Winter 2015 Volume 22 Number 1



# **QUAD CITIES SECTION**

In This Issue:

Monthly Meeting

Other Upcoming Events

Last Meeting

Other News

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# ASCE/SEI Joint Meeting: Webinar – Tornado & High Wind Shelter Design



This webinar will provide technical information important to consider when designing shelters for use in either tornados or high wind events such as hurricanes. The subject of shelter design captures the attention of many after a high wind event, especially if there are those who were saved from injury or death because they were in a shelter during the event. It is important for design professionals to know how to apply the current wind design standards to this unique and important problem. Aspects of construction and project administration will also be mentioned so designers can be better prepared to manage their own risk during the project execution.

EVENT DATE: TIME:

Thursday, January 29<sup>th</sup> 2015 11:30 am to 1:00 pm

LOCATION: MENU:
Western Illinois University Jimmy John's
River Front Campus COST:

3300 River Drive ASCE Member -\$5
Moline, IL Non-Member - \$10
Room 120 Student - Free

**RESERVATIONS:** 

Register by COB January 27<sup>th</sup> at: https://docs.google.com/forms/d/1-

tnlxe000ypMmWkXaJEV5rLzMxmN6FSSax2KiUSyboM/viewform?usp=send\_form

## Other Upcoming Events:

## 30<sup>th</sup> Annual Illinois Lake Management Association Conference February 19-21; Northern Illinois University, DeKalb, IL

The Illinois Lake Management Association will hold their 30<sup>th</sup> annual lake conference at Northern Illinois University on February 19-21, 2015. The conference offers two full days of presentations from over 30 experts in the water quality field, and a third day of workshops. The keynote speaker is Chad Pregracke, the President and Founder of Living Lands & Water (LL&W), the world's only "industrial strength" not-for-profit river cleanup organization. See the attach flyer for further details and registration information.

#### **Events Calendar**

Date	Event
January 29	ASCE/SEI Joint Meeting – Tornado & High Wind
	Shelter Design
January 30-31	ASCE Multi-Regional Conference, Houston, TX
February 6-7	QCESC Battle of the Bridges, Putnam Museum
February 26	QCESC Annual Banquet
March, TBD	Monthly Meeting, TBD

## **Last Meeting:**

### September Meeting - Centennial Bridge Repairs

On September 25, 2014, about 20 ASCE members gathered for a tour of the repairs on the Centennial Bridge given by Mr. Al Swearingen with the IL DOT. During initial repairs, inspectors found more work was needed on the bridge than originally planned. Mr. Swearingen provided a detailed outline of the project, discussed the challenges of a continually changing scope and the tight construction schedule.



In order to reduce expenses, the Quad City Section sends its newsletters in electronic format only. If you are aware of a fellow Quad City Section Member that does not receive the newsletter, it means that ASCE National does not have their email address. To receive the newsletter, members must keep their email information current by contacting ASCE at 800.548.2723 or by visiting the Members Only section of the ASCE website at http://www.asce.org/membersonly. The Quad City Section does not sell email information to anyone. ASCE's Privacy Statement is available on the ASCE website.

#### November ASCE/IES Joint Meeting

For those who didn't make it to our event on November 19th, you missed an interesting tour. Our walk through the Muscatine Power and Water power plant was well attended with members from ASCE and the lowa Engineering Society (IES). Electricity is another one of those mysterious infrastructure things that simply work when you hit the switch. Like water from the tap, flushing toilets, and bridges that somehow stay up, power generation and distribution is underappreciated by the masses. As engineers, we should be doing whatever we can to educate the masses as to the importance of what we do in regards to the quality of life that we all enjoy.

Pictured below, from left: Lance Rowell, Keith White, Pat Mullin, Candice Bark, Deb Mathias, Matt Wilkey, Rob Wheeler (MPW), Carl Johnson, Adam Shutt, Greg Shuger, John Frauenhoffer. Not shown: Sean Leeper, Wes Walker, Alan Palmer.



### Other News:

#### 2015 Race to Renewal Winner

CONGRATULATIONS!! Because of our member's dedication to ASCE, the Quad Cities section has once again won the annual Race to Renewal contest for small sections. Because of your efforts, the Quad Cities Section will be receiving a check for \$1,000. Thank you to all members who remembered to renew your memberships. See the final standings below.

LARGE SECTIONS:	MEDIUM SECTIONS:	SMALL SECTIONS:
Louisiana*	Montana*	Quad Cities*
Kansas City	Alaska	North Dakota
Hawaii	Nebraska	Columbia
Maryland	lowa	Wyoming
Utah	Cincinnati	Syracuse

<sup>\*</sup>Section Winner

The **Illinois Lake Management Association's** 30<sup>th</sup> annual lake conference is being held were it all started. Thirty years ago ILMA hosted its first conference at the campus of Northern Illinois University in DeKalb, Illinois. We return to **NIU on February 19-21, 2015** to pack together a dense schedule of presentations on lake and watershed topics. The conference offers two full days of presentations from over 30 experts in the water quality field, and a third day of workshops. Come take advantage of having the opportunity to learn and network with persons throughout the industry. For full registration information please see our website at: www.ilma-lakes.org

This year is the 30<sup>th</sup> annual conference for ILMA. As an all-volunteer organization, we are celebrating and highlighting the role volunteering plays in protecting our lakes, rivers, and watersheds. Our keynote speaker is Chad Pregracke, the President and Founder of Living Lands & Waters (LL&W), the world's only "industrial strength" not-for-profit river cleanup organization. Chad formed LL&W at the youthful age of 23, after spending his life growing up and working on the Mississippi River. Early on, he became appalled by the amount of garbage in the river and decided that if no one else was going to do something about it, he would.



Over the last 16 years, he, his crew, and nearly 70,000 volunteers have removed over 7 million pounds of garbage out of our nation's rivers. He's also broadened his mission to include a MillionTrees and an Adopt-A-River Mile Project, as well as a new floating classroom aboard a barge that he and his crew live on 7 months of the year, teaching students, educators and individual citizens about the value of our rivers and natural resources. Most recently, Chad was named the 2013 CNN Hero of the Year! Come join us as Chad kicks of the conference with his discussion of what happens when you get past the question of "What can one volunteering decision accomplish?"

The registration fee for this year's conference includes lunch on Thursday and Friday, an exhibitor reception and dinner on Thursday evening, as well as all conference materials. The registration fee for the conference is \$130 for current ILMA members or \$150 for non-members. Special rates: \$100 for representatives of home owner associations; and \$80 to full time students. The Saturday workshops can be attended with or without registration to the full conference at a fee of only \$25.

Be sure to register soon as conference/workshop and hotel availability are limited. Payment can be made by check (mail) or via PavPal through the website. Cancellations will be subject to a \$20 service fee up until February 4, 2015, after which no refund will be available. See our website for the most up-to-date information: www.ilma-lakes.org.

Conference attendees will be provided a special rate at the Holmes Student Center Hotel (on campus: 815-753-1444), be sure to notify the hotel when making a reservation.

Professional Development Hours
PDHs will be provided for those
guests which attend the either the
2-day conference sessions and/or
the workshops; 10 PDHs will be
provided for the conference
sessions, 4 will be provided for
attending one of the workshops.

Chad's keynote speech will kick off the conference Thursday morning along with the Illinois Environmental Protection Agency's Bureau of Water Chief, Marcia Willhite, where she will discuss the agency's long range plans for implementing a new statewide nutrient reduction strategy. The conference will continue with ten technical sessions running through Friday afternoon. Technical sessions are 90 minutes long, will be a mixture of panel discussions and oral presentations, and are divided into the topics described on the following page. A full program guide with presentation times will be released soon.

### **Technical Sessions [February 19-20]**

#### Lake Management Issues for Home Owners Associations

The majority of lakes in Illinois have been constructed, are privately owned, and were built for residential development purposes (typically for recreation and/or stormwater control). Whether constructed or natural, home owners associations represent the primary management unit for our lakes. This session will present information on legal issues regarding establishing and maintaining a strong association; how to manage large dollar maintenance projects, and financial tools beyond grant acquisition for an HOA to implement.

#### What Does Climate Change Mean for Lakes in the Midwest?

The phrase 'global climate change' has been worked into the regular vernacular, but getting past the headlines is needed to understand some of the real implications to our Midwestern lakes. This session will cover how anticipated changes will impact stormwater runoff, ice cover, nutrient dynamics, and overall water supply issues.

#### **Volunteering Actions**

Whether it is volunteering to pick up trash from a streambank, collect and report secchi depths, or plant trees, volunteerism maintains a prominent place in protecting our lakes and streams. In this session we will hear from agency coordinators and individuals on the activities they were able to accomplish and about the programs available to assist in the collection of data and fund clean-up efforts.

## Exotic Aquatic Species: Transportation, Colonization, and Management [Panel Discussion]

We will have experts from state agencies, research organizations, private companies, and not-for-profit organizations to discuss and engage with the audience on the subject of aquatic invasive species in Illinois. The general topics will include the identification of species, transportation modes, and treatment strategies, but the heart of the panel will be to discuss pooling resources and coordinating across disciplines to cover management needs and expertise of these constantly evolving adversaries.

#### <u>Urban Flooding and Stormwater Management</u>

Over time our understanding of managing urban stormwater runoff has improved, but often our infrastructure remains behind. In addition to dealing with aging infrastructure, municipalities and counties need to address these deficiencies through development of new ordinances. This session will provide presentations which cover three viewpoints; discussion of a project needed to improve/retrofit an existing structure, covering how a municipality can develop and implement stormwater ordinances, and the research and modeling behind stormwater management.

## Workshops [February 21st]

## Understanding Types and Benefits of Fish Habitat and Structure

Leonard Dane, Deuchler Environmental

Structure, whether natural or artificial, is an important feature in a water body that helps to maintain a diverse and healthy population of fish. This workshop will aim to break down the important components of fish habitat, with some hands-on activities, needed to promote a healthier distribution of fish populations within your lake or pond.

#### Capture and Release

The historical paradigm was to move waste and water through the system as quickly as possible and let those downstream worry about it. Each decade that has passed since the enactment of the clean water act has seen steady improvements in the technology available to deal with both wastewater and stormwater. The paradigm has slowly shifted such that systems are providing a capture before release to improve the downstream. This session will focus on treatment technologies and the impacts they can have.

#### What about Safe Drinking Water?

This past year an algal bloom in the Midwest temporarily removed access to safe drinking water for nearly half a million people. This extended beyond a simple boil order as the water was deemed not safe to come into contact with. Access to safe potable water is considered a given for most Americans yet accidental releases of materials adjacent to water supplies and nutrient loading in our streams and waterways can quickly bring attention to the need to be aware of our water supply. This session will discuss water protection protocols and lessons learned from past incidents.

#### Lake Critters

Measuring water quality extends beyond the analysis of turbidity and pH. Healthy lakes are composed of numerous and diverse aquatic organisms that don't always get their due. This session will provide three presentations on the subject of macroinvertebrate communities within lakes and streams

#### **Nutrient Management on Watershed Scales**

Nutrient loading rates are strongly affected by the activities occurring in the watershed. A watershed may be dominated by urban or agricultural land, but generally contains a mixture of the two, and lake managers must coordinate with land users throughout a watershed to address issues outside of land they control. This session will focus on coordination with local governing bodies regarding application of fertilizers on urban lawns, and agricultural land management strategies (with focus on use of cover crops).

#### Partnership Formation [Panel Discussion]

Local/community involvement is the most effective way to protect the resources surrounding us; however, protecting larger scale watersheds requires coordination of multiple 'local' groups. There is no silver bullet or one-size-fits all; a small group of local informal volunteers is as important as a larger not-for-profit organization which has full time employees. This session has brought together a panel of individuals spanning this spectrum to share with the audience with the experiences of growth, turnover, maintaining enthusiasm, managing projects, and coordinating with other groups to share resources.

## Introduction to Open Source, Mobile GIS Tools

NIU Geography Department

As GPS/GIS technology has become more ubiquitous, programs are no longer reserved for the professional field. This hands-on workshop will explore mobile mapping tools available on Android and Apple smartphones, simple visualization techniques using Google Maps and Fusion Tables, and ways to import the data into the increasingly popular, open-source GIS platform QGIS.

The Illinois Lakes Management Association is a nonprofit organization whose mission is to promote understanding and comprehensive management of lake and watershed ecosystems. Membership is open to all.

## **30<sup>th</sup> Annual Conference**

## Illinois Lake Management Association February 19-21, 2015 Northern Illinois University, DeKalb, Illinois



Na	me:	
Firs	st name as you would like it to appear on your badge:	
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Em	nail:	
Cc	onference Registration Fees:	
	Main Conference	
	☐ [\$150] Non-Member – Full registration for non-ILMA member material, Thursday lunch, exhibitor's reception and dinner membership. A reminder most membership is renewed at members looking to renew membership without filling out	, Friday lunch, and a 2015 individual the conference, so those 2014
	☐ [\$130] Member – Full registration for <u>current</u> ILMA member material, Thursday lunch, exhibitors reception and dinner,	
	☐ [\$100] Home Owners Association Representative – This is a members representing their HOA organization at the conf	· ·
	[\$80] Student / Presenter / Guest Meal – This is a special rate for students and conference presenters. For those registering for full registration, you may also select this <i>for one guest</i> to cover their meals throughout the conference.  **Guest Name:	
	Workshops	
	$\square$ [\$25] Workshop: Understanding Types and Benefits of Fish	Habitat and Structure
	$\square$ [\$25] Workshop: GIS Applications for Novice Users	
\$	Total Enclosed (\$20 Late fee if not received by Feb	ruary 4) heck box if requesting vegetarian meals $\Box$
Ma	ake check payable to <i>ILMA</i> . Mail this registration form and payn	nent to:

ILMA Conference Registration, PO Box 20655, Springfield, IL 62708

**Questions?** Contact Dick Hilton at (800)338-6976 (01) or at wildick@comcast.net **Cancellations:** Refunds will be issued up until February 4, 2015 (less a \$20 service charge)