



RECENT LANDSLIDES
Dominantly earth slumps and earth flows, historically recorded or characterized by fresh scars. Small landslides enclosed by triangles.

PREHISTORIC LANDSLIDES
Dominantly earth slumps and earth flows characterized by hummocky topography and slump benches, relatively stable in natural state but can be reactivated by excavation, loading and changes in ground and surface water conditions. Includes some probable recent landslides not covered by records examined.

SLOPES WITH CONSPICUOUS SOIL CREEP
Clayey soils, generally less than 3 ft. thick, commonly underlain by weathered shales, characterized by shallow, slow but distinct, downslope movement that can be easily recognized by overloading from fill or structures.

OUTCROP AREA OF THICK "RED BEDS" AND ASSOCIATED ROCKS
Rock weathers rapidly on exposure; weathered rock and related soil commonly result in well developed landslides; dirts and fills in "red beds" generally not stable.

RELATIVELY STABLE GROUND
Most slopes have little susceptibility to landsliding; some slopes may be modified by minor slight soil creep caused by undisturbed slopes.

MAN-MADE FILL
Heterogeneous soil and rock material; variable susceptibility to slope failure depending on nature of material, foundation conditions, design and construction. Fills in older urbanized areas are only where associated with recent landslides. Fills too small to be shown by pattern identified by letter "F".

GROUND WITH HIGHLY VARIABLE SLOPE CONDITIONS
On the steepest side of the dashed line, ground has been widely disturbed by man and present surface is a composite of recent and old landslides and man-made fill. These conditions continue to evolve and are the cause of frequent landslides or relatively minor soil creep.

SURFACE MINES, RECLAIMED
Method generally has been used to reclaim surface mines and associated lands.

SURFACE MINES, RECLAIMED BY MINING
Area in which surface has been reclaimed by mining operations based in part on topographic photographs.

MINES AND COAL BED WEATHER
Active areas of active, abandoned and extinguished fires, fire generally confined to vicinity of outcrop of coal seam (crop fire). (Based on data from U.S. Bureau of Mines).

REFUSE BANKS
Primarily coal waste; most banks have been abandoned and are not shown on this map.

LAND DEVELOPMENT MODIFICATIONS
URBAN DEVELOPMENT
Primarily commercial and industrial development, including streets and parking lots. Major fill materialized in some areas.

RECREATION
Recreation areas, including parks and picnic grounds.

NEARLY VERTICAL CLIFFS AND ROCKS
Primarily steep, rocky slopes and outcrops, including highways in surface, some of which are not shown on this map.

OTHER MODIFICATIONS
WATER-RELATED MODIFICATIONS
Primarily low, rocky slopes and outcrops, including highways in surface, some of which are not shown on this map.

WATER-RELATED MODIFICATIONS
Primarily low, rocky slopes and outcrops, including highways in surface, some of which are not shown on this map.

WATER-RELATED MODIFICATIONS
Primarily low, rocky slopes and outcrops, including highways in surface, some of which are not shown on this map.

Based on U.S. Geological Survey, 1969.
Research sponsored by the Appalachian
Regional Commission under contract
no. 74-21.

U. S. Geological Survey
OPEN FILE MAP 74-234
This map is preliminary and has
not been edited for conformity
with Geological Survey standards
or nomenclature.

LANDSLIDE SUSCEPTIBILITY AND LAND MODIFIED BY MAN
MAP OF PART OF THE CLINTON 7 1/2' QUADRANGLE,
ALLEGHENY COUNTY AND VICINITY, PENNSYLVANIA
by J.S. Pomary
1974

U. S. GEOLOGICAL SURVEY
RESTON, VA.
SEP 19 1974
LIBRARY

Map based on 1973 aerial photographs,
field reconnaissance, 1973-74; soil
surveys by U.S. Dept. Agriculture Soil
Conservation Service, and existing geologic
data. This map has not been
edited or reviewed for conformity with
Geological Survey standards and nomenclature.

NOTE
Variations in slope sensitivity may occur
at any specific point within a unit.
Boundaries largely are inferred and
information given is intended as a general
guide and should not be construed as
applicable to any local area. The
map shows the results of a reconnaissance
survey and is not intended to be used
for engineering or scientific purposes.

Pennsylvania (Clinton quad.). Landslides. 1:24,000. 1974. open file
sheet 1
cop. 1
74-234m