NWS FORM E-5 (11-88) (PRES. by NWS Instruction 10-924)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA) **Tulsa, Oklahoma (TSA)**
MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS		REPORT FOR: MONTH **March** YEAR **2012**
TO: Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283		SIGNATURE **Steven F. Piltz** (Meteorologist-in-Charge) DATE **April 2, 2012**

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)

☐ **An "X" in the box indicates no flood stages were reached in this Hydrologic Service Area (HSA) during the month above.**

March 2012 was the hottest March on record for much of eastern OK and northwest AR, including Tulsa and Fort Smith. A heavy rainfall event from March 19-22, 2012 led to widespread flash flooding and river flooding, and helped to eliminate drought conditions across the region. March also ended up as one of the top ten wettest Marches on record at Tulsa and Fort Smith. Normal precipitation for the month of April ranges from 3.1 inches in Pawnee County to 4.7 inches in Latimer County. The Ozark region of northwest Arkansas averages 4.3 inches for the month.

Monthly Summary

Using the radar-derived estimated observed precipitation from the RFCs (Fig. 1a), rainfall totals for March 2012 ranged from 3"-12" across eastern OK and northwest AR, with a large portion of eastern OK and west central AR receiving 5"-9" of rain this month. The only area that reported below normal rainfall this month was Washington County AR, where the rainfall total was 75%-90% of normal for March. The remainder of the region had near or above normal rainfall this month, with much of the area getting 150%-300% of the normal March rainfall (Fig. 1b).

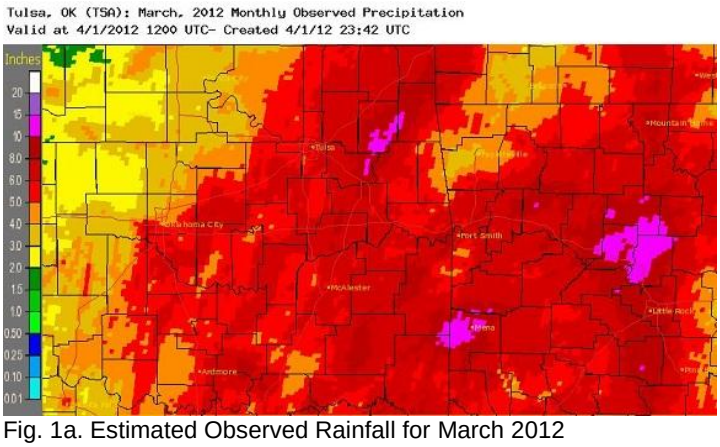


Fig. 1a. Estimated Observed Rainfall for March 2012

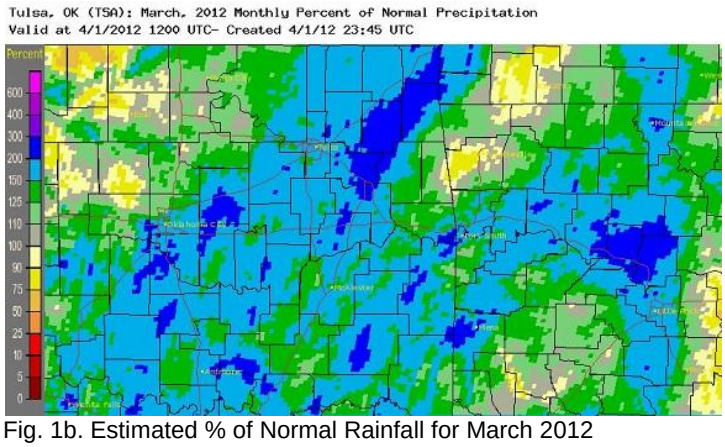


Fig. 1b. Estimated % of Normal Rainfall for March 2012

In Tulsa, OK, March 2012 ranked as the 1st warmest March (61.5°F; since records began in 1905) and the 9th wettest March (6.24"; since records began in 1888). Fort Smith, AR, was the 1st warmest March (63.6°F) and the 7th wettest March (8.06") since records began in 1883.

Some of the larger precipitation reports (in inches) for March 2012 included:

Spavinaw, OK (coop)	9.97	Pryor, OK (meso)	8.61	Fort Smith, AR (ASOS)	8.06
Mountainburg 2NE, AR (coop)	8.03	Clayton, OK (meso)	8.03	Jay, OK (meso)	7.99
Inola, OK (meso)	7.66	Miami, OK (coop)	7.66	Antlers, OK (coop)	7.62

Some of the lowest precipitation reports (in inches) for March 2012 included:

Pawnee, OK (coop)	3.35	Ralston, OK (coop)	3.51	Pawnee, OK (meso)	3.66
Burbank, OK (meso)	3.88	Foraker, OK (meso)	4.06	Eureka Springs 3WNW, AR (coop)	4.35
NW AR Regional Arpt, AR (ASOS)	4.69	Fayetteville, AR (ASOS)	4.70	Berryville 5NW, AR (coop)	4.95
Westville, OK (meso)	4.95				

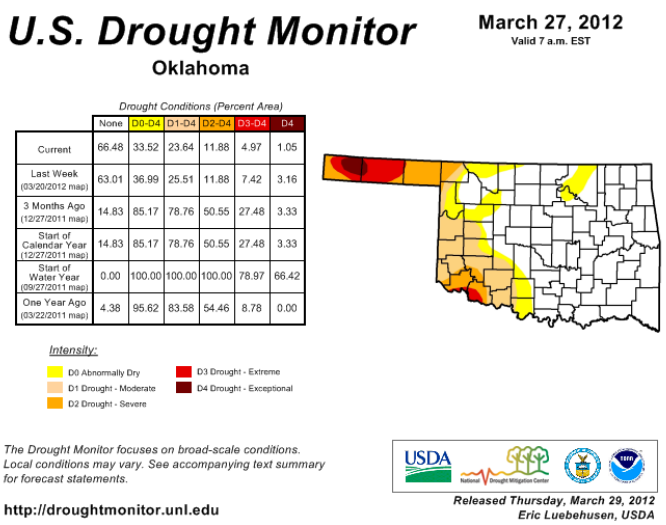


Fig. 2. Drought Monitor for Oklahoma

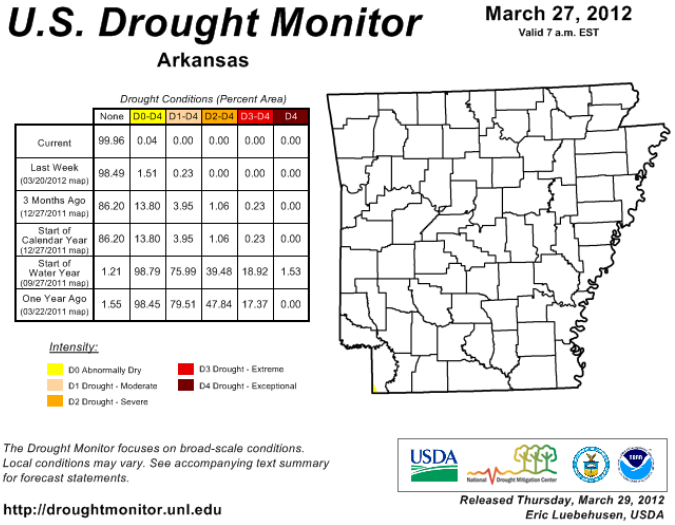


Fig. 3. Drought Monitor for Arkansas

According to the U.S. Drought Monitor (USDM) from March 27, 2012 (Figs 2, 3), abnormally Dry (D0) conditions affected portions of Osage and Pawnee Counties. These abnormally dry conditions are a result of long-term indicators, including lake levels at Birch and Skiatook Lakes. There was a significant improvement in the drought conditions this month due to the heavy rain from March 19-22, combined with the rainfall totals over the last few months.

According to statistics from the Oklahoma Climatological Survey (OCS):

Rank since 1921	Spring (Mar 1-Apr 1, 2012)	Year-to-Date (Jan 1 – Apr 1, 2012)	Water Year (Oct 1, 2011 – Apr 1, 2012)	Last 120 Days (Dec 4, 2011 – Apr 1, 2012)	Last 365 days (Apr 3, 2011– Apr 1, 2012)
Northeast OK	**9th wettest**	16th wettest	18th wettest	21st wettest	43rd wettest
East Central OK	**12th wettest**	17th wettest	17th wettest	23rd wettest	32nd wettest
Southeast OK	**8th wettest**	**12th wettest**	**11th wettest**	**12th wettest**	34th wettest
Statewide	**9th wettest**	**11th wettest**	**13th wettest**	18th wettest	25th driest

Most of the major reservoirs in the Tulsa HSA were operating in their flood pools, some as much as 35%, as of March 30, 2012. Only two reservoirs were reporting conservation pool deficits as of March 30, 2012: Birch Lake 77% and Skiatook Lake 62%. However, Birch Lake increased from 47% at the end of February to 77% at the end of March and Skiatook Lake increased from 62% at the end of February to 72% at the end of March.

Outlooks

The Climate Prediction Center (CPC) outlook for April 2012 (issued March 31, 2012) indicates an enhanced chance for above normal temperatures and equal chances for above, near, and below median precipitation for the entire area. This outlook was based primarily on short-term dynamic computer models with La Niña impacts considered.

For the 3-month period Apr-May-Jun 2012, CPC is forecasting a slightly enhanced chance for above average temperatures across southeast OK and northwest AR, with equal chances for above, near, and below normal

temperatures elsewhere. This outlook also indicates equal chances for above, near, and below median precipitation across the region (outlook issued March 15, 2012). This outlook is based primarily on dynamic computer models. According to CPC, La Niña continued to weaken at the end of March. La Niña conditions in the tropical Pacific are likely to transition to ENSO-neutral by the end of April, though atmospheric and soil moisture impacts may linger a little longer.

Summary of Precipitation Events
March 1 – 11:

March began with a widespread tornado outbreak across the Ohio Valley and Southeast U.S., while across eastern OK and northwest AR, wildfire was the main concern. Very strong winds and low relative humidity created conditions conducive to rapid fire spread. The Oklahoma Department of Agriculture, Food and Forestry, Forestry Services reported 26 fires, burning approximately 1500 acres, within their protection district in eastern OK on the 5th. This included large fires in Cherokee, Delaware, Sequoyah, and McIntosh Counties.

Two widespread rainfall events affected the area from late on the 7th through the 11th as an upper-level low meandered over the southwest U.S. A strong cold front moved into eastern OK and northwest AR during the late evening hours of the 7th. Light showers developed both ahead and behind the front overnight, with more widespread showers and thunderstorms developing during the day on the 8th. As the front slowed during the evening across the Arklatex region, the flow aloft became more parallel to the frontal boundary, leading to heavy rain north of the front in southeast OK and west central AR. A large part of northeast OK received 0.10" to 0.25", while the remainder of the region had 0.5" to 2" of rainfall. Isolated areas of southeast OK and west central AR received near 3" of rain. Sleet was reported across northeast OK and northwest AR as colder air moved in behind the cold front; however, with surface temperatures well above freezing, no accumulations occurred.

The second round of showers and thunderstorms began on the evening of the 10th as the upper-level low began to move northeast. Widespread rain expanded from south to north during the overnight hours before ending during the afternoon of the 11th. Rainfall totals ranged from around 0.50" to around 1", with the highest totals of 1.5" to 2.5" across much of Franklin County.

For the two events combined, most of eastern OK and northwest AR received around 0.75" to around 1.5", with isolated higher amounts of 2"-5" in southeast OK and west central AR (see figs. 4, 5). Since the rain was generally slow and steady, a lot of the water was able to soak into the ground and no flooding was reported from either event.

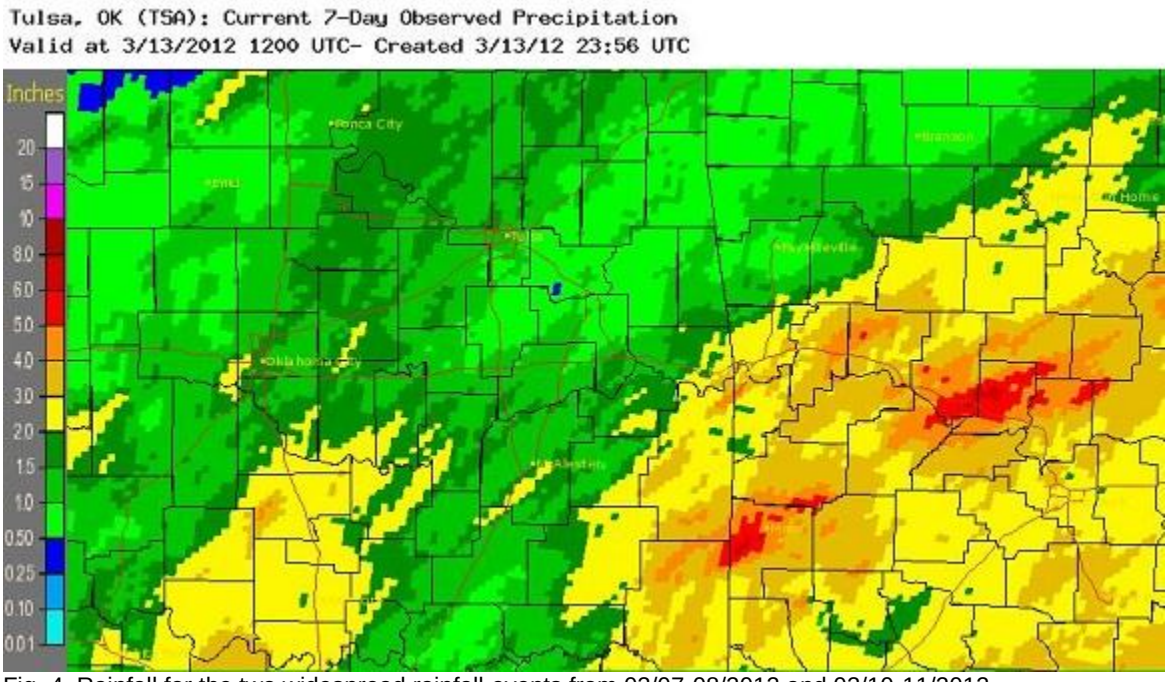


Fig. 4. Rainfall for the two widespread rainfall events from 03/07-08/2012 and 03/10-11/2012.

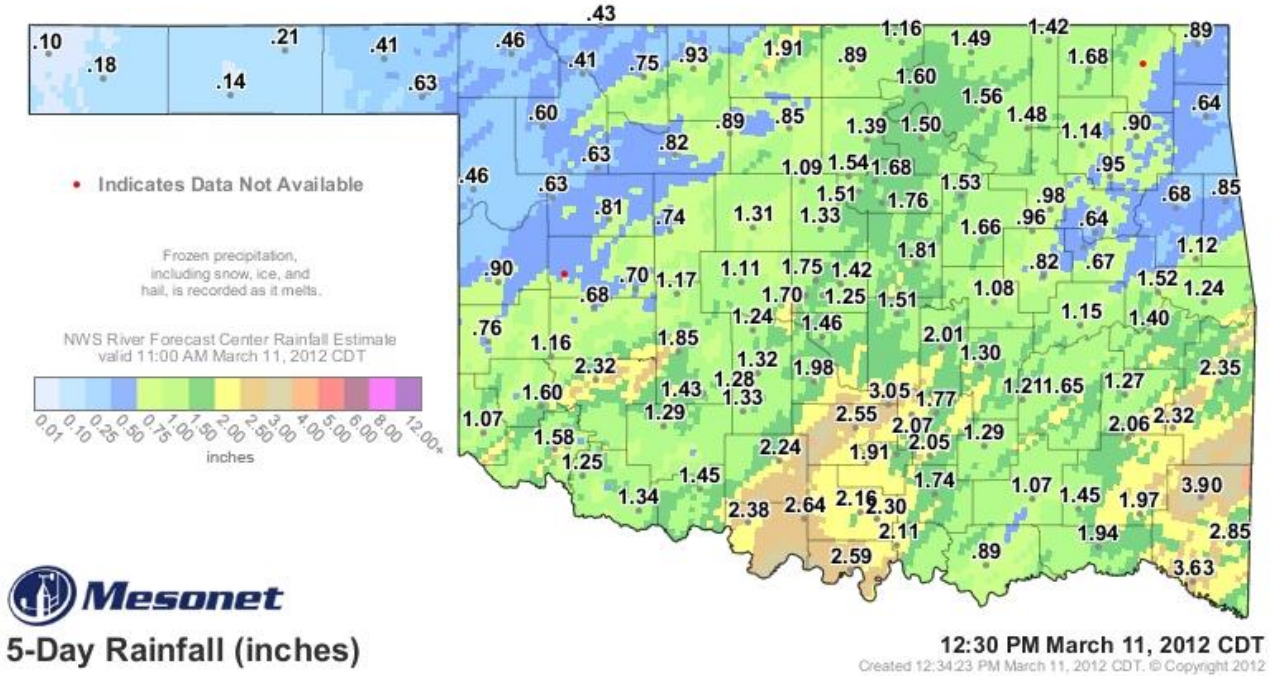


Fig. 5. Rainfall totals across OK for the two widespread rainfall events from 03/07-08/2012 and 03/10-11/2012.

March 12 – 31:

The southwesterly flow of the subtropical jet over the Southern Plains made conditions more like summer than spring from March 12-18, with high temperatures climbing into the mid-70s to mid-80s across a large portion of the area! These temperatures were nearly 15-20 degrees above the normal temperatures for this time of year, and several records were broken across the area.

A widespread heavy rain and flood event affected eastern OK and northwest AR March 19-22. An upper-level low became cut-off over western TX on the 19th, with only very slow eastward progress on the 20th-21st. Strong moisture transport occurred ahead of the low, with unusually high deep layer moisture over eastern Oklahoma and northwest Arkansas. A cold front initially moved into eastern OK on the 19th, with showers and thunderstorms developing along it. As the upper low became cut-off, the surface boundary stalled. Rainfall rates of 1"-2" per hour were common due to the high atmospheric moisture. The high amplitude nature of the upper-level storm system resulted in mid- and upper-level flow (and resultant storm movement) being parallel to the surface boundary, which caused training of heavy rain producing storms. In addition to the heavy rain, a line of strong to severe thunderstorms moved slowly eastward across the area during the afternoon and evening hours of the 19th, with reports of damaging winds and large hail. The storms produced at least one tornado, which was on the ground for about 13 miles from southwest of Uniontown to west of Chester in Crawford County, Arkansas. The stronger storms moved east of the area, while additional rounds of heavy rain continued near the stalled boundary. Showers and isolated thunderstorms continued for much of the day on the 20th, before shifting east. Additional light to moderate rain then redeveloped over the area on the 21st as the upper-level low continued to spin over north central TX. When the upper-level low finally moved northeast over OK on the 22nd, showers and isolated thunderstorms developed beneath it. This storm system finally moved out of the region with rain ending on the evening of the 22nd.

Widespread rainfall totals of 3”-5” affected a large portion of eastern OK and western AR from March 19-20 (Figs. 6, 7). The highest totals of 6" to 8" affected most of Mayes County and portions of Ottawa, Delaware, Rogers, Wagoner, Cherokee, Muskogee, McIntosh, Pushmataha, and Choctaw Counties. This amount of rain led to widespread flash flooding and many street closures (including state highways). Moderate to Minor river flooding also occurred due to all of the rain (refer to the E3 report for additional details as well as the preliminary hydrographs at the end of this report). Interestingly, the highest rainfall totals occurred over the Grand Neosho River Basin, including the Grand, Hudson, and Ft. Gibson Lakes (Fig. 8). These lakes rose 7-18 feet due to the heavy rain and run-off, and greatly helped to reduce the flooding impact over this area. If the rain had occurred just 20 miles further south, significant flooding would have likely occurred along the Illinois River.

With an additional 0.25"-1.75" of rain falling March 21-22, the highest storm total rainfall was 6" to 9", with localized higher amounts (Figs. 9, 10). The storm total in Tulsa was 4.83", with a new daily record rainfall of 2.81" set on the 19th (previous record was 1.15" in 1968). Fort Smith had a storm total of 3.94", and also set a new daily rainfall record of 2.11" on the 20th (previous record 1.92" in 1955).

Some of the highest rainfall totals included:

Monkey Island 2.6 SSE, OK (CoCoRaHS)	11.85	Chouteau 10S, OK (CoCoRaHS)	9.11	Chouteau L&D, OK	9.02
Spavinaw, OK (coop)	8.93	Locust Grove, OK	8.87	Wagoner 4.1ESE, OK (CoCoRaHS)	8.85
Hudson Lake, OK	8.48	New Eucha 5W, OK	8.33	Pryor, OK (meso)	7.61
Grand Lake, OK	7.61				

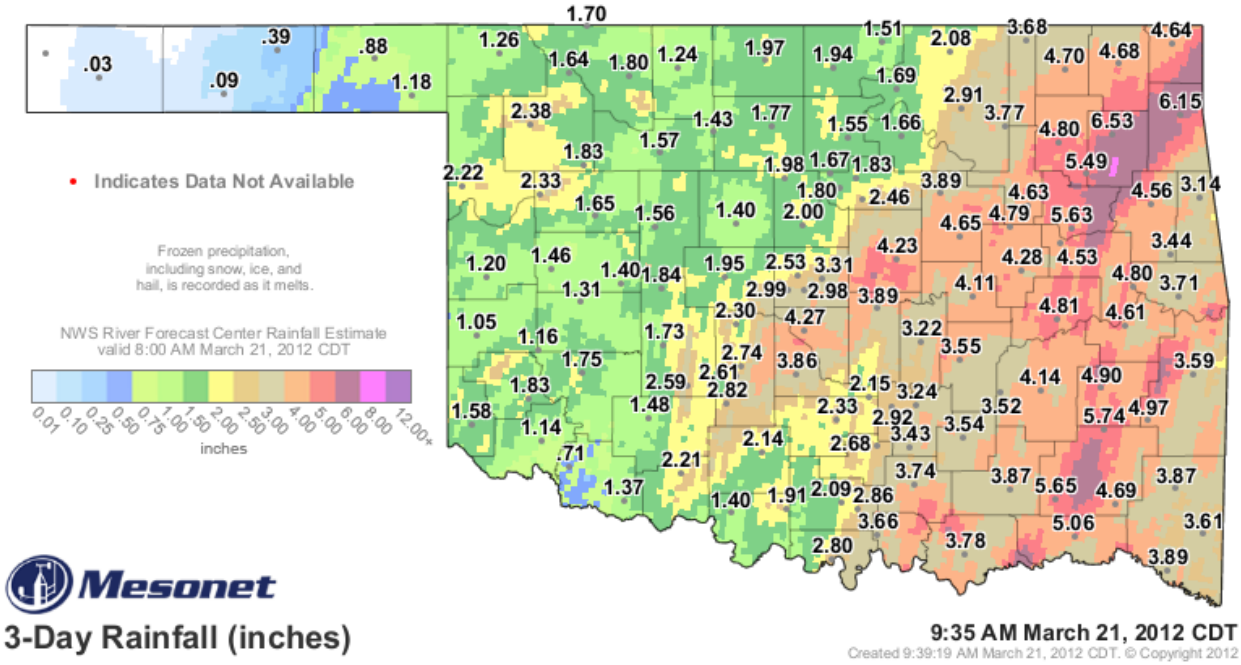


Fig. 6. Rainfall totals across OK from March 19 through 9:35am March 21.

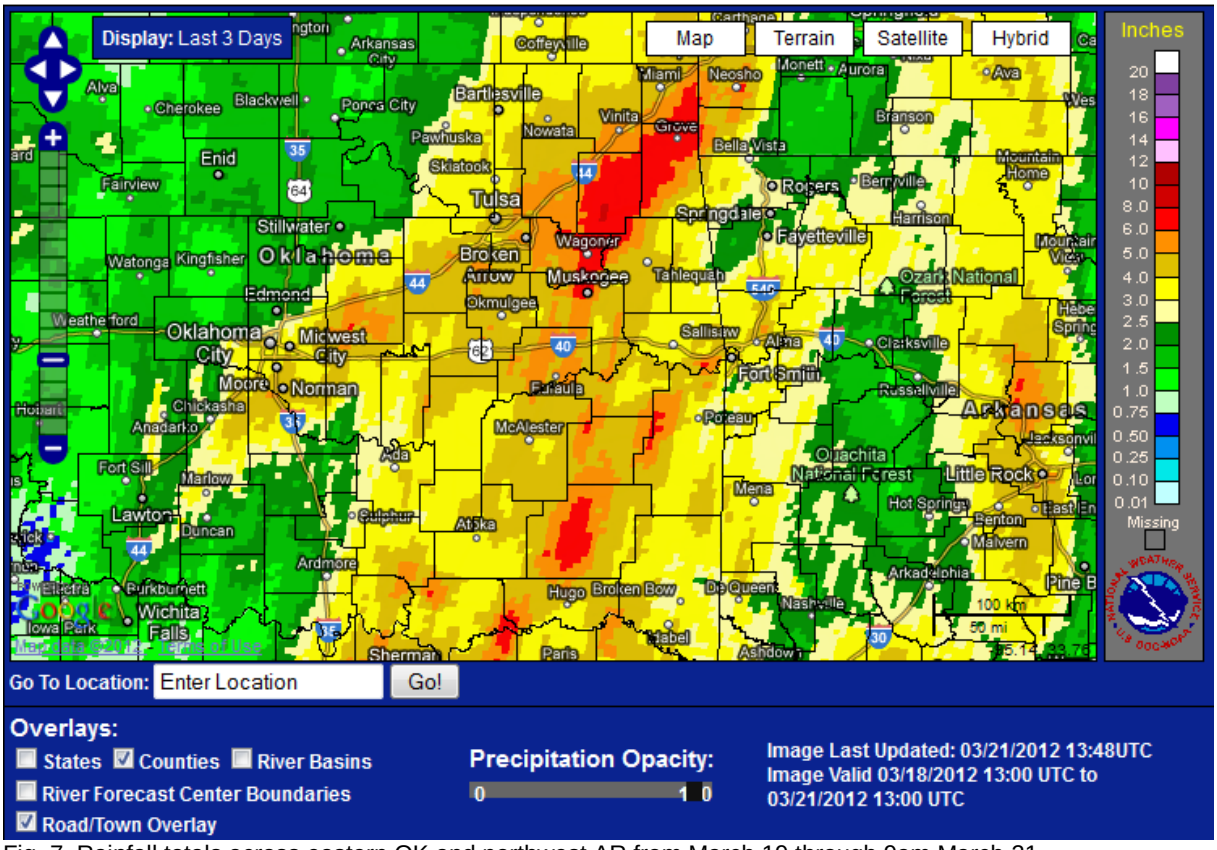


Fig. 7. Rainfall totals across eastern OK and northwest AR from March 19 through 9am March 21.

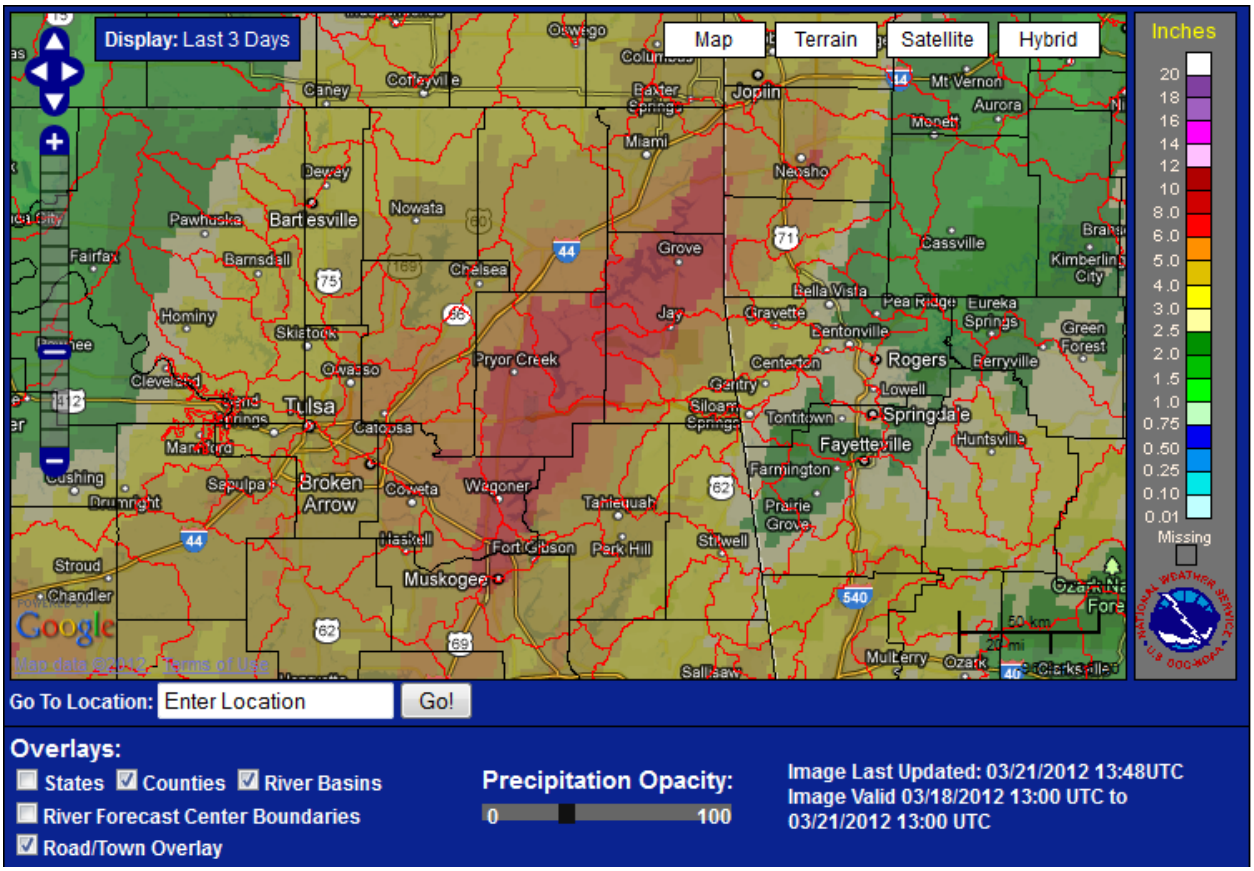


Fig. 8. Rainfall totals over the Neosho River lakes in northeast OK from March 19 through 9am Mar 21.

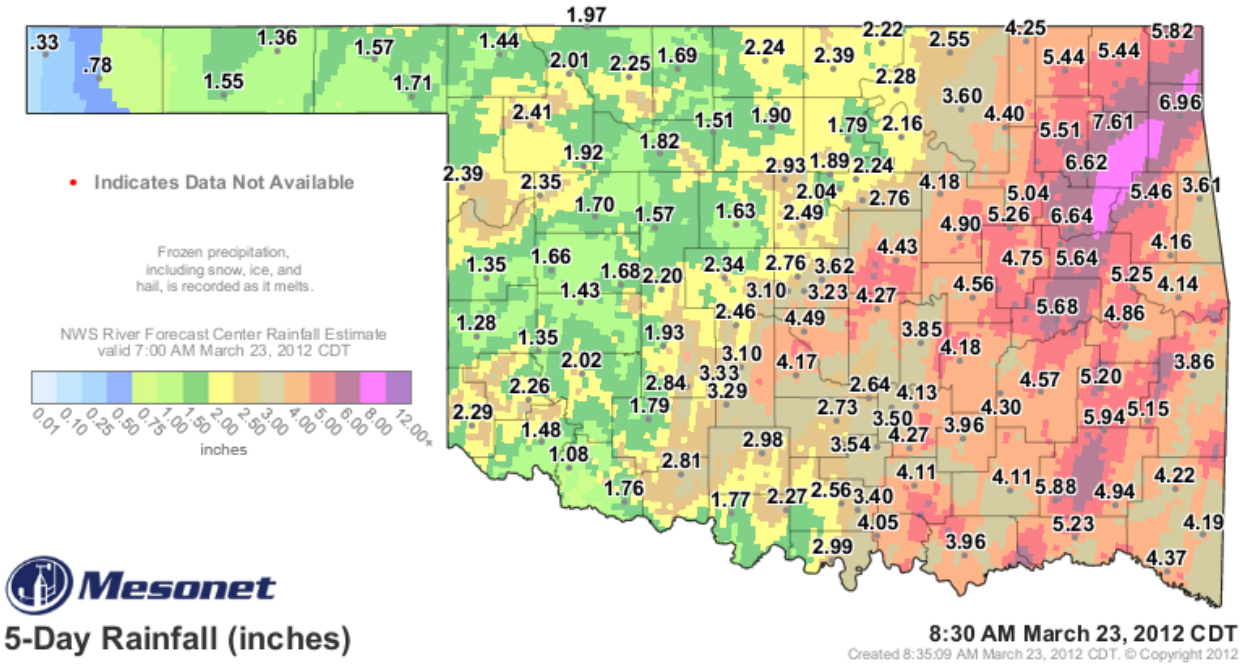


Fig. 9. Rainfall totals across OK for the March 19-22 event.

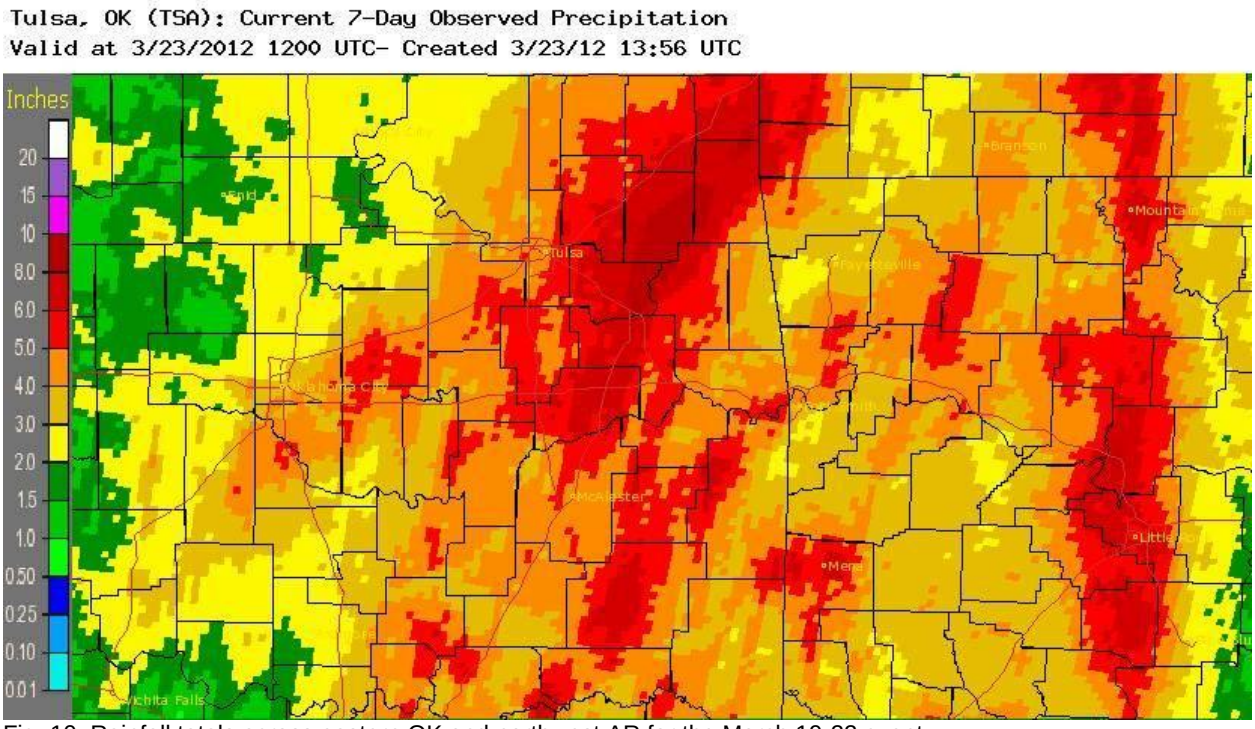


Fig. 10. Rainfall totals across eastern OK and northwest AR for the March 19-22 event.

Additional information about the March 19-22, 2012 heavy rain and flood event can be found at: http://www.srh.noaa.gov/tsa/?n=weather-event_2012marflood

Written by:

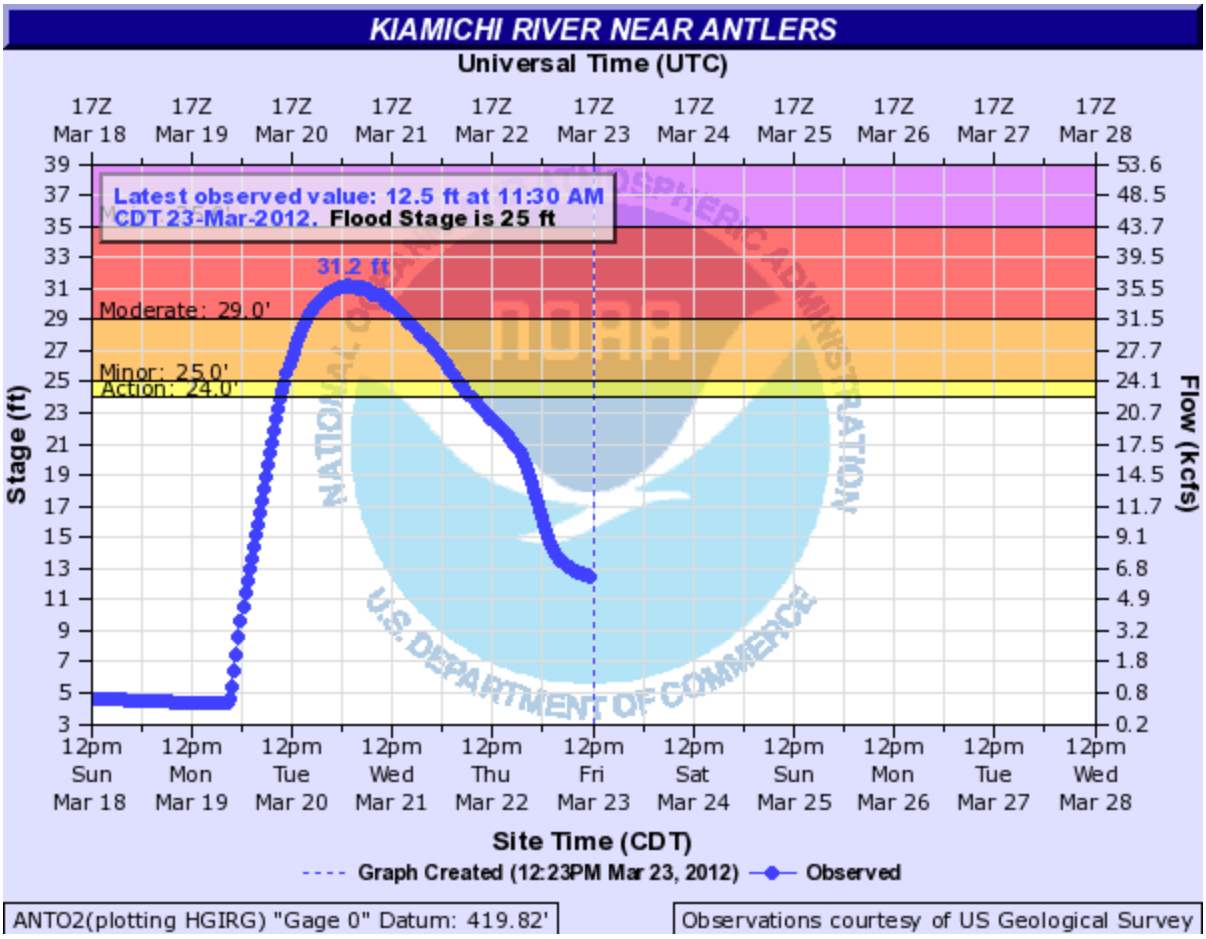
Nicole McGavock
Service Hydrologist
WFO Tulsa

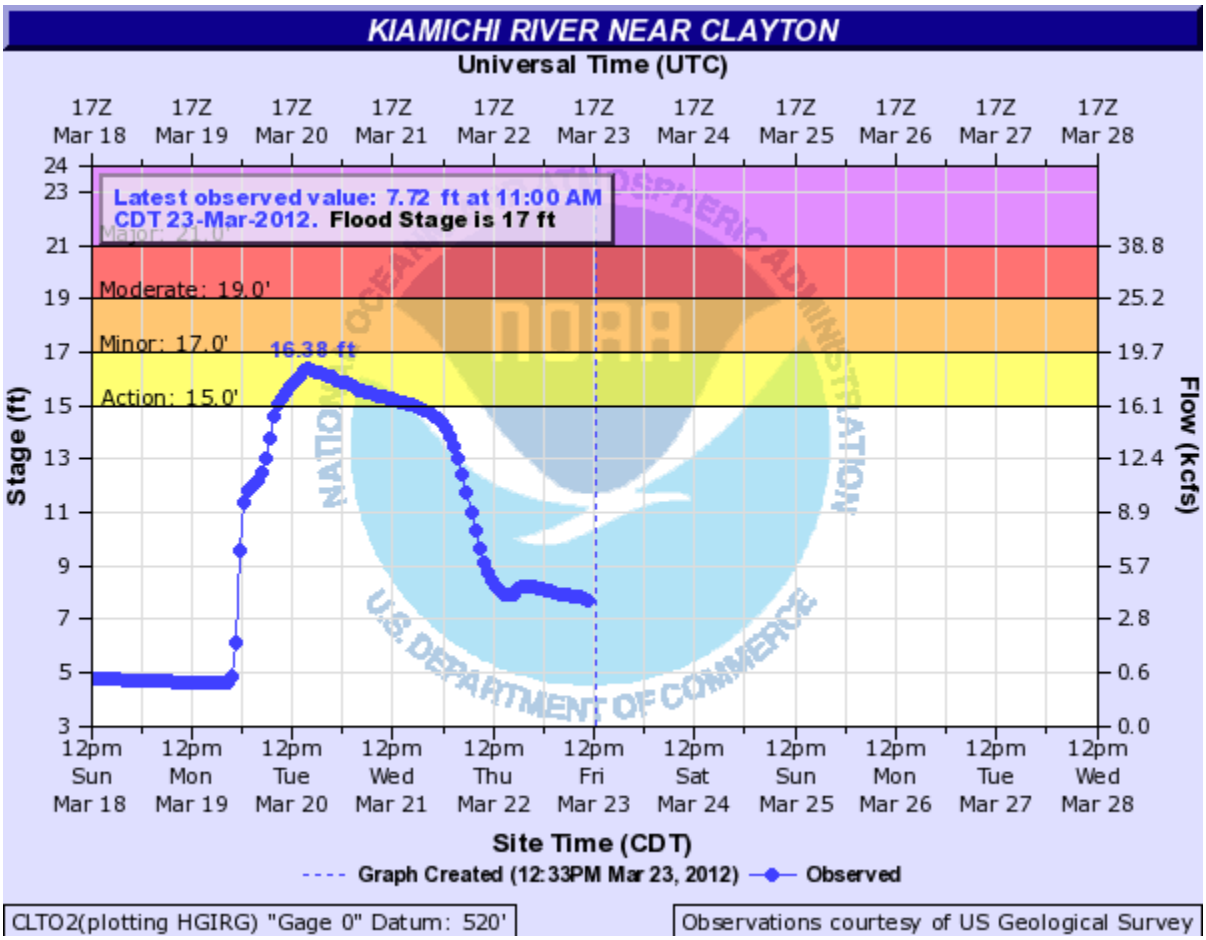
Products issued:

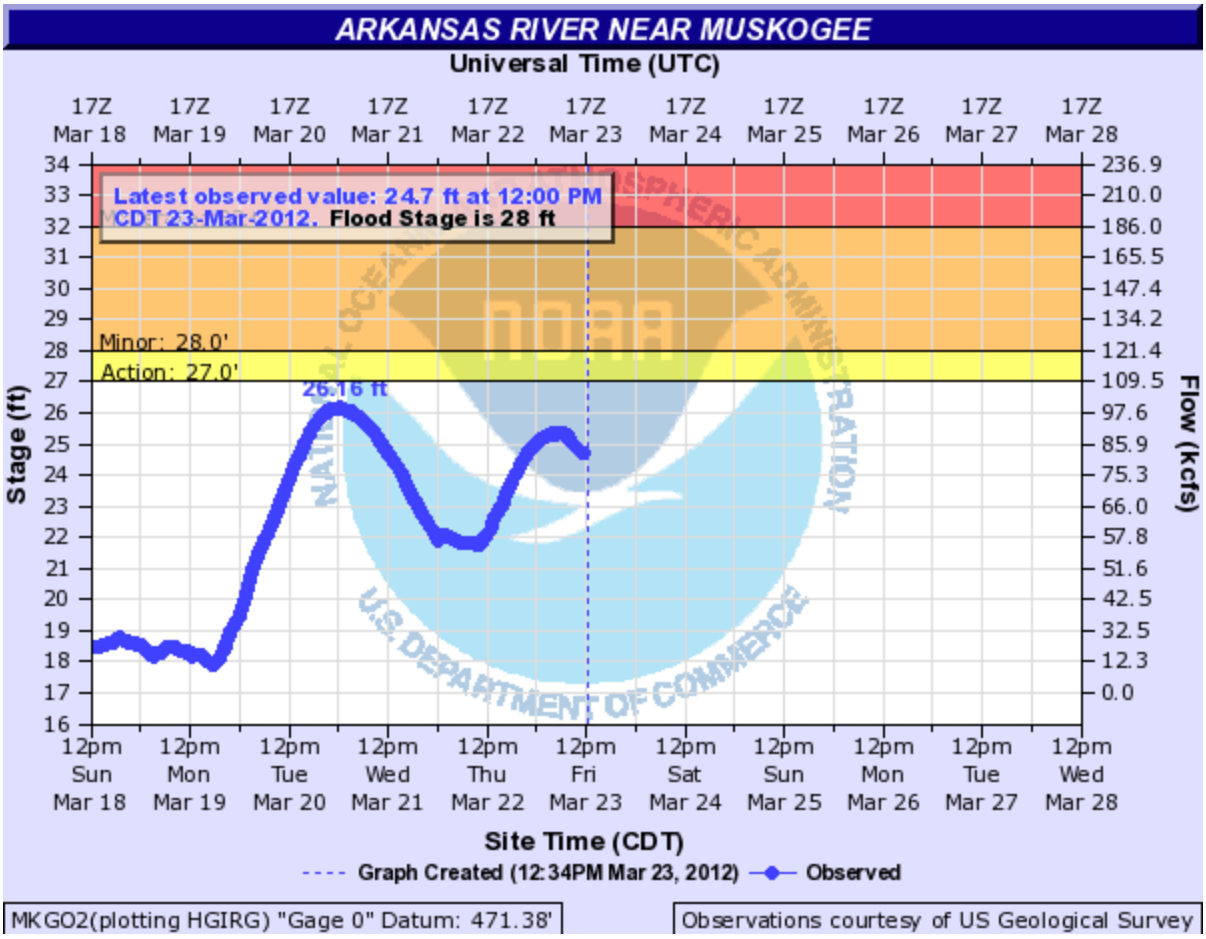
21 River Flood Warnings (FLW)
95 River Flood Statements (FLS)
2 River Flood Advisories (FLS) (3 Advisory FLS CON/EXT/CAN)
13 River Flood Watches (FFA) (14 Watch FFA CON/EXT/CAN)
2 River Statements (RVS)
2 Hydrologic Outlooks (ESF)
2 Drought Information Statements (DGT)

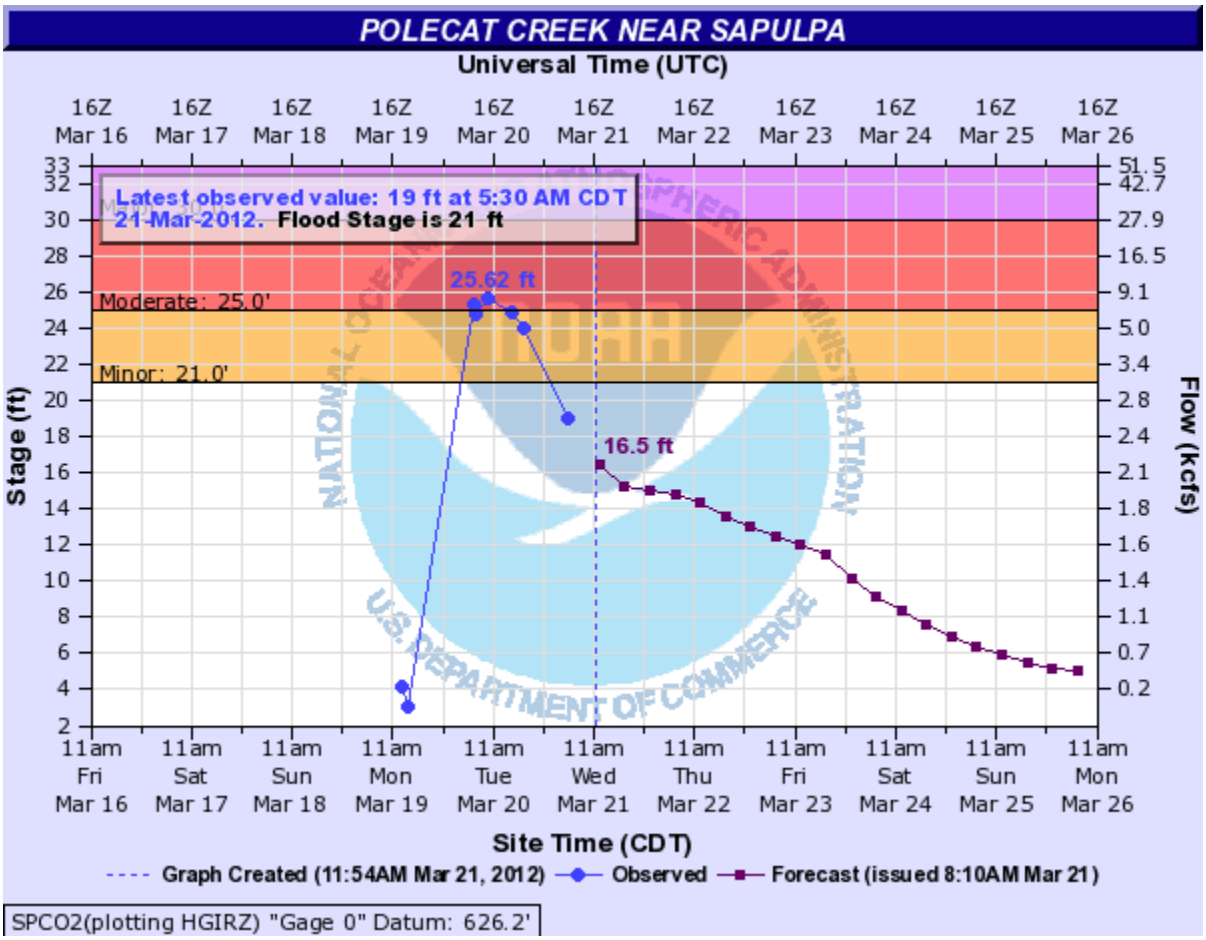
Preliminary Hydrographs:

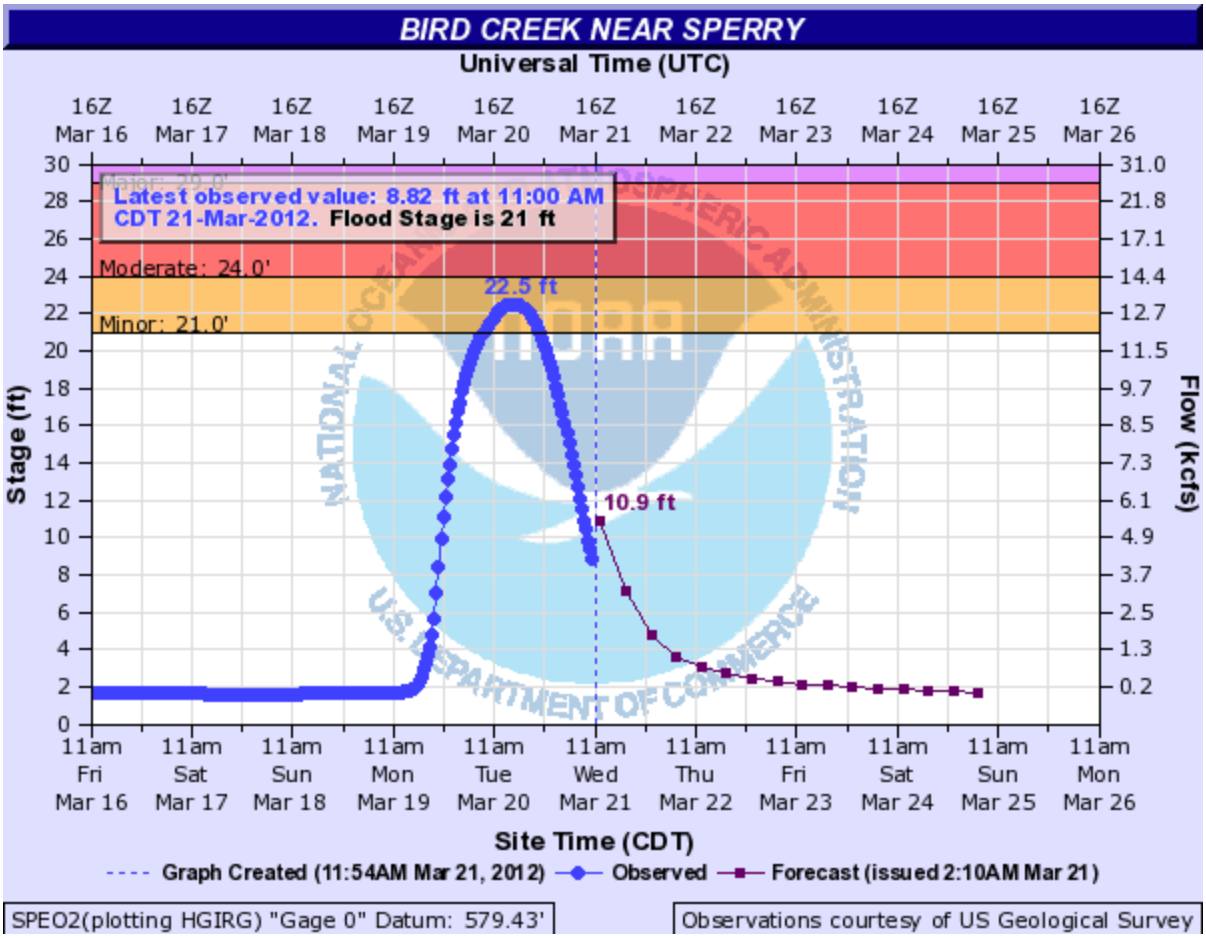
Data gaps from March 21-23 are due to GOES-West outage.

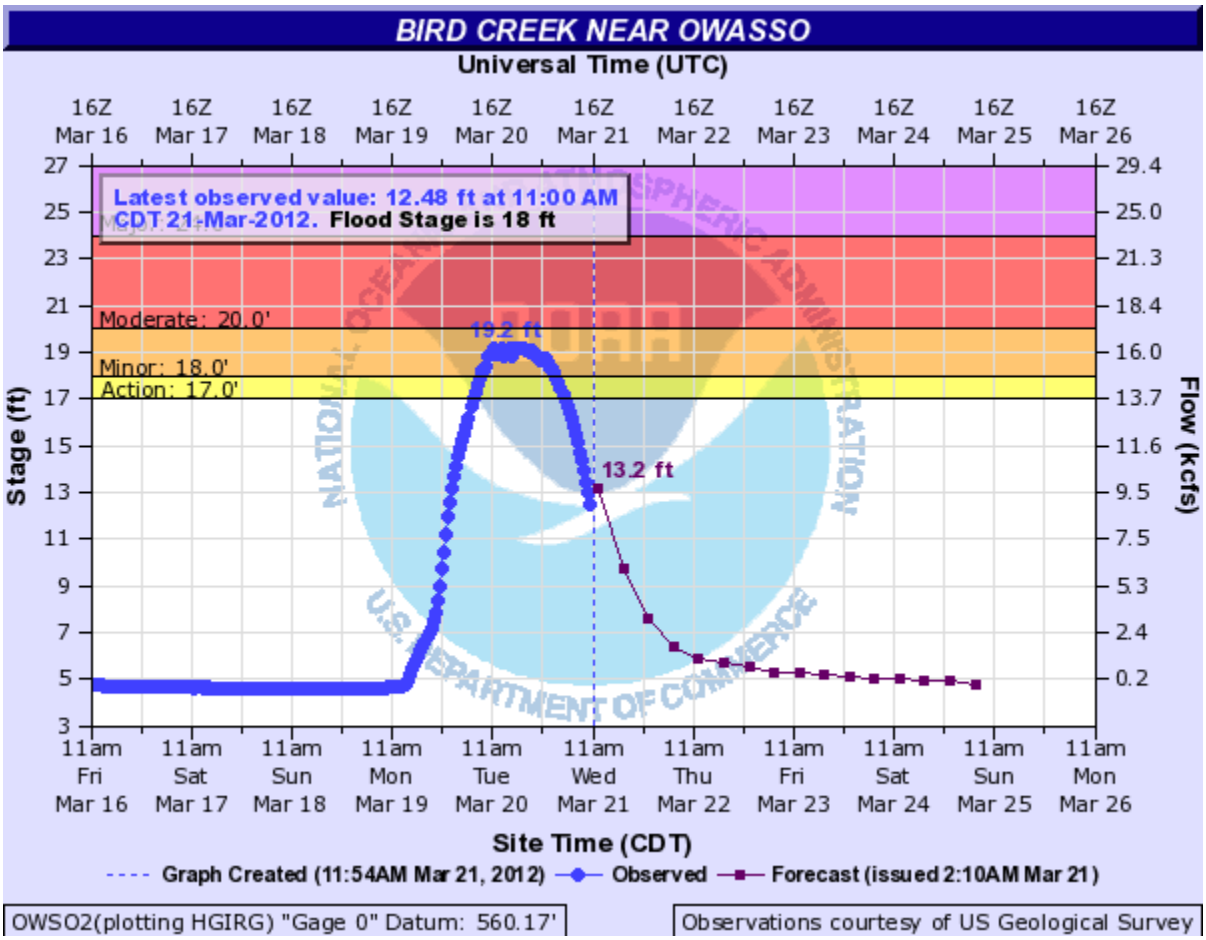

KIAMICHI RIVER NEAR ANTLERS
Universal Time (UTC)
17Z Mar 18
17Z Mar 19
17Z Mar 20
17Z Mar 21
17Z Mar 22
17Z Mar 23
17Z Mar 24
17Z Mar 25
17Z Mar 26
17Z Mar 27
17Z Mar 28
Latest observed value: 12.5 ft at 11:30 AM CDT 23-Mar-2012. Flood Stage is 25 ft
31.2 ft
Moderate: 29.0'
Minor: 25.0'
Action: 24.0'
Stage (ft)
Flow (kcfs)
39 37 35 33 31 29 27 25 23 21 19 17 15 13 11 9 7 5 3
53.6 48.5 43.7 39.5 35.5 31.5 27.7 24.1 20.7 17.5 14.5 11.7 9.1 6.8 4.9 3.2 1.8 0.8 0.2
12pm Sun Mar 18
12pm Mon Mar 19
12pm Tue Mar 20
12pm Wed Mar 21
12pm Thu Mar 22
12pm Fri Mar 23
12pm Sat Mar 24
12pm Sun Mar 25
12pm Mon Mar 26
12pm Tue Mar 27
12pm Wed Mar 28
Site Time (CDT)
Graph Created (12:23PM Mar 23, 2012)
Observed
ANTO2(plotting HGIRG) "Gage 0" Datum: 419.82'
Observations courtesy of US Geological Survey

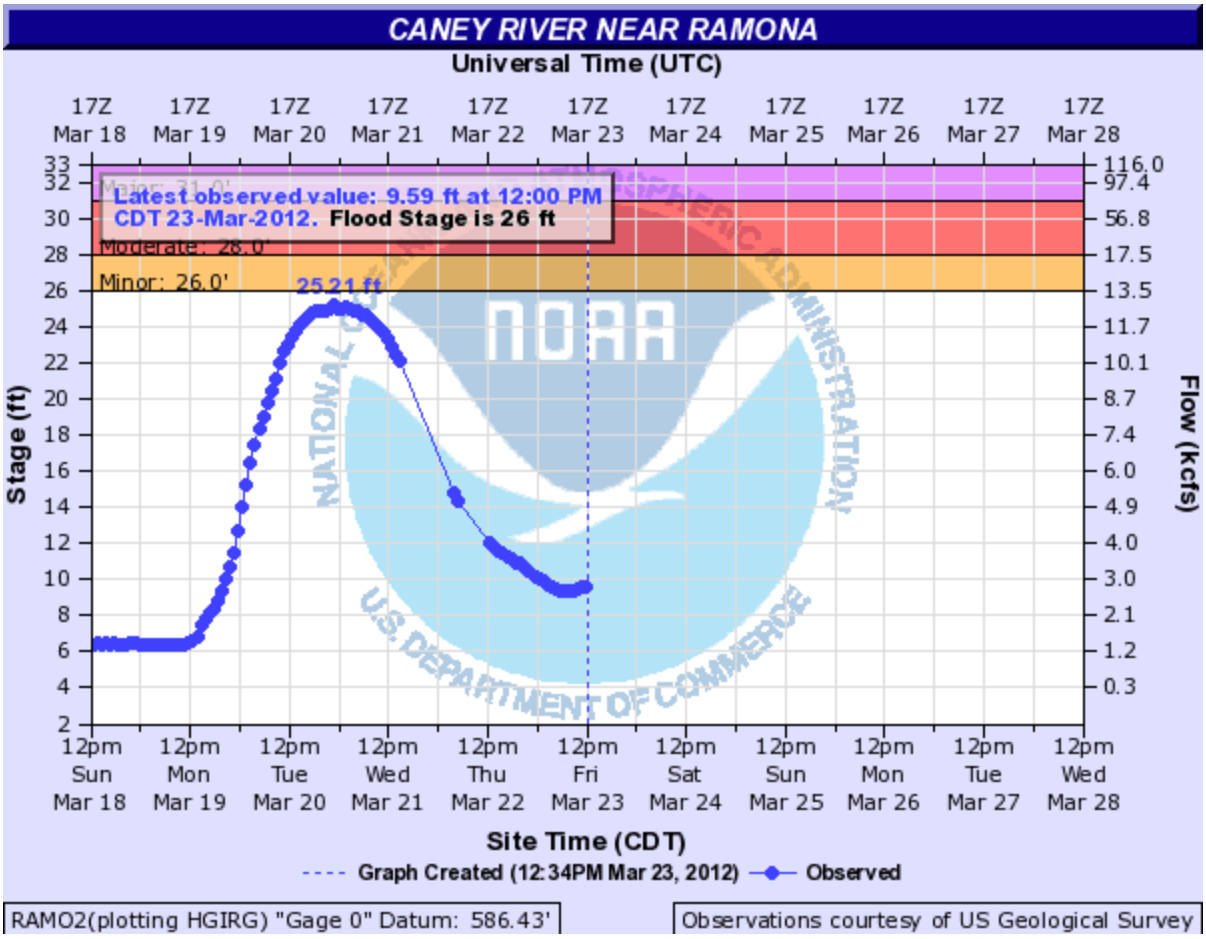

KIAMICHI RIVER NEAR CLAYTON
Universal Time (UTC)
17Z Mar 18
17Z Mar 19
17Z Mar 20
17Z Mar 21
17Z Mar 22
17Z Mar 23
17Z Mar 24
17Z Mar 25
17Z Mar 26
17Z Mar 27
17Z Mar 28
Latest observed value: 7.72 ft at 11:00 AM CDT 23-Mar-2012. Flood Stage is 17 ft
Moderate: 19.0'
Minor: 17.0'
16.38 ft
Action: 15.0'
Stage (ft)
Flow (kcfs)
24 23 21 19 17 15 13 11 9 7 5 3
38.8 25.2 19.7 16.1 12.4 8.9 5.7 2.8 0.6 0.0
12pm Sun Mar 18
12pm Mon Mar 19
12pm Tue Mar 20
12pm Wed Mar 21
12pm Thu Mar 22
12pm Fri Mar 23
12pm Sat Mar 24
12pm Sun Mar 25
12pm Mon Mar 26
12pm Tue Mar 27
12pm Wed Mar 28
Site Time (CDT)
Graph Created (12:33PM Mar 23, 2012)
Observed
CLTO2(plotting HGIRG) "Gage 0" Datum: 520'
Observations courtesy of US Geological Survey

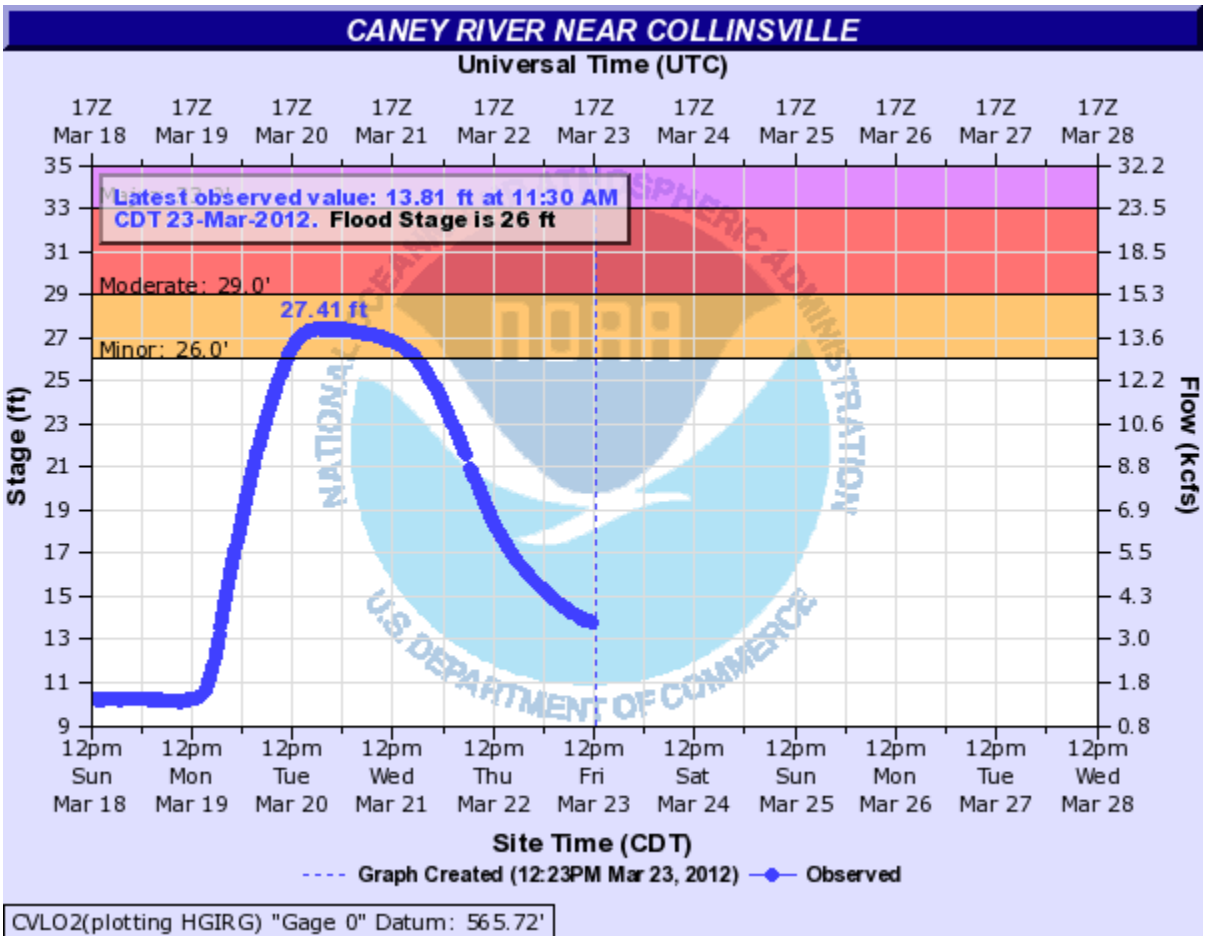

ARKANSAS RIVER NEAR MUSKOGEE
Universal Time (UTC)
17Z Mar 18
17Z Mar 19
17Z Mar 20
17Z Mar 21
17Z Mar 22
17Z Mar 23
17Z Mar 24
17Z Mar 25
17Z Mar 26
17Z Mar 27
17Z Mar 28
Latest observed value: 24.7 ft at 12:00 PM CDT 23-Mar-2012. Flood Stage is 28 ft
Minor: 28.0'
Action: 27.0'
26.16 ft
Stage (ft)
Flow (kcfs)
34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16
236.9 210.0 186.0 165.5 147.4 134.2 121.4 109.5 97.6 85.9 75.3 66.0 57.8 51.6 42.5 32.5 12.3 0.0
12pm Sun Mar 18
12pm Mon Mar 19
12pm Tue Mar 20
12pm Wed Mar 21
12pm Thu Mar 22
12pm Fri Mar 23
12pm Sat Mar 24
12pm Sun Mar 25
12pm Mon Mar 26
12pm Tue Mar 27
12pm Wed Mar 28
Site Time (CDT)
Graph Created (12:34PM Mar 23, 2012)
Observed
MKGO2(plotting HGIRG) "Gage 0" Datum: 471.38'
Observations courtesy of US Geological Survey

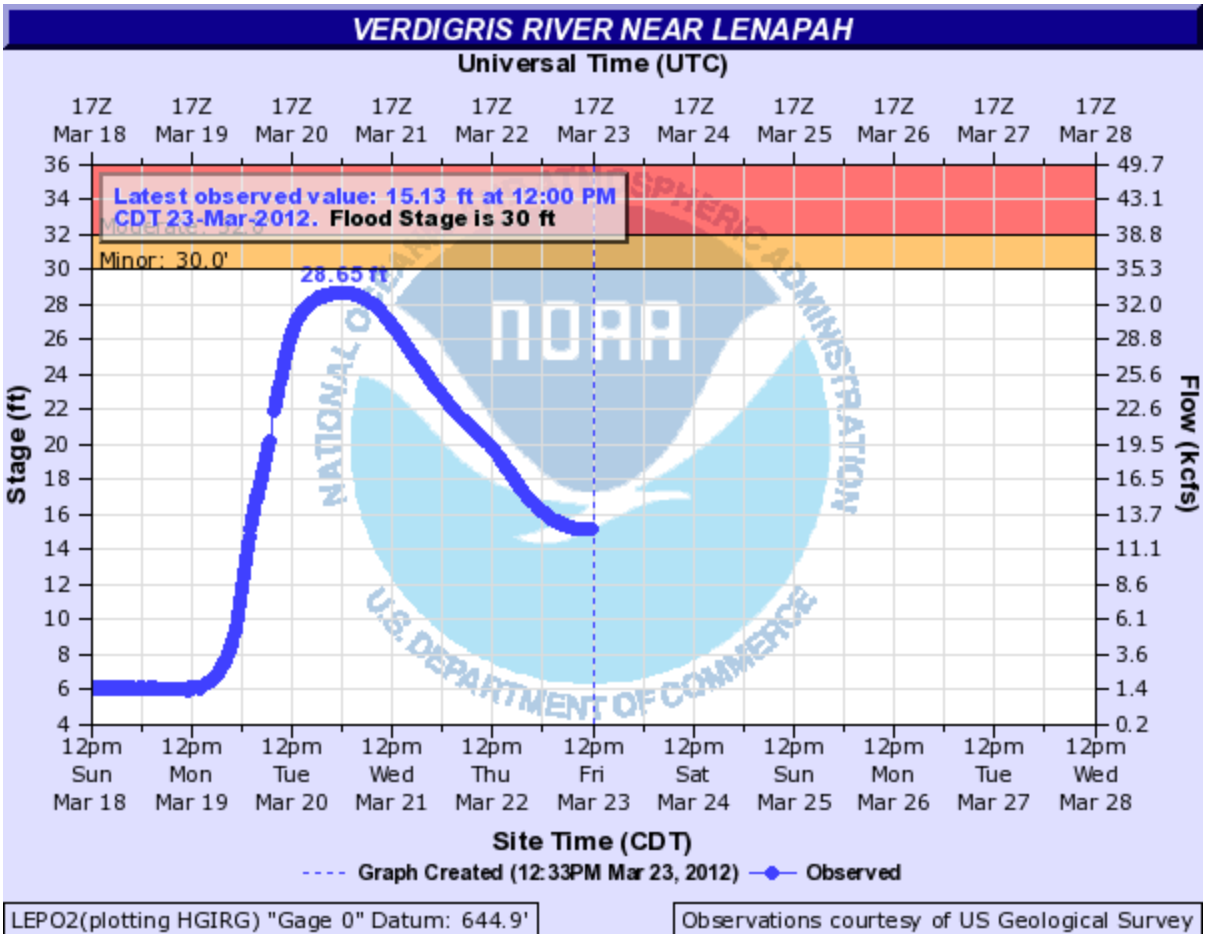

POLECAT CREEK NEAR SAPULPA
Universal Time (UTC)
16Z Mar 16
16Z Mar 17
16Z Mar 18
16Z Mar 19
16Z Mar 20
16Z Mar 21
16Z Mar 22
16Z Mar 23
16Z Mar 24
16Z Mar 25
16Z Mar 26
Latest observed value: 19 ft at 5:30 AM CDT 21-Mar-2012. Flood Stage is 21 ft
25.62 ft
Moderate: 25.0'
Minor: 21.0'
16.5 ft
Stage (ft)
Flow (kcfs)
33 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2
51.5 42.7 27.9 16.5 9.1 5.0 3.4 2.8 2.4 2.1 1.8 1.6 1.4 1.1 0.7 0.2
11am Fri Mar 16
11am Sat Mar 17
11am Sun Mar 18
11am Mon Mar 19
11am Tue Mar 20
11am Wed Mar 21
11am Thu Mar 22
11am Fri Mar 23
11am Sat Mar 24
11am Sun Mar 25
11am Mon Mar 26
Site Time (CDT)
Graph Created (11:54AM Mar 21, 2012)
Observed
Forecast (issued 8:10AM Mar 21)
SPCO2(plotting HGIRZ) "Gage 0" Datum: 626.2'

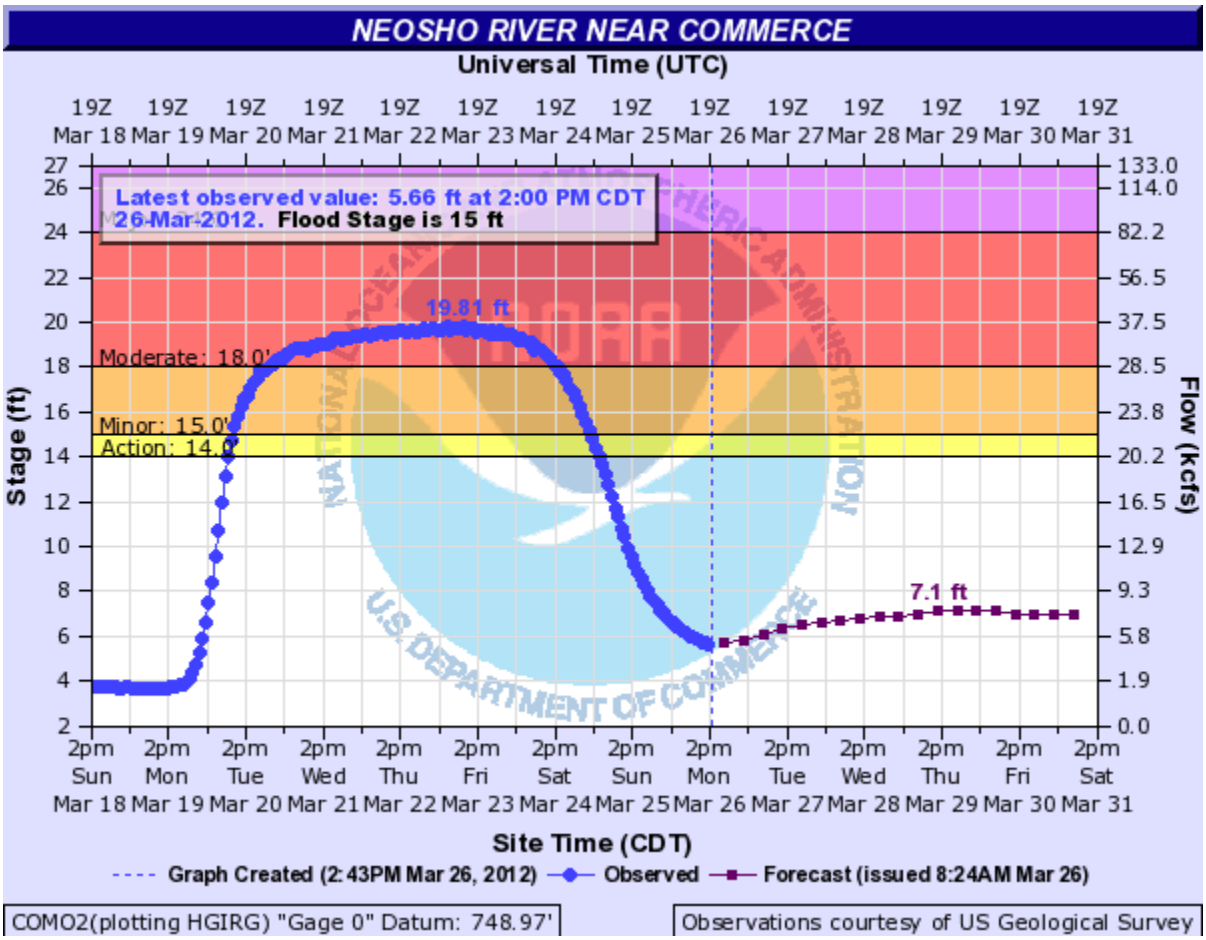

BIRD CREEK NEAR SPERRY
Universal Time (UTC)
16Z Mar 16
16Z Mar 17
16Z Mar 18
16Z Mar 19
16Z Mar 20
16Z Mar 21
16Z Mar 22
16Z Mar 23
16Z Mar 24
16Z Mar 25
16Z Mar 26
Latest observed value: 8.82 ft at 11:00 AM CDT 21-Mar-2012. Flood Stage is 21 ft
Moderate: 24.0'
Minor: 21.0'
22.5 ft
10.9 ft
Stage (ft)
Flow (kcfs)
11am Fri Mar 16
11am Sat Mar 17
11am Sun Mar 18
11am Mon Mar 19
11am Tue Mar 20
11am Wed Mar 21
11am Thu Mar 22
11am Fri Mar 23
11am Sat Mar 24
11am Sun Mar 25
11am Mon Mar 26
Site Time (CDT)
Graph Created (11:54AM Mar 21, 2012)
Observed
Forecast (issued 2:10AM Mar 21)
SPEO2(plotting HGIRG) "Gage 0" Datum: 579.43'
Observations courtesy of US Geological Survey


BIRD CREEK NEAR OWASSO
Universal Time (UTC)
16Z Mar 16
16Z Mar 17
16Z Mar 18
16Z Mar 19
16Z Mar 20
16Z Mar 21
16Z Mar 22
16Z Mar 23
16Z Mar 24
16Z Mar 25
16Z Mar 26
Latest observed value: 12.48 ft at 11:00 AM CDT 21-Mar-2012. Flood Stage is 18 ft
Moderate: 20.0'
Minor: 18.0'
Action: 17.0'
19.2 ft
13.2 ft
Stage (ft)
Flow (kcfs)
11am Fri Mar 16
11am Sat Mar 17
11am Sun Mar 18
11am Mon Mar 19
11am Tue Mar 20
11am Wed Mar 21
11am Thu Mar 22
11am Fri Mar 23
11am Sat Mar 24
11am Sun Mar 25
11am Mon Mar 26
Site Time (CDT)
Graph Created (11:54AM Mar 21, 2012)
Observed
Forecast (issued 2:10AM Mar 21)
OWSO2(plotting HGIRG) "Gage 0" Datum: 560.17'
Observations courtesy of US Geological Survey

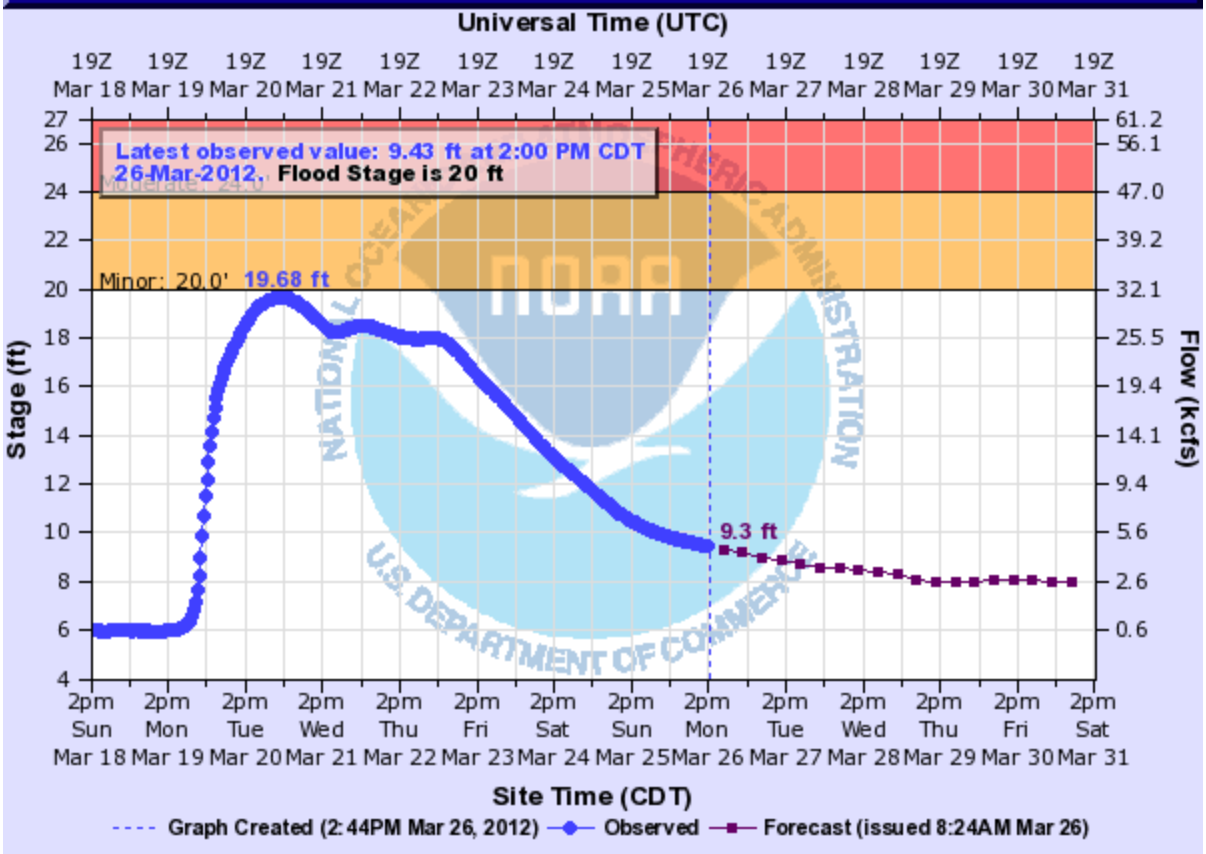

CANEY RIVER NEAR RAMONA
Universal Time (UTC)
17Z Mar 18
17Z Mar 19
17Z Mar 20
17Z Mar 21
17Z Mar 22
17Z Mar 23
17Z Mar 24
17Z Mar 25
17Z Mar 26
17Z Mar 27
17Z Mar 28
Latest observed value: 9.59 ft at 12:00 PM CDT 23-Mar-2012. Flood Stage is 26 ft
Moderate: 28.0'
Minor: 26.0'
25.21 ft
Stage (ft)
Flow (kcfs)
12pm Sun Mar 18
12pm Mon Mar 19
12pm Tue Mar 20
12pm Wed Mar 21
12pm Thu Mar 22
12pm Fri Mar 23
12pm Sat Mar 24
12pm Sun Mar 25
12pm Mon Mar 26
12pm Tue Mar 27
12pm Wed Mar 28
Site Time (CDT)
Graph Created (12:34PM Mar 23, 2012)
Observed
RAMO2(plotting HGIRG) "Gage 0" Datum: 586.43'
Observations courtesy of US Geological Survey


CANEY RIVER NEAR COLLINSVILLE
Universal Time (UTC)
17Z Mar 18
17Z Mar 19
17Z Mar 20
17Z Mar 21
17Z Mar 22
17Z Mar 23
17Z Mar 24
17Z Mar 25
17Z Mar 26
17Z Mar 27
17Z Mar 28
Latest observed value: 13.81 ft at 11:30 AM CDT 23-Mar-2012. Flood Stage is 26 ft
Moderate: 29.0'
Minor: 26.0'
27.41 ft
Stage (ft)
Flow (kcfs)
12pm Sun Mar 18
12pm Mon Mar 19
12pm Tue Mar 20
12pm Wed Mar 21
12pm Thu Mar 22
12pm Fri Mar 23
12pm Sat Mar 24
12pm Sun Mar 25
12pm Mon Mar 26
12pm Tue Mar 27
12pm Wed Mar 28
Site Time (CDT)
Graph Created (12:23PM Mar 23, 2012)
Observed
CVLO2(plotting HGIRG) "Gage 0" Datum: 565.72'


VERDIGRIS RIVER NEAR LENAPAH
Universal Time (UTC)
17Z Mar 18
17Z Mar 19
17Z Mar 20
17Z Mar 21
17Z Mar 22
17Z Mar 23
17Z Mar 24
17Z Mar 25
17Z Mar 26
17Z Mar 27
17Z Mar 28
Latest observed value: 15.13 ft at 12:00 PM CDT 23-Mar-2012. Flood Stage is 30 ft
Minor: 30.0'
28.65 ft
Stage (ft)
Flow (kcfs)
12pm Sun Mar 18
12pm Mon Mar 19
12pm Tue Mar 20
12pm Wed Mar 21
12pm Thu Mar 22
12pm Fri Mar 23
12pm Sat Mar 24
12pm Sun Mar 25
12pm Mon Mar 26
12pm Tue Mar 27
12pm Wed Mar 28
Site Time (CDT)
Graph Created (12:33PM Mar 23, 2012)
Observed
LEPO2(plotting HGIRG) "Gage 0" Datum: 644.9'
Observations courtesy of US Geological Survey


NEOSHO RIVER NEAR COMMERCE
Universal Time (UTC)
19Z Mar 18
19Z Mar 19
19Z Mar 20
19Z Mar 21
19Z Mar 22
19Z Mar 23
19Z Mar 24
19Z Mar 25
19Z Mar 26
19Z Mar 27
19Z Mar 28
19Z Mar 29
19Z Mar 30
19Z Mar 31
Latest observed value: 5.66 ft at 2:00 PM CDT 26-Mar-2012. Flood Stage is 15 ft
19.81 ft
Moderate: 18.0'
Minor: 15.0'
Action: 14.0'
7.1 ft
Stage (ft)
Flow (kcfs)
2pm Sun Mar 18
2pm Mon Mar 19
2pm Tue Mar 20
2pm Wed Mar 21
2pm Thu Mar 22
2pm Fri Mar 23
2pm Sat Mar 24
2pm Sun Mar 25
2pm Mon Mar 26
2pm Tue Mar 27
2pm Wed Mar 28
2pm Thu Mar 29
2pm Fri Mar 30
2pm Sat Mar 31
Site Time (CDT)
Graph Created (2:43PM Mar 26, 2012)
Observed
Forecast (issued 8:24AM Mar 26)
COMO2(plotting HGIRG) "Gage 0" Datum: 748.97'
Observations courtesy of US Geological Survey

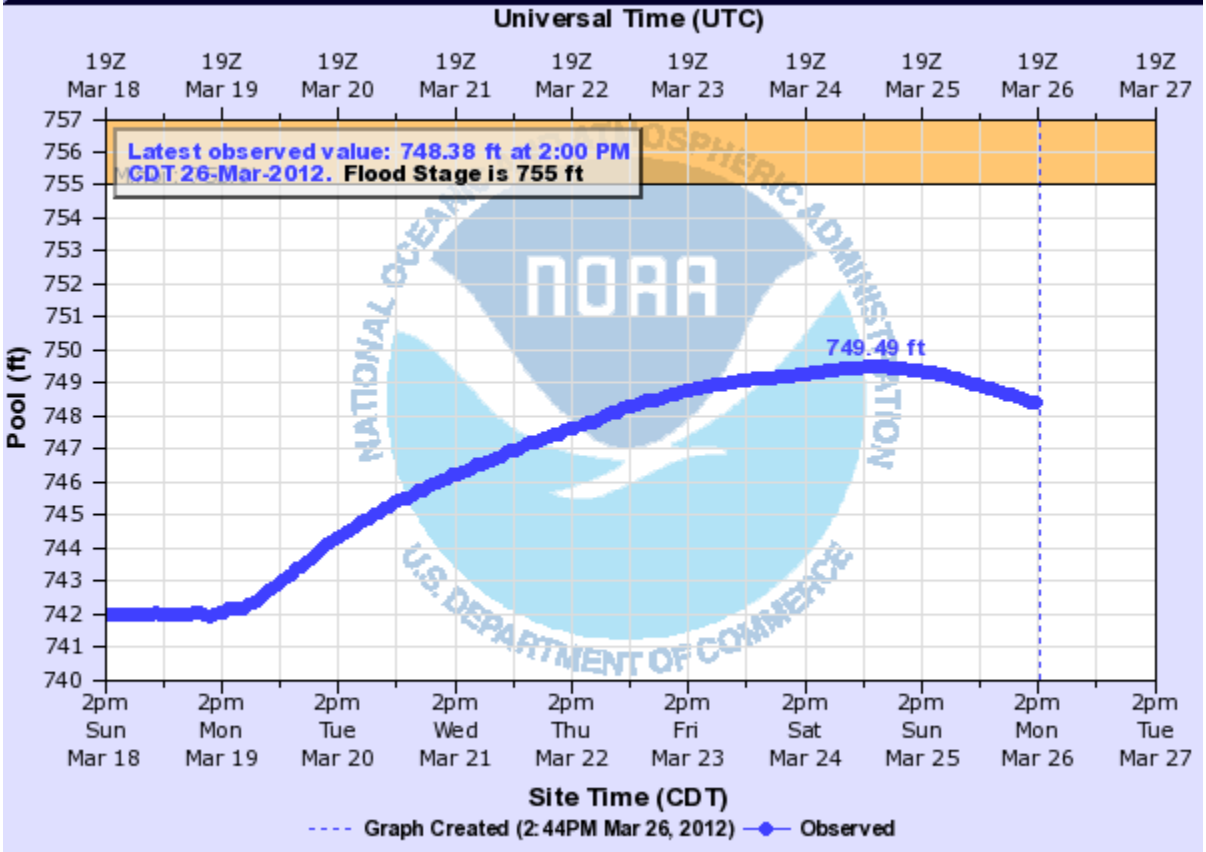
SPRING RIVER NEAR QUAPAW



QUAO2(plotting HGIRG) "Gage 0" Datum: 746.25'

Observations courtesy of US Geological Survey

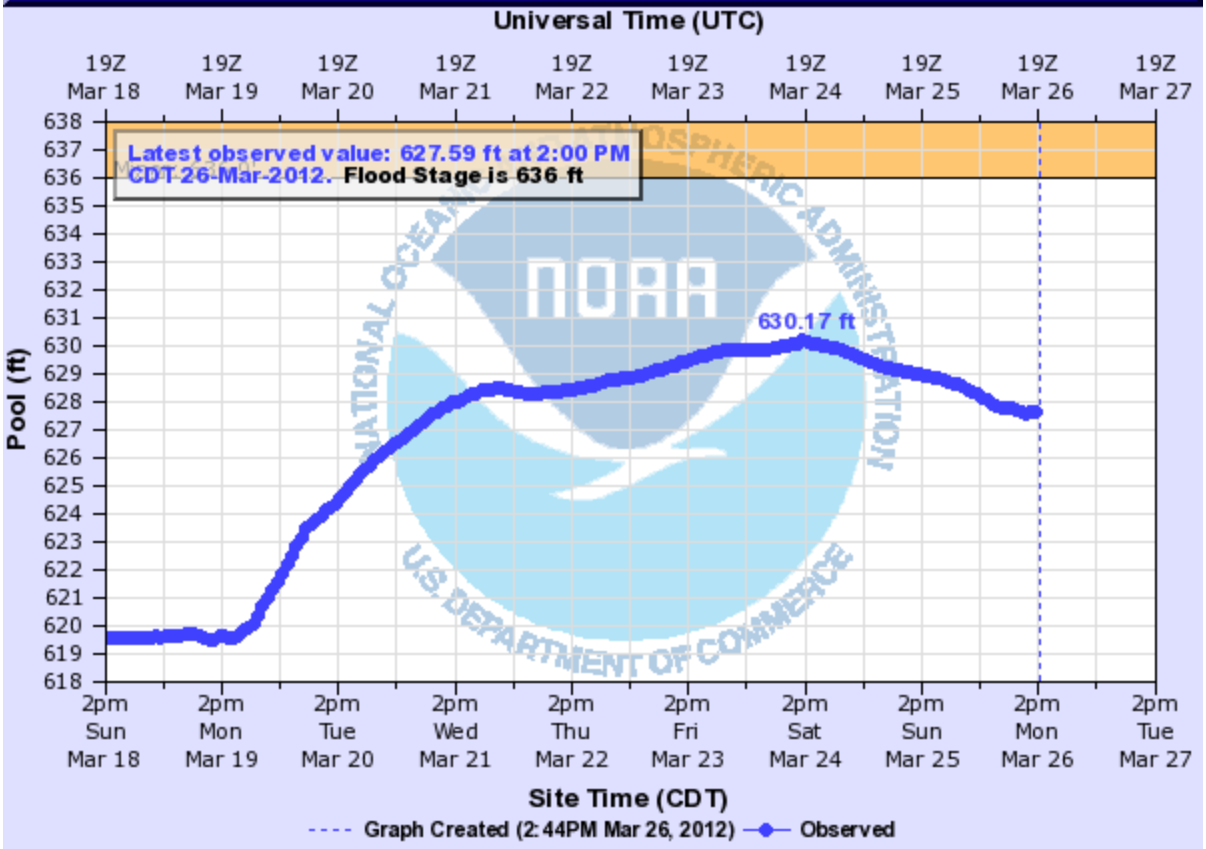
EASTERN OKLAHOMA LAKES AT GRAND LAKE



PENO2(plotting HPIRG) "Gage 0" Datum: n/a

Observations courtesy of US Army Corps of Engineers

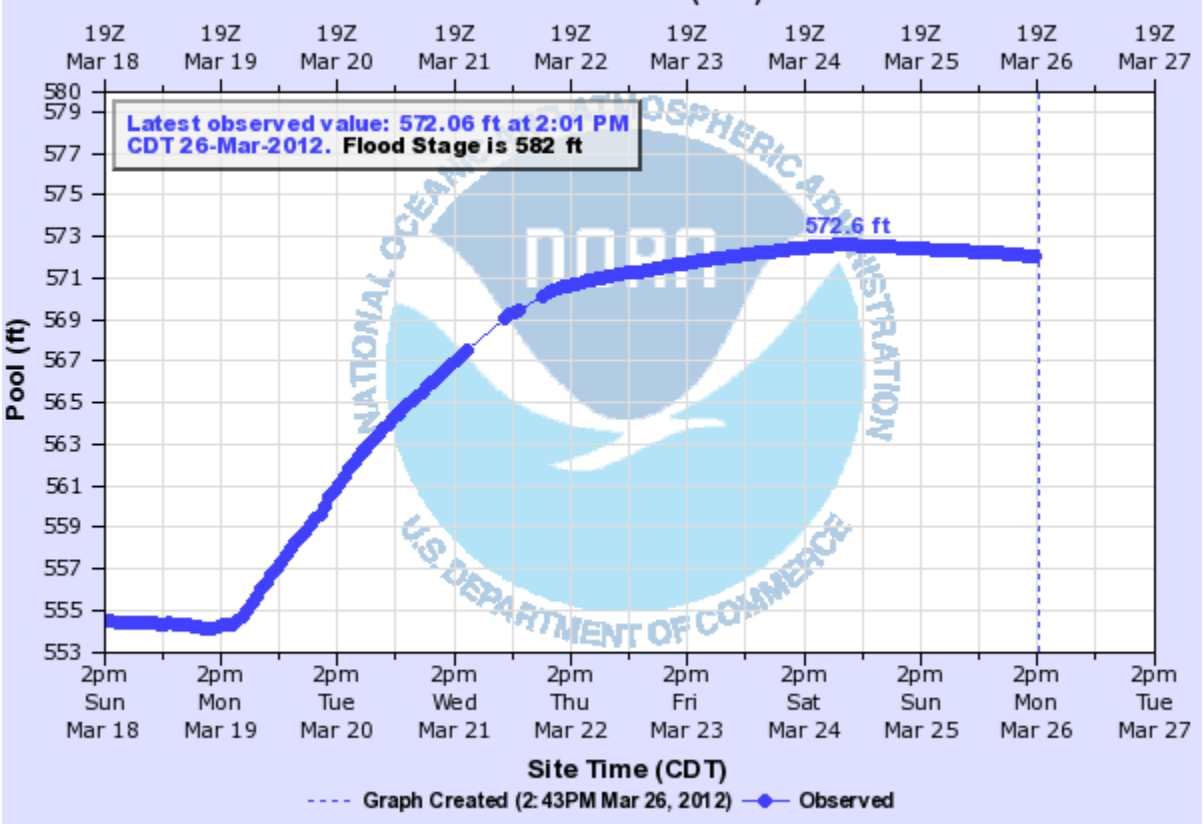
EASTERN OKLAHOMA LAKES AT HUDSON LAKE



MFDO2(plotting HPIRG) "Gage 0" Datum: n/a

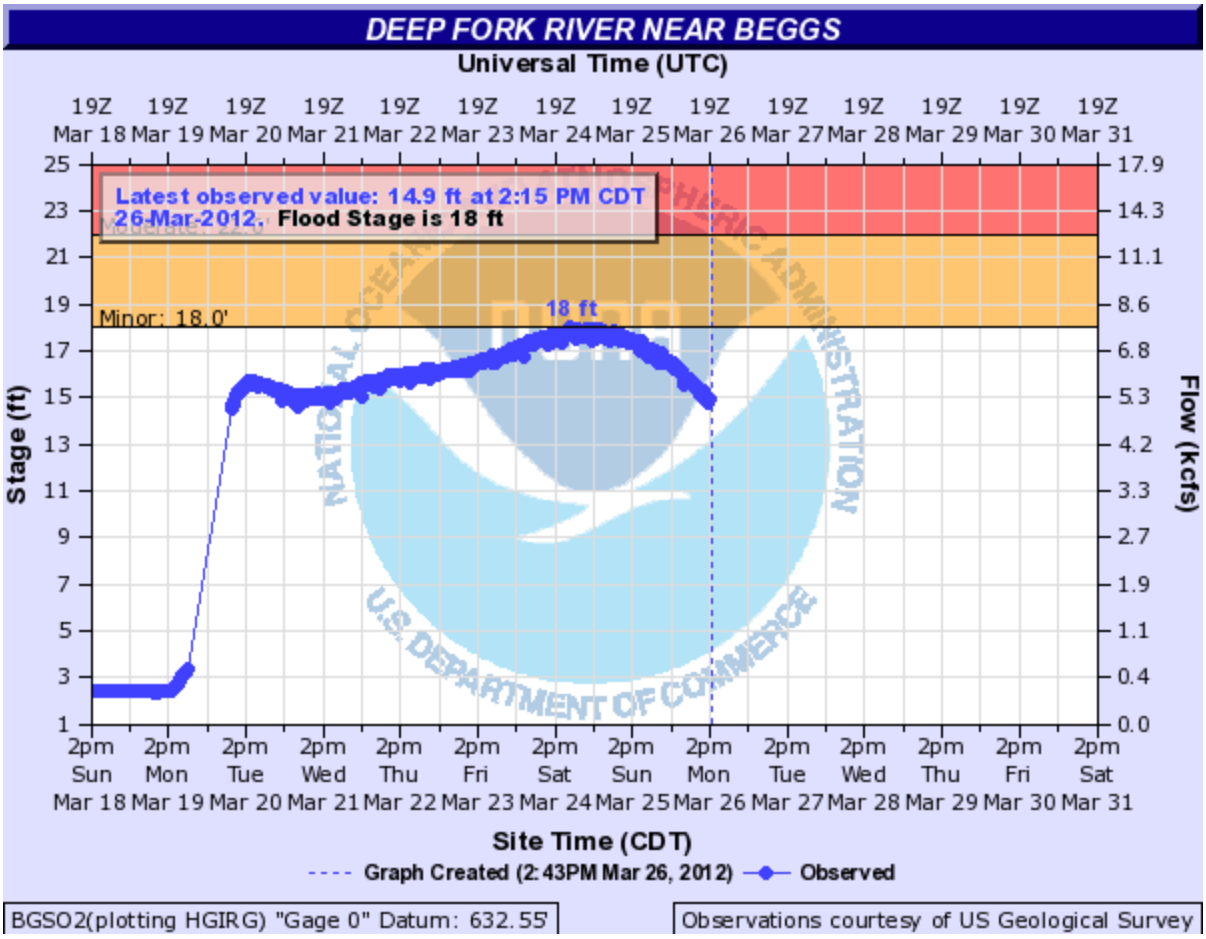
Observations courtesy of US Army Corps of Engineers

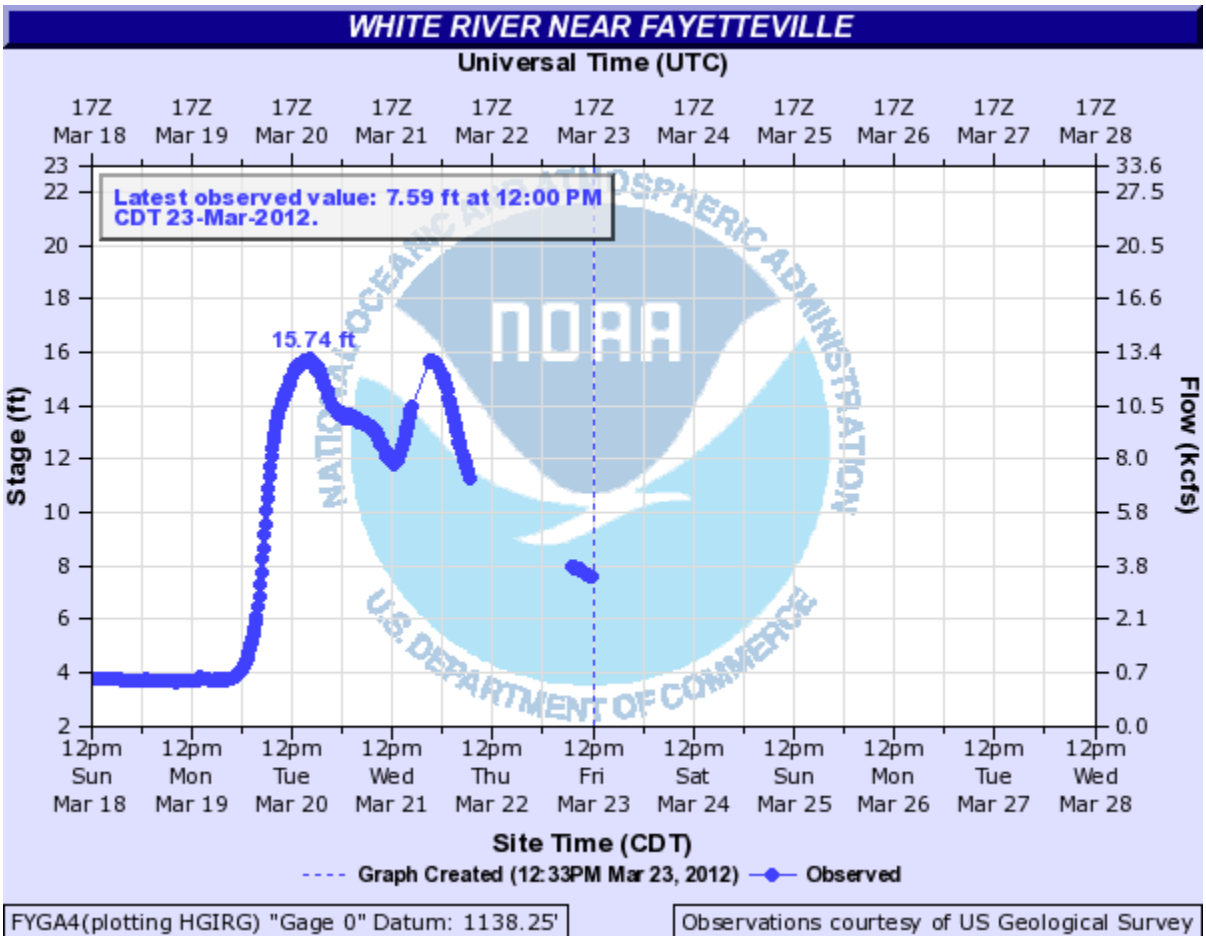
EASTERN OKLAHOMA LAKES AT FT. GIBSON LAKE

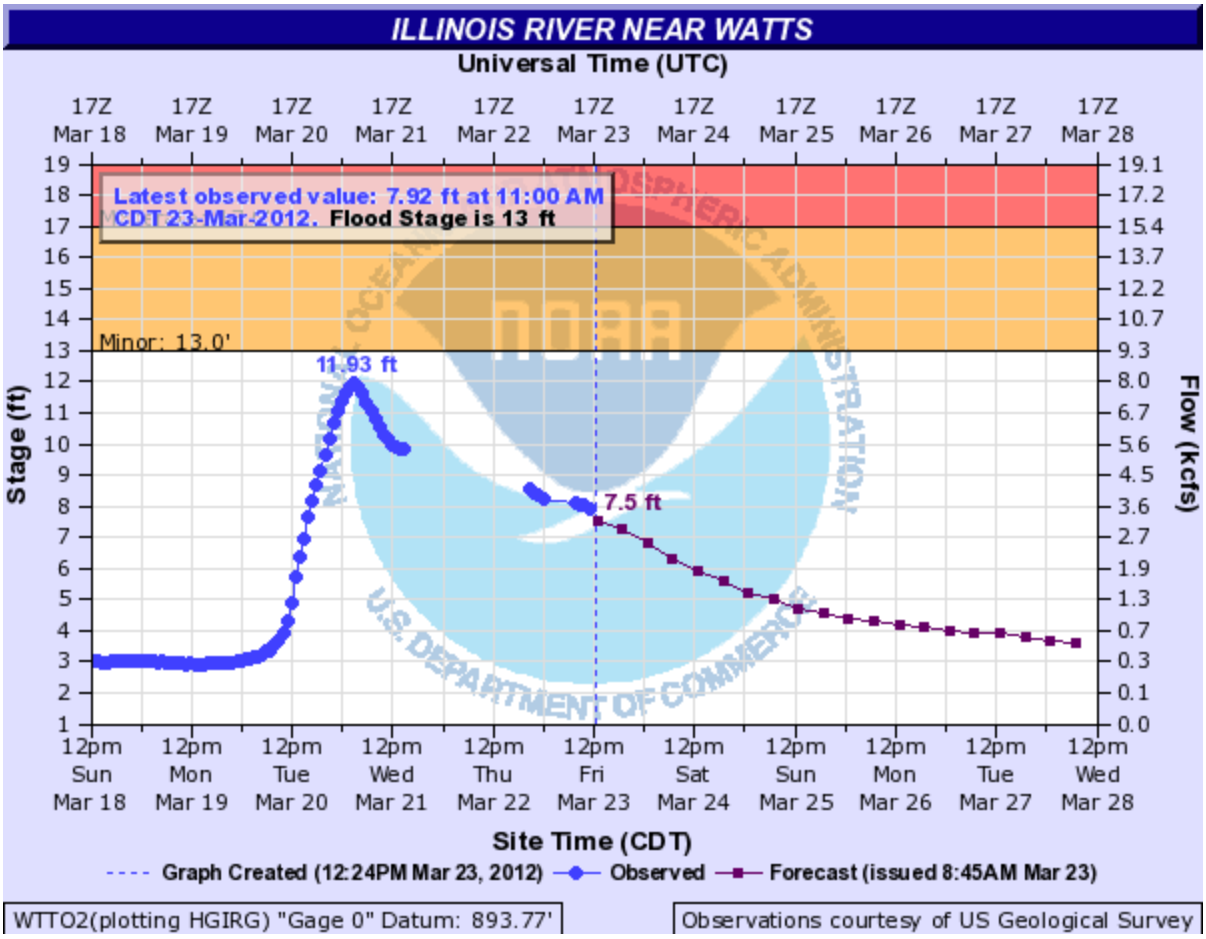


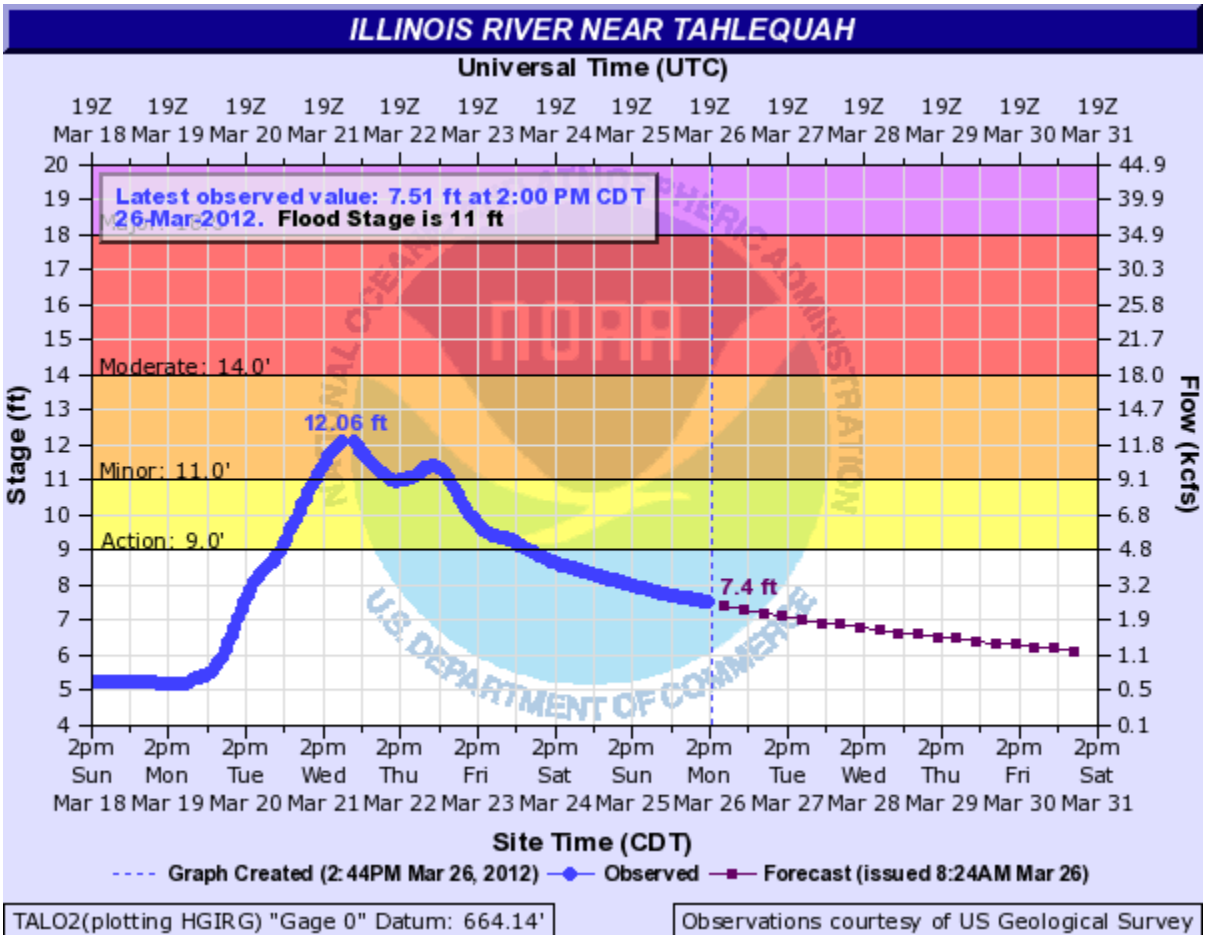
GIBO2(plotting HPIRG) "Gage 0" Datum: n/a

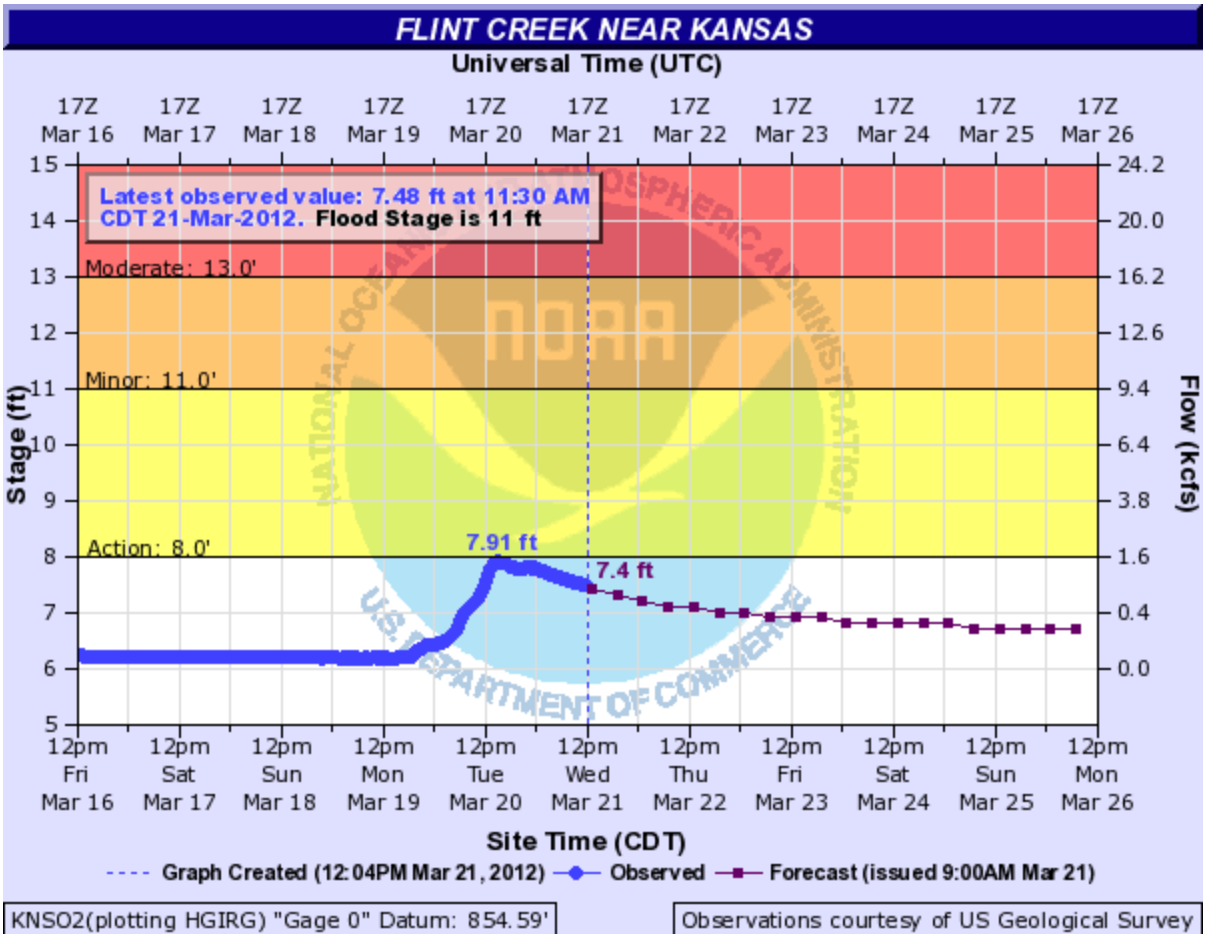
Observations courtesy of US Army Corps of Engineers

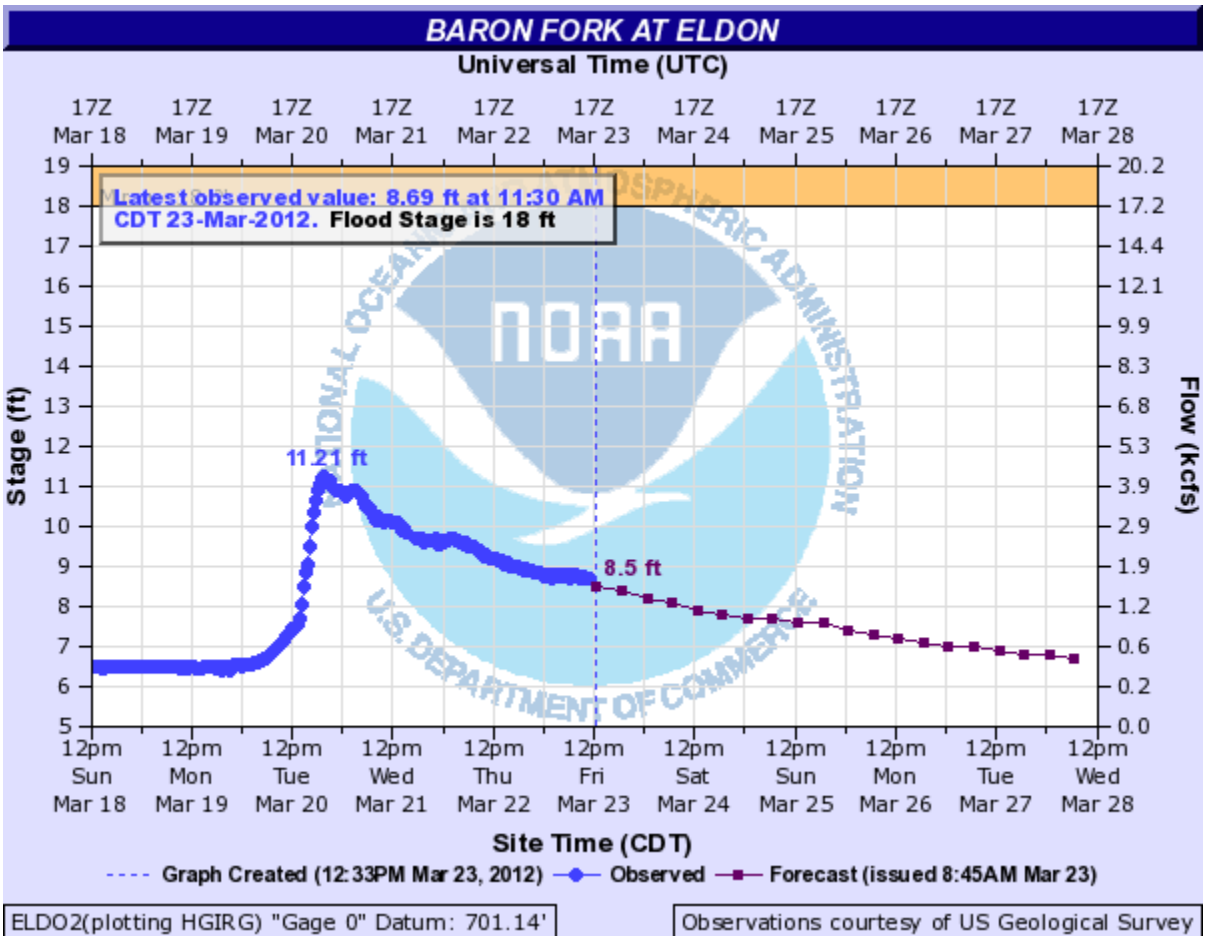

DEEP FORK RIVER NEAR BEGGS
Universal Time (UTC)
19Z Mar 18 19Z Mar 19 19Z Mar 20 19Z Mar 21 19Z Mar 22 19Z Mar 23 19Z Mar 24 19Z Mar 25 19Z Mar 26 19Z Mar 27 19Z Mar 28 19Z Mar 29 19Z Mar 30 19Z Mar 31
Latest observed value: 14.9 ft at 2:15 PM CDT 26-Mar-2012. Flood Stage is 18 ft
Minor: 18.0'
18 ft
Stage (ft)
Flow (kcfs)
25 23 21 19 17 15 13 11 9 7 5 3 1
17.9 14.3 11.1 8.6 6.8 5.3 4.2 3.3 2.7 1.9 1.1 0.4 0.0
2pm Sun Mar 18 2pm Mon Mar 19 2pm Tue Mar 20 2pm Wed Mar 21 2pm Thu Mar 22 2pm Fri Mar 23 2pm Sat Mar 24 2pm Sun Mar 25 2pm Mon Mar 26 2pm Tue Mar 27 2pm Wed Mar 28 2pm Thu Mar 29 2pm Fri Mar 30 2pm Sat Mar 31
Site Time (CDT)
Graph Created (2:43PM Mar 26, 2012)
Observed
BGSO2(plotting HGIRG) "Gage 0" Datum: 632.55'
Observations courtesy of US Geological Survey

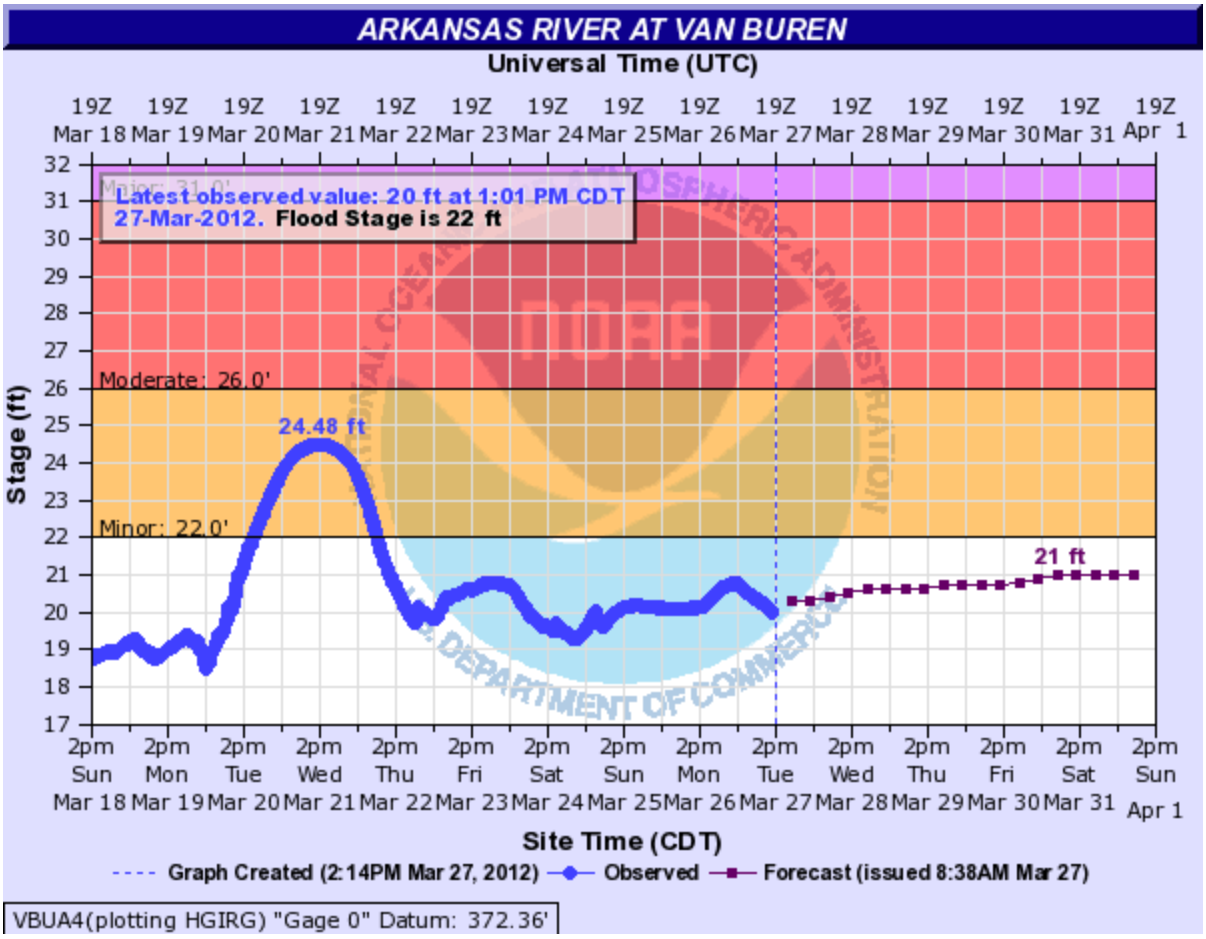

WHITE RIVER NEAR FAYETTEVILLE
Universal Time (UTC)
17Z Mar 18 17Z Mar 19 17Z Mar 20 17Z Mar 21 17Z Mar 22 17Z Mar 23 17Z Mar 24 17Z Mar 25 17Z Mar 26 17Z Mar 27 17Z Mar 28
Latest observed value: 7.59 ft at 12:00 PM CDT 23-Mar-2012.
15.74 ft
Stage (ft)
Flow (kcfs)
23 22 20 18 16 14 12 10 8 6 4 2
33.6 27.5 20.5 16.6 13.4 10.5 8.0 5.8 3.8 2.1 0.7 0.0
12pm Sun Mar 18 12pm Mon Mar 19 12pm Tue Mar 20 12pm Wed Mar 21 12pm Thu Mar 22 12pm Fri Mar 23 12pm Sat Mar 24 12pm Sun Mar 25 12pm Mon Mar 26 12pm Tue Mar 27 12pm Wed Mar 28
Site Time (CDT)
Graph Created (12:33PM Mar 23, 2012)
Observed
FYGA4(plotting HGIRG) "Gage 0" Datum: 1138.25'
Observations courtesy of US Geological Survey

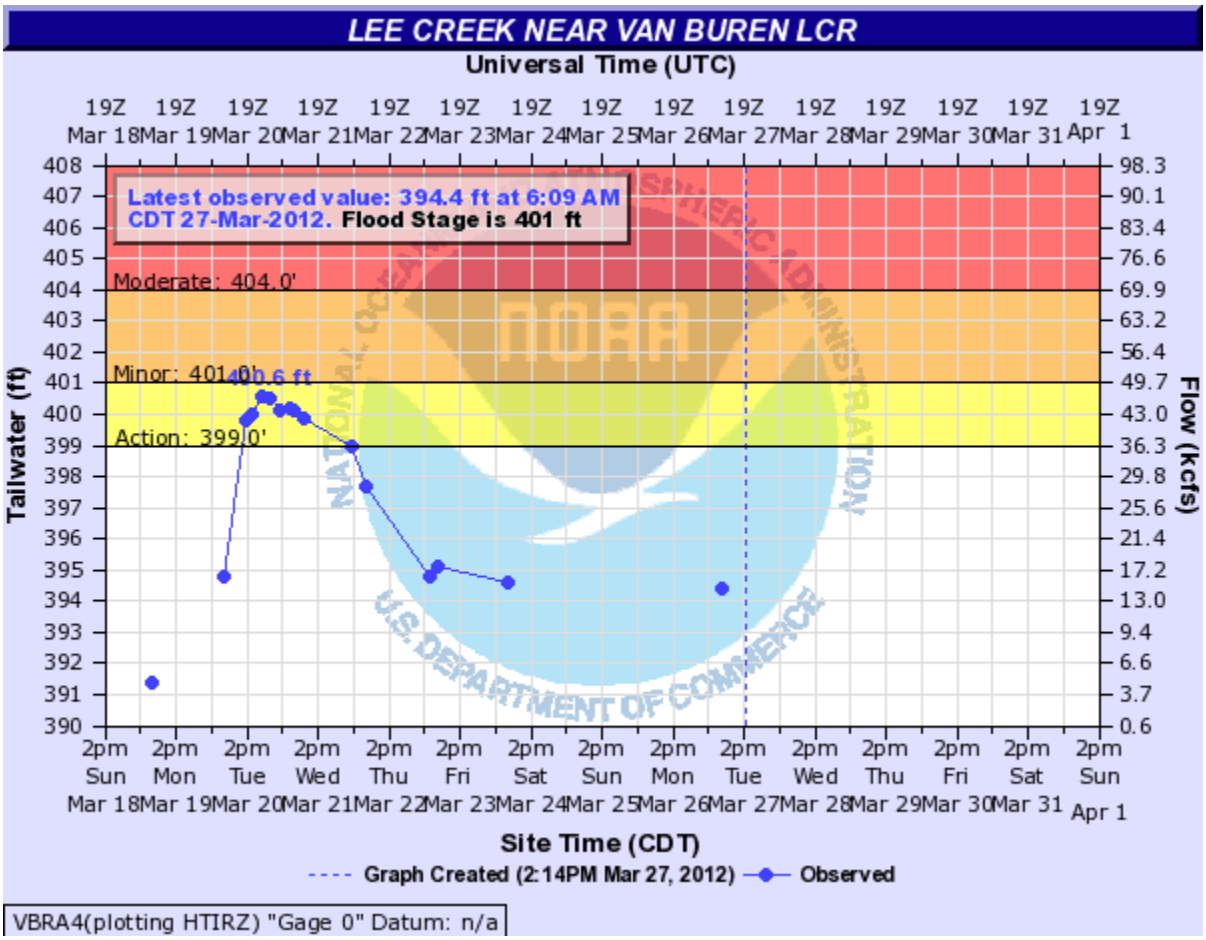

ILLINOIS RIVER NEAR WATTS
Universal Time (UTC)
17Z Mar 18
17Z Mar 19
17Z Mar 20
17Z Mar 21
17Z Mar 22
17Z Mar 23
17Z Mar 24
17Z Mar 25
17Z Mar 26
17Z Mar 27
17Z Mar 28
Latest observed value: 7.92 ft at 11:00 AM CDT 23-Mar-2012. Flood Stage is 13 ft
Minor: 13.0'
11.93 ft
7.5 ft
Stage (ft)
Flow (kcfs)
12pm Sun Mar 18
12pm Mon Mar 19
12pm Tue Mar 20
12pm Wed Mar 21
12pm Thu Mar 22
12pm Fri Mar 23
12pm Sat Mar 24
12pm Sun Mar 25
12pm Mon Mar 26
12pm Tue Mar 27
12pm Wed Mar 28
Site Time (CDT)
Graph Created (12:24PM Mar 23, 2012)
Observed
Forecast (issued 8:45AM Mar 23)
WTTO2(plotting HGIRG) "Gage 0" Datum: 893.77'
Observations courtesy of US Geological Survey

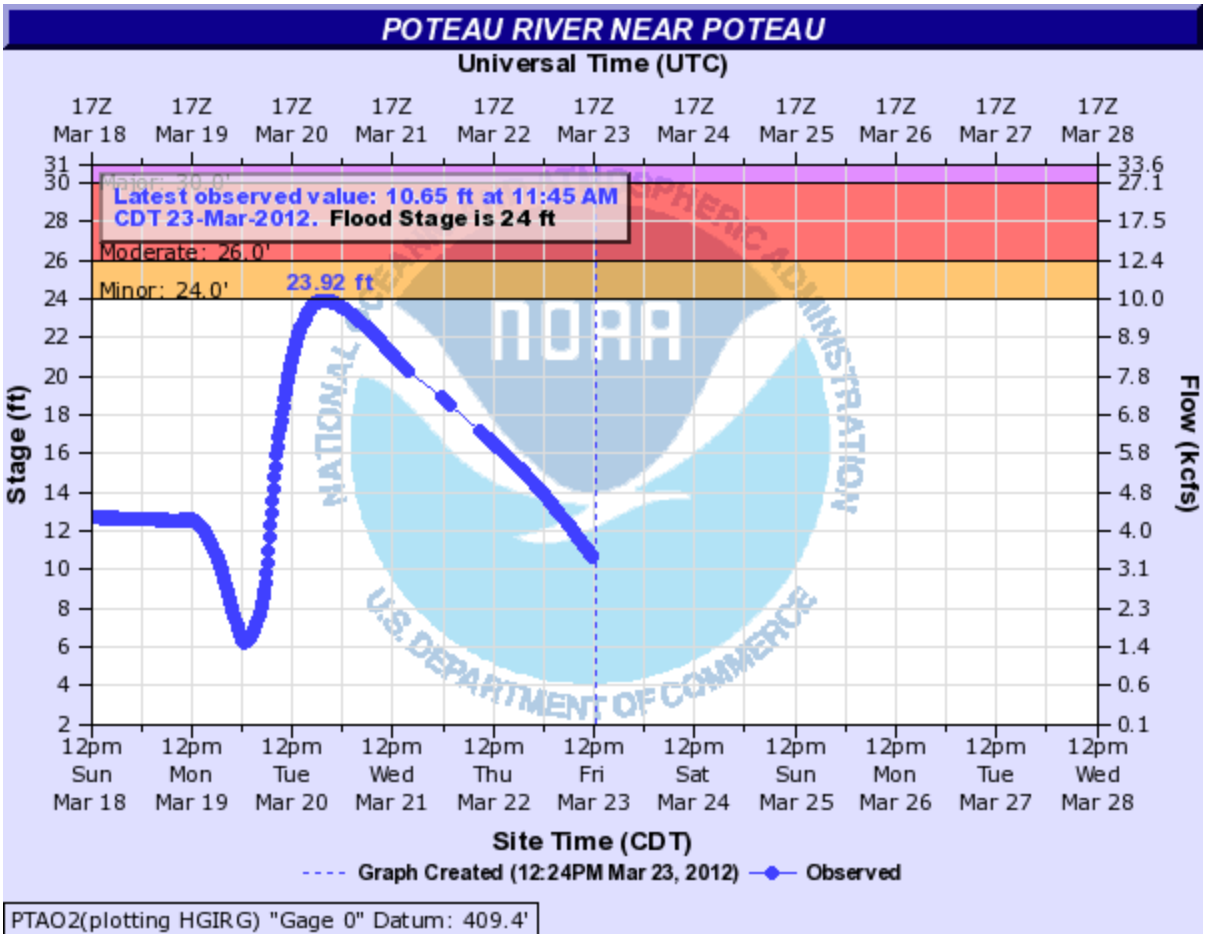

ILLINOIS RIVER NEAR TAHLEQUAH
Universal Time (UTC)
19Z Mar 18
19Z Mar 19
19Z Mar 20
19Z Mar 21
19Z Mar 22
19Z Mar 23
19Z Mar 24
19Z Mar 25
19Z Mar 26
19Z Mar 27
19Z Mar 28
19Z Mar 29
19Z Mar 30
19Z Mar 31
Latest observed value: 7.51 ft at 2:00 PM CDT 26-Mar-2012. Flood Stage is 11 ft
Moderate: 14.0'
Minor: 11.0'
Action: 9.0'
12.06 ft
7.4 ft
Stage (ft)
Flow (kcfs)
2pm Sun Mar 18
2pm Mon Mar 19
2pm Tue Mar 20
2pm Wed Mar 21
2pm Thu Mar 22
2pm Fri Mar 23
2pm Sat Mar 24
2pm Sun Mar 25
2pm Mon Mar 26
2pm Tue Mar 27
2pm Wed Mar 28
2pm Thu Mar 29
2pm Fri Mar 30
2pm Sat Mar 31
Site Time (CDT)
Graph Created (2:44PM Mar 26, 2012)
Observed
Forecast (issued 8:24AM Mar 26)
TALO2(plotting HGIRG) "Gage 0" Datum: 664.14'
Observations courtesy of US Geological Survey

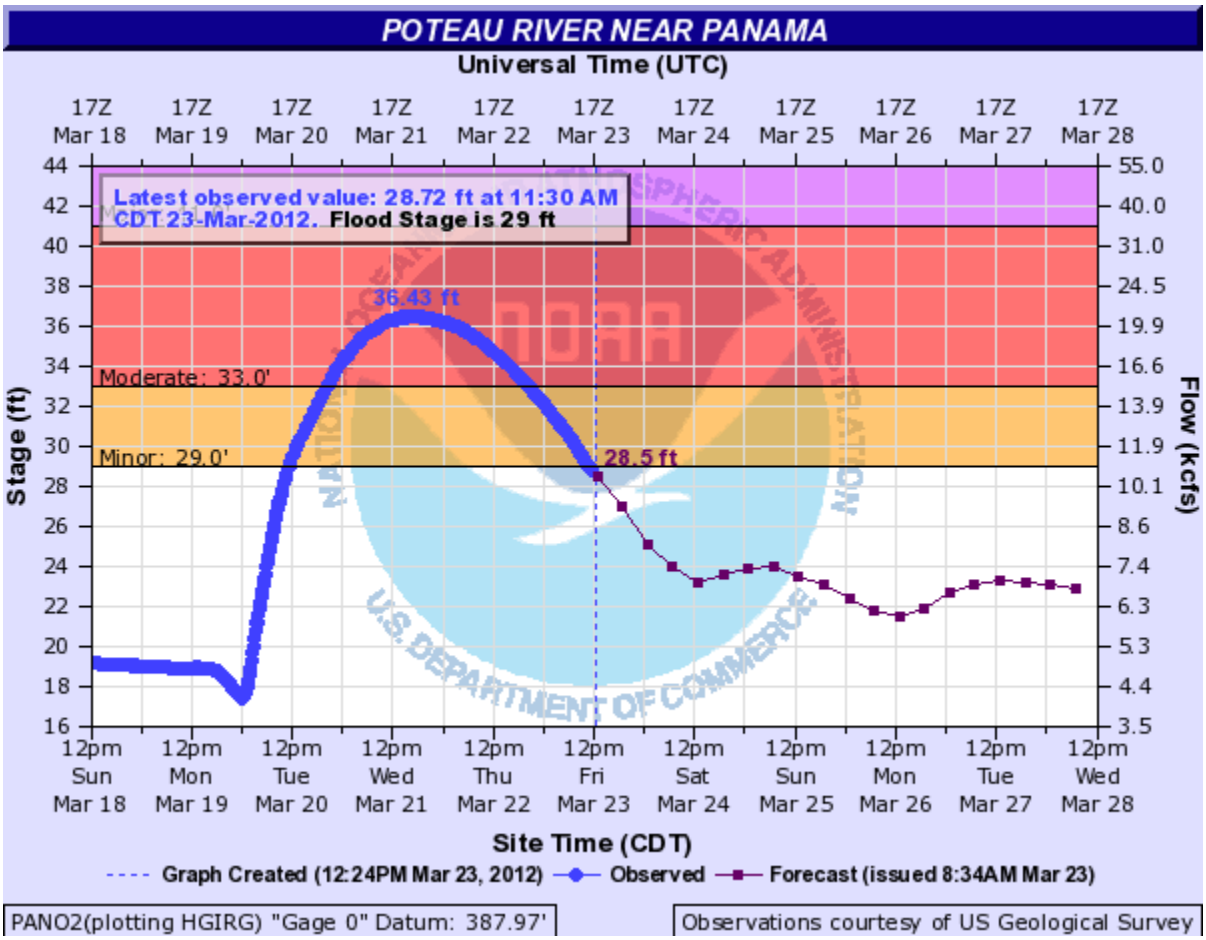

FLINT CREEK NEAR KANSAS
Universal Time (UTC)
17Z Mar 16
17Z Mar 17
17Z Mar 18
17Z Mar 19
17Z Mar 20
17Z Mar 21
17Z Mar 22
17Z Mar 23
17Z Mar 24
17Z Mar 25
17Z Mar 26
Latest observed value: 7.48 ft at 11:30 AM CDT 21-Mar-2012. Flood Stage is 11 ft
Moderate: 13.0'
Minor: 11.0'
Action: 8.0'
7.91 ft
7.4 ft
Stage (ft)
Flow (kcfs)
15
14
13
12
11
10
9
8
7
6
5
24.2
20.0
16.2
12.6
9.4
6.4
3.8
1.6
0.4
0.0
12pm Fri Mar 16
12pm Sat Mar 17
12pm Sun Mar 18
12pm Mon Mar 19
12pm Tue Mar 20
12pm Wed Mar 21
12pm Thu Mar 22
12pm Fri Mar 23
12pm Sat Mar 24
12pm Sun Mar 25
12pm Mon Mar 26
Site Time (CDT)
Graph Created (12:04PM Mar 21, 2012)
Observed
Forecast (issued 9:00AM Mar 21)
KNSO2(plotting HGIRG) "Gage 0" Datum: 854.59'
Observations courtesy of US Geological Survey


BARON FORK AT ELDON
Universal Time (UTC)
17Z Mar 18
17Z Mar 19
17Z Mar 20
17Z Mar 21
17Z Mar 22
17Z Mar 23
17Z Mar 24
17Z Mar 25
17Z Mar 26
17Z Mar 27
17Z Mar 28
Latest observed value: 8.69 ft at 11:30 AM CDT 23-Mar-2012. Flood Stage is 18 ft
11.21 ft
8.5 ft
Stage (ft)
Flow (kcfs)
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
20.2
17.2
14.4
12.1
9.9
8.3
6.8
5.3
3.9
2.9
1.9
1.2
0.6
0.2
0.0
12pm Sun Mar 18
12pm Mon Mar 19
12pm Tue Mar 20
12pm Wed Mar 21
12pm Thu Mar 22
12pm Fri Mar 23
12pm Sat Mar 24
12pm Sun Mar 25
12pm Mon Mar 26
12pm Tue Mar 27
12pm Wed Mar 28
Site Time (CDT)
Graph Created (12:33PM Mar 23, 2012)
Observed
Forecast (issued 8:45AM Mar 23)
ELDO2(plotting HGIRG) "Gage 0" Datum: 701.14'
Observations courtesy of US Geological Survey

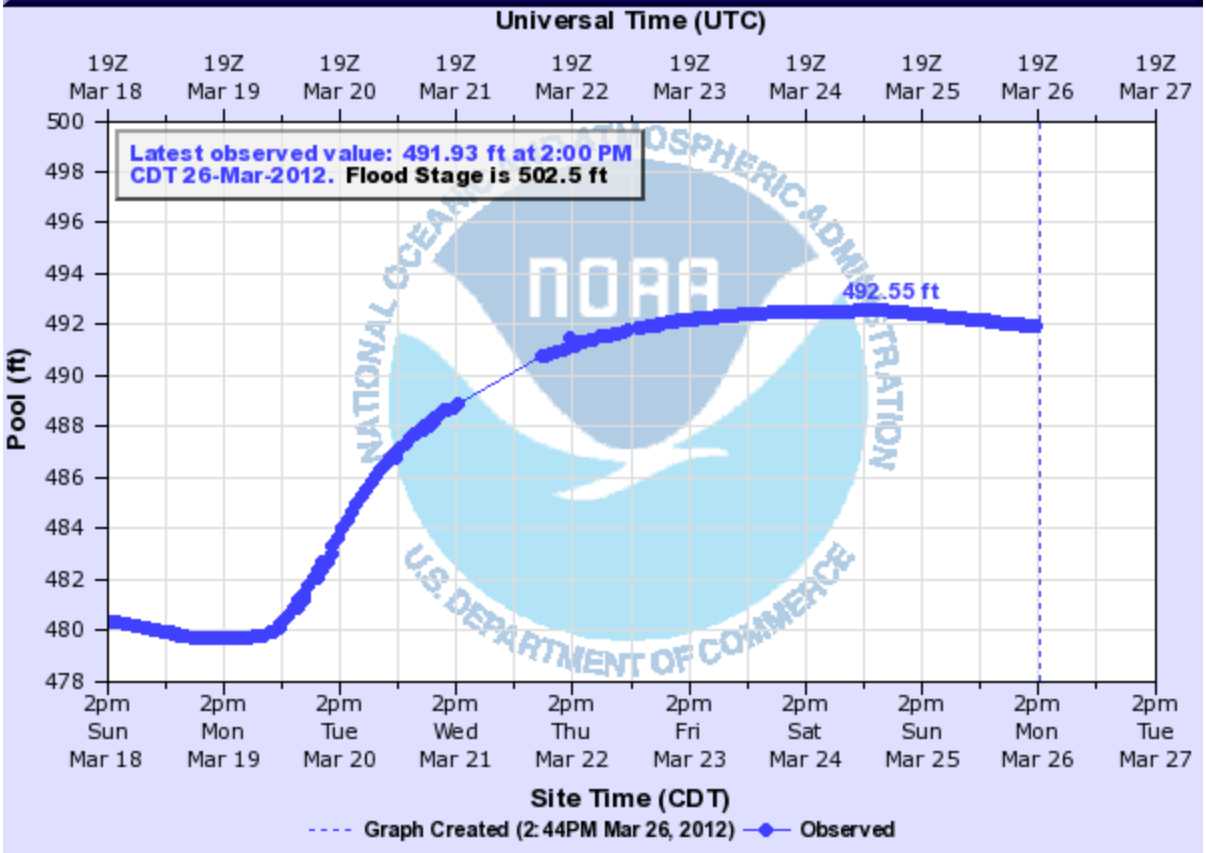

ARKANSAS RIVER AT VAN BUREN
Universal Time (UTC)
Latest observed value: 20 ft at 1:01 PM CDT 27-Mar-2012. Flood Stage is 22 ft
Moderate: 26.0'
Minor: 22.0'
24.48 ft
21 ft
Stage (ft)
Site Time (CDT)
Graph Created (2:14PM Mar 27, 2012)
Observed
Forecast (issued 8:38AM Mar 27)
VBUA4(plotting HGIRG) "Gage 0" Datum: 372.36'


LEE CREEK NEAR VAN BUREN LCR
Universal Time (UTC)
Latest observed value: 394.4 ft at 6:09 AM CDT 27-Mar-2012. Flood Stage is 401 ft
Moderate: 404.0'
Minor: 401.0'
Action: 399.0'
Tailwater (ft)
Flow (kcfs)
Site Time (CDT)
Graph Created (2:14PM Mar 27, 2012)
Observed
VBRA4(plotting HTIRZ) "Gage 0" Datum: n/a


POTEAU RIVER NEAR POTEAU
Universal Time (UTC)
17Z Mar 18
17Z Mar 19
17Z Mar 20
17Z Mar 21
17Z Mar 22
17Z Mar 23
17Z Mar 24
17Z Mar 25
17Z Mar 26
17Z Mar 27
17Z Mar 28
Latest observed value: 10.65 ft at 11:45 AM CDT 23-Mar-2012. Flood Stage is 24 ft
Moderate: 26.0'
Minor: 24.0'
23.92 ft
Stage (ft)
Flow (kcfs)
12pm Sun Mar 18
12pm Mon Mar 19
12pm Tue Mar 20
12pm Wed Mar 21
12pm Thu Mar 22
12pm Fri Mar 23
12pm Sat Mar 24
12pm Sun Mar 25
12pm Mon Mar 26
12pm Tue Mar 27
12pm Wed Mar 28
Site Time (CDT)
Graph Created (12:24PM Mar 23, 2012)
Observed
PTAO2(plotting HGIRG) "Gage 0" Datum: 409.4'


POTEAU RIVER NEAR PANAMA
Universal Time (UTC)
17Z Mar 18
17Z Mar 19
17Z Mar 20
17Z Mar 21
17Z Mar 22
17Z Mar 23
17Z Mar 24
17Z Mar 25
17Z Mar 26
17Z Mar 27
17Z Mar 28
Latest observed value: 28.72 ft at 11:30 AM CDT 23-Mar-2012. Flood Stage is 29 ft
36.43 ft
Moderate: 33.0'
Minor: 29.0'
28.5 ft
Stage (ft)
Flow (kcfs)
12pm Sun Mar 18
12pm Mon Mar 19
12pm Tue Mar 20
12pm Wed Mar 21
12pm Thu Mar 22
12pm Fri Mar 23
12pm Sat Mar 24
12pm Sun Mar 25
12pm Mon Mar 26
12pm Tue Mar 27
12pm Wed Mar 28
Site Time (CDT)
Graph Created (12:24PM Mar 23, 2012)
Observed
Forecast (issued 8:34AM Mar 23)
PANO2(plotting HGIRG) "Gage 0" Datum: 387.97'
Observations courtesy of US Geological Survey

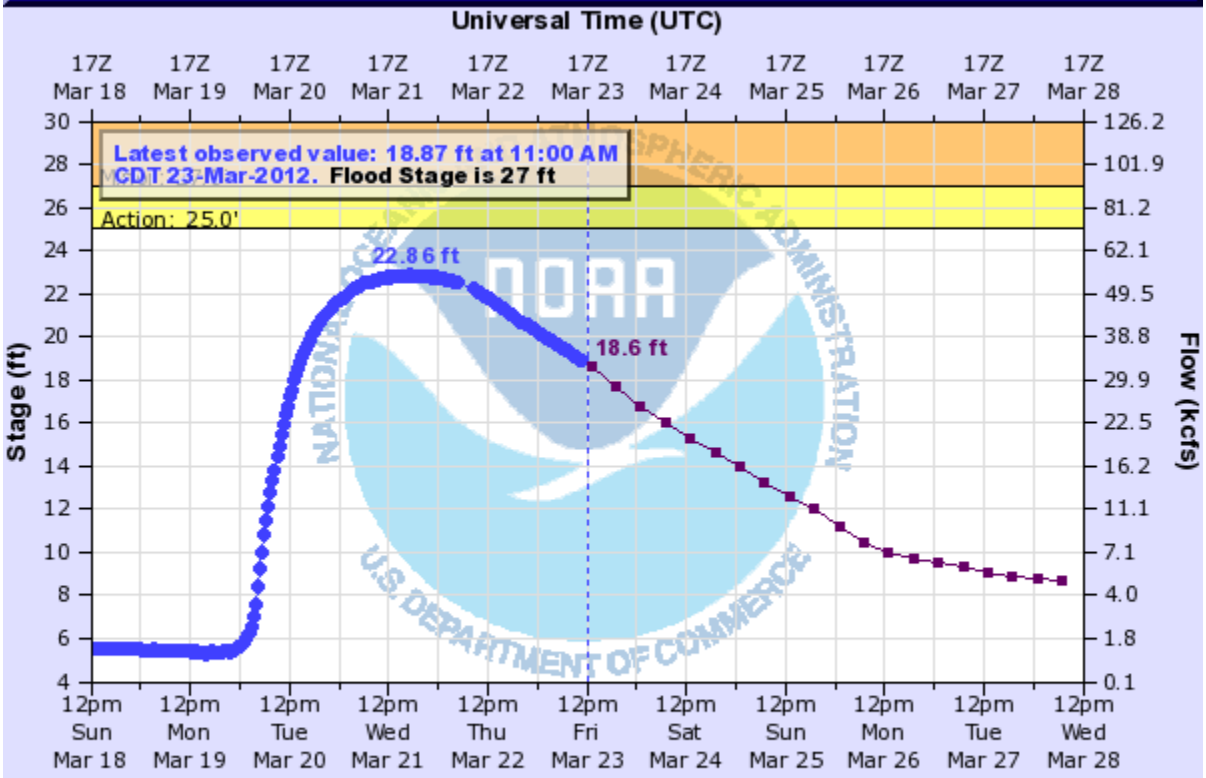
EASTERN OKLAHOMA LAKES AT WISTER LAKE



WSLO2(plotting HPIRG) "Gage 0" Datum: n/a

Observations courtesy of US Army Corps of Engineers

RED RIVER AT ARTHUR CITY



ARCT2(plotting HGIRG) "Gage 0" Datum: 375.07'

Observations courtesy of US Geological Survey