

Figure 2.4-61—{Potentiometric Surface of the Magothy Aquifer in Southern MD, September 2003}

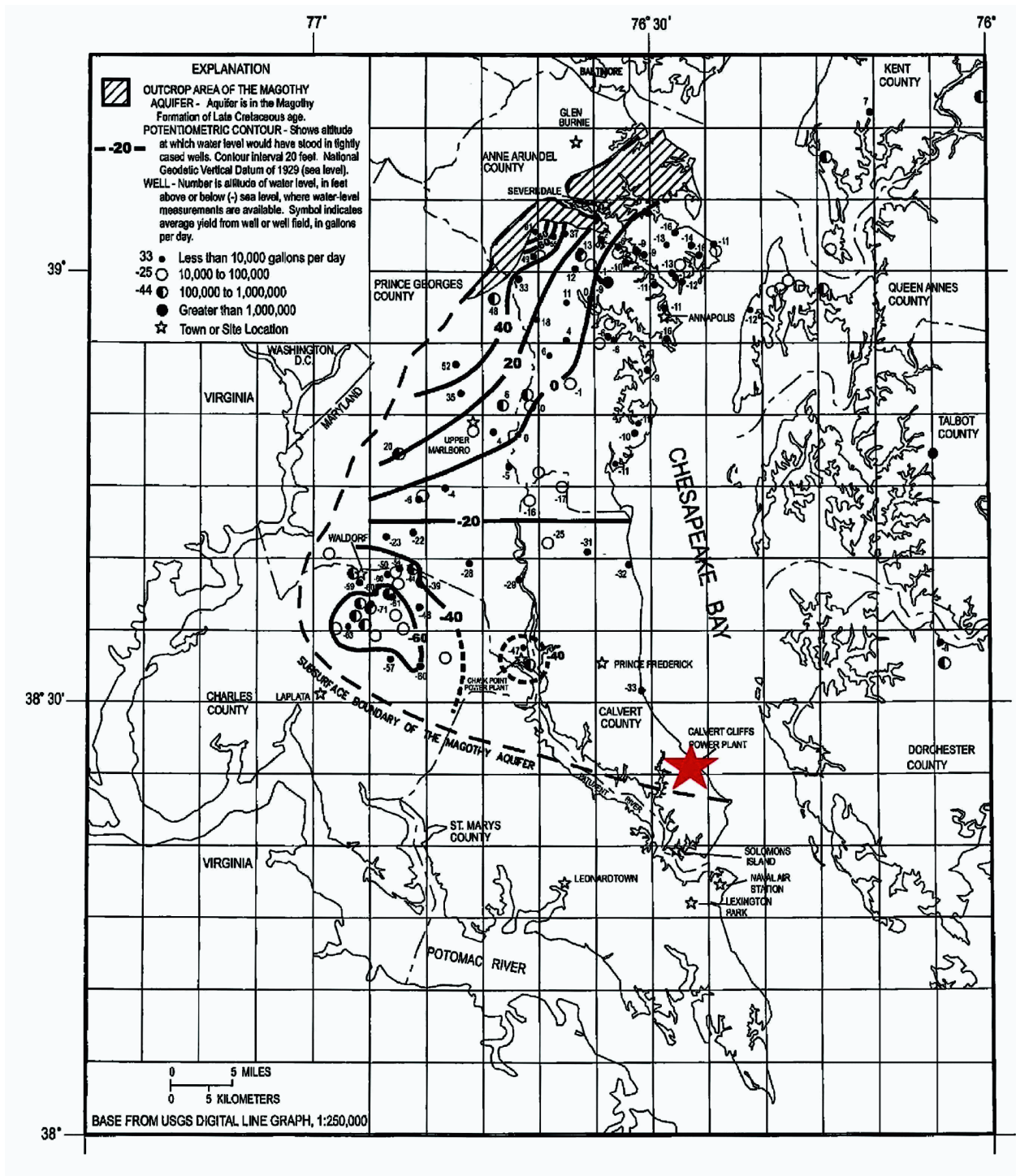


Figure 2.4-62—{Potentiometric Surface of the Upper Patapsco Aquifer in Southern MD, September 2003}

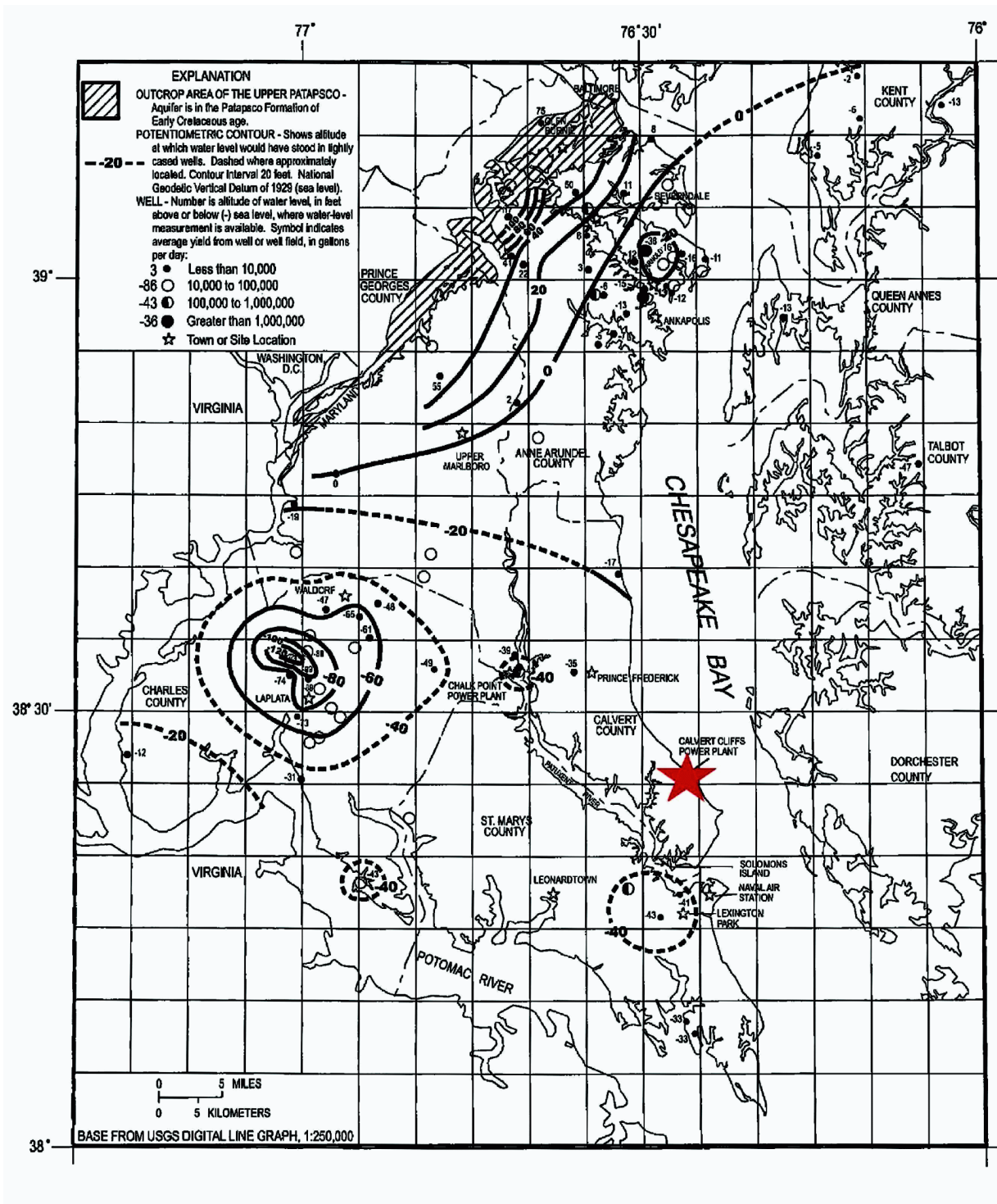


Figure 2.4-63—{Potentiometric Surface of the Lower Patapsco Aquifer in Southern MD, September 2003}

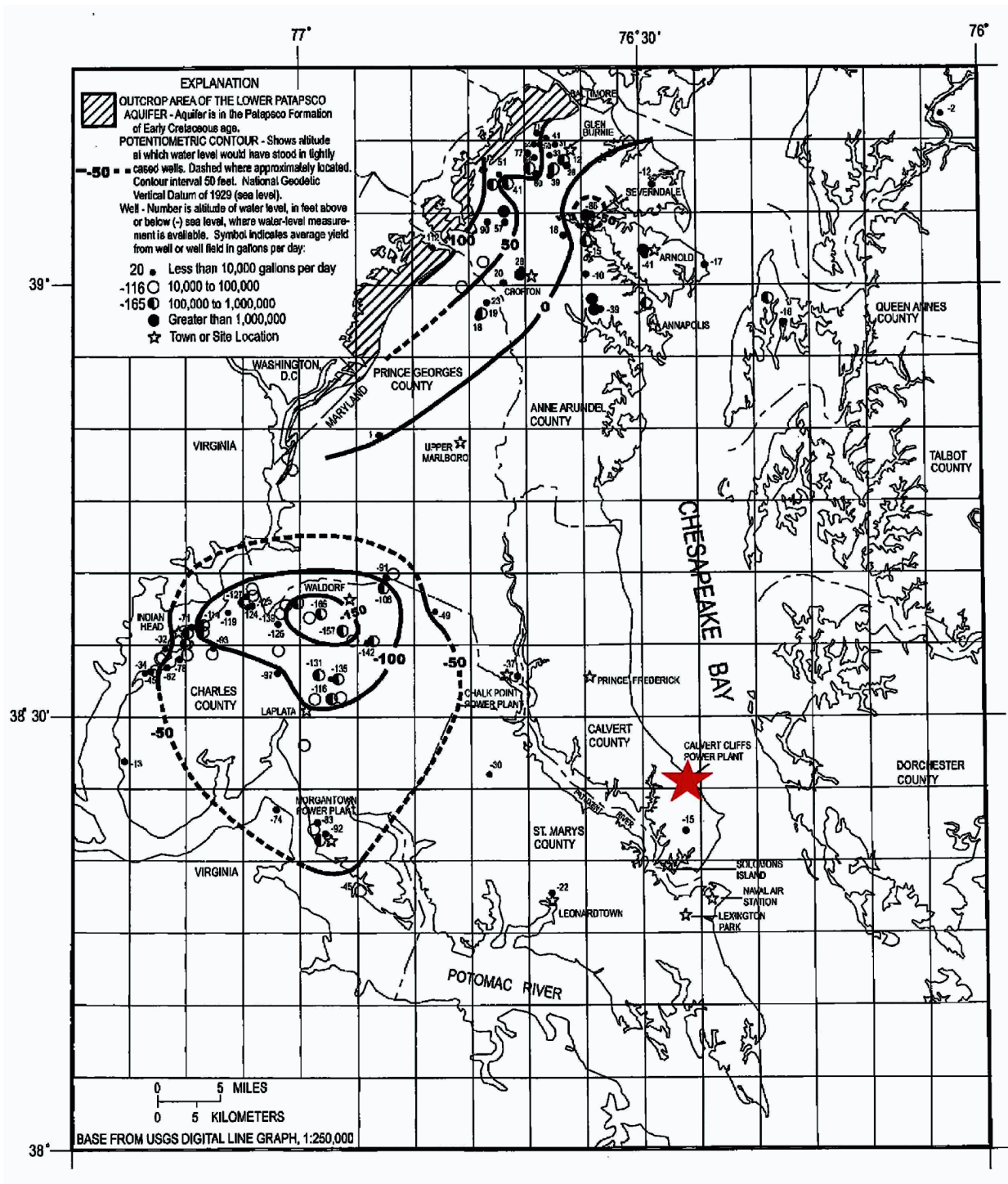


Figure 2.4-64—{CCNPP Site Area Topography and Drainage}

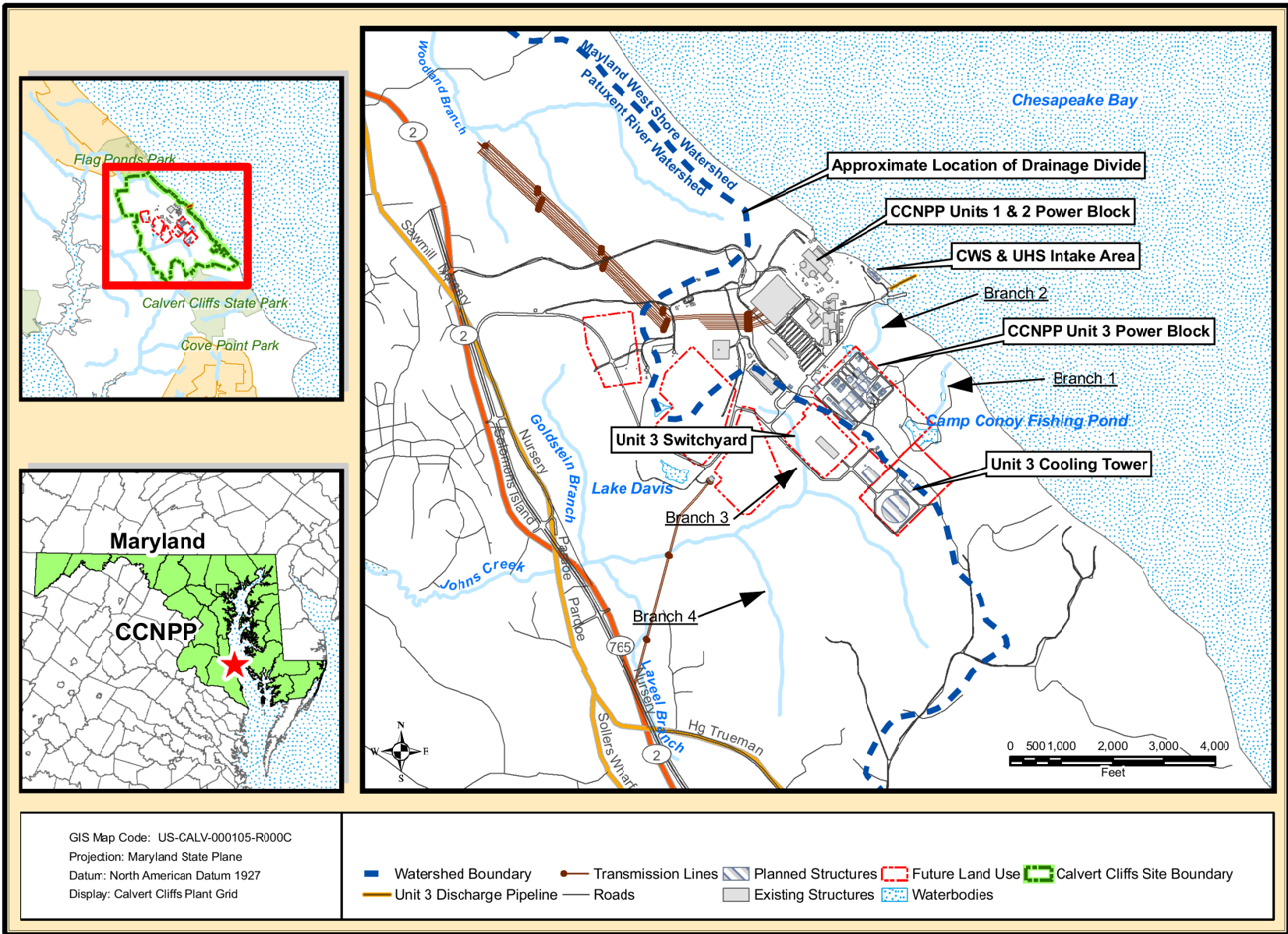
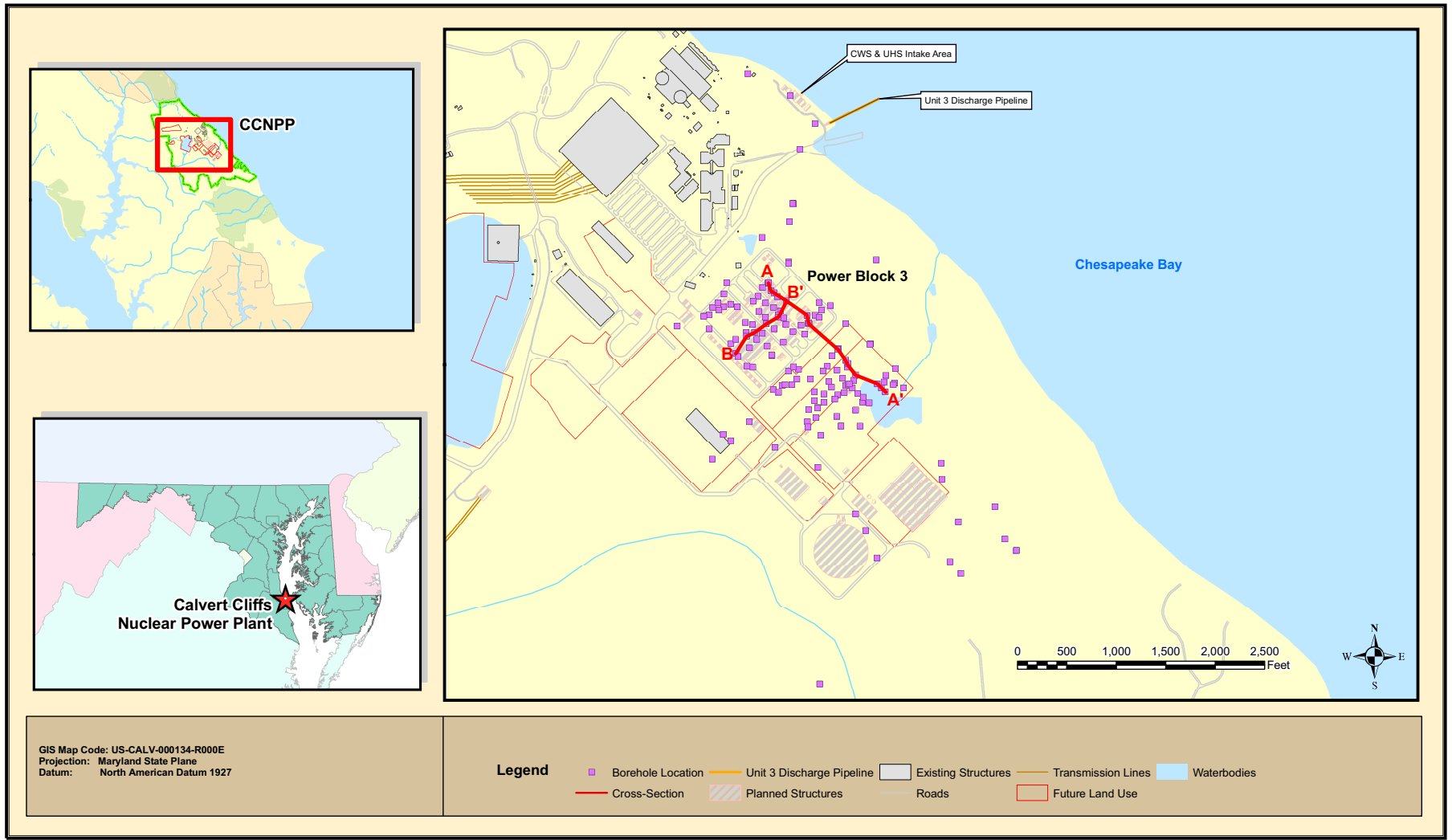


Figure 2.4-65—{Cross-Section and Soil Boring Locations in the Vicinity of CCNPP Unit 3}



GIS Map Code: US-CALV-000134-R000E
 Projection: Maryland State Plane
 Datum: North American Datum 1927

- Legend**
- Borehole Location
 - Unit 3 Discharge Pipeline
 - Existing Structures
 - Transmission Lines
 - Waterbodies
 - Cross-Section
 - Planned Structures
 - Roads
 - Future Land Use

Figure 2.4-66—{Cross-Section A-A' Through Proposed Unit 3 Power Block Area}

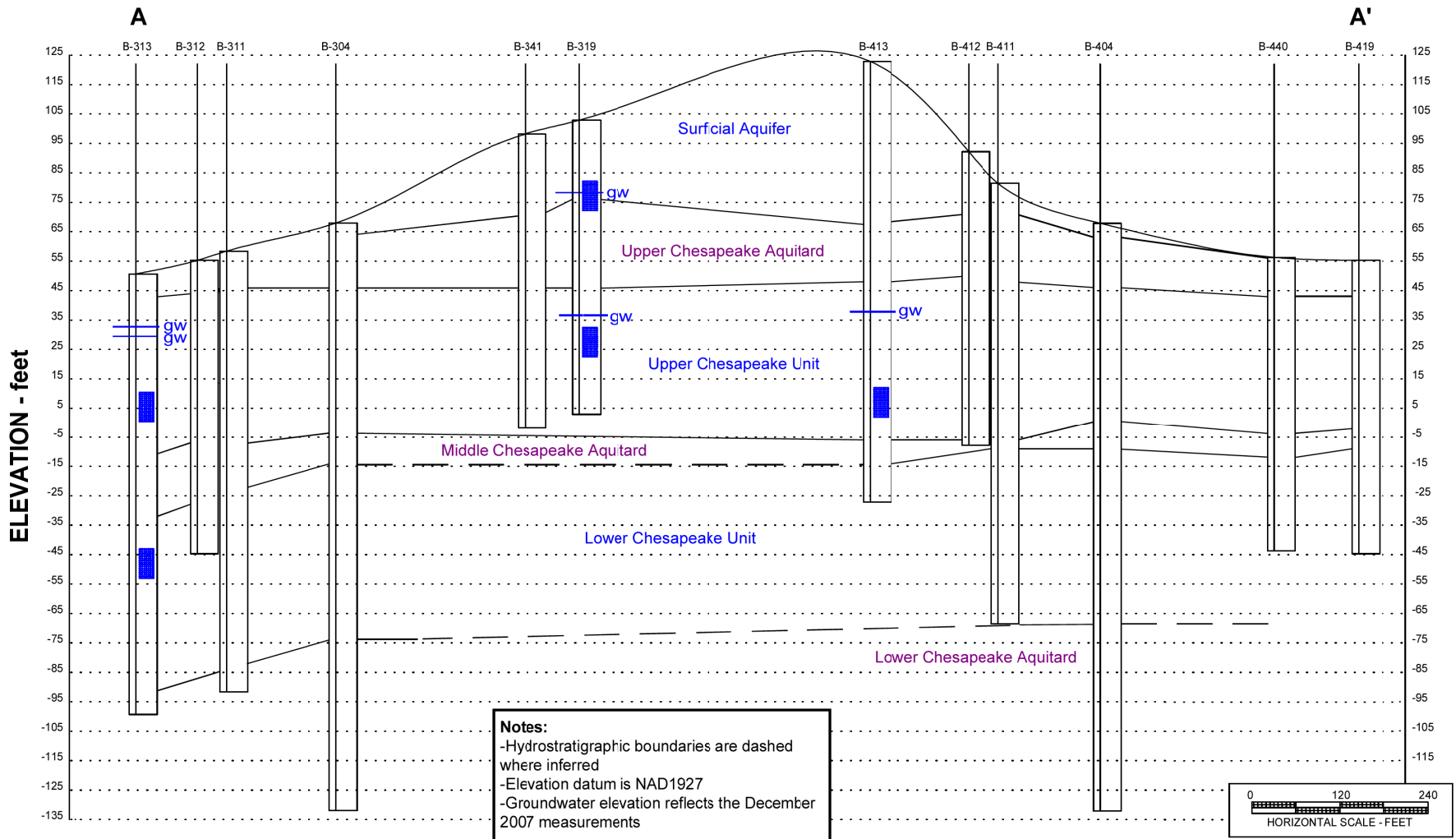


Figure 2.4-67—{Cross-Section B-B' Through Proposed Unit 3 Power Block Area}

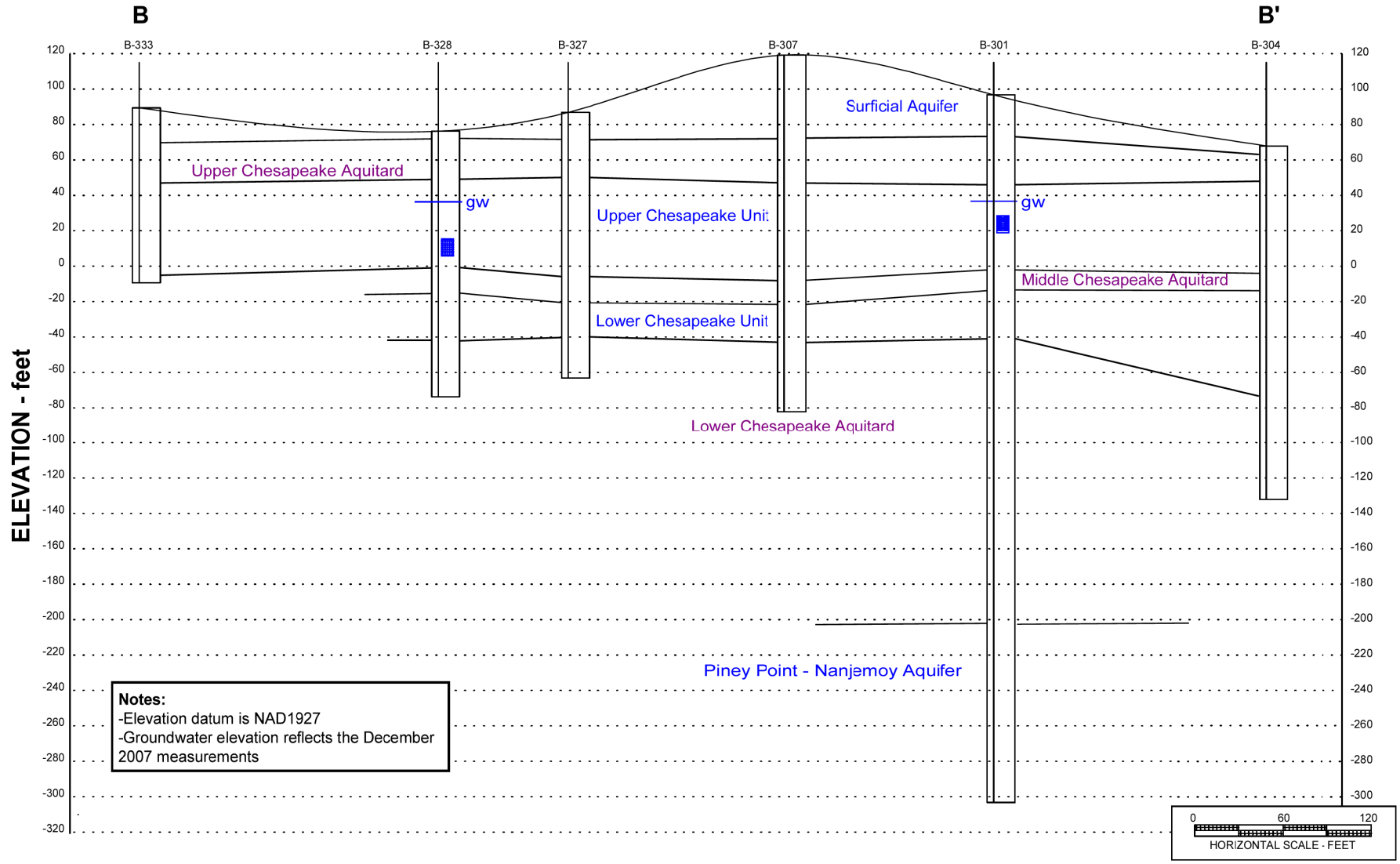


Figure 2.4-68—{Groundwater Observation Wells and Cross-Section Locations in the Vicinity of CCNPP Unit 3}

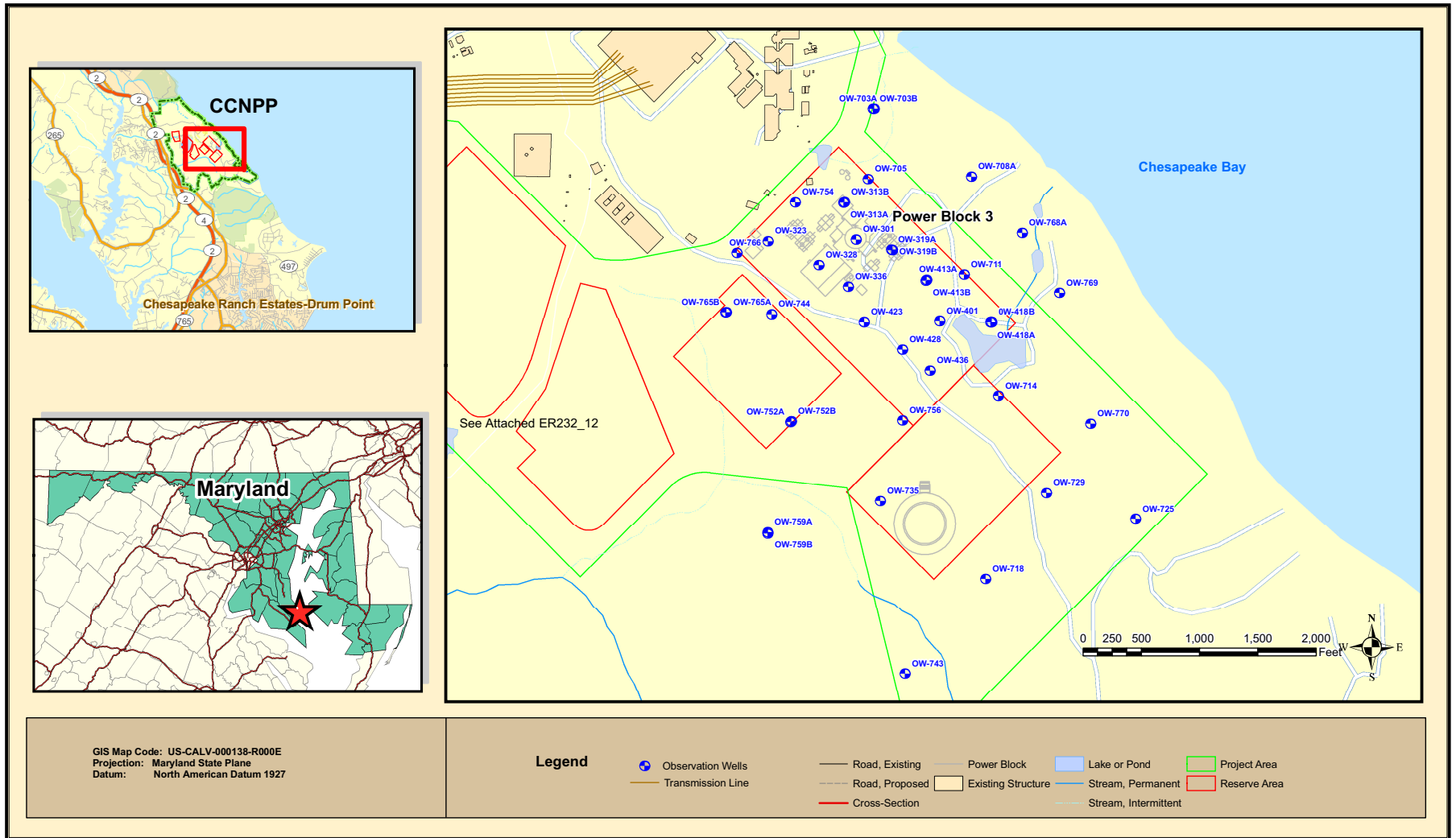


Figure 2.4-69—{Ground Water Elevations for the Surficial Aquifer, July 2006 Through June 2007}

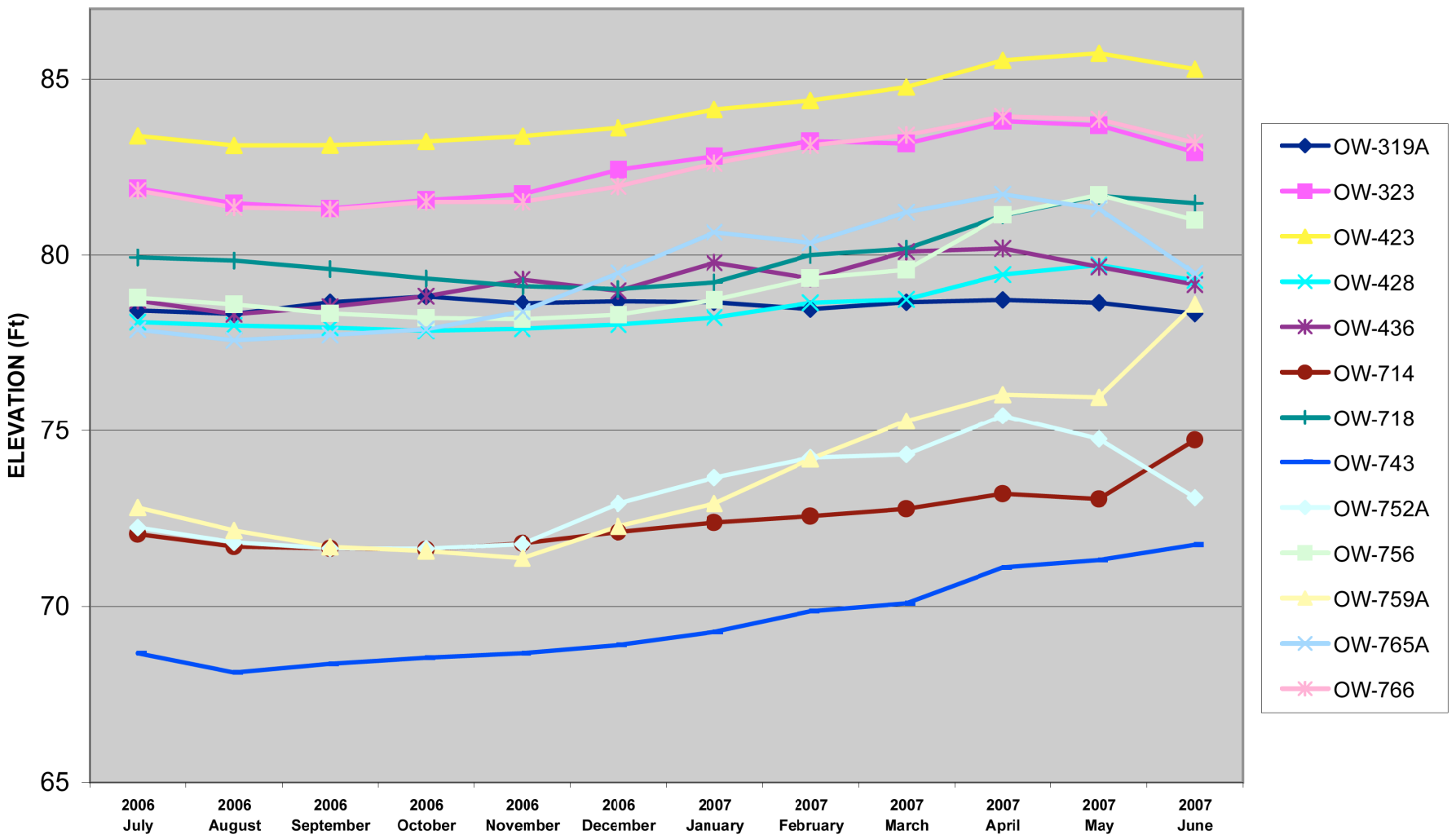


Figure 2.4-70—{Water Table Elevation Map and Groundwater Flow Direction for the Surficial Aquifer, July 2006}

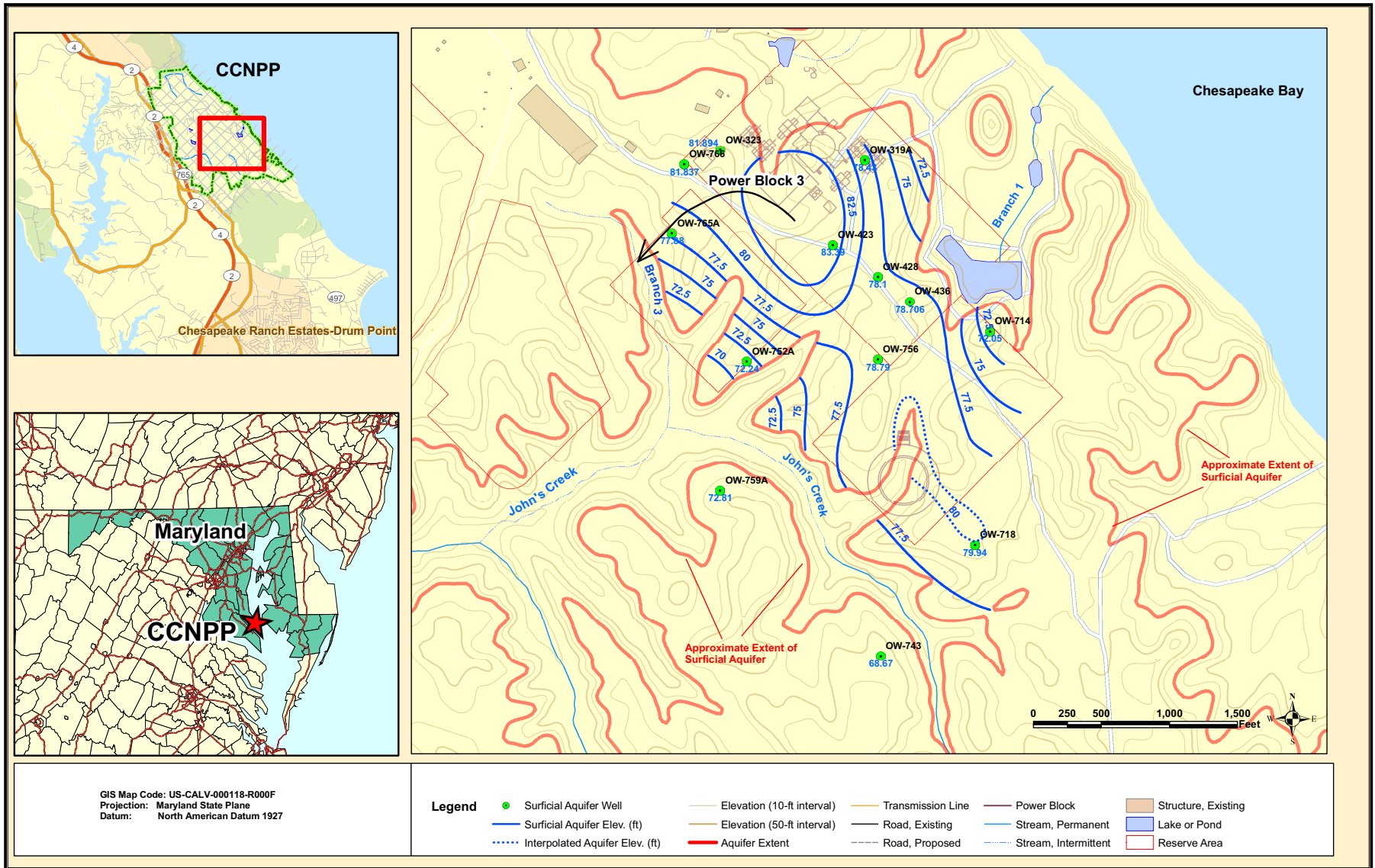


Figure 2.4-71—{Water Table Elevation Map and Groundwater Flow Direction for the Surficial Aquifer, September 2006}

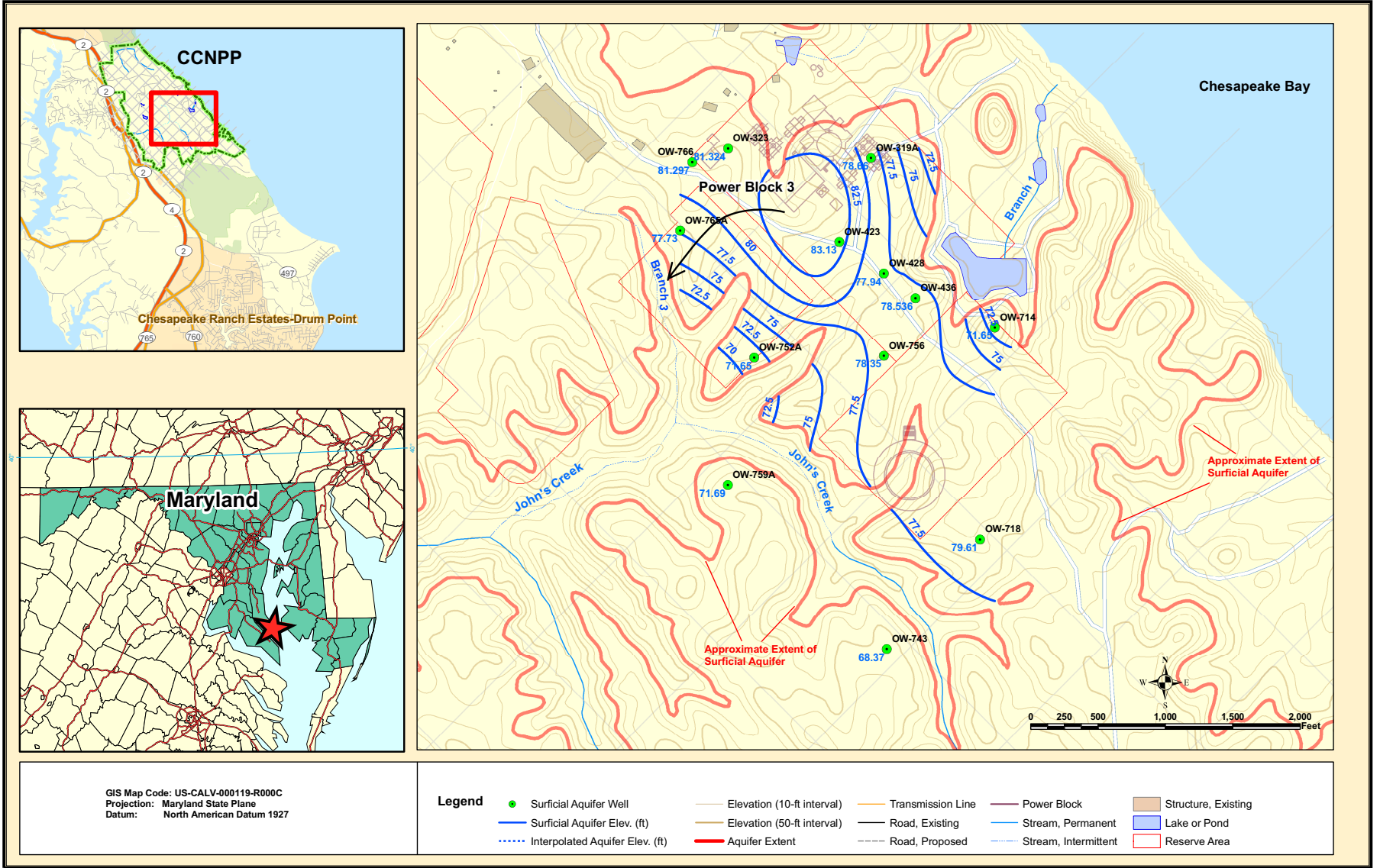


Figure 2.4-72—{Water Table Elevation Map and Groundwater Flow Direction for the Surficial Aquifer, December 2006}

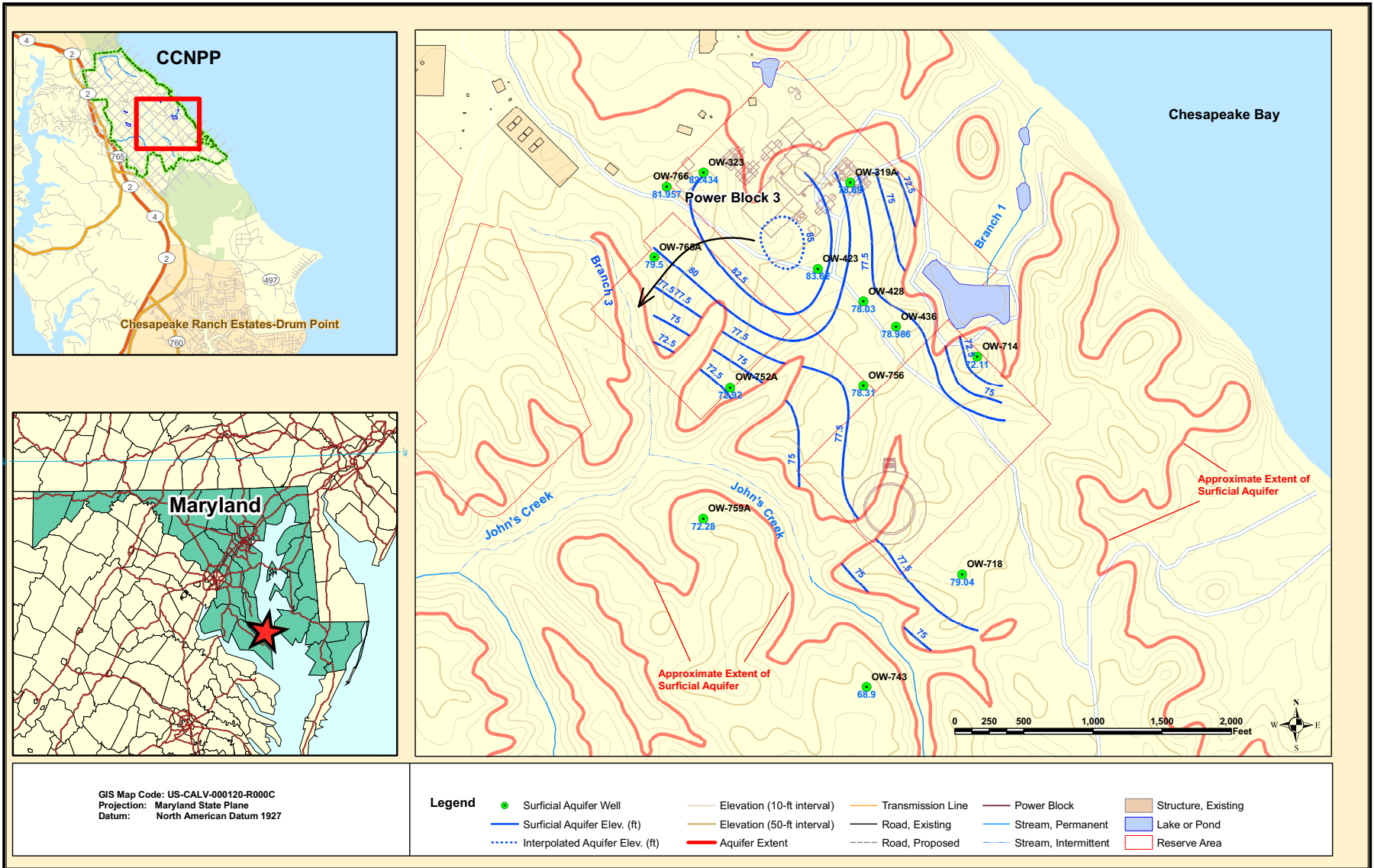


Figure 2.4-73—{Water Table Elevation Map and Groundwater Flow Direction for the Surficial Aquifer, March 2007}

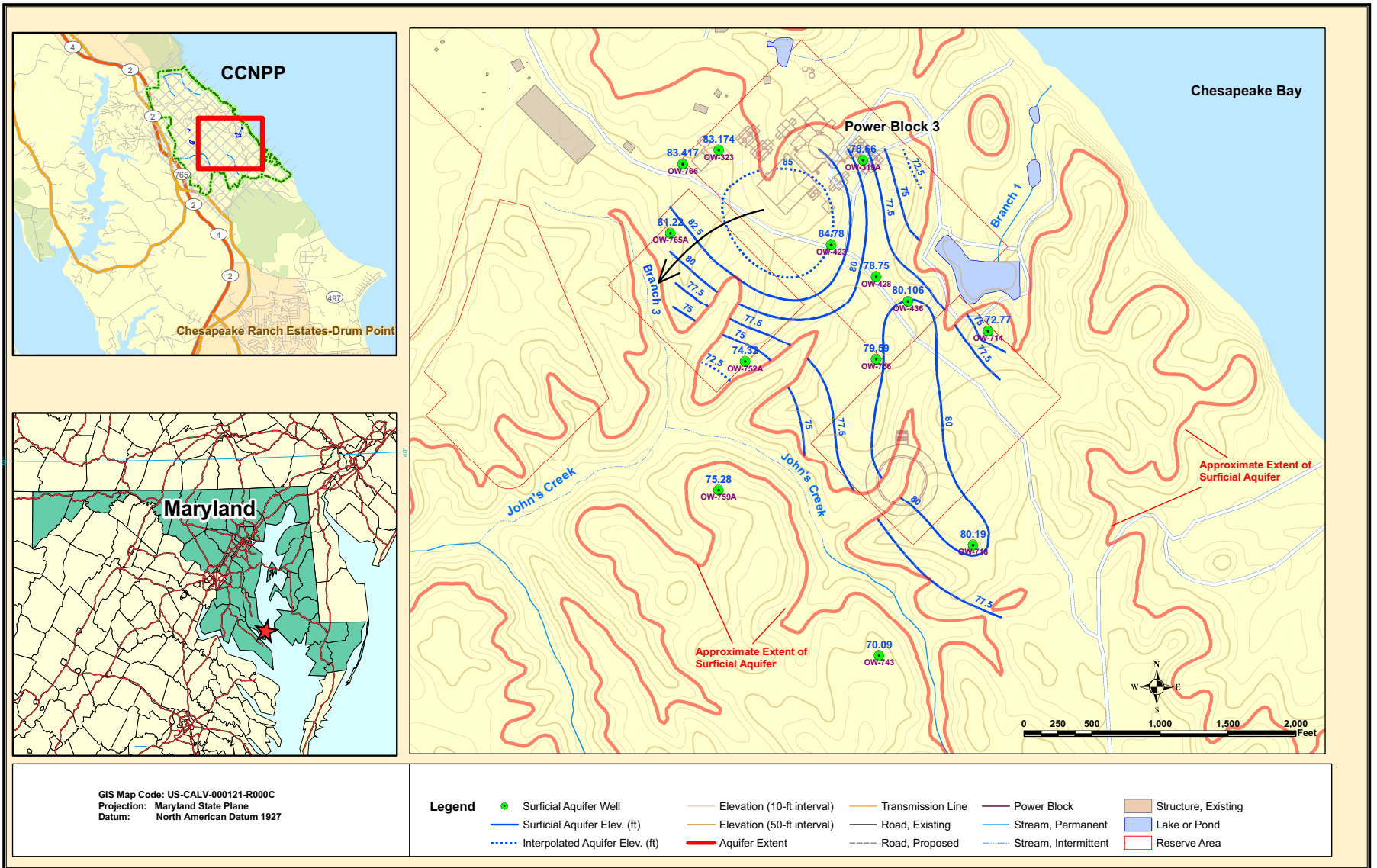


Figure 2.4-74—{Groundwater Elevations for the Upper Chesapeake Unit, July 2006 Through June 2007}

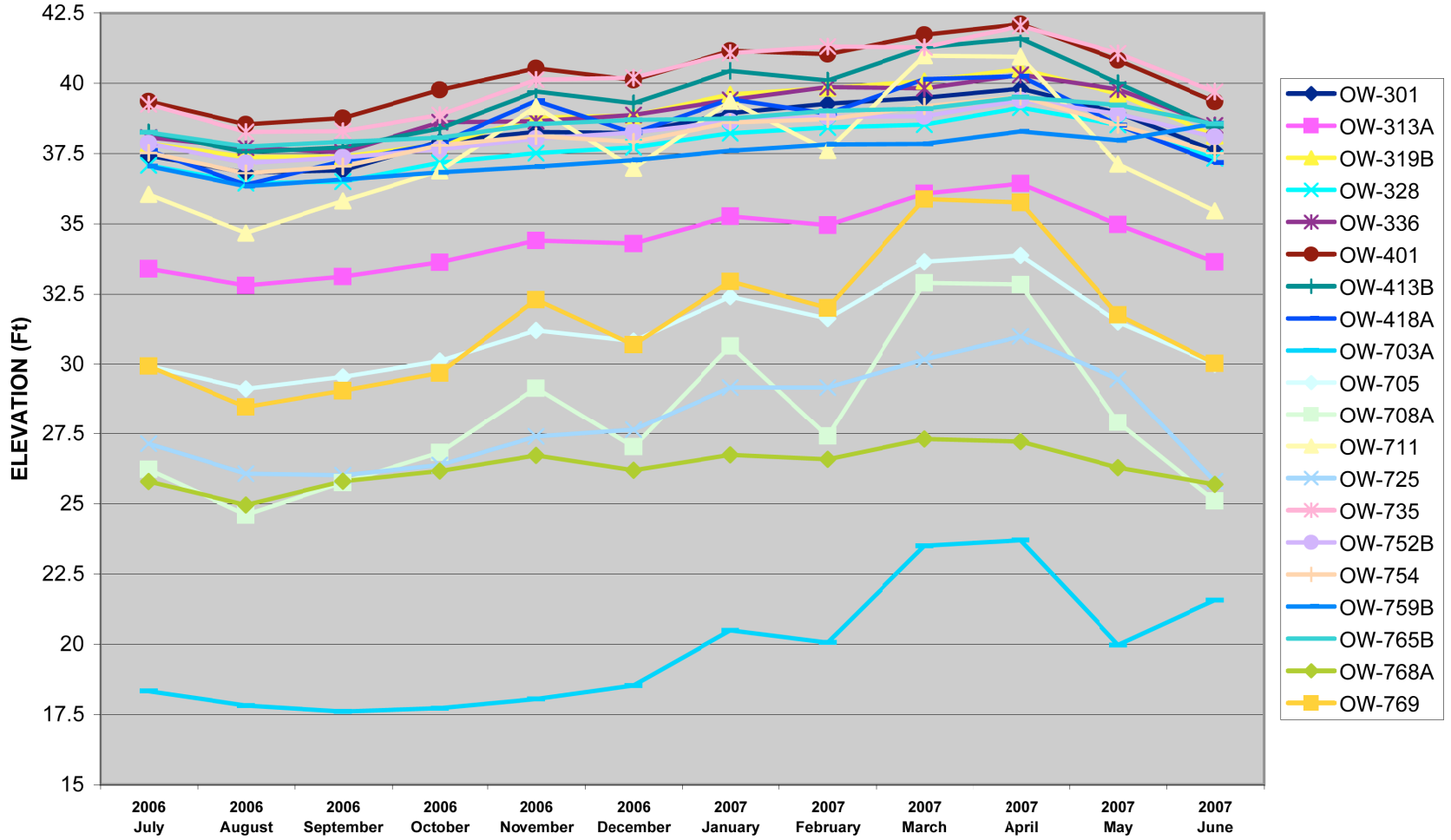
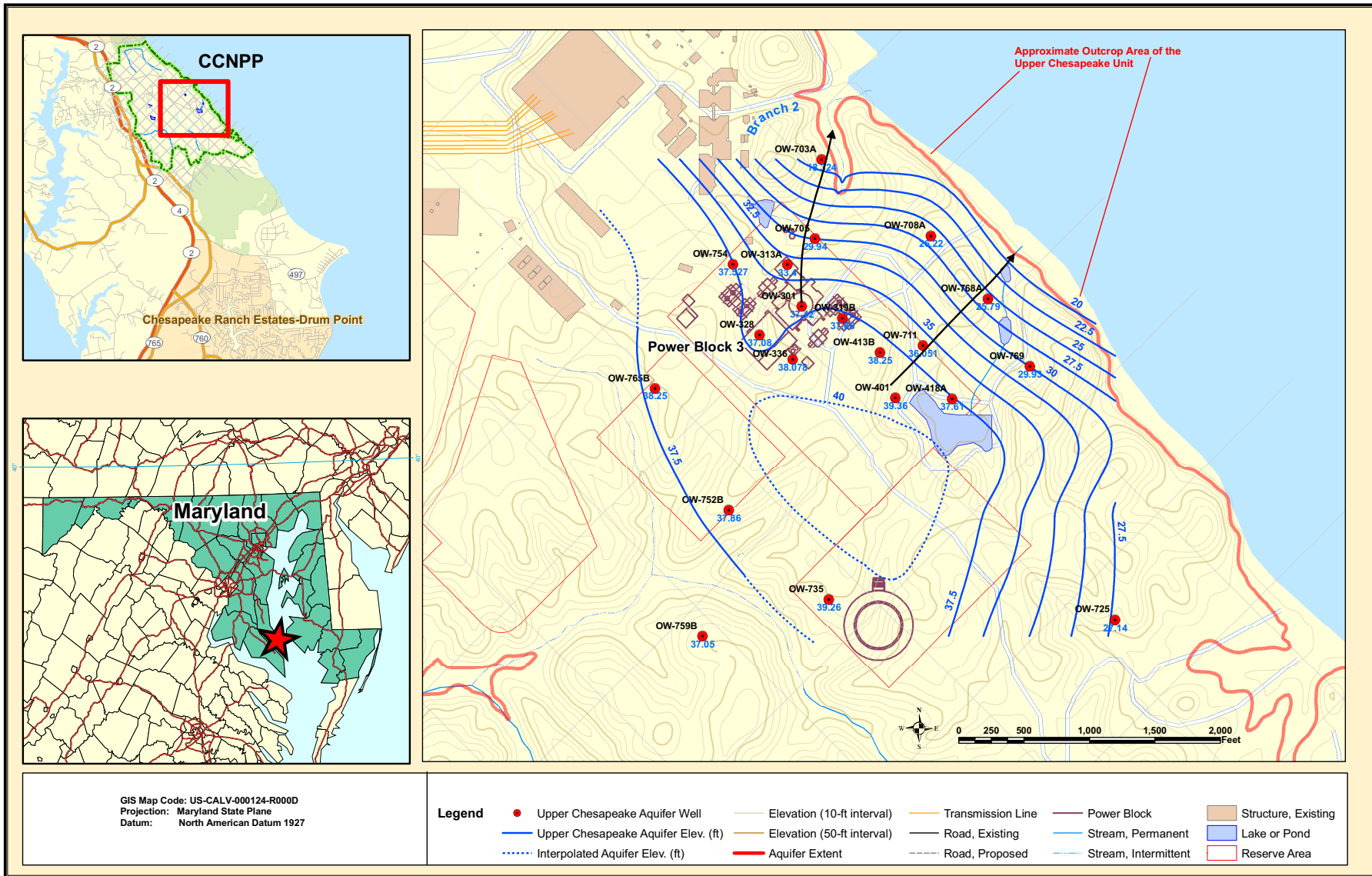


Figure 2.4-75—{Potentiometric Surface Elevation Map and Groundwater Flow Directions for the Upper Chesapeake Unit, July 2006}

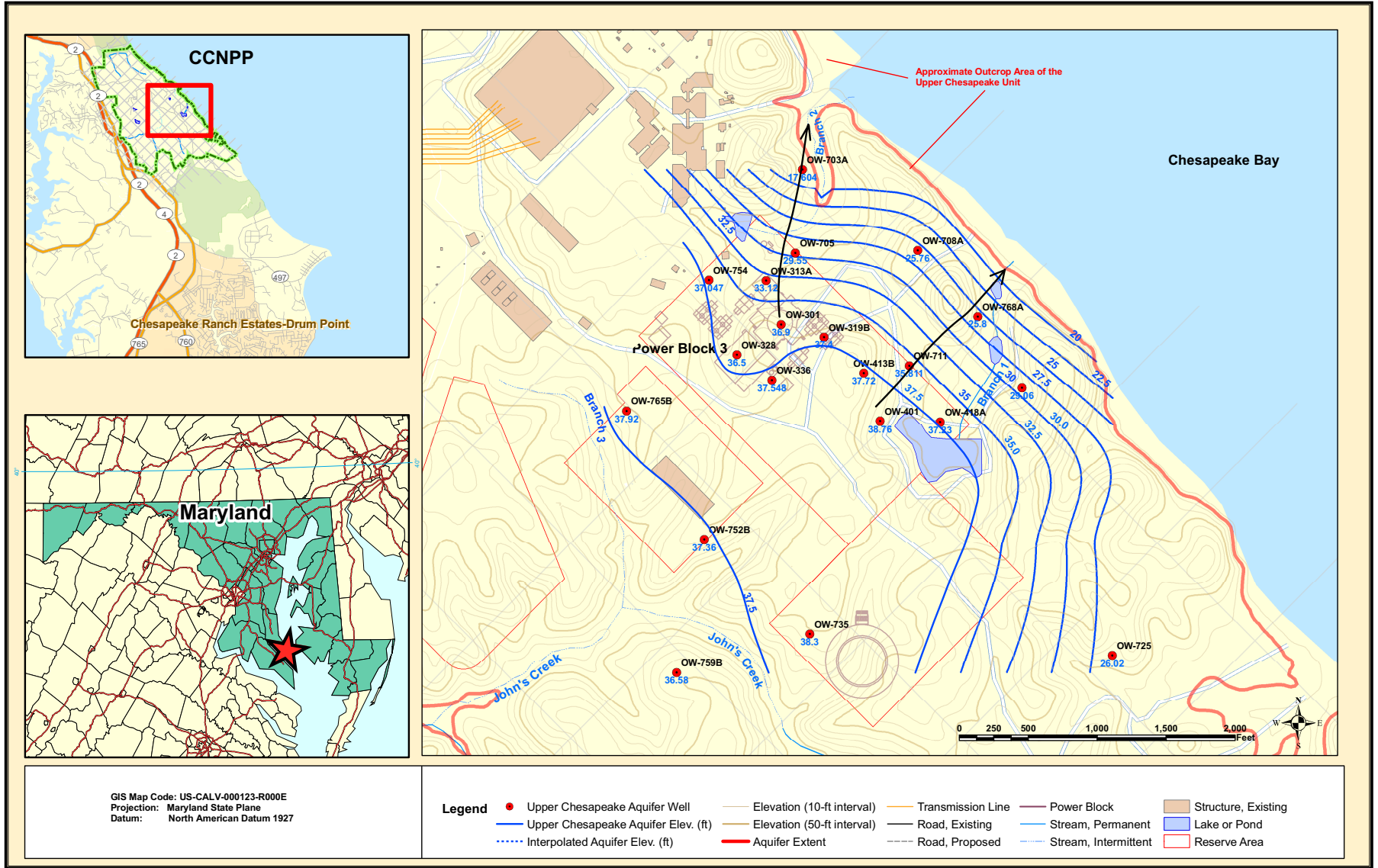


GIS Map Code: US-CALV-000124-R000D
 Projection: Maryland State Plane
 Datum: North American Datum 1927

Legend

- Upper Chesapeake Aquifer Well
- Upper Chesapeake Aquifer Elev. (ft)
- ⋯ Interpolated Aquifer Elev. (ft)
- Elevation (10-ft interval)
- Elevation (50-ft interval)
- Aquifer Extent
- Transmission Line
- Road, Existing
- Road, Proposed
- Power Block
- Stream, Permanent
- Stream, Intermittent
- Structure, Existing
- Lake or Pond
- Reserve Area

Figure 2.4-76—{Potentiometric Surface Elevation Map and Groundwater Flow Directions for the Upper Chesapeake Unit, Sept 2006}



GIS Map Code: US-CALV-000123-R000E
 Projection: Maryland State Plane
 Datum: North American Datum 1927

Legend

- Red dot: Upper Chesapeake Aquifer Well
- Blue line: Upper Chesapeake Aquifer Elev. (ft)
- Blue dotted line: Interpolated Aquifer Elev. (ft)
- Thin brown line: Elevation (10-ft interval)
- Thick brown line: Elevation (50-ft interval)
- Red outline: Aquifer Extent
- Orange line: Transmission Line
- Black line: Road, Existing
- Grey dashed line: Road, Proposed
- Red outline: Power Block
- Brown rectangle: Structure, Existing
- Blue rectangle: Lake or Pond
- Red outline: Reserve Area

Figure 2.4-77— {Potentiometric Surface Elevation Map and Groundwater Flow Directions for the Upper Chesapeake Unit, Dec 2006}

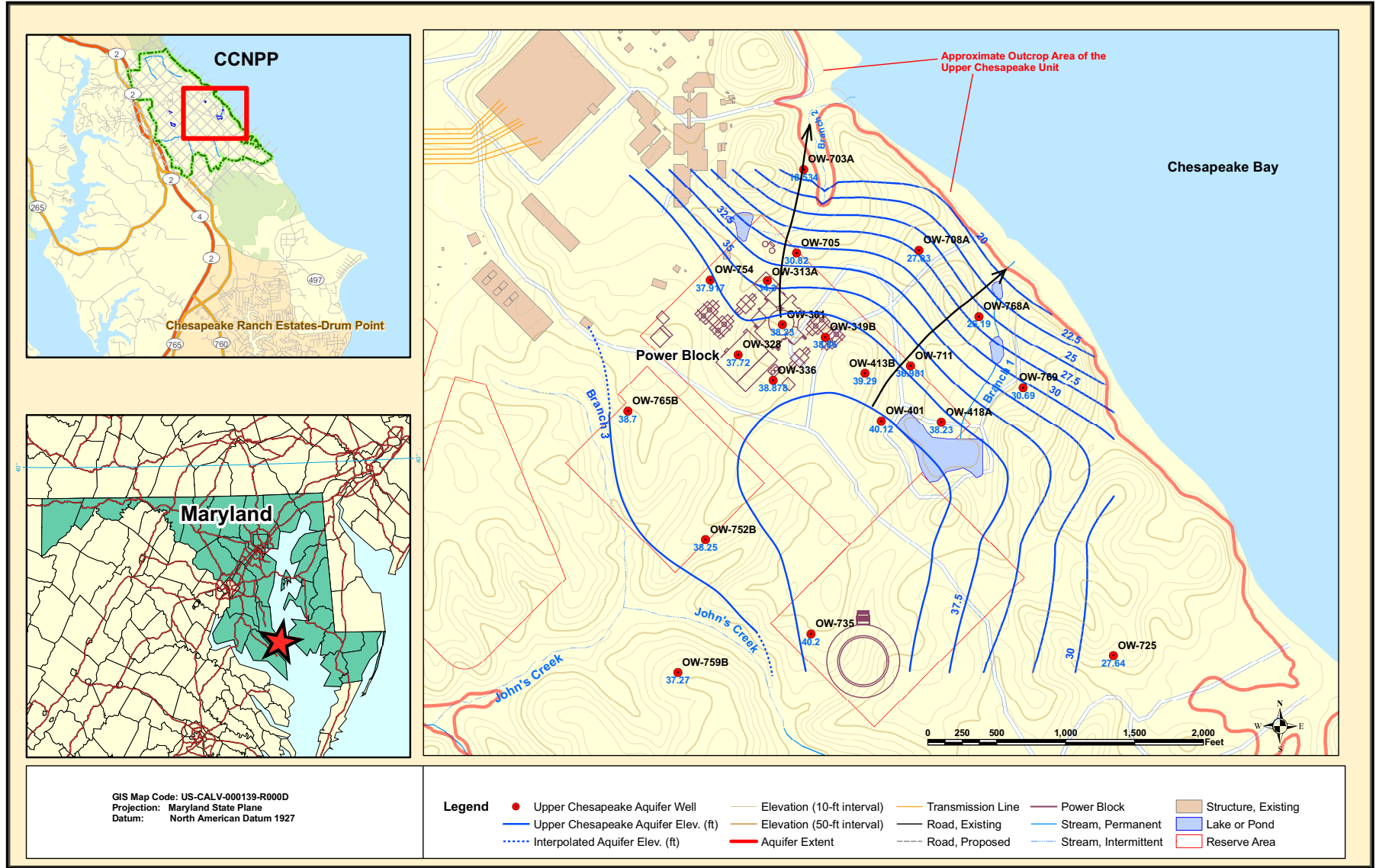


Figure 2.4-78—{Potentiometric Surface Elevation Map and Groundwater Flow Directions for the Upper Chesapeake Unit, March 2007}

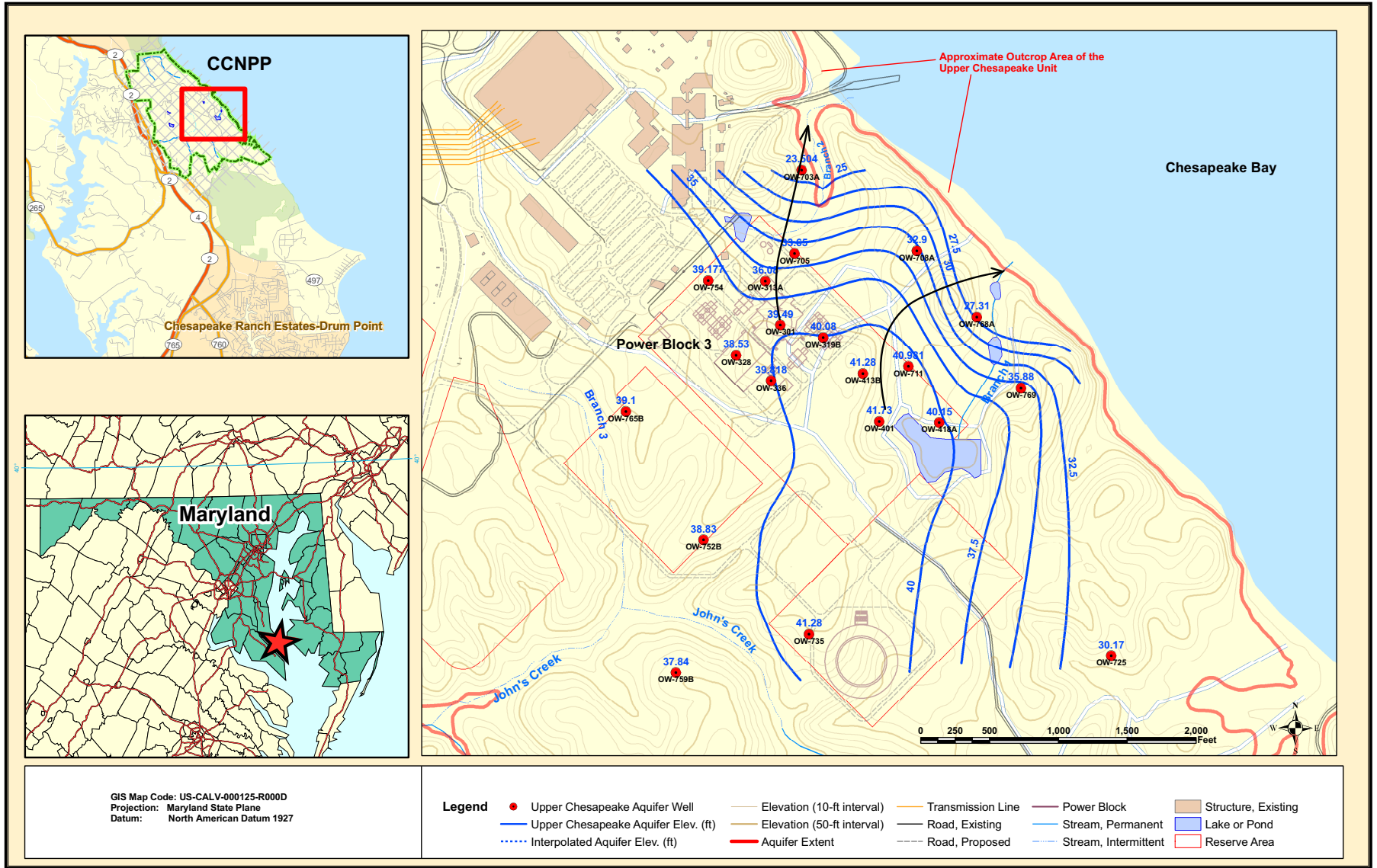


Figure 2.4-79—{Groundwater Elevations for the Lower Chesapeake Unit, July 2006 Through June 2007}

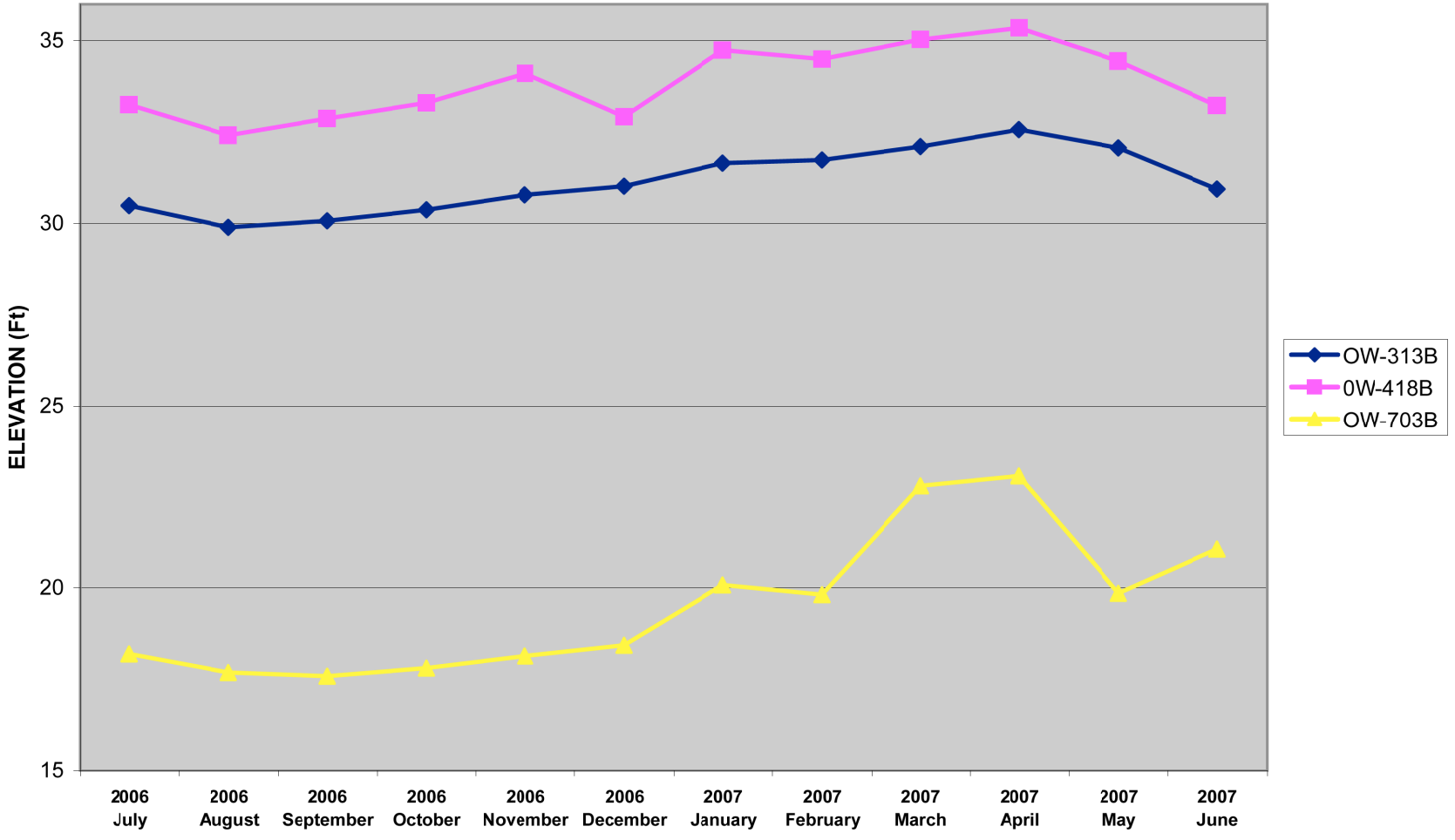


Figure 2.4-80—{Potentiometric Surface Elevation Map and Groundwater Flow Directions for the Lower Chesapeake Unit, July 2006}

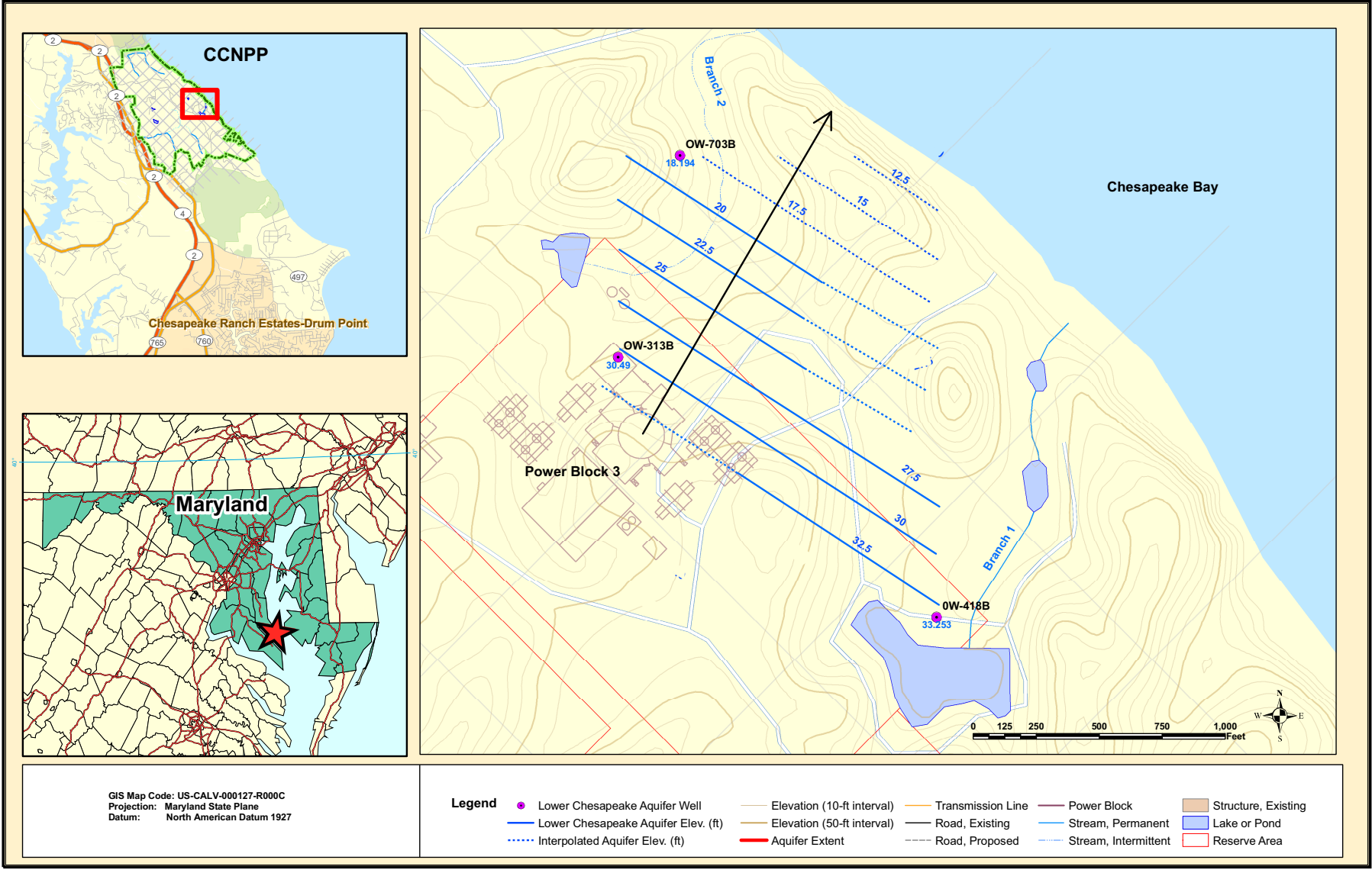


Figure 2.4-81—{Potentiometric Surface Elevation Map and Groundwater Flow Directions for the Lower Chesapeake Unit, Sept 2006}

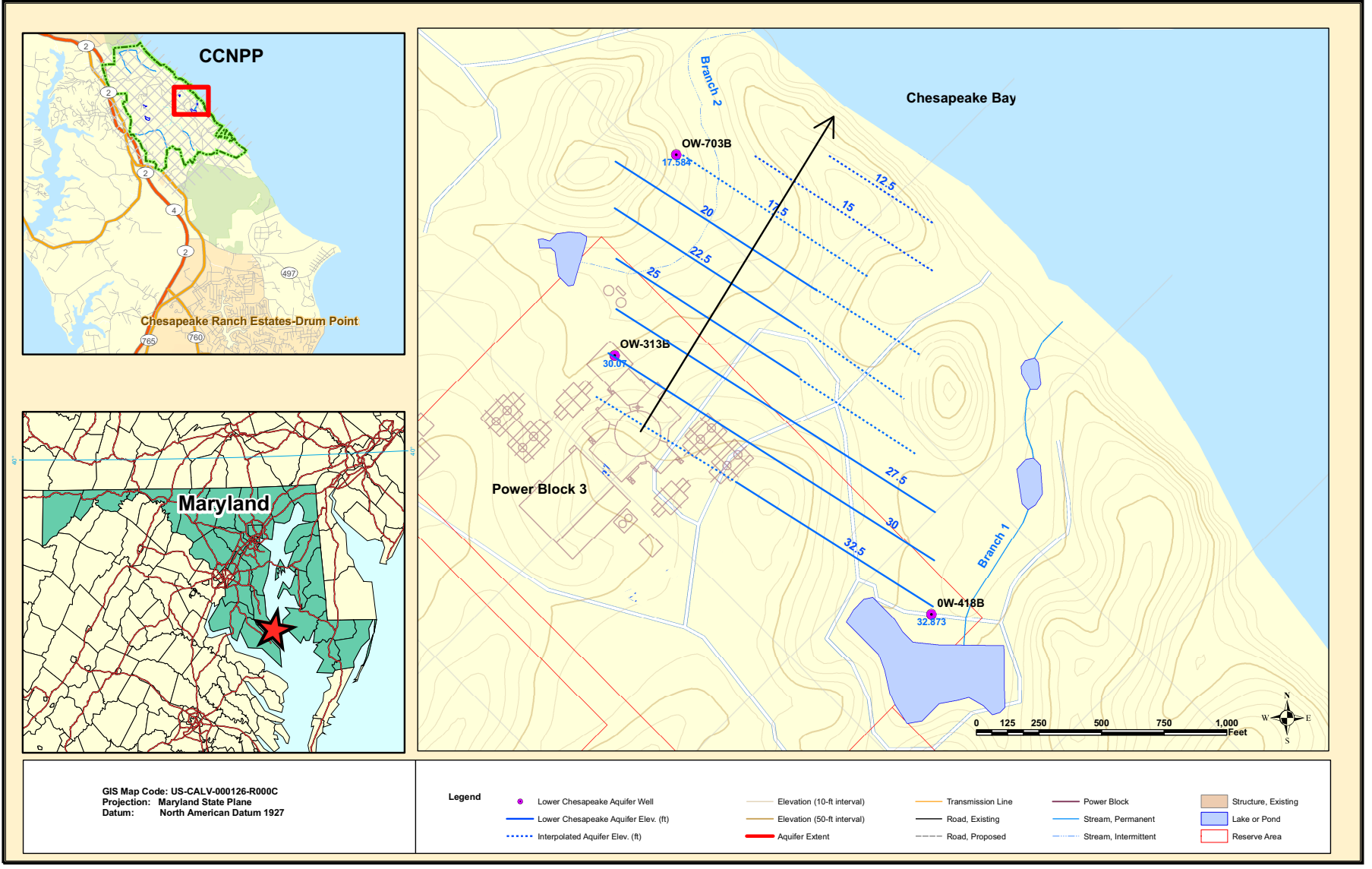
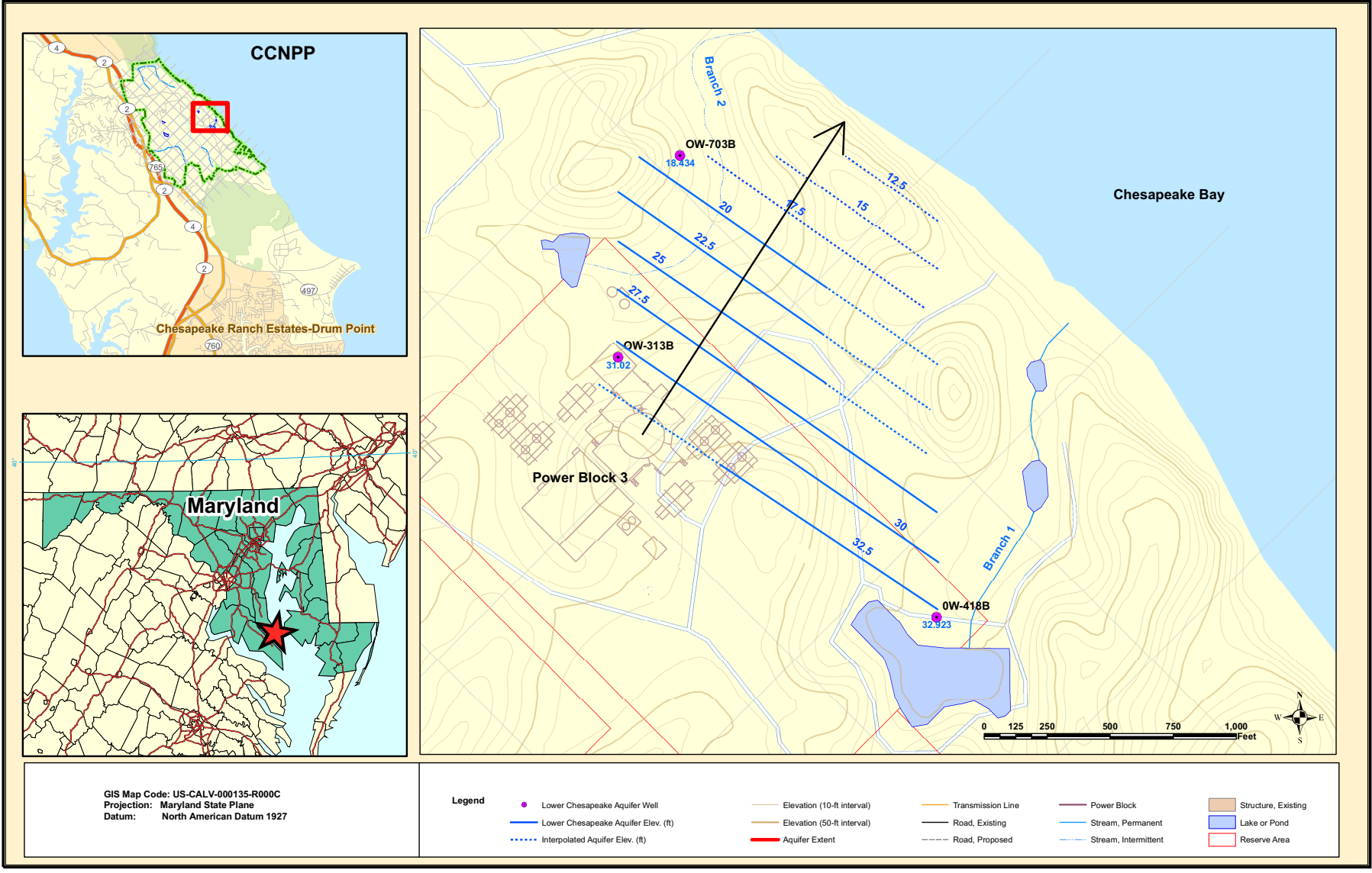


Figure 2.4-82—{Potentiometric Surface Elevation Map and Groundwater Flow Directions for the Lower Chesapeake Unit, Dec 2006}



GIS Map Code: US-CALV-000135-R000C
 Projection: Maryland State Plane
 Datum: North American Datum 1927

Figure 2.4-83—{Potentiometric Surface Elevation Map and Groundwater Flow Directions for the Lower Chesapeake Unit, March 2007}

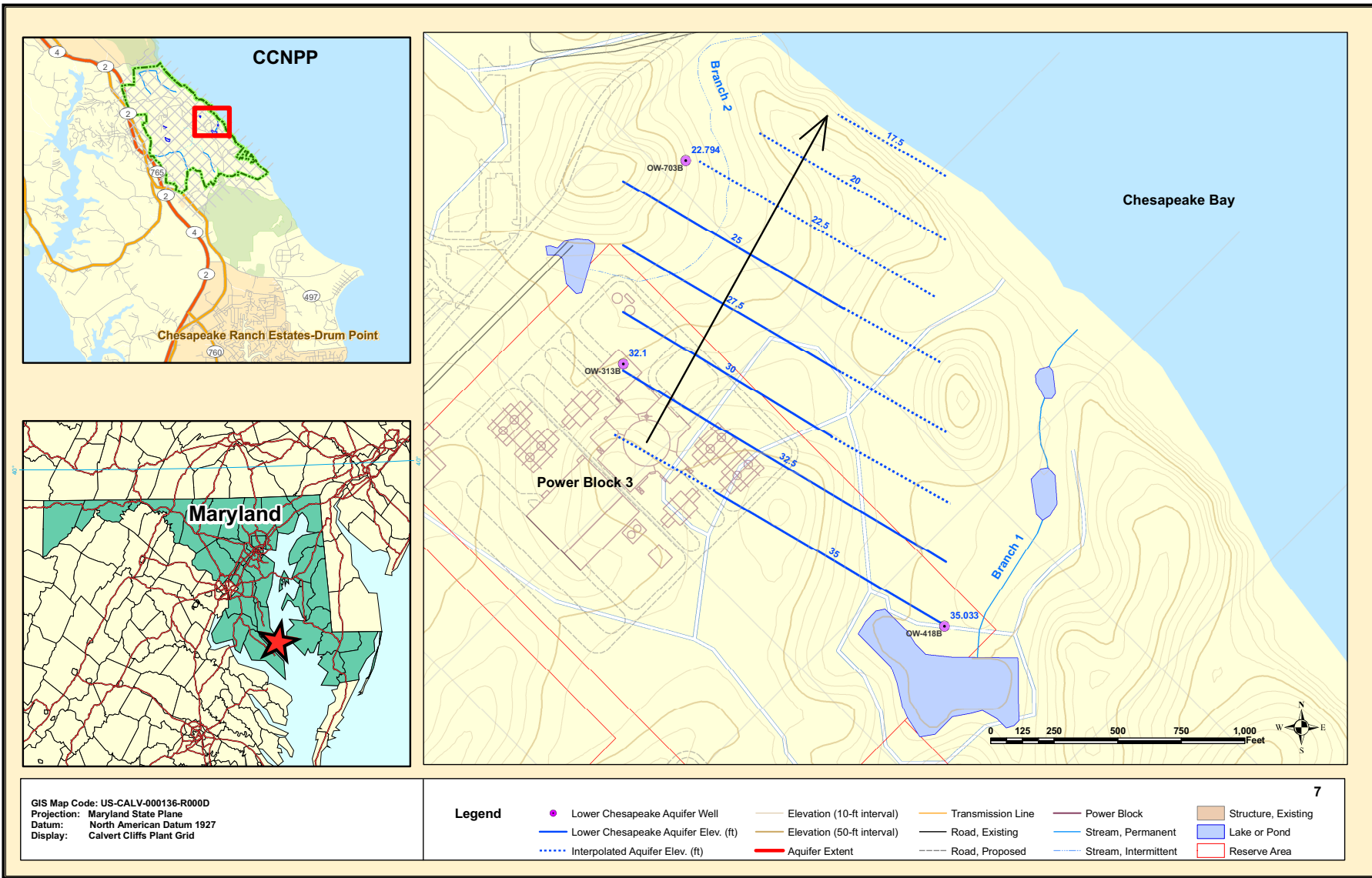


Figure 2.4-84—{US EPA Region 3 Sole Source Aquifers}

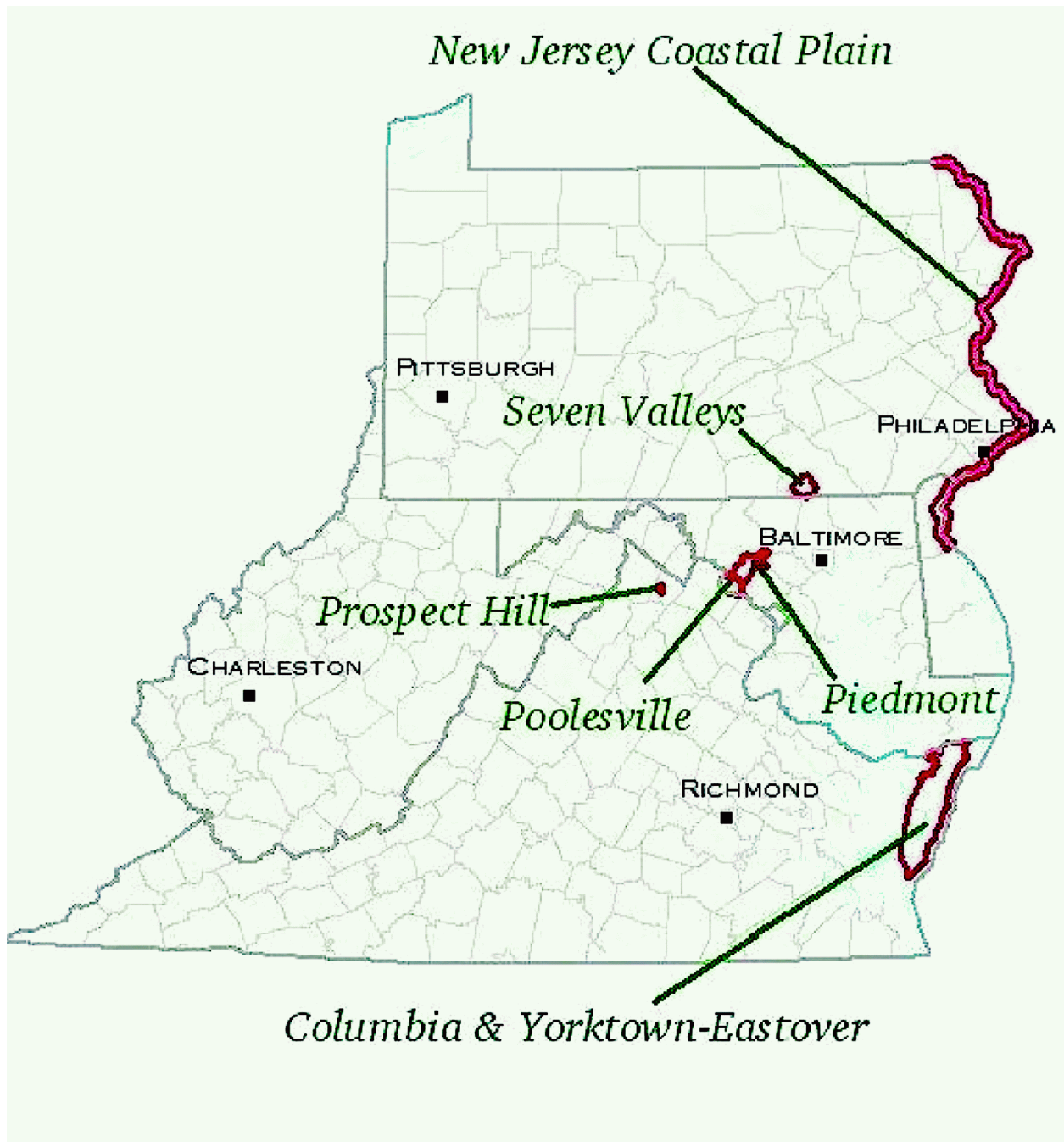


Figure 2.4-85—{Projected Location of Nearest Off-Site Groundwater Well and Community Water Supply System}

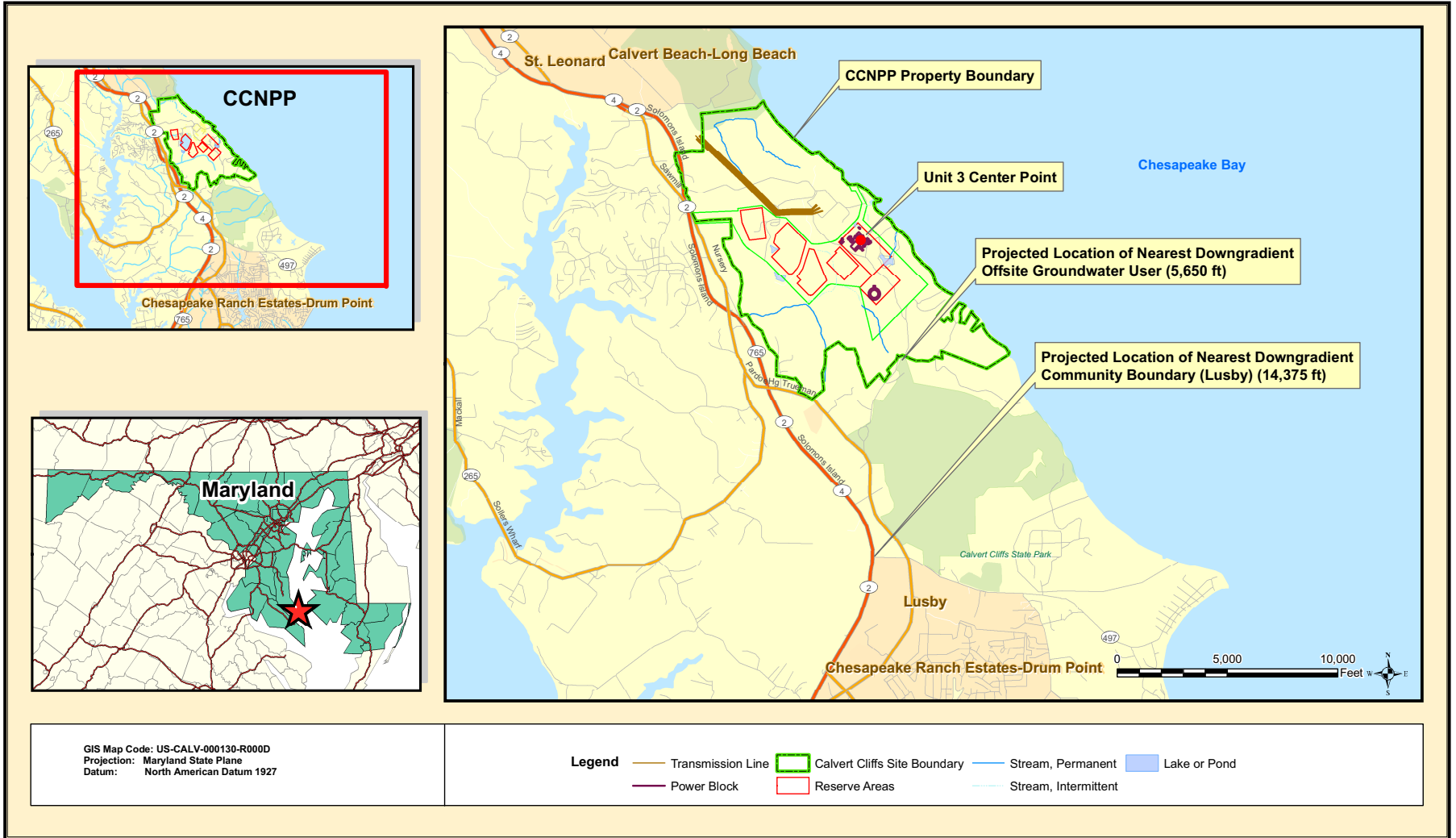


Figure 2.4-86—{CCNPP Water Production Wells}

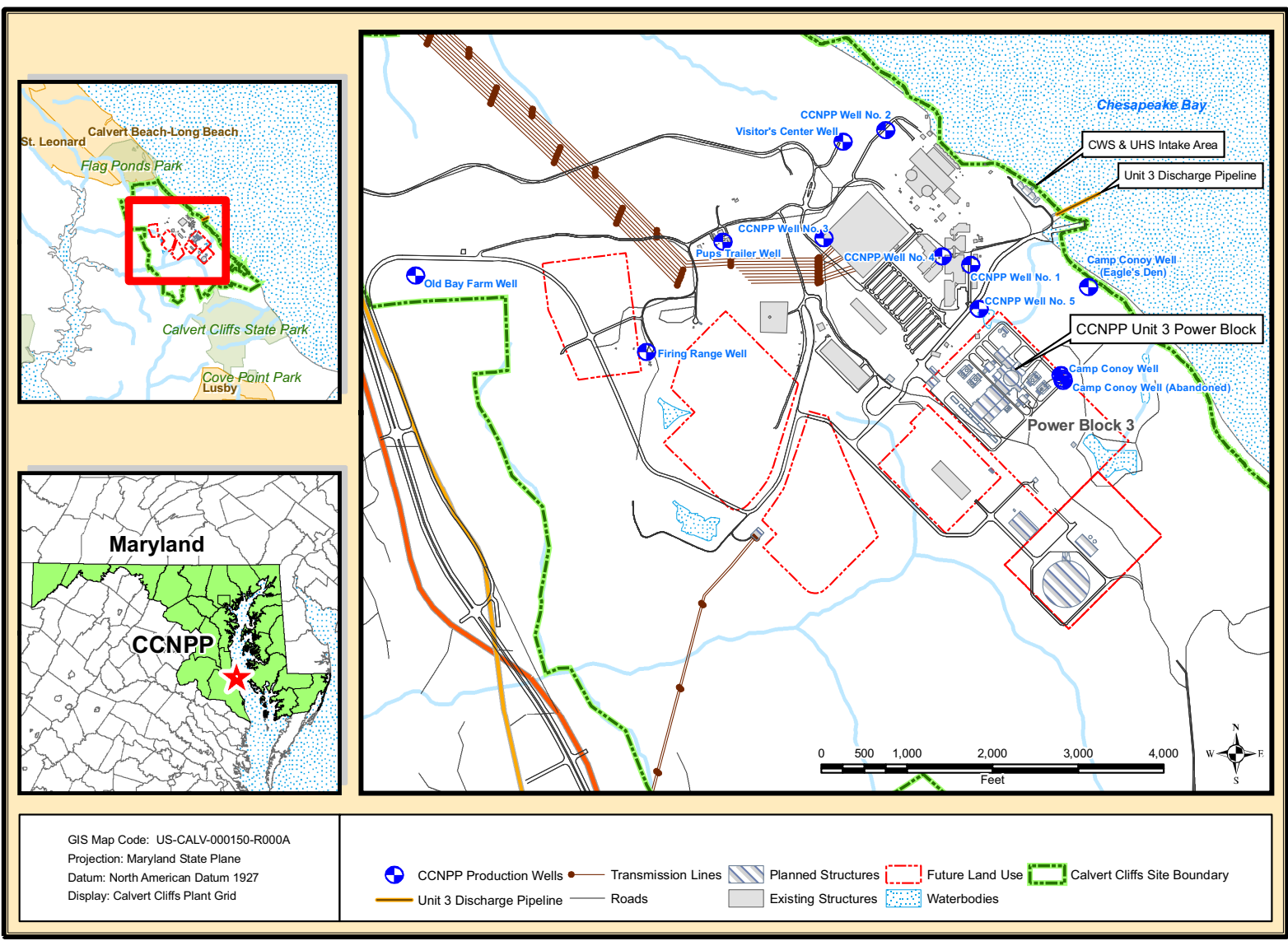


Figure 2.4-87—{The Differences Between the Potentiometric Surfaces of the Aquia Aquifer, September 1982 and September 2003, in Southern Maryland}

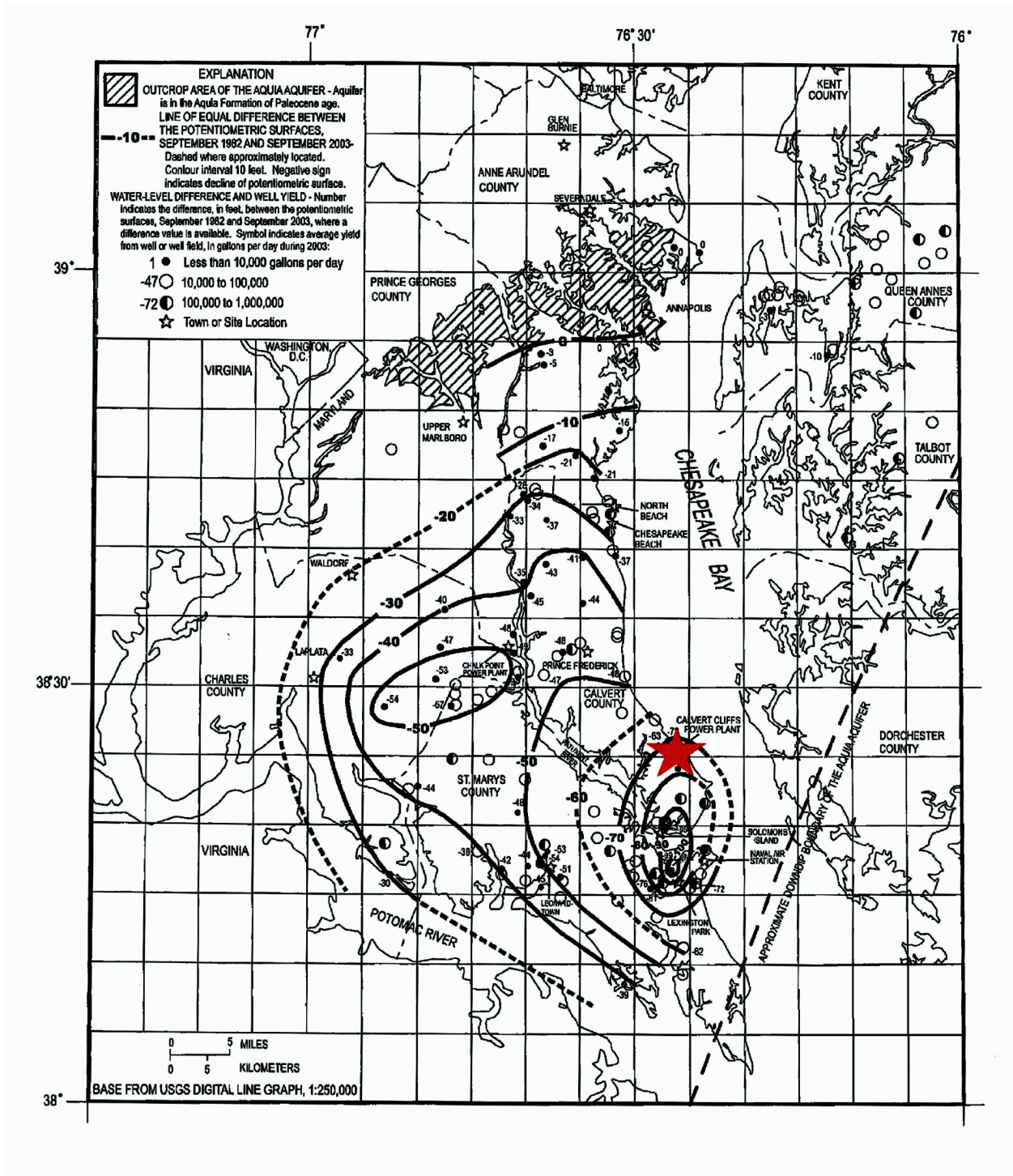


Figure 2.4-88—{The Differences Between the Potentiometric Surfaces of the Magothy Aquifer, September 1975 and September 2003, in Southern Maryland}

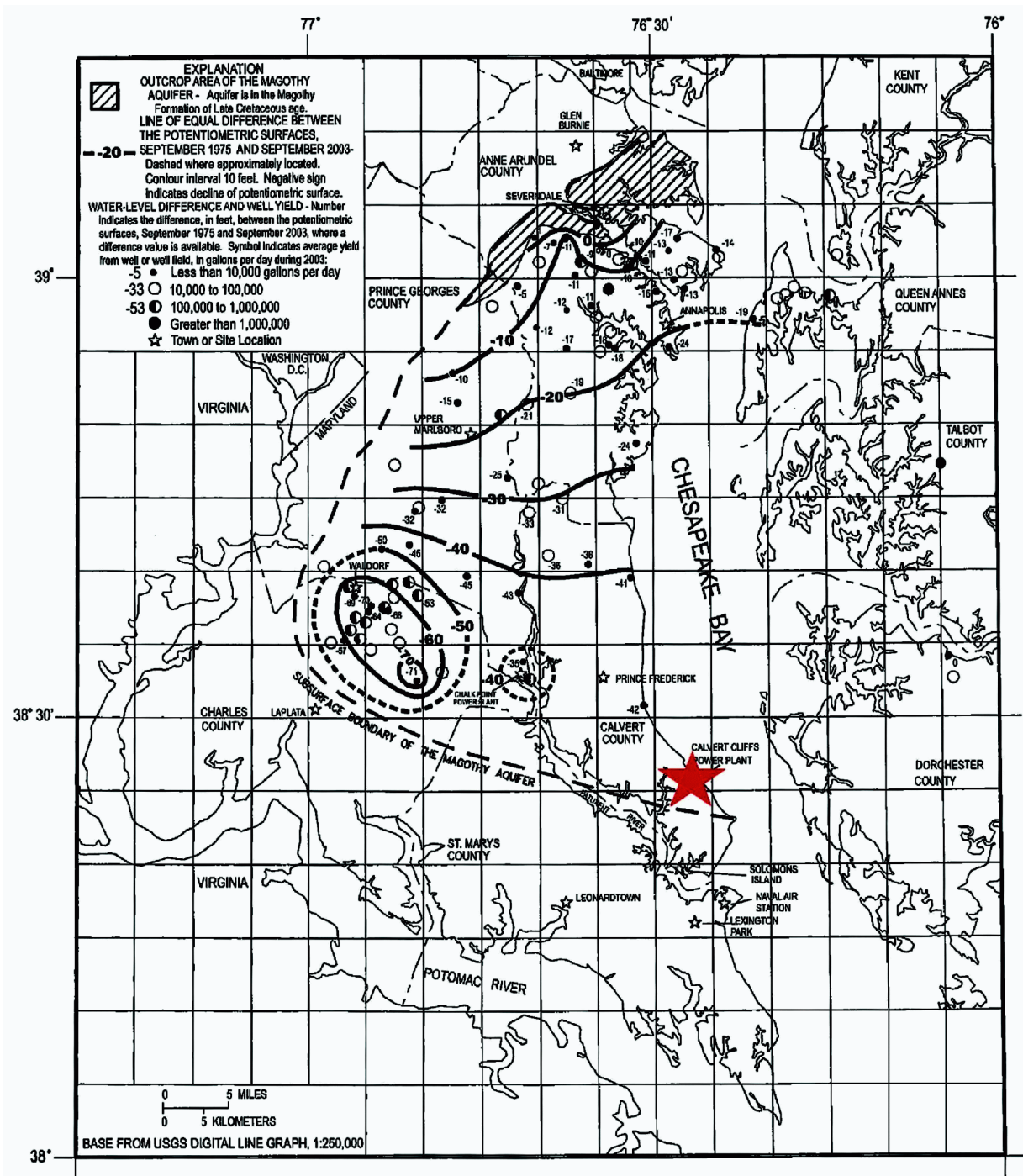


Figure 2.4-89—{The Differences Between the Potentiometric Surfaces of the Upper Patapsco Aquifer, September 1990 and September 2003, in Southern Maryland}

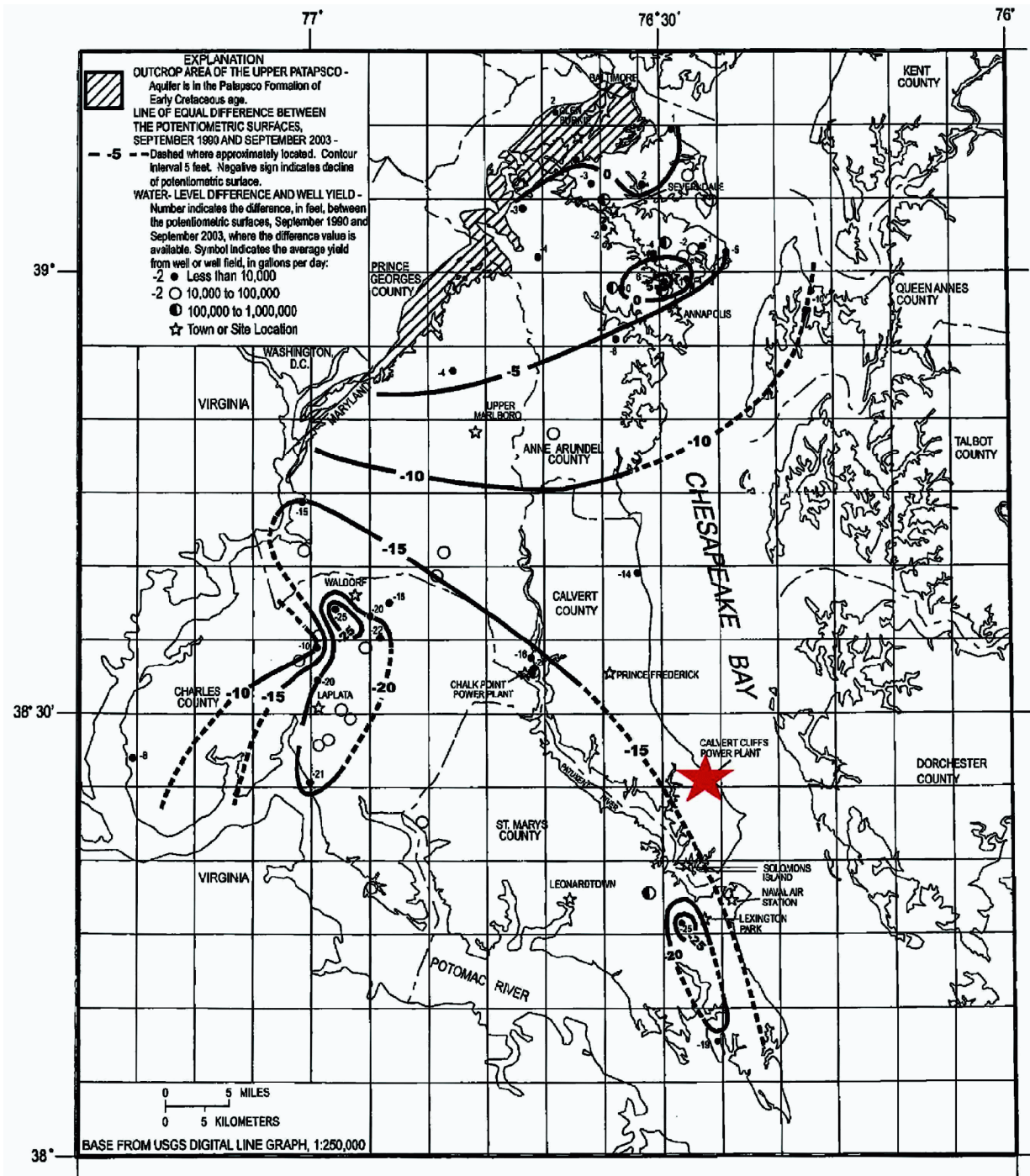


Figure 2.4-90—{The Differences Between the Potentiometric Surfaces of the Lower Patapsco Aquifer, September 1990 and September 2003, in Southern Maryland}

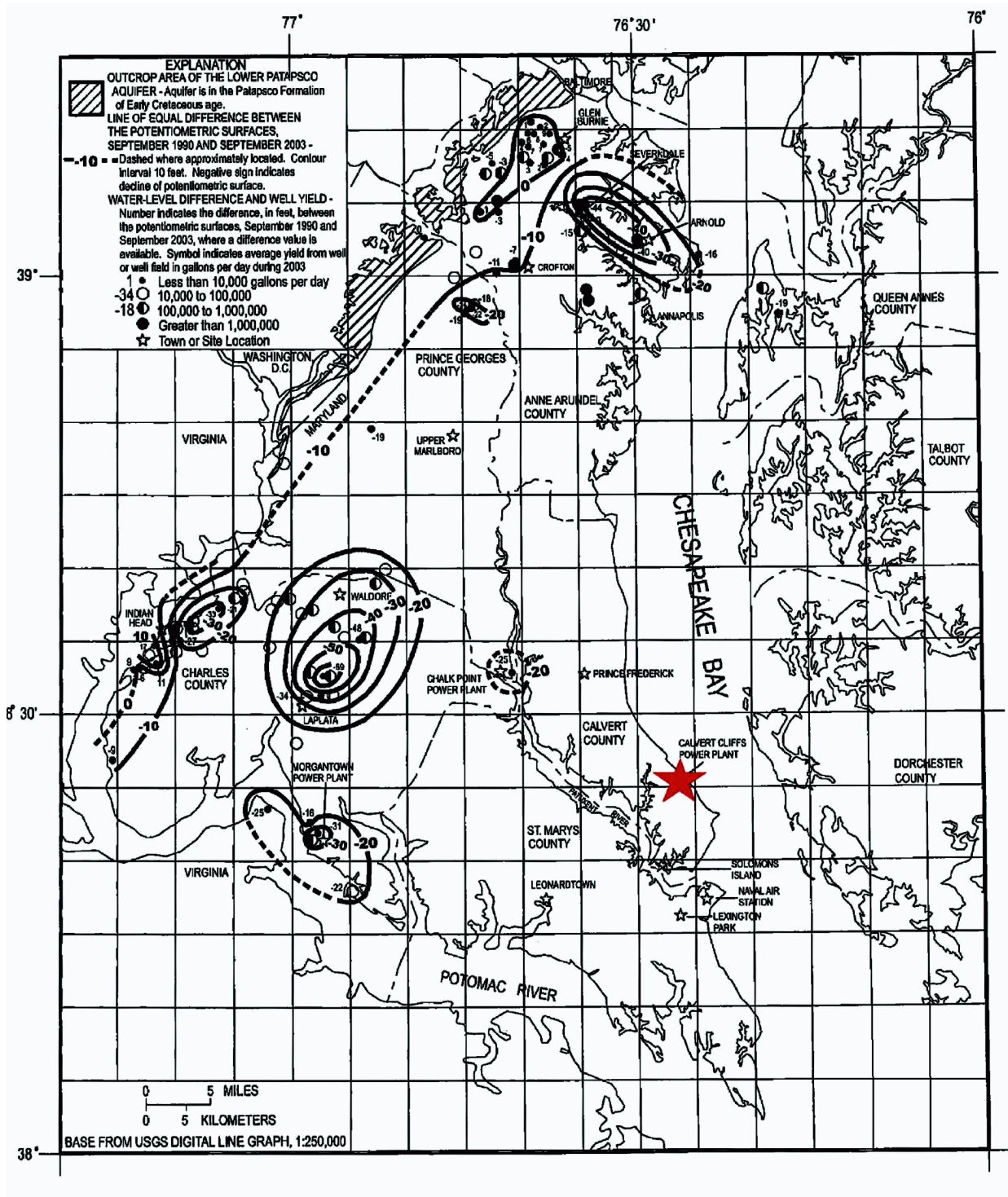


Figure 2.4-91—{Calvert County Ground-Water-Level Monitoring Network, Location of Selected Water Level Monitoring Wells}

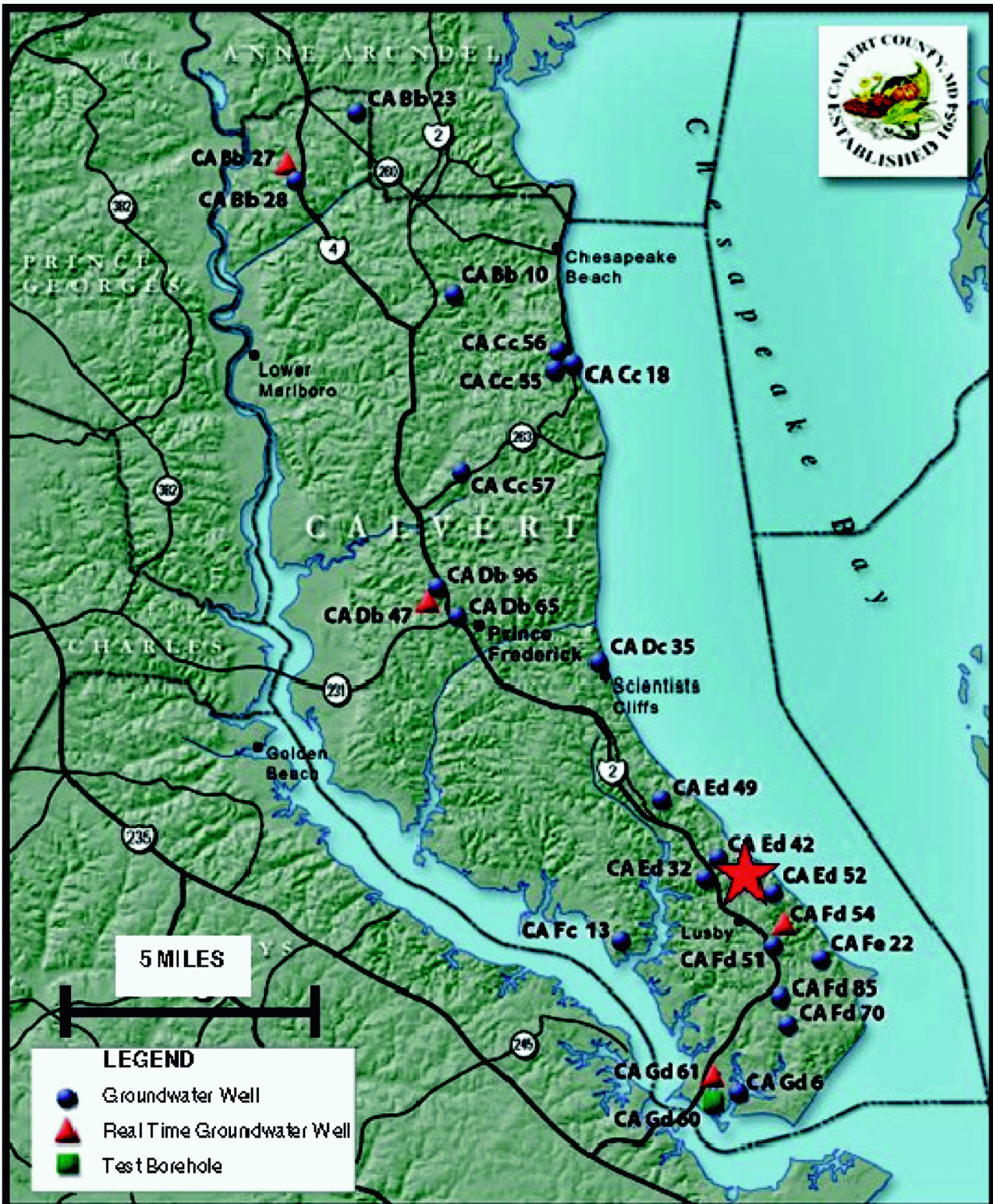


Figure 2.4-92—{Well Hydrograph for Monitoring Well CA Fd 51 Screened in the Piney Point - Nanjemoy Aquifer at Calvert Cliffs State Park}

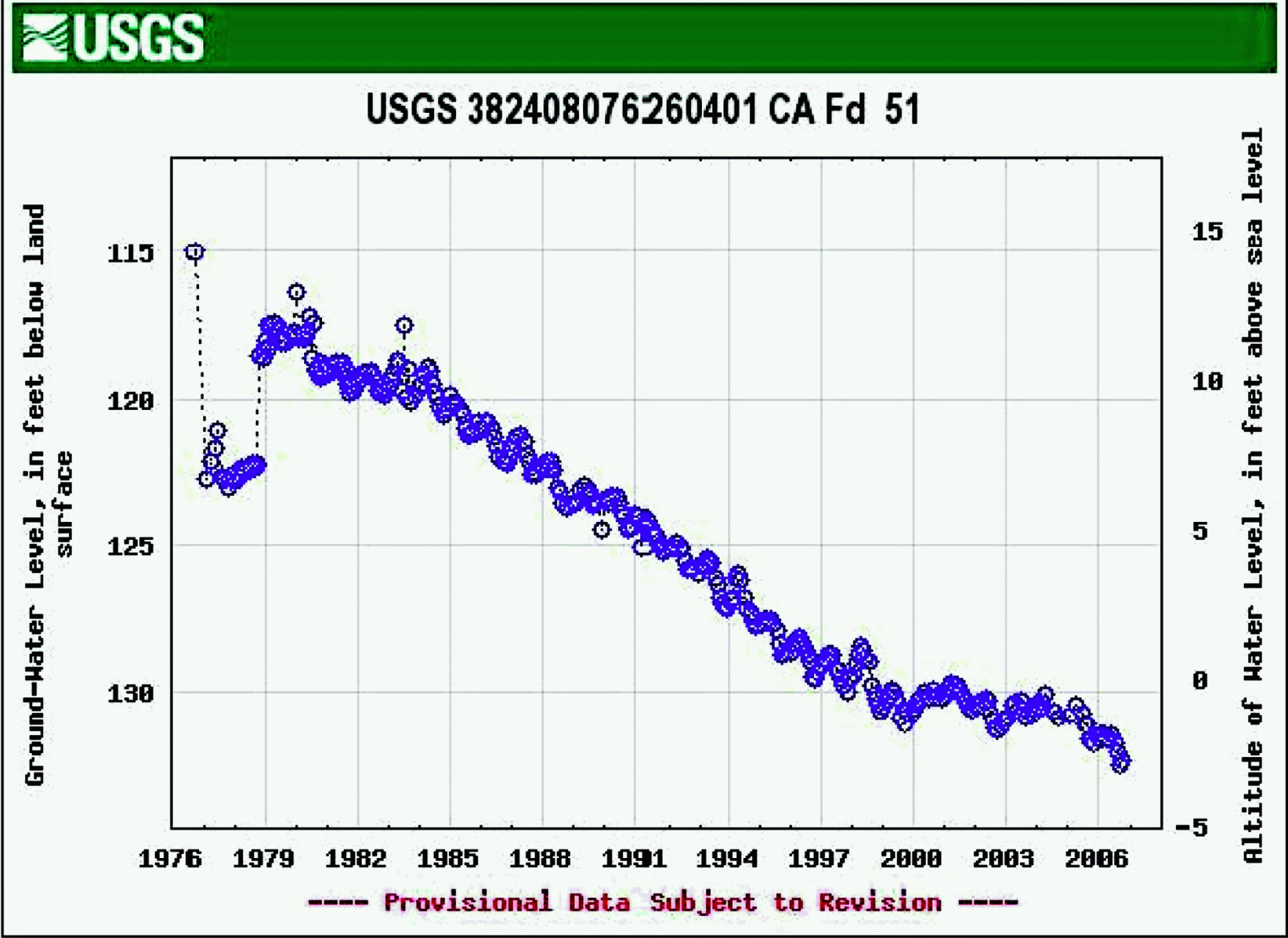


Figure 2.4-93—{Well Hydrograph for Monitoring Well CA Ed 42 Screened in the Aquia Aquifer at CCNPP}

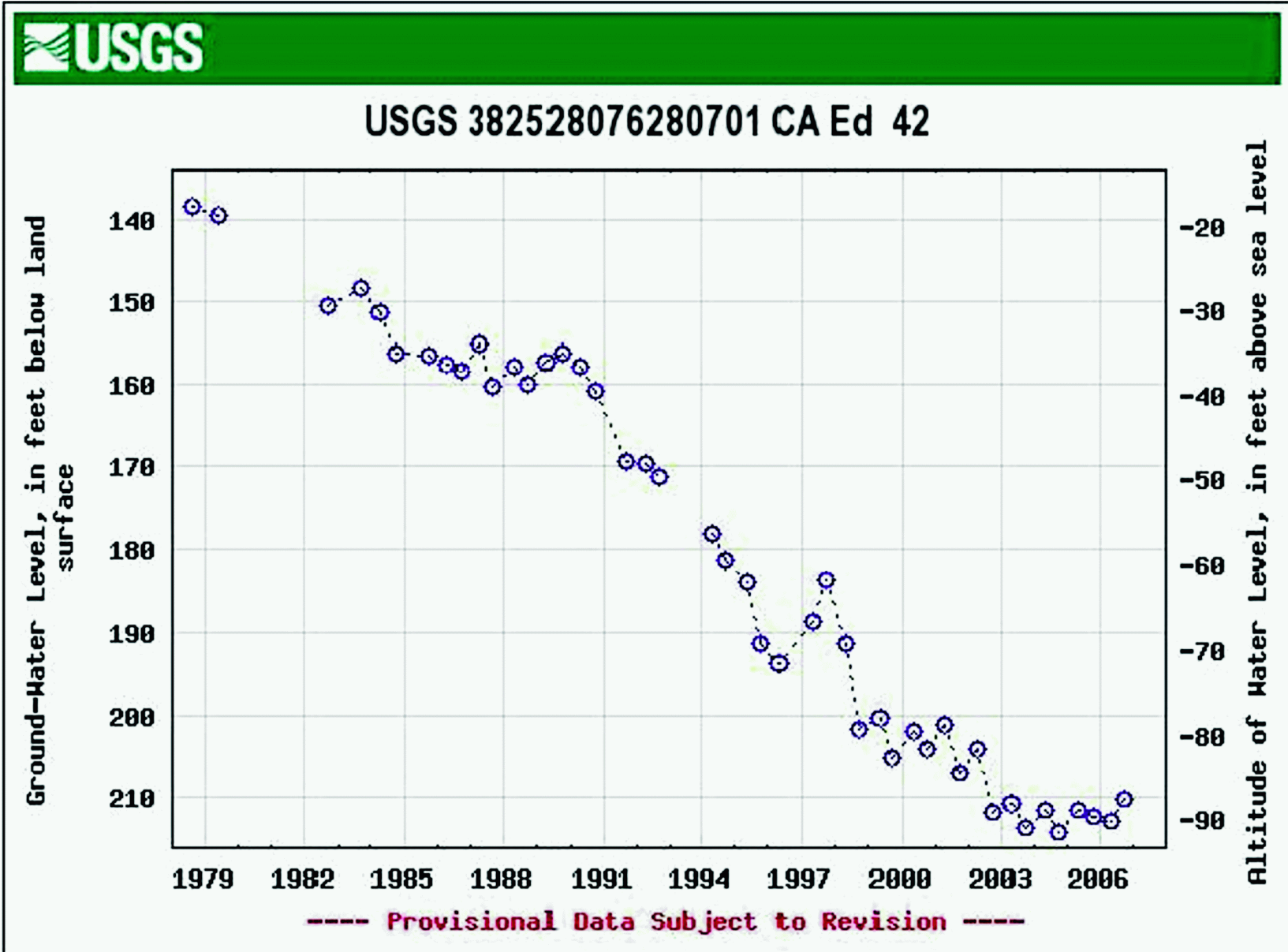


Figure 2.4-94—{Well Hydrograph for Monitoring Well CA Dc 35 Screened in the Magothy Aquifer at Scientists Cliffs}

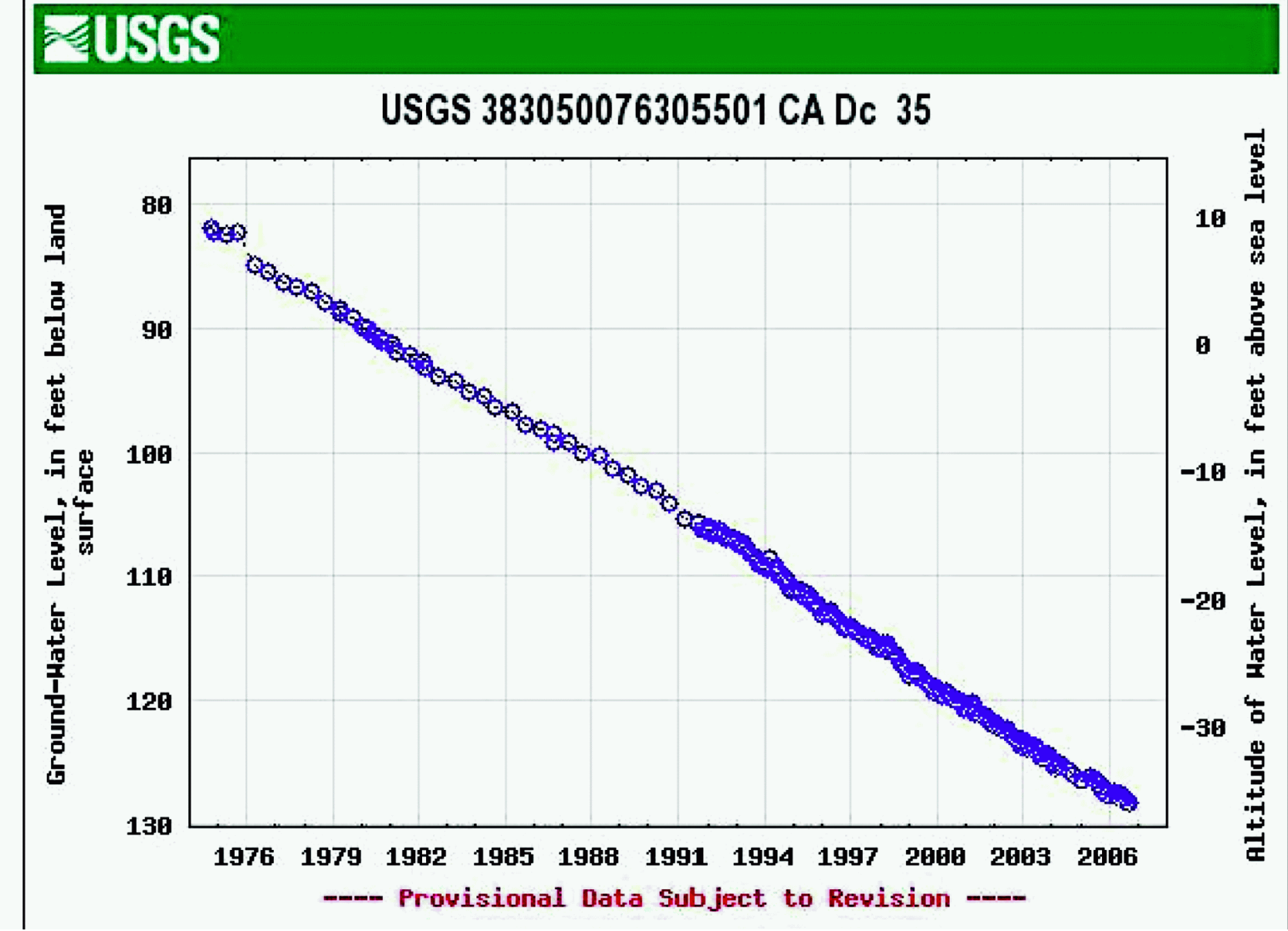


Figure 2.4-95—{Well Hydrograph for Monitoring Well CA Db 96 Screened in the Upper Patapsco Aquifer at Prince Frederick}

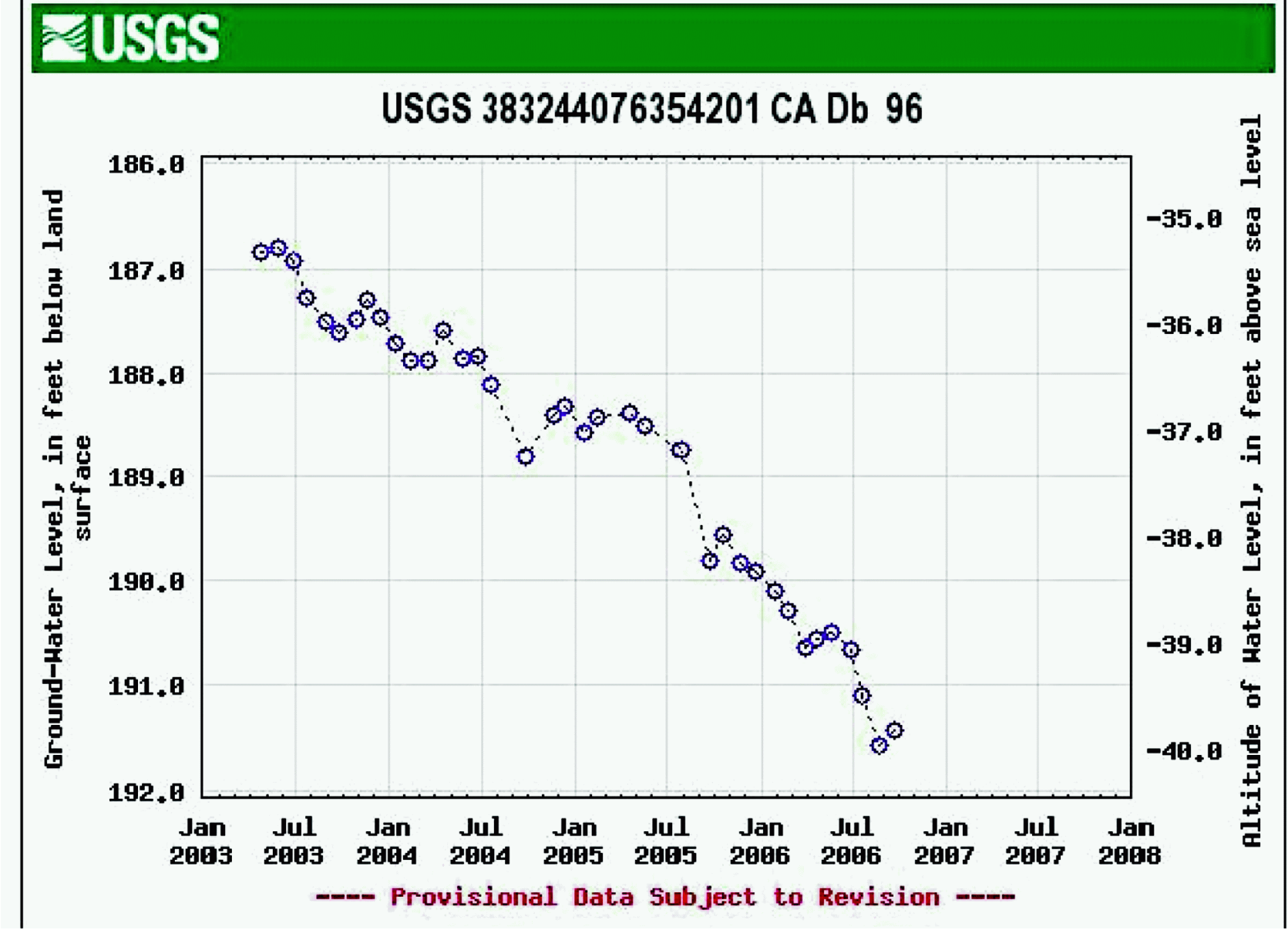


Figure 2.4-96—{Well Hydrograph for Monitoring Well CA Fd 85 Screened in the Lower Patapsco Aquifer at Chesapeake Ranch Estates}

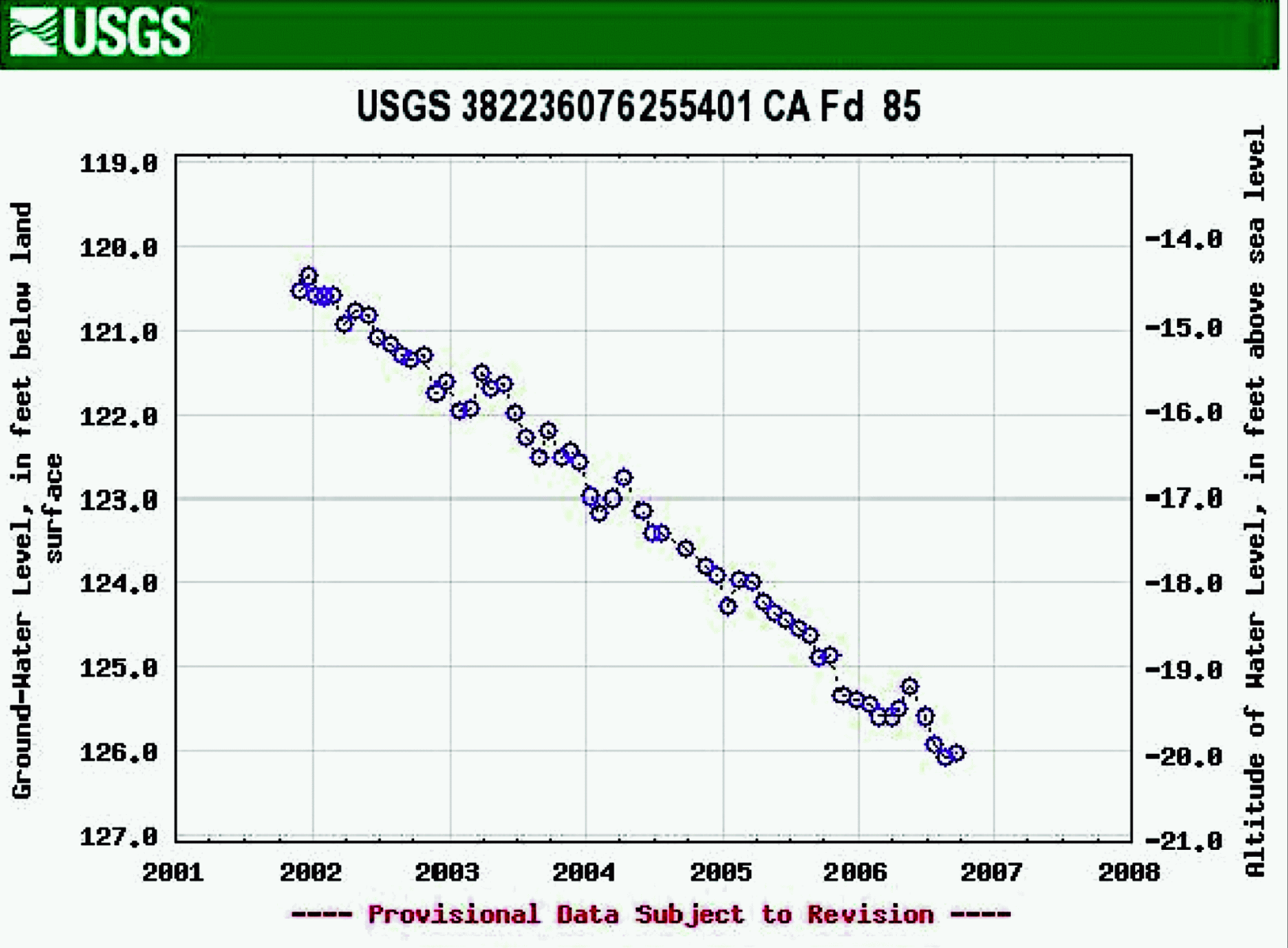


Figure 2.4-97—{Modeled Post-Construction Depth to the Surficial Aquifer Water Table in the Unit 3 Power Block Area}

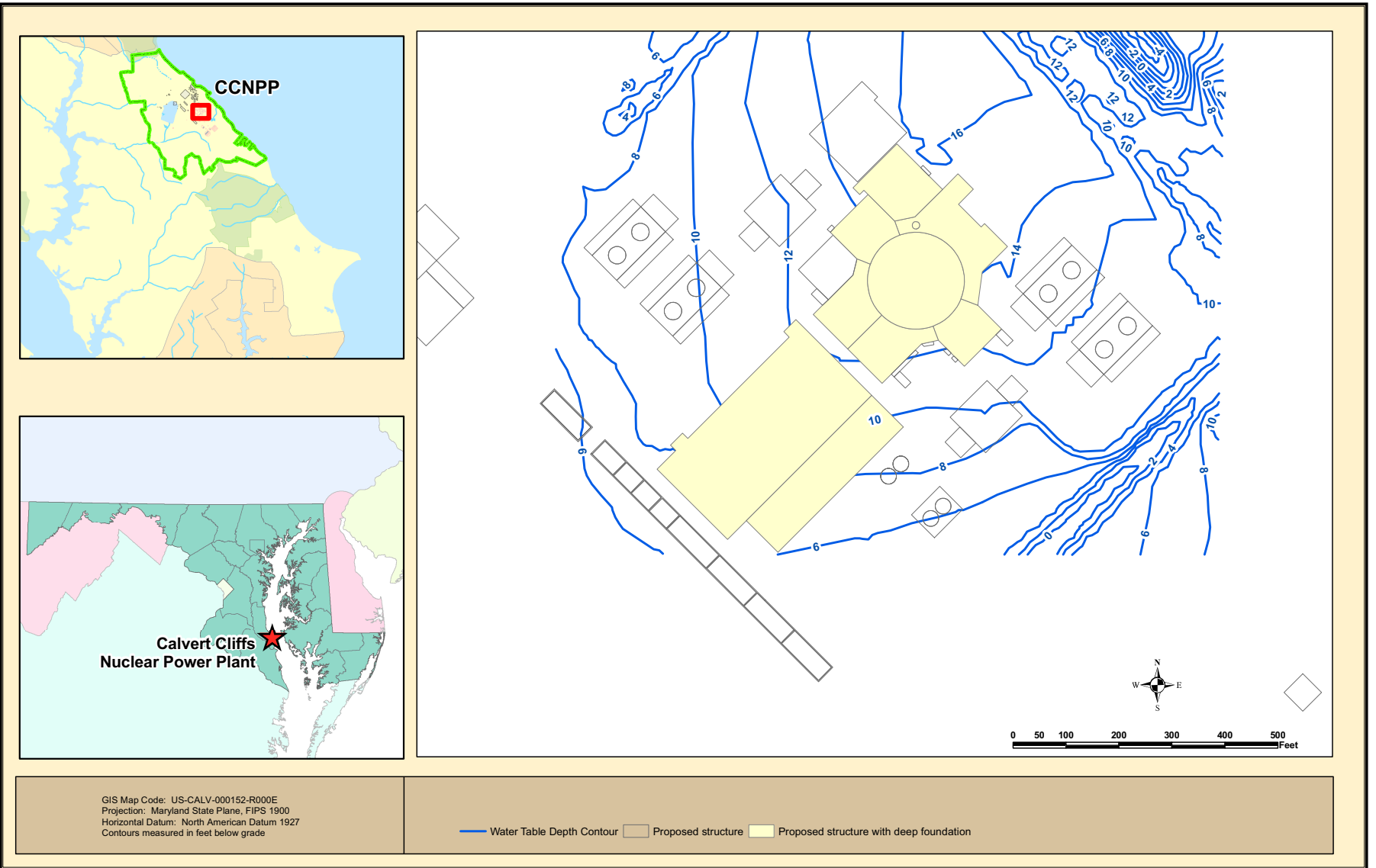
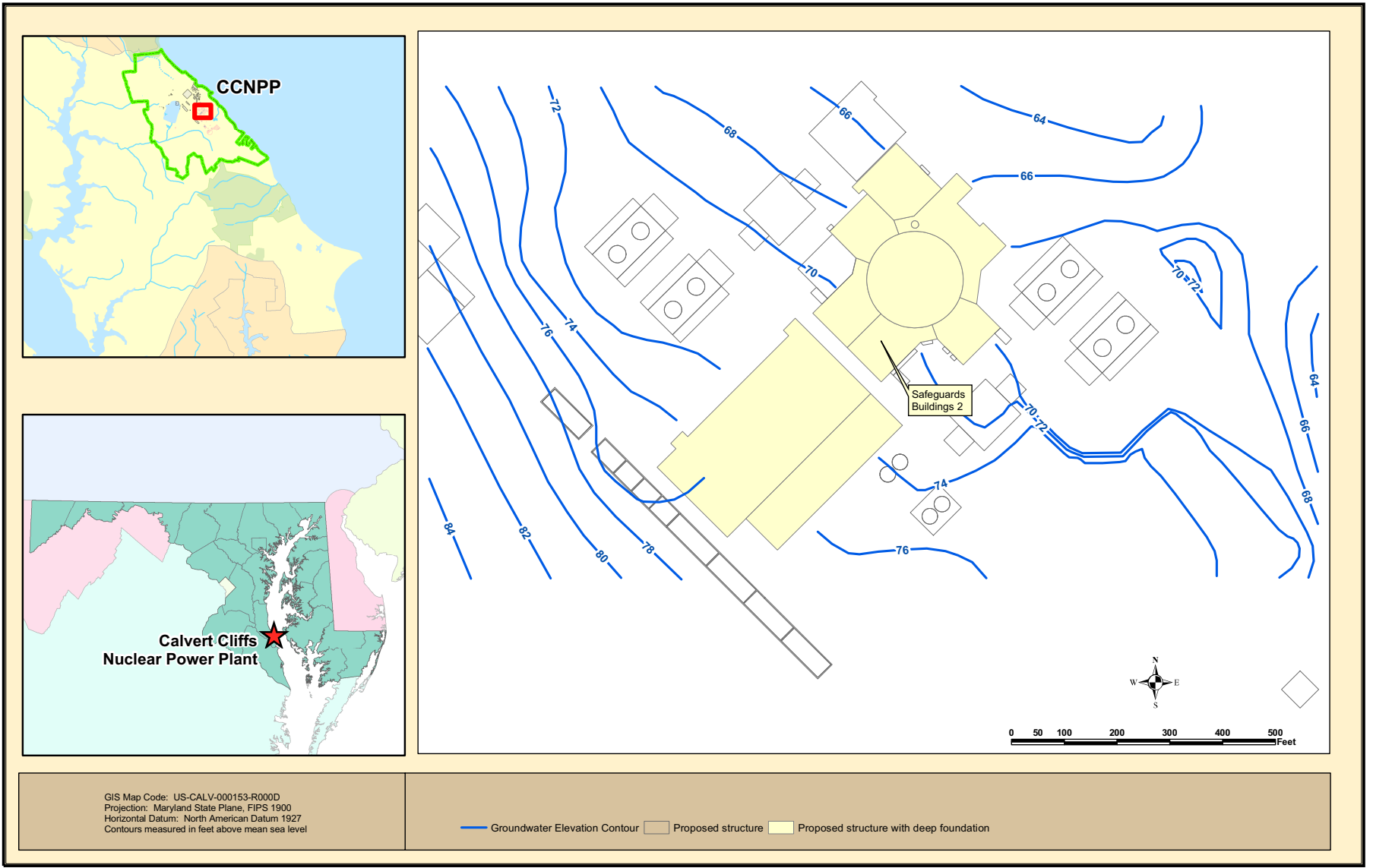


Figure 2.4-98—{Modeled Post-Construction Elevation of the Surficial Aquifer Water Table in the Unit 3 Power Block Area}



GIS Map Code: US-CALV-000153-R000D
Projection: Maryland State Plane, FIPS 1900
Horizontal Datum: North American Datum 1927
Contours measured in feet above mean sea level

Groundwater Elevation Contour Proposed structure Proposed structure with deep foundation

Figure 2.4-99—{Water Table Elevation Map and Groundwater Flow Direction for the Surficial Aquifer, June 2007}

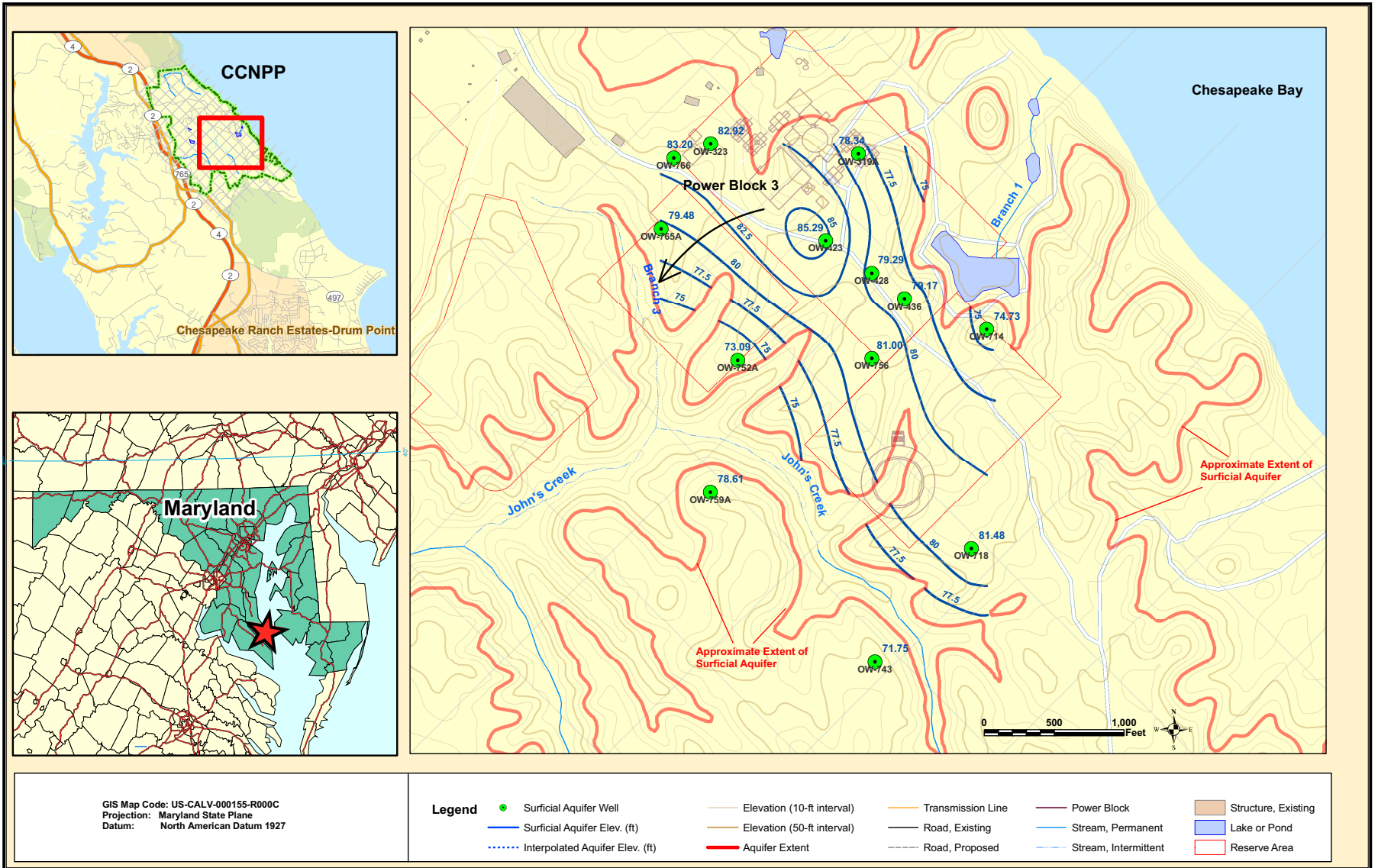


Figure 2.4-100—{Potentiometric Surface Elevation Map and Groundwater Flow Directions for the Upper Chesapeake Unit, June 2007}

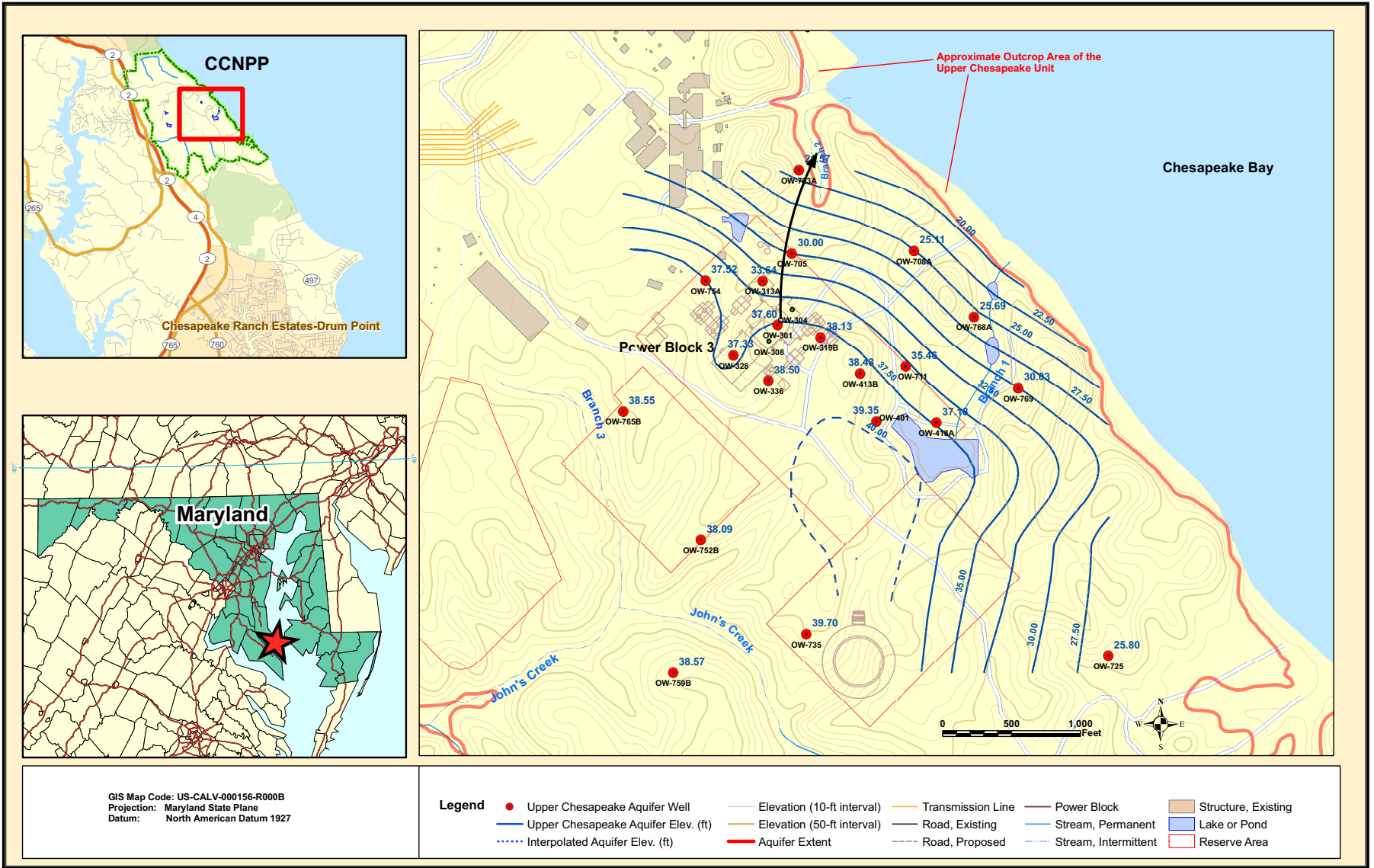


Figure 2.4-101—{Potentiometric Surface Elevation Map and Groundwater Flow Directions for the Lower Chesapeake Unit, June 2007}

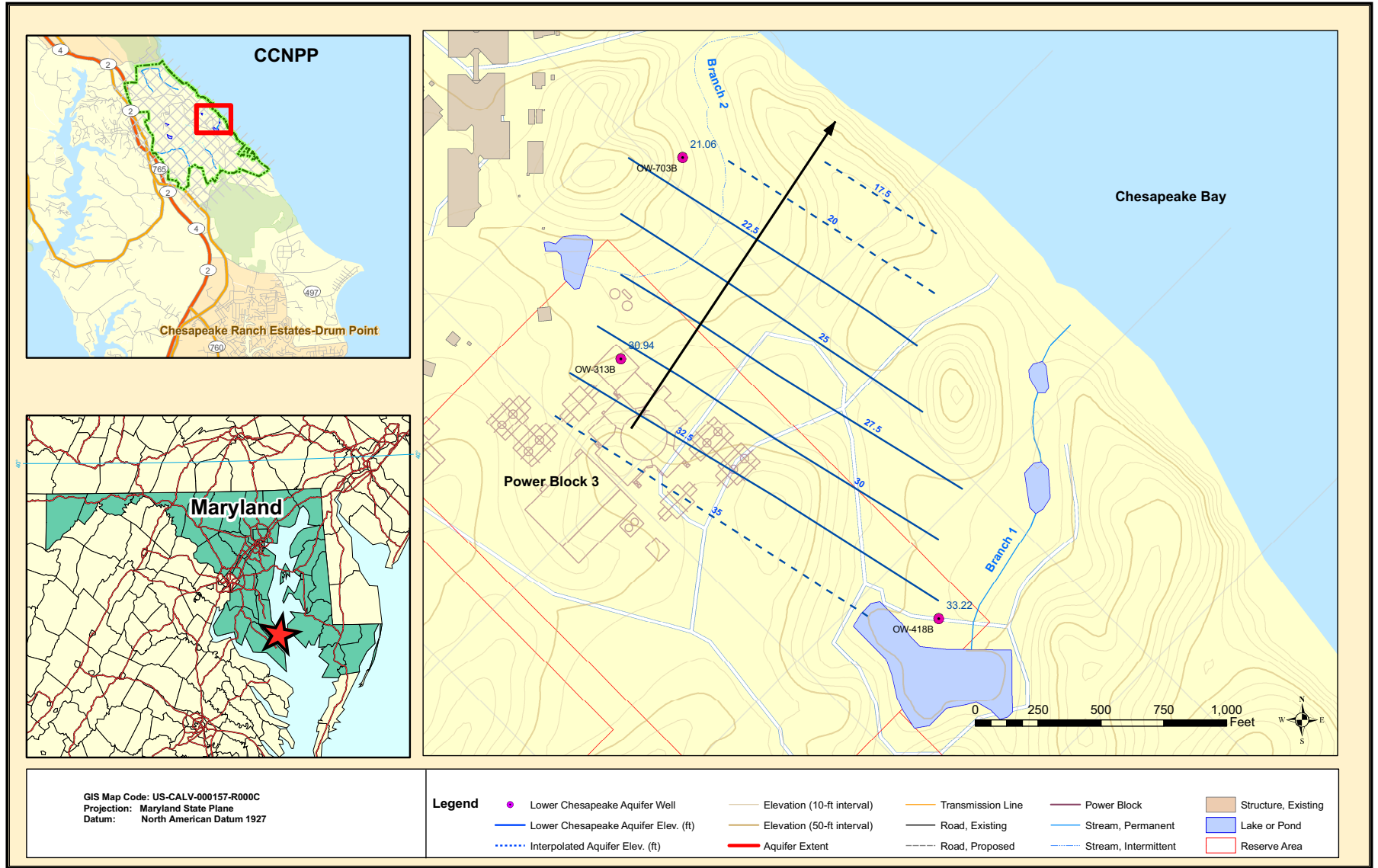
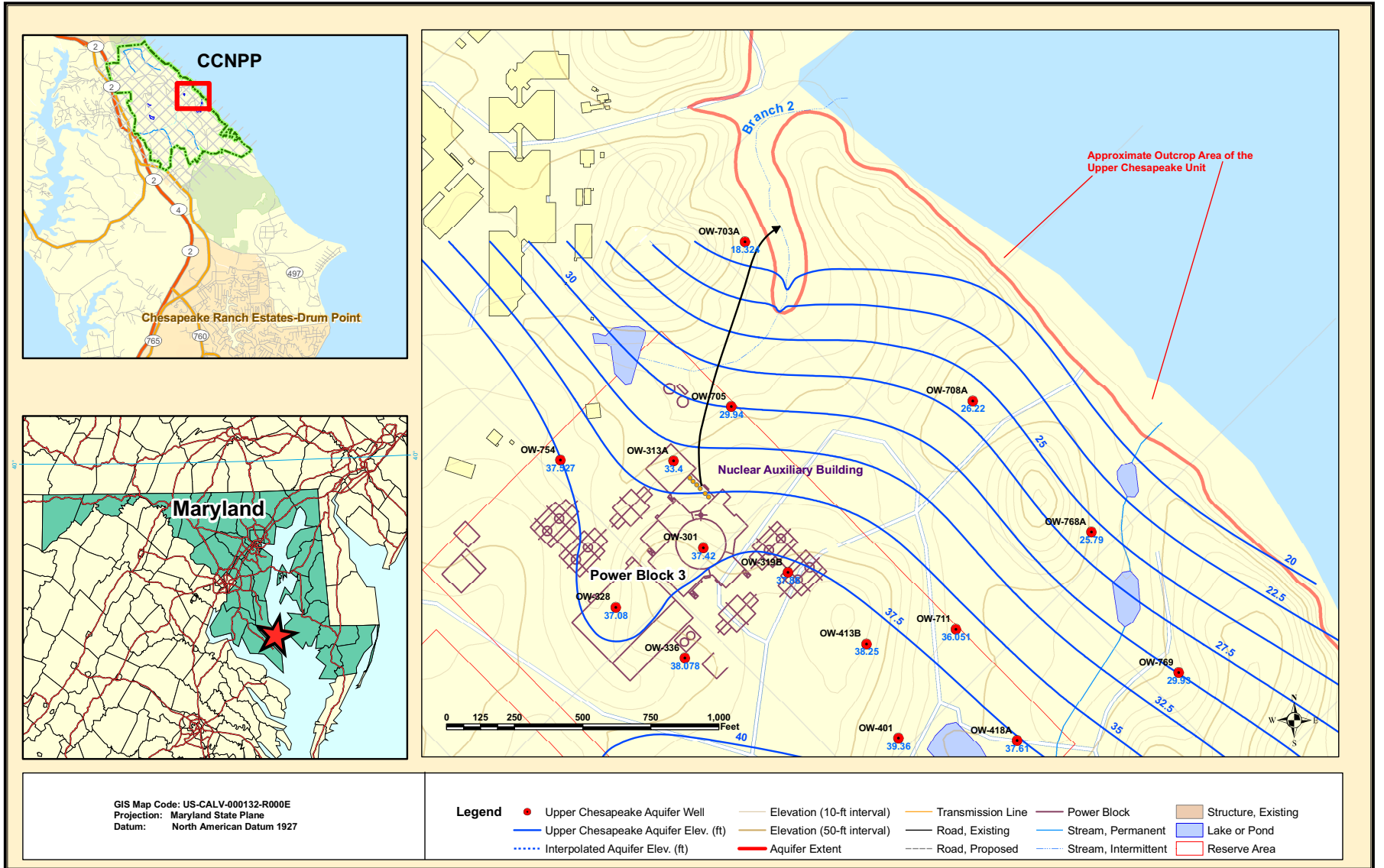


Figure 2.4-102—{Upper Chesapeake Unit Flow Direction from the Nuclear Auxiliary Building to Branch 2, July 2006}



GIS Map Code: US-CALV-000132-R000E
 Projection: Maryland State Plane
 Datum: North American Datum 1927

Figure 2.4-103—{Upper Chesapeake Unit Flow Direction from the Nuclear Auxiliary Building to Branch 2, September 2006}

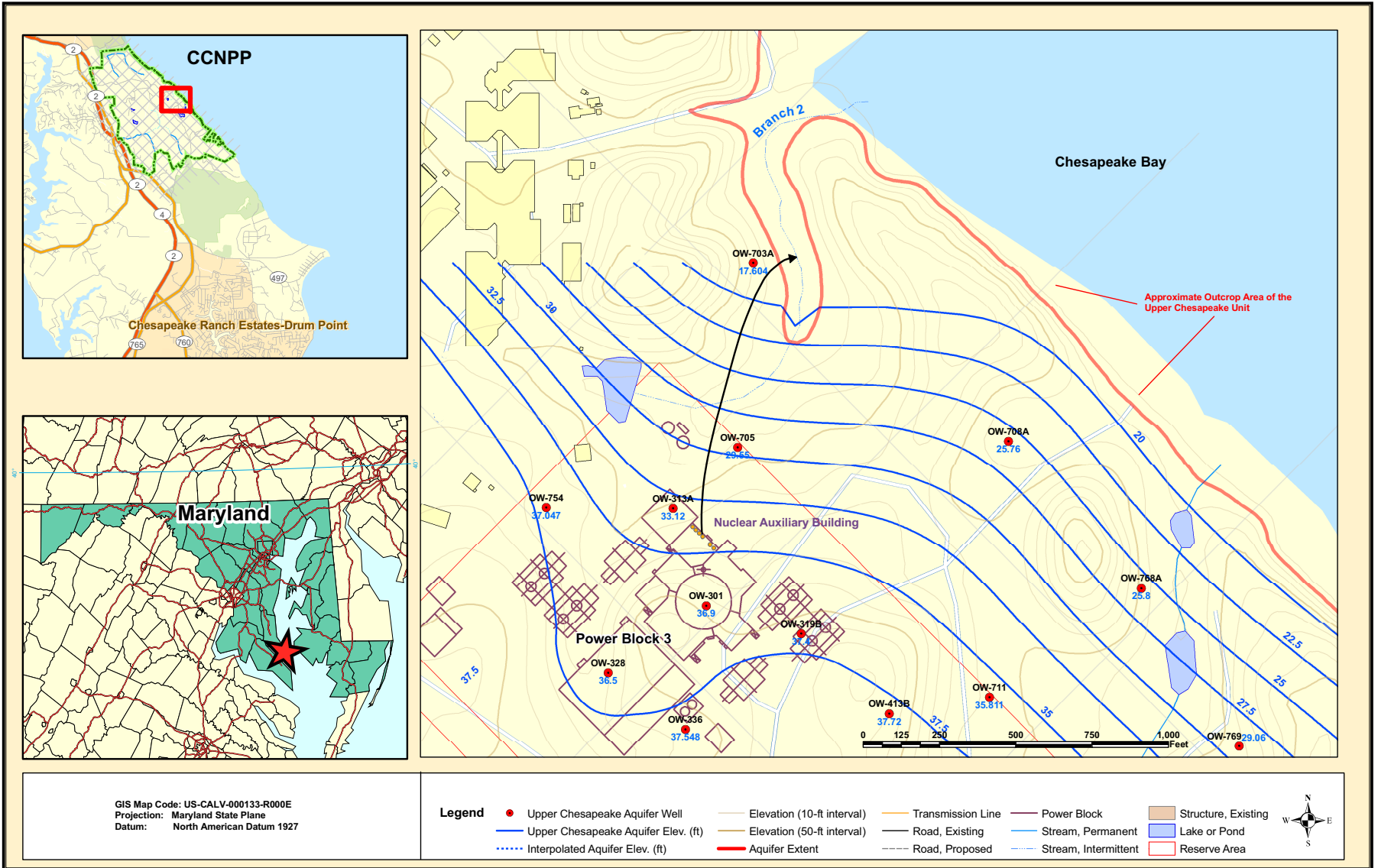


Figure 2.4-104—{Upper Chesapeake Unit Flow Direction from the Nuclear Auxiliary Building to Branch 2, December 2006}

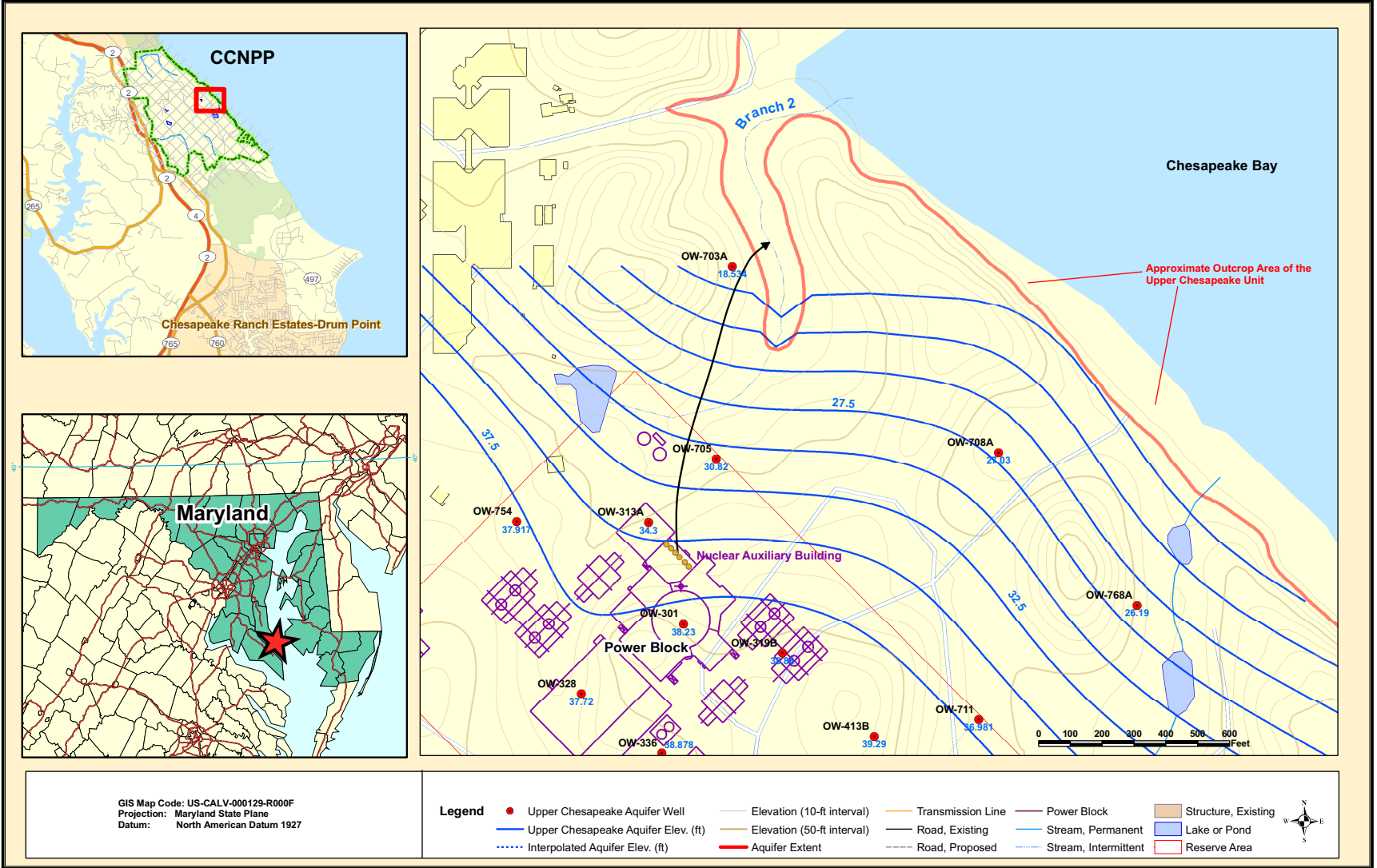


Figure 2.4-105—{Upper Chesapeake Unit Flow Direction from the Nuclear Auxiliary Building to Branch 2, March 2007}

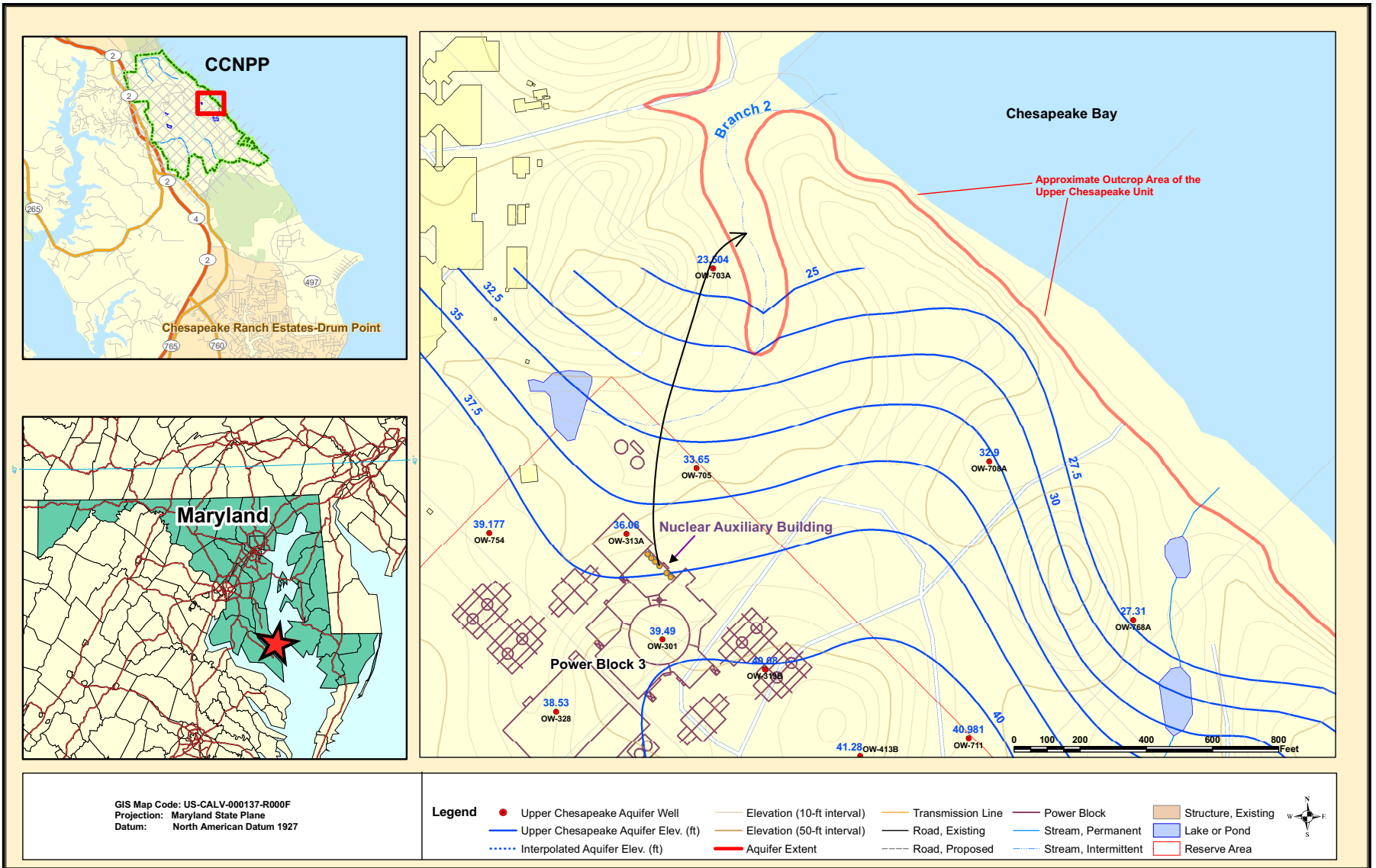


Figure 2.4-106—{Conceptual Model Transport Cross-Section}

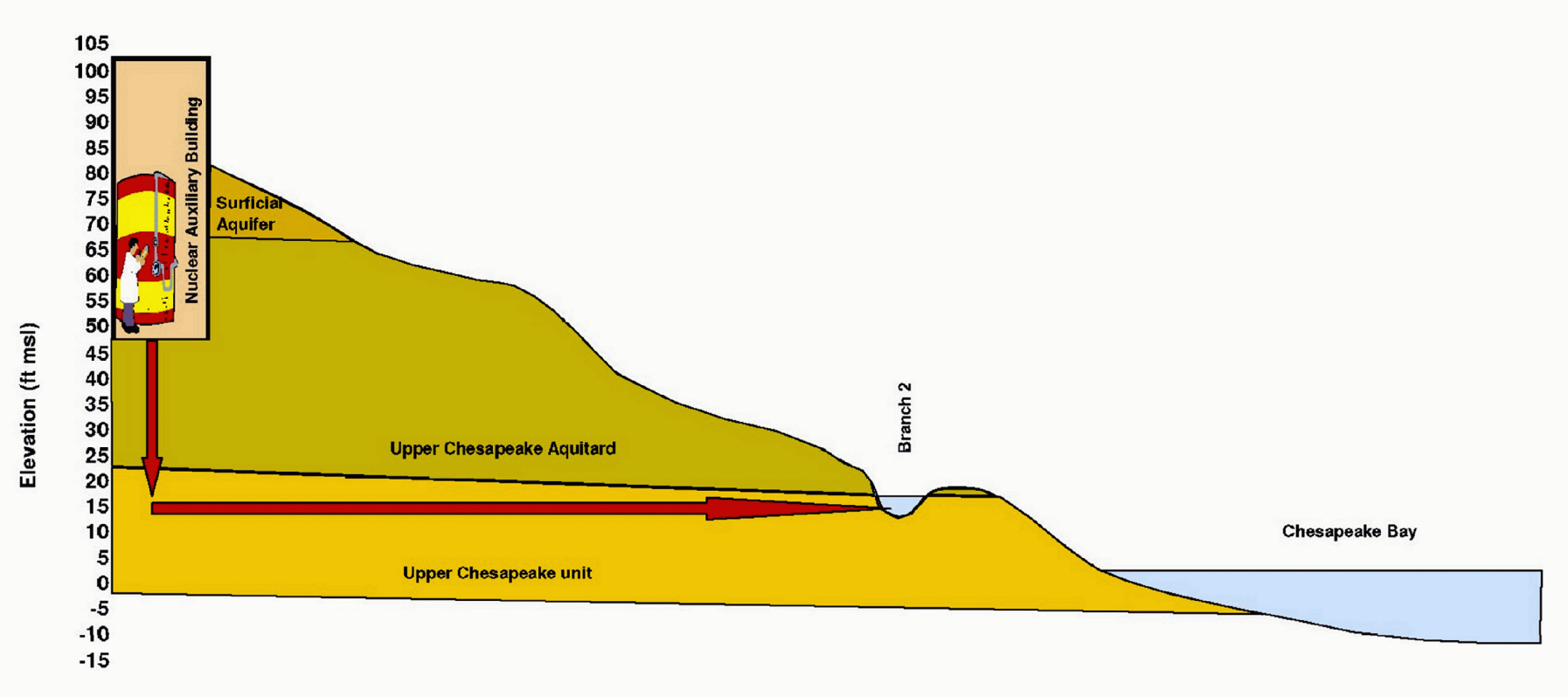


Figure 2.4-107—{Topography of the Post-Construction Groundwater Flow Model Domain}

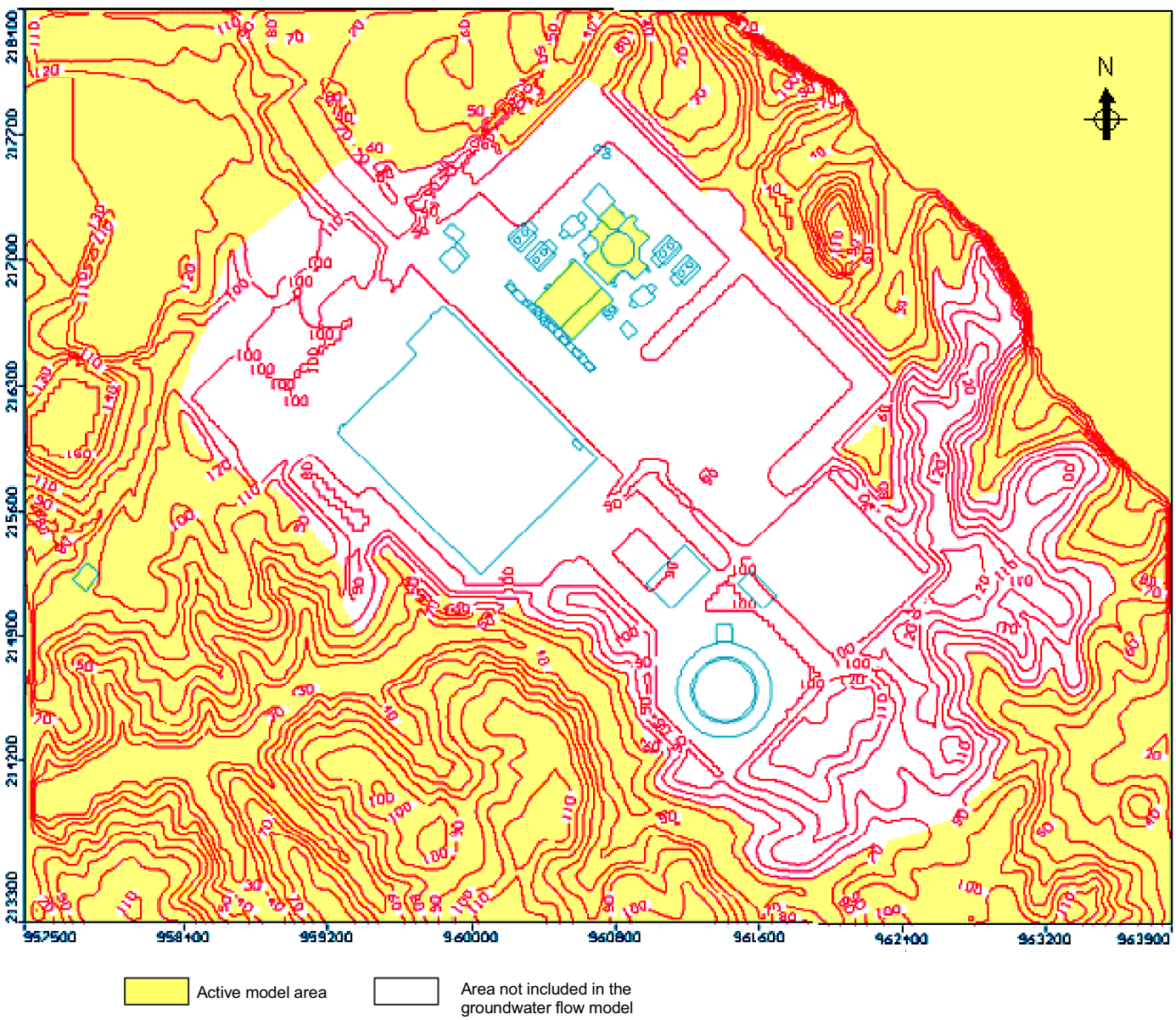


Figure 2.4-108—{Proposed Post Construction Observation Well Locations}

