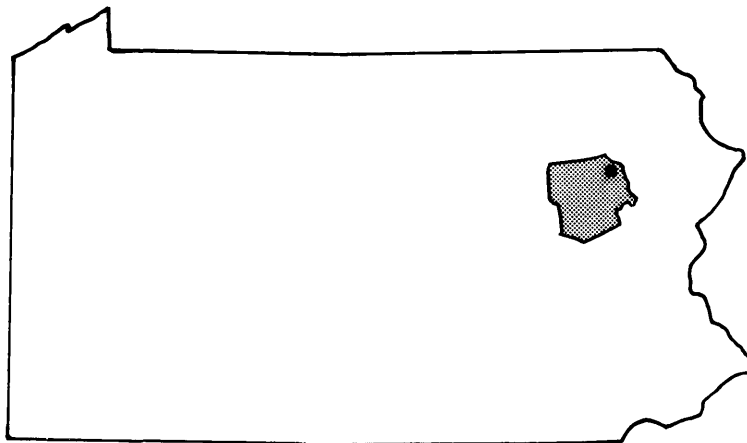


# FLOOD INSURANCE STUDY



**BOROUGH OF  
EXETER,  
PENNSYLVANIA  
LUZERNE COUNTY**



NOVEMBER 1976

**U.S. DEPARTMENT of HOUSING & URBAN DEVELOPMENT  
FEDERAL INSURANCE ADMINISTRATION**

Intense local flash floods are most likely to occur in squall lines just to the east of a slow moving north south oriented cold front. These are usually warm weather phenomena where afternoon heating adds to the instability of the already unstable moist airmass (Reference 6)

Storms of tropical origin affect the Susquehanna on an average of about once in three years. Their usual path is from the south and curving to the northeast, but a few have travelled from the southeast to the northwest. The tropical storm season runs from June to November (Reference 6).

Large magnitude floods have occurred on the Susquehanna at the Borough of Exeter in March 1865, March 1902, March 1904, March 1936, April 1940 and May 1946.

#### 2.4 Flood Protection Measures

An existing local flood protection project consisting of a levee at the mouth of Hicks Creek reduces the flood hazard to the Borough of Exeter. Five upstream dams contribute to the reduction of the flood hazard from the Susquehanna River. These include: Arkport Dam on the Canisteo River; Almond Lake on Canacadea Creek; Whitney Point Lake on the Otselic River; East Sidney Lake on Ouleout Creek; and Stillwater Lake on the Lackawanna River.

### 3.0 ENGINEERING METHODS

For flooding sources studied in detail in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Floods having recurrence intervals of 10-, 50-, 100-, and 500-years have been selected as having special significance for flood plain management and for flood insurance premium rates. The analyses reported here reflect current conditions in the watersheds of the streams.

#### 3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak discharge-frequency relationships for floods of the selected recurrence intervals for each stream studied in detail in the community.

All flood discharges were determined by the Susquehanna River Basin Commission.