
WATERLINES

News affecting the management and use of Indiana's water resources

DIVISION OF WATER
INDIANA DEPARTMENT OF NATURAL RESOURCES
WINTER 2015

HOW CAN WE MITIGATE FLOODING'S COST? NATIONAL DISASTER RESILIENCE

The cost of disaster relief is “hidden.”

The Washington Post reports that between 2011 and 2013 natural disasters in the United States cost the federal government \$136 billion. That’s nearly \$1.3 billion a week or \$400 a year per household.

These figures remain largely unknown to many. Disaster relief funding is not in the annual federal budget. It is considered “emergency funding.” It comes from special bills in Congress, as requested. This masks the year-over-year cost of reactive disaster relief.

The dollar amounts quoted account for all disaster relief but the majority were for flood recovery. From 1953 to the first half of 2014, of the nearly 2,200 declared disasters, more than 1,300 (or 61%) were floods.

Although the percentage of flooding declarations to total natural disasters has remained fairly consistent over the past six decades, (generally between 55% and 70%), the sheer number of flooding disasters has greatly increased. The average in the 1950s was eight per year. During the first half of the 2010s, the average was 35. Other decennial

averages, per year were: 1960s, 13; 1970s, 24; 1980s, 15; 1990s, 26, and 2000s, 32.

While there seems to be a greater willingness by the federal government to declare an event a federal disaster, the trend of more frequent flooding disasters seems clear.

There will always be a need for recovery monies. But how can we assure funds are being spent to encourage and enhance a community’s resilience to the next flood before the disaster? Can we help communities identify more appropriate solutions?

While it may be impossible to eliminate damage caused by flooding, we can plan and mitigate before it happens by answering questions like the following.

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“Can that home be removed from the flood zone (through relocation or demolition)?”

“Should that flooded fire station be built back in place or are there measures that can be taken to protect it from the next disaster?”

“Could that open land be acquired by the community for floodwater storage?”

How do we change our recovery behavior to become more resilient to future natural hazards? How do we change the statistics? How do we increase the amount of funding for projects to protect us from the next disaster before it occurs? How do we redirect the ratio of monies from recovery to mitigation? In the end, how do we increase our resiliency?

As the Association of State Floodplain Managers notes on its Mitigation Page, “successful mitigation is often not well understood because few people notice when a disaster does not happen.” Success in avoiding floods is not dramatic.

The Federal Emergency Management Agency (FEMA) estimates that for every dollar spent on mitigation, four dollars is saved in recovery. Furthermore, the pain of disaster does not end with cleanup and recovery. The National Federation of Independent Businesses found that 30 percent of small businesses fail to reopen after a presidentially declared disaster. This damages the community for years to come in lost wages, tax revenue and spirit.

It is far more cost effective to mitigate a potential disaster by moving assets from harm’s way, physically preventing the flood from reaching residents and property, or by not allowing construction in the floodplain in the first place. But all of these and other methods have a cost.

In an effort to build on the mitigation funding efforts of FEMA and other state and federal agencies, in June 2014, the Obama administration announced that nearly \$1 billion would

be made available to communities for mitigation projects through the National Disaster Resilience Competition to address mitigation and resiliency. The competition is designed so communities that are working to increase safety and security, and have recently experienced a natural disaster, may compete for funds to help them rebuild and increase their resilience to future disasters.

Of the \$1 billion, approximately \$820 million will be available for all non-Hurricane Sandy impacted areas across the United States that have had a Presidential Disaster Declaration in 2011, 2012 or 2013. States with qualifying disasters, and those units of local government that received Community Development Block Grant Disaster Recovery (CDBG-DR) funding under PL 113-2 for disasters occurring in 2011-2013, are eligible to apply. Beyond those qualifications, in FEMA Region V, the governments of the city of Chicago and Cook and DuPage counties in Illinois are also potential applicants.

The key to a successful application will be a demonstration of how a granted award would help fund future resilience from the disaster from which the community is currently recovering (that is, the event that triggered the Presidential Disaster Declaration during 2011-2013). The U.S. Department of Housing and Urban Development (HUD) notes that actions such as a proposed suite of building code changes, infrastructure audits or pilot green infrastructure investments would be examples of the possible aim of a grant.

The six objectives of the competition are:

1. To assure a fair and objective dispersal of the CDBG-DR funds;
2. To create science-based examples of disaster recovery;
3. To institutionalize sound approaches to addressing future risk;
4. To provide resources to increase local resiliency;

5. To explain the risk of climate change; and
6. To partner with non-governmental organizations to discover local solutions to local problems.

Winners will receive funds through HUD's CD-BGDR funds from the Disaster Relief Appropria-

tions Act of 2013. A factsheet from HUD more fully explaining the competition may be downloaded from HUD's website, portal.hud.gov/hudportal/documents/huddoc?id=FactSheet_071514.pdf.

Article submitted by Region V Newsletter Team

CFM EXAM OFFERING – MARCH 10

Are you ready to be Indiana's next Certified Floodplain Manager (CFM)? The DNR Division of Water will again proctor the CFM exam on March 10, at the Indiana Government Center South in Indianapolis (Conference Room D) at 1 p.m. A short refresher session will be held from 8:30 a.m. until noon the same day.

To take the exam, you must complete and submit the CFM Program Application Package to the Association of State Floodplain Managers

(ASFPM). The forms are available at floods.org, under the Certification Program tab. The fee is \$100 for ASFPM members and \$450 for non-members. You may submit an application for ASFPM membership at the same time you apply to take the exam. To be accepted to take the exam at this scheduled time, you must submit your completed application along with the appropriate fee to ASFPM by Feb. 24 (two weeks before the exam date). No walk-ins will be allowed unless authorized by the ASFPM executive office. For specific information on the location and times, contact Anita Nance at anance@dnr.IN.gov.

CONGRATULATIONS CFMS



The Certified Floodplain Manager (CFM) exam was offered at the annual conference of the Indiana Association for Floodplain and Stormwater Management on Sept. 11. Twelve individuals who took the national exam at the conference passed and became CFMs. Congratulations to Donche Andonov of Munster, Michael Brunner of Cincinnati, Tonya Cottrell of Martinsville, Charles Dewes, Lacey Duncan and Gavin Merriman of Indianapolis, Christopher Jones and Matthew Riggs of Greenwood, Jason Little of Terre Haute (previously Missouri), Vincent Little of Terre Haute, Douglas Wagner of Brookston, and Bryan Wallace of Nabb.

The role of the nation's floodplain managers

is expanding because of increases in disaster losses, the emphasis being placed upon mitigation to alleviate the cycle of damage-rebuild-damage, and a recognized need for professionals to adequately address these issues. Floodplain managers come from a variety of curricula and backgrounds. This certification program will lay the foundation for ensuring that highly qualified individuals are available to assist the public with wise floodplain management.

This national program for professional certification of floodplain managers was established by the Association of State Floodplain Managers. The program recognizes continuing education and professional development that enhance the knowledge and performance of local, state, federal and private-sector floodplain managers. For more information on the CFM program, visit floods.org.

WAVERLY, INDIANA: NEW LIFE FOR AN OLD TOWN

Waverly was founded in 1838 after a store was built at the site to offer goods and supplies to workers building the Indiana Central Canal.

The canal was intended to connect the Wabash and Erie Canal to the Ohio River via the White River. The lingering effects of the Panic of 1837 economic crisis helped cause the canal to remain forever unfinished; however, by that time, a grist mill built at the site enabled the settlement to gain a foothold in the quickly developing central area of the state.

The settlement had carting, spinning and weaving mills, a corn-drying kiln, a sawmill, numerous sa-

loons, and several other businesses. Farmers used the White River for transportation to the village from as far as 40 miles away to conduct business. In time, the land was platted with 55 lots, a main street and a public square.

The village's site in the river's floodplain was both the reason for its creation and its cause for abandonment 170 years later.

After multiple floods, the decision was made to encourage the removal of the remaining private homes and businesses from the floodplain. The area would then be used as a public park. The structures allowed to remain would be those of historical significance that could be repurposed as integral features of the park. A total of 55 acres was proposed. The park is one of those

proposed to be connected by a system of trails in Morgan County along the White River.

Beginning with FEMA's Hazard Mitigation Grant Program (HMGP), 80 of the 84 parcels in the project area had been purchased by the county as of October. Additional public funding has been secured from riverboat tax receipts, the National Park Service (NPS), the DNR and subsequent HMGP grants to continue the acquisition of properties.

In addition to the funding from public



The historic bank building in Waverly, it is one of only four buildings to be saved. (Photo by Anita Nance)

sources, Indianapolis Power and Light Company plans to donate \$1 million. Morgan County Councilmen Kenny Hale and Jeff Quyle said that the utility's donation would likely cover all costs of developing the property. Hale, the Morgan County plan director, says working with FEMA, IDHS, DNR and the NPS has been rewarding.

While the majority of the site has been cleared, four historic buildings were saved, including a home built in 1890, a bank, a blacksmith's shop and Waverly United Methodist Church, which still has an active congregation that will continue to use the building. The historical buildings will become the centerpiece of the park, with opportunities for public space, education and other uses.

Plans for the park include passive and active uses. Active uses include the option of river access for boating, a multipurpose trail and outdoor event space. Planned passive uses include hiking nature trails and viewing public art. It is hoped that the park will be a multi-use facility that expresses the history of the area, including the first American Indians in the White River valley, the arrival and settlement of the village by post-Revolutionary War Americans, the 170-year history of the settlement and finally, the removal of the village after the 2008 flood.

A major component of the park will be that the area will continue to be shaped by flooding. There will be informational signage about flooding, the purpose and value of floodplains and wetlands, swales and other man-made flood mitigation structures.

Ninety structures have been removed. Two more are scheduled to be brought down before the end of 2014. Discussions continue with several property owners about purchasing the last four remaining parcels to eventually remove the seven structures on those lots. The county's effort to mitigate properties continues beyond the immediate area. Between 2008 and 2014, an additional 49 structures have been removed from the floodplain in Morgan County.

With such a large number of structures to dispose of, the village has had one more gift to offer: multiple training events for first responders. The fading village has been the host of 10 SWAT team training exercises involving personnel from two counties and the Indiana State Police. Waverly was also used as a training site from 2011 to 2013 by attendees of three consecutive National Fire Department Instructors Conferences (NFDIC). These sessions allowed firefighters from the United States and other countries to participate in live training. In addition, 10 fire-training exercises for local firefighters have been conducted over the years.

Morgan County's effort to preserve the legacy of this early Indiana town demonstrates that floodplain mitigation doesn't mean that a community eradicates the history of a site, only that thoughtful planning be considered to protect not only the past but also the future.

More information on the development of Waverly Park is at morgancountyparks.org/parks/waverly/index.shtml. 

(The authors would like to thank Kenny Hale for providing extensive background information for this article.)

Article submitted by Region V Newsletter Team



A sign of things to come. (Photo by Anita Nance)

INDIANA RISK MAP PROGRAM UPDATE FALL 2014

FEMA's national Risk Mapping, Assessment and Planning (Risk MAP) program is intended to result in local activities that reduce risk. In 2014, in partnership with the state of Indiana, FEMA Region V launched efforts designed to engage selected communities in discussions about local risk reduction activities that result in safer communities. Over the coming year, FEMA Region V and state representatives will facilitate meetings with community officials, mitigation consultants and regional stakeholders to define desired local mitigation activity implementation steps, challenges and needed technical support.

This effort is intended to enhance existing mitigation planning efforts by identifying federal and State tools, resources and technical assistance that may enable progress on local risk-reducing mitigation activities. The meeting goals include development of a local implementation strategy for a community-selected mitigation activity, and in some cases, limited technical support toward progress on that activity.

In Indiana, FEMA, the DNR, and the Indiana Department of Homeland Security have been working with STARR, FEMA's consultant, to discuss mitigation actions with Indiana communities. Through this partnership, mitigation technical assistance needs have been documented for future funding considerations and to inform local planning efforts. In addition, some communities are receiving technical

assistance to reduce risk including data collection, technical reviews, feasibility summaries, support on improving local ordinances and coordination support for the Community Rating System program.

In the fall and winter, the cities of New Albany, Noblesville and Salem; the towns of French Lick, Paoli and West Baden Springs; Floyd, Harrison, Jackson and Washington counties; and 33 other communities in the St. Joseph watershed will be engaged in Risk MAP discussions. The selected communities can anticipate hearing from STARR about meeting dates, and may also be contacted to talk by phone about mitigation interests, needs and community goals in risk reduction. Communities are invited to identify organizations and stakeholders to participate in the conversation, which is geared toward helping the community plan a risk-reducing activity that may include technical support from FEMA.

If you have any questions about the program, please contact any of the following project partners:

David Knipe, DNR,
at dknipe@dnr.IN.gov
Mary Moran, DHS,
at mmoran@dhs.IN.gov
Kirstin Kuenzi, FEMA RV,
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Emily Whitehead, STARR,
at emily.whitehead@stantec.com

Article submitted by Region V Newsletter Team

COMMUNITY RESPONSIBILITIES UNDER THE NFIP – WORKSHOP ON FEB. 5

The DNR Division of Water will conduct a workshop on Feb. 5 that will focus on community responsibilities under the National Flood Insurance Program (NFIP). The workshop will be held from 9:30 a.m. to 3:30 p.m. EST in Indianapolis, in Conference Room B in the Conference Center of the Indiana Government Center South, at 402 West Washington Street. There is no fee.

New community officials are strongly encouraged to attend. Other community officials are encouraged to attend as a refresher. Other individuals involved in floodplain management are welcome. This workshop is eligible for CECs for Certified Floodplain Managers (CFMs).

Register by Jan. 29 by contacting Anita Nance at anance@dnr.IN.gov or (317) 234-1110 (direct) or 877-928-3755 (toll free). Seating will be limited to the first 80 registrations. ☞

CONFERENCE CORNER

2014 INAFSM CONFERENCE

“Going Above and Beyond” was the theme of the annual Indiana Association for Floodplain and Stormwater Management (INAFSM) conference held at Brown County State Park, Sept. 10-12. The conference highlighted how individuals and communities have been living that theme. Just as last year’s, the conference drew more than 200 attendees, and sessions were full.

Attendees were involved in many informational sessions about floodplain management, storm water and MS4. The awards banquet recognized worthy individuals, organizations and projects.

Kathleen Weissenberger, director of grant services, Indiana Office of Community and Rural Affairs, was presented the Excellence in Floodplain Management Award; Jeremy Van Erman, chairman, Madison County Stormwater Partnership, was presented the Excellence in Stormwater Management Award; The Merrillville 54th Court Bioremediation & Roadway Runoff Control (project owner: Town of Merrillville, lead consultant: Robinson Engineering) was presented the Outstanding Stormwater Project Award; and WFYI Public Television Station of Indianapolis was presented with the Outstanding Floodplain Project Award for its production of the documen-



2014 INAFSM Award Recipients: (L to R) Mary Moran (IDHS); Roger Gage (Decatur); Jan Crider (IDHS); Jeremy Van Erman (Madison County Stormwater Partnership); Kathleen Weissenberger (Indiana Office of Community and Rural Affairs); Matt Lake (Town of Merrillville); Zach Beasley (INAFSM Chair); and, Rod Renkenberger (Maumee River Basin Commission).
(Photo by Darren Pearson)

tary “When Every River Turned against Us: Lessons from the Great 1913 Flood” (project owner: Indiana Department of Homeland Security). The Chairman’s Award for Outstanding Service in Support of INAFSM was presented to Rodney Renkenberger, executive director of the Maumee River Basin Commission.

Jan Crider, former state hazard mitigation officer who retired in October, was presented a Special Recognition Award for her outstanding service and contributions to INAFSM and efforts to promote flood education and outreach throughout Indiana.

For more information about INAFSM or to download presentations from the conference, go to inafsm.net. ☞

2015 INAFSM CONFERENCE

The 2015 Annual Conference of the Indiana Association for Floodplain and Stormwater Management will be held Sept. 9-11 at the Potawatomi Inn at Pokagon State Park near Angola. Mark your calendars now. ☞

DIRT CONFERENCE

Dam information, resources, and training (DIRT) conference for dam owners, operators and officials will be held June 16 at Abe Martin Lodge at Brown County State Park near Nashville. Visit damsafety.org for updates and online registration. ☞

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