

Summer 2009 Newsletter

## Illinois Wins ASFPM Award for Excellence

The State of Illinois was recently honored with the Tom Lee State Award for Excellence at the Association of State Floodplain Manager's national conference in Orlando, Florida. The Tom Lee Award is given annually to recognize an outstanding floodplain management program or activity at the state level. This was the second time the State of Illinois has been given the award. The Illinois award was presented as a result of the state's outstanding efforts in five areas of floodplain management:

- 1. Improved Floodplain Mapping By 2011, 80% of the counties in Illinois will have high quality digital floodplain covering 97% of Illinois' population and 82% of the state's land Using FEMA mapping funds, Illinois is one of the few states in the nation doing floodplain mapping from start to finish.
- 2. Enforcement of Floodplain **Regulations** – In an effort to prevent flood damages and flood depths from Illinois increasing, has regulated floodway development activities for nearly 100 years. Approximately 1,000 floodway development permit applications are reviewed annually.



Jeff Wickenkamp accepts the Tom Lee State Award for Excellence on behalf of the State of Illinois. From Left to Right: George Riedel (ASFPM), Larry Larson (ASFPM), Mike Prough (Jersey Co), Jeff Wickenkamp (IAFSM), Kingsley Allen (U of I), Ray Nees (Rock Island County), Howard Sloan (Village of Frankfort).

Nearly all Illinois communities have adopted local floodplain management ordinances which exceed Federal minimum standards. Because of this nearly 30% of the state's flood insurance policy holders are eligible for reduced flood insurance premiums. IDNR floodplain management staff visits over 100 communities every year to assist with floodplain management issues. On average, staff also respond to over 5,000 annual citizen requests for floodplain management assistance.

- 3. **Promoting Flood Insurance** Typically, over 15 floodplain management and flood insurance workshops are conducted every year in the state. Illinois is now ranked #1 in the nation for the fewest number of flood insurance claims taking place on new structures. 99% of the state's flood insurance claims occur on older structures. Only 1% of flood claims in the state occur on newer structures which have been constructed in compliance with current floodplain management requirement. Despite being one of the nation's most flood prone states, flood losses are actually being reduced in Illinois.
- 4. Supporting Mitigation Since 1993, Illinois has elevated, relocated, or bought-out over 4,000 flood prone structures. In most cases, flood prone structures have been demolished after the owners were paid the fair market value using Federal or state mitigation funds. These properties were then converted back to open

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- space uses where flood losses will no longer occur. Communities like Grafton, Illinois where flooding has always been a catastrophic event can now go though a major flood with very little damage.
- 5. **Implementing Structural Measures** In developed or urbanized areas, often the only alternative for flood prevention is using structural measures such as detention basins, floodwalls, or levees. The IDNR Office of Water Resources in the primary point of contact for these structural projects. It is estimated that urban flood control projects have reduced the risk for flood damages by \$4,200,000,000!

## \$300 Million in ARRA Funding for Illinois Army Corps Water Resources Projects

On April 29, 2009 it was announced that \$300,190,000 in funding through the American Recovery and Reinvestment Act will be provided for Army Corps of Engineers projects in Illinois. It is estimated that the funding will directly create 2,400 jobs and indirectly create 6,144 jobs.

The funding is part of the Army Corps of Engineers announcement of \$4.6 billion for approximately 1,191 projects nationwide. "The Recovery Act funds for Civil Works will enable the U.S. Army Corps of Engineers to do much good for the nation," said John Paul Woodley, Jr., Assistant Secretary of the Army for Civil Works. "In addition to the opportunity to help the nation and her citizens recover from this time of economic hardship, the Corps will be able to use these funds to accomplish work on water resources projects that will benefit the nation for years to come."

"We intend to quickly put these dollars into action to get our fellow citizens to work on Corps projects throughout the nation," said Maj. Gen. Merdith "Bo" Temple, deputy commanding general for Civil and Emergency Operations for the Corps. "At the same time, we will use these funds to build long-term value for the nation in its water resources projects with these funds."

"This Recovery Act funding will allow the Army Corps to address a serious backlog of important infrastructure projects in Illinois while creating thousands of jobs," said Assistant Senate Majority Leader Dick Durbin (D-IL). "Around the state, the Corps will be able to accelerate critical maintenance projects that are long overdue such as increasing flood protection in the East St. Louis region. We will continue to see the benefits from these projects for years to come."

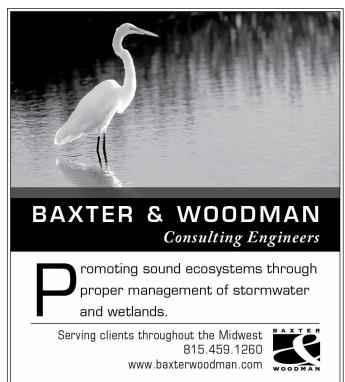
The following projects will receive Recovery Act funding:

#### Construction

- East St. Louis: \$3,000,000 in funding for geotechnical subsurface investigations to obtain information needed for the final design of underseepage control measure for the Metro East Sanitary District levee in Madison and St. Clair Counties.
- Wood River Levee: \$15,313,000 in funding to complete drain repairs, pump station rehabilitation and construction of relief wells.



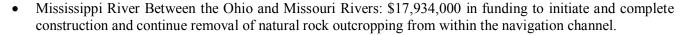
 $\frac{\text{US Army Corps of Engineers}}{\text{RECOVERY ACT SITE}}$ 



- Chain of Rocks Canal, Mississippi River: \$11,450,000 in funding to complete construction of mitigation measures of the Chain of Rocks levee, construct relief wells, complete dredging operations to reduce the risk of levee failure and complete rehabilitation of the north levee berms
- Des Plaines River, Chicago: \$1,620,000 in funding to complete Levee 37 contract.
- Cook County Infrastructure, Chicago: \$400,000 in funding to complete design and construction for Flossmoor Water.
- Illinois River Basin Restoration, Rock Island: \$2,098,000 in funding for construction contact for Waubonsie fish passage.
- Illinois Waterway, Lockport Lock and Dam, Rock Island: \$88,861,000 in funding for contracting and developing plans for the rehab of Canal Walls.
- Lock and Dam 27, Mississippi River: \$20,700,000 in funding for planning and construction of new Main Lock Miter Gates for Locks 27.
- Madison and St. Clair Counties: \$3,171,000 in funding for construction on the Eagle Park Acres sanitary sewer collector system in Madison

County and the rehabilitation of a combined sewer system in Belleville.

Melvin Price Lock and Dam: \$1,700,000 in funding for necessary construction at Melvin Price Lock.



- North Park: \$500,000 to complete ongoing construction for emergency streambank protection project for protecting North Park University Administration Building.
- Olmsted Locks and Dam, Ohio River: \$4,906,000 in funding to place tainter gate shells in the river to complete low water activities.
- Upper Mississippi River Restoration, Rock Island: \$12,029,000 in funding for habitat improvements and restoration projects at various sites on the Mississippi River.

## **Operations & Maintenance**

- Calumet Harbor and River, Chicago: \$1,100,000 in funding to increase the capacity for dredged material and allow for additional dredging in the future.
- Carlyle Lake: \$21,896,000 in funding for operations and maintenance at Carlyle Lake, including increased dam safety, flood repair, increased recreational safety measures, dredging, perform critical backlog maintenance, and repair damaged roadways around the Lake.



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- Chicago Harbor: \$21,155,000 in funding to repair and stabilize the main structure protecting Chicago Harbor, a collapsing concrete cap of the mile-long stone filled timber crib northeast breakwater, and install four replacement lock gates.
- Illinois Waterway: \$932,000 in funding for a variety of work, including restoration of flood damaged forest and maintenance dredging in critical river bends.
- Kaskaskia River Navigation: \$11,411,000 in funding to complete critical ongoing maintenance, open additional side channels, replace emergency generator, and remove asbestos from lock and maintenance building.
- Lake Shelbyville: \$11,195,000 in funding for maintenance backlog in recreation and environmental areas, complete shoreline erosion repairs, replace flood damaged facilities, replace deteriorating administration and visitor center buildings with energy efficient structures, and combat invasive plant species.
- Mississippi River between Missouri River and Minneapolis: \$28,801,000 in funding for work along the
  Upper Mississippi River, including forest and floodplain restoration, shoreline stabilization, dredging,
  spillway rehabilitation, repairs of riverfront erosion, replacement of diesel compressors, safety
  improvements, repair of concrete lock walls, installation of buffers to reduce sediment input, and repair of
  several mitre gates.
- Rend Lake: \$19,043,000 in funding to resume operation and maintenance of all recreation facilities, increase
  safety at the facilities, repair flood damage and spillway bridge, complete 2 phases of the Rend Lake bike
  trail, hire summer employees, perform various backlog maintenance, and consolidate aging facilities with
  energy efficient buildings.

### **Investigations**

• Des Plaines River, Phase II: \$350,000 in funding to complete mandatory Independent External Peer Review for this large study. It will serve to reduce \$27 million in average annual damages and the risks associated with flooding in the Chicago Metropolitan Area.

• John Glenn Great Lakes Basin: \$200,000 in funding to expand the use of tools developed under the Great Lakes Habitat Initiative by updating the database and developing additional features to foster collaboration and identification of funding sources, and developing a system to track completed projects and their associated environmental benefits.

#### Mississippi and Tributaries

- Mississippi River: \$75,000 in funding to update existing and new benchmarks to a consistent reference plane to insure consistency with other Federal and local agencies responsible for flood forecasting, inundation models, navigation, flood insurance rate maps, and topographic mapping.
- Mississippi River Levees: \$350,000 in funding to ensure the structural integrity and stability of the structure and prevent failure of this critical flood risk reduction component of the mainline Mississippi River levee system.



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# Illinois Switching to National CFM Exam Certified Floodplain Manager Program Update

-Matt Wahl, CFM - Chair, IAFSM Certification Committee

Effective January 1, 2010, the IAFSM Board has voted to retire the Illinois CFM Exam in lieu of the National Association of State Floodplain Managers (ASFPM) Exam. Floodplain Managers that are certified up until January 1, 2010 in Illinois will be grandfathered in under the ASFPM Program and will not be required to retake the national exam.

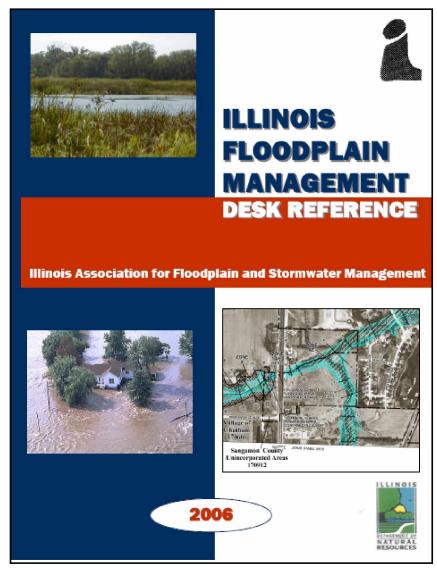
This IAFSM Board action has come about due to increased concerns regarding legal reliability and validity of our current exam. These concerns and the associated costs of conducting reliability and validity testing for the IAFSM Exam (current estimates are \$100,000 per year) are cost prohibitive from an organizational perspective. Therefore, the IAFSM Board voted to utilize the National Exam to mitigate these expenses and ensure the long term administrative and financial safety of this program.

The IAFSM will offer the National Exam within the State of Illinois starting in 2010. There are three remaining CFM exams scheduled for 2009. These 2009 exams will be based on the soon-to-be-retired IAFSM Exam, not the National Exam.

Individuals wishing to prepare for the National Exam should review the ASFPM Website for applicable study materials. The IAFSM will continue to offer the Desk Reference on our website to further assist floodplain management training and development. One very important thing to remember when preparing for the ASFPM Exam is that it involves specific questions regarding coastal requirements that are not currently included on the soon to be retired IAFSM Exam and are not covered **IAFSM** Desk Reference. Additionally, questions specific to Illinois will not be included on the ASFPM Exam

The final three dates to receive Floodplain Manager Certification using the Illinois Exam are listed below. The exam registration form can be downloaded at: http://www.illinoisfloods.org/certification.html

Woodridge: 9/16/09 (V3 office)
Champaign: 9/16/09 (ISWS office)
Rosemont: 12/9/09 (CBBEL office)



## Study Finds Better Way to Protect Streams from Construction Runoff

-North Carolina State University News Release, April 17, 2009

Researchers at North Carolina State University have found an exponentially better way to protect streams and lakes from the muddy runoff associated with stormwater around road and other construction projects. The alternative is lower or comparable in cost to commonly used best management practices (BMPs) around construction sites, yet much more effective at keeping streams and lakes free of runoff sediment that pollutes water and harms aquatic life.

In a study comparing BMPs against alternatives on road stormwater runoff in western North Carolina, the NC State researchers found the alternative method kept local streams that received the runoff cleaner, and helped reduce the amount of sediment loss inside ditches near roads. Sediment and muddy water are among the most common pollutants of streams and lakes.

Dr. Rich McLaughlin, associate professor of soil science at NC State and one of the researchers involved in the project, says that the current BMPs used in controlling erosion and sediment involve using so-called "sediment traps" along with rock check dams in ditches. Sediment traps collect water with the heavier sediment – like dirt and other larger, heavier particles – settling to the bottom and the "cleansed" water moving through rock check dams, or piles of rock that are intended to slow the flow of water through the ditch. Water then travels out of the ditch through a pipe to streams, rivers or lakes.

In the study, McLaughlin and NC State colleagues Scott King, extension associate in soil science, and Dr. Greg Jennings, professor and extension specialist in biological and agricultural engineering, found that the BMPs don't hold a candle to the alternative – natural fiber check dams (FCDs) enhanced with polyacrylamide (PAM), a chemical that causes sediment to clump together. FCDs use natural fibers instead of rocks as a type of dam to slow the flow of water in ditches.

The researchers found, in a measure of the "muddiness" of road runoff, that the BMPs yielded 3,813 nephelometric



Seed, polyacrylamide (PAM), and a fiber mulch are applied to a steep slope with a hydroseeder. Photo from NCSU Website.

turbidity units (NTUs) in testing, equating to some rather muddy water, McLaughlin says. Fiber check dams with PAM yielded averages of 34 NTUs, a veritable drink of Perrier in comparison, McLaughlin adds. Further, the study showed that after a storm, sites that used standard BMPs lost an average of 944 pounds of sediment compared with only 1.8 pounds of sediment lost at sites utilizing FCDs with PAM.

McLaughlin says that these results are so convincing that North Carolina's Department of Transportation is in the process of making FCDs with PAM the new best management practice around road and construction sites. McLaughlin's group is also training engineers and installers around the state and nationally in the use of this system.

A paper showing the study results appears in the March/April edition of the *Journal of Soil and Water Conservation*. For more information, visit McLaughlin's Web site.

## From the Chair

- Jeff Wickenkamp, P.E., CFM, D.WRE

In some areas of the state there has been record rainfall in 2009, over 25 inches in Chicago. All the rain has made me feel like a doctor at a party a few times. If the subject comes up, it's not long before I'm asked for advice on a variety of rain related ailments such as leaky foundations, failing sump pumps, misdirected downspouts and flooded patios. One question that got me thinking was "so is all this rain due to global warming or not?" I'm confident that we're just having an unusually wet year and it won't be long before someone else asks me if I happen to know anything about irrigation systems. The question was still in the back of my mind when I arrived in Orlando for the national ASFPM conference in early June. While there, I saw two fascinating presentations on the subject of how climate change might impact the work of engineers and floodplain managers. Right now, there's nothing conclusive as to how climate change might alter precipitation patterns in Illinois, but I do think this is a subject we're going to hear about a lot more in the coming years.

It was my second trip to an ASFPM conference. The conference is known for being well organized and typically draws over 1000 attendees (1,300 participants this year, another record). Once again, the conference was a great experience and offered a chance to hear from federal agencies and learn about work going on elsewhere in the nation. It was also rewarding to meet some of our counterparts in neighboring state chapters. Finally, it was my honor to represent the IAFSM as part of Illinois delegation which accepted the Tom Lee State Award for Excellence on behalf of the State of Illinois.



Networking at the ASFPM Conference in Orlando.

# Congratulations to Sally McConkey!

Sally McConkey, former IAFSM Chair, was named Vice-Chair of the national Association for Stormwater and Floodplain Management at the ASFPM Conference in Orlando last month. Congratulations to Sally! We know the ASFPM is in good hands.



Sally McConkey accepts the Illinois Foundation Award at the ASFPM Conference.

# **Next IAFSM Board Meeting**

Wednesday July 8, 2009; 9:30 a.m. Grundy County Government Center 1320 Union Street, Morris, Illinois

## All Members Are Welcome!

The IAFSM general membership is welcome to attend the Board meetings and offer feedback to make our efforts more effective and make the Chapter stronger. We hope to see you Wednesday!

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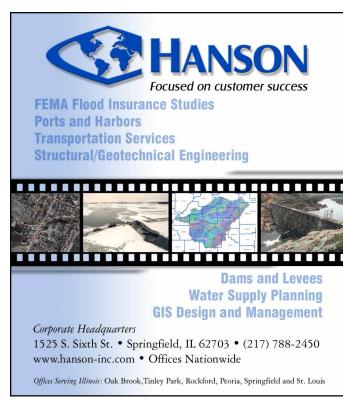
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## **CEC/Training Opportunities**

**Visions of a Sustainable Mississippi River Conference**: Merging Ecological, Economic, and Cultural Values. August 10 – 13, 2009 Collinsville. For more info: www.conferences.uiuc.edu/mississippiriver

Floodplain 101 Seminar: IAFSM will hold a Floodplain Management seminar in Collinsville in early Sept. More details to follow via email or contact the Education Chair: Amanda Flegel, aflegel@illinois.edu.

BMP Workshop: The IAFSM Stormwater Committee is planning a 1-day workshop in September on the design and use of stormwater Best Management Practices (BMPs). The workshop will provide details on Low Impact Design and discuss how to incorporate and model BMPs. The workshop will focus on infiltrative practices and include an optional practical design exercise using appropriate modeling tools. Requirements for BMP operations and maintenance will be presented and supported with presentations of real-world challenges that have been encountered and addressed.



Watch your inbox for details and registration information, or contact the Stormwater Committee Chair: Bob Murdock, rmurdock@mbakercorp.com.

**MWRDGC Twilight Dinner Seminar:** IASFM and the ASCE-EE&WR Group are planning a twilight dinner seminar to introduce the upcoming new Cook County Watershed Management Ordinance and to discuss the ongoing watershed studies being conducted by the Metropolitan Water Reclamation District of Greater Chicago. The dinner seminar would be offered in the Chicago area in late Oct or early Nov. If interested, please contact Erik Gil by email at egil@cbbel.com. Given sufficient interest, registration info will be in the Fall Newsletter.

**LOMR Twilight Dinner Seminar:** IASFM and the ASCE-EE&WR Group are planning a twilight dinner seminar to present a LOMR submittal workshop. The dinner seminar would be offered in the Chicago area in late October or early November. If interested, please contact Pat Lach at plach@heyassoc.com. Given sufficient interest in the class, a registration info will be in the Fall Newsletter.

Streambank Protection and Design Class: IASFM is planning a 2 to 3-day Streambank Protection and Design Class to present a comprehensive introduction to stream investigation, stabilization, and restoration. If interested, please contact Amanda Flegel by email at aflegel@illinois.edu. The course would be offered in both Springfield and in the Chicago area in late October or early November, and could include a field trip. The two courses would not necessarily contain the same material, and each will be tailored to each area depending on input received and on the instructors. Given sufficient interest in either or both of the classes, a registration form will be sent out in the Fall Newsletter. We are currently requesting feedback from our readers as to what your interest would be in attending this class, and your suggestions for topics and material covered.

**HEC HMS 2-Day Seminar:** ASCE EE&WR is planning a seminar 9/17/09 - 9/18/09 in Schaumburg. Please email arunheer@hdrinc.com if you are interested in attending.

**Designing Bio-Infiltration BMPs with RECARGA:** ASCE EE&WR is planning a seminar on 7/17/09 in Wheaton. Please email Matt.Bardol@CGL-LTD.COM by 07/13/09 to register.

**Jobmart:** Visit our Jobmart at illinoisfloods.org/jobmart.html to view current job openings. Jobmart is a free service to members of IAFSM. If you would like to post a position, send complete information to IAFSM@sbcglobal.net. Current openings include Insurance Services Office - Technical Coordinator for CRS, and FEMA Disaster Assistance Employee.



# THE IAFSM CURRENT

Illinois Association for Floodplain and Stormwater Management

Summer 2009 Newsletter

The IAFSM Newsletter is published quarterly for members of the Illinois Association for Floodplain and Stormwater Management. Information and opinions contained herein do not necessarily reflect the views of all members. Items for publication and other editorial matters should be directed to the editor at jmaercklein@v3co.com. To advertise in this newsletter (\$100-\$200 per year depending on ad size) contact the association at IAFSM@sbcglobal.net.



#### **IAFSM Officers**

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Special thanks to J&J Enterprises for our beaver, the mascot of surface water managers.

For current Job Postings and CEC Training Opportunities, visit our website at illinoisfloods.org.

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