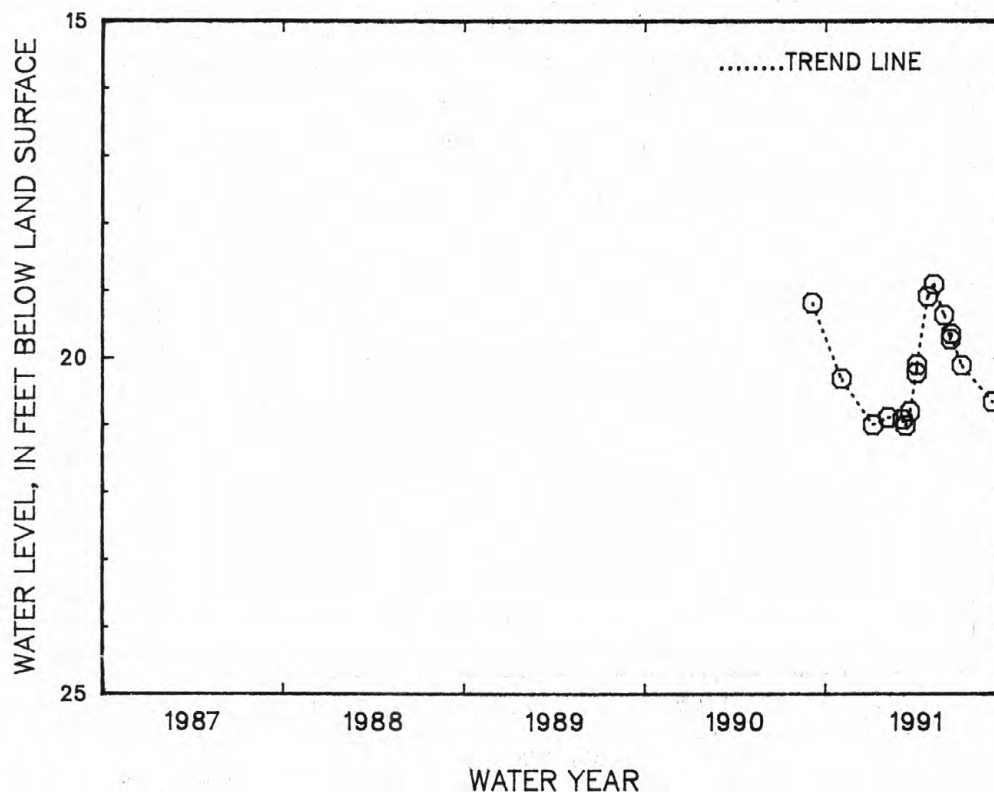
## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, SEPTEMBER 1990

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| SEP 04 | 19.18          |

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL |
|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|
| NOV 02 | 20.31          | MAR 05 | 20.92          | APR 02 | 20.22          | MAY 07 | 18.90          | JUN 10 | 19.72          | JUL 03 | 20.11          |
| JAN 04 | 21.00          | 11     | 21.01          | 03     | 20.10          | 28     | 19.36          | 11     | 19.64          | SEP 04 | 20.66          |
| FEB 04 | 20.89          | 20     | 20.80          | 25     | 19.08          |        |                |        |                |        |                |

WATER YEAR 1991      HIGHEST 18.90    MAY 07, 1991      LOWEST 21.01    MAR 11, 1991



## GROUND-WATER LEVELS

## YORK COUNTY

371207076265502. Local number, 59F 86 SOW 188A.

LOCATION.--Lat 37°12'07", long 76°26'55", Hydrologic Unit 02080107, 200 ft north of State Highway 718, 0.3 mi east of intersection of State Highways 173 and 718, and 2.3 mi northwest of Dare. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 99 ft, screened 79 to 99 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS and Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 7 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.6 ft above land-surface datum.

PERIOD OF RECORD.--September 1990 to current year. Unpublished records available in files of the Virginia Water Control Board.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.73 ft below land-surface datum, Apr 2, 1991; lowest measured, 6.65 ft below land-surface datum, July 3, 1991.

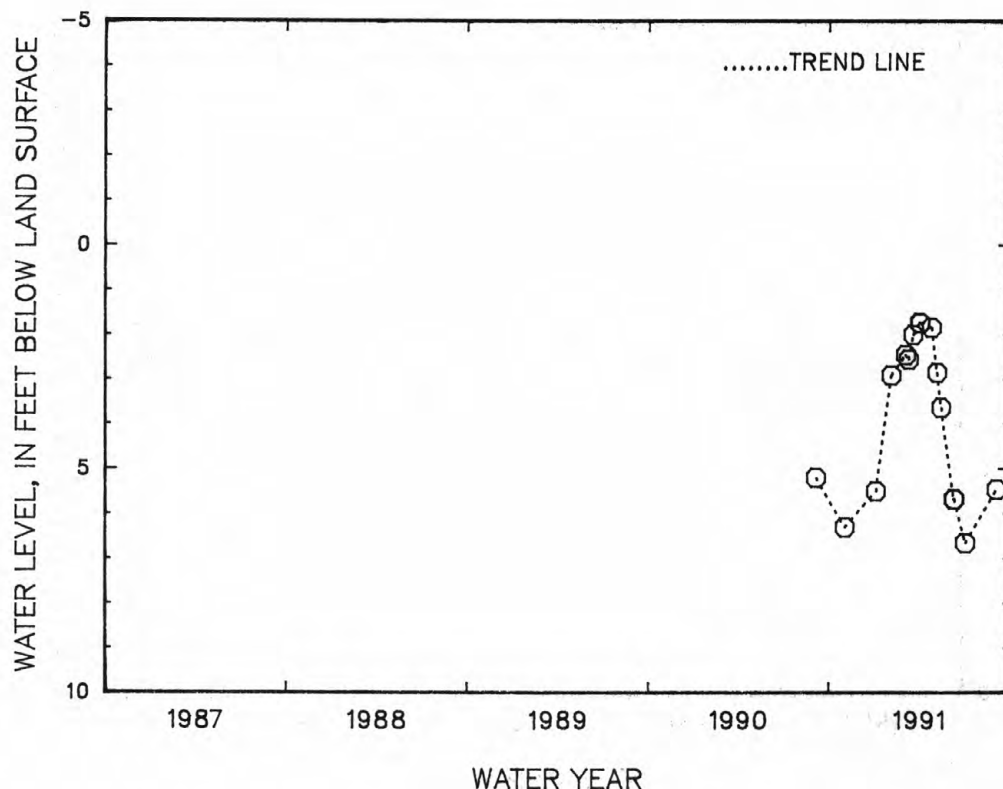
## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, SEPTEMBER 1990

| DATE   | WATER LEVEL |
|--------|-------------|
| SEP 05 | 5.20        |

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| NOV 02 | 6.30        | MAR 05 | 2.45        | APR 02 | 1.73        | MAY 07 | 2.85        | JUN 10 | 5.68        | JUL 03 | 6.65        |
| JAN 04 | 5.50        | 11     | 2.55        | 03     | 1.74        | 15     | 3.64        | 11     | 5.68        | SEP 04 | 5.46        |
| FEB 04 | 2.91        | 20     | 2.00        | 26     | 1.84        |        |             |        |             |        |             |

WATER YEAR 1991      HIGHEST 1.73 APR 02, 1991      LOWEST 6.65 JUL 03, 1991



## GROUND-WATER LEVELS

381

## YORK COUNTY

371207076265503. Local number, 59F 87 SOW 188B.

LOCATION.--Lat 37°12'07", long 76°26'55", Hydrologic Unit 02080107, 200 ft north of State Highway 718, 0.3 mi east of intersection of State Highways 173 and 718, and 2.3 mi northwest of Dare. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 30 ft, screened 20 to 30 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS and Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 7 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--September 1990 to current year. Unpublished records available in files of the Virginia Water Control Board.

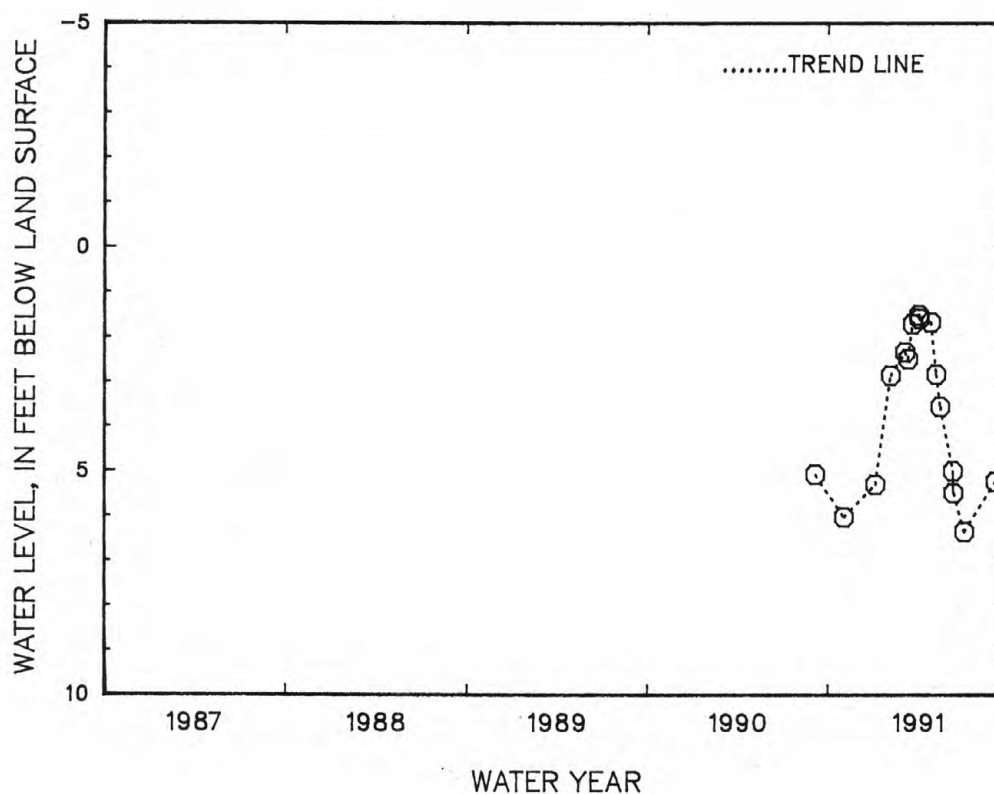
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.50 ft below land-surface datum, Apr. 2, 1991; lowest measured, 6.35 ft below land-surface datum, July 3, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, SEPTEMBER 1990

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| SEP 05 | 5.08           |

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER<br>LEVEL | DATE    | WATER<br>LEVEL | DATE         | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL |
|-----------------|----------------|---------|----------------|--------------|----------------|--------|----------------|--------|----------------|--------|----------------|
| NOV 02          | 6.03           | MAR 05  | 2.33           | APR 02       | 1.50           | MAY 07 | 2.83           | JUN 10 | 5.00           | JUL 03 | 6.35           |
| JAN 04          | 5.30           | 11      | 2.48           | 03           | 1.58           | 15     | 3.56           | 11     | 5.49           | SEP 04 | 5.23           |
| FEB 04          | 2.85           | 20      | 1.70           | 26           | 1.66           |        |                |        |                |        |                |
| WATER YEAR 1991 |                | HIGHEST | 1.50           | APR 02, 1991 | LOWEST         | 6.35   | JUL 03, 1991   |        |                |        |                |



## GROUND-WATER LEVELS

## YORK COUNTY

371053076252202. Local number, 59F 89 SOW 189A.

LOCATION.--Lat 37°10'53", long 76°25'22", Hydrologic Unit 02080108, 500 ft north of State Highway 617, 0.6 mi northeast of intersection of State Highways 620 and 617, and 1.3 mi northeast of Dare. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 97 ft, screened 77 to 97 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS and Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 4.63 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--September 1990 to current year. Unpublished records available in files of the Virginia Water Control Board.

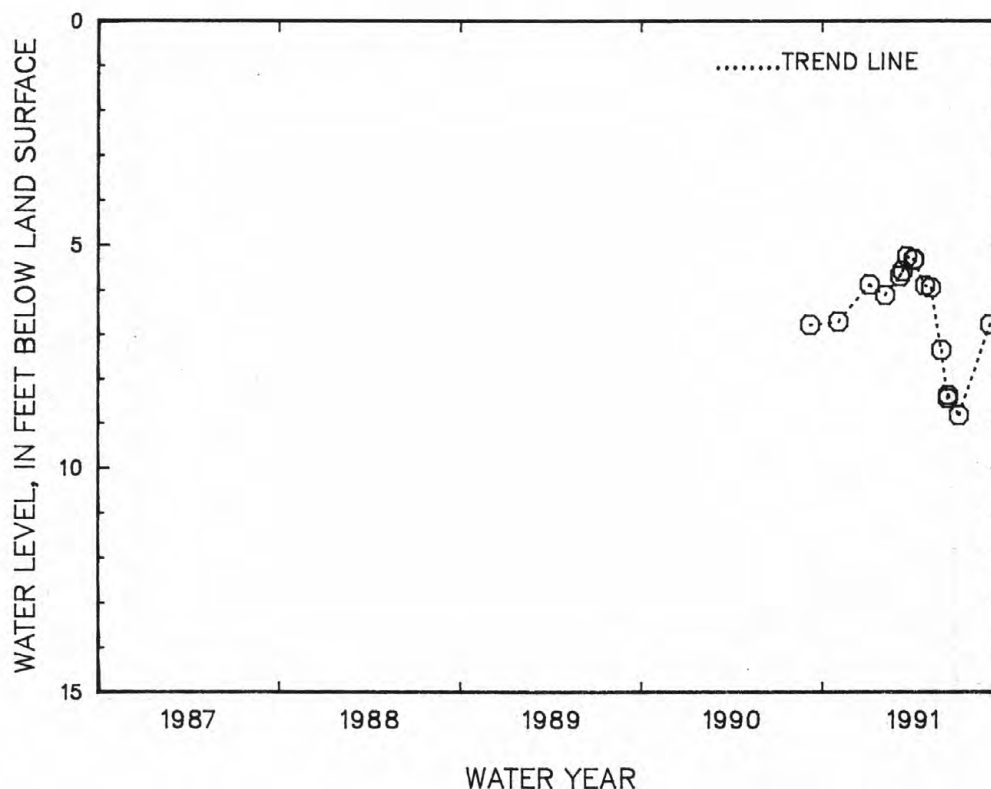
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.25 ft below land-surface datum, Mar. 20, 1991; lowest measured, 8.82 ft below land-surface datum, July 3, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, SEPTEMBER 1990

| DATE   | WATER LEVEL |
|--------|-------------|
| SEP 06 | 6.78        |

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| NOV 02          | 6.71        | MAR 06  | 5.68        | APR 02       | 5.32        | MAY 07 | 5.94         | JUN 10 | 8.44        | JUL 03 | 8.82        |
| JAN 04          | 5.87        | 11      | 5.57        | 03           | 5.31        | 28     | 7.35         | 11     | 8.37        | SEP 04 | 6.77        |
| FEB 04          | 6.11        | 20      | 5.25        | 25           | 5.89        |        |              |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 5.25        | MAR 20, 1991 | LOWEST      | 8.82   | JUL 03, 1991 |        |             |        |             |





## GROUND-WATER LEVELS

383

## YORK COUNTY

371053076252203. Local number, 59F 96 SOW 189B.

LOCATION.--Lat 37°10'53", long 76°25'22", Hydrologic Unit 02080108, 500 ft north of State Highway 617, 0.6 mi northeast of intersection of State Highways 620 and 617, and 1.3 mi northeast of Dare. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 15 ft, screened 5 to 15 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS and Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 4.77 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.6 ft above land-surface datum.

PERIOD OF RECORD.--September 1990 to current year. Unpublished records available in files of the Virginia Water Control Board.

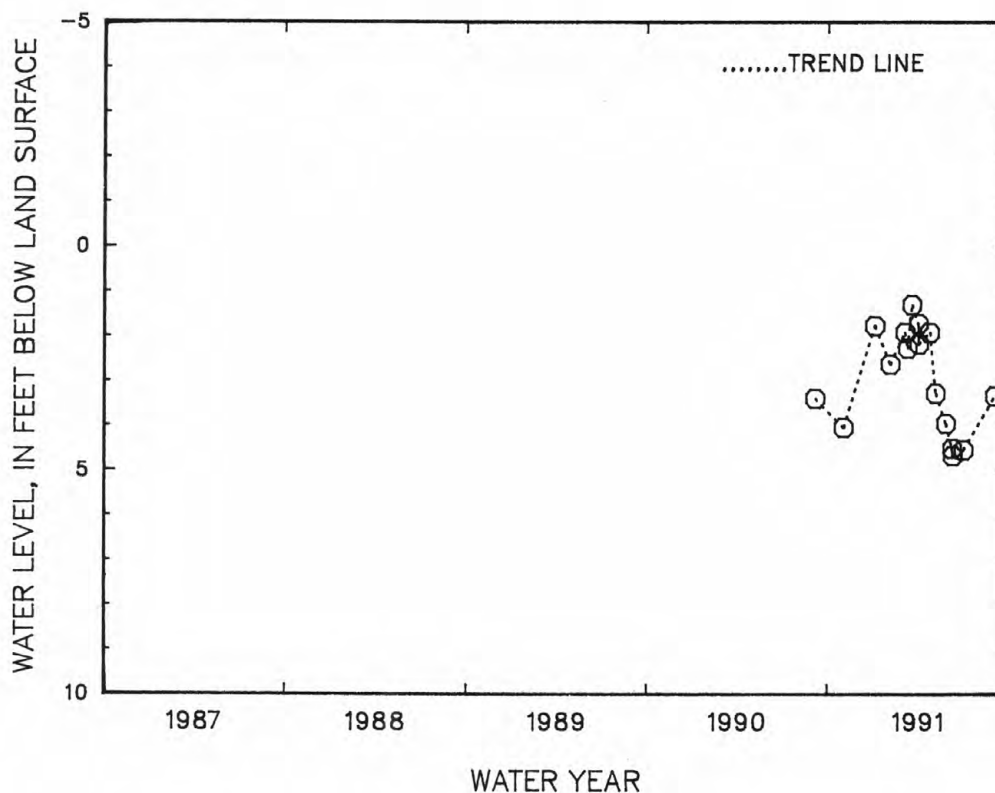
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.30 ft below land-surface datum, Mar. 20, 1991; lowest measured, 4.68 ft below land-surface datum, June 11, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, SEPTEMBER 1990

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| SEP 06 | 3.40           |

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER<br>LEVEL | DATE    | WATER<br>LEVEL | DATE         | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL |
|-----------------|----------------|---------|----------------|--------------|----------------|--------|----------------|--------|----------------|--------|----------------|
| NOV 02          | 4.05           | MAR 06  | 1.92           | APR 02       | 1.72           | MAY 07 | 3.29           | JUN 10 | 4.52           | JUL 03 | 4.55           |
| JAN 04          | 1.77           | 11      | 2.27           | 03           | 2.18           | 28     | 3.96           | JUN 11 | 4.68           | SEP 04 | 3.34           |
| FEB 04          | 2.63           | 20      | 1.30           | 25           | 1.92           |        |                |        |                |        |                |
| WATER YEAR 1991 |                | HIGHEST | 1.30           | MAR 20, 1991 | LOWEST         | 4.68   | JUN 11, 1991   |        |                |        |                |



## GROUND-WATER LEVELS

## YORK COUNTY

371314076252202. Local number, 59F 98 SOW 190A.

LOCATION.--Lat 37°13'13", long 76°25'25", Hydrologic Unit 02080107, 50 ft north of State Highway 629, 0.8 mi northeast of intersection of State Highways 173 and 629, and 1.8 mi north of Seaford. Owner: Virginia Water Control Board.

AQUIFER.--Yorktown-Eastover aquifer of Miocene-Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 100 ft, screened 80 to 100 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS and Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 3.35 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.6 ft above land-surface datum.

PERIOD OF RECORD.--September 1990 to current year. Unpublished records available in files of the Virginia Water Control Board.

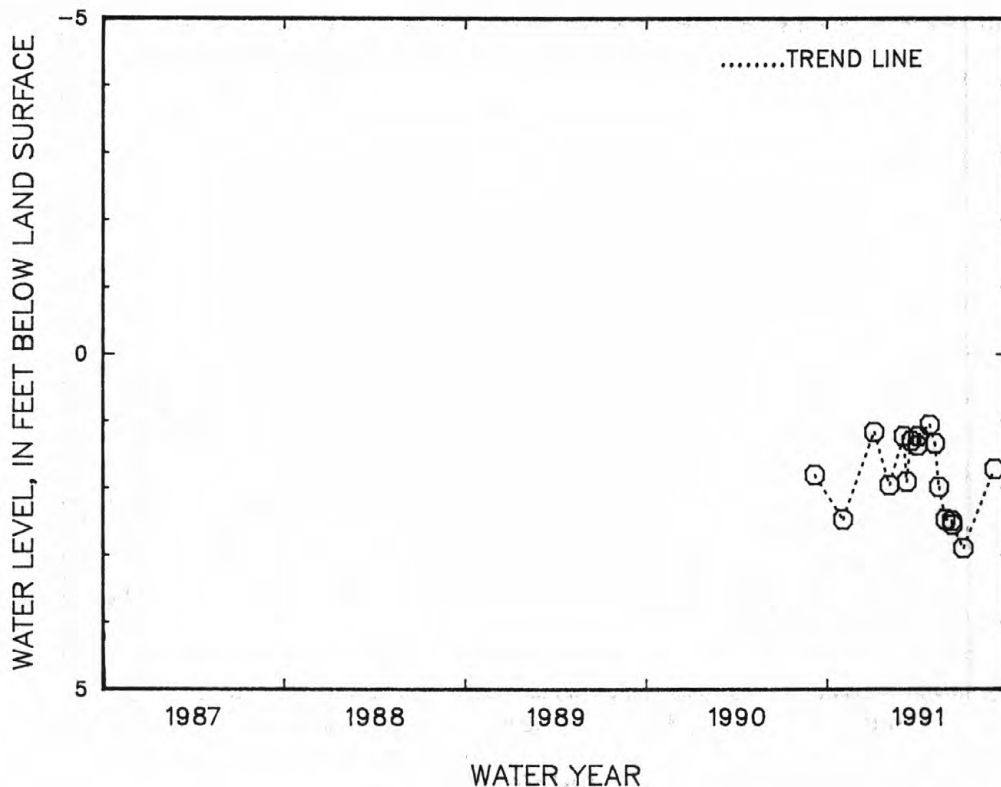
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.06 ft below land-surface datum, Apr. 26, 1991; lowest measured, 2.90 ft below land-surface datum, July 3, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, SEPTEMBER 1990

| DATE   | WATER LEVEL |
|--------|-------------|
| SEP 06 | 1.81        |

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER LEVEL | DATE    | WATER LEVEL | DATE         | WATER LEVEL | DATE   | WATER LEVEL  | DATE   | WATER LEVEL | DATE   | WATER LEVEL |
|-----------------|-------------|---------|-------------|--------------|-------------|--------|--------------|--------|-------------|--------|-------------|
| NOV 02          | 2.47        | MAR 05  | 1.23        | APR 02       | 1.37        | MAY 07 | 1.34         | JUN 10 | 2.49        | JUL 03 | 2.90        |
| JAN 04          | 1.17        | 11      | 1.91        | 03           | 1.23        | 15     | 1.99         | 11     | 2.55        | SEP 04 | 1.72        |
| FEB 04          | 1.96        | 20      | 1.30        | 26           | 1.06        | 28     | 2.47         |        |             |        |             |
| WATER YEAR 1991 |             | HIGHEST | 1.06        | APR 26, 1991 | LOWEST      | 2.90   | JUL 03, 1991 |        |             |        |             |



## GROUND-WATER LEVELS

385

## YORK COUNTY

371314076252203. Local number, 59F 99 SOW 190B.

LOCATION.--Lat 37°13'13", long 76°25'25", Hydrologic Unit 02080107, 50 ft north of State Highway 629, 0.8 mi northeast of intersection of State Highways 173 and 629, and 1.8 mi north of Seaford. Owner: Virginia Water Control Board.

AQUIFER.--Columbia aquifer of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.5 in., depth 15 ft, screened 5 to 15 ft.

INSTRUMENTATION.--Occasional measurement with chalked tape by USGS and Virginia Water Control Board personnel.

DATUM.--Elevation of land-surface datum is 3.49 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--September 1990 to current year. Unpublished records available in files of the Virginia Water Control Board.

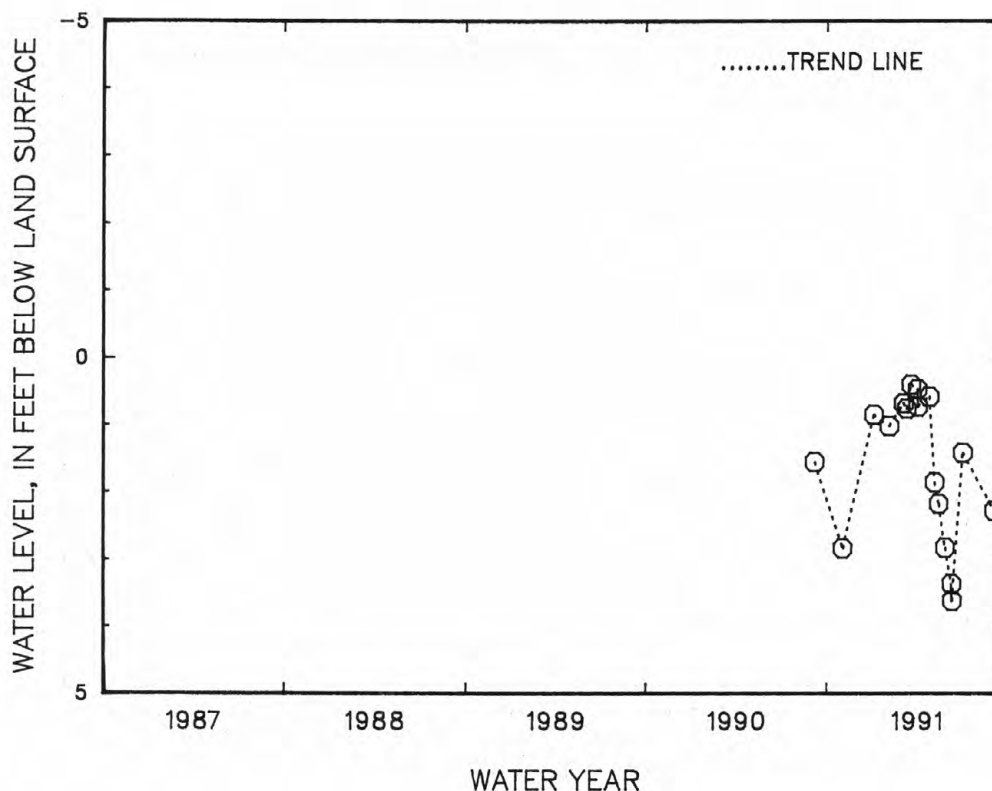
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.40 ft below land-surface datum, Mar. 20, 1991; lowest measured, 3.62 ft below land-surface datum, June 11, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, SEPTEMBER 1990

| DATE   | WATER<br>LEVEL |
|--------|----------------|
| SEP 06 | 1.56           |

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DATE            | WATER<br>LEVEL | DATE    | WATER<br>LEVEL | DATE         | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL | DATE   | WATER<br>LEVEL |
|-----------------|----------------|---------|----------------|--------------|----------------|--------|----------------|--------|----------------|--------|----------------|
| NOV 02          | 2.84           | MAR 05  | 0.68           | APR 02       | 0.47           | MAY 07 | 1.86           | JUN 10 | 3.37           | JUL 03 | 1.42           |
| JAN 04          | .85            | 11      | .76            | 03           | .73            | 15     | 2.18           | 11     | 3.62           | SEP 04 | 2.28           |
| FEB 04          | 1.02           | 20      | .40            | 26           | .58            | 28     | 2.83           |        |                |        |                |
| WATER YEAR 1991 |                | HIGHEST | 0.40           | MAR 20, 1991 | LOWEST         | 3.62   | JUN 11, 1991   |        |                |        |                |



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## GROUND-WATER-QUALITY RECORDS

REMARKS CODES.--The following remark codes may appear with the water-quality data in this section:

| PRINTED OUTPUT | REMARK                                                                                         |
|----------------|------------------------------------------------------------------------------------------------|
| 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                                                      |

NOTE.--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter ( $\mu\text{g/L}$ ) 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 ( $\text{ng/L}$ ). Present data above the  $\mu\text{g/L}$  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 will begin using new trace-element protocols in the near future.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| LOCAL IDENTIFIER      | STATION NUMBER  | GEO-LOGIC UNIT | DATE     | DEPTH OF WELL, TOTAL (FEET) (72008) | ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095) | PH (STAND-ARD UNITS) (00400) | PH LAB (STAND-ARD UNITS) (00403) |
|-----------------------|-----------------|----------------|----------|-------------------------------------|------------------------------------------------------|-----------------------------------------|---------------------------------------------|------------------------------|----------------------------------|
| PRINCE WILLIAM COUNTY |                 |                |          |                                     |                                                      |                                         |                                             |                              |                                  |
| 52S 44                | 383023077183201 | 217PTMC        | 08-12-91 | 355.00                              | 15.0                                                 | 139                                     | 130                                         | 7.4                          | 7.1                              |
| 52S 24                | 383328077203401 | 361QNTC        | 08-19-91 | 178.00                              | 188                                                  | 260                                     | 258                                         | 7.4                          | 7.5                              |
| 52S 30                | 383330077204801 | 361QNTC        | 08-19-91 | 310.00                              | 233                                                  | 20                                      | 35                                          | 5.1                          | 5.4                              |
| 52S 51                | 383332077155401 | 217PTMC        | 08-15-91 | 92.00                               | 70.0                                                 | 185                                     | 177                                         | 5.1                          | 5.2                              |
| 52S 52                | 383337077155301 | 217PTMC        | 08-21-91 | 345.00                              | 60.0                                                 | 200                                     | 202                                         | 7.1                          | 6.9                              |
| 52S 14                | 383354077220801 | 300CPMC        | 08-13-91 | 206.00                              | 192                                                  | 310                                     | 329                                         | 6.6                          | 7.1                              |
| 52S 47                | 383359077164201 | 217PTMC        | 08-15-91 | 180.00                              | 190                                                  | 20                                      | 33                                          | 5.5                          | 5.7                              |
| 52S 18                | 383500077222201 | 000MPVS        | 08-13-91 | 343.00                              | 230                                                  | 240                                     | 253                                         | 8.4                          | 8.4                              |
| 52S 49                | 383552077153601 | 217PTMC        | 08-14-91 | --                                  | 105                                                  | 130                                     | 125                                         | 5.8                          | 6.5                              |
| 51S 5                 | 383607077245301 | 000MPVS        | 08-13-91 | 280.00                              | 383                                                  | 25                                      | 33                                          | 5.4                          | 5.9                              |
| 52T 66                | 383749077174001 | 361QNTC        | 09-05-91 | 340.00                              | 215                                                  | 185                                     | 169                                         | 6.5                          | 6.5                              |
| 53T 56                | 383912077144901 | 000MPVS        | 08-14-91 | 430.00                              | 22.0                                                 | 335                                     | 341                                         | 6.8                          | 7.3                              |
| 51T117                | 384040077251901 | 000IRSV        | 08-20-91 | 430.00                              | 350                                                  | 235                                     | --                                          | 7.6                          | --                               |
| 51T118                | 384040077251902 | 000IRSV        | 02-05-91 | 325.00                              | 350                                                  | 2050                                    | --                                          | 6.8                          | --                               |
| 51T119                | 384040077251903 | 000IRSV        | 08-20-91 | 380.00                              | 350                                                  | 180                                     | 189                                         | 6.5                          | 6.8                              |
| 51T173                | 384050077255601 | 000IRSV        | 02-05-91 | 365.00                              | 250                                                  | 220                                     | --                                          | 7.4                          | --                               |
| 51T172                | 384052077255601 | 000IRSV        | 08-20-91 | 270.00                              | 255                                                  | 165                                     | 179                                         | 6.8                          | 7.0                              |
| 51T 29E               | 384111077253501 | 000IRSV        | 02-05-91 | 250.00                              | 330                                                  | 95                                      | --                                          | 6.3                          | --                               |
| 50T 79                | 384157077345701 | 230TRSC        | 09-04-91 | 197.00                              | 270                                                  | 380                                     | --                                          | 7.8                          | --                               |
| 50T 80                | 384334077302701 | 230TRSC        | 08-22-91 | 250.00                              | 170                                                  | 475                                     | 495                                         | 7.3                          | 7.4                              |
| 49T 74                | 384356077380101 | 230TRSC        | 09-05-91 | 240.00                              | 350                                                  | 300                                     | 313                                         | 7.7                          | 7.8                              |
| 51T 1A                | 384403077283801 | 231NWRK        | 08-29-91 | 385.00                              | 230                                                  | 300                                     | 322                                         | 6.8                          | 7.0                              |
| 50T 81                | 384416077300101 | 231BLBF        | 08-29-91 | --                                  | 205                                                  | 460                                     | 465                                         | 7.2                          | 7.5                              |
| 51U 4H                | 384520077263001 | 231MNSS        | 08-29-91 | 250.00                              | 210                                                  | 1500                                    | 1490                                        | 7.4                          | 7.4                              |
| 50U137                | 384621077364801 | 000IRSV        | 08-28-91 | --                                  | 316                                                  | 875                                     | 869                                         | 7.6                          | 7.6                              |
| 50U128                | 384627077373001 | 000IRSV        | 08-28-91 | 300.00                              | 332                                                  | 490                                     | 510                                         | 7.4                          | 7.6                              |
| 51U 97H               | 384632077273401 | 231MNSS        | 02-05-91 | 1000.00                             | 250                                                  | 625                                     | --                                          | 7.5                          | --                               |
| 50U135                | 384632077330501 | 230TRSC        | 08-22-91 | 200.00                              | 240                                                  | 440                                     | 438                                         | 7.3                          | 7.5                              |
| 51U104G               | 384652077280401 | 231BLBF        | 02-05-91 | 945.00                              | 230                                                  | 900                                     | --                                          | 7.3                          | --                               |
| 49U 75                | 384652077400701 | 230TRSC        | 08-28-91 | 208.00                              | 341                                                  | 1450                                    | 1520                                        | 6.5                          | 6.7                              |
| 51U103G               | 384702077283401 | 231BLBF        | 02-05-91 | 925.00                              | 210                                                  | 995                                     | --                                          | 7.4                          | --                               |
| 51U 10                | 384705077265401 | 231MNSS        | 02-04-91 | 400.00                              | 190                                                  | 495                                     | --                                          | 7.4                          | --                               |
| 50U124                | 384710077363701 | 231BLRN        | 08-21-91 | 300.00                              | 320                                                  | 475                                     | 485                                         | 7.4                          | 7.7                              |
| 50U123                | 384715077302601 | 231BLBF        | 08-21-91 | 555.00                              | 230                                                  | 1140                                    | 1180                                        | 7.1                          | 7.5                              |
| 51U 19D               | 384751077295201 | 231BLBF        | 08-21-91 | 700.00                              | 185                                                  | 875                                     | 891                                         | 7.3                          | 7.7                              |
| 49U 73                | 384848077380601 | 230TRSC        | 08-22-91 | 430.00                              | 350                                                  | 650                                     | 679                                         | 7.3                          | 7.5                              |
| 49U 74                | 385114077380501 | 230TRSC        | 09-04-91 | 200.00                              | 400                                                  | 260                                     | 265                                         | 7.8                          | 7.8                              |
| 50U133                | 385117077341801 | 230TRSC        | 09-03-91 | 355.00                              | 310                                                  | 330                                     | 344                                         | 7.7                          | 7.8                              |
| 50U136                | 385155077362801 | 230TRSC        | 09-03-91 | 125.00                              | 390                                                  | 215                                     | 217                                         | 7.5                          | 7.8                              |
| 49V 58                | 385337077402101 | 377HMPN        | 02-04-91 | 310.00                              | 700                                                  | 8                                       | --                                          | 5.3                          | --                               |
| 49V 56                | 385408077402801 | 377HMPN        | 02-04-91 | 600.00                              | 1220                                                 | 8                                       | --                                          | 5.4                          | --                               |
| 49V 53                | 385429077394201 | 231BLRN        | 08-27-91 | 805.00                              | 575                                                  | 100                                     | 97                                          | 6.8                          | 6.9                              |
| 49V 53                | 385429077394201 | 231BLRN        | 08-27-91 | 805.00                              | 575                                                  | 95                                      | 98                                          | 6.6                          | 6.8                              |
| 49V 55                | 385505077392201 | 231BLRN        | 02-04-91 | 400.00                              | 610                                                  | 20                                      | --                                          | 5.5                          | --                               |
| 49V 50                | 385506077394201 | 377HMPN        | 08-26-91 | 327.00                              | 840                                                  | 35                                      | 39                                          | 5.7                          | 5.9                              |
| 49V 49                | 385509077394201 | 377HMPN        | 08-26-91 | 305.00                              | 850                                                  | 35                                      | 40                                          | 5.9                          | 6.2                              |
| 49V 52                | 385509077395101 | 377HMPN        | 08-26-91 | 482.00                              | 1030                                                 | 70                                      | 69                                          | 6.4                          | 6.4                              |
| 49V 57                | 385534077394201 | 377HMPN        | 08-27-91 | 900.00                              | 1150                                                 | 100                                     | 109                                         | 6.6                          | 6.7                              |

## YORK COUNTY

|                 |                 |         |          |        |      |     |     |     |     |
|-----------------|-----------------|---------|----------|--------|------|-----|-----|-----|-----|
| 58F 65 SOW 191A | 371250076300502 | 112CLMB | 11-29-90 | 110.00 | 55.0 | 384 | 408 | 7.4 | 7.6 |
|-----------------|-----------------|---------|----------|--------|------|-----|-----|-----|-----|

000IRSV INTRUSIVE ROCKS  
 230TRSC TRIASSIC SYSTEM  
 231BLBF BALLS BLUFF FORMATION  
 231BLRN BULL RUN FORMATION  
 377HMPN HAMPTON SHALE OR FORMATION

000MPVS METAMORPHOSED VOLCANIC AND SEDIMENTARY ROCKS  
 217PTMC POTOMAC GROUP  
 300CPMC CHOPAWAMSIK FORMATION  
 361QNTC QUANTICO SLATE  
 112CLMB COLUMBIA-CORNWALLIS CAVE



## QUALITY OF GROUND WATER

389

## WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| LOCAL IDENTIFIER                 | TEMPERATURE WATER (DEG C) (00010) | BAROMETRIC PRESSURE (MM HG) (00025) | OXYGEN, DIS-SOLVED (MG/L) (00300) | HARDNESS TOTAL (MG/L AS CACO3) (00900) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | POTASSIUM, DIS-SOLVED (MG/L AS K) (00935) | ALKALINITY WATER FIELD TOT FET (MG/L AS CACO3) (00410) | ALKALINITY LAB (MG/L AS CACO3) (90410) |
|----------------------------------|-----------------------------------|-------------------------------------|-----------------------------------|----------------------------------------|-----------------------------------------|--------------------------------------------|-----------------------------------------|-------------------------------------------|--------------------------------------------------------|----------------------------------------|
| PRINCE WILLIAM COUNTY--Continued |                                   |                                     |                                   |                                        |                                         |                                            |                                         |                                           |                                                        |                                        |
| 52S 44                           | 17.5                              | 768                                 | 0.6                               | 34                                     | 6.4                                     | 4.4                                        | 7.4                                     | 10                                        | 59                                                     | 57                                     |
| 52S 24                           | 13.5                              | 753                                 | 0.4                               | 120                                    | 34                                      | 8.6                                        | 5.0                                     | 5.9                                       | 143                                                    | 132                                    |
| 52S 30                           | 13.5                              | 753                                 | 8.6                               | 5                                      | 0.90                                    | 0.71                                       | 2.7                                     | 1.9                                       | 29                                                     | 6.0                                    |
| 52S 51                           | 24.0                              | 762                                 | 0.4                               | 34                                     | 7.5                                     | 3.6                                        | 14                                      | 4.9                                       | 35                                                     | 23                                     |
| 52S 52                           | 15.5                              | 762                                 | 0.4                               | 4                                      | 0.80                                    | 0.53                                       | 38                                      | 3.4                                       | 75                                                     | 67                                     |
| 52S 14                           | 13.5                              | 761                                 | 0.6                               | 140                                    | 33                                      | 14                                         | 13                                      | 5.3                                       | 115                                                    | 108                                    |
| 52S 47                           | 14.0                              | 760                                 | 6.0                               | 8                                      | 2.4                                     | 0.47                                       | 1.4                                     | 2.4                                       | 13                                                     | 9.0                                    |
| 52S 18                           | 14.0                              | 760                                 | 1.1                               | 53                                     | 14                                      | 4.3                                        | 40                                      | 3.6                                       | 121                                                    | 111                                    |
| 52S 49                           | 15.5                              | 761                                 | 0.4                               | 48                                     | 8.6                                     | 6.3                                        | 3.4                                     | 5.6                                       | 64                                                     | 56                                     |
| 51S 5                            | 13.5                              | 755                                 | 6.4                               | 10                                     | 2.0                                     | 1.1                                        | 2.7                                     | 0.60                                      | 20                                                     | 12                                     |
| 52T 66                           | 19.0                              | 759                                 | 0.5                               | 72                                     | 17                                      | 7.2                                        | 1.8                                     | 1.0                                       | 98                                                     | 66                                     |
| 53T 56                           | 18.0                              | 765                                 | 0.5                               | 90                                     | 13                                      | 14                                         | 34                                      | 6.3                                       | 138                                                    | 126                                    |
| 51T117                           | 14.0                              | 751                                 | 2.8                               | --                                     | --                                      | --                                         | --                                      | --                                        | 123                                                    | --                                     |
| 51T118                           | 14.0                              | 762                                 | 8.9                               | --                                     | --                                      | --                                         | --                                      | --                                        | --                                                     | --                                     |
| 51T119                           | 15.0                              | 752                                 | 3.0                               | 78                                     | 16                                      | 9.2                                        | 9.2                                     | 1.0                                       | 85                                                     | 86                                     |
| 51T173                           | 13.0                              | 762                                 | 3.3                               | --                                     | --                                      | --                                         | --                                      | --                                        | --                                                     | --                                     |
| 51T172                           | 13.0                              | 753                                 | 5.6                               | 76                                     | 21                                      | 5.7                                        | 7.1                                     | 1.1                                       | 100                                                    | 83                                     |
| 51T 29E                          | 13.0                              | 762                                 | 7.1                               | --                                     | --                                      | --                                         | --                                      | --                                        | --                                                     | --                                     |
| 50T 79                           | 14.0                              | 757                                 | 4.4                               | --                                     | --                                      | --                                         | --                                      | --                                        | 123                                                    | --                                     |
| 50T 80                           | 14.5                              | 762                                 | 4.4                               | 230                                    | 58                                      | 20                                         | 20                                      | 0.80                                      | 228                                                    | 224                                    |
| 49T 74                           | 14.0                              | 758                                 | 2.6                               | 150                                    | 40                                      | 11                                         | 13                                      | 0.60                                      | 174                                                    | 165                                    |
| 51T 1A                           | 16.0                              | 763                                 | 3.8                               | 140                                    | 42                                      | 8.0                                        | 13                                      | 0.70                                      | 168                                                    | 148                                    |
| 50T 81                           | 16.0                              | 764                                 | 5.1                               | 230                                    | 70                                      | 12                                         | 12                                      | 0.70                                      | 257                                                    | 237                                    |
| 51U 4H                           | 14.0                              | 762                                 | 1.5                               | 700                                    | 240                                     | 25                                         | 81                                      | 3.3                                       | 147                                                    | 128                                    |
| 50U137                           | 17.0                              | 762                                 | 0.4                               | 370                                    | 120                                     | 16                                         | 47                                      | 1.0                                       | 114                                                    | 105                                    |
| 50U128                           | 17.5                              | 761                                 | 2.4                               | 220                                    | 61                                      | 15                                         | 22                                      | 0.50                                      | 132                                                    | 129                                    |
| 51U 97H                          | 15.0                              | 762                                 | 2.7                               | --                                     | --                                      | --                                         | --                                      | --                                        | --                                                     | --                                     |
| 50U135                           | 16.5                              | 762                                 | 1.4                               | 200                                    | 60                                      | 12                                         | 18                                      | 0.90                                      | 223                                                    | 221                                    |
| 51U104G                          | 15.5                              | 762                                 | 0.5                               | --                                     | --                                      | --                                         | --                                      | --                                        | --                                                     | --                                     |
| 49U 75                           | 15.0                              | 762                                 | 3.5                               | 650                                    | 150                                     | 67                                         | 23                                      | 0.40                                      | 141                                                    | 125                                    |
| 51U103G                          | 15.5                              | 762                                 | 3.3                               | --                                     | --                                      | --                                         | --                                      | --                                        | --                                                     | --                                     |
| 51U 10                           | 14.5                              | 751                                 | 2.4                               | --                                     | --                                      | --                                         | --                                      | --                                        | --                                                     | --                                     |
| 50U124                           | 14.5                              | 756                                 | 1.4                               | 210                                    | 52                                      | 20                                         | 23                                      | 0.70                                      | 199                                                    | 202                                    |
| 50U123                           | 15.5                              | 759                                 | 1.2                               | 530                                    | 150                                     | 36                                         | 63                                      | 1.2                                       | 223                                                    | 197                                    |
| 51U 19D                          | 16.5                              | 760                                 | 2.5                               | 380                                    | 86                                      | 39                                         | 52                                      | 0.80                                      | 225                                                    | 167                                    |
| 49U 73                           | 14.0                              | 759                                 | 1.3                               | 300                                    | 73                                      | 27                                         | 31                                      | 1.0                                       | 214                                                    | 206                                    |
| 49U 74                           | 14.0                              | 756                                 | 4.2                               | 120                                    | 37                                      | 6.2                                        | 9.1                                     | 0.70                                      | 136                                                    | 116                                    |
| 50U133                           | 14.5                              | 763                                 | 5.1                               | 160                                    | 48                                      | 8.6                                        | 9.9                                     | 0.70                                      | 148                                                    | 141                                    |
| 50U136                           | 14.5                              | 760                                 | 7.0                               | 97                                     | 30                                      | 5.2                                        | 7.5                                     | 0.70                                      | 98                                                     | 97                                     |
| 49V 58                           | 18.0                              | 751                                 | 6.2                               | --                                     | --                                      | --                                         | --                                      | --                                        | --                                                     | --                                     |
| 49V 56                           | 16.5                              | 751                                 | 7.1                               | --                                     | --                                      | --                                         | --                                      | --                                        | --                                                     | --                                     |
| 49V 53                           | 11.0                              | 756                                 | 7.6                               | 39                                     | 8.4                                     | 4.3                                        | 4.1                                     | 2.1                                       | 54                                                     | 48                                     |
| 49V 53                           | 13.5                              | 755                                 | 5.6                               | 40                                     | 9.4                                     | 3.9                                        | 3.7                                     | 2.0                                       | 43                                                     | 47                                     |
| 49V 55                           | 15.5                              | 751                                 | 5.6                               | --                                     | --                                      | --                                         | --                                      | --                                        | --                                                     | --                                     |
| 49V 50                           | 10.5                              | 751                                 | 6.0                               | 10                                     | 2.1                                     | 1.1                                        | 2.2                                     | 1.8                                       | 13                                                     | 12                                     |
| 49V 49                           | 13.0                              | 750                                 | 8.0                               | 10                                     | 2.3                                     | 1.1                                        | 2.2                                     | 1.9                                       | 13                                                     | 13                                     |
| 49V 52                           | 13.0                              | 747                                 | 4.0                               | 15                                     | 3.5                                     | 1.6                                        | 2.3                                     | 2.0                                       | 35                                                     | 28                                     |
| 49V 57                           | 13.0                              | 741                                 | 6.4                               | 49                                     | 15                                      | 2.8                                        | 3.1                                     | 1.3                                       | 59                                                     | 53                                     |

## YORK COUNTY--Continued

|                 |      |    |    |     |    |     |     |     |     |     |
|-----------------|------|----|----|-----|----|-----|-----|-----|-----|-----|
| 58F 65 SOW 191A | 13.0 | -- | -- | 200 | 75 | 2.3 | 8.3 | 1.4 | 196 | 191 |
|-----------------|------|----|----|-----|----|-----|-----|-----|-----|-----|

000IRSV INTRUSIVE ROCKS  
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 112CLMB COLUMBIA-CORNWALLIS CAVE

## QUALITY OF GROUND WATER

## WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| LOCAL IDENTIFIER                 | SULFATE DIS-SOLVED (MG/L AS SO <sub>4</sub> ) (00945) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | FLUORIDE, DIS-SOLVED (MG/L AS F) (00950) | SILICA, DIS-SOLVED (MG/L AS SiO <sub>2</sub> ) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300) | SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303) | NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613) | NITROGEN, NO <sub>2</sub> +NO <sub>3</sub> DIS-SOLVED (MG/L AS N) (00631) | NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608) |
|----------------------------------|-------------------------------------------------------|-------------------------------------------|------------------------------------------|--------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------|---------------------------------------------|--------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------|
| PRINCE WILLIAM COUNTY--Continued |                                                       |                                           |                                          |                                                        |                                                         |                                                        |                                             |                                                  |                                                                           |                                                  |
| 52S 44                           | 5.5                                                   | 0.70                                      | 0.20                                     | 34                                                     | --                                                      | 110                                                    | 0.15                                        | <0.010                                           | <0.050                                                                    | 0.150                                            |
| 52S 24                           | 4.5                                                   | 2.9                                       | 0.10                                     | 50                                                     | --                                                      | 198                                                    | 0.27                                        | <0.010                                           | <0.050                                                                    | 0.020                                            |
| 52S 30                           | 2.0                                                   | 4.1                                       | <0.10                                    | 16                                                     | --                                                      | 48                                                     | 0.06                                        | <0.010                                           | 0.390                                                                     | <0.010                                           |
| 52S 51                           | 6.7                                                   | 30                                        | <0.10                                    | 40                                                     | --                                                      | 132                                                    | 0.18                                        | <0.010                                           | <0.050                                                                    | <0.010                                           |
| 52S 52                           | 12                                                    | 14                                        | 0.30                                     | 31                                                     | --                                                      | 148                                                    | 0.20                                        | <0.010                                           | <0.050                                                                    | 0.080                                            |
| 52S 14                           | 47                                                    | 12                                        | 0.10                                     | 34                                                     | --                                                      | 228                                                    | 0.31                                        | <0.010                                           | <0.050                                                                    | <0.010                                           |
| 52S 47                           | 0.60                                                  | 3.0                                       | 0.10                                     | 36                                                     | --                                                      | 56                                                     | 0.08                                        | <0.010                                           | 0.160                                                                     | <0.010                                           |
| 52S 18                           | 14                                                    | 5.2                                       | 0.60                                     | 19                                                     | --                                                      | 174                                                    | 0.24                                        | <0.010                                           | <0.050                                                                    | 0.150                                            |
| 52S 49                           | 3.7                                                   | 3.2                                       | 0.20                                     | 49                                                     | --                                                      | 122                                                    | 0.17                                        | <0.010                                           | <0.050                                                                    | 0.050                                            |
| 51S 5                            | 0.90                                                  | 0.70                                      | 0.10                                     | 15                                                     | --                                                      | 35                                                     | 0.05                                        | <0.010                                           | <0.050                                                                    | <0.010                                           |
| 52T 66                           | 11                                                    | 2.3                                       | 0.20                                     | 13                                                     | --                                                      | 126                                                    | 0.17                                        | 0.020                                            | <0.050                                                                    | 0.050                                            |
| 53T 56                           | 3.4                                                   | 31                                        | 0.20                                     | 22                                                     | --                                                      | 209                                                    | 0.28                                        | <0.010                                           | <0.050                                                                    | 0.190                                            |
| 51T117                           | --                                                    | --                                        | --                                       | --                                                     | --                                                      | --                                                     | --                                          | <0.010                                           | 0.065                                                                     | <0.010                                           |
| 51T118                           | --                                                    | --                                        | --                                       | --                                                     | --                                                      | --                                                     | --                                          | --                                               | --                                                                        | --                                               |
| 51T119                           | 7.9                                                   | 4.7                                       | <0.10                                    | 27                                                     | --                                                      | 127                                                    | 0.17                                        | <0.010                                           | 0.130                                                                     | <0.010                                           |
| 51T173                           | --                                                    | --                                        | --                                       | --                                                     | --                                                      | --                                                     | --                                          | --                                               | --                                                                        | --                                               |
| 51T172                           | 1.5                                                   | 1.5                                       | <0.10                                    | 25                                                     | --                                                      | 124                                                    | 0.17                                        | <0.010                                           | 0.100                                                                     | <0.010                                           |
| 51T 29E                          | --                                                    | --                                        | --                                       | --                                                     | --                                                      | --                                                     | --                                          | --                                               | --                                                                        | --                                               |
| 50T 79                           | --                                                    | --                                        | --                                       | --                                                     | --                                                      | --                                                     | --                                          | <0.010                                           | 1.80                                                                      | <0.010                                           |
| 50T 80                           | 20                                                    | 9.5                                       | 0.10                                     | 29                                                     | --                                                      | 318                                                    | 0.43                                        | <0.010                                           | 5.20                                                                      | <0.010                                           |
| 49T 74                           | 1.9                                                   | 5.0                                       | 0.10                                     | 26                                                     | --                                                      | 203                                                    | 0.28                                        | <0.010                                           | 0.079                                                                     | 0.010                                            |
| 51T 1A                           | 7.8                                                   | 11                                        | 0.10                                     | 51                                                     | --                                                      | 240                                                    | 0.33                                        | <0.010                                           | 0.800                                                                     | 0.010                                            |
| 50T 81                           | 5.9                                                   | 11                                        | 0.10                                     | 26                                                     | --                                                      | 297                                                    | 0.40                                        | <0.010                                           | 0.810                                                                     | 0.010                                            |
| 51U 4H                           | 800                                                   | 13                                        | 0.40                                     | 25                                                     | --                                                      | 1280                                                   | 1.74                                        | <0.010                                           | <0.050                                                                    | 0.030                                            |
| 50U137                           | 370                                                   | 21                                        | 0.30                                     | 21                                                     | --                                                      | 667                                                    | 0.91                                        | --                                               | --                                                                        | --                                               |
| 50U128                           | 130                                                   | 13                                        | 0.20                                     | 27                                                     | --                                                      | 351                                                    | 0.48                                        | <0.010                                           | 0.200                                                                     | 0.020                                            |
| 51U 97H                          | --                                                    | --                                        | --                                       | --                                                     | --                                                      | --                                                     | --                                          | --                                               | --                                                                        | --                                               |
| 50U135                           | 14                                                    | 7.2                                       | 0.20                                     | 25                                                     | --                                                      | 273                                                    | 0.37                                        | <0.010                                           | 0.320                                                                     | <0.010                                           |
| 51U104G                          | --                                                    | --                                        | --                                       | --                                                     | --                                                      | --                                                     | --                                          | --                                               | --                                                                        | --                                               |
| 49U 75                           | 53                                                    | 370                                       | 0.10                                     | 56                                                     | --                                                      | 811                                                    | 1.10                                        | <0.010                                           | 1.40                                                                      | 0.010                                            |
| 51U103G                          | --                                                    | --                                        | --                                       | --                                                     | --                                                      | --                                                     | --                                          | --                                               | --                                                                        | --                                               |
| 51U 10                           | --                                                    | --                                        | --                                       | --                                                     | --                                                      | --                                                     | --                                          | --                                               | --                                                                        | --                                               |
| 50U124                           | 13                                                    | 32                                        | 0.20                                     | 30                                                     | --                                                      | 298                                                    | 0.41                                        | <0.010                                           | 1.50                                                                      | <0.010                                           |
| 50U123                           | 450                                                   | 32                                        | 0.20                                     | 26                                                     | --                                                      | 900                                                    | 1.22                                        | <0.010                                           | 0.960                                                                     | <0.010                                           |
| 51U 19D                          | 300                                                   | 20                                        | 0.20                                     | 28                                                     | --                                                      | 667                                                    | 0.91                                        | <0.010                                           | 0.500                                                                     | <0.010                                           |
| 49U 73                           | 130                                                   | 28                                        | 0.10                                     | 24                                                     | --                                                      | 445                                                    | 0.61                                        | <0.010                                           | 0.300                                                                     | <0.010                                           |
| 49U 74                           | 10                                                    | 2.7                                       | <0.10                                    | 21                                                     | --                                                      | 172                                                    | 0.23                                        | <0.010                                           | 0.860                                                                     | <0.010                                           |
| 50U133                           | 23                                                    | 17                                        | <0.10                                    | 24                                                     | --                                                      | 220                                                    | 0.30                                        | --                                               | --                                                                        | --                                               |
| 50U136                           | 3.2                                                   | 3.6                                       | <0.10                                    | 26                                                     | --                                                      | 135                                                    | 0.18                                        | --                                               | --                                                                        | --                                               |
| 49V 58                           | --                                                    | --                                        | --                                       | --                                                     | --                                                      | --                                                     | --                                          | --                                               | --                                                                        | --                                               |
| 49V 56                           | --                                                    | --                                        | --                                       | --                                                     | --                                                      | --                                                     | --                                          | --                                               | --                                                                        | --                                               |
| 49V 53                           | 1.7                                                   | 0.60                                      | 0.10                                     | 19                                                     | --                                                      | 73                                                     | 0.10                                        | 0.010                                            | <0.050                                                                    | 0.020                                            |
| 49V 53                           | 2.5                                                   | 0.70                                      | 0.10                                     | 15                                                     | --                                                      | 63                                                     | 0.09                                        | 0.010                                            | <0.050                                                                    | <0.010                                           |
| 49V 55                           | --                                                    | --                                        | --                                       | --                                                     | --                                                      | --                                                     | --                                          | --                                               | --                                                                        | --                                               |
| 49V 50                           | 2.4                                                   | 2.7                                       | <0.10                                    | 10                                                     | --                                                      | 32                                                     | 0.04                                        | <0.010                                           | 0.380                                                                     | <0.010                                           |
| 49V 49                           | 1.4                                                   | 3.0                                       | <0.10                                    | 12                                                     | --                                                      | 33                                                     | 0.05                                        | <0.010                                           | 0.280                                                                     | 0.050                                            |
| 49V 52                           | 3.4                                                   | 2.8                                       | 0.20                                     | 12                                                     | --                                                      | 58                                                     | 0.08                                        | <0.010                                           | 0.470                                                                     | 0.060                                            |
| 49V 57                           | 1.9                                                   | 0.90                                      | <0.10                                    | 13                                                     | --                                                      | 75                                                     | 0.10                                        | 0.010                                            | 0.240                                                                     | <0.010                                           |

## YORK COUNTY--Continued

|                 |    |     |      |    |     |     |      |        |        |       |
|-----------------|----|-----|------|----|-----|-----|------|--------|--------|-------|
| 58F 65 SOW 191A | 14 | 8.3 | 0.30 | -- | 235 | 228 | 0.32 | <0.010 | <0.100 | 0.140 |
|-----------------|----|-----|------|----|-----|-----|------|--------|--------|-------|

000IRSV INTRUSIVE ROCKS  
 230TRSC TRIASSIC SYSTEM  
 231BLBF BALLS BLUFF FORMATION  
 231BLRN BULL RUN FORMATION  
 377HMFN HAMPTON SHALE OR FORMATION

000MPYS METAMORPHOSED VOLCANIC AND SEDIMENTARY ROCKS  
 217PTMC POTOMAC GROUP  
 300CPMC CHOPAWAMSI FORMATION  
 361QNTC QUANTICO SLATE  
 112CLMB COLUMBIA-CORNWALLIS CAVE

QUALITY OF GROUND WATER

391

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| LOCAL<br>IDENTIFIER              | NITRO-<br>GEN, AM-<br>MONIA +<br>ORGANIC<br>TOTAL<br>(MG/L<br>AS N)<br>(00625) | NITRO-<br>GEN, AM-<br>MONIA +<br>ORGANIC<br>DIS.<br>(MG/L<br>AS N)<br>(00623) | PHOS-<br>PHORUS<br>TOTAL<br>(MG/L<br>AS P)<br>(00665) | PHOS-<br>PHORUS<br>DIS-<br>SOLVED<br>(MG/L<br>AS P)<br>(00666) | PHOS-<br>PHORUS<br>ORTHO,<br>DIS-<br>SOLVED<br>(MG/L<br>AS P)<br>(00671) | ALUM-<br>INUM,<br>DIS-<br>SOLVED<br>(UG/L<br>AS AL)<br>(01106) | ARSENIC<br>DIS-<br>SOLVED<br>(UG/L<br>AS AS)<br>(01000) | BARIUM,<br>DIS-<br>SOLVED<br>(UG/L<br>AS BA)<br>(01005) | BERYL-<br>LIUM,<br>DIS-<br>SOLVED<br>(UG/L<br>AS BE)<br>(01010) | CADMIUM<br>DIS-<br>SOLVED<br>(UG/L<br>AS CD)<br>(01025) |
|----------------------------------|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------|
| PRINCE WILLIAM COUNTY--Continued |                                                                                |                                                                               |                                                       |                                                                |                                                                          |                                                                |                                                         |                                                         |                                                                 |                                                         |
| 52S 44                           | --                                                                             | 0.20                                                                          | --                                                    | <0.160                                                         | <0.010                                                                   | <10                                                            | <1                                                      | 52                                                      | <0.5                                                            | 2.0                                                     |
| 52S 24                           | --                                                                             | <0.20                                                                         | --                                                    | 0.120                                                          | 0.110                                                                    | <10                                                            | <1                                                      | 120                                                     | <0.5                                                            | <1.0                                                    |
| 52S 30                           | --                                                                             | 0.20                                                                          | --                                                    | <0.010                                                         | 0.010                                                                    | 20                                                             | <1                                                      | 43                                                      | <0.5                                                            | <1.0                                                    |
| 52S 51                           | --                                                                             | <0.20                                                                         | --                                                    | 0.020                                                          | 0.010                                                                    | <10                                                            | <1                                                      | 45                                                      | 0.6                                                             | <1.0                                                    |
| 52S 52                           | --                                                                             | <0.20                                                                         | --                                                    | 0.630                                                          | 0.630                                                                    | 20                                                             | <1                                                      | 5                                                       | <0.5                                                            | <1.0                                                    |
| 52S 14                           | --                                                                             | 0.60                                                                          | --                                                    | 0.020                                                          | 0.020                                                                    | <20                                                            | <1                                                      | 61                                                      | <0.5                                                            | <1.0                                                    |
| 52S 47                           | --                                                                             | 0.60                                                                          | --                                                    | 0.300                                                          | 0.310                                                                    | <10                                                            | <1                                                      | 8                                                       | <0.5                                                            | <1.0                                                    |
| 52S 18                           | --                                                                             | 0.20                                                                          | --                                                    | 0.160                                                          | 0.010                                                                    | <10                                                            | <1                                                      | 9                                                       | 1                                                               | <1.0                                                    |
| 52S 49                           | --                                                                             | <0.20                                                                         | --                                                    | 0.490                                                          | 0.430                                                                    | <10                                                            | <1                                                      | 59                                                      | <0.5                                                            | <1.0                                                    |
| 51S 5                            | --                                                                             | <0.60                                                                         | --                                                    | 0.020                                                          | 0.020                                                                    | <10                                                            | <1                                                      | 61                                                      | <0.5                                                            | <1.0                                                    |
| 52T 66                           | --                                                                             | <0.20                                                                         | --                                                    | 0.530                                                          | 0.120                                                                    | <10                                                            | 2                                                       | 21                                                      | 0.7                                                             | 3.0                                                     |
| 53T 56                           | --                                                                             | 0.30                                                                          | --                                                    | 0.050                                                          | 0.050                                                                    | <10                                                            | <1                                                      | 79                                                      | <0.5                                                            | <1.0                                                    |
| 51T117                           | --                                                                             | <0.20                                                                         | --                                                    | <0.010                                                         | <0.010                                                                   | --                                                             | --                                                      | --                                                      | --                                                              | --                                                      |
| 51T118                           | --                                                                             | --                                                                            | --                                                    | --                                                             | --                                                                       | --                                                             | --                                                      | --                                                      | --                                                              | --                                                      |
| 51T119                           | --                                                                             | <0.20                                                                         | --                                                    | 0.030                                                          | 0.020                                                                    | <10                                                            | <1                                                      | 27                                                      | 0.6                                                             | <1.0                                                    |
| 51T173                           | --                                                                             | --                                                                            | --                                                    | --                                                             | --                                                                       | --                                                             | --                                                      | --                                                      | --                                                              | --                                                      |
| 51T172                           | --                                                                             | <0.20                                                                         | --                                                    | 0.030                                                          | 0.020                                                                    | <10                                                            | <1                                                      | 7                                                       | <0.5                                                            | <1.0                                                    |
| 51T 29E                          | --                                                                             | --                                                                            | --                                                    | --                                                             | --                                                                       | --                                                             | --                                                      | --                                                      | --                                                              | --                                                      |
| 50T 79                           | --                                                                             | <0.20                                                                         | --                                                    | 0.010                                                          | 0.010                                                                    | --                                                             | --                                                      | --                                                      | --                                                              | --                                                      |
| 50T 80                           | --                                                                             | 0.20                                                                          | --                                                    | <0.010                                                         | <0.010                                                                   | <10                                                            | 2                                                       | 110                                                     | 0.8                                                             | <1.0                                                    |
| 49T 74                           | --                                                                             | <0.20                                                                         | --                                                    | 0.030                                                          | <0.010                                                                   | <10                                                            | 3                                                       | 250                                                     | <0.5                                                            | <1.0                                                    |
| 51T 1A                           | --                                                                             | <0.20                                                                         | --                                                    | 0.220                                                          | 0.140                                                                    | <10                                                            | <1                                                      | 410                                                     | <0.5                                                            | <1.0                                                    |
| 50T 81                           | --                                                                             | <0.20                                                                         | --                                                    | 0.030                                                          | <0.010                                                                   | <10                                                            | <1                                                      | 850                                                     | <0.5                                                            | 1.0                                                     |
| 51U 4H                           | --                                                                             | <0.20                                                                         | --                                                    | 0.010                                                          | <0.010                                                                   | <10                                                            | <1                                                      | 10                                                      | <0.5                                                            | <1.0                                                    |
| 50U137                           | --                                                                             | --                                                                            | --                                                    | --                                                             | --                                                                       | <10                                                            | 2                                                       | 24                                                      | <0.5                                                            | <1.0                                                    |
| 50U128                           | --                                                                             | 0.20                                                                          | --                                                    | 0.020                                                          | 0.040                                                                    | <10                                                            | 2                                                       | 97                                                      | <0.5                                                            | <1.0                                                    |
| 51U 97H                          | --                                                                             | --                                                                            | --                                                    | --                                                             | --                                                                       | --                                                             | --                                                      | --                                                      | --                                                              | --                                                      |
| 50U135                           | --                                                                             | <0.20                                                                         | --                                                    | 0.010                                                          | <0.010                                                                   | <10                                                            | 4                                                       | 130                                                     | 0.8                                                             | <1.0                                                    |
| 51U104G                          | --                                                                             | --                                                                            | --                                                    | --                                                             | --                                                                       | --                                                             | --                                                      | --                                                      | --                                                              | --                                                      |
| 49U 75                           | --                                                                             | 0.40                                                                          | --                                                    | 0.010                                                          | <0.010                                                                   | <10                                                            | <1                                                      | 6                                                       | 0.5                                                             | <1.0                                                    |
| 51U103G                          | --                                                                             | --                                                                            | --                                                    | --                                                             | --                                                                       | --                                                             | --                                                      | --                                                      | --                                                              | --                                                      |
| 51U 10                           | --                                                                             | --                                                                            | --                                                    | --                                                             | --                                                                       | --                                                             | --                                                      | --                                                      | --                                                              | --                                                      |
| 50U124                           | --                                                                             | 0.30                                                                          | --                                                    | 0.020                                                          | <0.010                                                                   | <10                                                            | <1                                                      | 730                                                     | 0.6                                                             | <1.0                                                    |
| 50U123                           | --                                                                             | <0.20                                                                         | --                                                    | <0.010                                                         | <0.010                                                                   | <10                                                            | 2                                                       | 45                                                      | 0.6                                                             | <1.0                                                    |
| 51U 19D                          | --                                                                             | <0.20                                                                         | --                                                    | <0.010                                                         | <0.010                                                                   | <10                                                            | 5                                                       | 70                                                      | 0.6                                                             | <1.0                                                    |
| 49U 73                           | --                                                                             | <0.20                                                                         | --                                                    | 0.010                                                          | <0.010                                                                   | <10                                                            | 1                                                       | 280                                                     | 0.8                                                             | <1.0                                                    |
| 49U 74                           | --                                                                             | <0.20                                                                         | --                                                    | 0.030                                                          | 0.030                                                                    | <10                                                            | <1                                                      | 150                                                     | <0.5                                                            | <1.0                                                    |
| 50U133                           | --                                                                             | --                                                                            | --                                                    | --                                                             | --                                                                       | <10                                                            | 1                                                       | 230                                                     | <0.5                                                            | 3.0                                                     |
| 50U136                           | --                                                                             | --                                                                            | --                                                    | --                                                             | --                                                                       | 20                                                             | 1                                                       | 23                                                      | <0.5                                                            | <1.0                                                    |
| 49V 58                           | --                                                                             | --                                                                            | --                                                    | --                                                             | --                                                                       | --                                                             | --                                                      | --                                                      | --                                                              | --                                                      |
| 49V 56                           | --                                                                             | --                                                                            | --                                                    | --                                                             | --                                                                       | --                                                             | --                                                      | --                                                      | --                                                              | --                                                      |
| 49V 53                           | --                                                                             | <0.20                                                                         | --                                                    | 0.070                                                          | 0.060                                                                    | <10                                                            | <1                                                      | 15                                                      | <0.5                                                            | <1.0                                                    |
| 49V 53                           | --                                                                             | <0.20                                                                         | --                                                    | 0.070                                                          | 0.070                                                                    | <10                                                            | <1                                                      | 29                                                      | <0.5                                                            | <1.0                                                    |
| 49V 55                           | --                                                                             | --                                                                            | --                                                    | --                                                             | --                                                                       | --                                                             | --                                                      | --                                                      | --                                                              | --                                                      |
| 49V 50                           | --                                                                             | <0.20                                                                         | --                                                    | 0.080                                                          | 0.050                                                                    | <10                                                            | <1                                                      | 25                                                      | 1                                                               | <1.0                                                    |
| 49V 49                           | --                                                                             | <0.20                                                                         | --                                                    | 0.140                                                          | 0.100                                                                    | <10                                                            | <1                                                      | 24                                                      | 1                                                               | <1.0                                                    |
| 49V 52                           | --                                                                             | <0.20                                                                         | --                                                    | 0.020                                                          | 0.010                                                                    | <10                                                            | <1                                                      | 21                                                      | 0.7                                                             | <1.0                                                    |
| 49V 57                           | --                                                                             | <0.20                                                                         | --                                                    | 0.020                                                          | 0.020                                                                    | <10                                                            | <1                                                      | 41                                                      | <0.5                                                            | <1.0                                                    |

YORK COUNTY--Continued

|                 |                            |      |       |    |       |         |                                              |    |    |    |
|-----------------|----------------------------|------|-------|----|-------|---------|----------------------------------------------|----|----|----|
| 58F 65 SOW 191A | <0.20                      | 0.20 | 0.060 | -- | 0.020 | --      | --                                           | -- | -- | -- |
| 000IRSV         | INTRUSIVE ROCKS            |      |       |    |       | 000MPYS | METAMORPHOSED VOLCANIC AND SEDIMENTARY ROCKS |    |    |    |
| 230TRSC         | TRIASSIC SYSTEM            |      |       |    |       | 217PTMC | POTOMAC GROUP                                |    |    |    |
| 231BLBF         | BALLS BLUFF FORMATION      |      |       |    |       | 300CPMC | CHOPAWAMSI FORMATION                         |    |    |    |
| 231BLRN         | BULL RUN FORMATION         |      |       |    |       | 361QNTC | QUANTICO SLATE                               |    |    |    |
| 377HMPN         | HAMPTON SHALE OR FORMATION |      |       |    |       | 112CLMB | COLUMBIA-CORNWALLIS CAVE                     |    |    |    |

## QUALITY OF GROUND WATER

## WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| LOCAL<br>IDENTIFIER              | CHROMIUM,<br>DIS-<br>SOLVED<br>(UG/L<br>AS CR)<br>(01030) | COBALT,<br>DIS-<br>SOLVED<br>(UG/L<br>AS CO)<br>(01035) | COPPER,<br>DIS-<br>SOLVED<br>(UG/L<br>AS CU)<br>(01040) | IRON,<br>TOTAL<br>RECOV-<br>ERABLE<br>(UG/L<br>AS FE)<br>(01045) | IRON,<br>DIS-<br>SOLVED<br>(UG/L<br>AS FE)<br>(01046) | LEAD,<br>DIS-<br>SOLVED<br>(UG/L<br>AS PB)<br>(01049) | LITHIUM<br>DIS-<br>SOLVED<br>(UG/L<br>AS LI)<br>(01130) | MANGANESE,<br>TOTAL<br>RECOV-<br>ERABLE<br>(UG/L<br>AS MN)<br>(01055) | MANGANESE,<br>DIS-<br>SOLVED<br>(UG/L<br>AS MN)<br>(01056) | MERCURY<br>DIS-<br>SOLVED<br>(UG/L<br>AS HG)<br>(71890) |
|----------------------------------|-----------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------|
| PRINCE WILLIAM COUNTY--Continued |                                                           |                                                         |                                                         |                                                                  |                                                       |                                                       |                                                         |                                                                       |                                                            |                                                         |
| 52S 44                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 5800                                                  | <10                                                   | 6                                                       | --                                                                    | 150                                                        | <0.1                                                    |
| 52S 24                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 520                                                   | <10                                                   | 11                                                      | --                                                                    | 200                                                        | <0.1                                                    |
| 52S 30                           | <5                                                        | <3                                                      | 10                                                      | --                                                               | 25                                                    | <10                                                   | <4                                                      | --                                                                    | 9                                                          | <0.1                                                    |
| 52S 51                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 4300                                                  | <10                                                   | 9                                                       | --                                                                    | 130                                                        | <0.1                                                    |
| 52S 52                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 440                                                   | <10                                                   | <4                                                      | --                                                                    | 24                                                         | <0.1                                                    |
| 52S 14                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 39                                                    | <10                                                   | <4                                                      | --                                                                    | 100                                                        | <0.1                                                    |
| 52S 47                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 8                                                     | <10                                                   | <4                                                      | --                                                                    | 3                                                          | <0.1                                                    |
| 52S 18                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 7                                                     | <10                                                   | 8                                                       | --                                                                    | 5                                                          | <0.1                                                    |
| 52S 49                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 2200                                                  | <10                                                   | 8                                                       | --                                                                    | 110                                                        | <0.1                                                    |
| 51S 5                            | <5                                                        | <3                                                      | <10                                                     | --                                                               | 39                                                    | <10                                                   | <4                                                      | --                                                                    | 100                                                        | <0.1                                                    |
| 52T 66                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 13000                                                 | <10                                                   | 6                                                       | --                                                                    | 420                                                        | <0.1                                                    |
| 53T 56                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 1900                                                  | <10                                                   | 6                                                       | --                                                                    | 120                                                        | <0.1                                                    |
| 51T117                           | --                                                        | --                                                      | --                                                      | --                                                               | --                                                    | --                                                    | --                                                      | --                                                                    | --                                                         | --                                                      |
| 51T118                           | --                                                        | --                                                      | --                                                      | --                                                               | --                                                    | --                                                    | --                                                      | --                                                                    | --                                                         | --                                                      |
| 51T119                           | <5                                                        | <3                                                      | 20                                                      | --                                                               | 7                                                     | <10                                                   | <4                                                      | --                                                                    | 110                                                        | <0.1                                                    |
| 51T173                           | --                                                        | --                                                      | --                                                      | --                                                               | --                                                    | --                                                    | --                                                      | --                                                                    | --                                                         | --                                                      |
| 51T172                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 15                                                    | <10                                                   | <4                                                      | --                                                                    | 2                                                          | <0.1                                                    |
| 51T 29E                          | --                                                        | --                                                      | --                                                      | --                                                               | --                                                    | --                                                    | --                                                      | --                                                                    | --                                                         | --                                                      |
| 50T 79                           | --                                                        | --                                                      | --                                                      | --                                                               | --                                                    | --                                                    | --                                                      | --                                                                    | --                                                         | --                                                      |
| 50T 80                           | <5                                                        | <3                                                      | 20                                                      | --                                                               | 8                                                     | <10                                                   | 27                                                      | --                                                                    | <1                                                         | <0.1                                                    |
| 49T 74                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | <3                                                    | <10                                                   | 15                                                      | --                                                                    | <1                                                         | <0.1                                                    |
| 51T 1A                           | <5                                                        | <3                                                      | 40                                                      | --                                                               | 110                                                   | <10                                                   | 7                                                       | --                                                                    | 28                                                         | <0.1                                                    |
| 50T 81                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 6                                                     | <10                                                   | 19                                                      | --                                                                    | <1                                                         | <0.1                                                    |
| 51U 4H                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 490                                                   | <10                                                   | 34                                                      | --                                                                    | 92                                                         | <0.1                                                    |
| 50U137                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 55                                                    | 10                                                    | 41                                                      | --                                                                    | 20                                                         | <0.1                                                    |
| 50U128                           | <5                                                        | <3                                                      | 10                                                      | --                                                               | 6                                                     | 10                                                    | 17                                                      | --                                                                    | 3                                                          | <0.1                                                    |
| 51U 97H                          | --                                                        | --                                                      | --                                                      | --                                                               | --                                                    | --                                                    | --                                                      | --                                                                    | --                                                         | --                                                      |
| 50U135                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 8                                                     | <10                                                   | 24                                                      | --                                                                    | <1                                                         | <0.1                                                    |
| 51U104G                          | --                                                        | --                                                      | --                                                      | --                                                               | --                                                    | --                                                    | --                                                      | --                                                                    | --                                                         | --                                                      |
| 49U 75                           | <5                                                        | <3                                                      | 60                                                      | --                                                               | 21                                                    | 10                                                    | 9                                                       | --                                                                    | 2                                                          | <0.1                                                    |
| 51U103G                          | --                                                        | --                                                      | --                                                      | --                                                               | --                                                    | --                                                    | --                                                      | --                                                                    | --                                                         | --                                                      |
| 51U 10                           | --                                                        | --                                                      | --                                                      | --                                                               | --                                                    | --                                                    | --                                                      | --                                                                    | --                                                         | --                                                      |
| 50U124                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 14                                                    | <10                                                   | 25                                                      | --                                                                    | 8                                                          | <0.1                                                    |
| 50U123                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 8                                                     | <10                                                   | 45                                                      | --                                                                    | 16                                                         | <0.1                                                    |
| 51U 19D                          | <5                                                        | <3                                                      | <10                                                     | --                                                               | 7                                                     | <10                                                   | 37                                                      | --                                                                    | 8                                                          | <0.1                                                    |
| 49U 73                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 8                                                     | <10                                                   | 32                                                      | --                                                                    | <1                                                         | <0.1                                                    |
| 49U 74                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 3                                                     | <10                                                   | 11                                                      | --                                                                    | 6                                                          | <0.1                                                    |
| 50U133                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 3                                                     | <10                                                   | 8                                                       | --                                                                    | <1                                                         | <0.1                                                    |
| 50U136                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | <3                                                    | <10                                                   | <4                                                      | --                                                                    | <1                                                         | <0.1                                                    |
| 49V 58                           | --                                                        | --                                                      | --                                                      | --                                                               | --                                                    | --                                                    | --                                                      | --                                                                    | --                                                         | --                                                      |
| 49V 56                           | --                                                        | --                                                      | --                                                      | --                                                               | --                                                    | --                                                    | --                                                      | --                                                                    | --                                                         | --                                                      |
| 49V 53                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 25                                                    | <10                                                   | <4                                                      | --                                                                    | 3                                                          | <0.1                                                    |
| 49V 53                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 12                                                    | <10                                                   | <4                                                      | --                                                                    | 3                                                          | <0.1                                                    |
| 49V 55                           | --                                                        | --                                                      | --                                                      | --                                                               | --                                                    | --                                                    | --                                                      | --                                                                    | --                                                         | --                                                      |
| 49V 50                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 20                                                    | <10                                                   | <4                                                      | --                                                                    | 4                                                          | <0.1                                                    |
| 49V 49                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 9                                                     | <10                                                   | <4                                                      | --                                                                    | 2                                                          | <0.1                                                    |
| 49V 52                           | <5                                                        | 3                                                       | 10                                                      | --                                                               | 9                                                     | <10                                                   | <4                                                      | --                                                                    | 160                                                        | <0.1                                                    |
| 49V 57                           | <5                                                        | <3                                                      | <10                                                     | --                                                               | 5                                                     | <10                                                   | <4                                                      | --                                                                    | 2                                                          | <0.1                                                    |

## YORK COUNTY--Continued

|                 |    |    |    |      |     |    |    |    |    |    |
|-----------------|----|----|----|------|-----|----|----|----|----|----|
| 58F 65 SOW 191A | -- | -- | -- | 1400 | 970 | -- | -- | 70 | 62 | -- |
|-----------------|----|----|----|------|-----|----|----|----|----|----|

000IRSV INTRUSIVE ROCKS  
 230TRSC TRIASSIC SYSTEM  
 231BLBF BALLS BLUFF FORMATION  
 231BLRN BULL RUN FORMATION  
 377HMPN HAMPTON SHALE OR FORMATION

000MPYS METAMORPHOSED VOLCANIC AND SEDIMENTARY ROCKS  
 217PTMC POTOMAC GROUP  
 300CPMC CHOPAWAMSIK FORMATION  
 361QNTC QUANTICO SLATE  
 112CLMB COLUMBIA-CORNWALLIS CAVE

## QUALITY OF GROUND WATER

393

## WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| LOCAL<br>IDENTIFIER              | MOLYB-<br>DENUM,<br>DIS-<br>SOLVED<br>(UG/L<br>AS MO)<br>(01060) | NICKEL,<br>DIS-<br>SOLVED<br>(UG/L<br>AS NI)<br>(01065) | SILVER,<br>DIS-<br>SOLVED<br>(UG/L<br>AS AG)<br>(01075) | STRON-<br>TIUM,<br>DIS-<br>SOLVED<br>(UG/L<br>AS SR)<br>(01080) | ZINC,<br>DIS-<br>SOLVED<br>(UG/L<br>AS ZN)<br>(01090) | H-2/<br>H-1<br>STABLE<br>ISOTOPE<br>RATIO<br>PER<br>MIL<br>(82082) | O-18/<br>O-16<br>STABLE<br>ISOTOPE<br>RATIO<br>PER<br>MIL<br>(82085) | RADON<br>222<br>TOTAL<br>(PC/L)<br>(82303) | TRITIUM<br>TOTAL<br>(PCI/L)<br>(07000) | CARBON,<br>ORGANIC<br>DIS-<br>SOLVED<br>(MG/L<br>AS C)<br>(00681) |
|----------------------------------|------------------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------|----------------------------------------|-------------------------------------------------------------------|
| PRINCE WILLIAM COUNTY--Continued |                                                                  |                                                         |                                                         |                                                                 |                                                       |                                                                    |                                                                      |                                            |                                        |                                                                   |
| 52S 44                           | <10                                                              | <10                                                     | 2.0                                                     | 64                                                              | 4                                                     | --                                                                 | --                                                                   | 480                                        | --                                     | 0.4                                                               |
| 52S 24                           | <10                                                              | <10                                                     | <1.0                                                    | 160                                                             | 43                                                    | --                                                                 | --                                                                   | 2500                                       | --                                     | 0.3                                                               |
| 52S 30                           | <10                                                              | <10                                                     | <1.0                                                    | 8                                                               | 28                                                    | --                                                                 | --                                                                   | 300                                        | --                                     | 0.4                                                               |
| 52S 51                           | <10                                                              | <10                                                     | <1.0                                                    | 50                                                              | 27                                                    | --                                                                 | --                                                                   | 260                                        | --                                     | 1.9                                                               |
| 52S 52                           | <10                                                              | <10                                                     | <1.0                                                    | 7                                                               | 130                                                   | --                                                                 | --                                                                   | 340                                        | --                                     | 0.5                                                               |
| 52S 14                           | <10                                                              | <10                                                     | 2.0                                                     | 160                                                             | 32                                                    | --                                                                 | --                                                                   | 830                                        | --                                     | 0.3                                                               |
| 52S 47                           | <10                                                              | <10                                                     | <1.0                                                    | 9                                                               | 8                                                     | --                                                                 | --                                                                   | 380                                        | --                                     | 0.5                                                               |
| 52S 18                           | <10                                                              | 10                                                      | 2.0                                                     | 160                                                             | 11                                                    | --                                                                 | --                                                                   | 2900                                       | --                                     | 0.6                                                               |
| 52S 49                           | <10                                                              | <10                                                     | <1.0                                                    | 77                                                              | 35                                                    | --                                                                 | --                                                                   | 350                                        | --                                     | 0.4                                                               |
| 51S 5                            | <10                                                              | <10                                                     | 2.0                                                     | 18                                                              | 33                                                    | --                                                                 | --                                                                   | 5700                                       | --                                     | 0.4                                                               |
| 52T 66                           | <10                                                              | <10                                                     | <1.0                                                    | 20                                                              | 230                                                   | --                                                                 | --                                                                   | 2400                                       | --                                     | 0.3                                                               |
| 53T 56                           | <10                                                              | <10                                                     | <1.0                                                    | 110                                                             | 110                                                   | --                                                                 | --                                                                   | 340                                        | --                                     | 1.3                                                               |
| 51T117                           | --                                                               | --                                                      | --                                                      | --                                                              | --                                                    | --                                                                 | --                                                                   | 1600                                       | --                                     | 0.3                                                               |
| 51T118                           | --                                                               | --                                                      | --                                                      | --                                                              | --                                                    | -45.0                                                              | -7.65                                                                | --                                         | 57                                     | --                                                                |
| 51T119                           | <10                                                              | <10                                                     | <1.0                                                    | 82                                                              | 47                                                    | --                                                                 | --                                                                   | 5000                                       | --                                     | 0.4                                                               |
| 51T173                           | --                                                               | --                                                      | --                                                      | --                                                              | --                                                    | -42.5                                                              | -7.30                                                                | --                                         | 58                                     | --                                                                |
| 51T172                           | <10                                                              | <10                                                     | <1.0                                                    | 55                                                              | 90                                                    | --                                                                 | --                                                                   | 2100                                       | --                                     | 0.3                                                               |
| 51T 29E                          | --                                                               | --                                                      | --                                                      | --                                                              | --                                                    | -45.5                                                              | -7.55                                                                | --                                         | 77                                     | --                                                                |
| 50T 79                           | --                                                               | --                                                      | --                                                      | --                                                              | --                                                    | --                                                                 | --                                                                   | 1100                                       | --                                     | 0.4                                                               |
| 50T 80                           | <10                                                              | <10                                                     | <1.0                                                    | 920                                                             | 9                                                     | --                                                                 | --                                                                   | 1400                                       | --                                     | 0.4                                                               |
| 49T 74                           | <10                                                              | <10                                                     | <1.0                                                    | 210                                                             | 7                                                     | --                                                                 | --                                                                   | 1700                                       | --                                     | 0.2                                                               |
| 51T 1A                           | <10                                                              | <10                                                     | <1.0                                                    | 42                                                              | 1300                                                  | --                                                                 | --                                                                   | 1100                                       | --                                     | 0.4                                                               |
| 50T 81                           | <10                                                              | <10                                                     | <1.0                                                    | 240                                                             | 450                                                   | --                                                                 | --                                                                   | 1600                                       | --                                     | 0.6                                                               |
| 51U 4H                           | <10                                                              | <10                                                     | 2.0                                                     | 2300                                                            | 120                                                   | --                                                                 | --                                                                   | 170                                        | --                                     | 0.2                                                               |
| 50U137                           | <10                                                              | <10                                                     | <1.0                                                    | 1800                                                            | 86                                                    | --                                                                 | --                                                                   | 580                                        | --                                     | 0.3                                                               |
| 50U128                           | <10                                                              | <10                                                     | <1.0                                                    | 730                                                             | 1600                                                  | --                                                                 | --                                                                   | 780                                        | --                                     | 0.4                                                               |
| 51U 97H                          | --                                                               | --                                                      | --                                                      | --                                                              | --                                                    | -44.0                                                              | -7.15                                                                | --                                         | 17                                     | --                                                                |
| 50U135                           | <10                                                              | <10                                                     | 3.0                                                     | 610                                                             | 270                                                   | --                                                                 | --                                                                   | 1300                                       | --                                     | 0.2                                                               |
| 51U104G                          | --                                                               | --                                                      | --                                                      | --                                                              | --                                                    | -42.5                                                              | -7.20                                                                | --                                         | 22                                     | --                                                                |
| 49U 75                           | <10                                                              | 10                                                      | <1.0                                                    | 340                                                             | 45                                                    | --                                                                 | --                                                                   | 770                                        | --                                     | 1.8                                                               |
| 51U103G                          | --                                                               | --                                                      | --                                                      | --                                                              | --                                                    | -43.0                                                              | -7.15                                                                | --                                         | 19                                     | --                                                                |
| 51U 10                           | --                                                               | --                                                      | --                                                      | --                                                              | --                                                    | -45.5                                                              | -7.35                                                                | --                                         | 35                                     | --                                                                |
| 50U124                           | <10                                                              | <10                                                     | <1.0                                                    | 380                                                             | 38                                                    | --                                                                 | --                                                                   | 1800                                       | --                                     | 0.6                                                               |
| 50U123                           | 20                                                               | <10                                                     | <1.0                                                    | 3700                                                            | 7                                                     | --                                                                 | --                                                                   | 1000                                       | --                                     | 0.8                                                               |
| 51U 19D                          | 20                                                               | 10                                                      | <1.0                                                    | 3900                                                            | 13                                                    | --                                                                 | --                                                                   | 2000                                       | --                                     | 0.6                                                               |
| 49U 73                           | <10                                                              | <10                                                     | 2.0                                                     | 1300                                                            | 67                                                    | --                                                                 | --                                                                   | 1600                                       | --                                     | 0.4                                                               |
| 49U 74                           | <10                                                              | <10                                                     | <1.0                                                    | 150                                                             | <3                                                    | --                                                                 | --                                                                   | 1500                                       | --                                     | 0.3                                                               |
| 50U133                           | 10                                                               | <10                                                     | <1.0                                                    | 89                                                              | 87                                                    | --                                                                 | --                                                                   | 2000                                       | --                                     | 0.4                                                               |
| 50U136                           | <10                                                              | <10                                                     | <1.0                                                    | 130                                                             | 7                                                     | --                                                                 | --                                                                   | 500                                        | --                                     | 0.4                                                               |
| 49V 58                           | --                                                               | --                                                      | --                                                      | --                                                              | --                                                    | -49.0                                                              | -8.10                                                                | --                                         | 21                                     | --                                                                |
| 49V 56                           | --                                                               | --                                                      | --                                                      | --                                                              | --                                                    | -49.5                                                              | -8.15                                                                | --                                         | 46                                     | --                                                                |
| 49V 53                           | <10                                                              | <10                                                     | <1.0                                                    | 52                                                              | 54                                                    | --                                                                 | --                                                                   | 510                                        | --                                     | 0.3                                                               |
| 49V 53                           | <10                                                              | <10                                                     | <1.0                                                    | 81                                                              | 14                                                    | --                                                                 | --                                                                   | 830                                        | --                                     | 0.2                                                               |
| 49V 55                           | --                                                               | --                                                      | --                                                      | --                                                              | --                                                    | -47.5                                                              | -8.05                                                                | --                                         | 45                                     | --                                                                |
| 49V 50                           | <10                                                              | <10                                                     | <1.0                                                    | 22                                                              | 430                                                   | --                                                                 | --                                                                   | 1300                                       | --                                     | 0.5                                                               |
| 49V 49                           | <10                                                              | <10                                                     | <1.0                                                    | 28                                                              | 86                                                    | --                                                                 | --                                                                   | 1300                                       | --                                     | 0.6                                                               |
| 49V 52                           | <10                                                              | <10                                                     | <1.0                                                    | 43                                                              | 7100                                                  | --                                                                 | --                                                                   | 1700                                       | --                                     | 0.4                                                               |
| 49V 57                           | <10                                                              | <10                                                     | <1.0                                                    | 170                                                             | 36                                                    | --                                                                 | --                                                                   | 1800                                       | --                                     | 0.4                                                               |

## YORK COUNTY--Continued

|                 |                            |    |    |    |    |         |                                              |    |    |    |
|-----------------|----------------------------|----|----|----|----|---------|----------------------------------------------|----|----|----|
| 58F 65 SOW 191A | --                         | -- | -- | -- | -- | --      | --                                           | -- | -- | -- |
| 000IRSV         | INTRUSIVE ROCKS            |    |    |    |    | 000MPYS | METAMORPHOSED VOLCANIC AND SEDIMENTARY ROCKS |    |    |    |
| 230TRSC         | TRIASSIC SYSTEM            |    |    |    |    | 217PTMC | POTOMAC GROUP                                |    |    |    |
| 231BLBF         | BALLS BLUFF FORMATION      |    |    |    |    | 300CPMC | CHOPAWAMSIK FORMATION                        |    |    |    |
| 231BLRN         | BULL RUN FORMATION         |    |    |    |    | 361QNTC | QUANTICO SLATE                               |    |    |    |
| 377HMPN         | HAMPTON SHALE OR FORMATION |    |    |    |    | 112CLMB | COLUMBIA-CORNWALLIS CAVE                     |    |    |    |



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## FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

| Multiply inch-pound units                  | By                     | To obtain SI units                               |
|--------------------------------------------|------------------------|--------------------------------------------------|
| <i>Length</i>                              |                        |                                                  |
| inches (in)                                | $2.54 \times 10^1$     | millimeters (mm)                                 |
|                                            | $2.54 \times 10^{-2}$  | meters (m)                                       |
| feet (ft)                                  | $3.048 \times 10^{-1}$ | meters (m)                                       |
| miles (mi)                                 | $1.609 \times 10^0$    | kilometers (km)                                  |
| <i>Area</i>                                |                        |                                                  |
| acres                                      | $4.047 \times 10^3$    | square meters (m <sup>2</sup> )                  |
|                                            | $4.047 \times 10^{-1}$ | square hectometers (hm <sup>2</sup> )            |
|                                            | $4.047 \times 10^{-3}$ | square kilometers (km <sup>2</sup> )             |
| square miles (mi <sup>2</sup> )            | $2.590 \times 10^0$    | square kilometers (km <sup>2</sup> )             |
| <i>Volume</i>                              |                        |                                                  |
| gallons (gal)                              | $3.785 \times 10^0$    | liters (L)                                       |
|                                            | $3.785 \times 10^0$    | cubic decimeters (dm <sup>3</sup> )              |
|                                            | $3.785 \times 10^{-3}$ | cubic meters (m <sup>3</sup> )                   |
| million gallons                            | $3.785 \times 10^3$    | cubic meters (m <sup>3</sup> )                   |
|                                            | $3.785 \times 10^{-3}$ | cubic hectometers (hm <sup>3</sup> )             |
| cubic feet (ft <sup>3</sup> )              | $2.832 \times 10^1$    | cubic decimeters (dm <sup>3</sup> )              |
|                                            | $2.832 \times 10^{-2}$ | cubic meters (m <sup>3</sup> )                   |
| cfs-days                                   | $2.447 \times 10^3$    | cubic meters (m <sup>3</sup> )                   |
|                                            | $2.447 \times 10^{-3}$ | cubic hectometers (hm <sup>3</sup> )             |
| acre-feet (acre-ft)                        | $1.233 \times 10^3$    | cubic meters (m <sup>3</sup> )                   |
|                                            | $1.233 \times 10^{-3}$ | cubic hectometers (hm <sup>3</sup> )             |
|                                            | $1.233 \times 10^{-6}$ | cubic kilometers (km <sup>3</sup> )              |
| <i>Flow</i>                                |                        |                                                  |
| cubic feet per second (ft <sup>3</sup> /s) | $2.832 \times 10^1$    | liters per second (L/s)                          |
|                                            | $2.832 \times 10^1$    | cubic decimeters per second (dm <sup>3</sup> /s) |
|                                            | $2.832 \times 10^{-2}$ | cubic meters per second (m <sup>3</sup> /s)      |
| gallons per minute (gal/min)               | $6.309 \times 10^{-2}$ | liters per second (L/s)                          |
|                                            | $6.309 \times 10^{-2}$ | cubic decimeters per second (dm <sup>3</sup> /s) |
|                                            | $6.309 \times 10^{-5}$ | cubic meters per second (m <sup>3</sup> /s)      |
| million gallons per day                    | $4.381 \times 10^1$    | cubic decimeters per second (dm <sup>3</sup> /s) |
|                                            | $4.381 \times 10^{-2}$ | cubic meters per second (m <sup>3</sup> /s)      |
| <i>Mass</i>                                |                        |                                                  |
| tons (short)                               | $9.072 \times 10^{-1}$ | megagrams (Mg) or metric tons                    |

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