

# Top 5 Nebraska Floods

Submitted by David Pearson, Senior Service Hydrologist, WFO Omaha

## Republican River Flood of 1935

On May 30, 1935 a historic flood swept through the Republican River, creating devastation along its path. On this day, as much as 18-24 inches of rain fell in eastern Colorado and southwestern Nebraska. By early morning of the 31st, the usually peaceful Republican River was running bluff-to-bluff along its upper reaches. With all the water that roared through the Republican Valley Basin, everything in the water's path, including buildings, livestock, trees, snakes, and people were washed down the river. There are many stories of people clinging to trees until they could be rescued. Towns close to the river, including Parks, Benkelman, Culbertson and Cambridge, were flooded. Cambridge, the most affected, had nearly three-fourths of its homes flooded. Ninety-four people were killed, 341 miles of highway were damaged and 307 bridges were damaged or destroyed. In all, the total damage from this event was estimated at \$26 million dollars (\$440 million in 2013 dollars).

In addition to the flood, severe weather impacted the already flood ravaged area on the afternoon of May 31st. A tornado touched down near McCook killing 5 people and injuring 35. These storms created more havoc as they moved northeast killing two more people east of Lexington. As if this wasn't enough, a dust storm originating from Oklahoma came through McCook at the peak of the flood.

Websites: <http://www.crh.noaa.gov/gld/?n=1935flood>  
<http://dnr.ne.gov/floodplain/mitigation/1935flood.html>

Photos: <http://www.crh.noaa.gov/gld/?n=1935flood-photos>

Other source: <http://ne.water.usgs.gov/drought/files/Nebraska-Drought.pdf>



Photo Source: <http://www.crh.noaa.gov/gld/?n=1935flood-photos>

## The Great Flood of 1993

Going into the summer of 1993 much of the eastern and southern Missouri River basin in Iowa, Nebraska, South Dakota, Kansas and Missouri had saturated soil moisture conditions. This was primarily due to the above average precipitation received in the last half of 1992 and the spring of 1993.

By early June a stationary high pressure system was located over the southeast United States and a stationary low pressure system was located over the northwest. The location of these two systems created a boundary or convergence zone where the jet stream, which dipped to the south over the western United States, was forced in a northeasterly direction through the Midwest. This convergence zone moved back and forth from the Dakotas, Minnesota, and Wisconsin to Kansas, Missouri and Illinois producing more than twice the normal rainfall in much of the Missouri River basin east of the 100th meridian.

The precipitation was not only very heavy but also very persistent. Rain fell somewhere in the Missouri River basin every day from March 14 through July 29. During the period of June 1 to July 27, rainfall occurred on 34 out of 57 days at Omaha, Nebraska. The most severe flooding since 1952 occurred on the Missouri River from the confluence of the Platte River to the mouth. Within this reach, record or near record peak discharges were experienced during the period of July 23-31. On July 23-24, a record crest of the Missouri River overtopped federal levee L-550 near Brownville, Nebraska. On July 24, the St. Joseph Airport Levee Unit R-471-460 overtopped. On July 26, levee units L-400 and L-246 overtopped.

In the end, there were two deaths from the flooding. Additionally, public infrastructure damage totaled \$44 million (\$71 million in 2013 dollars) and 5.8 million acres of cropland were flooded resulting in \$317 million dollars in damage (\$512 million in 2013 dollars).

Website: [http://dnr.ne.gov/floodplain/PDF\\_Files/FloodUpdateStory\\_Rev3.pdf](http://dnr.ne.gov/floodplain/PDF_Files/FloodUpdateStory_Rev3.pdf)  
[http://en.wikipedia.org/wiki/Flood\\_of\\_1993](http://en.wikipedia.org/wiki/Flood_of_1993)

NWS Service Assessment:

[http://www.nws.noaa.gov/om/assessments/pdfs/93\\_Flood.pdf](http://www.nws.noaa.gov/om/assessments/pdfs/93_Flood.pdf)



Photo Source: Public Domain (Google)

## The Floods of 1950

From May to July 1950, south central and southeast Nebraska had four major floods that together claimed 25 lives and caused \$65 million in damage (\$1 billion in 2013 dollars).

The flood of May 8-9 caused 23 deaths and inundated more than 60,000 acres of land. The flooding was most severe along the Little Nemaha River, Salt Creek, Weeping Water Creek and several tributaries of the Big Blue River. Agricultural land in the river basin upstream from Lincoln was damaged considerably, and six people were killed as a result of the flooding in the Salt Creek basin. The villages of Nehawka, Union and Weeping Water were flooded by Weeping Water Creek, and the village of DeWitt was flooded by Turkey Creek. There was one death at Union. Flooding was not as severe along the mainstem Big Blue River, but two people died when an automobile was swept from a highway.

The flood of June 2-3 on Beaver, Shell, and Union Creeks in east-central Nebraska was caused by thunderstorms the previous day. Much of the town of Madison was inundated by Union Creek.

The flood of July 8-10 was caused by thunderstorms over the headwaters of the West Fork of the Big Blue River. Floods developed on tributaries of the West Fork Big blue River, particularly Beaver Creek. A large area of York was flooded and most of Beaver Crossing was inundated. Flooding was not as extensive downstream from the confluence of the West Fork and the mainstem of the Big Blue River, but low-lying areas of Crete were flooded, and serious damage extended downstream to Beatrice. The storm also caused flooding along Beaver Creek in the Loup River basin and resulted in one death. Additional flooding occurred on July 18-19 along the Loup River, Shell Creek and Beaver Creek.

Website and Photos: [http://dnr.ne.gov/floodplain/docs/Flooding\\_1950.html](http://dnr.ne.gov/floodplain/docs/Flooding_1950.html)

Other Source: <http://ne.water.usgs.gov/drought/files/Nebraska-Drought.pdf>



Photo Source: Nebraska Department of Natural Resources

## Missouri River Flood of 1881

Following a wet year in 1880, the winter of 1880-1881 was marked by below normal temperatures and heavy snows, resulting in an exceedingly heavy snow blanket over the plains area of the upper Missouri River basin by spring and resulting in river ice thickness of 24 to 32 inches in the vicinity of Yankton and Omaha. Spring thaws and ice breakup began in the upper basin while the lower river was still frozen, resulting in huge ice gorges in the Dakotas. An ice jam near Yankton was especially devastating and estimated to be over 30 miles in length. The resulting snowmelt led to the records river flows from Sioux City to St. Joseph and was the highest on record until 1952 when it was exceeded by another plains snowmelt flood. The flood has been blamed for at least 3 deaths in Nebraska. In addition thousands of livestock were killed and several small riverside towns were washed away. The flooding was so bad for the town of Niobrara that the town was moved to a new site on higher ground. In Omaha downtown was flooded up to 9th Street, and Council Bluffs also experienced extensive flooding. There were only two deaths in Omaha during the floods. A small one-man skiff was being used by three Union Pacific workers who were attempting to cross a break in a temporary dam when the river's current pushed it into the main channel. Two of the men jumped from the boat and drowned immediately.

Because this was such a historic flood, it was used as the design flood to build the six Missouri River mainstem dams.<sup>1</sup>

Websites: <http://nlcblogs.nebraska.gov/nlcblog/2011/06/30/the-flood-of-1881/>  
[http://en.wikipedia.org/wiki/Great\\_Flood\\_of\\_1881](http://en.wikipedia.org/wiki/Great_Flood_of_1881)  
<http://dnr.ne.gov/floodplain/mitigation/mofloods.html>

Photos: <http://goo.gl/J8e8hF>

(1) Other source: House Document 328, 73rd Congress, 1st and 2nd sessions.



Photo Source: Public Domain (Google)

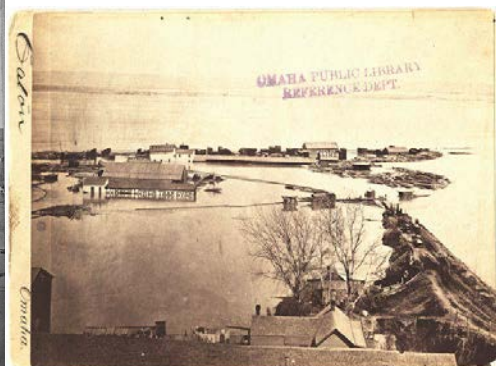


Photo Source: Omaha Public Library

## Medicine Creek/Republican River Flood of 1947

During June 1947, flooding was severe along Medicine Creek and the downstream reaches of the Republican River in southwestern Nebraska, along the Elkhorn River in northeastern Nebraska, and along the lower Loup River in central Nebraska. In the Medicine Creek Basin north of Cambridge, rainfall of up to 8 inches occurred in a 24-hour period on June 21-22. As the water spilled into the Republican Basin, flash flooding ensued downstream to Orleans. Despite residents chopping holes in the roofs of their homes to escape the rapidly rising water, 13 people still perished in the area from Cambridge to Orleans. Property damage was extensive (no dollar amount available). This killer flood followed on the heels of the "Great Republican River Flood" just 12 years earlier in 1935. To help prevent such disasters from happening again, the Medicine Creek Dam was constructed upstream of Cambridge. The dam was built in 1948-49 and has provided decades of protection from potential flood waters, as well as meeting vital irrigation needs in the region. Elsewhere more than 6 inches of rain in central Nebraska on June 22 caused floods along the North, Middle, and South Loup Rivers. The Loup River subsequently flooded the low-lying areas of Columbus. Parts of the Elkhorn River basin in northeastern Nebraska also were flooded.

Website: None.

Photo: <http://www.casde.unl.edu/history/counties/furnas/cambridge/image.php?image=6>  
<http://en.wikipedia.org/wiki/File:RepublicanRiver1947.jpg>

Primary source: <http://ne.water.usgs.gov/drought/files/Nebraska-Drought.pdf>



Photo Source : University of Nebraska-Lincoln



Photo Source: Wikipedia/RepublicanRiver1947.jpg