# KANSAS FLOODPLAIN MANAGEMENT TIPS



# February 2015

# **Elevate to Mitigate**

A meeting was recently attended in the City of Erie. On the way to the meeting the writer observed two buildings elevated on fill. The two buildings are approximately one block from each other. Both of these buildings are commercial businesses. One is an automotive /tire business and the other is a grocery store.

The two buildings are similar in elevation but have two very different

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stories. Community officials told me that the tire shop building was elevated on fill in about 2005. During a major flood event in 2007 the level of the flood water was approximately one foot below the floor of this building. The grocery store was originally built at grade. During the same 2007 flood there was several feet of water inside of the grocery store.

The grocery store was rebuilt and elevated after the flood to a level similar to the tire shop. These two structures are a clear example of the fact that elevating above the flood is an effective mitigation strategy. Look at ways to mitigate structures in your own communities.



Tire shop elevated on fill near Highway 59 in Erie.

## **Dealing with Sanitation Systems in Floodplain**

Within the Code of Federal Regulations in 44 CFR 60.3 (a) (6)(ii) is the statement, "onsite waste disposal systems to be located to avoid impairment to them or contamination from them during flooding." The Federal Emergency Management Agency (FEMA) publication FEMA P-348, "Protecting Building Utilities From Flood Damage", November 1999 has an entire section on sewage management. In March of 1997 the Kansas Department of Health and Environment (KDHE) issued Bulletin 4-2, "Minimum Standards for Design and Construction of Onsite Wastewater Systems". Many communities have their own local sanitary codes as well.

With different Federal, State and local requirements for onsite waste disposal it can lead to some confusion. Language concerning abrogation and greater restriction is found in most codes. That language essentially says that when there are conflicts the most restrictive code shall prevail. Always use the most restrictive requirement and you shouldn't go wrong.

The following information was provided to the Floodplain Management Team by a community official in Morris County. It comes from KDHE concerning KDHE Bulletin 4-2 and installation of a septic tank in the 1% annual chance floodplain. The question arose about elevating the tank above the base flood elevation. This can be done if approved as a variance to the sanitation code. The following steps must be taken to minimize risk of tank contents being lost during a flood.

- Installation of a backflow preventer into the sewer line at the house foundation to prevent any floodwaters pushing sewage back into the house.
- Use of a concrete septic tank (not plastic or fiberglass) with a top lid design (not a clam shell style).
- Use of a one piece water proof manhole riser and a high quality lid seal gasket.
- Use of rubber sealing gaskets around all inlet, outlet, access risers and vent pipes connecting to the tank.
- Having the top of any manhole/lid and all vents or risers on the tank, or any vents or risers on the lateral lines terminate at least one foot above the expected water surface level of a one percent annual chance flood event.
- Anchor the septic tank by use of 2 galvanized cables, one towards each end over the top of the tank and tied to good soil anchors.
- Mound soil around the septic tank to prevent freezing of contents during winter months.
- Mark the location of the tank corners to prevent inadvertent vehicle or other damage to the tank.
- County to inspect the tank on a regular basis, not to exceed 3 years, and after any high water event that may have reached the tank.
- Issue a variance from the county code. The variance needs to spell out the responsibility for maintenance of the system and that if the system fails for any reason in the future the owner will have responsibility to repair or replace the system as needed to bring it in to compliance with conditions of the permitted variance.
- The variance must reflect it was given in response to a set of circumstances and the variance to the code must be recorded as part of the permit and filed with the property deed with the County Register of Deeds so any future owner is made aware of the special circumstance of the onsite system.
- Contact Kansas Department of Agriculture/Division of Water Resources about a permit.

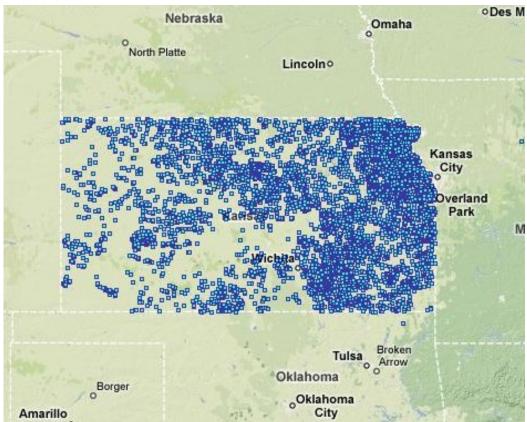
The State of Kansas is fortunate to have Tom Morey as the State National Flood Insurance Program Coordinator, Tom is both a Registered Sanitarian and a Certified Floodplain Manager. Contact Tom Morey at 785-296-5440 or tom.morey@kda.ks.gov for questions about on site waste management systems.

#### Flood Safety Awareness Week

Is your community doing anything on March 4, 2015 for Kansas Flood Safety Day? It is a good opportunity to educate citizens about flood risk. Find out more at http://www.floodsafety.noaa.gov/

#### National Inventory of Dams

You should visit the National Inventory of Dams website. You can find information about the number dams in Kansas and the hazard levels for the dams. Here is the link for the website: http://geo.usace.army.mil/pgis/f?p=397:3:0::NO::P3\_STATES:KS\_.



On the website you will see a map showing locations of dams and bar graphs with information about dams. Graphs show ages of dams, heights, type of construction and how many dams have an emergency action plan.

Hazard mitigation planning documents are another
source of information about dams. Plans will contain information about high hazard dams that may effect a community. Floodplain managers should become familiar with all of the potential flood risks to their jurisdictions.

Map is from NID Website.

## **Community Rating System**

On November 24, 2014 State NFIP Coordinator, Tom Morey, presented a Community Rating System (CRS)

level 8 plaque to the City of Bonner Springs. Don Slone is the Floodplain Manager for Bonner Springs and you may also know him as the Chairman of the Kansas Association for Floodplain Management.

During the month of November the communities of Florence, Riley County and Newton also turned in CRS applications. Each time the Flood Insurance Manual is updated another new CRS community is listed. Find out more about CRS by contacting steve.samuelson@kda.ks.gov.



Pictured are: Tom Morey, Don Slone, Brian Hunt and Melissa Mitchell

#### **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.

•Wamego - Feb. 19, 2015 8:30 a.m.-12:30 p.m.

#### **Substantial Damage Estimator Overview**

This free class is designed for community officials responsible for administering floodplain management regulations and those who perform damage estimations after a disaster. Class will look at the damage estimating software and how it works. There will be a walkthrough of a house to practice damage estimates. Computer is required. Approved 3.5 hours toward CFM. Limited to 20 participants.

• Emporia- March 4, 2015 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.

•Iola - March 12, 2015 8:30 a.m.-12:30 p.m.

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

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 2015 conference will be September 2 and 3 in Kansas City. 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 Don Slone, Chairman, at 913-667-1708.

	<u>Kansas Department of</u> <u>Division of Water I</u> <u>Floodplain Pro</u> <u>Training Registrat</u>	Resources ogram
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F	Please mail or fax you	r registration to:
	SAS DEPARTMENT ( DODPLAIN MANAGE) 6531 SE Forbes A TODEKA KS	MENT PROGRAM ve., Suite B
	TOPEKA, KS Fax to: 785-86	
-		elson by email at <u>steve.samuelson@kda.ks.gov_</u> o om.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 email <u>steve.samuelson@kda.ks.gov</u> to report the change.

046-17 Kansas Department of Agriculture Division of Water Resources Topeka Field Office Floodplain Management 6531 SE Forbes Ave., Suite B Topeka, KS 66619

## ASFPM 2015 National Conference in Atlanta

The 2015 Association of State Floodplain Managers National Conference will be May 31 to June 5, 2015 in Atlanta, Georgia. 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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