

Reconnaissance map showing landslides in  
Washington County, Pennsylvania  
by John S. Pomeroy

This map depicts landslides in Washington County. Intensive interpretation of 1975 aerial photographs (scale 1:24,000) was supplemented by five weeks of field reconnaissance in late 1975 and early 1976. The soil survey of Washington County (U.S. Soil Conservation Service; 1974a,b) was also used as a source of data. The author acknowledges the assistance of members of the Washington County Planning Commission who informed the author of several landslides that he had not known about.

The purpose of this map is to identify areas with potential slope-stability problems significant to development; it is a guide to areas of past and present landslide activity. The map is not designed to replace detailed geological and engineering studies of specific sites by competent technical personnel, but rather, it delineates areas where such detailed studies would be most vital to the safety and welfare of the general public. In these areas, site examinations are necessary in order to determine the degree of difficulty that slope instability may pose to a contemplated land use, and so to define whether costs of hazard prevention are commensurate with the value of the contemplated use.

U. S. Geological Survey  
OPEN FILE MAP 77-307  
This map is preliminary and has  
not been edited for conformity  
with Geological Survey standards  
of nomenclature.

Because the present investigation was strictly reconnaissance in nature and because most slides are too small to be discerned from the aerial photography, this map does not purport to show all recent landslides. Furthermore, many slopes not designated as containing older landslides undoubtedly include older landslides the geomorphic evidence for which has been obliterated by erosion or modified by man. Hence, differentiation of such areas on the map is difficult. Finally, these maps do not indicate possible or highly questionable older landslides.

For more information regarding landslide map features, diagrams, recommendations and advice for the non-technical reader the user of this map is urged to refer to Briggs, Pomeroy, and Davies (1975) and Pomeroy and Davies (1975). Additional information concerning sliding in portions of Washington County is available in Kent, Schweinfurth, and Roen (1969) and Berryhill, Schweinfurth, and Kent (1971). Landslides are shown on geologic quadrangle maps by Berryhill (1964), Berryhill and Schweinfurth (1964), Berryhill and Swanson (1964), Kent (1967, 1972), Roen (1973), Roen, Kent and Schweinfurth (1968), Schweinfurth (1967, 1976a, b), Swanson and Berryhill (1964).

References cited

- Berryhill, H. L., Jr., 1964, Geology of the Amity quadrangle, Pennsylvania:  
U. S. Geol. Survey Geol. Quad Map GQ-296
- Berryhill, H. L., Jr., and Schweinfurth, 1964, Geology of the Ellsworth  
quadrangle, Pennsylvania: U. S. Geol. Survey Geol. Quad Map GQ-333
- Berryhill, H. L., Jr., Schweinfurth, S. P., and Kent, B. H., 1971, Coal-  
bearing Upper Pennsylvanian and Lower Permian rocks, Washington area,  
Pennsylvania, pt. 1, Lithofacies; pt. 2, Economic and engineering  
geology: U. S. Geol. Survey, Prof. Paper 621, 47 p.
- Berryhill, H. L., Jr., and Swanson, V. E., 1964, Geology of the Washington  
West quadrangle, Pennsylvania: U. S. Geol. Survey Geol. Quad Map GQ-283
- Briggs, R. P., Pomeroy, J. S., and Davies, W. E., 1975, Landsliding in  
Allegheny County, Pennsylvania: U. S. Geol. Survey, Circ. 728, 18 p.
- Kent, B. H., 1967, Geologic map of the Hackett quadrangle, southwestern  
Pennsylvania: U. S. Geol. Survey Geol. Quad. Map GQ-1003
- \_\_\_\_\_ 1972 Geologic map of the Prosperity quadrangle, southwestern  
Pennsylvania: U. S. Geol. Survey Geol. Quad Map GQ-1003
- Kent, B. H., Schweinfurth, S. P., and Roen, J. B., 1969, Geology and land  
use in eastern Washington County, Pennsylvania: Pennsylvania Geol.  
Survey, 4th ser., Bull. G 56 (Gen. Geology Rept.), 31 p.
- Pomeroy, J. S., 1976, Reconnaissance maps showing landslides in the Avella,  
Burgettstown, Claysville, Clinton, Midway, Prosperity, West Middletown,  
and Washington West quadrangles, western Washington County, Pennsylvania:  
U. S. Geol. Survey open-file Rept. 76-

- Pomeroy, J. S., and Davies, W. E., 1975, Map of susceptibility to landsliding, Allegheny County, Pennsylvania: U. S. Geol Survey Misc. Field Studies Map MF-685B, 2 sheets with text
- Roen, J. B., 1973, Geologic map of the Midway quadrangle, Washington County, southwestern Pennsylvania: U. S. Geol. Survey Geol. Quad Map GQ-1067
- Roen, J. B., Kent, B. H., and Schweinfurth, S. P., 1968, Geologic map of the Monongahela quadrangle, Pennsylvania: U. S. Geol Survey Geol. Quad Map GQ-743
- Schweinfurth, S. P., 1967, Geologic map of the California quadrangle, Washington and Fayette Counties, Pennsylvania: U. S. Geol. Survey Geol. Quad Map GQ-648
- \_\_\_\_\_ 1976a, Geologic map of the Avella quadrangle and part of the Steubenville East quadrangle, Washington County, Pennsylvania: U. S. Geol. Survey Geol. Quad Map 1-908.
- \_\_\_\_\_ 1976b, Geologic map of the West Middletown quadrangle and part of the Bethany quadrangle, Washington County, Pennsylvania: U. S. Geol. Survey Misc. Geol. Inv. Map 1-871
- Swanson, V. E., and Berryhill, H. L., Jr., 1964, Geology of the Washington East quadrangle, Pennsylvania: U. S. Geol. Survey Geol. Quad Map GQ-334
- U. S. Soil Conservation Service, 1974a, Volume 1, Soil survey interpretations for Greene and Washington Counties, Pennsylvania: Pa. Dept. Environmental Resources, State Conservation Commission, 103 p.
- \_\_\_\_\_ 1974b, Volume 2, Soil survey map for Washington County, Pennsylvania: Pa. Dept. Environmental Resources, State Conservation Commission
- Wagner, W. R., Craft, J. L., Heyman, L., and Harper, J. A., 1975: Greater Pittsburgh region geologic map and cross sections: Pa. Geol. Survey Map 42, 6 pls.

EXPLANATION

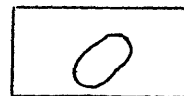


Younger Landslides

Younger landslides, well-defined, may still be active, includes the most recent landslides characterized by fresh scars; also includes slightly older extremely hummocky and/or bulgy areas which are believed to have been formed within the past 100 years.

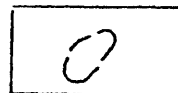
Older Landslides

Represented by individually mapped bodies or extensive slope areas involving many linear kms. (where separation of individual slides cannot be determined). Most of the designated older landslide areas do not represent single events but are accumulations of landslides deposits that probably occurred during and immediately after Wisconsin glaciation. Older landslides may be presently stable but are often sensitive to modification by man and can be reactivated by excavation, loading, and changes in ground-water and surface-water conditions.



Res

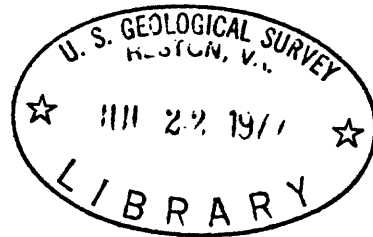
Older landslides, definite to somewhat less definite, conspicuous to slightly subdued hummocky and/or bulgy surfaces, boundaries approximate.



Older landslides, probable, fair to poorly defined, boundaries  
inferred; evidence is less distinct than for previous category.

U. S. Geological Survey  
OPEN FILE MAP

This map is preliminary and has  
not been edited for conformity  
with Geological Survey standards  
or nomenclature



Pennsylvania (Washington Co.). Landslides . 1:50,000. 1977  
sheet 3  
cop. 1

77-307m