

SELECTED GROUND-WATER LEVEL RECORDS
FROM OBSERVATION WELLS
IN QUEEN ANNE ' S COUNTY

AUGUST 2014

Reported by
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In cooperation with the
U. S. Geological Survey

INTRODUCTION

This report presents water-level data for 28 observation wells in Queen Anne's County updated through 2014. Water-level are tabulated for the last 11 or 12 measurements, generally from March (sometimes April) 2007 through April 2014; in case of QA Ea 27 the measurements started at September 2006 and ended at April 2014 and the measuring point for QA Ea 27 is 3.25 ft above the land surface (remeasured on August 24, 2012). For the two water-table wells QA Cg 69 and QA Ec1, water levels are measured usually monthly and tabulated for 24 measurements.

Well QA Cg 1 was destroyed in 2003 and replaced with an adjacent well QA Cg 69. No measurement of water level in well QA Eb 182 since March 28, 2006.

In all cases, water-level hydrographs are shown for the entire period of record at each site (pages 4 to 31). List of wells is on page 3 and well location map is between page 2 and page 3.

Data were obtained from the National Water Information System, Ground-Water Site Inventory database, maintained by the U.S. Geological Survey. Historical and additional ground-water data may be obtained via the Internet at <http://waterdata.usgs.gov/nwis/gw>.

SELECTED GROUND-WATER LEVEL RECORDS FROM OBSERVATION
WELLS IN QUEEN ANNE'S COUNTY

| <u>Well number</u> | <u>Aquifer</u> | <u>Location</u> |
|--|------------------------|--|
| QA Be 15 | Lower Patapsco | Kingstown |
| QA Be 16 | Upper Patapsco | Kingstown |
| QA Be 17 | Aquia | Kingstown |
| QA Cg 1 (Destroyed in 2003) | Columbia (water table) | Barclay |
| QA Cg 69 (Replacement for Cg 1) | Columbia (water table) | Barclay |
| QA Db 30, 32 | Aquia | Love Point |
| QA Db 34, 37 | Aquia | Cloverfields |
| QA Db 35 | Aquia | Marylander Farm |
| QA De 27 | Aquia | Centreville |
| QA Ea 27 | Magothy | Natural Resources Police Academy in Matapeake |
| QA Ea 77, 78 | Aquia | Natural Resources Police Academy in Matapeake |
| QA Ea 79, 80 | Aquia | Mowbray Park |
| QA Ea 81 | Aquia | Natural Resources Police Academy in Matapeake |
| QA Eb 110 | Patuxent | Chester |
| QA Eb 111 | Upper Patapsco | Chester |
| QA Eb 112 | Lower Patapsco | Chester |
| QA Eb 113 | Aquia | Chester |
| QA Eb 155 | Aquia | Piney Creek |
| QA Eb 156, 157 | Aquia | Terrapin Beach Park, Bay Bridge |
| QA Eb 182 (No measurement since March 28, 2006) | Lower Patapsco | Stevensville Water Treatment Plant |
| QA Ec 1 | Columbia (water table) | Grasonville |
| QA Ef 29 | Upper Patapsco | Tuckahoe State Park |
| QA Fc 7 | Aquia | Prospect Plantation |

WELL NUMBER: QA Be 15

PERMIT NUMBER: QA-70-0130

LOCATION: Kingstown, southwest side of MD Rte. 213

LAT. 39° 12' 03", LONG. 76° 02' 43"

AQUIFER: Lower Patapsco Aquifer of Early Cretaceous age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 1,171 ft;

Casing diameter: 4 in. to 1,161 ft;

Screen diameter: 4 in. from 1,161 ft to 1,171 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.

MEASURING POINT: Top of casing is 2.52 ft above land surface.

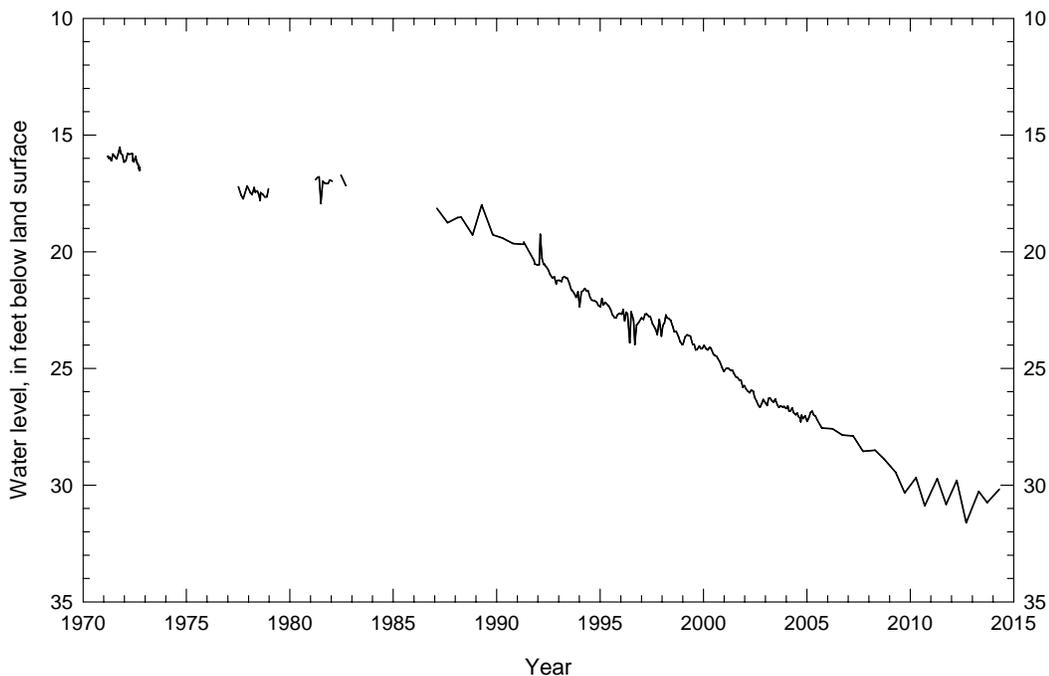
REMARKS: Observation well in the statewide ground-water level network. Water levels are affected by regional ground-water withdrawal.

PERIOD OF RECORD: March 1971 to October 1972, July 1977 to December 1978, March 1981 to September 1982, and October 1986 to current year.

EXTREMES FOR RECORD: Highest water level measured, 15.52 ft below land surface on October 10, 1971; lowest measured 31.61 ft below land surface on September 13, 2012.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2014

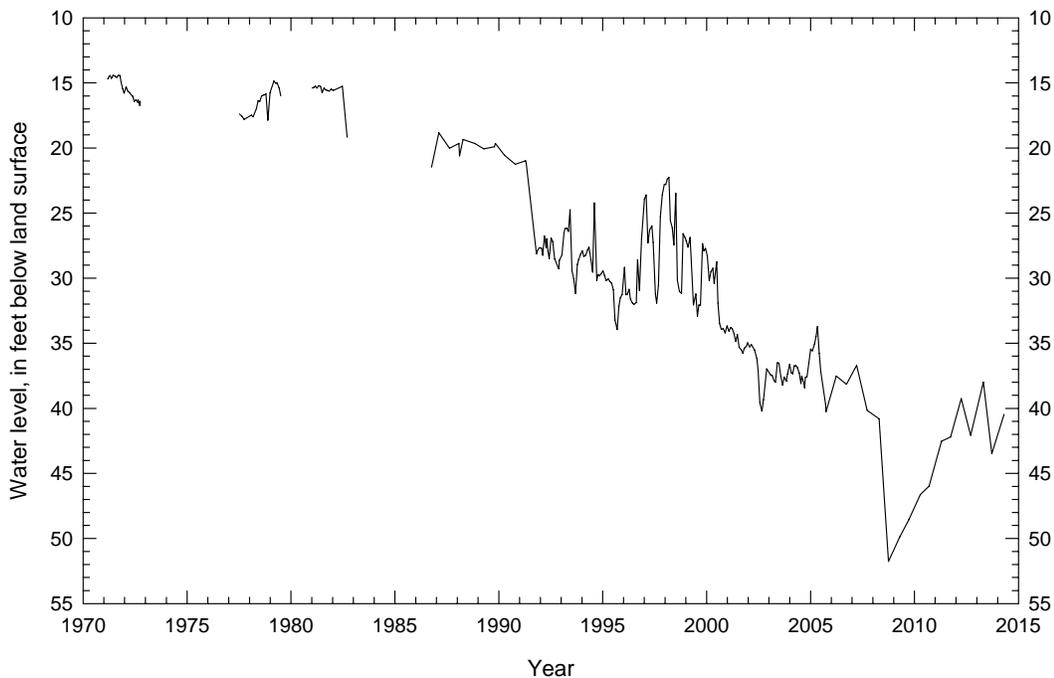
| Date | Water Level | Date | Water Level | Date | Water Level |
|---------------|-------------|---------------|-------------|---------------|-------------|
| Mar 30, 2007 | 27.89 | Sep 24, 2009 | 30.33 | Apr. 2 | 29.80 |
| Sep 21 | 28.55 | Apr. 12, 2010 | 29.68 | Sep. 13, 2012 | 31.61 |
| Apr. 18, 2008 | 28.50 | Sep. 13 | 30.88 | Apr. 25, 2013 | 30.27 |
| Sep 29, 2009 | 28.89 | Apr. 21, 2011 | 29.72 | Sep. 20 | 30.74 |
| Apr. 17, 2009 | 29.45 | Sep. 26, 2011 | 30.82 | Apr. 24, 2014 | 30.18 |



WELL NUMBER: QA Be 16 **PERMIT NUMBER:** QA-70-0130
LOCATION: Kingstown, southwest side of MD Rte. 213 **LAT.** 39° 12' 03", **LONG.** 76° 02' 43"
AQUIFER: Upper Patapsco Aquifer of Early Cretaceous age.
WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 495 ft;
 Casing diameter: 6 in. to 475 ft;
 Screen diameter: 6 in. from 475 to 495 ft.
INSTRUMENTATION: Monthly measurements with steel or electric tape.
DATUM: Altitude of land surface is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.
MEASURING POINT: Top of casing is 2.70 ft above land surface.
REMARKS: Observation well in the statewide ground-water level network. Water levels may be affected by nearby pumping.
PERIOD OF RECORD: March 1971 to September 1972, July 1977 to May 1979, January 1981 to September 1982, and October 1986 to current year.
EXTREMES FOR RECORD: Highest water level measured, 14.41 ft below land surface, Sept. 11, 1971; lowest measured 51.75 ft below land surface, September 29, 2008.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2014

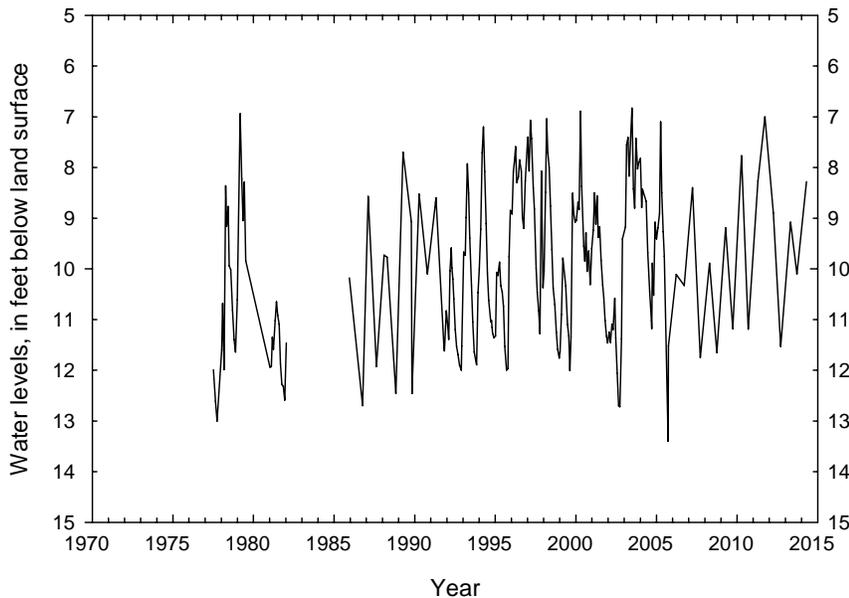
| Date | Water Level | Date | Water Level | Date | Water Level |
|--------------|-------------|---------------|-------------|----------------|-------------|
| Mar 30, 2007 | 36.70 | Sep 24, 2009 | 48.55 | Apr. 2, 2012 | 39.25 |
| Sep 21 | 40.15 | Apr. 12, 2010 | 46.62 | Sep.13 | 42.08 |
| Apr 18, 2008 | 40.80 | Sep. 13 | 45.98 | April 25, 2013 | 37.98 |
| Sep 29, 2008 | 51.75 | Apr. 21, 2011 | 42.53 | Sep. 20 | 43.48 |
| Apr 17, 2009 | 49.88 | Sep. 26, 2011 | 42.20 | Apr. 24, 2014 | 40.47 |



WELL NUMBER: QA Be 17 **PERMIT NUMBER:** None
LOCATION: Kingstown, southwest side of MD Rte. 213 **LAT.** 39° 12' 03", **LONG.** 76° 02' 43"
AQUIFER: Aquia Aquifer of Early to Late Paleocene age.
WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 120 ft;
 Casing diameter: 6 in. to 100 ft;
 Screen diameter: 6 in. from 100 to 120 ft.
INSTRUMENTATION: Monthly measurements with steel or electric tape.
DATUM: Altitude of land surface is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.
MEASURING POINT: Top of casing is 2.50 ft above land surface.
REMARKS: Observation well in the statewide ground-water level network. Water levels may be affected by nearby pumping.
PERIOD OF RECORD: July 1977 to July 1979, March 1981 to January 1982, and October 1986 to current year.
EXTREMES FOR RECORD: Highest water level measured, 6.83 ft below land surface, June 24, 2003; lowest measured 13.40 ft below land surface, Sept. 20, 2005.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2014

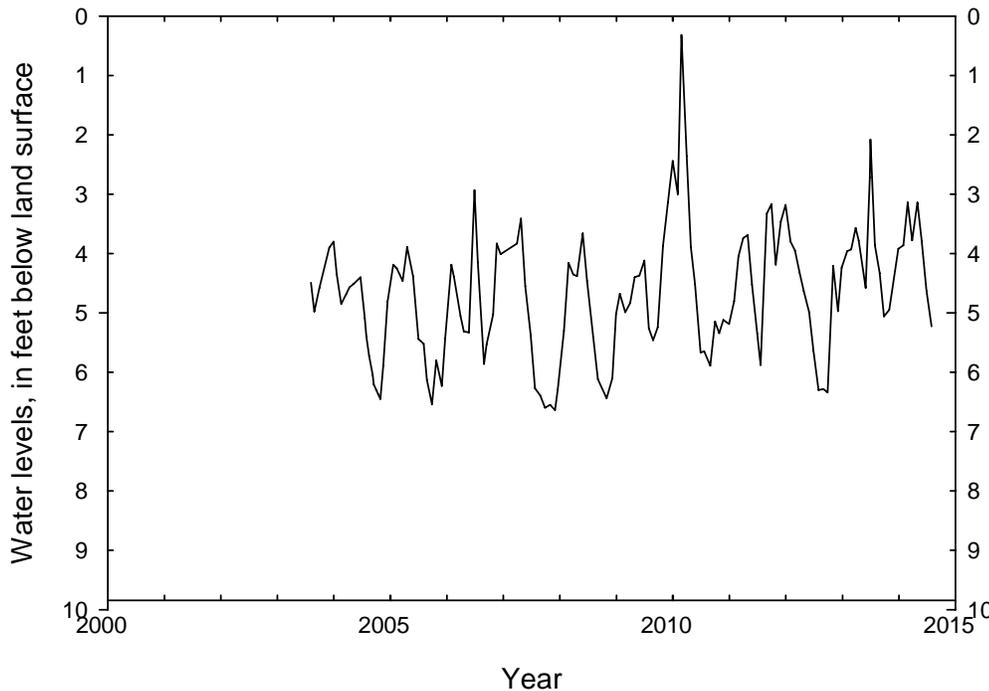
| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|---------------|-------------|----------------|-------------|
| March 30, 2007 | 8.40 | Sep 24, 2009 | 11.18 | Apr. 2, 2012 | 8.90 |
| Sep 21 | 11.75 | Apr. 12 | 7.77 | Sep. 13 | 11.53 |
| April 18, 2008 | 9.89 | Sep. 13, 2010 | 11.19 | April 25, 2013 | 9.08 |
| Sep 29, 2008 | 11.65 | Apr. 21, 2011 | 8.27 | Sep. 20 | 10.10 |
| April 17, 2009 | 9.19 | Sep. 26, 2011 | 7.00 | April 24, 2014 | 8.28 |



WELL NUMBER: QA Cg 69 **PERMIT NUMBER:** QA-94-2072
LOCATION: Town of Barclay, north side of MD Rte. 302 **LAT.** 39° 08' 39", **LONG.** 75° 51' 50"
AQUIFER: Columbia Aquifer of Late Miocene (?) to Pleistocene age.
WELL CHARACTERISTICS: Drilled, unused, water-table well. Reported depth is 69 ft,
 measured depth is 69 ft;
 Casing diameter: 6 in. to 29 ft;
 Screen diameter: 4 in. from 29 to 69 ft.
INSTRUMENTATION: Monthly measurements with steel or electric tape.
DATUM: Altitude of land surface is 65 ft above National Geodetic Vertical Datum of 1929, from
 topographic map.
MEASURING POINT: Lip of hose connector is 1.0 ft above land surface.
REMARKS: Observation well in the statewide ground-water level network.
PERIOD OF RECORD: August 2003 to current year.
EXTREMES FOR RECORD: Highest water level measured, 0.32 ft below land surface, February 25,
 2010; lowest measured 6.64 ft below land surface, November 30, 2007.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM AUGUST 2012 TO JULY 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|---------------|-------------|---------------|-------------|
| Aug. 30, 2012 | 6.28 | Apr. 16, 2013 | 3.78 | Dec. 28, 2013 | 3.9200 |
| Sep. 27 | 6.34 | May 31 | 4.58 | Jan. 30, 2014 | 3.8600 |
| Nov. 1 | 4.21 | June 27 | 2.72 | Feb. 27 | 3.1400 |
| Dec. 3 | 4.97 | July 1 | 2.08 | March 27 | 3.7800 |
| Dec 26, 2012 | 4.24 | July 30 | 3.86 | April 30 | 3.1400 |
| Feb. 2, 2013 | 3.96 | Aug. 29 | 4.33 | May 28 | 3.7900 |
| Feb. 26 | 3.93 | Sep. 26 | 5.06 | June 28 | 4.6300 |
| March 28, 2013 | 3.57 | Nov. 31, 2013 | 4.95 | July 31, 2014 | 5.2300 |



WELL NUMBER: QA Db 30

PERMIT NUMBER: QA-81-0473

LOCATION: Love Point, north side of Pier Ave., Kent Island LAT. 39° 02' 01", LONG. 76° 18' 27"

AQUIFER: Aquia Aquifer of Early to Late Paleocene age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 220 ft;

Casing diameter: 4 in. to 210 ft;

Screen diameter: 4 in. from 210 to 220 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 17.80 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Top of casing is 2.40 ft above land surface.

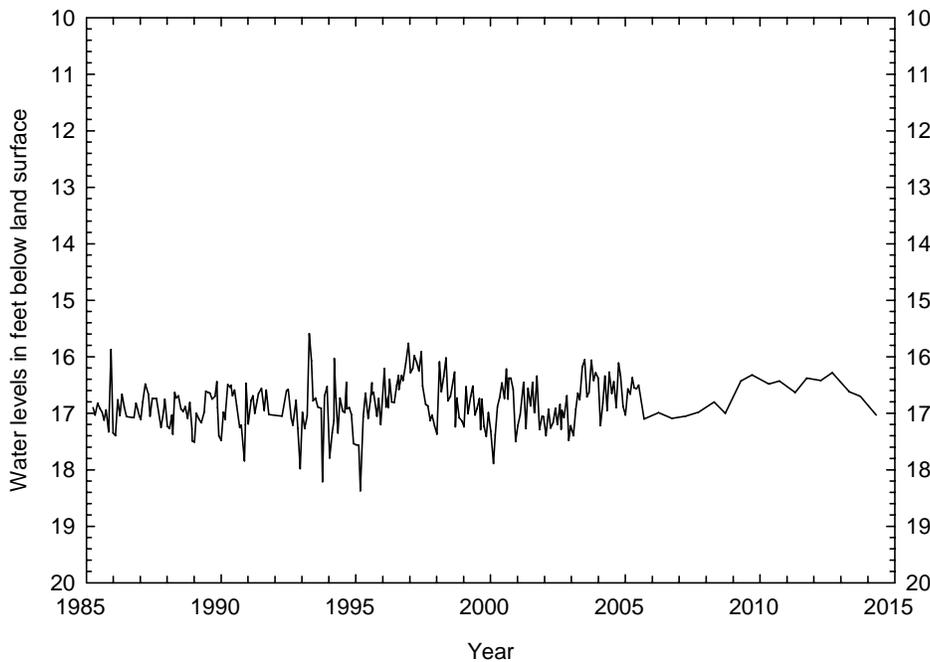
REMARKS: Observation well in the Kent Island ground-water monitoring network. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD: April 1985 to current year.

EXTREMES FOR RECORD: Highest water level measured, 15.59 ft below land surface, April 9, 1993; lowest measured 18.37 ft below land surface, March 3, 1995.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|---------------|-------------|---------------|-------------|
| March 30, 2007 | 17.05 | Sep. 15, 2009 | 16.32 | Apr. 4, 2012 | 16.42 |
| Sep. 21, 2007 | 16.98 | Apr. 30, 2010 | 16.48 | Sep. 5 | 16.28 |
| April 18 | 16.80 | Sep. 30 | 16.43 | Apr. 25, 2013 | 16.62 |
| Sep. 16, 2008 | 17.00 | Apr. 21, 2011 | 16.63 | Sep. 20 | 16.70 |
| April 17, 2009 | 16.43 | Sep. 26, 2011 | 16.38 | Apr. 24, 2014 | 17.03 |



WELL NUMBER: QA Db 32

PERMIT NUMBER: QA-81-0473

LOCATION: Love Point III, north side of Pier Ave., Kent Island

LAT. 39° 02' 01", LONG. 76° 18' 27"

AQUIFER: Aquia Aquifer of Early to Late Paleocene age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 116 ft;

Casing diameter: 4 in. to 116 ft;

Screen diameter: 4 in. from 106 to 116 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 18.0 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Top of casing is 2.10 ft above land surface.

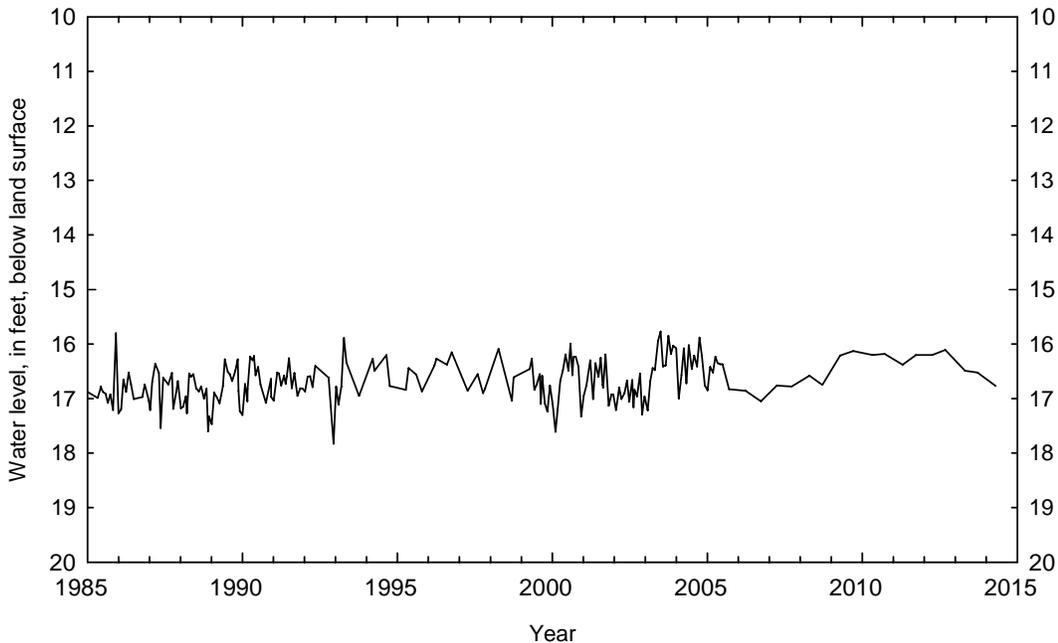
REMARKS: Observation well in the Kent Island ground-water monitoring network. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD: October 1984 to current year.

EXTREMES FOR RECORD: Highest water level measured, 15.77 ft below land surface, June 30, 2003; lowest measured 17.83 ft below land surface, December 8, 1992.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| March 30 | 16.76 | Sep. 15, 2009 | 16.13 | April 4, 2012 | 16.20 |
| Sep. 21, 2007 | 16.78 | April 30, 2010 | 16.20 | Sep. 5 | 16.11 |
| April 18 | 16.58 | Sep. 20 | 16.18 | April 25, 2013 | 16.49 |
| Sep. 16, 2008 | 16.75 | April 21, 2011 | 16.38 | Sep. 20 | 16.52 |
| April 17, 2009 | 16.21 | Sep. 26, 2011 | 16.20 | April 24, 2014 | 16.77 |



WELL NUMBER: QA Db 34

PERMIT NUMBER: QA-81-0473

LOCATION: Cloverfields II, north of harbor, Kent Island

LAT. 39° 00' 23", LONG. 76° 17' 43"

AQUIFER: Aquia Aquifer of Early to Late Paleocene age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 180 ft;

Casing diameter: 4 in. to 180 ft;

Screen diameter: 4 in. from 170 to 180 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 7.4 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Top of casing is 2.50 ft above land surface.

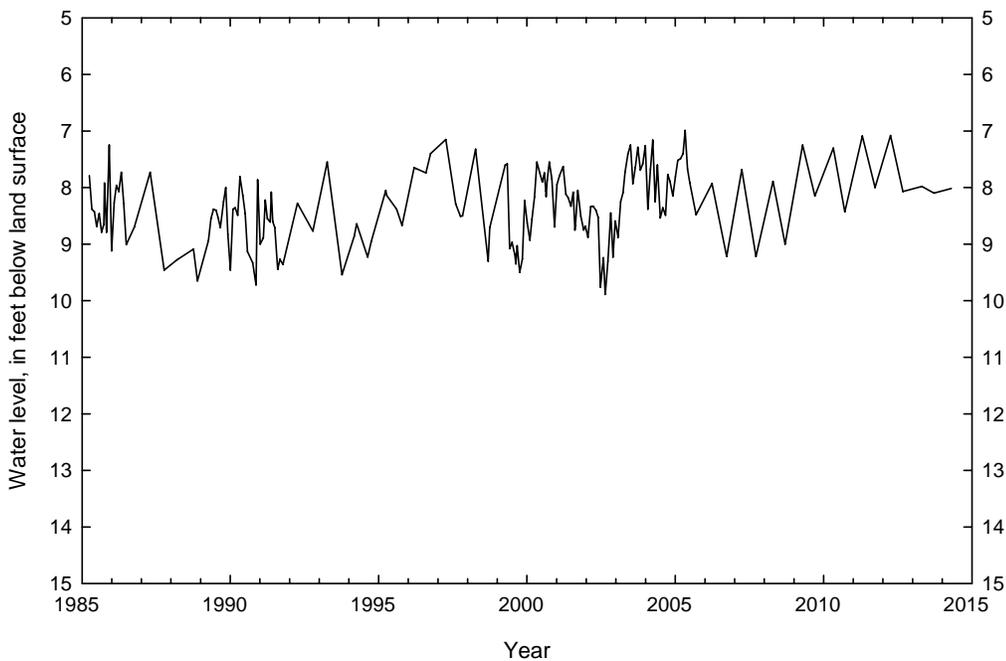
REMARKS: Observation well in the Kent Island ground-water monitoring network. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD: April 1985 to current year.

EXTREMES FOR RECORD: Highest water level measured, 6.99 ft below land surface, May 2, 2005; lowest measured 9.89 ft below land surface, August 22, 2002.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| March 30, 2007 | 7.68 | Sep. 15 | 8.15 | April 4, 2012 | 7.08 |
| Sep. 21, 2007 | 9.22 | April 30, 2010 | 7.30 | Sep 4 | 8.07 |
| April 18, 2008 | 7.89 | Sep. 20 | 8.43 | April 25, 2013 | 7.98 |
| Sept. 15, 2008 | 9.00 | April 21, 2011 | 7.09 | Sep. 20 | 8.10 |
| Apr. 17, 2009 | 7.25 | Sep. 26, 2011 | 8.00 | Apr. 24, 2014 | 8.02 |



WELL NUMBER: QA Db 35

PERMIT NUMBER: QA-81-0472

**LOCATION: Mylander Farm, 0.5 mi west of MD Rte. 18,
Kent Island.**

LAT. 39° 01' 19", LONG. 76° 19' 10"

AQUIFER: Aquia Aquifer of Early to Late Paleocene age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 200 ft;

Casing diameter: 4 in. to 190 ft;

Screen diameter: 4 in. from 190 to 200 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 7.50 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Top of casing is 2.20 ft above land surface.

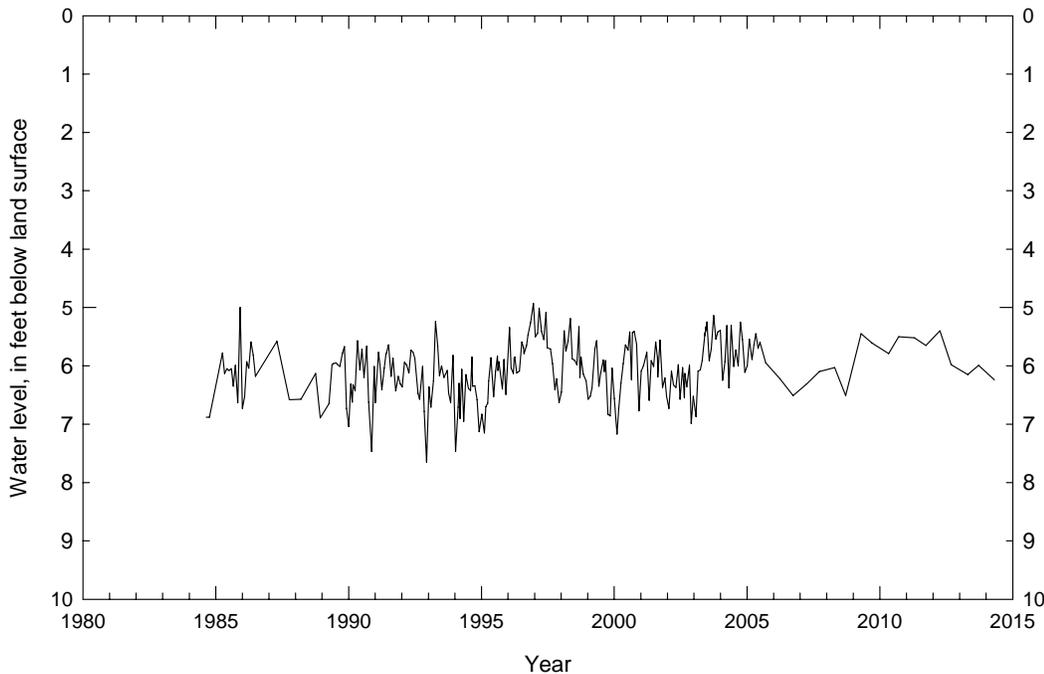
REMARKS: Observation well in the Kent Island ground-water monitoring network. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD: April 1984 to current year.

EXTREMES FOR RECORD: Highest water level measured, 4.93 ft below land surface, Dec. 16, 1996; lowest measured 7.98 ft below land surface, September 6, 2012.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| March 30, 2007 | 6.31 | Sep. 16 | 5.61 | April 4, 2012 | 5.40 |
| Sep. 21 | 6.10 | April 30, 2010 | 5.79 | Sep. 6 | 5.98 |
| April 18, 2007 | 6.03 | Sep. 16 | 5.50 | April 25, 2013 | 6.15 |
| Sep. 16, 2008 | 6.51 | April 21, 2011 | 5.52 | Sep. 20 | 5.99 |
| April 17, 2009 | 5.45 | Sep. 29, 2011 | 5.65 | Apr. 24, 2014 | 6.24 |



WELL NUMBER: QA Db 37

PERMIT NUMBER: QA-81-0471

LOCATION: Cloverfields, north of harbor, Kent Island LAT. 39° 00' 23", LONG. 76° 17' 43"

AQUIFER: Aquia Aquifer of Early to Late Paleocene age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 250 ft;

Casing diameter: 4 in. to 240 ft;

Screen diameter: 4 in. from 240 to 250 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 7.10 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Top of casing is 2.50 ft above land surface.

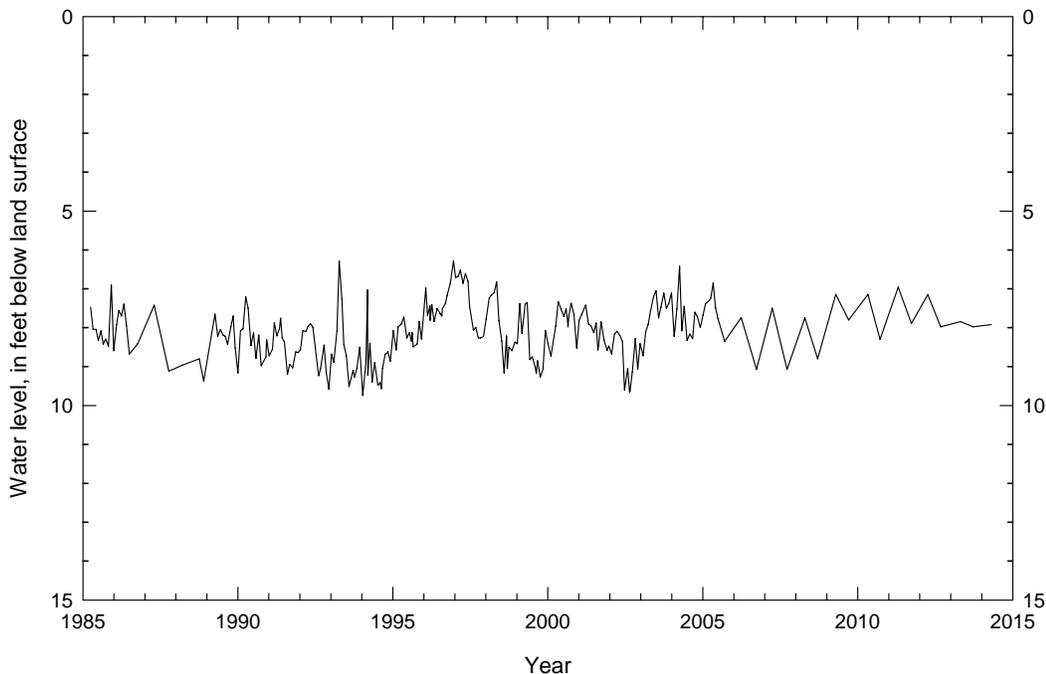
REMARKS: Observation well in the Kent Island ground-water monitoring network. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD: April 1985 to current year.

EXTREMES FOR RECORD: Highest water level measured, 6.28 ft below land surface, Apr. 9, 1993, and Dec. 16, 1996; lowest measured 9.74 ft below land surface, Jan. 11, 1994.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MRCH 2007 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| March 30, 2007 | 7.50 | Sep. 15 | 7.80 | April 4, 2012 | 7.15 |
| Sep. 21 | 9.07 | April 30, 2010 | 7.14 | Sep. 9 | 7.94 |
| April 18, 2008 | 7.75 | Sep. 20 | 8.30 | April 25, 2013 | 7.84 |
| Sep. 15, 2008 | 8.80 | April 21, 2011 | 6.96 | Sep. 20 | 7.98 |
| April 17, 2009 | 7.14 | Sep. 26, 2010 | 7.89 | Apr. 24, 2014 | 7.92 |



WELL NUMBER: QA De 27

PERMIT NUMBER: None

LOCATION: Town of Centreville, near Sheriff's Office

LAT. 39° 00' 51", LONG. 76° 03' 44"

AQUIFER: Aquia Aquifer of Early to Late Paleocene age.

WELL CHARACTERISTICS: Drilled, unused, artesian well. Reported depth is 665 ft, depth of geophysical log is 380 ft; Casing diameter: unknown diameter to 170 ft; Screen diameter: unknown.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 10.19 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Top of shelter platform is 2.03 ft above land surface.

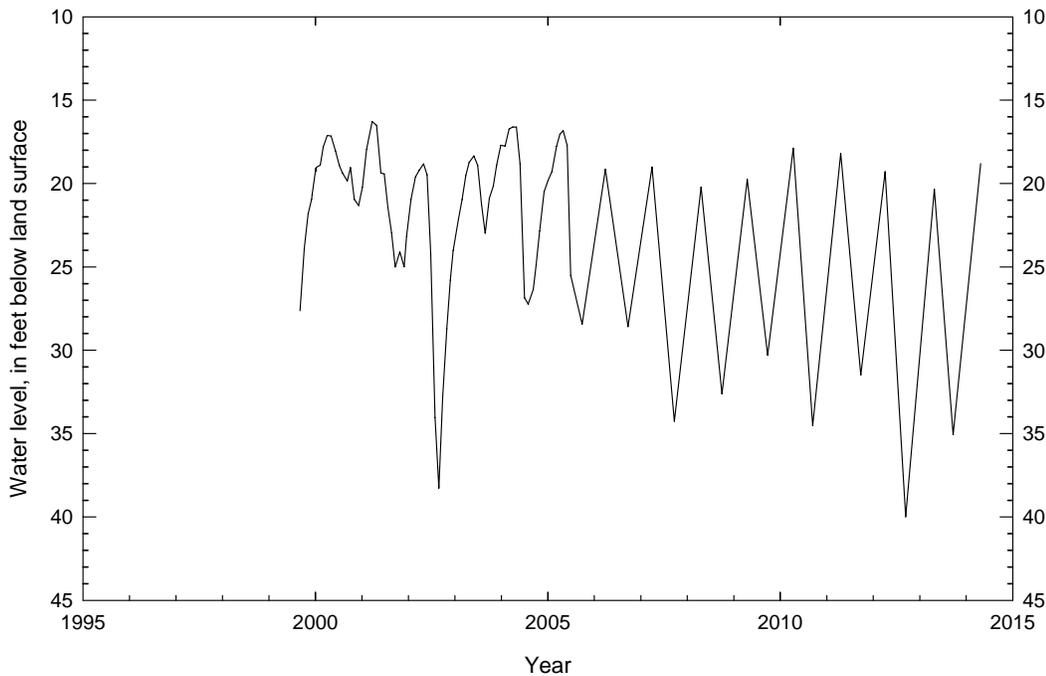
REMARKS: Observation well in the statewide ground-water level network. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD: Sept. 1999 to current year.

EXTREMES FOR RECORD: Highest water level measured, 16.28 ft below land surface, Mar. 22, 2001; lowest measured 39.99 ft below land surface, September 13, 2012.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| March 30, 2007 | 19.01 | Sep. 24 | 30.30 | April 4, 2012 | 19.29 |
| Sep. 21 | 34.26 | April 12, 2010 | 17.88 | Sep. 13 | 39.99 |
| April 18, 2008 | 20.21 | Sep. 13 | 34.51 | April 25, 2013 | 20.34 |
| Sep. 29, 2008 | 34.26 | April 21, 2011 | 18.19 | Sep. 20 | 35.07 |
| April 17, 2009 | 19.76 | Sep. 26, 2011 | 31.48 | Apr. 24, 2014 | 18.81 |



WELL NUMBER: QA Ea 27

PERMIT NUMBER: None

LOCATION: Natural Resources Police Academy in Matapeake, Kent Island.

LAT. 38° 57' 14", LONG. 76° 20' 54"

AQUIFER: Magothy Aquifer of Upper Cretaceous age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 661 ft;

Casing diameter: 6 in. to 661 ft;

Screen diameter: 6 in. from 625 to 661 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface was 18.27 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Top of casing is 1.7 ft above land surface. Remeasurement on August 24, 2012 the top of casing is 3.25 ft above land surface.

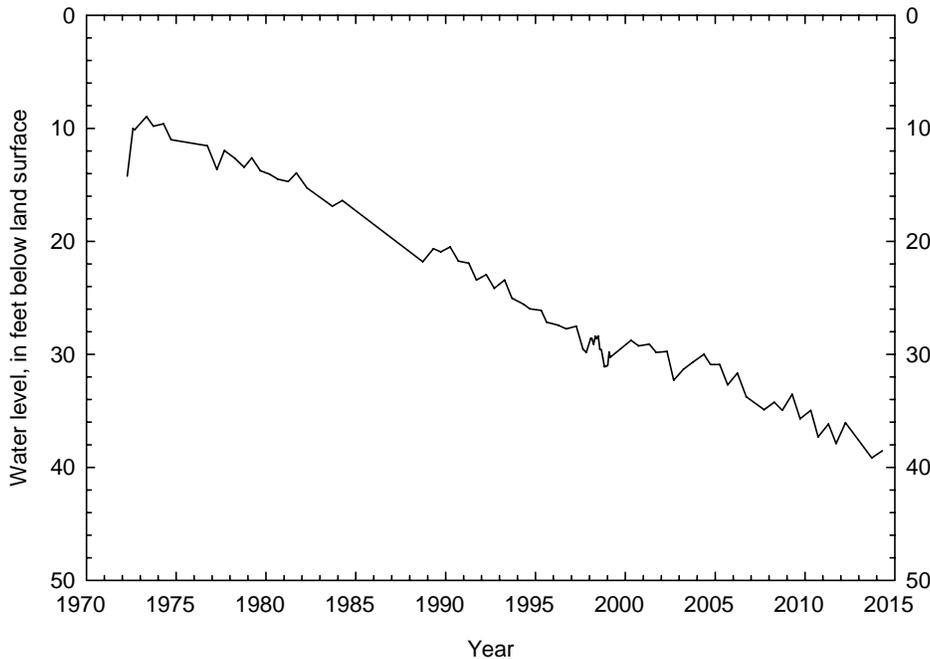
REMARKS: Production well in the Kent Island ground-water monitoring network. Water levels are affected ground-water withdrawal.

PERIOD OF RECORD: April 1972 to current year.

EXTREMES FOR RECORD: Highest water level measured, 8.97 ft below land surface, May 10, 1973; lowest measured 39.17 ft below land surface, September 20, 2013.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM SEPTEMBER 2006 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| Sep. 25, 2006 | 33.76 | Sep. 24, 2009 | 35.70 | April 4, 2012 | 36.05 |
| Sep. 21, 2007 | 34.90 | April 30, 2010 | 34.96 | Sep. 20, 2013 | 39.17 |
| April 18, 2008 | 34.23 | Sep. 24 | 37.31 | April 24, 2014 | 38.53 |
| Sep. 29 | 34.97 | April 21, 2011 | 36.17 | | |
| April 17, 2009 | 33.54 | Sep. 26, 2011 | 37.90 | | |



WELL NUMBER: QA Ea 77

PERMIT NUMBER: QA-81-0474

LOCATION: Natural Resources Police Academy in Matapeake, Kent Island

LAT. 38° 57' 18", LONG. 76° 21' 15"

AQUIFER: Aquia Aquifer of Early to Late Paleocene age

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 205 ft;

Casing diameter: 4 in. to 205 ft;

Screen diameter: 4 in. from 195 to 205 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 10.80 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Top of casing is 2.24 ft above land surface.

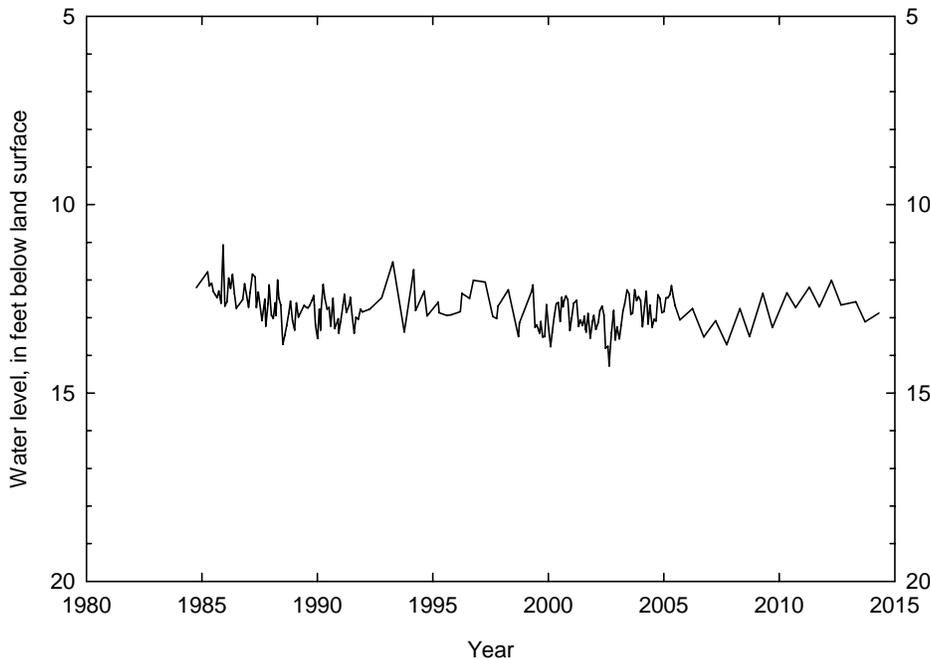
REMARKS: Observation well in the Kent Island ground-water monitoring network. Water levels are affected by local ground-water withdrawals.

PERIOD OF RECORD: October 1984 to current year.

EXTREMES FOR RECORD: Highest water level measured, 11.07 ft below land surface, December 2, 1985; lowest measured 14.28 ft below land surface, August 20, 2002.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| Mar. 30, 2007 | 13.08 | Sep. 14 | 13.26 | April 4, 2012 | 12.01 |
| Sep. 21 | 13.72 | April 30, 2010 | 12.34 | Sep. 4 | 12.66 |
| April 18, 2008 | 12.76 | Sep. 16 | 12.73 | April 25, 2013 | 12.58 |
| Sep. 17, 2008 | 13.50 | April 21, 2011 | 12.19 | Sep. 20 | 13.11 |
| April 17, 2009 | 12.35 | Sep. 26, 2011 | 12.71 | April 24, 2014 | 12.88 |



WELL NUMBER: QA Ea 78

PERMIT NUMBER: QA-81-0474

LOCATION: Natural Resources Police Academy in Matapeake, Kent Island.

LAT. 38° 57' 18", LONG. 76° 21' 15"

AQUIFER: Aquia Aquifer of Early to Late Paleocene age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 135 ft;

Casing diameter: 4 in. to 125 ft;

Screen diameter: 4 in. from 125 to 135 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 11.80 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Top of casing is 1.91 ft above land surface.

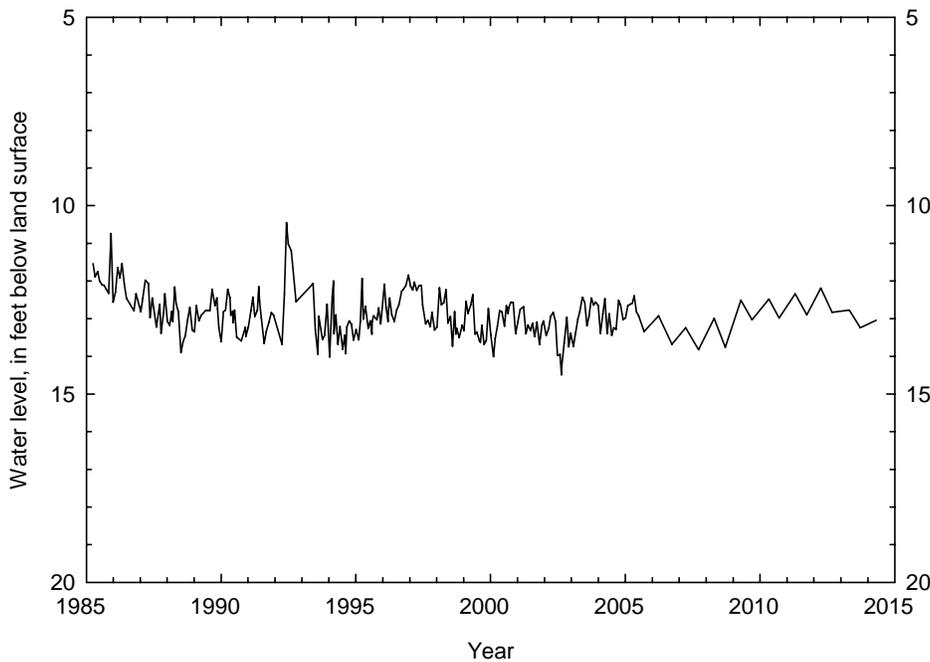
REMARKS: Observation well in the Kent Island ground-water monitoring network. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD: April 1985 to current year.

EXTREMES FOR RECORD: Highest water level measured, 10.45 ft below land surface, June 4, 1992; lowest measured 14.49 ft below land surface, August 20, 2002.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| March 30, 2007 | 13.24 | Sep. 14, 2009 | 13.03 | April 4, 2012 | 12.19 |
| Sep. 21, 2007 | 13.82 | April 30, 2010 | 12.48 | Sep. 4 | 12.83 |
| April 18 | 12.99 | Sep. 16 | 12.98 | April 25, 2013 | 12.77 |
| Sep. 17, 2008 | 13.76 | April 21, 2011 | 12.34 | Sep. 20 | 13.24 |
| April 18, 2009 | 12.51 | Sep. 26, 2011 | 12.90 | April 24, 2014 | 13.04 |



WELL NUMBER: QA Ea 79

PERMIT NUMBER: QA-81-0469

LOCATION: Mowbray Park, Kent Island

LAT. 38° 57' 57", LONG. 76° 20' 01"

AQUIFER: Aquia Aquifer of Early to Late Paleocene age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 298 ft;

Casing diameter: 4 in. to 288 ft;

Screen diameter: 4 in. from 288 to 298 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 8.30 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Top of casing is 2.31 ft above land surface.

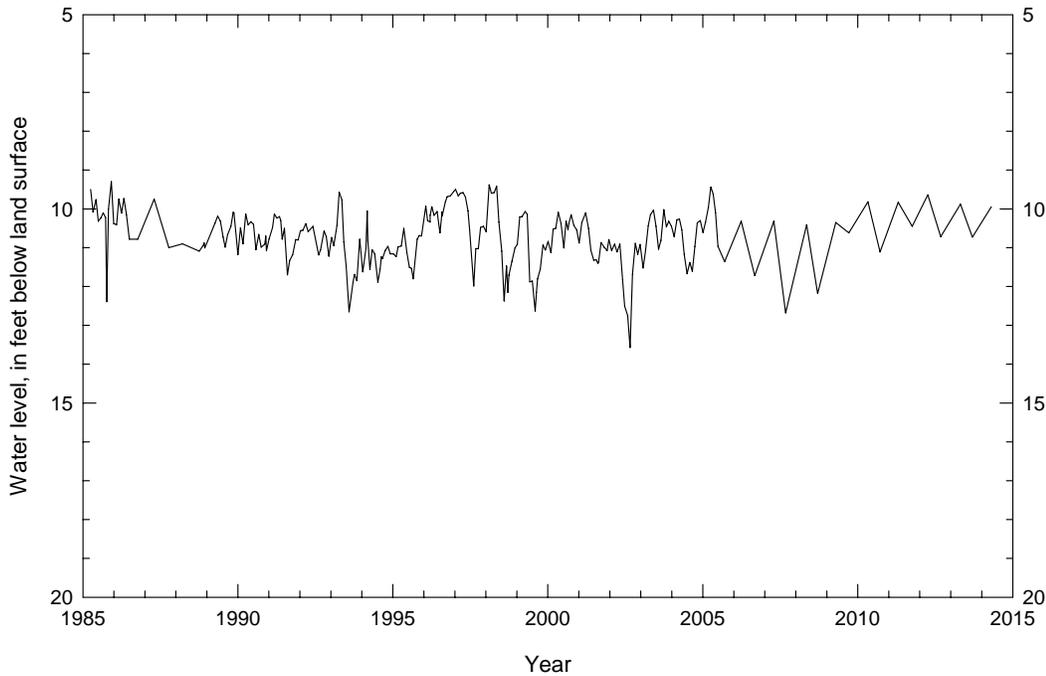
REMARKS: Observation well in the Kent Island ground-water monitoring network. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD: April 1985 to current year.

EXTREMES FOR RECORD: Highest water level measured, 9.30 ft below land surface, Dec. 2, 1985; lowest measured 13.57 ft below land surface, August 27, 2002.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM APRIL 2007 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| April 18, 2007 | 10.32 | Sep. 17 | 10.62 | April 4, 2012 | 9.64 |
| Sep. 4 | 12.68 | April 30, 2010 | 9.82 | Sep 5 | 10.72 |
| May 8, 2008 | 10.41 | Sep. 21 | 11.11 | April 25, 2013 | 9.88 |
| Sep. 15, 2008 | 12.18 | April 21, 2011 | 9.83 | Sep. 13 | 10.73 |
| April 17, 2009 | 10.35 | Oct 5, 2011 | 10.45 | April 24, 2014 | 9.95 |

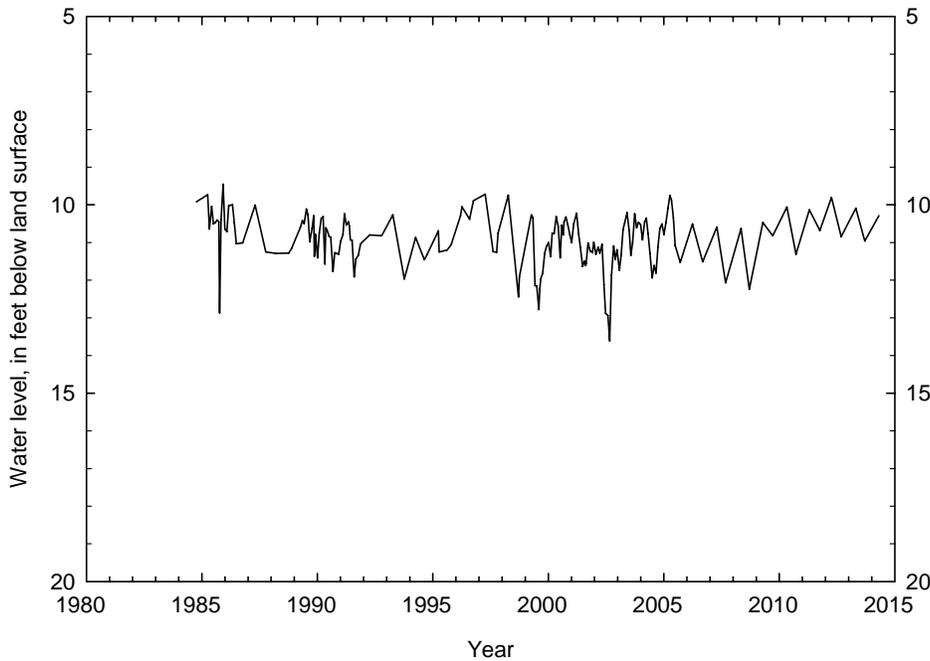


WELL NUMBER: QA Ea 80 **PERMIT NUMBER:** QA-81-0469
LOCATION: Mowbray Park II, Kent Island **LAT. 38° 57' 57", LONG. 76° 20' 01"**
AQUIFER: Aquia Aquifer of Early to Late Paleocene age.
WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 130 ft;
 Casing diameter: 4 in. to 130 ft;
 Screen diameter: 4 in. from 120 to 130 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.
DATUM: Altitude of land surface is 8.50 ft above National Geodetic Vertical Datum of 1929.
MEASURING POINT: Top of casing is 2.51 ft above land surface.
REMARKS: Observation well in the Kent Island ground-water monitoring network. Water levels are affected by local ground-water withdrawal.
PERIOD OF RECORD: October 1984 to current year.
EXTREMES FOR RECORD: Highest water level measured, 9.45 ft below land surface, Dec. 2, 1985; lowest measured 13.61 ft below land surface, August 27, 2002.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM APRIL 2007 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| April 18, 2007 | 10.59 | Sep. 19, 2009 | 10.82 | April 4, 2012 | 9.80 |
| Sep. 4, 2007 | 12.07 | April 30 | 10.06 | Sep. 5 | 10.85 |
| May 8, 2008 | 10.63 | Sep.21, 2010 | 11.31 | April 25, 2013 | 10.09 |
| Sep.15, 2008 | 12.24 | April 21, 2011 | 10.13 | Sep. 13 | 10.96 |
| April 17, 2009 | 10.47 | Oct. 5, 2011 | 10.68 | April 24, 2014 | 10.29 |



WELL NUMBER: QA Ea 81

PERMIT NUMBER: QA-81-0474

LOCATION: Natural Resources Police Academy in Matapeake, Kent Island.

LAT. 38° 57' 18", LONG. 76° 21' 15"

AQUIFER: Aquia Aquifer of Early to Late Paleocene age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 310 ft;

Casing diameter: 4 in. to 300 ft;

Screen diameter: 4 in. from 300 to 310 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 12.40 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Top of casing is 2.16 ft above land surface.

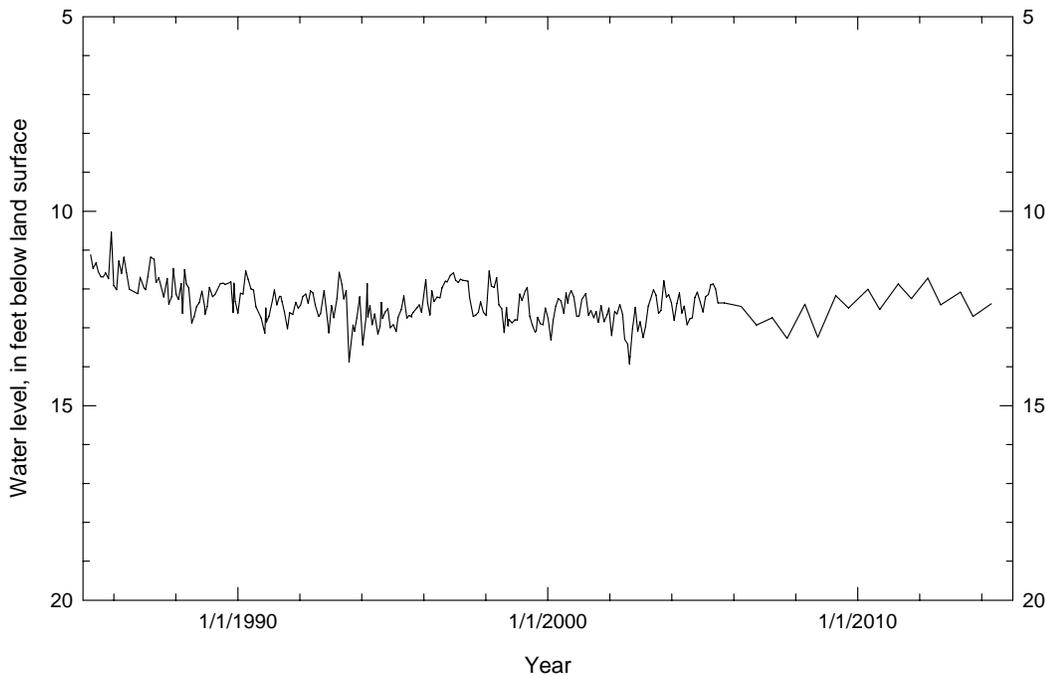
REMARKS: Observation well in the Kent Island ground-water monitoring network. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD: April 1985 to current year.

EXTREMES FOR RECORD: Highest water level measured, 10.54 ft below land surface, Dec. 2, 1985; lowest measured 13.93 ft below land surface, August 20, 2002.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| March 30, 2007 | 12.74 | Sep. 14 | 12.49 | April 21, 2012 | 11.72 |
| Sep. 21 | 13.27 | April 30, 2010 | 12.01 | Sep. 4 | 12.41 |
| April 18, 2008 | 12.39 | Sep. 16 | 12.53 | April 25, 2013 | 12.08 |
| Sep. 17, 2008 | 13.24 | April 21, 2011 | 11.87 | Sep. 20 | 12.71 |
| April 17, 2009 | 12.17 | Sep. 26, 2011 | 12.25 | April 24, 2014 | 12.38 |



WELL NUMBER: QA Eb 110

PERMIT NUMBER: QA-73-2979

LOCATION: Near Chester, east side of Cox Neck Road

LAT. 38° 57' 51", LONG. 76° 17' 16"

AQUIFER: Patuxent Aquifer of Early Cretaceous age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 2,485 ft;

Casing diameter: 4 in. to 2,413 ft, from 2,423 to 2,465 ft, and from 2,475 to 2,485 ft;

Screen diameter: 4 in. from 2,413 to 2,423 ft and from 2,465 to 2,475 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 13.98 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Top of casing is 3.36 ft above land surface.

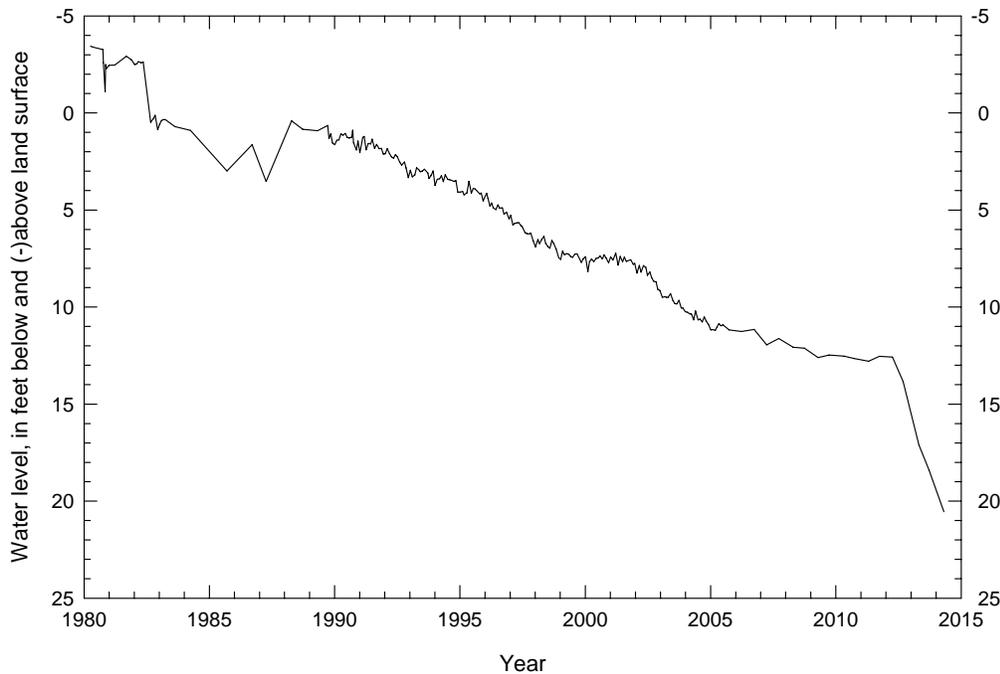
REMARKS: Observation well in the statewide ground-water level network. Water levels are affected by regional ground-water withdrawal.

PERIOD OF RECORD: January 1980 to current year.

EXTREMES FOR RECORD: Highest water level measured, 6.99 ft below land surface, Jan. 21, 1980; lowest measured 20.55 ft below land surface, April 24, 2014.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| March 30, 2007 | 11.95 | Sep. 24, 2009 | 12.47 | April 4, 2012 | 12.58 |
| Sep 21 | 11.62 | April 30, 2010 | 12.53 | Sep. 5 | 13.84 |
| April 18, 2008 | 12.07 | Sep. 24, 2010 | 12.66 | April 25, 2013 | 17.10 |
| Sep. 29, 2008 | 12.12 | April 21, 2011 | 12.79 | Sep. 20 | 18.41 |
| April 17, 2009 | 12.61 | Sep. 26, 2011 | 12.54 | April 24, 2014 | 20.55 |



WELL NUMBER: QA Eb 111

PERMIT NUMBER: QA-73-3122

LOCATION: Near Chester, east side of Cox Neck Road

LAT. 38° 57' 51", LONG. 76° 17' 16"

AQUIFER: Upper Patapsco Aquifer of Early Cretaceous age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 985 ft;

Casing diameter: 4 in. to 955 ft and from 965 to 975 ft;

Screen diameter: 4 in. from 955 to 965 ft and from 975 to 985 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 14.03 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Top of casing is 1.41 ft above land surface.

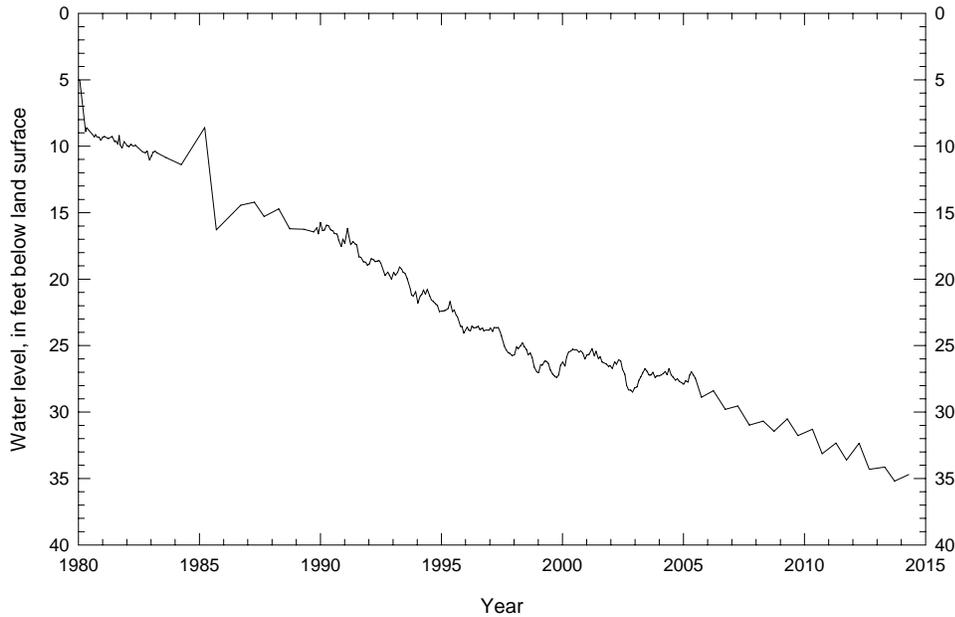
REMARKS: Observation well in the statewide ground-water level network. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD: January 1980 to current year.

EXTREMES FOR RECORD: Highest water level measured, 5.02 ft below land surface, Jan. 21, 1980; lowest measured 35.19 ft below land surface, September 20, 2013.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2013

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| March 30, 2007 | 29.54 | Sep. 24, 2009 | 31.77 | April 4, 2012 | 32.34 |
| Sep 21 | 30.98 | April 30, 2010 | 31.29 | Sep. 5 | 34.31 |
| April 18, 2008 | 30.69 | Sep. 24 | 33.14 | April 25, 2013 | 34.13 |
| Sep. 29, 2009 | 31.44 | April 21, 2011 | 32.33 | Sep. 20 | 35.19 |
| April 17, 2009 | 30.52 | Sep. 26, 2011 | 33.61 | April 24, 2014 | 34.71 |



WELL NUMBER: QA Eb 112

PERMIT NUMBER: QA-73-3123

LOCATION: Near Chester, east side of Cox Neck Road

LAT. 38° 57' 51", LONG. 76° 17' 16"

AQUIFER: Lower Patapsco Aquifer of Early Cretaceous age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 1,679 ft;

Casing diameter: 4 in. to 1,652 ft and from 1,662 to 1,669 ft;

Screen diameter: 4 in. from 1,652 to 1,662 ft and from 1,669 to 1,679 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 13.92 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Top of casing is 1.36 ft above land surface.

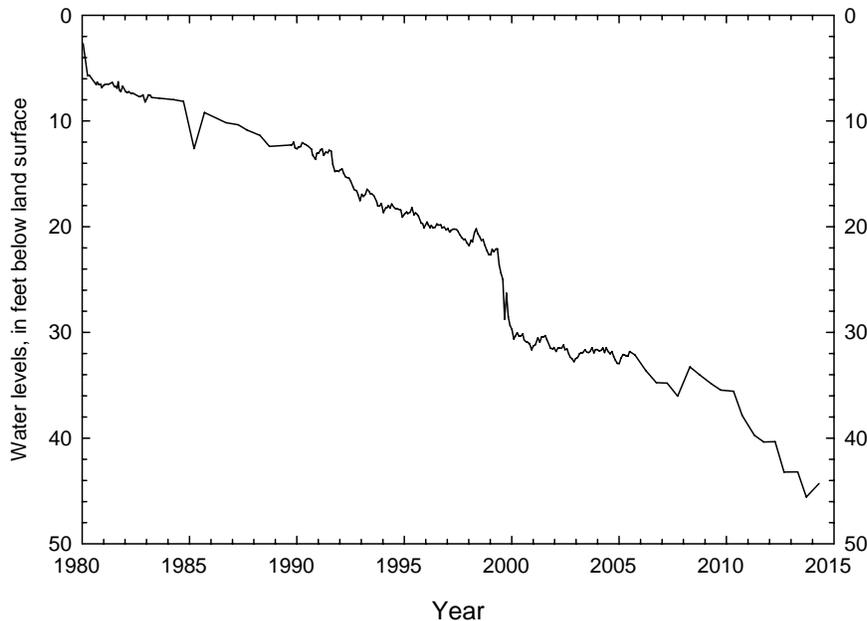
REMARKS: Observation well in the statewide ground-water level network. Water levels are affected by local and regional ground-water withdrawal.

PERIOD OF RECORD: January 1980 to current year.

EXTREMES FOR RECORD: Highest water level measured, 2.69 ft below land surface, Jan. 21, 1980; lowest measured 43.22 ft below land surface, September 5, 2012.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| March 30, 2007 | 34.80 | Sep. 21, 2009 | 35.47 | April 4, 2012 | 40.34 |
| Sep. 21, 2007 | 36.04 | April 30, 2010 | 35.56 | Sep. 5 | 43.22 |
| April 18, 2008 | 33.26 | Sep. 24 | 37.86 | April 25, 2013 | 43.21 |
| Sep 21, 2008 | 34.00 | April 21, 2011 | 39.73 | Sep. 20 | 45.58 |
| April 18, 2009 | 34.87 | Sep. 26, 2011 | 40.36 | April 24, 2014 | 44.29 |



WELL NUMBER: QA Eb 113

PERMIT NUMBER: QA-73-3172

LOCATION: Near Chester, east side of Cox Neck Road

LAT. 38° 57' 48", LONG. 76° 17' 20"

AQUIFER: Aquia Aquifer of Early to Late Paleocene age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 216 ft;

Casing diameter: 6 in. to 176 ft;

Screen diameter: 6 in. from 176 to 216 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 11.34 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Since October 2003 top of casing is 1.6 ft above land surface, which is 1 ft lower than before. Water levels measured after October 2003 were corrected accordingly.

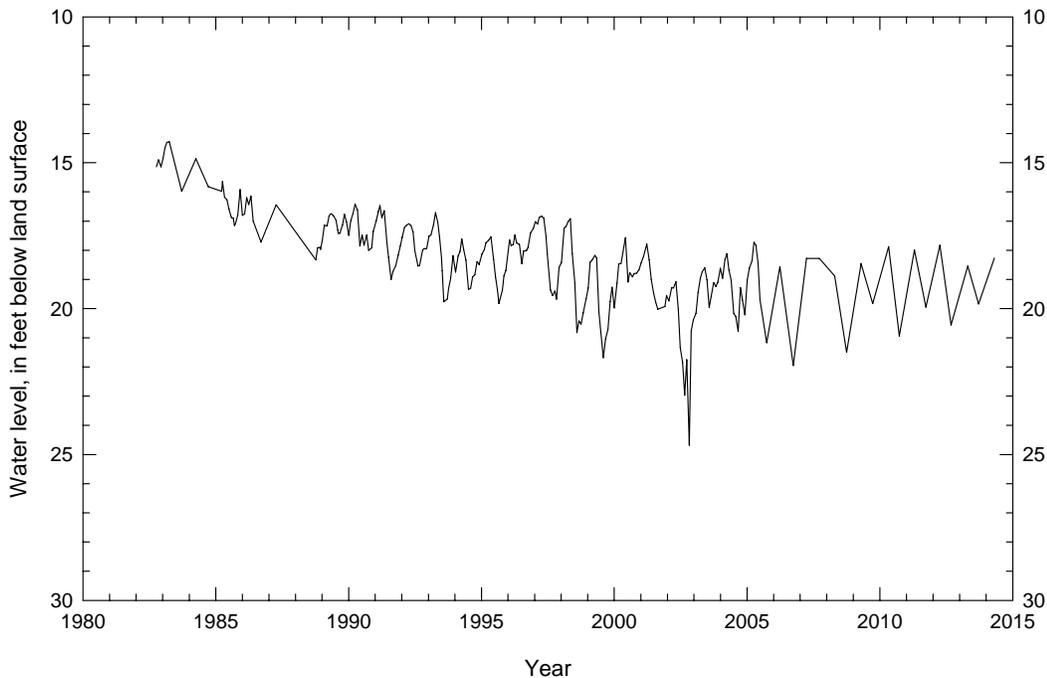
REMARKS: Observation well in the statewide ground-water level network. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD: October 1982 to current year.

EXTREMES FOR RECORD: Highest water level measured, 14.05 ft below land surface, Apr. 18, 1989; lowest measured 24.68 ft below land surface, October 29, 2002.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| March 30, 2007 | 18.28 | Sep. 21, 2009 | 19.83 | April 21, 2012 | 17.83 |
| Sep. 21 | 18.28 | April 30, 2010 | 17.88 | Sep. 5 | 20.56 |
| April 18, 2008 | 18.88 | Sep. 24 | 20.94 | April 25, 2013 | 18.54 |
| Sep. 21, 2008 | 21.50 | April 21, 2011 | 17.99 | Sep. 20 | 19.84 |
| April 18, 2009 | 18.46 | Sep. 26, 2011 | 19.95 | April 24, 2014 | 18.27 |



WELL NUMBER: QA Eb 155

LOCATION: At north end of Piney Creek Road, Kent Island

PERMIT NUMBER: QA-81-0470

LAT. 38° 58' 43", LONG. 76° 15' 53"

AQUIFER: Aquia Aquifer of Early to Late Paleocene age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 245 ft;

Casing diameter: 4 in. to 235 ft;

Screen diameter: 4 in. from 235 to 245 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 3.90 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Top of casing is 2.50 ft above land surface.

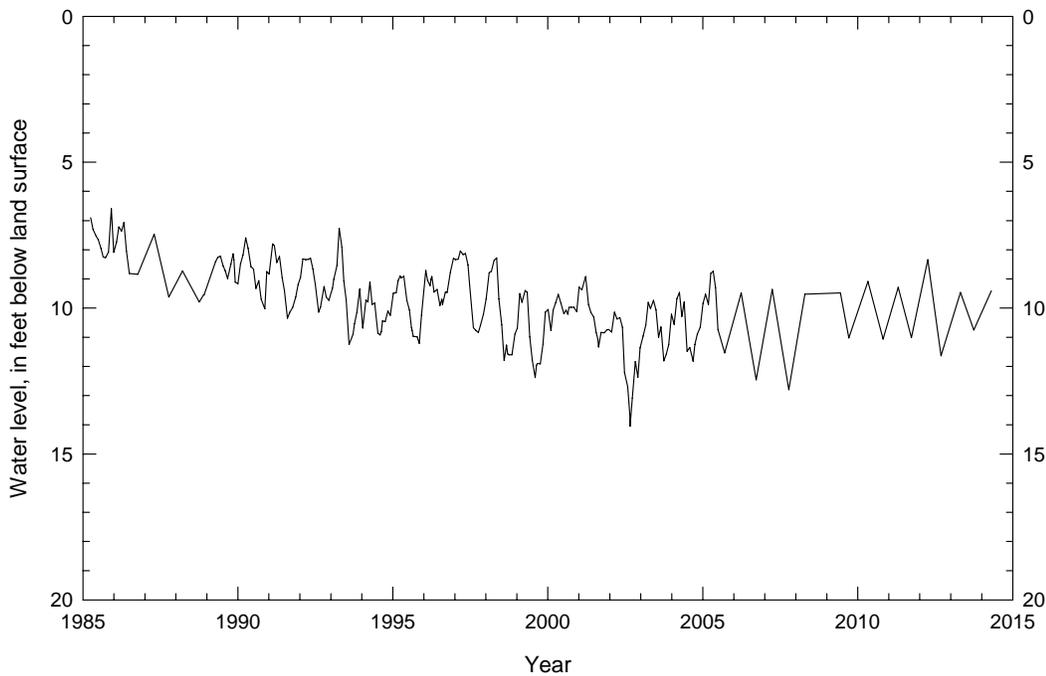
REMARKS: Observation well in the Kent Island ground-water monitoring network. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD: April 1985 to current year.

EXTREMES FOR RECORD: Highest water level measured, 6.60 ft below land surface, Dec. 2, 1985; lowest measured 14.05 ft below land surface, August 27, 2002.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| March 30, 2007 | 9.36 | April 30, 2010 | 9.09 | Sep 7, 2012 | 11.63 |
| Oct. 11 | 12.80 | Oct. 26 | 11.06 | April 25, 2013 | 9.46 |
| April 18, 2008 | 9.52 | April 21, 2011 | 9.29 | Sep. 30 | 10.75 |
| June 10, 2009 | 9.48 | Sep. 26, 2011 | 11.01 | April 24, 2014 | 9.41 |
| Sep. 17, 2009 | 11.02 | April 4, 2012 | 8.34 | | |



WELL NUMBER: QA Eb 156

LOCATION: At Terrapin Beach Park, north of US Rte. 50,

PERMIT NUMBER: QA-81-0475

LAT. 38° 58' 52", LONG. 76° 19' 52"

Kent Island.

AQUIFER: Aquia Aquifer of Early to Late Paleocene age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 220 ft;

Casing diameter: 4 in. to 210 ft;

Screen diameter: 4 in. from 210 to 220 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 12.01 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Top of casing is 2.20 ft above land surface.

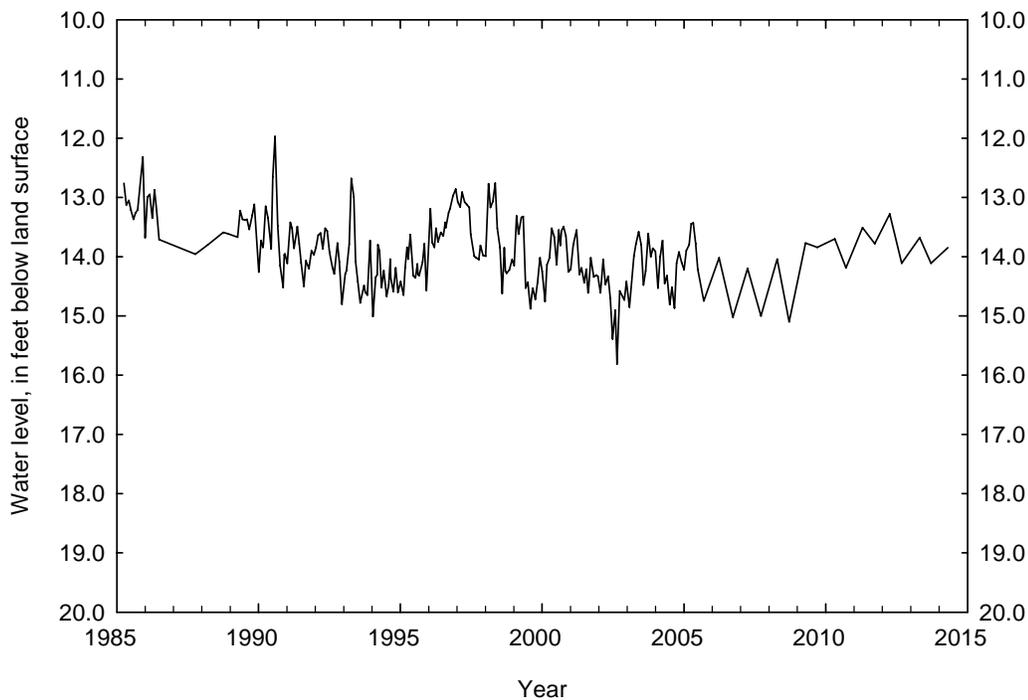
REMARKS: Observation well in the Kent Island ground-water monitoring network. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD: April 1985 to current year.

EXTREMES FOR RECORD: Highest water level measured, 11.97 ft below land surface, Aug. 1, 1990; lowest measured 15.81 ft below land surface, August 22, 2002.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| March 30, 2007 | 14.20 | Sep 16, 2009 | 13.84 | April 4, 2012 | 13.28 |
| Sep 21, 2007 | 15.00 | April 30, 2010 | 13.70 | Sep. 6 | 14.11 |
| April 18, 2008 | 14.04 | Sep 21, 2010 | 14.19 | April 25, 2013 | 13.68 |
| Sep 17, 2008 | 15.10 | April 21, 2011 | 13.51 | Sep. 20 | 14.11 |
| April 17, 2009 | 13.77 | Sep 26, 2011 | 13.78 | Aril 24, 2014 | 13.85 |



WELL NUMBER: QA Eb 157

LOCATION: At Terrapin Beach Park, north of US Rte. 50,

PERMIT NUMBER: QA-81-0475

LAT. 38° 58' 52", LONG. 76° 19' 52"

Kent Island.

AQUIFER: Aquia Aquifer of Early to Late Paleocene age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 120 ft;

Casing diameter: 4 in. to 110 ft;

Screen diameter: 4 in. from 110 to 120 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 11.52 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Top of casing is 2.50 ft above land surface.

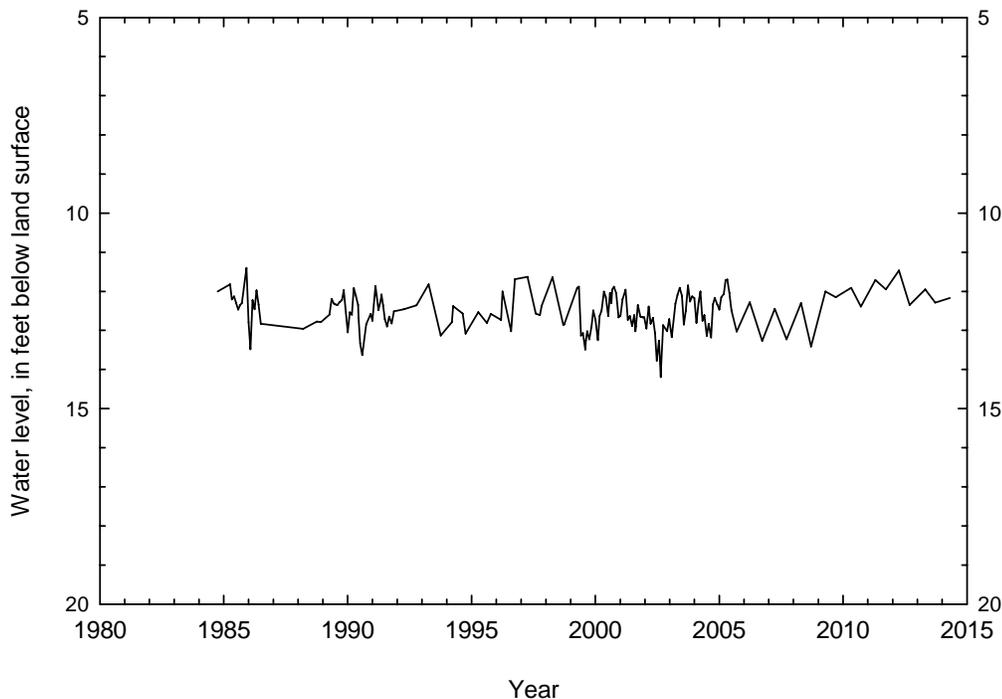
REMARKS: Observation well in the Kent Island ground-water monitoring network. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD: October 1984 to current year.

EXTREMES FOR RECORD: Highest water level measured, 11.40 ft below land surface, December 2, 1985; lowest measured 14.19 ft below land surface, August 22, 2002.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| March 30, 2007 | 12.45 | Sep. 16, 2009 | 12.15 | April 4, 2012 | 11.47 |
| Sep. 21, 2007 | 13.23 | April 30, 2010 | 11.91 | Sep. 6 | 12.35 |
| April 18, 2008 | 12.30 | Sep. 21 | 12.39 | April 25, 2013 | 11.95 |
| Sep. 17, 2008 | 13.41 | April 21, 2011 | 11.71 | Sep. 20 | 12.29 |
| April 17, 2009 | 12.00 | Sep. 26, 2011 | 11.95 | April 24, 2014 | 12.17 |



WELL NUMBER: QA Eb 182

PERMIT NUMBER: QA-81-0475

LOCATION: At 208 Church Street, Stevensville Water Treatment Plant, Stevensville, Kent Island. **LAT.** 38° 58' 50", **LONG.** 76° 18' 35"

AQUIFER: Lower Patapsco Aquifer of Early Cretaceous age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 1,580 ft;
Casing diameter: 5 in. to 280 ft; 4 in. from 280 ft to 1460 ft;
Screen diameter: 4 in. from 1,460 ft to 1,480 ft, from 1,520 ft to 1,530 ft, and from 1,550 ft to 1,580 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 14.0 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Top of casing is 1.80 ft above land surface.

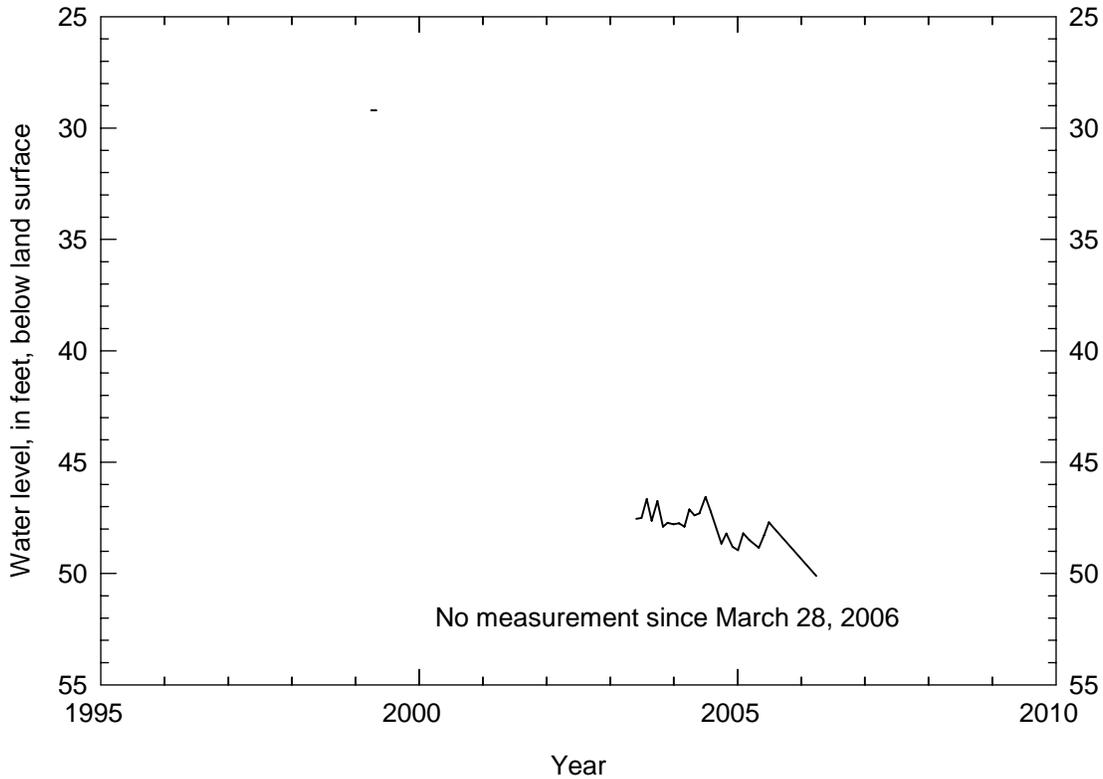
REMARKS: Observation well in the Kent Island ground-water monitoring network. Water levels are affected by local ground-water withdrawal. No measurement since March 28, 2006.

PERIOD OF RECORD: April and May 1999, from May 2003 to March 28, 2006.

EXTREMES FOR RECORD: Highest water level measured, 29.20 ft below land surface, April 1, 1999; lowest measured 50.11 ft below land surface, March 28, 2006.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM JULY 2004 TO MARCH 2006

| Date | Water Level | Date | Water Level | Date | Water Level |
|--------------|-------------|--------------|-------------|----------------|-------------|
| July 1, 2004 | 46.56 | Dec. 2, 2004 | 48.81 | May 20, 2005 | 48.85 |
| July 30 | 47.22 | Jan. 3, 2005 | 48.95 | June 1 | 48.28 |
| Sep. 30 | 48.66 | Feb. 2 | 48.20 | June 29 | 47.70 |
| Oct. 28 | 48.21 | March 9 | 48.50 | March 28, 2006 | 50.11 |



WELL NUMBER: QA Ec 1

PERMIT NUMBER: None

LOCATION: Near Grasonville, south side of MD Rte. 18 and northeast of Nesbit Rd. **LAT.** 38° 57' 56", **LONG.** 76° 10' 53"

AQUIFER: Columbia Aquifer of Pleistocene age.

WELL CHARACTERISTICS: Drilled, unused, water-table well. Depth is 21 ft; Casing diameter: 1.25 in. to 21 ft; no screen.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

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

MEASURING POINT: Top of casing is 0.27 ft above land surface.

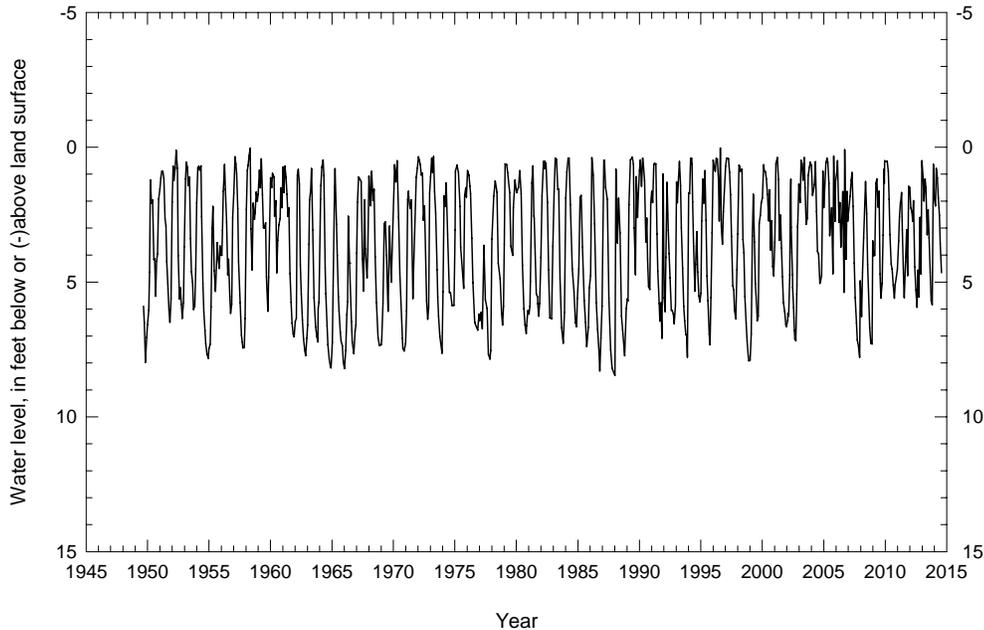
REMARKS: Observation well in the statewide ground-water level network. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD: September 1949 to current year.

EXTREMES FOR RECORD: Highest water level measured, 0.03 ft below land surface, Aug. 2, 1996; lowest measured 8.46 ft below land surface, Jan. 7, 1988.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM JULY 2011 TO JUNE 2013

| Date | Water Level | Date | Water Level | Date | Water Level |
|---------------|-------------|---------------|-------------|---------------|-------------|
| July 22, 2011 | 5.58 | Mar. 29, 2012 | 2.74 | Nov. 28, 2012 | 4.7 |
| Aug. 30 | 4.25 | April 24 | 1.98 | Dec. 26 | 0.5 |
| Sep. 30 | 3.06 | May 31 | 4.44 | Feb. 1, 2013 | 1.19 |
| Oct. 28 | 4.76 | June 28 | 5.30 | Feb. 26 | 1.99 |
| Nov. 30 | 1.45 | July 30, 2012 | 5.93 | March 28 | 1.18 |
| Dec. 30, 2011 | 1.50 | Aug. 30 | 4.53 | April 24 | 1.50 |
| Jan. 31, 2012 | 2.25 | Sep. 27 | 5.56 | May 31 | 3.25 |
| Feb. 29, 2012 | 2.40 | Nov. 1 | 2.6 | June 27, 2013 | 2.33 |



WELL NUMBER: QA Ef 29

LOCATION: Tuckahoe State Park, off east side of MD

PERMIT NUMBER: QA-81-1593

LAT. 38° 55' 38", **LONG.** 75° 57' 40"

Rte. 309.

AQUIFER: Upper Patapsco Aquifer of Early Cretaceous age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 1,325 ft;

Casing diameter: 14 in. to 500 ft and 8 in. from 500 to 1,110 ft, from 1,120 to 1,135 ft, from 1,180 to 1,195 ft, from 1,210 to 1,230 ft, from 1,270 to 1,285 ft, and from 1,315 to 1,325 ft;

Screen diameter: 8 in. from 1,110 to 1,120 ft, from 1,135 to 1,180 ft, from 1,195 to 1,210 ft, from 1,230 to 1,270 ft, and from 1,285 to 1,315 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 61.69 ft above National Geodetic Vertical Datum of 1929.

MEASURING POINT: Top of 2 in. riser pipe is 3.80 ft above land surface.

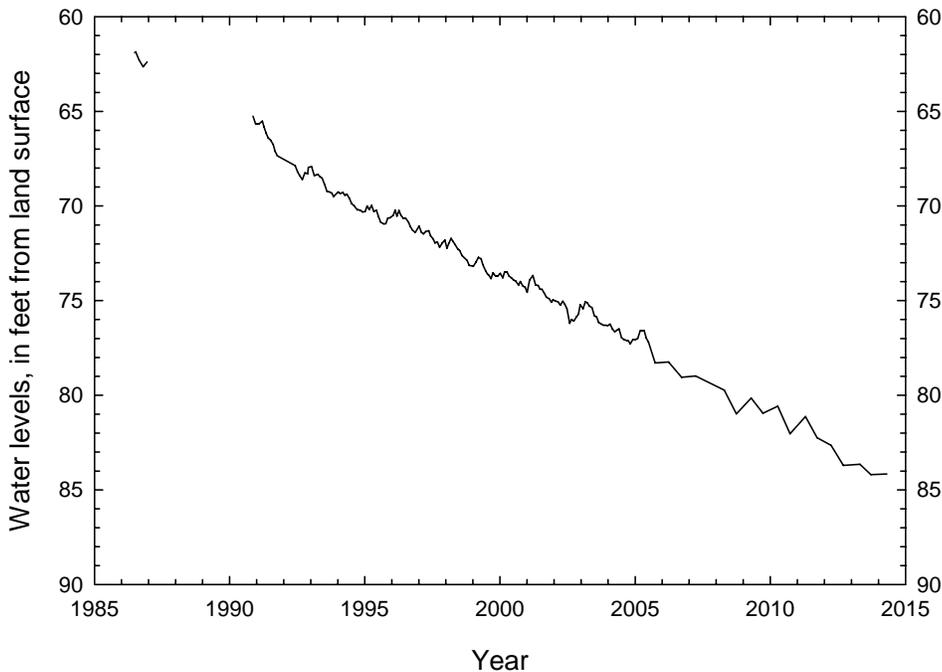
REMARKS: Observation well in the statewide ground-water level network. Water levels are affected by regional ground-water withdrawal.

PERIOD OF RECORD: June 1986 to December 1986 and November 1990 to current year.

EXTREMES FOR RECORD: Highest water level measured, 62.30 ft below land surface, Aug. 27, 1986; lowest measured 83.70 ft below land surface, September 13, 2012.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| March 30, 2007 | 78.99 | April 12, 2010 | 80.58 | Sep. 13, 2012 | 83.70 |
| April 18, 2008 | 79.73 | Sep. 24, 2010 | 82.03 | April 25, 2013 | 83.65 |
| Sep. 29, 2008 | 80.98 | April 21, 2011 | 81.13 | Sep. 20 | 84.19 |
| April 17, 2009 | 80.15 | Sep. 26, 2011 | 82.24 | April 24, 2014 | 84.16 |
| Sep. 24 | 80.95 | April 2, 2012 | 82.65 | | |



WELL NUMBER: QA Fc 7

PERMIT NUMBER: QA-73-2191

LOCATION: Prospect Plantation, west side of Greenwood Shoals.

LAT. 38° 54' 29", **LONG.** 76° 12' 02"

AQUIFER: Aquia Aquifer of Early to Late Paleocene age.

WELL CHARACTERISTICS: Drilled, observation, artesian well. Depth is 356 ft;

Casing diameter: 4 in. to 336 ft;

Screen diameter: 4 in. from 336 to 356 ft.

INSTRUMENTATION: Monthly measurements with steel or electric tape.

DATUM: Altitude of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

MEASURING POINT: Top of casing at land surface.

REMARKS: Observation well in the statewide ground-water level network. Water levels are affected by local ground-water withdrawal.

PERIOD OF RECORD: February 1980 to current year.

EXTREMES FOR RECORD: Highest water level measured, 19.77 ft below land surface, Mar. 3, 1983; lowest measured 42.77 ft below land surface, August 27, 2002.

WATER LEVEL, IN FEET, BELOW LAND SURFACE, FROM MARCH 2007 TO APRIL 2014

| Date | Water Level | Date | Water Level | Date | Water Level |
|----------------|-------------|----------------|-------------|----------------|-------------|
| March 28, 2007 | 29.25 | Sep. 24 | 34.76 | April 4, 2012 | 28.77 |
| Sep. 2 | 39.78 | April 30, 2010 | 29.14 | Sep. 13 | 38.84 |
| April 18, 2008 | 30.70 | Sep. 24 | 40.67 | April 25, 2013 | 29.75 |
| Sep 29, 2008 | 38.42 | April 21, 2011 | 29.70 | Sep. 20 | 37.05 |
| April 17, 2009 | 29.93 | Sep. 26, 2011 | 36.63 | April 24, 2014 | 29.82 |

