UNCERTAINTIES AND LIMITATIONS FOR USE OF FLOOD-INUNDATION MAPS

Although the flood-inundation maps represent 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) and real-time discharges at selected USGS streamgages. Water-surface elevations along the stream reaches were estimated by steady-state hydraulic modeling, assuming unobstructed flow and using streamflows and water-surface elevations at selected USGS streamgages. The hydraulic model reflects the land cover, channel geometries and any bridge, dam, levee, or other hydraulic structures existing as of December 2011. Unique meteorological factors (for example, additional rainfall or snowmelt) may cause actual streamflows along the modeled reach to vary from those assumed during a flood, which may lead to deviations in the water-surface elevations and inundated inundation areas. Flood elevations may be affected by unexpected conditions such as changes in the intended elevation on bridges, backwater into major tributaries along a main-stem river, or backwater from localized debris or ice jams. Unique meteorological factors (for example, additional rainfall or snowmelt) may cause actual streamflows along the modeled reach to vary from those assumed during a flood, which may lead to deviations in the water-surface elevations and inundated inundation areas.

This series of flood-inundation maps was used in conjunction with the National Weather Service (NWS) flood forecasts. The user should be aware that additional uncertainty in flood extent may be introduced through the flood forecasting method. The NWS uses a forecast model to estimate the quantity and timing of water flowing through selected stream reaches in the United States. These forecast models (1) estimate the amount of runoff generated by precipitation and snowmelt, (2) simulate the routing of this flow through selected stream reaches, and (3) predict the flow and stage at locations throughout the United States. This and other USGS information products are available at: http://pubs.usgs.gov/sim/3251.

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 information.

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Flood-Inundation Map for Spencer, Indiana
Corresponding to a Stage of 17 Feet and an Elevation of 542.63 Feet
at U.S. Geological Survey
Streamgage Number 03357000 on the White River
By
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2013

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Scientific Investigations Map 3251
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Pamphlet accompanies map