

FLOODS IN RILEY QUADRANGLE, NORTHEASTERN ILLINOIS

**Introduction.**—This report presents hydrologic data that can be used to evaluate the extent, depth, and frequency of floods in the Riley quadrangle, northeastern Illinois. It will aid individuals, government agencies, and others responsible for solving existing flood problems and for formulating plans for the future. The report will also be useful for preparing building and zoning regulations, locating waste disposal facilities, developing recreational areas, and resource studies with relation to the government.

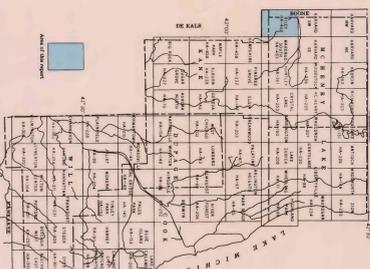


FIGURE 1.—Flooded areas of northeastern Illinois showing location of quadrangles included in hydrologic investigation.

Local residents reported that the flood of June 1970 was one of the highest observed in the last 70 years on Coon Creek in the last 50 years on Spring Creek.

Greater floods than those whose boundaries are shown on the map are possible. The flood boundaries shown provide a basis for estimating the extent of flooding that may occur when the floods occurred. Changes in channel conditions in waterway openings at highways and at roads, or changes in runoff characteristics of the streams caused by increased imperviousness of the watershed, or changes in the frequency of floods shown may reduce the frequency of flooding after the flood shown may reduce the frequency of flooding. The simulation station of future floods may be affected by new highways and bridges, relocation and improvement of stream channels, and other changes in the flood boundaries. The extent of flooding shown on the map is based on the flood profiles from elevations of floodwaters identified in the field and from data available from other reports. The extent of flooding shown on the map is based on the flood profiles from elevations of floodwaters identified in the field and from data available from other reports.

**Cooperation and acknowledgment.**—The preparation of this report is a part of an extensive flood-mapping program financed through cooperative agreements between the U.S. Geological Survey and the Illinois State Water Survey. Under previous agreements with the Northeastern Illinois Planning Commission and the Illinois Department of Public Works and Buildings, Division of Flood Control, the U.S. Geological Survey has been authorized to conduct hydrologic investigations in the Riley quadrangle. The cooperative program for this report is administered on behalf of the Planning Commission by Matthew L. Kockswill, Director of the Planning Commission. This report was prepared by the U.S. Geological Survey under the administrative direction of William D. Mitchell, Chief Hydrologist, and conducted in charge of the project by W. Nelson, District Engineer of the Illinois State Water Survey. Acknowledgment is made to the Matory County Highway Department for supplying some of the data on water levels. The height of a flood at a gaging station usually is stated in terms of stage height, or stage, which is the elevation of the water surface above a selected datum plane. Stage height is the height of a flood above the datum plane. Stage height is the height of a flood above the datum plane. Stage height is the height of a flood above the datum plane.

Table with 5 columns: Gaging station, Station number, Type of gauge, Diameter of pipe (inches), and Discharge (cfs). Rows include Coon Creek, Riley, Spring Creek, and other stations.

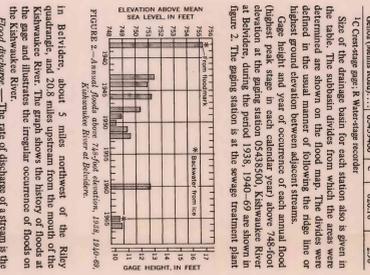


FIGURE 2.—Frequency of floods at the Riley quadrangle.

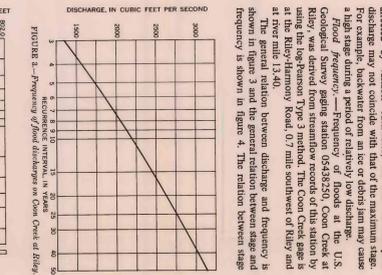


FIGURE 3.—Frequency of floods on Coon Creek.

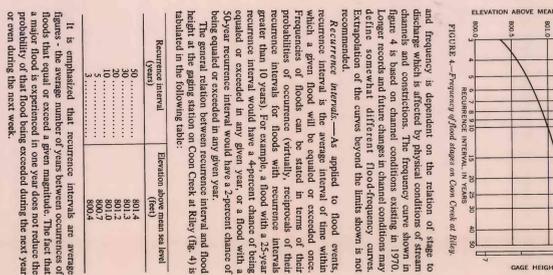


FIGURE 4.—Frequency of floods on Spring Creek.

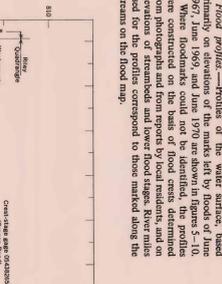


FIGURE 5.—Profile of flood on Coon Creek.

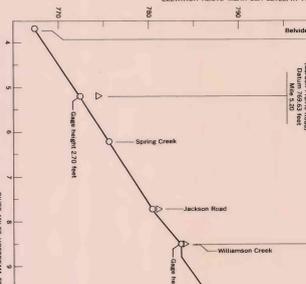


FIGURE 6.—Profile of flood on Riley Creek.

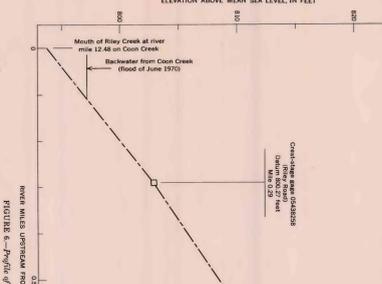


FIGURE 7.—Profile of flood on Spring Creek.

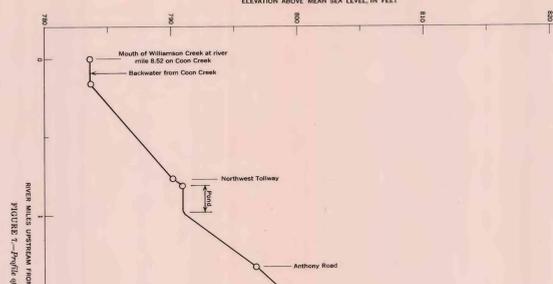


FIGURE 8.—Profile of flood on Deer Creek.

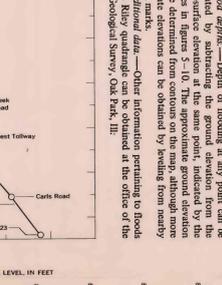


FIGURE 9.—Profile of flood on Spring Creek.

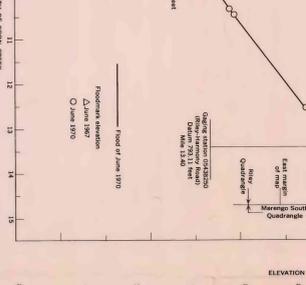


FIGURE 10.—Profile of flood on Spring Creek.

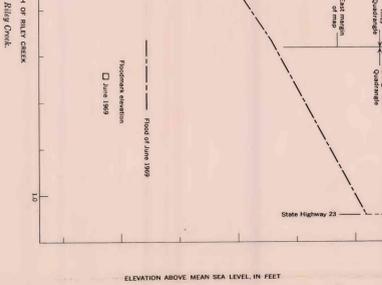


FIGURE 11.—Profile of flood on Spring Creek.

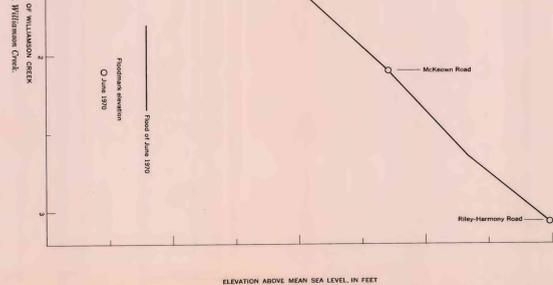


FIGURE 12.—Profile of flood on Spring Creek.

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