DELAWARE GEOLOGICAL SURVEY
University of Delaware, Newark
Robert R. Jordan, State Geologist

Base Map

Produced by the United States Geological Survey

Control by USGS and NOS/NOAA

Compiled from aerial photographs taken 1989
Field checked 1991. Map edited 1993

Selected hydrographic data compiled from NOS Chart 12304 (1990)
This information is not intended for navigational purposes

North American Datum of 1983 (NAD 83). Projection and
1 000-meter grid: Universal Transverse Mercator, zone 18
10 000-foot ticks: Delaware Coordinate System of 1983

1927 North American Datum (NAD 27) is shown by dashed corner ticks
The values of the shift between NAD 83 and NAD 27 for 7.5-minute
intersections are given in USGS Bulletin 1875

There may be private inholdings within the boundaries of
the National or State reservations shown on this map

Gray tint indicates area in which only landmark buildings are shown

UTM GRID AND 1993 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

QUADRANGLE LOCATION

SCALE 1:24 000

CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29)
(TO CONVERT ELEVATIONS TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, SUBTRACT 1 FOOT)

GEOHYDROLOGY OF THE SMYRNA-CLAYTON AREA, DELAWARE

by
A. Scott Andres
2001

CARTOGRAPHIC NOTE

Close examination of the recharge potential data will show that there are areas along swamps, marshes, and streams where the recharge potential information do not exactly match hydrographic features of the base map. This is a result of the method by which the original map data were collected and digitized in 1996 and 1997 (Howard et al., 1997). The recharge potential information and the boundaries of streams, ponds, marshes, and swamps were digitized in latitude and longitude coordinates on a digitizing tablet from maps drawn on drafting film and registered to drafting film-based, 1992 edition topographic maps. Because the edge lines of swamp and marsh features are not printed on the base maps there was some generalization in our digitizing of the boundaries between some recharge potential polygons and complex-shaped, hydrographic features. Conversion of the digital data for use in newer software packages and into the Universal Transverse Mercator coordinate system introduced additional minor differences in the locations of boundary lines. These differences are within the error tolerances of the scales of the original maps and the data from which they were derived. Map users needing additional information should contact the Survey.