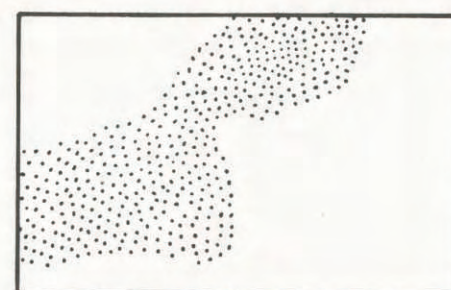
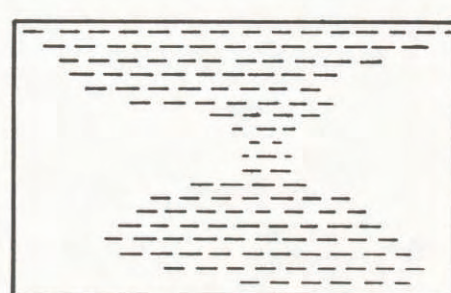


BOUNDARIES OF AREAS DELINEATED ARE APPROXIMATE ONLY. DECISIONS CONCERNING SPECIFIC SITES REQUIRE ON-SITE INSPECTION.



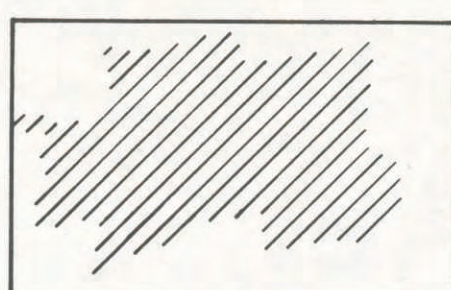
#### FLOOD PLAINS

Flat areas underlain by deposits of sand, silt, clay, and gravel; organic material common; water table high with swampy conditions prevalent in many places; part or all of flood plain subject to flooding.



#### POORLY DRAINED LOWLAND FLATS

Relatively flat lowland areas underlain by silty or sandy clay and fine clayey sand with low permeability. The water table is relatively high in most of these areas, particularly in Spring. Moreover, surface drainage can be very poor, with swampy conditions prevalent over large portions of the flats. Septic systems may function poorly.



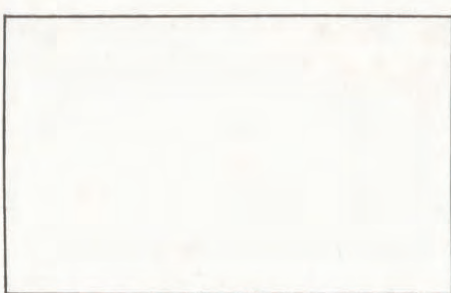
#### UPLAND AREAS WITH HARDPAN

Flat to gently rolling upland terrain underlain by silty or sandy loam containing a slowly permeable hardpan about 2 feet in thickness. The hardpan (or fragipan) generally occurs at a depth of about 2 feet, and as a consequence of its relative impermeability, surface soils tend to remain saturated and swampy during wet seasons, or exceptionally dry during droughty periods. Shallow septic systems may function poorly.



#### AREA UNDERLAIN BY CLAY

Outcrop belt of Marlboro Clay—a thin stratum, up to 30 feet in thickness, of pale-red, stiff clay, exposed at surface mostly along steep slopes. During wet periods, water movement along clay surface creates conditions favorable for slope failures and landsliding. Plans for construction on or above clay outcrop should include provision for adequate drainage of clay bed surface.



NO GENERAL CONSTRAINTS ON LAND USE OR SIGNIFICANT GEOLOGIC HAZARDS.

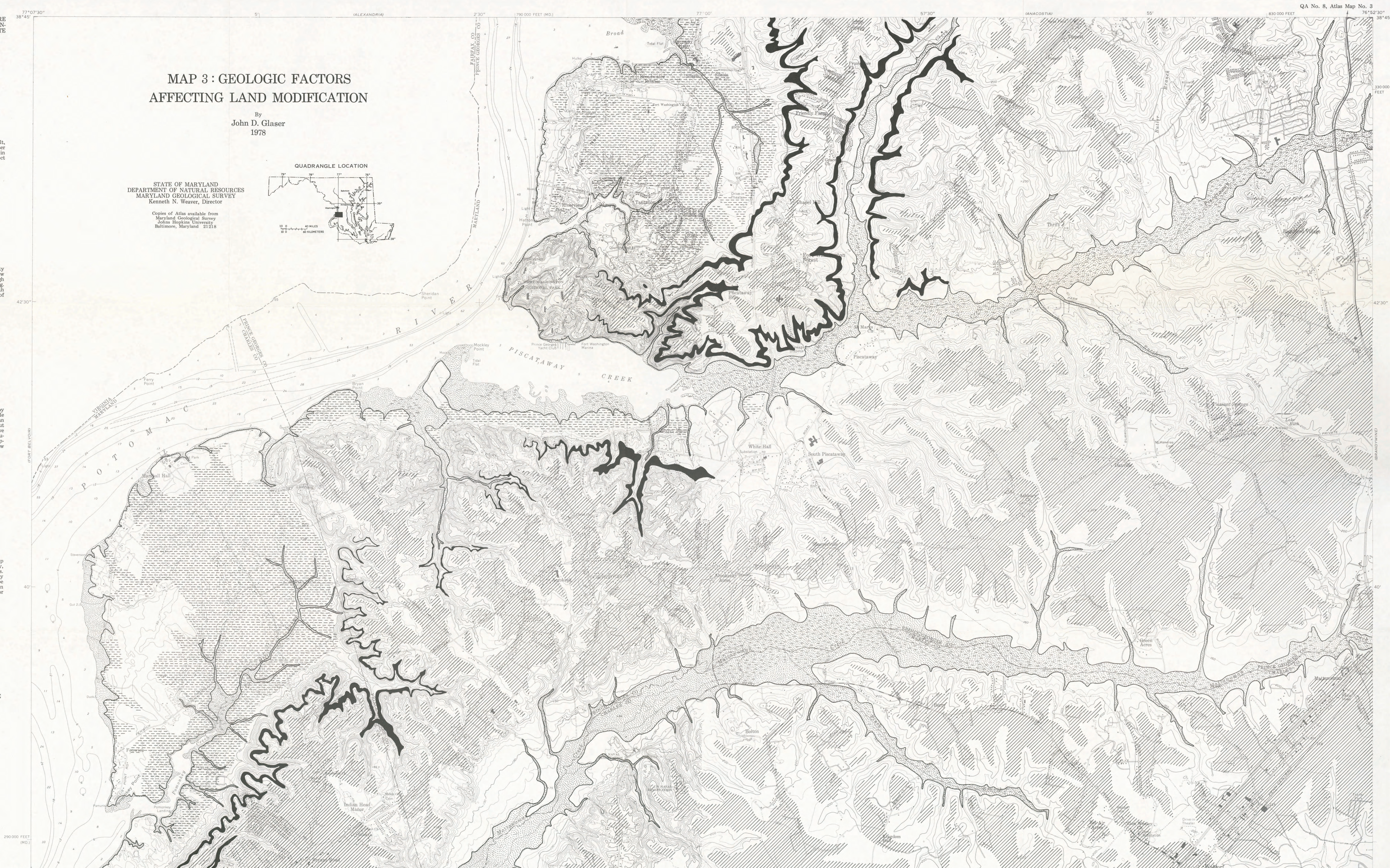
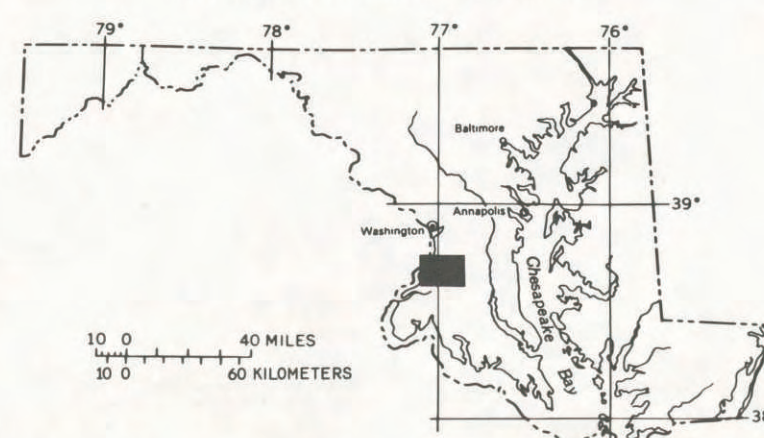
## MAP 3 : GEOLOGIC FACTORS AFFECTING LAND MODIFICATION

By  
John D. Glaser  
1978

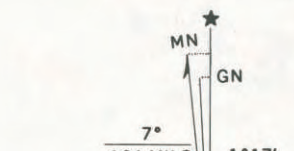
STATE OF MARYLAND  
DEPARTMENT OF NATURAL RESOURCES  
MARYLAND GEOLOGICAL SURVEY  
Kenneth N. Weaver, Director

Copies of Atlas available from  
Maryland Geological Survey  
Johns Hopkins University  
Baltimore, Maryland 21218

#### QUADRANGLE LOCATION

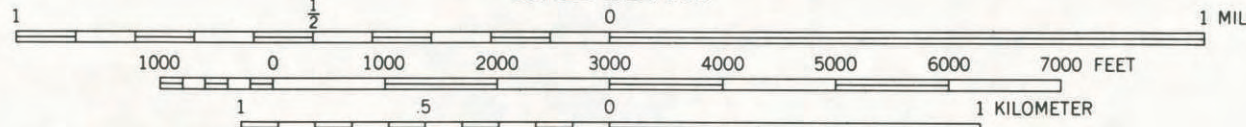


MOUNT VERNON QUADRANGLE  
U.S. Geological Survey, 7 1/2 Minute  
Series, 1968 (unrevised 1971)  
Contour Interval 10 Feet  
Datum is Mean Sea Level

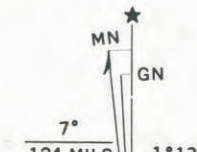


UTM GRID AND 1973 MAGNETIC NORTH  
DECLINATION AT CENTER OF SHEET

SCALE 1:24,000



PISCATAWAY QUADRANGLE  
U.S. Geological Survey, 7 1/2 Minute  
Series, 1967 (unrevised 1971)  
Contour Interval 20 Feet  
Datum is Mean Sea Level



UTM GRID AND 1973 MAGNETIC NORTH  
DECLINATION AT CENTER OF SHEET

QA No. 8, Atlas Map No. 3