



News Release

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Provisional Determinations of Flood Magnitudes Released by USGS

Reporters: A table and map showing provisional stage and streamflow data are attached to the email. Please contact Jaysson Funkhouser at 501-228-3663 for additional information.

Significant flood peaks occurred across northern Arkansas and into the lower White River Basin beginning on March 18 and continuing to the present. Stage and streamflow measurements made by teams of USGS hydrographers indicate that floods at most sites were in the 25- to 100-year recurrence interval range. Additional evaluation and field work will be required to finalize stage, streamflow, and recurrence interval data. USGS data released today should be considered provisional and subject to revision.

Rains during the week of March 17, 2008 often exceeded 6 inches in a 24-hour period across northern and central Arkansas according to the National Weather Service. The resulting flood streamflows were measured by USGS crews beginning on March 18 and continued through March 26. The following information describes the magnitude of these streamflows relative to historic floods:

- The last floods with similar magnitudes occurred in December 1982.
- Floods at most sites had recurrence intervals of between 25 and 100 years (based on historical data). A flood with a recurrence interval of 25 years (a "25-year flood") is estimated to have a 4 percent (1/25) chance of being exceeded in a given year.
- Based on historical data, the most extreme floods (50- to 100-year floods) occurred in the White River Basin in north-central and east-central Arkansas.

"The flooding that began last week, and continues, is the most extensive and severe flooding to strike Arkansas since 1982," said Jaysson Funkhouser, USGS Arkansas Water Science Center surface-water specialist. "Based on historical data, it appears that some of the most unusual floods, in terms of magnitude, occurred in the White River and its tributaries--sites like the White River at Calico Rock, Spring River at Hardy, Eleven Point River near Ravenden Springs, Black River near Elgin Ferry, White River near Augusta, White River near Georgetown, and White River at DeValls Bluff."

Water levels increased at some locations by as much as 10 to 42 feet.

Water level and streamflow changes over the last several days, as well as current conditions, can be viewed at USGS websites that shows realtime streamflow data (<http://waterdata.usgs.gov/ar/nwis/rt>) (<http://ar.water.usgs.gov>).

Teams of USGS hydrographers have been in the field traveling to streamflow-gaging stations to keep station instruments operating and to verify streamflow data needed for National Weather Service (NWS)

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flood forecasts. USGS personnel have worked closely with federal, state, and local agencies during the flooding to provide flood information for emergency managers, the media, and the public.

The USGS operates a network of approximately 140 streamgages throughout Arkansas and provides this real-time information to the NWS and U.S. Army Corps of Engineers where it is used for flood forecasting and to notify emergency managers. Field personnel collect data or the gages relay it through satellites to offices where it is processed automatically in near real time. In many cases, the data are available online within minutes.

For more information on USGS flood-related activities, please see: <http://water.usgs.gov/osw/>

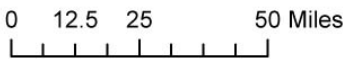
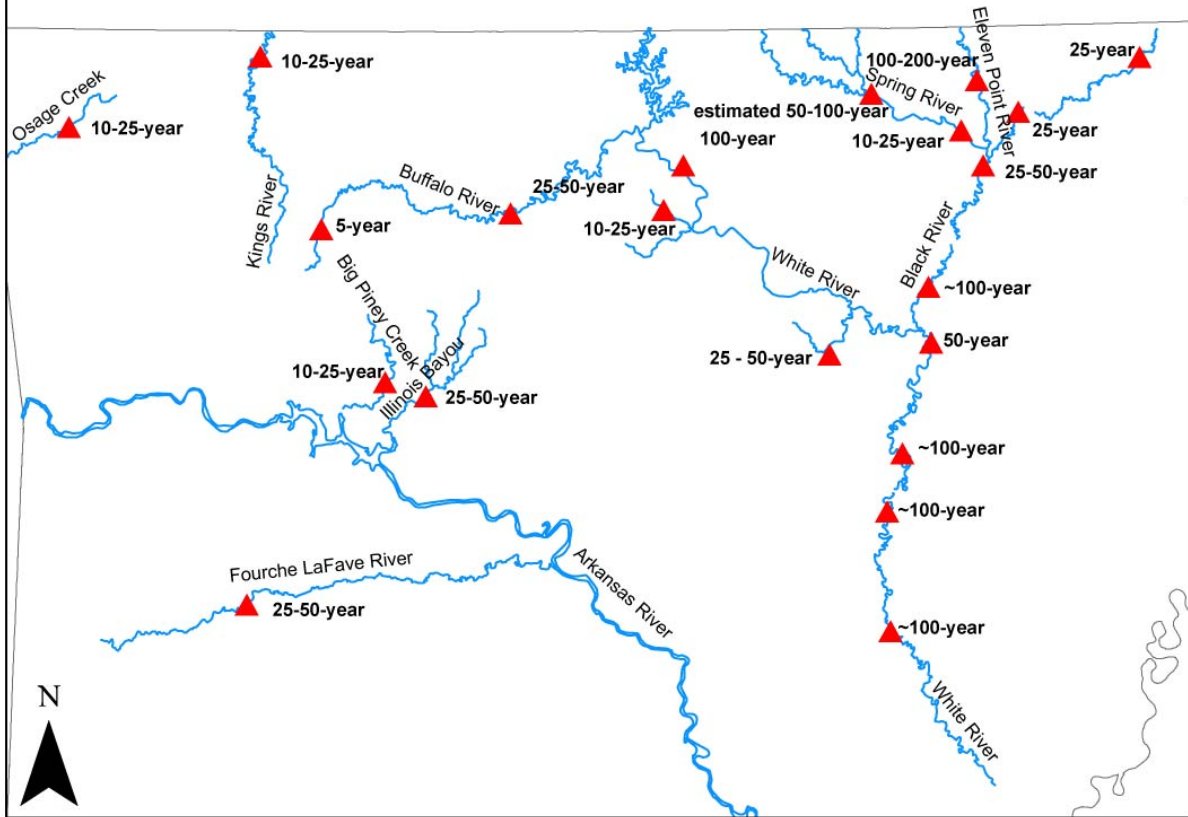
USGS Water Science Centers are located in each state. They can provide more detailed information on stream conditions and on the USGS response to local events: http://water.usgs.gov/district_chief.html

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PROVISIONAL USGS FLOOD INFORMATION
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2008

1982

USGS Gaging Station Number	USGS Gaging Station Name	Date of Peak	Discharge (cubic feet per second)	Stage (feet)	Magnitude of Event	1982 Discharge (cubic feet per second)	1982 Stage (feet)
07057370	White River near Norfolk	3/19/2008	219,000	39.78	insufficient peak data	n/a	n/a
07060500	White River at Calico Rock	3/19/2008	197,000	39.64	100-year	201,000	41.14
07061000	White River at Batesville	3/20/2008	256,000	27.00	25 - 50-year	312,000	29.27
07074500	White River at Newport	3/21/2008	256,000	33.81	50-year	330,000	34.00
07074850	White River near Augusta	3/22/2008	246,000	38.4	>100-year*	n/a	n/a
07076750	White River near Georgetown	3/24/2008	204,000	30.18	>100-year	179,000	28.87
07077000	White River at DeValls Bluff	3/25/2008	163,000	30.89	100-year	n/a	n/a
07050500	Kings River near Berryville	3/19/2008	53,800	35.29	10 - 25-year	39,400	30.20
07055646	Buffalo River near Boxley	3/18/2008	17,900	12.77	5-year	n/a	n/a
07056000	Buffalo River near St. Joe	3/19/2008	134,000	49.41	25 - 50-year	158,000	53.75
07060710	North Sylamore Ck near Fifty Six	3/18/2008	15,300	16.52	10 - 25-year	25,200	20.60
07064000	Black River at Corning	3/22/2008	26,300	15.92	25-year	22,700	13.94
07069000	Black River at Pocahontas	3/22/2008	64,000 (Peak is unknown)	25.4** (Peak was 26.56)	>25-year	66,000	25.22
07069305	Spring River at Town Branch Bridge at Hardy	3/19/2008	80,700	22.29	(Estimated) 50 - 100-year***	n/a	n/a
07069500	Spring River at Imboden	3/19/2008	88,900	29.15	10 - 25-year	244,000	38.12
07072000	Eleven Point River near Ravenden Springs	3/19/2008	85,800	25 (+/- 0.5')	100 - 200-year	162,000	29.06
07072500	Black River at Black Rock	3/20/2008	134,000	29.71	25 - 50-year	190,000	31.51
07074420	Black River near Elgin Ferry	3/21/2008****	91,000	33.43****	>100-year*	n/a	n/a
07195000	Osage Creek near Elm Springs	3/19/2008	15,700	15.53	10 - 25-year	n/a	n/a
07257006	Big Piney at Hwy 164 near Dover	3/18/2008	73,400	21.72	10 - 25-year	111,000	33.87*****
07257500	Illinois Bayou near Scottsville	3/18/2008	66,700	22.40	25 - 50-year	130,000	27.49
07261500	Fourche LaFave River nr Gravelly	3/19/2008	81,500	30.91	25 - 50-year	162,000	32.45

NOTE: All streamflow and peak data for 2008 have not yet undergone standard USGS QA/QC reviews. Therefore, they are considered provisional.

NOTE: All 2008 flood frequency calculations were generated using a routine machine calculation (using the USGS statistical package PKFQwin.exe) and no analysis or interpretation has been made.

NOTE: These are site-specific calculations for each USGS streamflow gaging station.

n/a = gaging station was not in operation at this time

*gage has not been in operation during a large flood.

**peak was 26.56, but levee breaks result in inaccurate discharge from rating curve. Use 64,0

***based on 6 years of record

****peak stage was affected by backwater from White River

*****previous datum located at Long Pool