

EXPLANATION

Flood-inundation area for stage 7.96 feet, 886.61 feet NAVD88, at 04103500
(Gage height corresponding to a flood with a 2-percent exceedance probability)

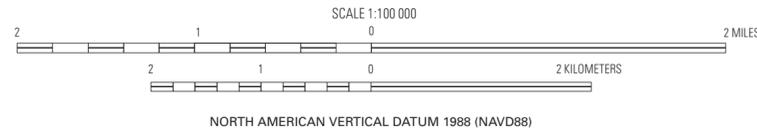
	Flood-inundation area		Interstate route marker
	USGS Streamgage and number		U.S. route marker
	Modeled boundary		State route marker
	Flow arrow—Indicates direction of water flow		

UNCERTAINTIES AND LIMITATIONS REGARDING USE OF FLOOD INUNDATION MAPS

The flood boundaries shown were estimated based on water stage/flows at USGS streamgage 04103500, Kalamazoo River at Marshall, Michigan. Water surface elevations along the reach of the Kalamazoo River extending from Marshall to Battle Creek (approximately 15 miles downstream from the streamgage) were estimated by steady-state hydraulic modeling, assuming unobstructed flow, and using discharges and hydrologic conditions anticipated at that streamgage. The hydraulic model reflects the landscape characteristics and any bridge, dam, levee, or other hydraulic structures existing in August, 2010. Unique meteorological factors (timing and distribution of storm) may cause actual discharges along the modeled reach to vary from assumed during a flood and lead to deviations in the water surface elevations and inundation boundaries shown here. Additional areas may be flooded due to unanticipated backwater from major tributaries along the main stem or from localized debris or log jams. The flood inundation boundaries depicted on this map are based on a digital elevation model (contour data available). Inundated areas shown should not be used for navigation, regulatory, permitting, or other legal purposes. Although USGS intends to make this server available 24 hours a day, seven days a week, timely delivery of data and products from this server through the Internet is not guaranteed. The USGS provides these maps as a quick reference, emergency planning tool but assumes no legal liability or responsibility for any direct, indirect, consequential, special or exemplary damages or loss (profit) resulting from the use or misuse of this information.

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 which may be inherent or factored into NWS forecast procedures. The NWS uses river forecast models to estimate the quantity and timing of water flowing through selected river reaches in the United States. These forecast models (1) estimate the amount of runoff generated by a precipitation event, (2) compute how the water will move downstream, and (3) predict the flow and stage (water surface elevation) for the river at a given location (AHPS forecast point) throughout the forecast period (every six hours and 3 to 5 days out in many locations). For more information on AHPS forecasts, please see: http://water.weather.gov/ahps/gen_and_river_forecasting.pdf

Projection: Lambert conformal conic
10,000-foot grid ticks, State Plane Coordinate System, Michigan South, FIPS 2113
North American Datum of 1983 (NAD83)
Orthography from National Agriculture Imagery Program, 2009, available at
<http://www.fsa.usda.gov/FSA/apfoapp?area=home&subject=prog&topic=na>



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**Flood-Inundation Map of the Kalamazoo River
from Marshall to Battle Creek, Michigan, for a Flood with a 2-percent Exceedance Probability
Corresponding to a Gage Height of 7.96 Feet and an Altitude of 884.61 Feet (NAVD88)
at the U.S. Geological Survey Streamgage at Marshall, Michigan (Station ID 04103500)**

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