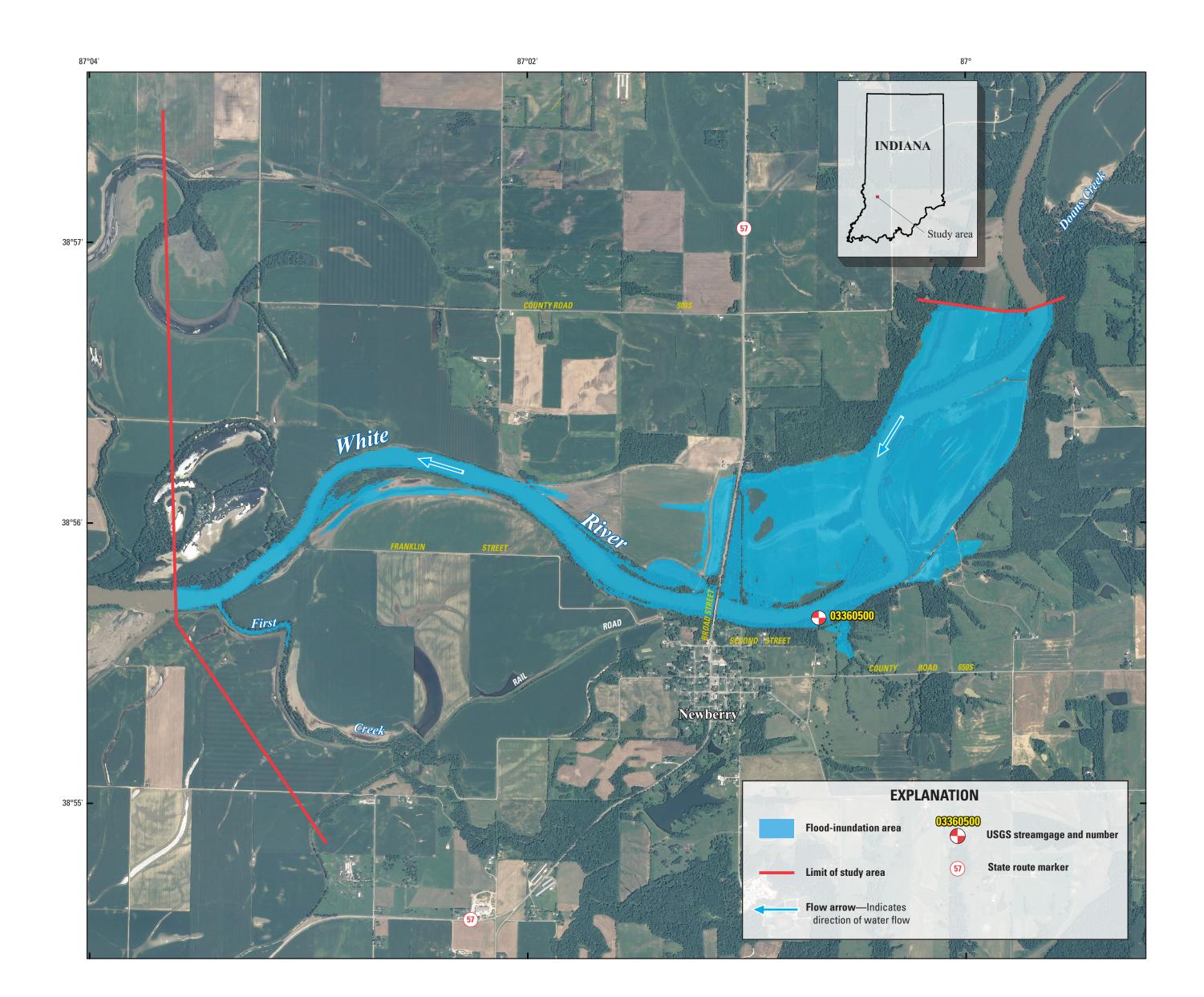
**U.S. Geological Survey** 

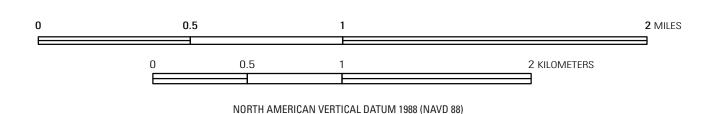
**U.S. Department of the Interior** 

Pamphlet accompanies map



DISCLAIMER FOR FLOOD-INUNDATION MAPS 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. **UNCERTAINTIES AND LIMITATIONS REGARDING 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 by steady-state hydraulic modeling, assuming unobstructed flow, and using streamflows and hydrologic conditions anticipated at the USGS streamgage(s). The hydraulic structures existing as of September 2011. Unique meteorological factors (timing and distribution of precipitation) 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 inundation boundaries shown. Additional areas may be flooded due to unanticipated conditions such as: changes in the streambed elevation or roughness, backwater into major tributaries along a main stem river, or backwater from localized debris or ice jams. The accuracy of the floodwater extent portrayed on these maps will vary with the accuracy of the digital elevation model used to simulate the land surface. Additional uncertainties and limitations pertinent to this study may be described elsewhere in this report. If this series of flood-inundation maps will be used in conjunction with National Weather Service (NWS) river forecasts, the user should be aware of additional uncertainties that may be inherent or factored into 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 forecast models (1) estimate the amount of runoff generated by precipitation and snowmelt, (2) simulate the movement of floodwater as it proceeds downstream, and (3) predict the flow and stage (and water-surface elevation) for the stream at a given location (AHPS forecast point) throughout the forecast period (every 6 hours and 3 to 5 days out in many locations). For more information on AHPS forecasts, please see:  $\label{eq:http://water.weather.gov/ahps/pcpn_and\_river\_forecasting.pdf.} http://water.weather.gov/ahps/pcpn_and\_river\_forecasting.pdf.$ 



Flood-Inundation Map for Newberry, Indiana Corresponding to a Stage of 21 Feet and an Elevation of 486.15 Feet (NAVD 88) at U.S. Geological Survey Streamgage Number 03360500 on the White River

Kathleen K. Fowler, Moon H. Kim, and Chad D. Menke

Fowler, K.K., Kim, M.H., and Menke, C.D., 2012, Flood-inundation maps for the White River at Newberry, Indiana: U.S. Geological Survey Scientific Investigations Map 3231, 8 p. pamphlet, 22 sheets.

Projection: Transverse Mercator

National Agriculture Imagery

the North American Datum of 1983

Horizontal coordinate information is referenced to

Orthophotography from Indiana Spatial Data Portal,

Program 2010, available at http://gis.iu.edu/

Publishing support provided by: Columbus Publishing Service Center

Manuscript approved for publication August 29, 2012

Or visit the Indiana Water Science Center Web site at:

This report is available at: http://pubs.usgs.gov/sim/3231/.

Any use of trade, product, or firm names is for descriptive purposes

only and does not imply endorsement by the U.S. Government.

This and other USGS information products are available at:

Director, Indiana Water Science Center

Denver Federal Center, Denver, CO 80225

U.S. Geological Survey 5957 Lakeside Blvd. Indianapolis, IN 46278

http://in.water.usgs.gov/

http://store.usgs.gov/ U.S. Geological Survey, Box 25286

(317) 290-3333

For more information concerning this publication, contact: