



THE IAFSM CURRENT

Illinois Association for Floodplain and Stormwater Management

Winter 2022 Newsletter

Building Codes, The Foundation for Resilience: FEMA's Building Code Strategy (*Illinois Lacks Statewide Building Codes*)

~Published December 15, 2021 by FEMA as Building Science: December Updates

You may remember a fairy tale from your youth about how a big bad hazard impacted three different homes. Stories such as these taught us that preparing for the inevitable will protect lives and save buildings from even the meanest threats. However, only 36% of the nation's communities have adopted current, hazard-resistant building codes.

On the heels of the new FEMA Strategy, FEMA is finalizing the FEMA Building Codes Strategy. The Strategy defines the goals and objectives that FEMA will pursue to create a more resilient Nation with superior building performance during disasters. It calls on FEMA to coordinate and prioritize Agency activities to advance the adoption and enforcement of disaster-resistant building codes and standards for FEMA programs and communities nationwide.

The Strategy is comprised of three goals and fourteen objectives. These goals and objectives provide a roadmap to unite FEMA's programs and policies, strengthen its capabilities and unify its messaging to drive public action.

The Strategy will be supported by an implementation plan and a directive to provide specific operational processes and requirements for the Agency.

Building on the success and momentum of these documents, FEMA will work towards federal collaboration and coordination through the federal alignment on building codes followed by national implementation.

If you have any questions, feel free to reach out to fema-building-codes-strategy@fema.dhs.gov.



Inside This Issue

FEMA's Building Code Strategy	Page 1
National Weather Service Flood Forecasting.....	Page 3
Remembering Mike Prough	Page 4
From the Chair	Page 5
IAFSM Seeks Nominations for Annual Awards	Page 5
FEMA Training Video.....	Page 5
ASFPM Future Leaders Scholarship Applications.....	Page 6
Do You Have a Relationship with Your State Legislator....	Page 6

CFM Exam Going Digital	Page 7
CEC Education & Training Opportunities	Page 7
2022 Conference Information.....	Page 8
Annual Conference Local Official Scholarship.....	Page 8
IAFSM on Social Media.....	Page 8
Important Stuff We Tell You in Every Newsletter	Page 9
IAFSM Officers & Committee Chairs	Page 10

FEMA's Building Code Strategy (continued)

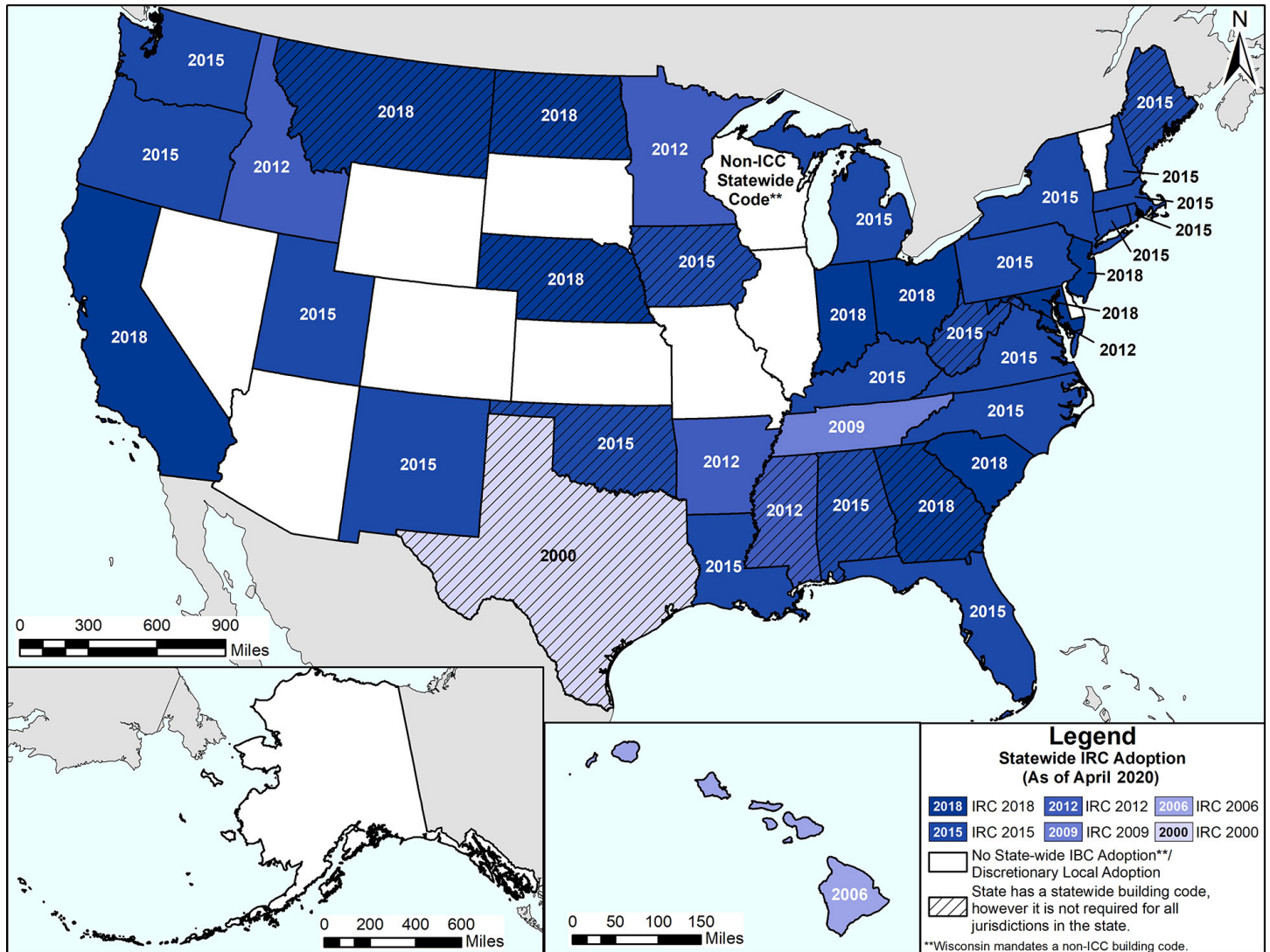


Figure 3-1: State-level adoption of the IBC as of April 2020, from FEMA's November 2020 report "Building Codes Save: A Nationwide Study: Losses Avoided as a Result of Adopting Hazard-Resistant Building Codes". This shows that Illinois is one of only a few states without a statewide building code, which would reduce damage from floods and other hazards.


ENGINEERING
 RESOURCE ASSOCIATES

OUR SERVICES

Water Resources • Site Development
 Environmental • Recreation • Infrastructure
 Transportation • Construction • Structural
 Surveying and Mapping
 Geographic Information Systems



630.393.3060
www.eraconsultants.com
 Warrenville | Chicago | Champaign



exponential possibilities.

engineering | architecture | design | consulting



exp.com

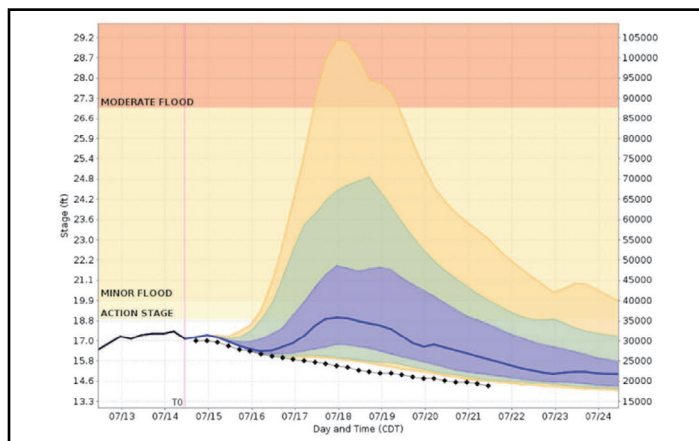


National Weather Service Flood Forecasting HEFS: A New Tool for Visualizing Uncertainty in River Forecasts

~ W. Scott Lincoln, GISP, Senior Service Hydrologist, National Weather Service, Chicago, IL, November 3, 2021

Background

The National Weather Service (NWS) is currently working to add another product to our river forecast information, one that helps to visualize uncertainty in river forecasts 1-2 weeks into the future. Because river forecasts are based upon a number of assumptions and even upon other forecasts such as precipitation and temperature, there is not always high confidence in river forecast values. Currently, river forecast information is provided using a hydrograph with values rounded to the nearest tenth of a foot, but these plots provide no additional details about forecast confidence. **By early next year, output from the Hydrologic Ensemble Forecasting System (HEFS) will become available, which will show the range of river levels possible based upon the forecasted range of precipitation and temperature values.**



Using HEFS Output

HEFS is based upon almost 60 different model runs of future temperature and precipitation from the Global Ensemble Forecast System (GEFS). Plots will show the official, single value forecast produced by the NWS river forecast center (black line with black dots) and also shaded areas depicting the most likely and less likely river stages. A thick blue line represents the median river response, that is, the water level where 50% of model runs are below and 50% of model runs are above.

Contact

W. Scott Lincoln, GISP, is the senior service hydrologist and hydrology program leader for the National Weather Service Chicago Weather Forecast Office. He holds a M.S. degree in environmental science and also has expertise in hydrology modeling and GIS. He previously worked as a senior hydrologist at the Lower Mississippi River Forecast Center. Email: scott.lincoln@noaa.gov

The blue shaded area around the thick blue line represents the middle 50% of model runs. HEFS is estimating that there is a 25% chance of river levels being above and a 25% chance of river levels being below the blue shaded area.

HEFS estimates that there is an 80% chance of river levels being within the

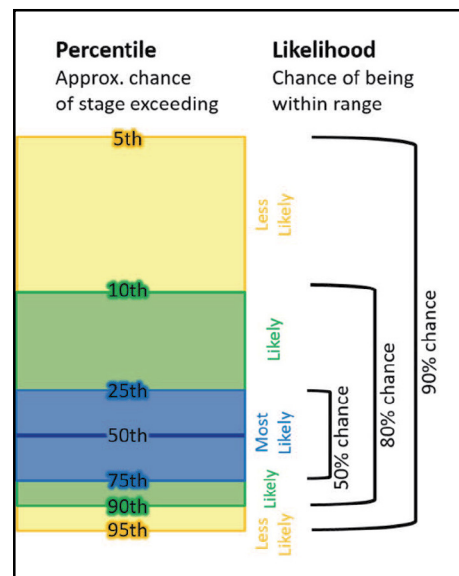
green or blue shaded area, and a 90% chance of river levels being within the yellow, green, or blue areas. Although it is expected that future river levels will most often be in or near the blue shaded area, they sometimes end up in the less likely shaded areas, and in rare cases end up

outside the shaded range entirely. When precipitation and temperature forecasts have less uncertainty, and thus, river forecasts have less uncertainty, the width of the shaded areas would be narrower. Conversely, when uncertainty is higher, the shaded area would be wider, covering more possible river stages.

One additional benefit to HEFS is that 10 days of future rainfall and temperatures from the GEFS are used. In contrast, official forecasts from the NWS river forecast centers typically include 2 days of less of future rainfall, depending on the time of year.

Summary

By early 2022, the NWS will make river forecast output from HEFS available at most river forecast locations, which will provide additional details about river forecast uncertainty. HEFS will provide a way to visualize less likely, but still possible, river levels 1-2 weeks into the future. HEFS will be helpful to most river forecast users, many of which have different levels of sensitivity or vulnerability to certain water levels. Entities that need to prepare for lower chance, higher impact river levels could monitor the 10th and 5th percentile values (upper ends of the green and yellow shaded areas, respectively), for example, while entities that simply need the best available forecast could focus on the official forecast from the river forecast centers and the blue shaded area.



Remembering Mike Prough, An Illinois Floodplain Legend

In early November, Mike Prough, former Jersey County Floodplain Administrator and three-time recipient of IAFSM's "Floodplain Manager of the Year" award passed away. The story of Mike Prough and Jersey County's evolution from worst-to-best is inspirational. Jersey County



Mike Prough doing damage assessments by boat after the 2008 Mississippi River flood.

is perhaps the State's most flood prone county. Bordered on two sides by the Illinois and Mississippi Rivers, Jersey County has no shortage of mapped floodplain. Major floods occur almost every year. Flood depths often exceed 20 feet!

After the 1993 flood, the County was in deep trouble. Over 1,000 structures lined the river, many of them on Corps of Engineers' leased property. Due to lax enforcement and limited staff understanding, floodplain violations were many. Repetitive flood loss claims had become a livelihood for some building owners. An NBC News spot on "The Fleecing of America" highlighted these failures to the entire nation. The County was on NFIP probation and moving towards full suspension.

Mike Prough was a County Board member at the time, and when learning of the problems, he chose to take on the job as the County's Floodplain Administrator. Starting from scratch and knowing nothing about floodplain management Mike quickly learned all he could. He attended FEMA and State training classes, spoke often with the NFIP State Coordinator, held stakeholder meetings, completed an inventory of buildings, reviewed all floodplain records, required building permits, and updated tax records. Ordinance revisions were adopted, violation notices were posted, litigation pursued, and public information was broadcast. Mike red tagged buildings, coordinated buyout projects, and elevated buildings. A new GIS based inventory of structures including elevation certificates and property data was established. The County started the state's first tracking of cumulative substantial damage.

In just a few short years, scores of violations had been fully resolved and Jersey County had moved from being one-of-the-worst, to one-of-the-best. Mike built the County's floodplain program to last, and today Jersey County is a CRS class 5 community (under the direction of Cindy Cregmiles) and has established one of the nation's best floodplain management programs. The county has moved from nearly 1,000 repetitive loss properties to less than 25. No other community has a better risk reduction percentage.

In 2007 and again in 2009 Mike won the Illinois Association for Floodplain and Stormwater Management's "Floodplain Manager of the Year Award. In 2007, Mike won the ASFPM National Floodplain Manager of the Year award. Mike will be missed by his friends and colleagues in the floodplain community. He has left a legacy.



CBBEL PROUDLY SUPPORTS
IAFSM



Christopher B. Burke Engineering, Ltd.

9575 W. Higgins Rd., | Ste. 600
Rosemont, IL 60018
847.823.0500 | cbbel.com
Follow us on Twitter @burkengineering



SUSTAINABLE SOLUTIONS FOR YOUR WATERSHED





UNDERSTANDING

ENGAGING

SOLVING

V3 | THE VISION TO TRANSFORM WITH EXCELLENCE

630.724.9200 | www.v3co.com/water-resources

From the Chair

~Steve Altman, P.E., IDNR-OWR

Happy New Year! As we move into 2022, I look back on 2021 and recognize the accomplishments IAFSM has made (albeit, by necessity). We held our first virtual conference. We are in a position to get more professionals an opportunity to take the CFM exam with the online exam. We are able to meet as board more effectively via Zoom (personal opinion). Looking forward to 2022, I also see great opportunities. We will meet in-person for the 2022 conference. With the experience of the 2021 conference, we will look to expand our training to the virtual environment for our members and for CFMs in other states. We will always be looking for new and innovative ways to engage our membership!


IAFSM Seeks Nominations for Annual Awards

If you know of a project, municipality, agency or person worthy of recognition by IAFSM, consider submitting a nomination for a Chapter or Project Award. The award nomination forms can be found on our website at <https://www.illinoisfloods.org/about/committee/20/awards>. Chapter awards are typically presented to individual people, groups, or agencies that represent the Chapter's best in the Floodplain and Stormwater Management profession. These awards honor the efforts of one person over a career, or honor an agency over an extended period of time and/or through many projects. Awards are presented at the Annual Conference in March. Questions? Contact Sarah Hunn, Sarah.Hunn@dupageco.org

FEMA Training Video – Adding Future Conditions to your next Mitigation Plan Update

Training webinar, “Investing in Our Future, Planning Now: Addressing Future Climate, Population and Land Use in Mitigation Planning” is available on [FEMA's YouTube channel](#). The webinar provides ideas, resources, and examples of how to integrate future conditions information into the hazard mitigation planning process to increase overall resilience.

As the frequency and intensity of natural disaster events increase, it is important to account for future conditions when developing a hazard mitigation plan for approval. Future conditions include the impacts of a changing climate, the built environment, and changes in population and land use.



HRGreen
Building Communities.
Improving Lives.

Sustainable management of water resources is an important key to your success. We are here to help you achieve your goals.

▷ AURORA | McHENRY | NEW LENOX ▷ HRGREEN.COM

TRANSPORTATION + WATER + GOVERNMENTAL SERVICES
LAND DEVELOPMENT + ENVIRONMENTAL + CONSTRUCTION



CiorbaGroup
CONSULTING ENGINEERS

**PEOPLE-DRIVEN
ENGINEERING**

- ▷ Roadway ▷ Structures
- ▷ Construction ▷ Water Resources
- ▷ Municipal & Civil
- ▷ Electrical & Lighting ▷ Forensic

8725 W. Higgins Road, Suite 600
Chicago, IL 60631

773.775.4009
www.ciorba.com

Follow us

ASFPM Foundation 2022-2024 Future Leaders Scholarship Applications



The ASFPM Foundation established the Future Leaders Scholarship for a deserving college student looking to pursue a career in the floodplain management field. The Foundation's vision for the scholarship is to create an additional pathway to advance flood risk management research and practice by helping support the education of future flood risk management professionals. Each scholarship will be awarded to a deserving college student who plans to work after graduation in a profession that directly, or indirectly, supports the field of flood risk management. The successful recipient will receive direct financial assistance, mentoring and support, and assistance finding a paid summer internship in a relevant professional setting.

Future Leaders Scholarship applications for the 2022-2024 Future Leaders Scholarship are now being accepted by visiting the Scholarships page on the Foundation's website <https://www.asfpmfoundation.org/scholarships/future-leaders-scholarship>. The Future Leaders Scholarship is a 2-year scholarship providing financial assistance up to \$20,000 per year. Students entering their junior year in a 4-year undergraduate program or entering the last two years of a 5-year or dual degree undergraduate program beginning the fall semester of 2022 are eligible. **Importantly, applications will be due on or before February 1, 2022, so it's imperative we get the word out for students to take full advantage of this opportunity.** We continue to look for the best and brightest to make sure we sustain a strong floodplain management community into the future. If our current and past FLS recipients are any indication, we are well on our way! We encourage you to share this information with your family, friends, and colleagues to ensure we reach as many college students as possible.

Do You Have a Relationship with Your State Legislator?

The IAFSM Legislative Committee is working to strengthen IAFSM's ability to impact floodplain management policy. The Committee is developing a data base of members who have working or speaking relationships with Illinois General Assembly contacts. If you have a relationship with your Illinois State Senator or Illinois State Representative, please call or email Kay Whitlock, the Legislative Committee Chair. Kay can be reached at kwhitlock@cbbel.com or 847-825-0500.

StormTrap
TREATMENT
Improve Water Quality

Remove trash, floatables, sediment, hydrocarbons, nutrients, heavy metals and other common pollutants with StormTrap products in a treatment train approach.

STORMTRAP.com
1-877-867-6872

SiteSaver® SingleTrap® DoubleTrap®

**TRUSTED PARTNERS.
PROVEN RESULTS.**

Progress requires more than experience. You need a trusted adviser on your team, one who looks out for you and anticipates your needs. Your challenges demand innovative solutions. Hanson isn't just responsive — we're dedicated to solving problems and building a better world.

With offices in Springfield, Peoria, Rockford, Lisle, McHenry, Frankfort, Murphysboro, Indianapolis and St. Louis

HANSON | HANSON-INC.COM

CFM Exam Going Digital. Last Paper Exam may be 3/7/22.

The national ASFPM organization is transitioning the Certified Floodplain Manager exam to an online digital exam and will soon stop offering paper exams. The last paper exam to be offered in Illinois is expected to be the exam scheduled for March 7, prior to the conference. The digital exam has benefits including the ability to schedule the exam for a date of your choice, and take the test at home or in one of thirty test locations across the state, but there is an increased fee due to the proctoring requirements. (Thank you to all the Illinois CFMs who volunteered to proctor in-person paper exams over the past few decades in support of the CFM program.) For more information or to register, visit <https://www.illinoisfloods.org/about-iafsm/flood-plain-manager-certification>.

CEC Education & Training Opportunities

Looking for training opportunities? The following opportunities are coming up in the next few months. If you are looking for credits, be sure to review the material and confirm they meet the appropriate requirements.

IAFSM/ASFPM Sponsored Training Opportunities:

- 2022 Annual Conference – March 8-9, 2022. Full details are in this newsletter.
- On Demand Sessions of the 2021 Annual Conference are available for viewing until March 2022. 2021 Conference attendees may view at no additional cost. New registrants may sign up to view the 2021 sessions until March 2022. <https://www.illinoisfloods.org/conferences-workshops/iafsm-annual-conference>

Additional Training Opportunities:

EMI provides a wide range of training opportunities and upcoming training.

- EMI courses are free for local and state government employees. Learn more at the EMI website: <http://training.fema.gov/emicourses/>
 - » E0273 Managing Floodplain Development thru the NFIP – January 10 – 13, 2022, April 4-7, 2022, and June 27-30, 2022
 - » E0278 NFIP Community Rating System – Feb 28-March 3, 2022
 - » E0279 Retrofitting Floodprone Residential Buildings – May 9-12, 2022
 - » E8535 National Dam Safety Program Technical Seminar – Feb 23-24, 2022

Webinars

- ASFPM – <https://www.floods.org/training-education/online-training/asfpm-webinars/>
- Also...ASFPM is offering additional at home training. For information: <https://floods.redvector.com/>

Conferences

May 15-19, 2022 Orlando, FL – ASFPM Annual Conference

Other training and CEC opportunities can be found on ASFPM's calendar: <http://www.floods.org/n-calendar/calendar.asp?>

For More Information

For the most up to date information, please go to the Annual Conference page on our website at: <https://www.illinoisfloods.org/conferences-workshops/iafsm-annual-conference> or contact Dallas Alley, Conference Chair, at alley@cofh.org, or Sarah Harbaugh, Executive Secretary, at iafsm@illinoisfloods.org.

2022 Conference Information

The IAFSM Annual Conference will be Tuesday and Wednesday, March 8-9, 2022, at the Bloomington-Normal Marriott in Normal, IL, and may include a pre-conference workshop on March 7. A CFM exam will be offered the night before the conference on March 7, 2022.

Registration is open!

To register for our conference, visit the website at: <https://www.illinoisfloods.org/conferences-workshops/iafsm-annual-conference>. The deadline for registration is February 18. The hotel conference rates are available at a rate of \$137 (state government rate \$85) through February 13.

Tours / Field Trips Wanted

Does your community have a floodplain, stormwater, mitigation, or wetland project in the vicinity of the conference hotel that you would like to show to other floodplain managers? IAFSM is considering offering Technical Field Tours again if enough tour sites are submitted to make up a tour. Please submit nominations for potential tour sites at <https://forms.gle/2B3p7AHQch6D1ena8>.

Exhibitor and Vendor Registration

Companies and organizations are invited to exhibit their products, services, and activities at the IAFSM conference. For more information: https://www.illinoisfloods.org/content/documents/2022_exhibitor_flyer.pdf.

Sponsors Invited

We invite you to be a sponsor of the annual conference, or to donate a door prize. All sponsors will be identified in the conference program, at plenary sessions and during the awards luncheon. For more information on sponsorship levels and benefits, please visit: https://www.illinoisfloods.org/content/documents/2022_iafsm_sponsorship_flyer.pdf.

For More Information

For the most up to date information, please go to the Annual Conference page on our website at: <https://www.illinoisfloods.org/conferences-workshops/iafsm-annual-conference> or contact Dallas Alley, Conference Chair, at alley@cofh.org, or Sarah Harbaugh, Executive Secretary, at iafsm@illinoisfloods.org.

Annual Conference Local Official Scholarship

IAFSM is offering scholarships to state and local officials to cover registration for the 2022 annual conference. Scholarships are available to IAFSM members only and requests must be submitted by February 4, 2022. Full details are provided on the [IAFSM website](#).

IAFSM on Social Media

Follow IAFSM on Facebook and LinkedIn! Please send any time sensitive announcements or ideas for content to Melissa Duyar at Melissa.Duyar@kimley-horn.com or Sarah Wenzel at SWenzel@prairieengineers.com



Facebook:

https://www.facebook.com/pg/Illinois-Association-For-Floodplain-And-Stormwater-Management-607922356237945/posts/?ref=page_internal



LinkedIn:

<https://www.linkedin.com/company/illinois-association-for-floodplain-and-stormwater-management/about/>

Important Stuff We Tell You in Every Newsletter...

Save the Date! 2022 IAFSM Conference

The 2022 Annual Conference will be at the Bloomington Normal Marriott and Conference Center, Tuesday and Wednesday March 8 and 9, 2022. Refer to full details elsewhere in this newsletter.

Wanted: Newsletter Ideas and Articles

IAFSM members, this is YOUR newsletter! Email Jennifer Maercklein, editor, at jmaercklein@v3co.com if there are topics that you'd like us to cover. You don't need to write the article - we just want your ideas! If you're gifted with a pen and would like to provide content, we welcome your written contributions as well.

Get Involved with IAFSM!

IAFSM Committee Chairs welcome your help and involvement. See the list of chairs on the last page of this newsletter, or visit the committee webpage to learn more about volunteer opportunities. <http://www.illinoisfloods.org/committees.html>.

Borrow our Water Table

IAFSM has five Watershed Tabletop Models available for all members to check out (free of charge) and bring to Public Works Open Houses, Scout meetings, 4-H meetings, school classrooms, etc. This offers a great opportunity to educate about the dangers and impact of unplanned development and human activity in the floodplain. IAFSM currently keeps tables in Springfield, Champaign, Bartlett, Woodridge, and Fairview Heights.

Contact Sarah at IAFSM@illinoisfloods.org to make arrangements.

Next Board Meeting

The next IAFSM Board Meeting will be held on Wednesday, January 12 at 9am via zoom. All members are welcome and encouraged to attend Board meetings.

Contact Sarah Harbaugh for the Zoom ID to attend virtually: IAFSM@illinoisfloods.org.

Jobmart

Visit our Jobmart at <http://www.illinoisfloods.org/jobmart.html> Jobmart is a free service to members of IAFSM. To post an open position, please sign into our website and complete the job listing form. If you have any questions please contact Sarah Harbaugh at IAFSM@illinoisfloods.org.

CFM Exam Information

To view 2022 exam information and register, visit www.illinoisfloods.org/certification.html.



Tim O'Brien uses the IAFSM Water Table to demonstrate flooding and flood mitigation techniques to local residents at the Village of Niles Public Works Open House in September 2021.

SITE DESIGN • TRANSPORTATION • MUNICIPAL • CONSTRUCTION
SURVEY • DATA COLLECTION • WATER RESOURCES • SUSTAINABLE DESIGN

GHA GEWALT HAMILTON
ASSOCIATES, INC.

Mike Warner, P.E., CFM
Director of Water Resources

**Guiding Clients' Stormwater and Floodplain
Projects to Exemplary Outcomes with
Unmatched Experience and Insight.**

847.478.9700

GHA-Engineers.com



THE IAFSM CURRENT

Illinois Association for Floodplain and Stormwater Management

Winter 2022 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.

IAFSM OFFICERS & COMMITTEE CHAIRS

CHAIR

Stephen Altman, P.E., CFM
IDNR - OWR
Steve.Altman@illinois.gov

VICE CHAIR

Dallas Alley, CFM
City of Fairview Heights
Alley@cofh.org

TREASURER

Sharon Østerby, CFM
Lake County Stormwater
Management Commission
SOsterby@lakecountyil.gov

SECRETARY

Mary J Richardson, CFM
Illinois State Water Survey
mjr@illinois.edu

PAST CHAIR

Erik Gil, P.E., CFM
Christopher B. Burke Eng., Ltd.
egil@cbbel.com

EXECUTIVE SECRETARY

Sarah Harbaugh
Illinois Association for Floodplain and
Stormwater Management
IAFSM@illinoisfloods.org

CONFERENCE

Dallas Alley, CFM
Village of Swansea, IL
dalley@swanseaill.org

BOARD NOMINATIONS

Mark Hoskins, P.E., CFM
IDNR-OWR
Mark.Hoskins@illinois.gov

AWARDS

Sarah Hunn, P.E.
DuPage County
Stormwater Management
Sarah.Hunn@dupageco.org

CERTIFICATION

Gregory Thorpe, CFM
Rock Island County
Gthorpe@co.rock-island.il.us

COMMUNITY RATING SYSTEM

Julie Lomax, CFM, P.E.
Village of Downers Grove
JLomax@downers.us

EDUCATION OUTREACH

Diane Bouckaert, P.E., CFM
Manhard Consulting Ltd
dbouckaert@manhard.com

FLOODPLAIN MANAGEMENT

Paul Osman, CFM
P. Oz Consulting, LLC
pozfloods@gmail.com

INTER-ORGANIZATIONAL

Ajay Jain, P.E., CFM
H. R. Green
ajain@hrgreen.com

LEGISLATIVE

Kay Whitlock, P.E., D.WRE
Christopher B. Burke Eng., Ltd.
kwhitlock@cbbel.com

MITIGATION

Ron Davis
IDNR-OWR
Ron.Davis@illinois.gov

NEWSLETTER

Jennifer Maercklein, P.E., CFM
V3 Companies
jmaercklein@v3co.com

STORMWATER MANAGEMENT

Steve Bicking, P.E., D. WRE, CFM
HR Green
sbicking@hrgreen.com

WETLANDS

Tom Kehoe
Christopher B. Burke Eng., Ltd.
tkehoe@cbbel.com

YOUNG PROFESSIONALS

Sarah Wenzel, CFM
Prairie Engineers
SWenzel@prairieengineers.com

YOUTH OUTREACH

Brian Chaille, P.E., CFM
Illinois State Water Survey
bchaille@illinois.edu

ILLINOIS ASSOCIATION FOR FLOODPLAIN & STORMWATER MANAGEMENT

35W749 Bluff Drive, St. Charles, Illinois 60175

IAFSM@IllinoisFloods.org Phone: 630.443.8145 Fax: 630.443.8198

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