# KANSAS FLOODPLAIN MANAGEMENT TIPS



# December 2018

#### <u>Preventing Inundation by Shifting the Conversation from</u> <u>Indignation...to Resignation...to Mitigation</u>

Many floodplain managers are familiar with using hydrologic and hydraulic models to predict how a river or stream will respond to a 1%annual chance storm. However, one of the most difficult natural phenomena to predict can be the reaction of community members to updated floodplain maps. To discover how community members will 'weather' difficult conversions regarding floodplain mapping – with a sunny disposition or with clouds of anger brewing on the horizon – one must turn instead to a psychological model.

Next year marks the 50<sup>th</sup> anniversary of Elisabeth Kubler-Ross' five-stage model for predicting how human psychology copes with loss. While her model is popularly known as the "Five Stages of Grief," it can actually apply to a range of challenging circumstances. Community members whose homes and businesses are newly mapped in the Special Flood Hazard Area, and community leaders who see large areas of their cities newly designated as such, are often not pleased with map changes.

However, there are a number of strategies that local floodplain managers can use to help channel sensitivity regarding map changes into a productive passion for implementing mitigation actions and taking steps to improve disaster preparedness. News regarding map changes can be unpleasant it if comes in the form of a surprise. By attending RiskMAP meetings, engaging with project websites and Story Maps, and helping organize Open House meetings, floodplain administrators can provide information to citizens ahead of time and help citizens have a greater voice in the mapping process.

By participating in the Community Rating System (CRS) and implementing higher regulatory standards such as additional freeboard, local leaders can mitigate the impact of map changes by reducing the cost of flood insurance. These measures both reduce risk to life and property and keep more money in the community. Finally, floodplain administrators can help citizens gain confidence in the mapping process by being knowledgeable about local regulations and ready to answer questions. Professional development opportunities such as professional conferences, Division of Water Resources training classes, and Certified Floodplain

Manager (CFM) certification are great ways to develop in-depth knowledge.

Like severe storms, reactions to floodplain map changes are often easier to model and predict than to entirely prevent. However, just as communicating with family members and creating an emergency supply kit can boost individual preparedness, communicating with stakeholders and building a 'kit' of floodplain knowledge can help local officials make their communities more resilient to challenging circumstances.



Bottom Line: Community stakeholders raise many valid concerns as they move through the "5 Stages of Floodplain Map Unhappiness." How can we channel their feedback into inspiring mitigation actions?

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#### WOTUS Woes

Federal regulations regarding Waters of the United States ("WOTUS") continue to be a hot-button political topic. However, both the 2015 Clean Water Rule (currently applicable in 22 states) and the 1986/1988 version (currently applicable in Kansas and 27 other states) place navigable interstate waterways and their tributaries under the jurisdiction of the Clean Water Act. A Kansas community recently learned about WOTUS enforcement the hard way.

When citizens complained about unkempt brush growing on a small island in the Little Arkansas River, the community started using bulldozers to smooth out the 'island'. Attempting to solve one problem created another more serious problem. This community assumed that they were operating under the authority of a blanket permit to maintain the river. However, no such permit had been issued. The Kansas Dept. of Agriculture Division of Water Resources (KDA-DWR) learned of the river alterations through a social media post and issued a stop work order. The U.S. Army Corps of Engineers (USACE) determined that the work was in violation of Section 401 of the Clean Water Act.

How can you avoid investing time and money in a project, only to have it shut down due to lack of compliance? The simplest way is to follow your own floodplain ordinance. Most floodplain management regulations, ordinances or resolutions include language that specifies: "Review of all applications for floodplain development permits for proposed development to assure that all necessary permits have been obtained from Federal, State, or local governmental agencies from which prior approval is required by Federal, State, or local law."

For instance, a KDA-DWR permit is required for any project that involves construction, modification or repair of a regulated levee or within the floodplain of a regulated stream or that will construct or modify or repair a dam, stream obstruction or change course or cross section of a stream. In Kansas, a stream is any watercourse that has or has had a well-defined bed and well-defined banks and has a watershed equaling or exceeding the allowable acreage threshold for the project's hydrologic zone.

The email version of this newsletter includes an attachment outlining what permits are required for various types of work that may impact waterways, lakes, or wetlands. A good way to facilitate a thorough review is to contact KDA-DWR's Water Structures office at 785-564-6656 or Janelle.phillips@ks.gov. As part of application review, KDA-DWR will contact seven other state agencies to provide them with an opportunity for comment. Since many projects will require three permits (a local floodplain development permit, a KDA-DWR floodplain fill permit, and a USACE Section 404 permit), it is a good idea to contact KDA-DWR before starting work. In the case of floodplain fill, local officials should remember the old adage that "it's better to ask for permission rather than beg for forgiveness."

Above: Cheyenne Bottoms attracts human and avian visitors to Kansas from around the globe.

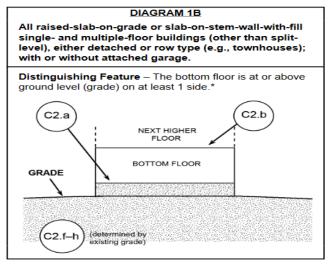
#### **Community Rating System (CRS)**

Joining the Community Rating System would be a great new year's resolution for many Kansas communities. CRS represents a unique opportunity to show a direct link between your hard work as a community official and tangible savings for members of your community. Similar to the Insurance Services Office (ISO) Fire Suppression Rating Schedule, it is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum National Flood Insurance Program (NFIP) requirements. CRS provides up to a 5% discount on flood insurance policies for each 500 points of credit that a community earns. Since over 4,500 points are possible, substantial savings can add up quickly. Even small communities can experience substantial benefits. As of fall 2018, 36 Kansas communities participate in CRS. Of those, half have fewer than 10,000 residents, and four have fewer than 500 residents. To learn more, contact NFIP Specialist Martin Koch or NFIP Coordinator Steve Samuelson.

# Kansas Students 'LEED' the Way in Sustainable Architecture

Students in the University of Kansas School of Architecture & Design's Studio 804 course have a unique opportunity to step outside the classroom and gain practical skills through a hands-on project. The capstone project of this course is a fully functional residential design-build project. Students tackle all phases of a building project, such as developing blueprints, obtaining permits, and even carpentry and electrical work. To date, Studio 804 classes have constructed eleven LEED (Leadership in Energy and Environmental Design) Platinum-certified structures in communities across Kansas.

The latest project, located at 1220 E. 12th St. in Lawrence, represents a unique challenge. The site is adjacent to the Brook Street Tributary of Burroughs Creek, and portions of the property are in a Zone AE Special Flood Hazard Area (SFHA). To comply with floodplain development regulations, the home was elevated 4.8 feet above the Base Flood Elevation on a slab foundation. This is an example of Elevation Certificate Diagram 1B.





Site under construction (Courtesy Prof. Dan Rockhill).

Alone, this home's substantial level of freeboard would reduce the risk of flood damage and reduce the cost of flood insurance by approximately 65% compared to home built in accordance with state minimum standards. However, fill was also added to the site to raise the entire foundation pad out of the SFHA. This process resulted in a LOMR-F (Letter of Map Revision-Fill) that makes the home eligible for a Preferred Risk Policy (PRP), the least expensive form of flood insurance. The 1,500-square-foot, three-bedroom home shows that building with flood safety in mind doesn't mean compromising on innovative features. The finished property includes wheelchair access, a photovoltaic solar energy system, and high-efficiency fixtures and appliances. The site includes a properly elevated 500-square-foot detached accessory dwelling. The lot includes native landscaping and pervious surfaces that add natural curb appeal and reduce stormwater runoff.



Utility systems are elevated above the BFE.

Stairs and a ramp provide access to elevated areas.

### 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 Martin Koch at 785-296-0854 or Steve Samuelson at 785-296-4622. A training registration form is in this newsletter.

#### **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. Allowed 3.5 hours Continuing Education Credit (CEC) toward the Certified Floodplain Manager (CFM) credential. Limited to 20 participants.

- Leavenworth Tuesday, February 26th, 2019 from 8:30 a.m.—12:30 p.m.
- Hutchinson Tuesday, June 4th, 2019 from 8:30 a.m.—12:30 p.m.

#### **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 (ICC) and violations. Allowed 3 hours CEC for CFM. Limited to 20 participants.

• <u>Emporia- Thursday, April 18th, 2019 from 8:00 a.m. —11:30 a.m.</u>

#### **Substantial Damage Estimation**

Substantial Damage Estimations are one of the most difficult parts of the NFIP. Come to this course and learn as much as you can before you have a fire, flood or tornado in the floodplain in your community. A laptop computer with Substantial Damage Estimator (SDE) software is necessary for this class. Attend this free seminar to learn about NFIP requirements, what constitutes substantial damage, when and where to do damage estimations, using the substantial damage estimation software, tips for damage estimating, as well as insurance claims and related insurance questions. The class includes both classroom lecture and field exercise components. Allowed 3.5 hours CEC for CFM. Limited to 20 participants.

• <u>Emporia- Thursday, April 18th, 2019 from 12:30 p.m. 4:00 p.m.</u>

Find more information about floodplain management from Kansas Department of Agriculture Division of Water Resources online at: <u>http://agriculture.ks.gov/divisions-programs/dwr/floodplain</u>

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 <u>steve.samuelson@ks.gov</u>.

Mark your calendar. The Kansas Association for Floodplain Management 2019 conference will be September 4 and 5 in Lawrence. More information will be posted at the website: <u>www.kafm.org</u>. Registration will be done through a link on the website. If you have questions about registration please contact Jon Bristor, Chairman, at 620-326-2207.

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

Name		
Title		
Address		
City	State	Zip
Telephone	Fax	
E-mail		
Name, date and loca	tion of training you will attend _	
	vitation with anyone else who co ons will be sent to registered parti	ould benefit from the training. icipants one week before the training.
	Please mail or fax you	r registration to:
	NSAS DEPARTMENT OODPLAIN MANAGE 6531 SE Forbes A TOPEKA, KS Fax to: 785-29	MENT PROGRAM Ave., Suite B 6 66619
		uelson by email at <u>steve.samuelson@ks.gov</u> or by <u>tin.koch@ks.gov</u> or by phone at 785-296-0854.

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 email <u>steve.samuelson@ks.gov</u> to report the change.

4626 Kansas Department of Agriculture Division of Water Resources Topeka Field Office Floodplain Management 6531 SE Forbes Ave., Suite B Topeka, KS 66619

#### ASFPM 2019 National Conference in Cleveland

The 2019 Association of State Floodplain Managers National Conference will be May 19-24, 2019 in Cleveland, Ohio. 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. Funds may be available to assist with attendance for local officials to the conference. Contact Steve Samuelson for more information: <u>steve.samuelson@ks.gov</u>.

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http://agriculture.ks.gov/dwr