

Illinois Lake Management Association



Annual Conference

32nd

March 30th - April 1st, 2017



Holiday Inn Crystal Lake
800 South Route 31
Crystal Lake, Illinois



NOTES & REMINDERS

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.

Photo Contest: Remember to cast your vote for the 2017 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 2018 conference program.

Afterhours Entertainment:

Thursday evening March 30, 2017, from 8:00 - 10:00 p.m. -- Brewery tour, games, and music at Crystal Lake Brewing (CLB) in downtown Crystal Lake. This event is free to attend, though beverages will be on your own. They have a special for ILMA that night: for \$10 you get a pint of beer and a souvenir pint glass to take home! Games include a shuffleboard table, darts, and a giant Jenga tower. Acoustic music featuring local guitarist Donna Brooks. You are welcome to take part in the CLB tour as well as visit other watering holes within walking distance (map will be provided). The hotel will provide shuttle service to and from CLB and other points downtown.

The first shuttle will depart the hotel lobby at 8:00 p.m.

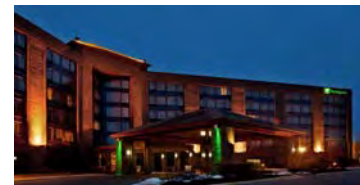
Last pickup downtown will be at 11:30 p.m.

If you did not already RSVP, please sign up at the ILMA registration desk so we can have a head count for the brewery tour.

See you on the tour!

Raffle Items: A bucket raffle, kayak package raffle, will be held in the ballroom all day Thursday and close at noon on Friday. Simply place as many tickets in the bucket of the items you can’t bear to 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. Tickets are available at the registration desk throughout the conference.

Events: If you found the registration desk, you should be set for the day. All daytime activities (sessions, breaks, and meals) will be held in the Main Ballroom area. The sessions will be in either the Walnut or Willow Room. 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.



2017 Overview Agenda

Thursday March 30th

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

10:00-11:30	Concurrent Sessions	Willow and Walnut Rooms
11:30-1:00	Break (Lunch)	Birch/Maple Room
	[11:45-12:00 Scholarship Awards]	Birch/Maple Room
1:00-2:30	Concurrent Sessions	Willow and Walnut Rooms
2:30-3:00	Break	Birch/Maple Room
3:00-5:00	Joint Keynote Session	Willow Room
5:00-6:00	Poster Session & Exhibitors Reception	Birch/Maple Room
6:00-7:30	Dinner.....	Birch/Maple Room
7:30-8:00	Annual ILMA Member Meeting	Birch/Maple Room
8:00-11:00	Open Social	Downtown Crystal Lake

Friday March 31st

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

8:30-10:00	Concurrent Sessions	Willow and Walnut Rooms
10:00-10:30	Break	Birch/Maple Room
10:30-12:00	Concurrent Sessions	Willow and Walnut Rooms
12:00-1:00	Lunch	Birch/Maple Room
1:00-2:30	Concurrent Sessions	Willow and Walnut Rooms
2:30-2:45	Conference Closeout / Drawing for Winner of the Kayak Package.....	Birch/Maple Room

Saturday April 1st

[Workshop]

8:00-12:00	Steps for Developing your Lake Management Plan Workshop	Off-Site*
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** Crystal Lake Park District West Beach Community Room, 2330 Lake Avenue, Village of Lakewood / Carpooling is encouraged, location map available at the ILMA registration desk. / Muffins and coffee will be served during the workshop.*



Thursday Morning March 30th

10:00-11:30 Concurrent Sessions Willow and Walnut Rooms

Walnut Room
[Restoration Activities]
 Moderator – *Jeremiah Stolzner*

10:00
 Lake Leopold at Prairie Crossings: Unique Considerations for Performing Shoreline Restoration in a T&E Species Hatchery
Brian Valleskey, Manhard Consultants

10:30
 But What Will the Neighbors Think? Creating Native Shoreline Landscapes that are Easy on the Eye and Great for the Environment!
Bob Kirshner, Chicago Botanic Gardens

11:00
 Converting Degraded Detention Basins and Ponds Into Restored Streams and Wetlands
Ted Gray, Living Waters Consultants

Willow Room
[Algal Issues]
 Moderator – *Peter Berrini*

10:00
 Will Aeration Control Algae?
Sandy Kubillus, Integrated Lakes Management

10:30
 Muck Munching II: Results and Insights from Two Years of In-lake Organic Sediment Management, Upper Fish Lake, Indiana
Javon Minor, Northwater Consulting

11:00
 Algae Blooms and Drinking Water Challenges in the Fox River
Kyla Jacobsen, City of Elgin

11:30-1:00 Break (Lunch) Birch/Maple Room

1:00-2:30 Concurrent Sessions Willow and Walnut Rooms

Walnut Room
[Watershed Views]
 Moderator – *Karen Clementi*

1:00
 Hydrogeology and Groundwater Quality at Monitoring Wells Installed for the Tunnel and Reservoir Plan System and Nearby Water-supplement
Robert Kay, USGS

1:30
 Lake & Reservoir Watershed Management – An Interactive Web-based System
Jeff Boeckler, Northwater Consulting

2:00
 Stormwater Monitoring Basics
Brent Register, YSI

Willow Room
[Exhibitors Session (Sponsored)]
 Moderator – *Tim Gardner*

1:00-2:30
 This session will contain brief ten minute presentations from our conference exhibitors on their products and/or services specialized for lake management. A list of companies presenting will be available at the session.

2:30-3:00 Break Birch/Maple Room

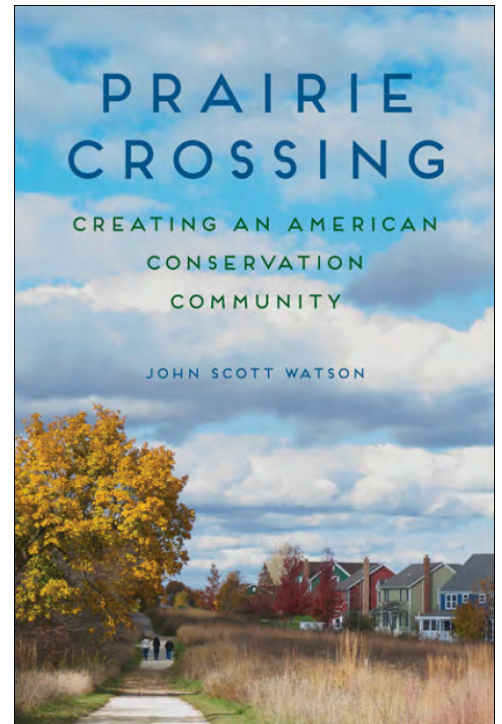
Thursday Afternoon March 30th

3:00-5:00 Keynote Session..... Willow Room

[3:00 - 4:00]

John Scott Watson

Mr. Watson will discuss his experience with the Prairie Crossings community. This residential development was carved out of century-old farmland near Chicago, Illinois, and is a novel experiment in urban public policy that preserves 69 percent of the land as open space. The for-profit project has set out to do nothing less than use access to nature as a means to challenge America’s failed culture of suburban sprawl. He is a political scientist and visiting lecturer at the University of Chicago who dissects the vision and reality of integrating nature and suburban development. At projects like Prairie Crossing, the story of racial and economic divides enter into the discussion.



[4:00 - 5:00]

Joe Keller, Fox Waterway Agency

Fox Waterway Agency (FWA) Executive Director Joe Keller will spearhead this portion of the session providing conference participants an overview of the Agency’s operations, including some historical perspective, current perspective, and the direction in which the Agency hopes to grow. While still relatively new to the position, he has taken the initiative to better learn the landscape and needs of his constituents both local and afar. Having to work with a significantly reduced state budget, the FWA is working smarter, not harder. Mr. Keller will be joined by agency collaborators who have assisted with extending the vision of the Agency to aid in the presentation.

5:00-6:00 Exhibitor Reception (Poster Session)..... Birch/Maple Room

6:00-7:30 Dinner..... Birch/Maple Room

7:30-8:00 ILMA Annual Meeting and Lake Awards Birch/Maple Room

8:00-11:00 Open SocialDowntown Crystal Lake



Friday Morning March 31st

8:30-10:00 Concurrent Sessions Willow & Walnut Rooms

Walnut Room

[Complicating Water Resources]

Moderator – Brian Valleskey

8:30

Springfield’s Quest for a Supplemental Water Supply
Steve Frank, City of Springfield

9:00

Overcoming Competing Land Uses, Serving Urban Development and Recreational Areas
John Mayer, ERA Consulting

9:30

CyanoHAB Remediation Case Study: The Challenges and Opportunities of Partially Draining and Dredging Campus Lake at Southern Illinois University
Marj Brooks, SIU Carbondale

Willow Room

[Climate Change and Lakes]

Moderator – Gerry Urbanozo

8:30

Climate Change, HABs, Toxins, Monitoring, and Other Buzz Words to Get You to Come to this Session
Diane Tancl, IEPA

9:00

Water Resilience: How Climate Informs Planning in Great Lakes Cities
Angela Larson, Alliance for the Great Lakes

9:30

Glass Half Full: Metropolitan Planning Council’s 10-point Action Agenda for Sustainable Water Supplies and Infrastructure
Josh Ellis, Metropolitan Planning Council

10:00-10:30 Break Birch/Maple Room

10:30-12:00 Concurrent Sessions Willow & Walnut Rooms

Walnut Room

[Associations and Volunteering]

Moderator – Jeff Boeckler

10:30

From Classroom to Implementation in Two Years: QGIS is a Powerful Lakes Management Tool
Pete Mesha, Lake Wildwood

11:00

Dredging Plans and Implementation: A Long Term Project at Tower Lakes Improvement Association
Tom Kubala & Nick Adams, Tower Lakes

11:30

VLMP, More than just a Sheet of Data
Joe Rush & Michelle Nicol, JadEco & CWLP

Willow Room

[What to do about Carp!]

Moderator – Leonard Dane

10:30-12:00

Panel Discussion on the topic of common carp in Midwestern lakes. Common Carp lead to poor water quality by disturbing bottom sediments, increasing turbidity which reduces light penetration and limits aquatic plant growth. Options for controlling Common Carp and other exotic and invasive fish species will be covered. Tim Gardner will discuss impairments and water quality problems, Frank Jakubicek will focus on control methods used by IDNR, and Leonard Dane will cover additional management approaches.

12:00-1:00 Lunch Birch/Maple Room

Friday Afternoon March 31st

1:00-2:30 Concurrent Sessions Willow & Walnut Rooms

Walnut Room
[Policies and Practice]
Moderator – Ed Lochmayer

- 1:00
 Statewide Nutrient Management Programs: the Illinois Environmental Protection Agency’s Approach
Amy Walkenbach, IEPA
- 1:30
 Samuel Myers Park: Implementing Restoration in the Direct Drainage Area of the Pike River Watershed
Julie Kinzelman, City of Racine Health Department
- 2:00
 2017 Illinois Lead Testing Law
Jen Walling, Illinois Environmental Council

Willow Room
[Lake Dynamics: Limnology 101]
Moderator – Bryan Cross

- 1:00-2:30
 Consider this a crash course for on the fundamental processes going on within a lake; how are they formed, what does a ‘healthy’ lake mean, why do algal blooms form, when does management need to occur, do they evolve or mature, and can the clock be turned backwards.
- Presenters:
Holly Hudson, Chicago Metropolitan Agency for Planning
Bryan Cross, Prairie Engineers
Mike Adam, Lake County Health Department
Joe Bartletti, Prairie Engineers

2:30-2:45 Conference Closeout Birch/Maple Room
 (Drawing of Raffle Items, Kayak Drawing - *must be present to win*)

Saturday Workshop April 1st

8:00-12:00 (Off-site*)

Get it in Writing: Steps for Developing Your Lake Management Plan

At your fingertips, you probably have all sorts of plans: financial plans, health care plans, landscaping plans... but does your lake have a plan? And, not just an “in your head” kind of plan, but a written document in an organized format that incorporates lake use and management goals with actionable objectives to address problems? Start generating that lake management plan today!

At this workshop, Lake County Health Department, Chicago Metropolitan Agency for Planning, Crystal Lake Park District, and Hey and Associates, Inc. representatives will explain the types of information needed to make local lake management decisions, offer a format for summarizing information and debating alternatives, and provide a local example of community commitment to a lake.

Following the classroom session, an optional field trip will visit a few lake protection projects around nearby Crystal Lake.

** Crystal Lake Park District West Beach Community Room, 2330 Lake Avenue, Village of Lakewood / Carpooling is encouraged, location map available at the ILMA registration desk.*

Presenters:
Alana Bartolai and Gerard Urbanozo, Lake County Health Department
Holly Hudson, Chicago Metropolitan Agency for Planning
Vince Mosca and Jeremy Husnik, Hey and Associates, Inc.



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Conference Abstracts

Concurrent Sessions.....1:00-11:30, March 30th

Algal Issues Willow Room

Will Aeration Control Algae?

Sandy Kubillus, Integrated Lakes Management

Email: skubillus@ilmenvironments.com

Recommendations for various lake problems often include using aeration. But which type should you use? Do you need to raise oxygen levels for fish to survive? Will the same system also reduce algae? What about reducing sediment? Learn about the different types of aeration including diffusers, fountains, circulators, destratifiers, and more. Results can sometimes take years. ILM has installed many aeration systems and reviewed data from hundreds of lakes and ponds. Many systems work well, and some have not. A case study of Turnberry Lakes is discussed.

Muck Munching II: Results and Insights from Two Years of In-lake Organic Sediment Management

Javon Minor, Northwater Consulting

Email: javan@northwaterco.com

Accumulation of sediment is a primary concern of residents and recreational users of Fish Lake, Indiana. An in-progress dredging study determined that between 1990 and 2016 up to 6 feet of sediment accumulation occurred, primarily of organic composition. Low dissolved oxygen concentrations at the sediment interface were recorded in the fall of 2015, suggesting an unhealthy benthic environment unable to digest accumulating organic material. A two year pilot study was executed to evaluate the effectiveness of aeration technology and microbial augmentation at managing organic sediment accumulation. Study zones were established to monitor dissolved oxygen and sediment conditions; these zones included microbial augmentation only, aeration with and without microbial augmentation and a control zone. A SolarBee™ mechanical circulating aerator was installed and Biodyne® Environoc 301 was injected monthly into the sediment to introduce benthic microbes. The results from both years suggest that microbial augmentation as a sole practice had limited effectiveness due to the poor dissolved oxygen conditions. The aerator was effective at improving dissolved oxygen concentrations early in the season, but its effective radius significantly declined as macrophyte growth occurred. Over the two years, the most definitive measurements of sediment reduction occurred where both aeration and microbial augmentation were applied.

Algae Blooms and Drinking Water Challenges in the Fox River

Kyla Jacobsen, City of Elgin

Email: Jacobsen_K@cityofelgin.org

This presentation will focus on water treatment challenges experienced by the City of Elgin. These events are directly attributable to algae in the Fox River, Elgin's drinking water source. The community response to taste & odors events as well as the economical impact will be discussed.

Restoration Activities..... Walnut Room

Lake Leopold at Prairie Crossings; Unique Considerations for Performing Shoreline Restoration in a Threatened & Endangered Species Hatchery

Brian Valleskey, Manhard

Email: bvalleskey@manhard.com

An easterly migrating shoreline impacted by persistent wind and muskrat activity, the northeastern bay of Leopold Lake was identified for stabilization in 2015 using a cobble shoreline collar and native plants to re-anchor the shoreline. As part of a unique Low Impact Development (LID) completed in 1995, Prairie Crossing has been an ongoing study of green infrastructure living within the standard suburban environment. Leopold Lake is part of this unique culture and demonstrates this concept with consistently good water quality returns and the establishment of a Threatened & Endangered (T&E) hatchery established for various fish species. This brought about permitting and construction related challenges to the client and contractor alike. With a singular vision in the need for the project and a consistent effort to see the project to finish, the client walked a path of trust with the consultant and contractor to complete the project on schedule and at budget.

But What Will the Neighbors Think? Creating Native Shoreline Landscapes That Are Easy on the Eye and Great for the Environment!

Bob Kirshner, Chicago Botanic Gardens

Email: bkirschn@chicagobotanic.org

Lake shorelines and their buffers face an onslaught of stressors that threaten their ecological integrity as well as their natural beauty. Fortunately, a partnership is emerging between aquatic ecologists, landscape architects, and horticulturists to revisit traditional societal pressures to have neatly manicured turf shorelines, and to offer property owners environmentally sensitive approaches to enhance both an aesthetic appeal and diversity of habitat along their lakeshores. Within a residential setting in particular, native plantings are sometimes viewed as being unorganized and “messy”—as compared to a typical home garden landscape where plant height and texture, color of foliage, abundance of flowers, and seasonal interest are often considered in plant selection and placement. Thoughtful integration of such “gardening” aesthetics into native shoreline landscapes, together with defining hardscape features such as pathways and edging, combine to create visual “cues to care” that reinforce the landscape’s intention while still providing considerable ecological benefit.

Converting Degraded Detention Basins and Ponds into Restored Streams and Wetlands

Ted Gray, Living Waters Consultants

Email: tgray@lwc-inc.com

Every year across northeastern Illinois our detention basins and ponds are filling up with silt and other pollutants. This common condition has resulted in algae blooms, fish kills, exposed mudflats, noxious odors, and other impacts. HOA boards and lakeside residents are faced with the prospects of special assessments and fundraising for costly sediment removal projects to remediate the condition. But dredging only provides temporarily relief of undesirable conditions. In other cases, no action is taken and the basin or pond continues to fill with sediment. Case studies are presented to convert sediment-filled detention basins and ponds into restored stream channels, wetlands, and other natural areas. In some cases, benefits can include increased flood storage which can reduce local nuisance flooding impacts to basements, streets, and side yards. Possible funding mechanisms that may be available to provide matching funds for these restoration projects are discussed.

Concurrent Sessions.....**1:00-2:30, March 30th**

Watershed Views.....**Walnut Room**

Hydrogeology and Groundwater Quality at Monitoring Wells Installed for the Tunnel and Reservoir Plan System and Nearby Water-Supplement

Robert Kay, USGS

Email: rtkay@usgs.gov

Groundwater-quality data collected from 1995 through 2013 from 106 monitoring wells open to the Silurian aquifer surrounding the Tunnel and Reservoir Plan (TARP) System in Cook County, Illinois, were analyzed to assess the effects of water movement from the tunnel system to the aquifer. Groundwater from the aquifer typically drains to the tunnel system so that analyte concentrations in most of the samples from most of the monitoring wells primarily reflect the concentration of the analyte in the aquifer. Water quality in the aquifer is spatially variable because of a variety of natural and non-TARP anthropogenic processes and analyte values vary through time at a given well due to spatial variation in the value of the analyte within that part of the aquifer draining to the tunnels. Intermittent drainage of combined sewer flow from the tunnel system to the Silurian aquifer may affect the values of electrical conductivity, hardness, sulfate, chloride, dissolved organic carbon, ammonia, and fecal coliform in samples from many wells but typically during less than 5 percent of the sampling events. Drainage of combined sewer flow into the aquifer is most prevalent in the downstream parts of the tunnel systems. Elevated values of the analytes emplaced during intermittent migration of combined sewer flow into the Silurian aquifer decrease through time as water from the aquifer drains back into the tunnels. Of the analytes sampled, fecal coliform provides the clearest indication of the location and timing of combined sewer flow into the Silurian aquifer.



Conference Abstracts

Lake & Reservoir Watershed Management – An Interactive Web-based System

Jeff Boeckler, Northwater Consulting

Email: jeff@northwaterco.com

In almost all cases, lake and reservoir quality is directly tied to inputs from the contributing watershed. Effective watershed management begins with a sound understanding of basin dynamics followed by focused implementation and the execution of a comprehensive strategy. A comprehensive Watershed Implementation Plan was recently completed for the Lake Springfield watershed. The plan details watershed characteristics, nutrient and sediment loading, and site specific Best Management Practices (BMPs) to address water quality in the lake. A watershed plan however is only useful if it can be translated into action on-the-ground. To facilitate this action, an interactive web-based system was developed for watershed managers at City Water Light and Power. This system allows users to navigate their watershed and interact with various components of the watershed plan. Functionality includes: the ability to view watershed map layers such as streams, watershed boundaries, imagery, and other custom layers; the ability to view and query spatially explicit nutrient and sediment loading; capability to issue user names and passwords; ability to navigate to recommended BMPs and evaluate their expected load reductions; a watershed management dashboard for tracking progress; the ability for users to generate and save their own map layers; and the ability to trace a custom area and generate the loadings for that area, apply a BMP and tabulate load reductions. The presentation will highlight key components of the Lake Springfield plan and demonstrate functionality of the web-based management system.

Stormwater Monitoring Basics

Brent Register, YSI

Email: brent.register@xylem.com

Tracking storm water events can be a challenge because of the inherent unpredictability of storms. Analytical instrumentation can support the growing trend towards automating stormwater monitoring. Measuring flow, rain, level, or water quality can be accomplished in real time through an automated solutions. This presentation will discuss different types of monitoring equipment.

Exhibitor Session (Sponsored)..... **Willow Room**

To Be Announced at Conference

Special presentations from our conference exhibitors on their products and/or services specialized for lake management.

Concurrent Sessions..... **8:30-10:00, March 31st**

Complicating Water Resources..... **Walnut Room**

Springfield’s Quest for a Supplemental Water Supply

Steve Frank, City of Springfield

Email: steve.frank@cwlp.com

Lake Springfield, the City of Springfield’s public water supply, was constructed in the 1930’s as part of the Civilian Conservation Corps program. The City started pursuing an emergency/secondary water supply source following an extreme drought in the late 1950’s. A secondary lake was proposed and the municipality began purchasing property shortly thereafter. After approximately three decades the City had obtained nearly all of the necessary property and initiated more detailed design studies and permitting activities. An Environmental Impact Assessment (EIS) was prepared in the 1990’s for the U.S. Army Corps of Engineers (Corps) as part of the federal Section 404 permit needed for the project. The permit was not denied, but was not granted which led to further investigations for additional emergency supply sources. In 2015, the Corps notified the City to either complete a supplement to the EIS to address the concerns expressed or it would terminate the permit application. This discussion will cover the regulatory hurdles the City has navigated in its pursuit of addressing its emergency water supply issues.

Overcoming Competing Land Uses Serving Urban Development, Recreation, and Habitat

John Mayer, ERA Consulting

Email: jmayer@eraconsultants.com

The combination of improving a recreational space and restoring a heavily stressed urban river can be challenging. Competing interests and limited funds find teaming for such projects difficult. This presentation will focus on the Oak Meadows Golf Course project lead by the Forest Preserve District of DuPage County. The project included the total restoration of a flood prone 18-hole golf course, the creation of 25-acres of new wetlands, the creation of 106-acres of native buffers and upland prairie, the removal of two low-head dams, and restoration of 1.25 miles of Salt Creek. The project provided an additional 40 acre-feet of floodplain storage capacity. The presentation will discuss some of the planning issues, walk through the various design elements and highlight key partnerships that provided additional funding for the project. The golf course is anticipated to re-open in Summer 2017.

CyanoHAB Remediation Case Study: The Challenges and Opportunities of Partially Draining and Dredging Campus Lake at Southern Illinois University

Marj Brooks, SIU Carbondale

Email: mlbrooks@siu.edu

Campus Lake at Southern Illinois University is a 40 acre, hyper-eutrophic lake that was partially drained for removal of detritus in the fall of 2016. My studies and estimates showed that between 20 to 50 years of nutrients were contained in semi-decomposed algal detritus. Recognizing that existing high nutrient loads were feeding worsening harmful algal blooms that were first documented in 2010, SIU made the decision to drain water levels by approximately half, allow detritus to dry, and remove sediments and detritus with heavy equipment. Draining operations began on 5 September 2016, achieving the desired level in two weeks, leaving an undisturbed 12-acre lake where fish remained, showing no signs of distress throughout the process. After three weeks for drying, 24,240 tons of sediment were removed from the perimeter of the lake. Dredging ended on 23 November at a cost of approximately \$400,000. Preliminary sampling indicates nitrate and phosphate levels in the water dropped by 20% as of 15 December. Additional sampling is ongoing and results over time will be presented.

Climate Change and Lakes Willow Room

Climate Change, HABs, Toxins, Monitoring, and Other Buzz Words to Get You to Come to this Session

Diane Tancl, IEPA

Email: diane.tancl@illinois.gov

Indicators of climate change predict changes in hydrology, biology, and chemistry that may favor cyanobacteria over other planktonic algae in freshwater inland lakes. Metrics indicating climate shifts are showing factors that favor some ecological and physiological characteristics of cyanobacteria. This review of current literature pertaining to climate change and the responses of cyanobacteria in inland lakes shows that Illinois is susceptible to increases in cyanobacteria. These changes in algal communities will require changes in regulation, permitting, and monitoring to protect the uses of freshwater inland lakes. The Harmful Algal Bloom Monitoring Program in Illinois is addressing the public health issue of algal toxins. With increases in cyanobacteria, it will provide an avenue for reporting, tracking, and advising the public of toxins in Illinois lakes. Further study of the climate change indicators and the effects on lake water quality is needed. USEPA is forming Regional Monitoring Networks to address and track changes in climate at regional scales. This promotes a broader-scale picture for detecting trends in climate change. Trend analysis and modeling of environmental data will become more important with expected exponential increases in greenhouse gases. Climate change remediation strategies are needed to protect water resources for aquatic life, recreation, agriculture, and public drinking supplies. Framework for new regulations and best management practices are critical to protect our freshwater resources in Illinois.



Conference Abstracts

Water Resilience: How Climate Informs Planning in Great Lakes Cities

Angela Larson, Alliance for the Great Lakes

Email: alarsen@greatlakes.org

The Alliance for the Great Lakes is ensuring resilient Great Lakes cities by using climate information to inform municipal and state planning. National and regional assessments (e.g., National Climate Assessment) identify climate impacts for the Great Lakes region, such as changing numbers of precipitation events, and increased intensity of storms. Some of these impacts will affect planners and utilities, which means municipal planning needs to take climate information into consideration, especially when making public infrastructure investments and approving new development. In order to create more resilient communities, climate information must be included in local plans and policies (e.g. comprehensive plans, permitting, zoning, capital improvements). In addition, community stakeholders and residents must be informed and connected to the decision making process. The presentation will provide several case studies of municipalities from around the Great Lakes (e.g. Detroit, MI; Gary, IN) that are developing and implementing plans and policies with climate change in mind. The presentation will discuss how a participatory planning process can be used to ensure meaningful public participation, and will review some of the data, tools, and approaches to updating local plans and policies.

Glass Half Full: Metropolitan Planning Council’s 10-point Action Agenda for Sustainable Water Supplies and Infrastructure

Josh Ellis, Metropolitan Planning Council

Email: jellis@metroplanning.org

We are lucky: In northeastern Illinois, we generally enjoy an ample amount of water thanks to our location along the shores of a Great Lake. But that good fortune has lulled us into complacency, and our drinking water systems have been neglected. Our proverbial glass is half empty. What’s at stake? Public health and safety risks, including contamination due to 100-year-old pipes and aging water treatment systems. Local and regional resiliency during times of crisis. New jobs and regional economic growth, since every company needs water - and some more than others. Vital ecosystems. Municipalities and their residents hard-pressed to afford the escalating costs to collect, treat and deliver drinking water. And, yes, some communities running out of water within 15 years. The Metropolitan Planning Council is dedicated to ensuring a resilient, thriving, equitable and healthy region. While our water supply issues are significant, they are fixable. MPC’s recently-released 10-point action agenda is a call to action on addressing water supply issues in our region. We are ready to form stronger partnerships with elected officials, utility managers and operators, funders, private organizations, nonprofits and others to advance a 10-point action agenda by 2021.

Concurrent Sessions..... **10:30-12:00, March 31st**

Associations and Volunteering..... **Walnut Room**

From Classroom to Implementation in Two Years - QGIS is a Powerful Lakes Management Tool

Pete Mesha, Lake Wildwood Association

Email: pmesha@wightco.com

Pete Mesha attended the 2015 ILMA Conference which included a Saturday morning workshop with Dr. Thomas Pingel, NIU Department of Geography, on “Citizen Science with Open Source GIS.” Dr. Pingel conducted a four hour introduction to using graphical information systems (GIS) - focusing on QGIS - an open source GIS program. Since Dr. Pingel’s lecture, Pete, as Chair of the Lakes & Dams Committee for the Lake Wildwood Association, has invested much sweat equity in learning how to use QGIS, coupled with hand-held GPS data logging, for useful asset mapping and better watershed and project planning. He would like to share this journey of enlightenment. Pete will share the benefits to lake associations adopting GIS software for in-house use. QGIS is free to download and doesn’t require annual license fees. It doesn’t necessarily require the reliance on an “expert” for operation. As he demonstrates Lake Wildwood’s new GIS mapping layers, Pete will give an overview of their recent Section 319 Nonpoint Source Pollution Control Program grant project and plans to survey, in-house, all 20 of their watersheds to prioritize future detailed planning efforts. The Lake Wildwood Association, founded in 1968, is a private community located near Varna, in Marshall County, Illinois. The Association includes about 1,500 acres of land and two lakes - Lake Wildwood is about 215 acres and Lake Tanglewood is about 12 acres.

Dredging Plans and Implementation: A Long Term Project at Tower Lakes Improvement Association

Tom Kubala & Nick Adams, Tower Lakes Improvement Association

Email:

Tower Lakes are privately owned by the Tower Lakes Improvement Association (TLIA) and are managed by a group of volunteers that form the lake committee. There are approximately 68 acres of shallow, mud bottom lakes with Main Lake the largest by far, and was created by damming Mud Creek in the early 1900s. We will share our story of implementing a dredging program including the development of the plan, obtaining a special assessment from the association to fund the project, the selection of our contractor, obtaining permits from the various agencies and the execution of the project. We'll also talk to the success of the first phase of the program, which has led to a second phase and a follow up special assessment being approved by the community.

VLMP, More than Just a Sheet of Data

Joe Rush and Michelle Nicol, Volunteer Lake Monitoring Program members

Email: jrush@jadecoconsulting.com / michelle.nicol@cwlp.com

The Illinois Volunteer Lake Monitoring Program (VLMP) has been around for several decades now and the data that has been generated as a result has become invaluable for the State of Illinois and the Midwest in general. The program asks individuals to donate their time to collect water quality data throughout the spring, summer, and fall. Some volunteers do so simply for their love of their lake, and others to assist in obtaining grant dollars. Whatever the reason, the result is an extensive collection of water quality data that would otherwise never be available to lake managers and researchers. Joe and Michelle will discuss what the program is, what data can be captured, what it has meant to them, and how you can become involved.

What to do about Carp!..... **Willow Room**

Methods for the Removal and Management of Common Carp

Leonard Dane, Tim Gardner, and Frank Jakubicek (Deuchler, Clarke, and IDNR)

Email: ldane@deuchler.com / TGardner@clarke.com / frank.jakubicek@illinois.gov

Common Carp lead to poor water quality by disturbing bottom sediments, increasing turbidity which reduces light penetration and limits the growth of aquatic plants. The complete removal of Common Carp is only possible by the use of a piscicide which kills all the fish in the waterbody. Other techniques such as reducing the numbers and controlling a smaller population is generally more cost effective and less destructive. This presentation will discuss options for controlling Common Carp and other exotic and invasive fish species. This session will focus on the impairments caused by Common Carp and some methods used to control them. Tim Gardner of Clarke will discuss impairments and water quality problems, Frank Jakubicek will focus on techniques used by IDNR, and Leonard Dane will cover additional ways to manage Common Carp in your lake. Each presenter will speak for approximately 10 minutes and then the session will be opened up as a panel discussion.

Concurrent Sessions..... **1:00-2:30, March 31st**

Policies and Practices..... **Walnut Room**

Statewide Nutrient Management Programs

Amy Walkenbach, IEPA

Email: amy.walkenbach@illinois.gov

The past couple of years have seen some significant changes to Illinois EPA's direction and how the Agency protects the environment. This presentation will focus on those changes; some fully implemented others in their infancy, within the Bureau of Water and Agency wide where appropriate. The presentation will give an update on the Nutrient Loss Reduction Strategy that has been a topic at the Annual ILMA conference in the past, discuss changes to the Total Maximum Daily Load program that will help lakes tap into the 319 grant program without an approved watershed plan, describe the Agency's approach and new legislation for chloride water quality standards, touch on NPDES watershed approaches and give updates to the 319 grant program.



Conference Abstracts

Samuel Myers Park: Implementing Restoration in the Direct Drainage Area of the Pike River Watershed

Julie Kinzelman, City of Racine Health Department

Email: Julie.Kinzelman@cityofracine.org

Samuel Myers Park was dedicated in 1984 as a municipal park along the shores of Lake Michigan in Racine, WI. Initially comprised of a turf grass area and a boat launch, accretion and reliction has resulted in the accumulation of sediments at the shoreline; swimming has been prohibited due to persistent poor water quality for decades. In 2009, the Racine Health Department embarked on a 4-year intensive monitoring program to determine the cause(s) of impairment. Multiple pollution sources were identified, a wetland delineation performed, engineering plans developed and permits secured. Modifications are improving water quality (50% improvement from 2015 to 2016), preventing direct stormwater runoff from reaching the shoreline, increasing accessibility and enhancing aesthetics as well as restoring coastal wetland, dune and dry prairie ecosystems in a migratory bird flyway. As part of the restoration process, invasive species are being removed. Over 30,000 native species have been planted since the spring of 2015. As a result, wildlife is returning, with approximately 38 new species being sighted since the restoration process began. The Samuel Myers Park restoration project is an excellent example of a multidisciplinary, science driven restoration effort designed to improve coastal habitat, increase resiliency and enhance utility in a highly urbanized portion of the direct drainage area of the Pike River Watershed. The redesign plan for Samuel Myers Park is in line with the stated mission, goals and objectives of the Pike River Watershed Restoration Plan and one of the first actionable items.

2017 Illinois Lead Testing Law

Jen Walling, Illinois Environmental Council

Email: jwalling@ilenviro.org

The State of Illinois successfully passed legislation to require testing of lead levels in drinking water in all schools built prior to 2000 and certain day care facilities. The Centers for Disease Control and Prevention has noted there is no safe level of lead exposure, with children being especially vulnerable. The Flint, Michigan water crisis has exposed the risks inherent in our country’s aging infrastructure which is responsible for delivering our public water supply. Prior to the passage of the legislation, a number of Illinois schools voluntarily tested drinking water for lead and it was reported approximately three percent of the fixtures tested found elevated levels. This presentation will cover the details of the law, including testing requirements and disclosure of results.

Lake Dynamics (Limnology 101) Willow Room

A great part of ILMA is the diversity of its membership background. It brings together technical expertise, resource agency representatives, lake-centric business people, and lake enthusiasts. This session has been set aside to take a moment to return to the fundamentals of what makes a lake a lake. This will be an interactive session, divided into four primary sections: Morphology, Physical Processes, Chemistry, and Biology. Whether a seasoned scientist or a novice, there is something in this session for everyone. Consider it a crash course in lake dynamics.

Holly Hudson, Chicago Metropolitan Agency for Planning (hhudson@cmap.illinois.gov)

Bryan Cross, Prairie Engineers (bcross@prairieengineers.com)

Mike Adam, Lake County Health Department (madam@lakecountyil.gov)

Joe Bartletti, Prairie Engineers (jbartletti@prairieengineers.com)



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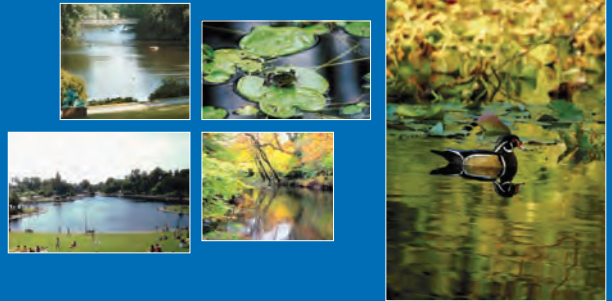
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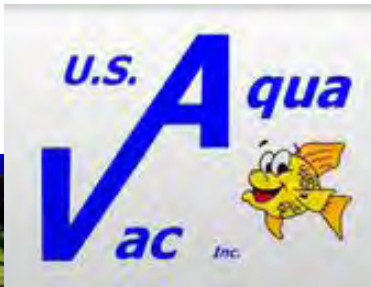
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