



Illinois Lake Management Association

29th Annual Conference

Timber Creek Inn & Conference Center
3300 Drew Avenue
Sandwich, IL

*Presented in Partnership with
Illinois Environmental Protection Agency*



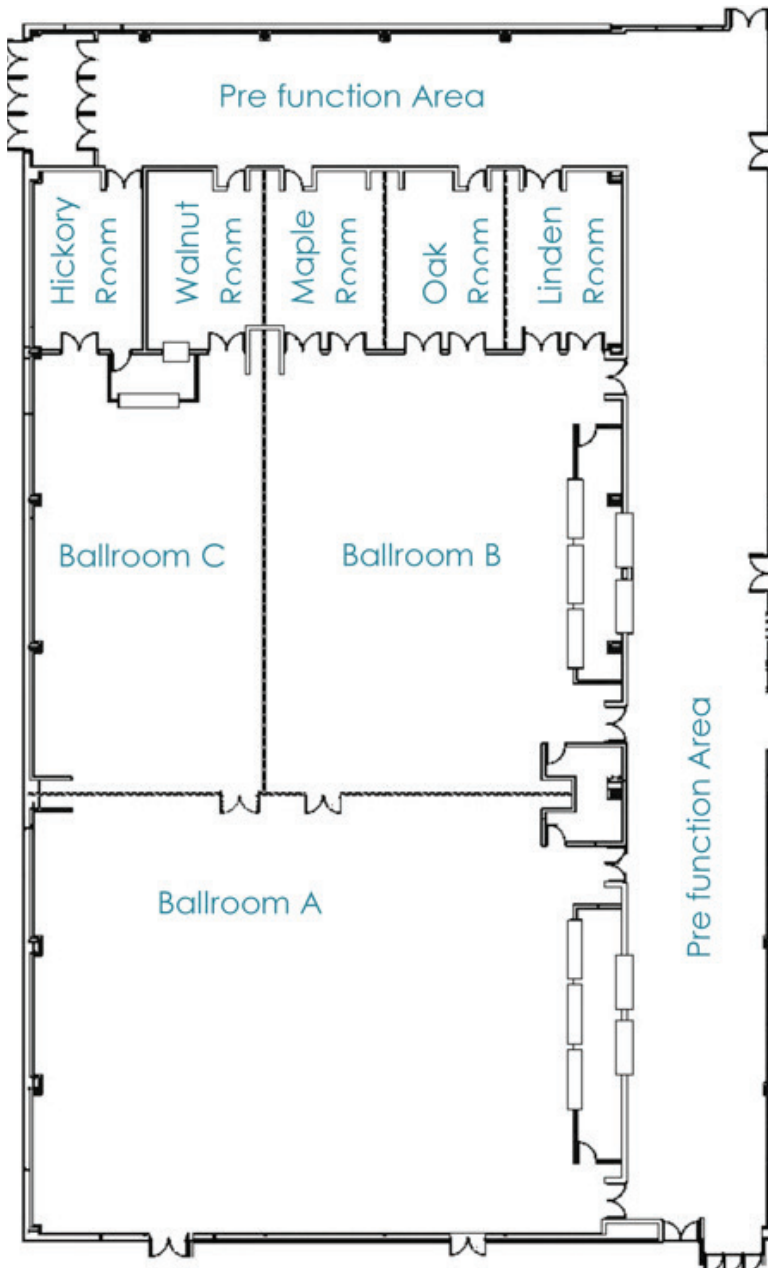
April 10th - 12th, 2014



[YOU ARE HERE]

Following the exhibitor's reception and dinner on Thursday evening, the festivities will continue downstairs in the Little Rock Creek Room (in the hotel area) where ILMA will host musical act Red Horse until 11pm.

Enjoy!



Nametags: Be sure to wear your nametag during the conference. Your nametag is both a 'ticket' for conference meals and events, and helpful for sparking conversations with faces you don't know. Should you lose your nametag, simply visit the registration desk and we'll be happy to print off a new one.

Ballrooms: All day activities (sessions, breaks, and meals) will be held in Ballroom A. The sessions will be in either Ballroom B or C accessed from Ballroom A. Be sure to visit with the exhibitors to discuss aquatic plant management, water quality enhancement, laboratory testing, monitoring equipment, and much more during the breaks.

Auction Raffle Items: An auction raffle will be held in the ballroom all day Thursday and close at noon on Friday. Simply place as many tickets in the basket of the items you can't bare leave the conference without. It only takes one ticket to win, but your odds only get better with more tickets! All proceeds go towards the ILMA scholarship fund, so splurging is beneficial to the minds of the next generation of scientists.

Photo Contest: Don't forget to cast your vote for the 2014 ILMA photograph of the year. Photos are on display in near the raffle items. The ballots and ballot box are located with the display. The winner will receive \$50 and will be featured on the 2015 conference program.



2014 Overview Agenda

Thursday April 10th

Registration is open from 8:00am – 5:00pm

9:00-10:20	Conference Kickoff / Keynote	Ballroom B
10:20-10:35	Break	Ballroom A
10:35-11:35	Green Infrastructure, A Municipal Perspective	Ballroom B
11:35-11:45	Break	Ballroom A
11:45-12:15	Lake DePue Update (DePue High School)	Ballroom A
12:15-1:15	Lunch	Ballroom A
1:15-3:15	Concurrent Sessions	Ballrooms B & C
3:15-3:30	Break	Ballroom A
3:30-5:00	Concurrent Sessions	Ballrooms B & C
5:00-6:00	Exhibitors Reception	Ballroom A
6:00-7:00	Dinner	Ballroom A
7:00-8:00	Annual ILMA Member Meeting	Ballroom A
8:00-11:00	Open Social	Little Rock Creek

Friday April 11th

Registration is open from 8:00am – 12:00pm

8:30-10:00	Concurrent Sessions	Ballrooms B & C
10:00-10:30	Break	Ballroom A
10:30-12:00	Concurrent Sessions	Ballrooms B & C
12:00-1:15	Lunch	Ballroom A
1:15-3:15	Concurrent Sessions	Ballrooms B & C
3:15-3:30	Conference Closeout / Drawing for Winner of the Kayak Package	Ballroom A

Saturday April 12th

9:00-1:00	Nuisance Aquatic Plant Identification & Treatment Workshop	Ballroom C
9:00-1:00	Fish Passage & Dam Removal Workshop	Ballroom A*

**Attendees will meet here prior to leaving for the site*

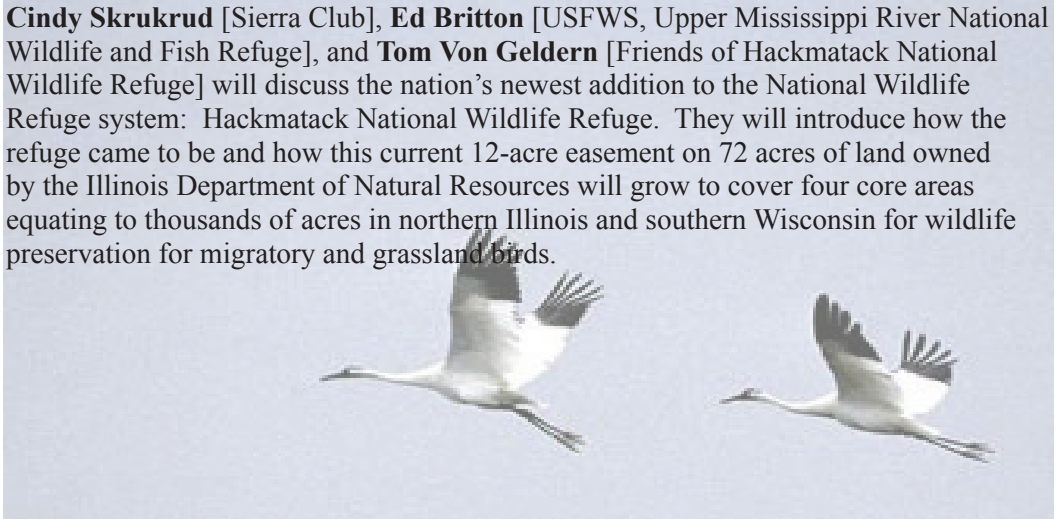


Thursday Morning April 10th

9:00-10:20 Conference Kickoff / Keynote Ballroom B

9:00 **Bryan Cross** [*President of the Illinois Lake Management Association*] will provide a welcome and short introduction to the 2014 conference activities.

9:15 **Cindy Skrukrud** [Sierra Club], **Ed Britton** [USFWS, Upper Mississippi River National Wildlife and Fish Refuge], and **Tom Von Geldern** [Friends of Hackmatack National Wildlife Refuge] will discuss the nation’s newest addition to the National Wildlife Refuge system: Hackmatack National Wildlife Refuge. They will introduce how the refuge came to be and how this current 12-acre easement on 72 acres of land owned by the Illinois Department of Natural Resources will grow to cover four core areas equating to thousands of acres in northern Illinois and southern Wisconsin for wildlife preservation for migratory and grassland birds.



10:20-10:35 Break (*just a quick coffee break for our caffeine addicts*) Ballroom A

10:35-11:35 Green Infrastructure, A Municipal Perspective Ballroom B

Eric Schoeny [City of Aurora] and **Aaron Cosentino** [City of Elgin] will provide a municipal perspective on what ‘green infrastructure’ means in terms of practice, maintenance, and dollars. Eric will focus on water quality data from Aurora’s separate and combined sewer outfalls as an indication of how conventional grey infrastructure alone is not the answer to improving the quality of our water resources, while Aaron will discuss design and construction issues surrounding retrofitting stormwater projects to incorporate green infrastructure.

11:35-11:45 Break Ballroom A

11:45-12:15 Lake DePue Cleanup Challenge Ballroom A

Keith Garcia [DePue School District #103] will introduce the Student Environmental Group at DePue High School which has embarked on this year’s Siemens, “We Can Change the World Challenge.” Last year the group received recognition as a national finalist, and was also the only finalists from Illinois. The project involved encapsulating lake sludge, with paraffin wax, as a means to sequester, or remove the potential for heavy metals re-introduction into lake or stream waters. The study site focus was Lake DePue, located proximally to the Village of DePue. The students were involved in both field and lab studies. This year the group has selected two projects designed by two different teams which will be discussed.

12:15-1:15 Lunch (Scholarship Awards) Ballroom A

Thursday Afternoon April 10th

1:15-3:15 Concurrent Sessions Ballroom B & C

Ballroom B [Total Maximum Daily Loading (TMDL)]
Moderator – Leonard Dane

1:15
Lake Reclamation beyond TMDLs- Project experience
Demonstrating the Essential Need for Positive Controls on
Internal Nutrient Loading and the Importance of Ecosystem
Structure to Restore Water Quality
David Austin, CH2M Hill

1:45
Science in TMDL Studies for Lakes: Myth or Reality
Alena Bartosova, Illinois State Water Survey

2:15
Fox River Study Alternative to TMDL for Lower Fox
Rob Linke, Fox River Study Group

2:45
Public Agency Teaming: 2012 Fox River Low Flow Study
Karen Clementi, Deuchler Environmental

Ballroom C [Lake Management “How To”]
Moderator – Holly Hudson and Mary Cowell

1:15 thru 3:15
The Top Ten List of Things You Can Do for Your Lake
This is a continuous panel discussion

Mary Cowell, Lake County Forest Preserves
Holly Hudson, Chicago Metropolitan Agency for Planning
Greg Hitzroth, Illinois-Indiana Sea Grant
Margaret Schneemann, Illinois-Indiana Sea Grant
James Fitzgerald, EA Engineering, Science, and Technology
Tim Pasternak, Round Lake Management Commission

3:15-3:30 Break Ballroom A

3:30-5:00 Concurrent Sessions Ballroom B & C

Ballroom B [Waterways: Monitoring and Modifications]
Moderator – Nancy Schumm

3:30
Effects of dams on fish assemblages in the Vermilion River Basin
Ryan Hastings, Eastern Illinois University

4:00
Evaluation of Fish Community Response to Dam Removal and
Fish Passage Projects in Northeastern Illinois
Stephen Pescitelli, Illinois DNR

4:30
Vegetated Segmental Retaining Walls for Bioengineered
Solutions
Jay Gehler, Agrecol

Ballroom C [Co-operation and Social Media]
Moderator – Sharon Osterby

3:30
Environmentalism and Social Media
Lois Kanter, Northern Illinois University

4:00
Coordinating Across Municipal and County Lines -
A Coordinated Pollutant Monitoring Program
Marcy Knysz, Cardno JFNew

4:30
Pond Management- Chapter 4 from the guide: ‘Retrofitting Large
Landscapes for Sustainability’
Keith Gray, ILM / Lydia Scott, Morton Arboretum

5:00-6:00 Exhibitor Reception (Poster Session)..... Ballroom A

6:00-8:00 Dinner and ILMA Annual Meeting (Lake Awards) Ballroom A

8:00-11:00 Open Social (Includes musical guests Red Horse) Little Rock Creek



Friday Morning April 11th

8:30-10:00 Concurrent Sessions Ballroom B & C

Ballroom B [Stormwater Management and Restoration]

Moderator – Randy Stowe

8:30

Watershed awareness in Sycamore/DeKalb
Christopher Moreno, Northern Illinois University

9:00

Developing a Municipal Stormwater Management Program for a
Semi-Rural Community
Nancy Schumm / Albert Stefan, Schumm Consulting

9:30

Reducing Swim Bans through Habitat Restoration
Kathy Paap, Lake County Health Department

Ballroom C [Lake Maintenance Issues]

Moderator – Carol Shobrook

8:30

Affordable Water Resource Management
Hank Sutton, Lake RipRap

9:00

Planning and Implementing a Lake Dredging Project
Peter Berrini, Berrini & Associates

9:30

Surveys and Sediment: Managing Illinois Lakes and Reservoirs
Kip Stevenson, Illinois State Water Survey

10:00-10:30 Break Ballroom A

10:30-12:00 Concurrent Sessions Ballroom B & C

Ballroom B [Watershed: Modeling and Management]

Moderator – James Fitzgerald

10:30

Spatial Watershed Assessment & Management Model
(SWAMM)TM
Jeff Boeckler, Northwater Consulting

11:00

The Hydro-Geomorphoc Method (HGM) for Establishing
Landscape Scale Conservation Priorities in Large River
Floodplain Corridors
Joseph Bartletti, Prairie Engineers of Illinois

11:30

Vermilion River Dam Reclassification [of the Downstream Haz-
ard Rating]
Edward LaBelle, Crawford, Murphy, & Tilly Engineers

Ballroom C [VLMP and Volunteerism]

Moderator – Teri Holland

10:30

Conservation @ Home and Work
John Church, The Conservation Foundation

11:00

The Illinois Volunteer Lake Monitoring Program
Greg Ratliff, Illinois EPA

11:30

The HABs and HABs Nots
Mike Adam, Lake County Health Department

12:00-1:15 Lunch Ballroom A

Friday Afternoon April 11th

1:30-3:15 Concurrent Sessions Ballroom B & C

Ballroom B [Invasive Species: Pathways and Prevention]

Moderator – Mike Adam

1:15

Modeling Adoption of Prevention Practices for Aquatic Invasive Species

Ellen Cole, Loyola University

1:45

Patterns over Time and Space in the Arrival and Spread of Aquatic Non-native Species in Illinois

Abigail Jacobs, Loyola University

2:15

Aquatic Invasive Species Outreach for Water Gardeners and Aquarium Hobbyists

Greg Hitzroth, Illinois-Indiana Sea Grant

2:45

An Integrated Approach to Invasive Species Control: Drury Wetland

Kara DeGraff, ILM

Ballroom C [Environmental Risks]

Moderator – Kelly Deem

1:15

Water Quality Impacts of Road Salt Storage along Illinois Rivers

Christine Zeivel, Illinois EPA

1:45

The True Cost of Herbicide Resistance

Brett Bultemeier, Clarke

2:15

Introduction of Hydraulic Fracturing Regulations in Illinois

Jennifer Walling, Illinois Environmental Council

2:45

USFWS Triploid Grass Carp Certification Program

Meghan Oh, HDR

3:15-3:30 Conference Closeout Ballroom A

(Drawing of Raffle Items, 50/50 and Kayak Drawing - *must be present to win*)

Saturday Workshops April 12th

9:00-1:00 (Ballroom C)

Nuisance Aquatic Plant Identification & Treatment Workshop

The workshop will consist of aquatic plant identification with emphasis on priority nuisance aquatic plants. The workshop will encompass aquatic plant susceptibility to select herbicides, registered herbicides, and pertinent environmental considerations in the use of herbicides. The workshop will discuss specific site factors that influence herbicide selection, the process of herbicides in aquatic environments, and the herbicides toxicity to non-target organisms. Discussion will also include how to create a request for proposal, in an effort to strengthen communication between applicators and lake managers.

Kelly Deem, Lake County Health Department

Mike Adam, Lake County Health Department

Holly Hudson, CMAP

9:00-1:00 (Ballroom A)

Fish Passage & Dam Removal Workshop

Maintaining or removing dam structures on waterways can result in unintended consequences to stream morphology and movement of aquatic organisms through the river systems. This workshop will lead a guided tour of two dam removal and two fish by-pass projects within the northeastern Illinois region (dam removals on Blackberry Creek and the Des Plaines River, and fish by-pass structures on the Fox River and Big Rock Creek). Stephen will discuss the importance of understanding the hydrology of watershed and the target species a project seeks to protect or assist.

Stephen Pescitelli, Illinois DNR



Conference Abstracts

Green Infrastructure, A Municipal Perspective..... **Ballroom B 10:35-11:35, April 10th**

Green Infrastructure, A Municipal Perspective - Aurora

Eric Schoeny, City of Aurora

Email: ESchoeny@aurora-il.org

Water quality data from Aurora's separate and combined sewer outfalls indicate that conventional grey infrastructure alone is not the answer to improving the quality of our water resources. In the process of investing significant resources toward combined sewer improvements, Aurora has discovered that green infrastructure can be a very cost effective part of its stormwater management efforts.

Green Infrastructure, A Municipal Perspective - Elgin

Aaron Cosentino, City of Elgin

Email: cosentino_a@cityofelgin.org

The city of Elgin's green infrastructure retrofit project entails the design and construction of nearly twenty parkway rain gardens. Learn about the city's experience with this project from resident outreach to design and construction. Walk away with a better understanding of what it takes to complete a green infrastructure retrofit project, including project costs and potential pitfalls to avoid.

Lake DePue Update **Ballroom A 11:45-12:15**
(Presented during the lunch period)

Lake DePue Cleanup Challenge

Keith Garcia, DePue School District #103

Email: garciak@Depueschools.org

The Student Environmental Group at DePue High School has embarked on this year's Siemens, "We Can Change the World Challenge." Last year the group received recognition as a national finalist. They were also the only finalists from Illinois. The project involved encapsulating lake sludge, with paraffin wax, as a means to sequester, or remove the potential for heavy metals re-introduction into lake or stream waters. The study site focus was Lake DePue, located proximally to the Village of DePue. The students were involved in both field and lab studies. This year the group has selected two projects designed by two different teams. The Encapsulators' project is a variation of last year's encapsulation of heavy metals. This year the project team determined to examine potential encapsulation of phosphorus and phosphate compounds, in pond and lake environments, using polyurethane. Phosphate compounds, from phosphorus, can enter aquatic environments from many sources. The most recognized source is phosphates from detergents and fertilizers that enter rivers, streams and lake systems through runoff. Accumulation of phosphates in lakes and ponds results in algal blooms and accelerated plant growth. The end result is depletion in dissolved oxygen in the water, and a change in the ecosystem. Oligotrophic lakes (clearer, deeper, fish supporting lakes), will move to eutrophic conditions, (cloudier, shallower conditions supporting fewer fish, and more, smaller vertebrate, and invertebrate organisms), as more organic material accumulates and oxygen levels continue decreasing. So much for a brief description! This ecological succession in Lake DePue may be of significant economic impact for the Village of DePue. This may not be the case in other lake ecosystems. Moreover, this is a short-term study in methodology, using a selected sequestering agent, to inhibit increasing organic concentrations in lake systems, maintaining greater oligotrophic conditions. The long-term effects of introducing polyurethane as the applied sequestering agent, has not been studied, nor evaluated. Short-term results show a decrease in total phosphorus at 70%, after 12 hours of setting time and 80% after 24 hours of setting time. Setting time being the time allowed for the polyurethane to cure in-situ. These total phosphorus reduction numbers result from a polyurethane to sludge loading ratio of 1:5 per volume.

Total Maximum Daily Loading (TMDL) **Ballroom B 1:15-3:15, April 10th**

Lake Reclamation beyond TMDLs- Project experience Demonstrating the Essential Need for Positive Controls on Internal Nutrient Loading and the Importance of Ecosystem Structure to Restore Water Quality

David Austin, CH2M Hill

Email: david.austin@ch2m.com

Reclamation of impaired lake water quality can be likened to a three-legged stool. There are three broad areas that need remediation attention: watershed impairments, internal nutrient or metals loading, and ecosystem impairments. Water quality reclamation will tend to fail if any one element with strong impairments is ignored. The TMDL process concentrates almost exclusively on watersheds. Although lake internal loading (e.g. P or methyl-Hg) enters into TMDL calculations, the 319 program is not structured to fund internal remediation actions, despite a large percentage of impaired lakes will remain so without engineering intervention to control internal nutrient and metals loading. Moreover, the TMDL process is essentially blind to the impact of ecosystem structure on water quality even though it can be profound. Lake remediation requires more than the TMDL process, but TMDLs are one leg of the stool and so remain essential. This presentation reviews tangible examples from several projects involving in-basin projects to control internal loading and restructure ecosystems to positively impact water quality. Examples include meeting basin total phosphorus goals via hypolimnetic aeration and oxygenation, reduction of in-basin P-loading via destratification, suppression of methyl-Hg with nitrate, and the positive impacts of biomanipulation. Finally, the presentation will suggest conceptual guidelines on how watershed nutrient TMDLs, positive controls on internal P-loading, and ecosystem structure can be integrated into water quality reclamation plans.

Science in TMDL Studies for Lakes: Myth or Reality

Alena Bartosova, Illinois State Water Survey

Email: alena@illinois.edu

The Clean Water Act requires Total Maximum Daily Load (TMDL) studies to be developed for all impaired water bodies. Illinois has 91,456 lakes and ponds (316,877 acres total) designated for general uses and 74 lakes (75,402 acres total) designated for Public and Food Processing Water Supply Use. The 2014 IEPA assessment of about 45% of the total lake acres classified 11% of the assessed acres as fully supporting Aesthetic Quality Use. Out of 66 assessed public water supply lakes, 60% are classified as fully supporting. TMDLs for impaired lakes are often developed using a limited amount of data or inconsistently collected data. The IEPA partnered with the ISWS to develop TMDL for two water supply lakes, Canton Lake and Vermont City Reservoir, to demonstrate a scientific approach to TMDLs. Discharge and water quality data were collected in lakes and tributaries to enable determination of loads entering the lakes during the 18-month monitoring period and to aid the model development. Additional in-lake sampling provides insight into the nutrient cycling and internal fluxes, allowing for a more precise model calibration that better reflects ongoing processes within the lake. The authors will present the monitoring design, data analyses, the lessons learned, and the implications for TMDL development. While the added cost and time are a consideration when collecting detailed data, the increased accuracy of load estimates and the ability to quantify site-specific processes aid in identifying site-specific implementation measures and improve the TMDLs' public acceptance.

Fox River Study Alternative to TMDL for Lower Fox

Rob Linke, Trotter & Associates

Email: R.Linke@taiengr.com

The Fox River Study Group was organized in response to local concerns about Fox River water quality in 2001. The FRSG is comprised of a diverse group of stakeholders representing municipalities, county government, water reclamation districts, and environmental and watershed groups from throughout the Illinois portion of the watershed. The goal of the FRSG is to address water quality issues in the Fox River watershed and assist with implementing activities to improve and maintain water quality. The FRSG has initiated activities to more accurately characterize the water quality of the Fox River from the Chain O' Lakes to the river's confluence with the Illinois River. The group's efforts include water quality sampling and analysis and preparation of comprehensive water quality models. The FRSG is currently using these water quality models to develop an implementation plan that will address nutrients and dissolved oxygen impairments in the Fox River, which are the two key issues impacting the river in Illinois. The implementation plan, to be completed by June 2015, will serve as the roadmap for watershed decision makers and will define both the reductions in pollutant discharges that are needed and the in-stream projects to be executed that, when implemented, will improve the water quality of the Fox River.



Conference Abstracts

Ballroom B cont...

Public Agency Teaming: 2012 Fox River Low Flow Study

Karen Clementi, Deuchler Environmental

Email: kclementi@deuchler.com

Deuchler Environmental, Inc. (DEI) partnered with the Illinois State Water Survey to complete a low flow water quality study on the Fox River mainstem and tributaries for the Fox River Study Group. This primary purpose of this study was to define the low flow dissolved oxygen regimes through an intensive 72-hour monitoring endeavor. It consisted of a lengthy setup and organizational effort to deploy 8 teams along an 80-mile portion of the Fox River to collect water quality data in coordinated time windows during the 2012 drought. Tasks performed included: cross-sectional river profiles, continuous dissolved oxygen monitoring with sondes, in-situ water quality measurements, stage measurements on the mainstem and tributaries, benthic algae sampling, and discrete water quality sampling of organic parameters, nutrients and other inorganic parameters. The United States Geological Service and a private laboratory also assisted with the project. All of the collected data was utilized to calibrate a model for the Fox River Study Group.

Lake Management “How To” **Ballroom C 1:15-3:15, April 10th**

The Top Ten List of Things You Can Do for Your Lake

Mary Cowell, Lake County Forest Preserves

Holly Hudson, Chicago Metropolitan Agency for Planning

Greg Hitzroth, Illinois-Indiana Sea Grant

Margaret Schneemann, Illinois-Indiana Sea Grant

James Fitzgerald, EA Engineering, Science, and Technology

Tim Pasternak, Round Lake Management Commission

Email:

mcolwell5@att.net

hudson@cmap.illinois.gov

hitzroth@illinois.edu

mschneemann@cmap.illinois.gov

jfitzgerald@eaest.com

tim.pasternak@baxter.com

Your lake is a precious resource – so how do you take care of it? The list of lake protection and management strategies certainly can be mind-boggling. In this session, our panel of experts will get you started as they whittle down the list to the most important things you can do for your lake. You’ll be introduced to the “what,” “why,” and “how” of key actions that can help you more effectively protect and manage your lake. The list includes topics such as lake-friendly home and yard care, education and outreach tactics, lake monitoring, aquatic invasive species, fish surveys, and lake management planning. Come join our host of experts as we link the importance of these and other strategies. There will be a question and answer panel session to wrap up.

Waterways: Monitoring and Modifications..... **Ballroom B 3:30-5:00, April 10th**

Effects of Dams on Fish Assemblages in the Vermilion River Basin

Ryan Hastings, Eastern Illinois University

Email: rphastings@eiu.edu

Dams are a main source of anthropogenic disturbances on river systems in the United States. They have the ability to change rivers from lotic to lentic habitats, affect sediment transportation, connectivity, water quality, linkages with wetlands and the quality of in-stream and riparian habitats. These changes can effect fish community structures and have the potential to increase the success of non-native or invasive organisms in the system. The Vermilion River and its tributary, the North Fork Vermilion, are both impacted by low head dams creating lentic habitats within each system. In October of 2012 and 2103 fish assemblages were sampled using DC electrofishing at a total of twelve sites. Each river contained six sites; two sites located below the dam, two sites located in the lentic habitat and two sites located up stream of the lentic reach. Cluster analyses were used to assess community structure within both water sheds using presence absence data. This analysis showed definitive separations between water sheds as well as clear spatial structure by separating habitat types created by the dams. Partial mantel tests were conducted to compare dissimilarities among sites controlling for habitat structure and physical distance. These found a significant relationship between fish assemblages and habitat when controlling for physical distance (P=0.032). However, there was no relationship between fish assemblages and physical distance when habitat was controlled. These data suggest impoundments in this system are causing changes in fish assemblages primarily by altering habitats within the system. The removal of these dams is important to return the system back to its natural ecological state.

Evaluation of Fish Community Response to Dam Removal and Fish Passage Projects in Northeastern Illinois

Stephen Pescitelli, Illinois Department of Natural Resources

Email: steve.pescitelli@illinois.gov

In recent years a number of dam removal and fish passage projects have been completed in Northeastern Illinois, allowing evaluation of fish community response to barrier removal and habitat restoration. One of the first projects in 1998 was on Waubonsie Creek. Redhorse migrated upstream during the first spring spawning season; smallmouth bass and channel catfish have also been observed upstream. A multiple dam removal was completed in 2006 on Brewster Creek. The phased removal allowed natural channel formation; no downstream sedimentation effects were observed. Smallmouth bass and quillback were early migrants into the new channel. In total, 14 new species have been found including channel catfish, flathead catfish, minnows, and darters. Eight new species were found upstream after removal of a dam on Ferson Creek. The Blackberry Creek dam, removed in 2013 allowed migration of 17 new species upstream. Riverine suckers spawned in the new channel weeks after removal; smallmouth bass and channel catfish young-of-the-year were documented 4 miles upstream in the first season. Shortly after the 2012 removal of a large dam on the Des Plaines River, the former pooled area held 10 new species with improved IBI. Channel catfish, which were not previously recorded in the upstream segment, occurred at several locations along with several other new migrants. Fish passage projects at three sites have also allowed upstream migration, but these structures have had serious maintenance issues. This confirms experiences in other States which indicate dam removal is a better option, restoring stream habitat and eliminating maintenance.

Vegetated Segmental Retaining Walls for Bioengineered Solutions

Jay Gehler, Agrecol

Email: Jay.Gehler@agrecol.com

A concept gaining popularity is known as “soft engineering;” the use of ecological principles and practices to reduce erosion and achieve the stabilization and safety of slopes and shorelines, while enhancing habitat, improving aesthetics, and saving installation and restoration costs. Soft engineering is achieved by utilizing vegetation and other materials to soften and sustain the slope, thereby improving ecological services without compromising the engineered integrity of the slope, shoreline or river edge. Practical, economical, yet attractive and sustainable are the core concepts of soft engineering strategies and practices. Enter Vegetated Segmental Retaining Walls. These structured systems provide the strength and function of a standard retaining wall plus the added ability to sustain live plants and maintain habitat. With recent emphasis on sustainable landscapes and bioengineering, retaining walls are becoming living, breathing structures that are a perfect blend of function and environmental integration.



Conference Abstracts

Co-operation and Social Media **Ballroom C 3:30-5:00, April 10th**

Environmentalism and Social Media

Lois Kanter, Northern Illinois University

Email: lois.kanter@yahoo.com

Social media is becoming an increasingly important tool for communication, particularly in the environmental realm. Knowledge of social media and its applications provides environmental groups with tools to engage volunteers that would not be accessible through traditional methods. In addition, social media also has a wide variety of innovative applications related to the environment. Platforms such as Twitter are being used to gather ecological data from thousands of sources and photo sharing sites provide the public with access to ecological identification tools that were previously unavailable to the general public. Successful use of social media for an environmental organization requires frequent communication, innovative ideas, and a commitment to engaging members and volunteers.

Coordinating Across Municipal and County Lines - A Coordinated Pollutant Monitoring Program

Marcy Knysz, Cardno JFNew

Email: marcy.knysz@cardno.com

The Buffalo Creek Clean Water Partnership (BCCWP) formed in April, 2012. At the second stakeholders meeting members voted water quality the highest priority issue for the group to address. BCCWP leaders Marcy Knysz and Jeff Weiss designed a Coordinated Pollutant Monitoring Program (PMP) for the Buffalo Creek watershed, and received funding through a Watershed Management Assistance Grant from the Lake County Stormwater Management Commission and participation from the eight villages with significant land area in the Buffalo Creek watershed. Prior to the PMP program, infrequent and uncoordinated water quality monitoring efforts resulted in limited usefulness of the water quality data to identify sources or assess trends in watershed water quality. In addition, various monitoring programs conducted by the Villages, MWRD and Lake County Department of Health were conducted using inconsistent testing regimes, at different times of the year, making it impossible to compare data sources across the watershed. The PMP was designed to enable agencies, stakeholders and communities to pinpoint sources of pollutants and support cleanup initiatives and Best Management Practices (BMPs). The goal of the PMP is to achieve a coordinated, efficient water quality monitoring program that makes the most of community and agency investment in assessing water quality trends over time, localized enough to be used to identify locations for BMPs and to address water quality impairments across the Buffalo Creek watershed. The presentation will focus on program development and results from the first year of implementation.

Pond Management- Chapter 4 from the Guide: 'Retrofitting Large Landscapes for Sustainability'

Keith Gray, Integrated Lakes Management / Lydia Scott, Morton Arboretum

Email: kgray@lakesmanagement.com / lscott@mortonarb.org

The Morton Arboretum has produced a manual designed for Association Boards, Landscape Managers, School and Park District Boards, Property Managers, and Stewards of Large Properties that promotes and offers guidance for sustainable landscapes. Chapter 4, specifically deals with ponds and water quality. This presentation will provide an overview of the chapter and discuss the connection between sustainable landscaping and watershed management, and how these work to produce healthier waters.

Stormwater Management and Restoration.....**Ballroom B 8:30-10:00, April 11th**

Watershed Awareness in Sycamore/DeKalb

Christopher Moreno, Northern Illinois University

Email: Moreno.chris@gmail.com

Working with Dr. Melissa Lenczewski, the intention of my research was to develop a working guide for students and interested citizens to monitor local streams and document observations in an organized manner. Measurements included various aspects of the watershed during field studies of eight different sites in DeKalb and Sycamore. We worked with students from Sycamore High School and Northern Illinois University along with other scientists to observe aquatic biota, water chemistry, and stream characteristics. We conducted these stream surveys using a hybrid checklist we created. We used information and guides from the Ohio EPA Qualitative Habitat Evaluation Index (QHEI) and another checklist from the Lake County Storm Management Commission to design a simplified user friendly version. An initial set of data was collected from each of the sites to lay a framework of their condition. We also had a trial an error phase and learned how the measuring metrics used for large scale rivers can be difficult to distinguish when working with small scale streams. Other findings showed that some sites contained higher levels of nitrates and various levels of debris, manmade and natural. This research is beneficial for individuals willing to study their watershed. It helps them categorize their watershed and can lead to the development of preservation of biota, identification of contamination, and locating areas in need of restoration.

Developing a Municipal Stormwater Management Program for a Semi-Rural Community

Nancy Schumm / Albert Stefan, Schumm Consulting

Email: nburg719@aol.com

North Barrington is a semi-rural community in Northeastern Illinois. Without the standard planned unit developments or comprehensive storm sewer system, the Village traditionally approached storm water issues when they arose. Added to the Villages challenges are; the minimum staff, changing community leaders, and changing engineering consultants. To solve these problems, North Barrington's storm water team developed a program to investigate flooding issues, forecast problem areas in the storm water network and gain a better understanding of the storm water flow throughout the Village. The program combined modern technology, electronic data management, and mapping with hands-on investigation of the storm drainage system. This session will explain the strategies developed, the partners utilized to complete the project, budget considerations and cost-cutting tactics.

Reducing Swim Bans through Habitat Restoration

Kathy Paap, Lake County Health Department

Email: kpaap@lakecountyil.gov

North Point Marina (NPM) in Winthrop Harbor, Lake County is a full-service 1500-slip marina making it the largest marina along the Illinois coast and the largest in the Great Lakes. It is part of the Illinois Beach State Park which is consistently the most visited state park in Illinois, hosting more than two million visitors annually. Swim bans, issued when E. coli concentrations exceed 235 colony forming units/100ml, have risen dramatically at NPM from a low of 3 in 1999 to 79 in 2008 (out of an approximate 100 day swimming season). During this time the beach area has increase over 466% from 1.5 to 8.5 acres. Corresponding to this has been an increase in the number of gulls (primarily the ring-billed gull, *Larus delawarensis*) at the beach and surrounding break walls. A three year project was implemented in 2011 to restore native vegetation to the dune and beach areas, thereby reducing the preferred gull habitat and correspondingly reducing the number of swim bans. Results from the restoration project and water quality monitoring will be presented and future plans discussed.



Conference Abstracts

Lake Maintenance Issues **Ballroom C 8:30-10:00, April 11th**

Affordable Water Resource Management

Hank Sutton, Lake Rip-Rap

Email: hank@lakeriprap.com

Sixty years ago today, central Illinois was in a severe drought. By late December of 1954, Lake Springfield had reached a critically low level with reserves nearly depleted. Strict water restrictions were imposed and some households in outlying areas had only an intermittent water supply. Since the drought of 1954, the population of Springfield has increased 42% (US Census 1950 vs. 2010). Today a similar drought would be devastating when you consider the additional 35,000 people and the same water reserve. It is not a matter of “if a similar drought will occur” but when. There has not been a reservoir built in Illinois for decades even though the population continues to grow and the demand for clean water will surely increase. It is not likely that additional reservoirs will be built in the near future; therefore effective maintenance of our existing reservoirs is imperative.

Planning and Implementing a Lake Dredging Project

Peter Berrini, Berrini & Associates

Email: pberrini@comcast.net

Planning and implementing a dredging project at a sediment impaired recreational and/or water supply lake or reservoir is often one of the most significant and costly management efforts that a lake association, park district or municipality will be required to undertake during its lifespan. The reasons for initiating a planning effort for dredging include observed problems such as excessively shallow water depths, navigational hazards, increased turbidity and algal blooms, aquatic and terrestrial vegetation growth in shallow bars and emerging deltas near tributary inflow points, and the increase and dominance of rough fish such as common carp. A successfully completed project can provide long lasting benefits that include increased water depths, restored water storage capacity, enhanced aquatic habitat, a more balance fish population, and improved water quality and clarity. Therefore, it is extremely important to gather the information necessary to determine whether or not a dredging project is actually required, the extent of the sediment impaired area of the lake, the quantity of sediment to be removed, the physical and chemical characteristics of the sediment, the method of removal, where it could be placed for storage and dewatering, and how much the potential project would cost. This presentation will summarize the various planning requirements, implementation options, anticipated project costs and benefits, and an overview of the current regulatory permit process. Representative dredging project photographs will be included in order to highlight the presented options in addition to the typical planning, design, construction and reclamation requirements.

Surveys and Sediment: Managing Illinois Lakes and Reservoirs

Kip Stevenson, Illinois State Water Survey

Email: kesteven@illinois.edu

Excessive sedimentation has long been a significant issue associated with the management of Illinois lakes and reservoirs. Obvious impacts include the loss of capacity and for water supply waterbodies the subsequent decrease in safe yields as well as the potential for the diminished use of infrastructure such as intakes and access ramps. However the impacts sediments have on water quality, invertebrates, fish communities, nutrient cycling, oxic conditions within a waterbody and even the production of greenhouse gases may be less obvious. The Illinois State Water Survey has developed a suite of methods designed to provide lake managers with the information on sediments and sedimentation necessary for making informed management decisions. This talk will present previous efforts the ISWS has successfully completed on Illinois waterbodies that highlight our data collection capabilities including hydrographic surveying, sedimentation surveying, sediment sampling, water quality sampling, and the use of sediment oxygen demand chambers. In addition to presenting data products such as bathymetric maps, stage-storage curves, sedimentation rates, we also will provide examples of intensive sampling results that were obtained and discuss the insight that these types of information can provide and how they can relate to lake conditions.

Watershed: Modeling and Management**Ballroom B 10:30-12:00, April 11th**

Spatial Watershed Assessment & Management Model (SWAMM)TM

Jeff Boeckler, Northwater Consulting

Email: jeff@northwaterco.com

SWAMMTM is a watershed pollutant load model and is unique because it has the capability to quantify pollution loading and runoff volumes down to the field and parcel level. As a result, it is a preferred tool to quickly and easily estimate total pollutant loading from specific areas and calculate pollutant load reductions resulting from BMP implementation. The model and management module is map-based and simple to understand and visualize. The foundation of this assessment and management model relies on developing a custom model using soils, landuse, streams, existing water quality and climate data. Once the custom model is developed and calibrated, it is coupled with custom scripts and database protocols to easily evaluate and visualize pollutant loading in the watershed. The system makes it easy to estimate total loading from any delineated area of the watershed, and identifies the most effective areas for BMPs and estimates pollutant load reductions for any delineated area. The tool works in an ARCGIS environment. A web-based system is available for model use online. The online system includes an easy to manage database to keep track of proposed and installed BMP projects in the watershed and quantifies project-specific and watershed-wide load reductions towards planning goals and water quality targets. The interface also allows users to select and query model data, run statistics, calculate load reductions from a list of BMPs, modify land use designations to quantify changes in pollution loading and export map files and model selections to GIS.

The Hydro-Geomorphic Method (HGM) for Establishing Landscape Scale Conservation Priorities in Large River Floodplain Corridors

Joseph Bartletti, Prairie Engineers of Illinois

Email: jbartletti@prairieengineers.com

The Hydro-Geomorphic Method (HGM) is a unique GIS based conservation planning strategy that utilizes a variety of historic and contemporary spatial data sets to: 1) assess pre-settlement ecological conditions and functions; 2) assess what conditions have changed over time; and 3) make recommendations on what communities to restore and where to restore them. The HGM approach has already been applied to many of North America's largest river systems including portions of the Colorado, Arkansas and Mississippi Rivers. Currently, Prairie Engineers is working with Dr. Mickey Heitmeyer of Greenbrier Wetland Services, to conduct an HGM assessment for the lower 670 miles of the Missouri River from Decatur, Nebraska to St. Louis, Missouri. The project is funded through a cooperative partnership between the U.S. Fish and Wildlife Service's (USFWS) Division of Biological Resources, the Eastern Tallgrass Prairie and Big Rivers Landscape Conservation Cooperative (LCC) and Plains and Prairie Potholes LCC. The primary goals of the Missouri River HGM project is to: 1.) develop a common set of restoration targets for the entire 670 river miles; 2) guide public and private land managers to make more objective scientifically based management decisions and; 3) identify new areas for acquisition and restoration. This talk will highlight data sets and methods used for a typical HGM study and how the results of the HGM analysis can be interpreted and utilized.

Vermilion River Dam Reclassification [of the Downstream Hazard Rating]

Edward B. LaBelle, P.E., C.F.M., Crawford, Murphy, & Tilly Engineers

Email: elabelle@cmtengr.com

The water supply for the City of Streator Illinois is located on the Vermilion River. The channel dam impounds water within the banks of the river to provide an adequate supply of drinking water, and is also a popular attraction for boating, fishing and scenic outlooks. Crawford, Murphy & Tilly, Inc. developed and implemented an analysis to successfully have the hazard classification changed by demonstrating to IDNR that the breach of the dam was not likely to result in loss of life or any significant damage to downstream structures. CMT utilized high resolution LiDAR and aerial photography for topographic mapping of the Vermilion River Valley. The LiDAR technique was selected because of its effectiveness in determining the true ground elevations under the dense vegetation on the river banks. Dam breach scenarios for sunny day and flood conditions were modeled with HEC-RAS software based on cross sections from the topographical maps. The volume was measured with a state of the art technique simultaneously measuring water depths by sonar and recording state plane coordinates with GPS technology. The method resulted in a very accurate calculation of volume because of the many thousands of data points.



Conference Abstracts

VLMP and Volunteerism..... **Ballroom C 10:30-12:00, April 11th**

Conservation @ Home and Work

John Church, The Conservation Foundation

Email: jchurch@theconservationfoundation.org

Simply put, at The Conservation Foundation(TCF) “we save land and we save rivers” and we’ve been at it for more than 40 years. Founded in 1972, The Conservation Foundation is one of the region’s oldest and largest not-for-profit land and watershed conservation organizations dedicated to preserving and restoring open space, protecting rivers and watersheds and promoting stewardship of the environment in northeastern Illinois. We focus our work in DuPage, Kane, Kendall and Will Counties, but have worked on significant projects in DeKalb, Grundy and LaSalle Counties. One of the flagship programs of TCF is Conservation@Home. Often, homeowners, landowners and business owners would like be a part of protecting the environment, but are not sure what to do as an individual. That is what the TCF Conservation@Home, and more recently the Conservation@Work, programs can help individuals do. By addressing issues such as rainwater management, plant selection, soil conservation, and wildlife habitat, participants can help protect their site, their watershed and the environment right at home and work. Participants receive assistance to implement best management practices such as native plantings, rain gardens, rainwater harvesting, composting, etc. at their home or business. After implementing several of the best management practices, participants can be certified and be recognized with a sign for their home or business. This presentation will discuss the basics of the best management practices and how to become certified in the programs.

The Illinois Volunteer Lake Monitoring Program

Greg Ratliff, Illinois Environmental Protection Agency

Email: Greg.Ratliff@Illinois.gov

Greg Ratliff will give a brief talk about the Illinois EPA’s Volunteer Lake Monitoring Program. The presentation will include the elements comprising the program, purpose of the program, significance of the data collected, overview of previous year’s data, and the proposed strategy for the upcoming sampling season.

The HABs and HABs Nots

Mike Adam, Lake County Health Department

Email: madam@lakecountyil.gov

The Lake County Health Department (LCHD) annually monitors approximately 100 swimming beaches, which are daily used by thousands of people during the summer season. Public health is currently assessed based on levels of the indicator bacteria *E. coli*. Toxins from harmful algal blooms (HABs) are not considered. Due to extensive blooms in 2012 in numerous Illinois lakes, the Illinois EPA partnered with the LCHD in 2013 to assess the presence of HABs at swimming beaches in Lake County. In addition to localized bloom events near beaches, 30 beaches were routinely monitored bi-monthly. Results from this pilot study will be presented and implications for public health will be discussed.

Invasive Species: Pathways and PreventionBallroom B 1:15-3:15, April 11th

Modeling Adoption of Prevention Practices for Aquatic Invasive Species

Ellen Cole, Loyola University

Email: coleellena@gmail.com

As aquatic invasive species (AIS) spread throughout the Great Lakes region, they continue to negatively impact the biodiversity and recreational uses of Illinois water bodies. To combat these continued invasions, state and federal agencies have prioritized outreach programs to inform and promote practices, such as conducting visual inspections of equipment and draining water from ones boat, to help decrease the spread of these invasive species. Although these outreach programs seek to introduce and disperse AIS information, little is known on how effective these outreach messages actually influence the rates of adoption among boaters and anglers, the usual vectors of AIS. A better understanding of what messages lead to an adoption of these prevention practices will help outreach managers modify their programs to promote early adoption and maintenance of these AIS prevention practices. These outreach programs, or knowledge networks, can be used to positively influence the exchange of information between managers and individuals in a community. Therefore, we are developing a survey to be mailed to boaters and anglers to find what outreach messages they have been exposed to, and if those messages have caused them to adopt or not adopt the desired behaviors. Additionally, we will interview outreach managers across Illinois to gather information about their previous and current outreach programs. Results from both the survey and interviews will help us determine which messages have been most effective in increasing adoption rates of AIS prevention practices.

Patterns over Time and Space in the Arrival and Spread of Aquatic Non-native Species in Illinois

Abigail Jacobs, Loyola University

Email: abigailirenejacobs@gmail.com

Illinois straddles the divide between the Laurentian Great Lakes and Mississippi drainages. Several aquatic non-native species have already breached this divide by traveling through Illinois, and the goal of preventing future species movements has become an important regional and continental priority. Despite the importance of Illinois in this process, there has not previously been a statewide database describing the known locations of aquatic non-native species. This has hindered conservation planning and management, and predictions of where and when future invasions may occur. To address this, we have assembled a comprehensive database of known occurrences of aquatic non-native species in Illinois. This can be used to support policy and management decisions with regard to preventing the arrival and spread of aquatic non-native species. There are now 80 established aquatic non-native species in Illinois, and our data shows that the discovery rate of new species has increased at an accelerating rate over time (0.56 species/year from 1870-2012, and 0.83 species/year from 1960-2012). The number of established aquatic non-native species records collected in each year has also increased. Species detection curves indicate that a large proportion of the total established aquatic non-native species are known for Illinois, especially for fishes and vascular plants. The dominant established non-native taxa are plants (n=34) and fishes (n=23). Northeast Illinois, including its Lake Michigan borders, had the highest number of established aquatic non-native species. This information can be used to support management and policy efforts to slow rates of invasion across North America.

Aquatic Invasive Species Outreach for Water Gardeners and Aquarium Hobbyists

Greg Hitzroth, Illinois-Indiana Sea Grant

Email: hitzroth@illinois.edu

42 of 182 of species introduced to the Great Lakes arrived via the organisms in trade (OIT) pathway (e.g. water gardens and aquariums). Researchers at the University of Norte Dame and University at Loyola Chicago have been developing transparent, easy-to-use, science-based risk assessment tools. Risk assessments are key to preventing new invasions from the organisms in trade pathway because they give managers the information necessary to regulate high-risk species without affecting trade in benign species. From these risk assessments, outreach tools have been developed for plants used in water gardens and are being developed for mollusks and fish. Outreach to the retail and consumer segments of the pathway will support the regulatory work of the managers by 1) providing context for the overall issue, 2) identifying species determined by the risk assessment tool to pose a high risk for invasion, 3) encouraging consumers to use non-invasive alternatives and 4) enabling commercial entities to access information on state and federal regulations. This outreach includes an OIT website, a database of U.S. state and federal regulations and printed materials. These outreach tools will be highlighted and future outreach plans discussed.

An Integrated Approach to Invasive Species Control: Drury Wetland

Kara DeGraff, Integrated Lakes Management

Email: kdegaff@lakesmanagement.com

Healthy lakes need healthy shorelines and wetlands upstream. Invasive species outcompete native species and decrease biodiversity. There are many techniques available to control wetland invasive species, such as reed canary grass (*Phalaris arundinacea*) and common reed (*Phragmites australis*). Cost effective management of wet areas has been difficult, but recently new equipment and techniques have allowed for great progress. ILM offers a case study conducted at Drury Wetland in Grayslake, IL to further add to the discussion of wetland management. Chemical applications, mowing, equipment, time of year and Mother Nature all play important roles in our management of Drury Wetland.



Conference Abstracts

Environmental Risks..... **Ballroom C 1:15-3:15, April 11th**

Water Quality Impacts of Road Salt Storage along Illinois Rivers

Christine Zeivel, Illinois Environmental Protection Agency

Email: Christine.Zeivel@illinois.gov

Illinois rivers serve as the primary mode of transportation for road salt applied to Illinois roads, and bulk storage facilities are routinely located either on the rivers or close to their ports. These massive accumulations of salt contain high concentrations of pollutants, including chloride, iron and cyanide, and pose a great threat to both surface water and ground water that feeds the river system. Since road salt became the primary solution to deicing roads in the 1940s, its use has been debated due to the environmental impact of its application. However, the bulk transportation and storage of road salt prior to application has historically received little attention. This presentation will focus on the use, storage, environmental impact and regulation of road salt in Illinois, and current efforts taken by the IEPA to protect Illinois rivers and their watersheds from the hazards posed.

The True Cost of Herbicide Resistance

Brett Bultemeier, Clarke

Email: bbultemeier@clarke.com

Herbicide resistance has caused a change in thought in all weed management fields. Perhaps the biggest change has had to occur in aquatics, because we have less tools to use and can ill afford to lose anymore. Preventing herbicide resistance is not rocket science and really is not that hard to figure out. Rotating herbicides is the only sure fire way to avoid resistance, and at the end of the day can actually be more cost effective than failing to rotate. The hard part is having the commitment to stick to this plan and ensuring that we have all of our herbicide tools available to us for years to come.

Introduction of Hydraulic Fracturing Regulations in Illinois

Jen Walling, Illinois Environmental Council

Email: jwalling@ilenviro.org

In 2013, Illinois passed a new law to regulate high volume horizontal hydraulic fracturing or “fracking”. Jen Walling, executive director of the Illinois Environmental Council, will review the dangers from fracking, the elements of environmental protection in the new law, and an update on the regulations put forward by IDNR to enact the law.

USFWS Triploid Grass Carp Certification Program

Meghan Oh, HDR

Email: meghan.oh@hdrinc.com

Grass carp (*Ctenopharyngodon idella*) are considered an invasive species in some states but not all. Since grass carp can provide an alternative to application of chemical herbicides, stocking them in ponds has become a biologically friendly tool for pond management in multiple states. Most states only allow use of triploid grass carp because they are sterile and unable to enhance sustaining populations. In Illinois, triploid grass carp must be certified as triploid by the US Fish and Wildlife Service (USFWS) prior to stocking in any Illinois water body. An independent review of the USFWS triploid grass carp certification program was conducted as recommended in the ‘Management and Control Plan for Bighead, Black, Grass, and Silver Carps in the United States’ (National Plan) (G. Conover, R. Simmonds, and M. Whalen, 2007). During the study, state agencies were interviewed to gather grass carp regulations specific to all 50 states. In addition to gathering regulatory information, each state was queried as to what their rationale may be for allowing or not allowing diploid (non-sterile) and triploid grass carp. Commercial producers and shippers were also interviewed to examine how they operate and maintain separation of diploid and triploid grass carp. An overview of the grass carp certification program, as well as information that was gathered from the states and private sector during the independent review, will be summarized and presented.

A Special Thanks to Our 2014 Sponsors!

Platinum



Gold



Silver

Hey and Associates, Inc.



Marine Biochemists



Bronze





Cygnnet Enterprises, Inc.

Products to Enhance Our Water Resources



Celebrating Our 40th Year In Business!!!

Offering herbicides, algaecides,
dyes and biological solutions

Distributors of Lake and Pond management products from:

Applied Biochemists, BioSafe Systems, Brewer International,
Chem One, Dow AgroSciences, Earth Science Labs, Envincio,
Nufarm/Valent, Old Bridge, SePRO, Syngenta, and UPI

Lake associations call for special discounted pricing!

**To locate a state licensed and approved applicator near you,
please contact us at:**

Great Lakes Region:
1860 Bagwell St.
Flint, MI 48503

Midwest Region:
2904 Cascade Dr.
Valparaiso, IN 46383

www.CygnnetEnterprises.com



**Deuchler
Environmental, Inc.**
CONSULTING ENGINEERS

- Biological Sampling – fish, macroinvertebrates, mussels, habitat
- Wetland Delineation
- Water Quality Sampling and Assessment
- Tree Surveys
- Threatened and Endangered Species Surveys and Consultation



230 Woodlawn Avenue • Aurora, IL 60506 • Phone: (630) 897-8380 •
Website: www.deuchler.com

Lake Rip Rap, Inc.

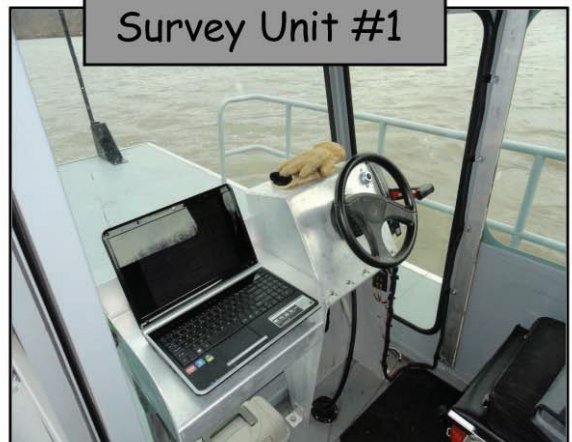
217-899-9706 - www.LakeRiprap.com



Macoupin Riprap Boats



Survey Unit #1



Survey Boats for Sale or Rent:

Unit 1: one enclosed work station

Unit 2: five enclosed work stations / heat & air

Heavy duty open boats: 18' - 20'

Segmental pontoons: up to 60' length

Hey and Associates, Inc.

Stormwater & Floodplain Management
 Civil Engineering Design
 Wetland Delineation & Mitigation
 Ecological Restoration & Management
 Water Quality & Lake Management
 Regulatory Permitting
 Landscape Architecture



ILLINOIS
 Volo
 Chicago
 Aurora
WISCONSIN
 Milwaukee

heyassoc.com

847.740.0888



GENESIS  WATER™

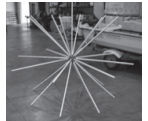
GENESIS WATER™

Advanced Dredging
 Dewatering Technology

GenesisWater.com

Our comprehensive range of services,
 devotion to customer service and
 vast field experience means
**Rollins Aquatic Solutions is
 the right solution every time.**

- Environmentally conscious management programs
- Aquatic weed and algae control
- Regular and frequent inspections
- Aeration and fountain systems, maintenance and installation
- Dock sales and installation
- Lake and pond mapping
- Electro-fish surveying, fish stocking, fish habitats
- Nuisance geese deterrents
- Water testing and monitoring



The right solution for your pond and lake.

630-893-4595 • info@rollinsaquatic.com
www.rollinsaquatic.com



5 Jones Street, Dubuque, IA 52001

Office: (563)557-1855 Fax: (563) 588-4371

www.newtmarine.com

We have the experience to get your job done the right way, the first time.



Newt Marine Offers:

Private Pond Construction

Large-Scale River Restoration

Wetland Restoration - Rip-Rap Placement

Dredging, Mechanical & Hydraulic

Dewatering - Environmental Remediation

Habitat Construction - Barge Rentals

2013 ILMA Board of Directors

President:	Bryan Cross
Vice President:	Leonard Dane
Treasurer:	Brian Valleskey
Membership Secretary:	Tim Pasternak
Recording Secretary:	Carol Shobrook
Directors:	Dan Brill
	Robert Clodi
	Nancy Schumm
	Kelly Deem
	James Fitzgerald
	Thomas Moroney

ILMA Presidents 1985-2013

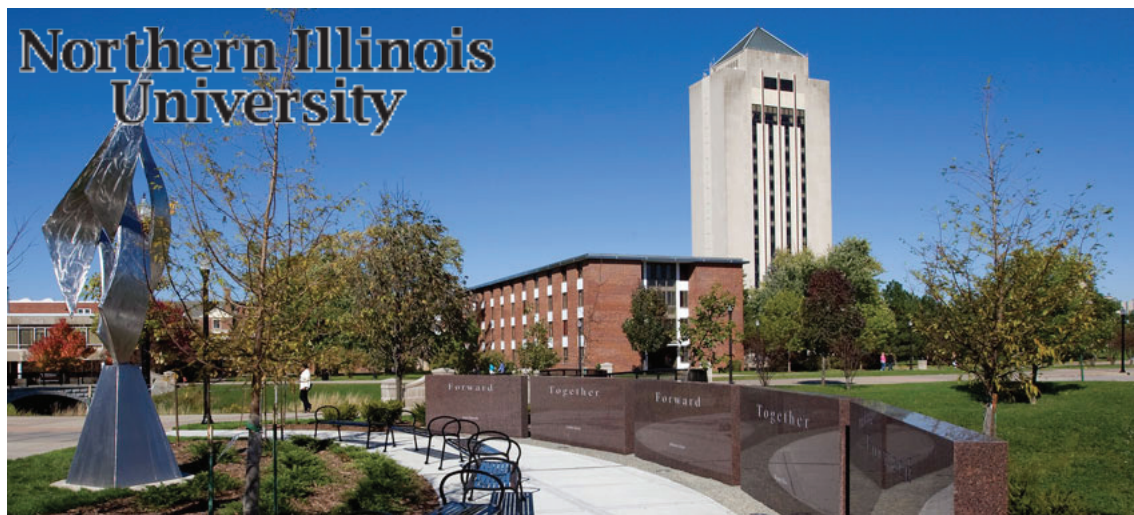
1985 – 86	Roy Mann
1986 – 87	Roy Mann
1987 – 88	Dennis Bokemeier
1988 – 89	Dennis Bokemeier
1989 – 90	Pan Tazik
1990 – 91	Bill Bogнар
1991 – 92	Greg Searle
1992 – 93	Greg Searle
1993 – 94	Bob Mahnke
1994 – 95	Bob Schmidt
1995 – 96	Gary Wilken
1996 – 97	Rick Twait
1997 – 98	Alan Alford
1998 – 99	Sandy Kubillus
1999 – 00	Rosemary Aiken
2000 – 01	Alan Alford
2001 – 02	Mary Lou Goodpaster
2002 – 03	Mary Lou Goodpaster
2003 – 04	Matt Cochran
2004 – 05	Joe Marencik
2005 – 06	Joe Marencik
2006 – 07	Joe Rush
2007 – 08	Dennis Ross
2008 – 09	Dennis Ross
2009 – 10	Mike Adam
2010 – 11	Mike Adam
2011 – 12	Leonard Dane
2012 – 13	Leonard Dane
2013 – 14	Bryan Cross

Save the Date....

30th Annual ILMA Conference

February 19-21, 2015

Northern Illinois University
DeKalb, IL



...see you again next year!

