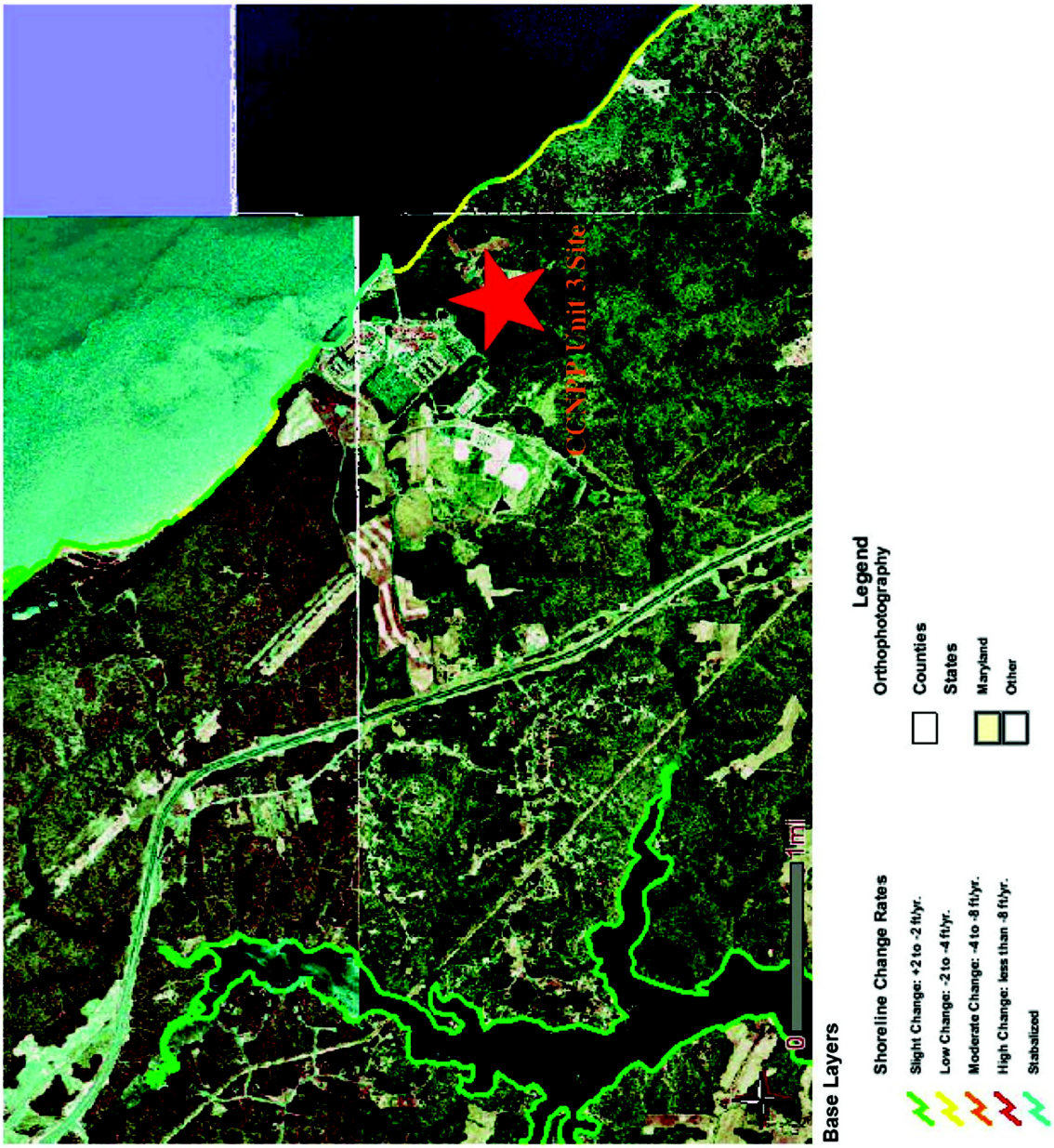


**Figure 2.4-50—{Chesapeake Bay Shoreline Erosion Rates Near The CCNPP Unit 3 Site Estimated By Maryland Department Of Natural Resources}**



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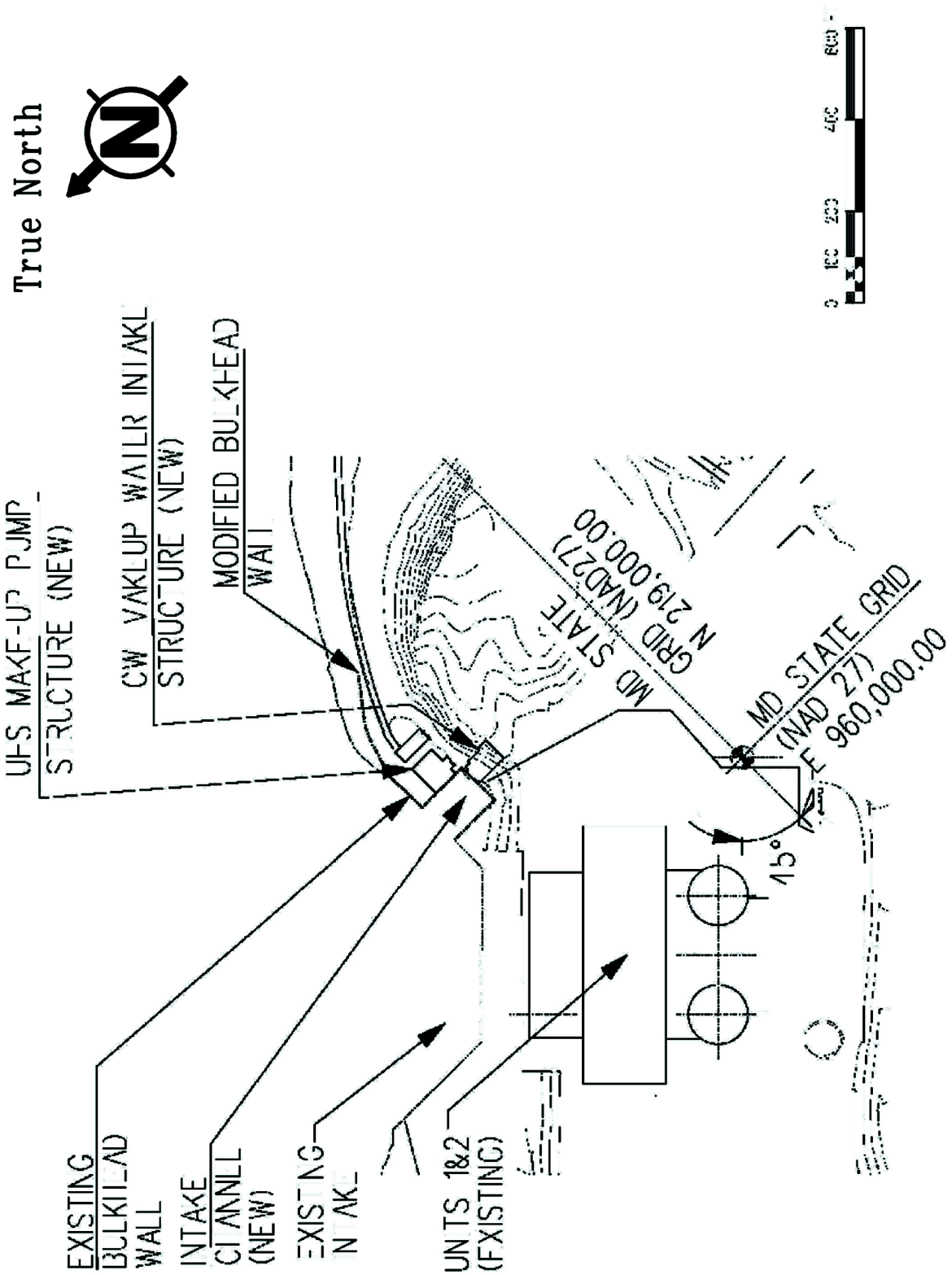


**Figure 2.4-51—{UHS Make-Up Intake Structure Modified Bulkhead Retaining Wall Location}**



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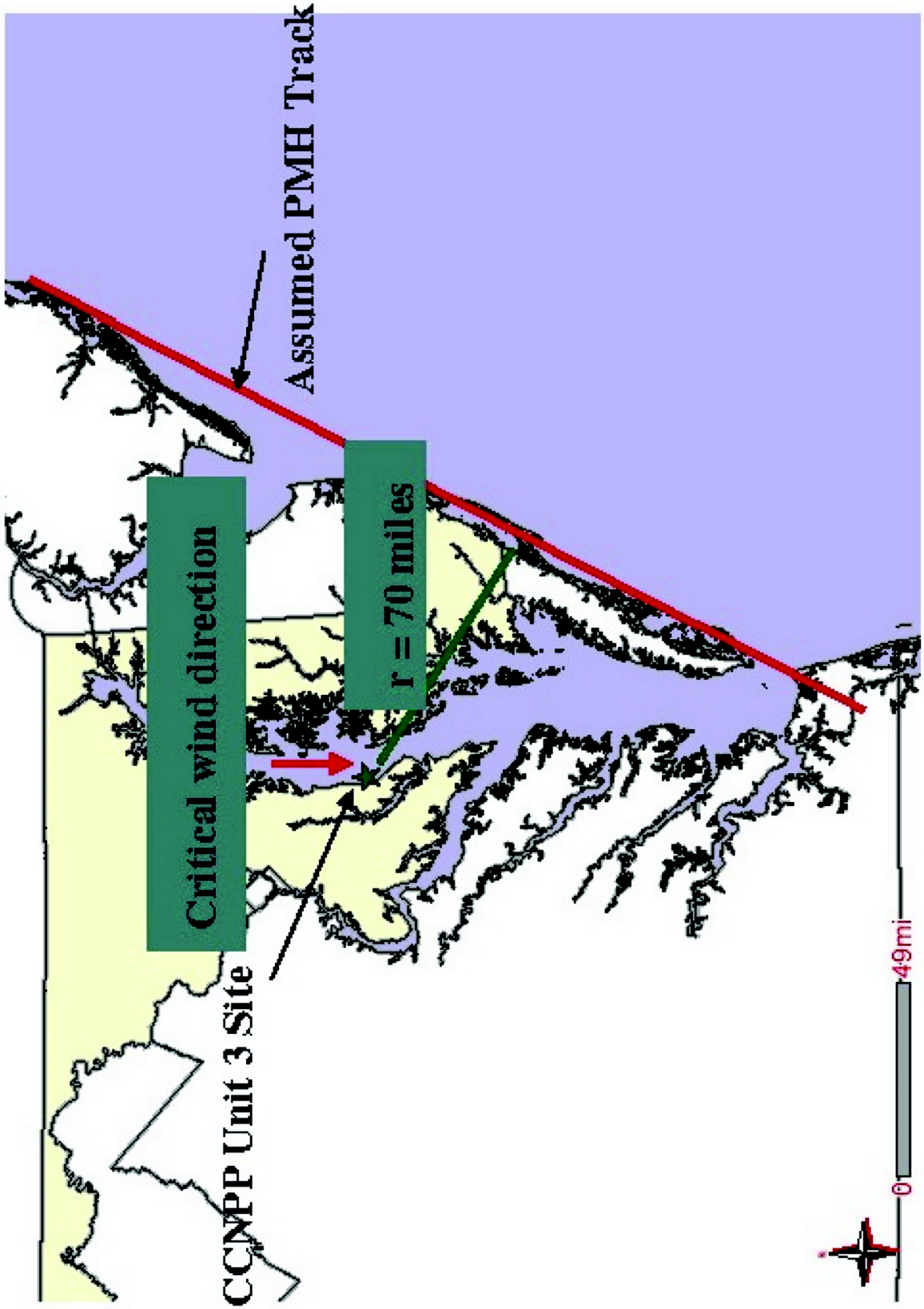


Figure 2.4-52—{Track Of The Probable Maximum Hurricane}


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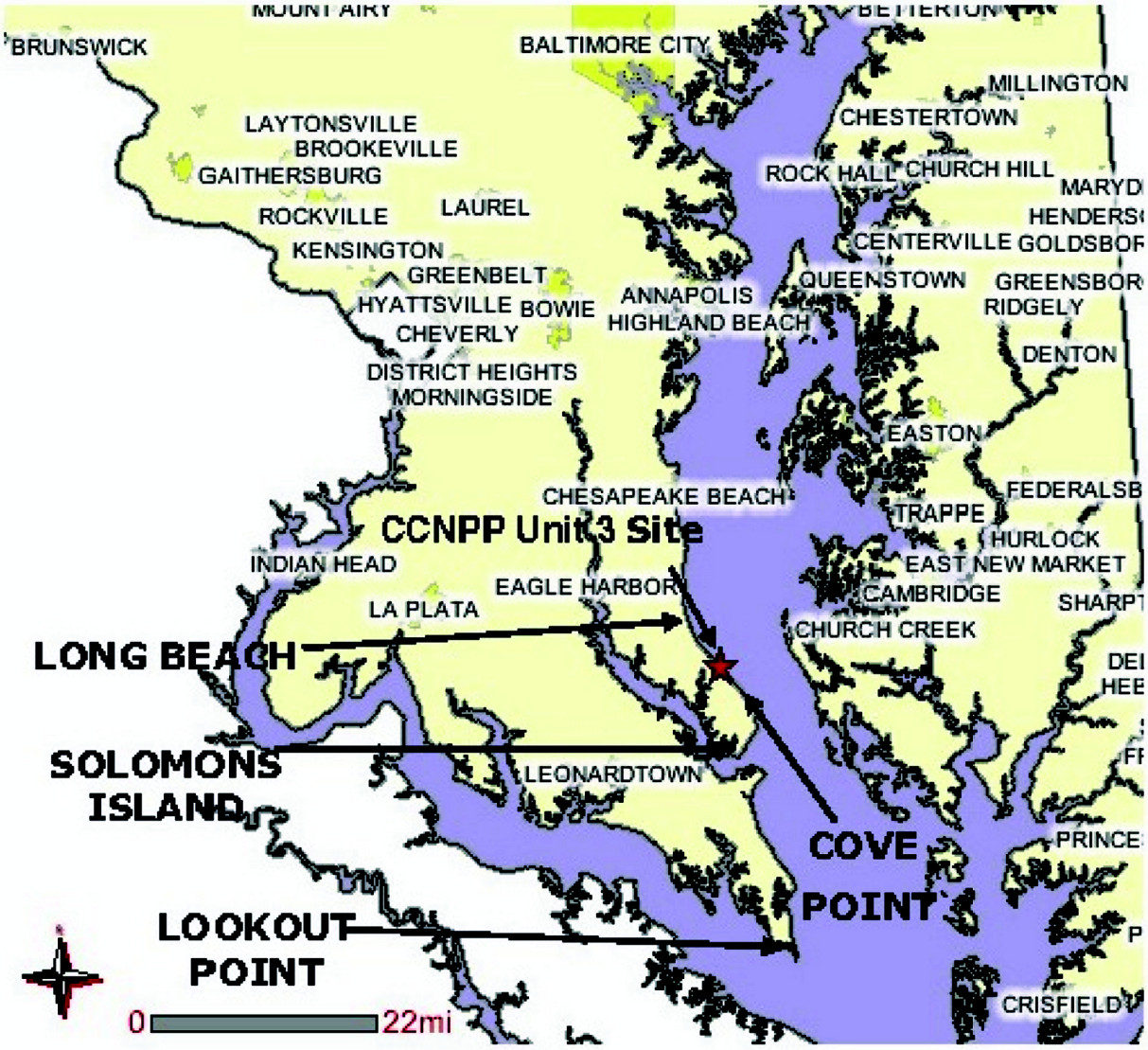
**Figure 2.4-53—{CCNPP Unit 3} Site Location}**





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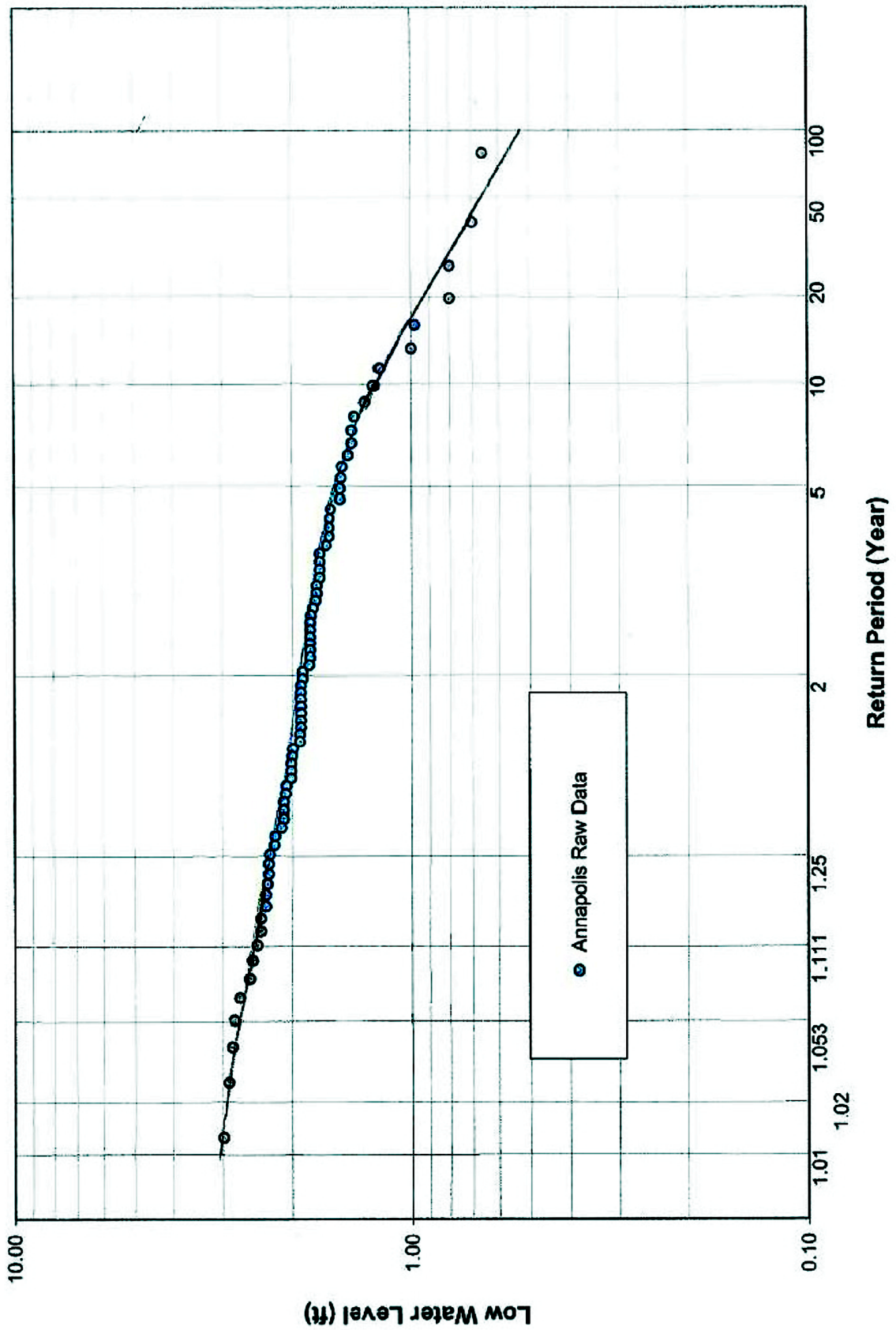


**Figure 2.4-54—{Low Water Level Data Of Annapolis Station And The Curve Fitted By Visual Inspection}**



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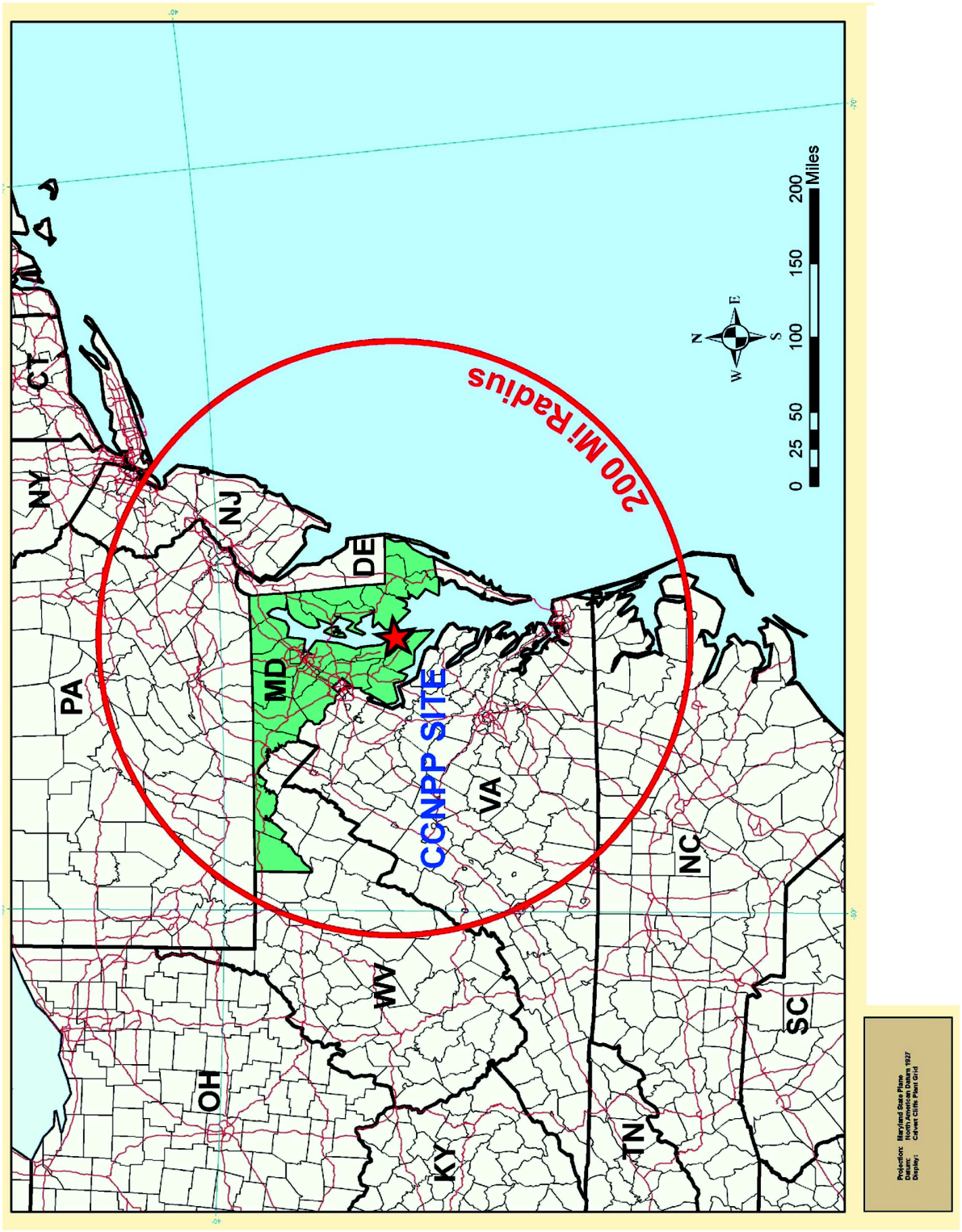


**Figure 2.4-55—{Location of CCNPP 200-Mile (320-Km) Radius From the Plant Site}**



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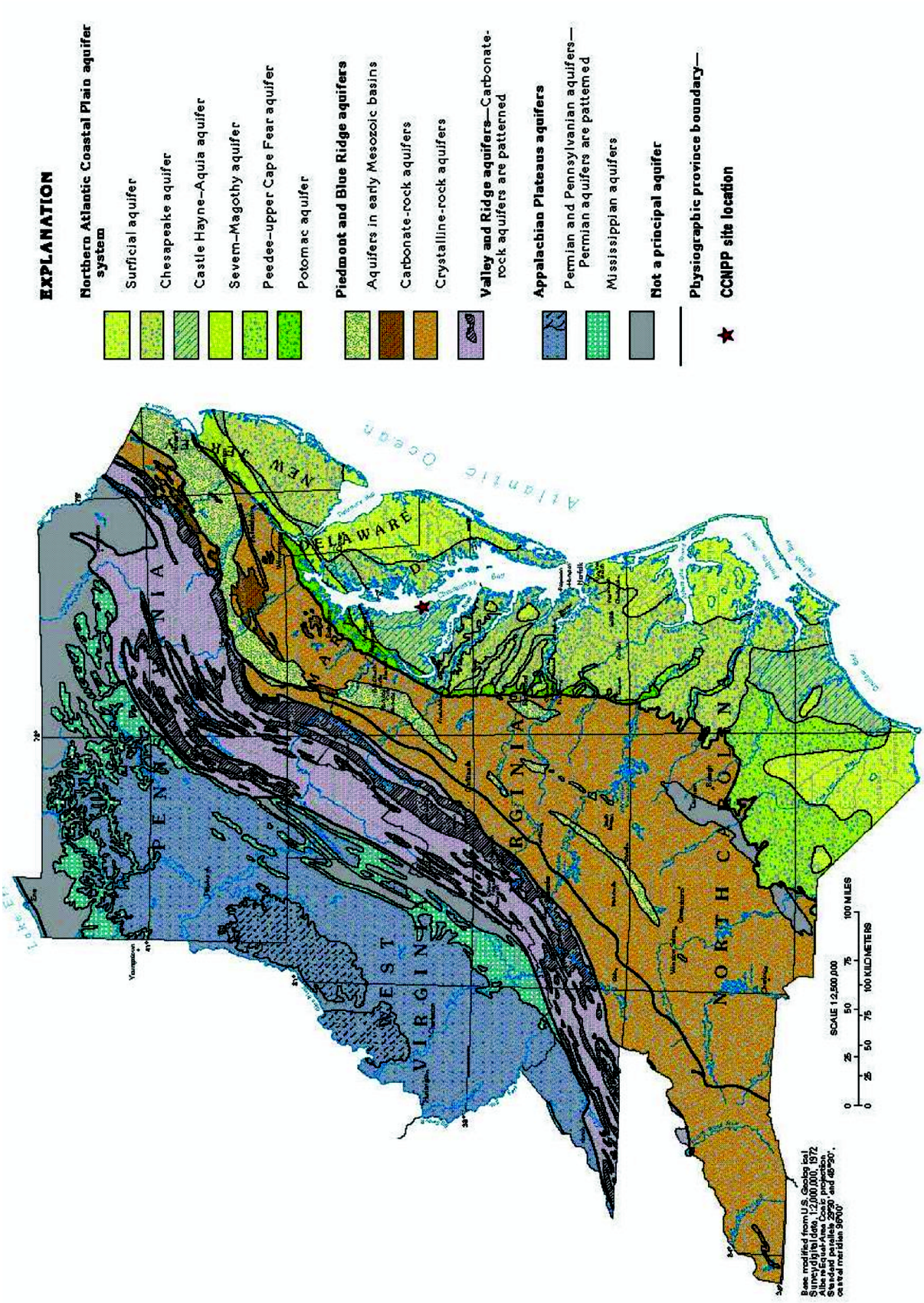


**Figure 2.4-56—{Mid-Atlantic Regional Physiographic Provinces and Hydrostratigraphic Units}**



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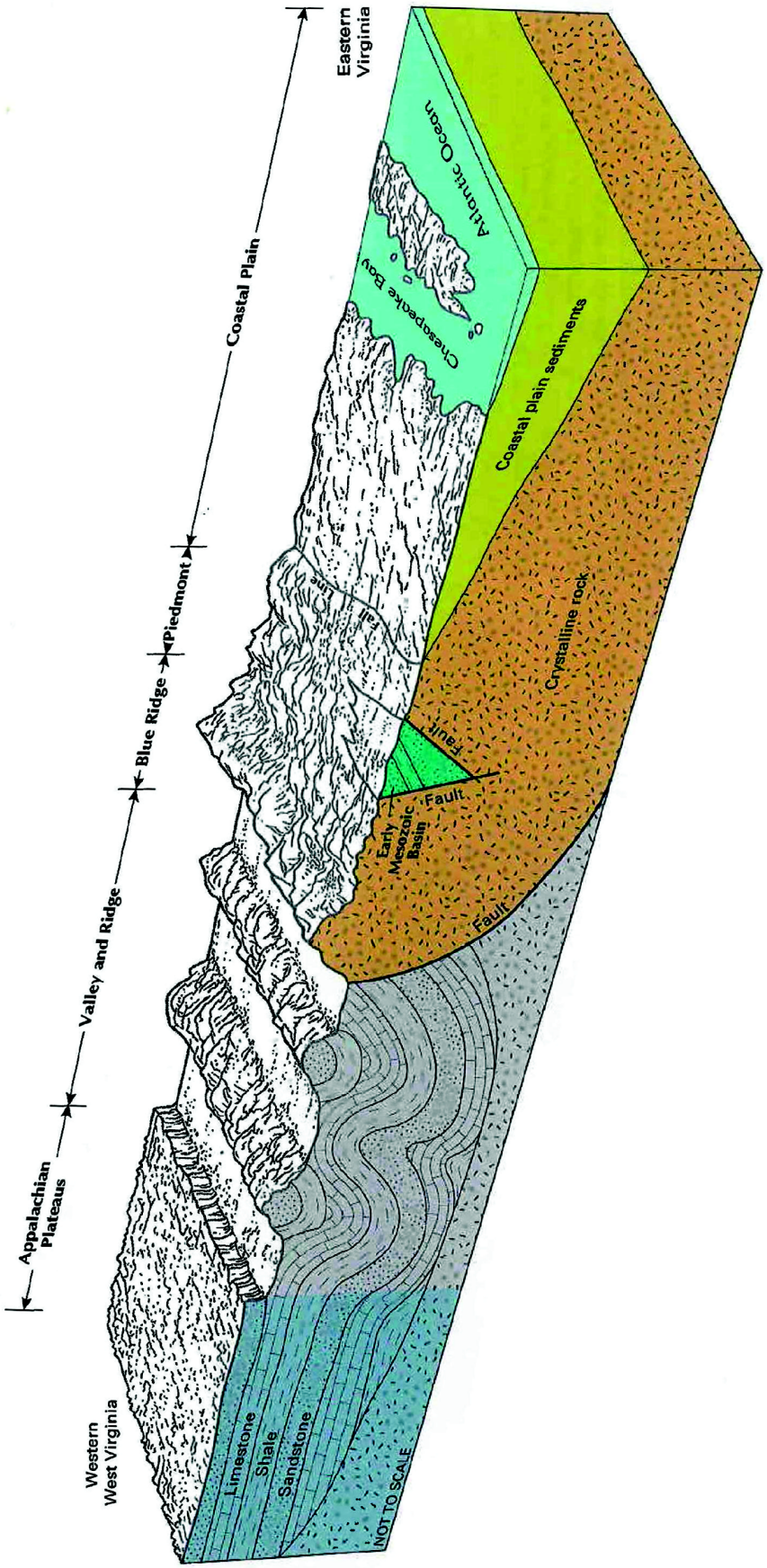


**Figure 2.4-57—{Schematic Geologic Cross Section Through the Mid-Atlantic Region}**


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**Figure 2.4-58—{Southern Maryland Schematic Hydrostratigraphic Section}**

| ERATHEM | SYSTEM | SERIES | FORMATION | | THICKNESS (feet) | LITHOLOGY | HYDROSTRATIGRAPHIC UNIT |
|---|---|---|---|---|---|---|---|
| CENOZOIC | QUATERNARY | Holocene & Pleistocene | Lowland deposits | | 0-150 | Sand, gravel, sandy clay, and clay. | SURFICIAL AQUIFER |
| | NEOGENE | Pliocene | Upland deposits | | 0-85 | Irregularly stratified cobbles, gravel, sand, and clay lenses. | |
| | | Miocene | Chesapeake Group | St. Mary's Fm. | 0-335 | Sand, clayey sand, and sandy clay; fossiliferous and diatomaceous. | CHESAPEAKE CONFINING UNIT |
| | | | | Choptank Fm. | | | |
| | | | | Calvert Fm. | | | |
| | PALEOGENE | Oligocene | | Unnamed Oligocene Beds | 0-5 | Patchy distribution; clayey, glauconitic sand. | PINEY POINT-NANJEMOY AQUIFER |
| | | Eocene | Pamunkey Group | Piney Point Fm. | 0-90 | Sand, slightly glauconitic, with intercalated indurated layers; fossiliferous. | |
| | | | | Nanjemoy Fm. | 0-240 | Glauconitic sand with clayey layers. | |
| | | Paleocene | | Marlboro Clay | 0-30 | Pink and gray clay. | NANJEMOY CONFINING UNIT |
| | | | | Aquia Fm. | 30-205 | Glauconitic, greenish to brown sand with indurated layers; fossiliferous. | AQUIA AQUIFER |
| | | | | Brightseat Fm. | 0-40 | Gray to dark-gray micaceous silty and sandy clay. | BRIGHTSEAT CONFINING UNIT |
| MESOZOIC | CRETACEOUS | Upper | Monmouth Group / Matawan Group | Formations undifferentiated | 20-105 | Sandy clay and sand, dark gray to black, with minor glauconitic; fossiliferous. | |
| | | | Magothy Fm. | | 0-230 | Light gray to white sand and fine gravel with interbedded clay layers; contains pyrite and lignite. Includes two sand units in southern Anne Arundel County where the formation is the thickest. | MAGOTHY AQUIFER |
| | | Lower | Potomac Group | Patapsco Fm. | 0-1,200 | Interbedded sand, clay, and sandy clay; color variegated, but chiefly hues of red, brown and gray; consists of several sandy intervals that function as separate aquifers. | Patapsco aquifer system: UPPER PATAPSCO CONFINING UNIT / UPPER PATAPSCO AQUIFER / MIDDLE PATAPSCO CONFINING UNIT / LOWER PATAPSCO AQUIFER |
| | | | | Arundel Fm. | 0-400 | Red, brown, and gray clay; in places contains ironstone nodules, carbonaceous remains, and lignite. | ARUNDEL CONFINING UNIT |
| | | | | Patuxent Fm. | 100-600 | Interbedded gray and yellow sand and clay; kaolinized feldspar and lignite common. Locally clay layers predominate. | PATUXENT AQUIFER |
| PALEOZOIC / PRECAMBRIAN | Undifferentiated pre-Cretaceous consolidated-rock basement | | | | Unknown | Igneous and metamorphic rocks; sandstone and shale. | NOT RECOGNIZED |


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**Figure 2.4-59—{Schematic Cross-Section of Southern Maryland Hydrostratigraphic Units}**

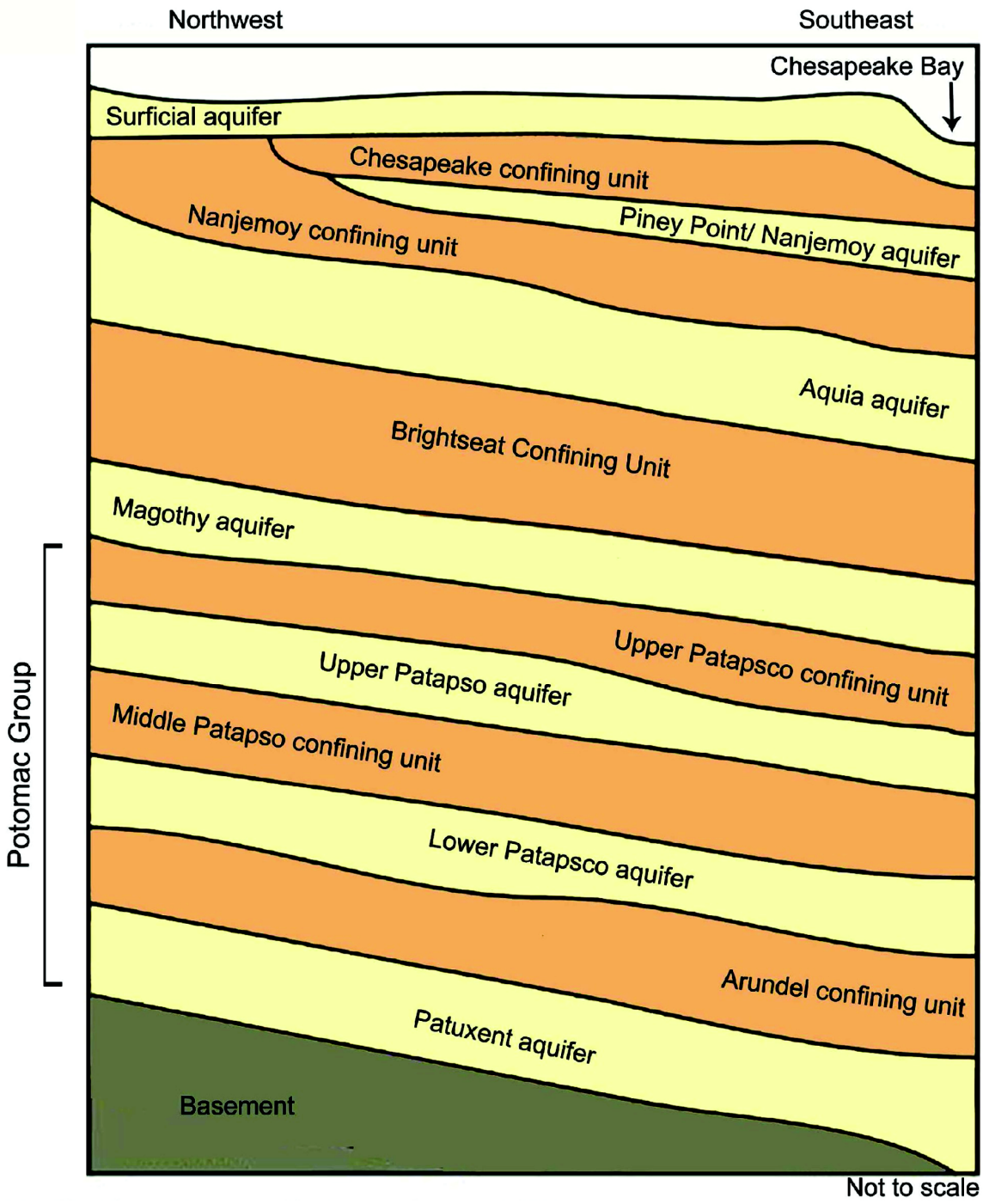



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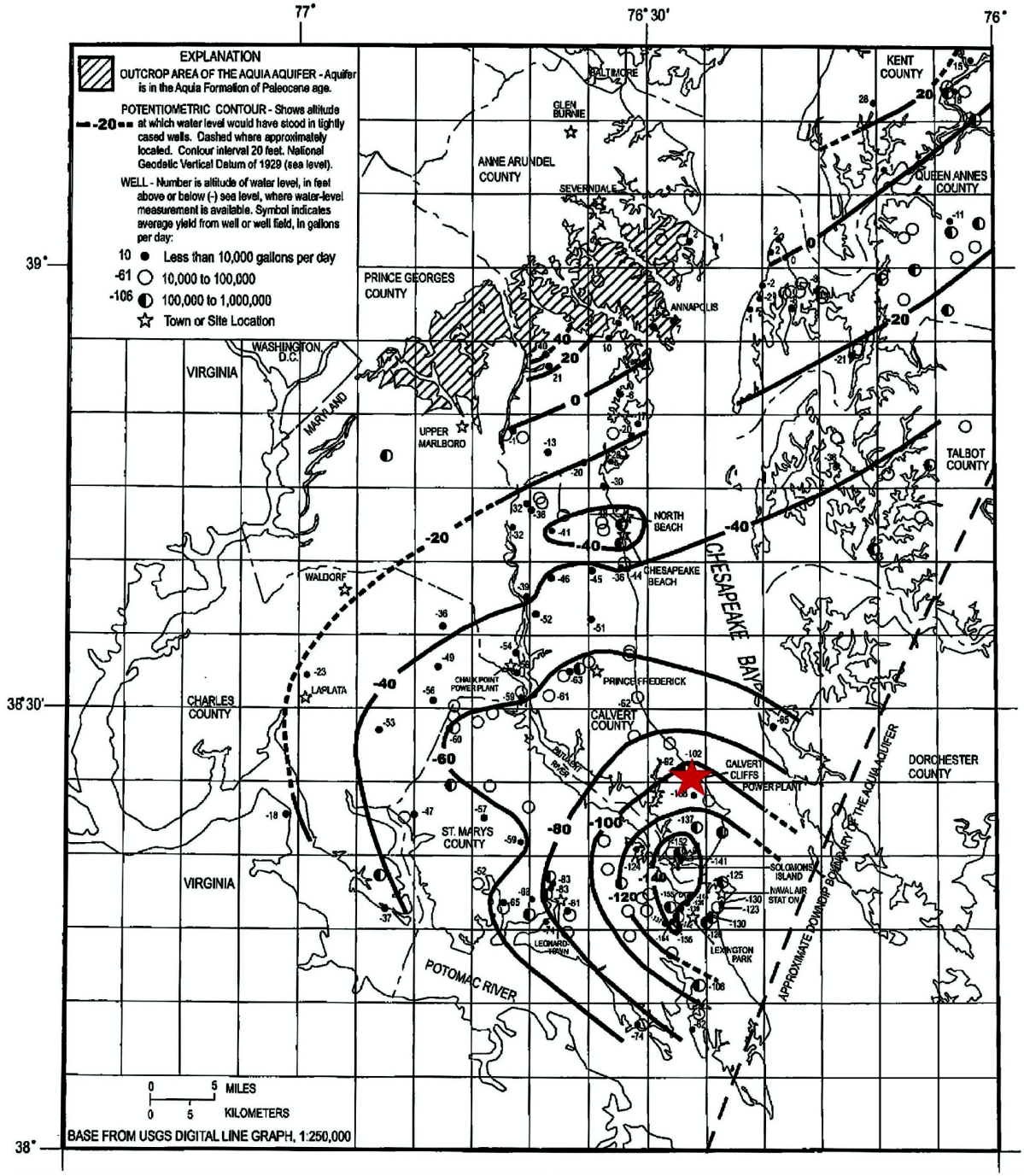
**Figure 2.4-60—{Potentiometric Surface of the Aquia Aquifer in Southern MD, September 2003}**





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