Flood-Inundation Map for the Flatrock River at Columbus, Indiana, Corresponding to a Stage of 13.00 Feet and an Elevation of 622.74 Feet (NAVD 88) at the U.S. Geological Survey Streamgage Number 03363900 on the Flatrock River

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UNCERTAINTIES AND LIMITATIONS FOR USE OF FLOOD-INUNDATION MAPS

Although the flood-inundation maps between the boundaries of inundated areas with a distinct line, some uncertainty is associated with these maps. The flood boundaries shown were estimated based on water stages (water surface elevation) at and above the selected USGS streamgages. Water-surface elevations along the stream reaches were estimated by steady-state hydraulic modeling, assuming available discharge (and stream stage) and hydrologic conditions at the USGS streamgage. The hydraulic model reflects the local roughness and resistance to flow (e.g., bridge, culverts, levees, or other hydraulic structures) and was calibrated using observed water-surface elevations. Additional uncertainty may occur due to uncalibrated conditions such as changes in the streambed elevation or roughness, backwater into minor tributaries along the main stem river, or backwater from ice jams. The accuracy of the flood boundaries shown on these maps will vary with the accuracy of the hydraulic model used to simulate the flow surface. Additional uncertainties and limitations for this study are described in the document accompanying this set of flood-inundation map plates.

This series of flood-inundation maps was developed in cooperation with the National Weather Service (NWS) river forecasters. The user should be aware of additional uncertainties that may be inherent in the NWS forecast procedures. The NWS uses forecast models to estimate the quantity and timing of water flowing through selected stream reaches in the United States. These forecasts models are subject to the errors of pollutant and streamflow at selected USGS streamgages. Water-surface elevations along the stream reaches were estimated by steady-state hydraulic modeling, assuming available discharge (and stream stage) and hydrologic conditions at the USGS streamgage. The hydraulic model reflects the local roughness and resistance to flow (e.g., bridge, culverts, levees, or other hydraulic structures) and was calibrated using observed water-surface elevations. Additional uncertainty may occur due to uncalibrated conditions such as changes in the streambed elevation or roughness, backwater into minor tributaries along the main stem river, or backwater from ice jams. The accuracy of the floodwater extent portrayed on these maps will vary with the accuracy of the hydraulic model used to simulate the flow surface. Additional uncertainties and limitations for this study are described in the document accompanying this set of flood-inundation map plates.

DISCLAIMER

Inundated areas shown should not be used for navigation, regulatory, permitting, or other legal purposes. The USGS provides these maps "as is" for a quick reference, emergency-planning tool but assumes no legal liability or responsibility resulting from the use of this data.