

# KANSAS

## FLOODPLAIN MANAGEMENT

### TIPS



June 2013

#### Arkansas River – June 1965

A lot happened in 1965. The Gateway Arch in St. Louis was completed; NASA astronauts rode Gemini 3, 4, and 5 into space, Martin Luther King marched from Selma to Montgomery, and The Sound of Music and Star Trek premiered. A lot happened with the weather in 1965 as well. In April the Palm Sunday tornado outbreak spawned 47 twisters and killed 271 in six states. Hurricane Betsy roared into New Orleans to become the first storm with a billion dollar price tag, earning the name “Billion Dollar Betsy”. In between those two events it rained, and rained, and rained.

1965 was a flood year. In April the upper Mississippi River flooded towns in Minnesota, Wisconsin, and Iowa; topping the record flood of 1952. Major flooding in June on the Whitewater and Walnut Rivers produced a 125-year event in Augusta, KS. In July northwest Missouri saw Twenty-one inches of rain in 36 hours leading to floods of record on the Platte, Little Platte, Crooked, and Fishing Rivers, taking the lives of 9. In Colorado the South Platte River exploded from its banks causing the worst flooding in Denver’s history and spreading destruction to the Nebraska border that was described as the “greatest calamity in Colorado history”. Those same storms dropped unprecedeted rainfall in southeast Colorado and awoke the Arkansas River.

The first half of June was relatively wet along the Front Range and snowmelt was above average that year. Heavy rain fell along the mountains and the eastern plains of CO on the 14<sup>th</sup> and 15<sup>th</sup> of June, filling streams and setting the stage. Over the next three days precipitation records would be shattered on the high plains and have disastrous results in the Arkansas River valley. Rain in Holly, CO totaled more than 16 inches from June 16<sup>th</sup> to June 18<sup>th</sup>, with 11.08” falling on the 17<sup>th</sup>. News of the flood began spreading in Syracuse, KS in the morning of the 17<sup>th</sup> and the river reached its crest that afternoon.

The flood was described as a “wall of water” that rolled down the river. It is said that in Dodge City the river rose fourteen feet in one hour. News of the flood was spread using citizen band (CB) radios from pickup trucks and airplanes. Untrue rumors that John Martin Dam and Two Buttes Dam in Colorado had broken were reported by radio stations and spread panic. 300 people were evacuated from low-lying areas of Syracuse, KS and furniture moved quickly from homes. Houses that were determined to be high enough not to flood were swamped by the water. The bridge in Syracuse was quickly destroyed and more than 1,000 cattle were swept away in the area. The entire valley was covered by water and the rescue of people perched on roofs and hay bales were guided by airplane and conducted by locals in boats.

Flooding occurred from Pueblo, CO to Great Bend, KS, with the greatest discharges below John Martin Reservoir where the heaviest rain fell. The Colorado towns of Granada and Holly were devastated.

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Syracuse, Garden City, and Dodge City experienced the worst floods in their history. Twenty-four Kansas counties were declared disaster areas, \$25 Million was estimated in damage, and three people lost their lives. The 1965 flood is still the flood of record on the upper Arkansas River.

The peak flow of 174,000 cubic feet per second (cfs) recorded at the Syracuse, KS gage on June 17, 1965 is the highest ever recorded on the Arkansas River in Kansas. 130,000 cfs was recorded in Garden City on the 19<sup>th</sup>, nearly four times the next highest flow ever recorded. The flood had abated by the time it reached Great Bend on June 23<sup>rd</sup> sparing the larger towns down river.

The flood of '65 arrived much faster than it departed. What would happen in your community if you were told you had six hours or so before the largest flood in its history arrived? What would you wish you had done the day before? Now is the time.

Below are links to an old news reel and a history podcast about the flood.

<http://www.hppr.org/term/arkansas-river-flood>

<http://www.youtube.com/watch?v=88g7Yco-gak>

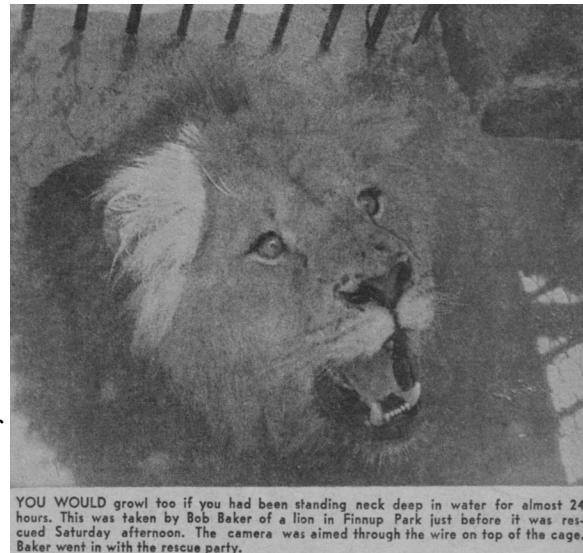
Photo at top right shows Garden City, during the flooding.

Photo at right is from a newspaper clipping about the flooding of Finnup Park Zoo in Garden City. Caption reads, "You would growl too if you had been standing neck deep in water for almost 24 hours..." The lion was rescued.

Dane Bailey provided this article with assistance from the Finney County Historical Society, Hamilton County Museum in Syracuse and the Boot Hill Museum in Dodge City.

## Obtaining Flood Elevation Data

Communities that participate in the National Flood Insurance Program (NFIP) are required to ensure that new residential structures in the floodplain are built at least one foot (1') above the base flood elevation (BFE). If a detailed study has not been completed, the BFE may not be readily available. One of the simplest and least expensive methods to obtain this information is to request a BFE determination from the US Army Corps of Engineers. The USACE Tulsa District, Floodplain Management Division provides this service for a fee. Details are provided in a new fact sheet prepared by DWR. A copy is being sent along with the email version of this bulletin.



YOU WOULD growl too if you had been standing neck deep in water for almost 24 hours. This was taken by Bob Baker of a lion in Finnup Park just before it was rescued Saturday afternoon. The camera was aimed through the wire on top of the cage. Baker went in with the rescue party.

## FEMA Teams With Google

Many communities in Kansas have Digital Flood Insurance Rate Maps (DFIRMs) but lack the resources to provide the maps through their community webpages. The good news is multiple options exist to make your flood maps more readily available to residents, and Federal Emergency Management Agency (FEMA) has teamed with Google to offer another.

FEMA offers a free download called the National Flood Hazard Layer (NFHL) that allows anyone with Google Earth to view floodplain mapping data for any location that currently has a DFIRM. Floodplain data displayed on Google Earth includes DFIRM status, Special Flood Hazard Areas (SFHA) Zones, Floodways, Cross Sections, Base Flood Elevations, Letter of Map Changes, HUC-8 River Subbasins, National Flood Insurance Program (NFIP) Communities, and other data that may be of interest to a local Floodplain Manager or resident in need of information. A link is provided on the FEMA webpage (link below) to download Google Earth as well as user guides for both Google Earth and the FEMA NFHL.

<https://hazards.fema.gov/femaportal/wps/portal/NFHLWMSkmzdownload>

Don't forget that flood map information is also available from the FEMA Map Service Center as well as our own Kansas Department of Agriculture webpage. All three webpages allow flood maps to be searched by address. We encourage all communities with websites to provide these and other flood related links on their own sites for easy access by residents.

FEMA Map Service Center:

<https://msc.fema.gov/>

KDA-Division of Water Resources:

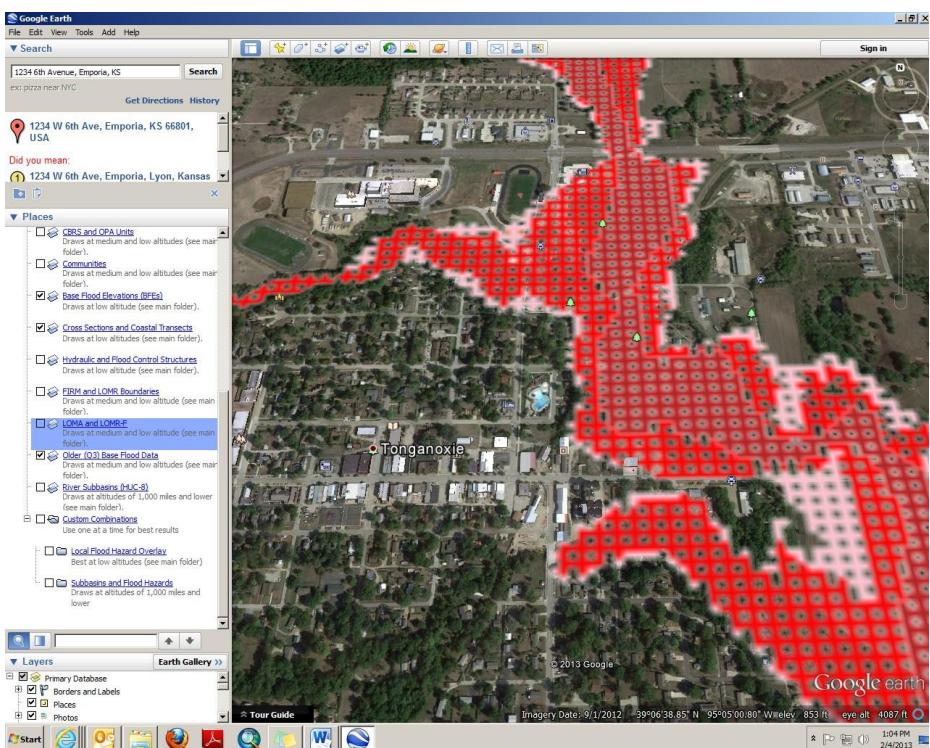
<http://gis.kda.ks.gov/ksfloodplain/>

Other Flood Information Links:

[www.floodsmart.gov](http://www.floodsmart.gov)

<http://www.ready.gov/floods>

<http://www.noaawatch.gov/floods.php>



Picture shows a screen shot of the Google Maps flood layer.

Questions or assistance with these websites contact Dane Bailey at 785-296-7769.

## Do Not Drive In To Flood Water

According to statistics from the National Weather Service, 63% of all flood related deaths happen when people drive in to flood waters. The Kansas Department of Agriculture/Division of Water Resources reminds you to stay safe and not to drive into flood water. Share this message with the citizens of your communities. To learn more about flood safety contact Dane Bailey at 785-296-7769.



## **Training Opportunities**

The Floodplain Management Program will host the following training sessions throughout Kansas. If you are interested in any of the no-cost training opportunities, please contact Tom Morey at 785-296-5440 or Steve Samuelson at 785-296-4622. A training registration form is in this newsletter.

### **Post Flood Responsibilities**

This free class is intended for community officials responsible for administering floodplain management regulations. The course focuses on what to do during and after a disaster event. Topics include substantial damage, permitting, Increased Cost of Compliance and violations. Approved 3.5 hours toward CFM. Limited to 20 participants.

- Wichita - July 25, 2013 8:30 a.m.-12:30 p.m.

### **Elevation Certificates and Letters Of Map Amendment**

This free class is designed for community officials responsible for administering floodplain management as well as surveyors and engineers who complete Letters Of Map Amendment (LOMA) and Elevation Certificate forms. The course will focus on accurate completion of Federal Emergency Management Agency (FEMA) technical forms, building diagrams and base flood elevation. Approved 3.5 hours toward CFM. Limited to 20 participants.

- Bel Aire - June 27, 2013 8:30 a.m.-12:30 p.m.
- Wamego - June 26, 2013 8:30 a.m.-12:30 p.m.

### **Basics of the National Flood Insurance Program**

This class is for officials responsible for administering their local floodplain management ordinance. The focus is on the National Flood Insurance Program (NFIP) and concepts of floodplain management, maps and studies, ordinance administration, and the relationship between floodplain management and flood insurance. Approved 3.5 hours toward CFM. Limited to 20 participants.

- Paola - July 18 2013 8:30 a.m.-12:30 p.m.

The Division of Water Resources newsletter "Currents" can be read on line at:  
<http://www.ksda.gov/dwr/content/314>

Email saves money on postage. The electronic newsletter also has links and the photos are in color. If you are getting this newsletter by postal mail and would prefer email please contact Steve Samuelson at steve.samuelson@kda.ks.gov.

Mark your calendar. The Kansas Association for Floodplain Management 2013 conference will be September 4 and 5 in Topeka. More information will be posted at the website [www.kafm.org](http://www.kafm.org). Registration will be done through a link on the website. If you have questions about registration please contact Don Slone, Chairman, at 913-667-1708.

**Kansas Department of Agriculture**  
**Division of Water Resources**  
**Floodplain Program**  
**Training Registration Form**

Name \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Title \_\_\_\_\_

Organization \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone \_\_\_\_\_ Fax \_\_\_\_\_

E-mail \_\_\_\_\_

Name, date and location of training you will attend \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*Please share this invitation with anyone else who could benefit from the training.

\*\*Classroom locations will be sent to registered participants one week before the training.

Please mail or fax your registration to:

KANSAS DEPARTMENT OF AGRICULTURE  
FLOODPLAIN MANAGEMENT PROGRAM  
109 SW 9<sup>th</sup> STREET, 2<sup>nd</sup> FLOOR  
TOPEKA, KS 66612-1283  
Fax to: 785-296-1176

If you have questions about training, please contact Steve Samuelson by email at  
[steve.samuelson@kda.ks.gov](mailto:steve.samuelson@kda.ks.gov) or by phone 785-296-4622, or contact Tom Morey at  
[tom.morey@kda.ks.gov](mailto:tom.morey@kda.ks.gov) and 785-296-5440.

Please help us keep our records current. If the name that appears on this newsletter is for an individual no longer with your organization, please call 785-296-4622, or send an e-mail to [steve.samuelson@kda.ks.gov](mailto:steve.samuelson@kda.ks.gov) to report the change.

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Kansas Department of Agriculture  
Division of Water Resources  
Floodplain Management  
109 SW 9th St 2nd Floor  
Topeka, KS 66612-1283

### **ASFPM 2013 National Conference in Connecticut**

The 2014 Association of State Floodplain Managers National Conference will be June 1-6 2014 in Seattle, Washington. This conference is an excellent opportunity for floodplain managers to receive training on mapping technologies, regulations, permitting, outreach and best practices. It is estimated the conference will be attended by more than 1,000 floodplain management professionals. This conference is great chance to meet people for networking and to learn the latest news in floodplain management.

### **KDA/DWR Water Structures Floodplain Program Staff**

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