



Before the Storm

Indiana Association for Floodplain and Stormwater Management

FALL 2016

2016 Conference and Awards Recap

SAVE THE DATE

2017 INAFSM ANNUAL

CONFERENCE
SEPTEMBER 6-8

CENTURY CENTER
SOUTH BEND, IN

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On September 7-9 more than 210 people gathered at the Belterra Conference Center for the INAFSM Annual Conference. This special 20th Anniversary Conference was full of unexpected surprises for attendees as well as some for those that have helped get the organization to where it is today.

Excellence in Floodplain Management

Robert C Barr, a Research Scientist at IUPUI Center for Earth and Environmental Science, is the most recognized face of Indiana's Fluvial Erosion Hazard program (FEH). Mr. Barr has conducted hundreds of workshops and presentations to educate other professionals and the public regarding how stream systems work and how to avoid costly mistakes associated with disrupting the natural system evolution. Through his efforts and the promotion of No Adverse Impact approaches, he has become perhaps the single most

effective advocate for preserving the natural and beneficial functions of floodplains in Indiana.

Excellence in Stormwater Management

John Thomas, Stormwater Administrator for the City of Carmel, has led the way for many other Ms4s and provided standards and programming that has given a guide for others to follow. He is a founding member of the MS4 Inspector's Group. Mr. Thomas has implemented a tracking system in the City of Carmel that enables contractors to directly report their weekly and after rainfall construction site inspections directly to the City, which gives City staff direct access to all reporting from their desktops. On top of all this, he has willing gone to make presentations at various meeting and event to educate Ms4s, contractors, and others about effective post-

Pictured: Left to Right— Rodney Renkenberger, Awards Chair; Joanna Myers, City of Franklin; Jason Donati, Muncie Sanitary District Stormwater; Suzie Delay, IDNR; John Thomas, City of Carmel; Bob Bullock, Town of Hagerstown; Zach Beasley, Tippecanoe County Surveyor; Jim Rinehart, Williams Creek Consulting; Sheila McKinley, CBEL; Tonya Cottrell, Hendricks County; Kenny Hale; Morgan County Planning and Zoning.



A new award presented at the INAFSM Conference was the “Rain Drop.” These glass sculptures were presented to Lifetime Membership recipients. Read more about the Rain Drop to the right.



construction stormwater quality management.

Outstanding Stormwater Project

Sunset Avenue is the eastern boundary of the Butler University campus and the primary vehicular corridor connecting it to the surrounding Butler-Tarkington neighborhood. Under the City of Indianapolis' RebuildIndy program, Sunset Avenue was redesigned based upon a complete streets approach to accommodate pedestrians, bicycles, and vehicular traffic. In addition to those multimodal transportation elements, the streetscape design incorporated numerous green infrastructure elements to manage the stormwater runoff from the street and parking lot at Hinkle Fieldhouse.

Excellent Strides in Floodplain Management

The City of Franklin was faced with a devastating flood in 2008. They spent countless hours working to acquire all the flood prone properties and have created an urban forest that provides greenspace for the citizens while providing a place for floodwater to go. Through this whole process, the City made sure that the reusable materials from the structures demolished were recycled.

Outstanding Floodplain Project

The John Saltzman Regulated Drain has shown a history of poor conditions and persistent erosion issues, but financial constraints have presented severe limitations on correcting the problem. The proposed solution was one of the first one-sided, two-stage ditch projects in the State. The Tippecanoe Surveyors Office sought out a series of grants, and was able to obtain the funding necessary to implement a modified two-stage ditch with reconstructed benches. The benches allow the ditch to have a greater water capacity while reducing the peak runoff downstream, and resulted in reduced flooding on adjacent croplands.

Outreach and Education Project

There were two awards granted in this category. The first award was for an education curriculum, OCRA's Green Infrastructure. The Green Infrastructure Curriculum and Training Project was an effort to develop resource materials and deliver trainings to provide local governments and their project partners with information to design stormwater project which integrate green infra-

structure practices. These services assists those groups with stormwater mitigation planning, and make the communities more competitive when submitting applications for OCRA's Stormwater Improvements Program funding.

The second award was to Jason Donati from the Muncie Sanitary District. He works tirelessly at educating the community about stormwater, recycling, and sustainability. This is Mr. Donati's passion, and he teaches everywhere that he goes. He has also taken on the maintenance and development of countless documents and handouts relating to these topics, and made them available to his community.

Chairman's Award for Outstanding Service in Support of INAFSM

This award is given to a member that the Chair believes has gone above and beyond in their service to INAFSM. This year's recipient is Tonya Cottrell for her current service on the Conference committee focusing on sponsorship.

Special Recognition Awards

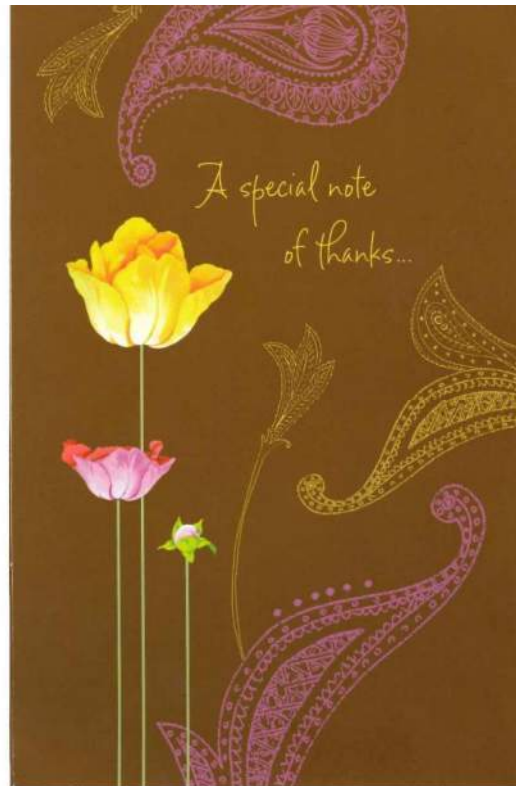
There were two Special Recognition Awards presented this year. The first was presented to Suzie Delay for her devotion and contributions serving as AV Coordinator. The second was presented to Robert Bullock for serving as the photographer at events.

INAFSM Lifetime Membership Rain Drop

In celebration of INAFSM's 20th anniversary, the INAFSM Board of Directors established an art glass rain drop award to be given to those members who receive INAFSM Lifetime Membership status. Each piece of art glass is individually hand made by artisans, and each is unique just like each unique and special INAFSM member that receives one. INAFSM Lifetime Membership is bestowed by the Board in recognition of a member's Longtime Contribution and Service to INAFSM and its efforts to promote floodplain and stormwater education throughout Indiana.

Glass Rain Drops were awarded to INAFSM's three previous Lifetime Membership recipients: Phillip Rader, Jan Crider, and posthumously to Greg Main. In addition, Glass Rain Drops and Lifetime Membership Certificates were awarded to four new recipients: Rodney Renkenberger, Siavash Beik, Donna Price, and Debbie Smith.

Thank you
from Greg
Main's Wife
Mel



...straight from my heart.
Thank you so much for all you've done in honor of Greg's memory. He was surrounded by so many good, caring people in his life and I feel fortunate to have the support of "his group" as well. God Bless!
Mel

Floodplain Training Opportunities

November 9 — [Implementation & Impacts of the 2012 & 2014 Flood Insurance Reform Legislation](#) (webinar)
November 10 — [Living with Highs and Lows](#) (Coastal Bluff Erosion Webinar)
November 22 — [Structural Elevation for Flood Hazard Mitigation](#) (webinar)
December 1 — [Using Tolerable Risk Guidelines to Manage & Communicate Flood Risk](#) (webinar)
December 6 — Understanding Your Floodplain Ordinance (Scottsburg) - IDNR

December 8 — Understanding Your Floodplain Ordinance (Marion) - IDNR

Are there any training opportunities that you know of and would like to share with other members? Please contact the Outreach Chair at outreach@inafsm.net with the information.

A complete list of all training opportunities may be found on the INAFSM Calendar of Events at INAFSM.net

Stormwater Training Opportunities

November 15 — [NWQMC: Nondetects and Data Analysis](#) (webinar)
November 15 — [Limitations of Commonly Found Roadway Sediment Control BMPs](#) (webinar)
November 16 — [Maps of Potential Wetland Extent for Selected Streams in Indiana](#) (webinar)
November 22 — [Designing Effective Sediment Containment Systems for Roadway Projects](#) (webinar)
December 1 — [Voodoo Hydrology - Pitfalls of Urban Hydrology Methods and What You Need to Know](#) (webinar)
December 7 — [Effective S & EC Plans, Part I - What De-](#)

[signers and Reviewers Need to Understand and Complete](#) (webinar)

Are there any training opportunities that you know of and would like to share with other members? Please contact the Outreach Chair at outreach@inafsm.net with the information.



Financial & Sustainable Incentives for Economic Development

INAFSM wants to send a special thank you to the sponsors and exhibitors at our 20th Anniversary Conference. Some of those exhibitors will be sharing projects and products with the membership over the next several issues of the newsletter. Thank you to this issues contributors, Siltworm and EMH&T.

Realizing the benefits of public-private partnerships and the value of green infrastructure as a component of site re-development and other urban revitalization projects, the Evansville Water and Sewer Utility (EWSU) in Evansville, Indiana instituted a cost-share incentives program to provide supplemental funding to projects which capture and remove

stormwater runoff from the combined sewer system. "The program is changing the way projects are planned and designed, with a focus on progressive stormwater management and post-construction water quality," said Brian Brown, PE, CFM, EMH&T Project Manager and a Senior Water Resources Engineer.

The City of Evansville is a medium size community with a sizeable challenge of managing their combined sewer system. EMH&T worked for EWSU to perform a comprehensive study and develop programmatic recommendations for green infrastructure options to resolve combined sewer overflow issues under the City of Evansville's Consent Decree with the US EPA and the Department of Justice.

A goal of the program was to eliminate a costly and disruptive tunnel along the City's riverfront, resulting in the identification of more than 20 targeted green infrastructure opportunities in the City's downtown area, which were integrated into the Integrated Overflow Control Plan (IOCP) and submitted to the EPA. These opportunities are of various sizes and complexity and are intended to capitalize on anticipated urban infrastructure improvement projects. For example, one of the opportunities identified by the study effort is a cost share program to incentivize the use of green infrastructure within private



site development and capital improvement projects.

Recently, EMH&T completed the design of the first private site development project approved by the City for supplemental funding under this incentive program. The project, called Professionals Plaza, was based on the inclusion of green infrastructure features designed to capture and remove the first two inches of stormwater runoff from the combined sewer system over the 2.3 acre development site. Located on property which was previously the headquarters for the local school district, the site has been redeveloped as a commercial property housing office space and a credit union. Future uses may include a café, restaurant and workout facility, as improving public infrastructure supports businesses and neighborhood revitalization projects, something that is key to the City's economic development.

- "The Evansville Water and Sewer Utility relied on EMH&T to help develop a vision for what green infrastructure could mean as part of the solution set for our Federal Consent Decree. Their guidance and technical support has, and will continue to be, pivotal as we mature our green infrastructure program and policies," said EWSU Deputy



project was designed with an infiltration bed installed under the parking lot to redirect over two million gallons of rain water annually away from the combined sewer system. The result of this design was an agreement with EWSU to contribute \$414,742 to the construction of the project, representing a considerable financial incentive for the developer.

Brian credits part of the success of changing the way projects are planned and designed to the EMH&T NextGenerationGreen™ program. NextGenerationGreen™ brings together professionals of planning, environmental engineering, and landscape architecture to develop best practices in sustainable design and has been guiding EMH&T's professional designers for more than a decade at EMH&T.

This veritable brain-trust has been studying efficacy and cost-benefits of green infrastructure, using this data to advise clients on sustainable practices for each project when the opportunity to "go green" makes clear business sense.

Having designed nearly 100 sustainable and green infrastructure elements that have been built and are in successful operation today, the team studied, researched, and prototyped sus-

tainable practices years before it became fashionable. And, has provided training to communities and other consultants for the last 10 years. From this successful outcome, there are expectations for numerous future projects which will successfully integrate sustainable stormwater practices and gain EWSU's financial support to offset project costs.

"The Professional Plaza project is one of the several local show-and-tell projects we need to help our decision makers' move toward the green infrastructure suite of solutions in to the future," said Michael. "This project was a private redevelopment project supported with Utility participation because of its stormwater redirection performance and ultimate reduction in CSO volumes and peak flow discharge."

Michael also noted that, "an important component to green solutions is the development of a new local work force for green infrastructure maintenance. Given the choice, we would prefer to pay local vendors to maintain smaller green components rather than pay out-of-town companies to clean big tanks. EMH&T has been instrumental in the development of our program thus far and they are my trusted advisor looking forward."

For more information on planning financial and sustainable incentives for economic development in your community, contact Brian Brown, PE, CFM, at (317) 806-6553 or bbrown@emht.com. Brian Brown is the Director of Water Resources for the EMH&T Indianapolis Office. EMH&T is a professional civil engineering and survey firm offering an extensive array of services to both public and private sector clients. Founded in 1926, today EMH&T houses more than 350 professionals and technical personnel including civil engineers, surveyors, construction specialists, environmental scientists, GIS specialists, and land planners representing 16 core disciplines.

- Brian Brown

CONGRATULATIONS TO NEW CFMS

Seven new Certified Floodplain Managers (CFMs) from Indiana were added to the list of growing number of floodplain management professionals across the nation. The most recent additions are:

- Jared Lessor (Indianapolis)
- Patrick Manship (Anderson)
- Brad Newman (Anderson)
- Shirley Fitzwater (Westfield)
- Darrin Jacobs (Spiceland)
- Shawn Pabst (Brownsburg)
- Philip Morton (Huntington).

All seven CFMs successfully completed the exam in September during the INAFSM Annual Conference. Congratulations.

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.



- Anita Nance, State NFIP Coordinator

Get Off the (Silt) Fence!

When it comes to job site sediment and erosion control, it is evident that not all methods are created equal. The Environmental Protection Agency lists that roughly 70% of the sediment in any body of water is from human land use and the remaining 30% is from natural erosion and deposition processes. In order to make a difference in these numbers, there needs to be a change in our approach.

Silt fence has been the most popular choice in the past due to the technology available in the market. Despite their popularity, they often do not work due to improper design, taxing installation and maintenance. Fortunately, an alternative option is changing the industry with lower maintenance, lower costs and most importantly higher filtration of sediment and contaminants that can enter our stormwater.

Siltworm, a ready-to-use, three-dimensional filter filled with a proprietary blend of 100% kiln-dried material, has emerged on the market to reduce opportunities for water pollution and replace the inefficient use of silt fence.

Unlike silt fence, installation of Siltworm can be accomplished without trenching, staking and disturbing the soil surface, thereby reducing erosion. Siltworm takes little time to install, maintain and requires no machinery as it is simply placed

on top of the ground. The removal of silt fence can be difficult and may produce a lot of waste, whereas Siltworm is reusable and easy to move from site-to-site. In addition, the product is filled with 100% biodegradable and recycled material, and the mesh is photodegradable eliminating the need for additional time and costs for clean-up.

Siltworm works by allowing water to flow through at a controlled rate while separating and retaining sediment and pollutants to improve the downstream water quality. Instead of allowing the sedimentation to filter through, silt fence acts as a barrier that ponds sediment-laden stormwater runoff with the intention of retaining sediment on the job-site by the settling processes. However, this often causes problems as the water ponds too high, tearing or knocking down the silt fence allowing the pool of contaminants to flow into the roads and storm sewers. Due to Siltworm's filtering capabilities and ease of installation, it has been approved for:

- Perimeter Control
- Hard Surface Protection: including frozen ground and concrete
- Ditch Check Application
- Stockpile Application
- Protection of Tree Roots and Contain Mulch Beds
- Inlet Protection
- Oil, Gas and Other Contaminants at Accident Sites

The advantages of utilizing Siltworm over silt fence to improve job site sediment control are clear. While the concept of silt fence might work, its time-consuming installation, need for constant maintenance and durability in comparison to Siltworm is inefficient. With Siltworm's advanced technology, job sites can start effectively containing sediment and contaminants while saving costs by reducing labor, replacement and disposal costs today.

- Jordan Moore, Siltworm





101 West Ohio Street, Suite 1575
Indianapolis, Indiana 46204

Phone: 317-829-3656
Email: info@inafsm.net
kavery@inafsm.net
Website: www.inafsm.net

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INAFSM OUTREACH CHAIR

Denise Aschleman
outreach@inafsm.net

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“Promoting sustainable floodplain and stormwater management”

**2016 Executive Board
Members and Staff**

CHAIR

Kenny Hale
chair@inafsm.net

VICE CHAIR

Lori Gates
vicechair@inafsm.net

SECRETARY

Joseph Miller
secretary@inafsm.net

TREASURER

Michael Sears
treasurer@inafsm.net

EXECUTIVE DIRECTOR

Karen Avery
kavery@inafsm.net

**2016 Representatives and
Committee Chairs**

NORTH REGION

Randy Sexton
north@inafsm.net

CENTRAL REGION

Larry Aukerman
central@inafsm.net

SOUTH REGION

Susan Bodkin
south@inafsm.net

FLOODPLAIN CHAIR

Debra Smith
fp@inafsm.net

STORMWATER CHAIR

Toni Cecil
sw@inafsm.net

**2016 Advisory
Committee Chairs**

PAST CHAIR

Zachariah Beasley
pastchair@inafsm.net

AWARDS CHAIR

Rod Renkenberger
awards@inafsm.net

CRS CHAIR

—Vacant—

CONFERENCE CHAIR

Lori Gates
cwp@inafsm.net

LEGISLATIVE CHAIR

Kenton C. Ward
legislate@inafsm.net

OUTREACH CHAIR

Denise Aschleman
outreach@inafsm.net

2016 Liaisons

IDNR

Debra Smith
idnr@inafsm.net

USGS

Zack Martin
usgs@inafsm.net

IDHS

Mary Moran
mmoran@dhs.in.gov

IDEM

Randy Braun
idem@inafsm.net

NFIP

Anita Nance
nfip@inafsm.net

INDOT

Dave Finley
dfinley@indot.in.gov