

Illinois Groundwater Association Newsletter

Volume 24, No. 1 Spring 2008

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FROM THE CHAIR

Have you ever used *Google*? Considering that many in the audience are surgically attached to their computers, I will assume that the answer is a unanimous "yes." It is an amazing technologic tool that has significantly expanded the definition of "technology." Sure, you can search the Web for your favorite songs, recipes, and movie information. But you can also get driving directions, shop for almost anything, see street-level views of my old neighborhood in Chicago, learn what a log-Pearson Type III statistical analysis is, and, with very little effort, read news that is timely, relevant, and issue-specific. As IGA members we know the importance of staying abreast of the issues, concerns, debates, conflicts, and politics surrounding the topic of the state's water resources. I have tried my best to stay informed during my 20 years in the industry and it seems that water quantity and quality issues are not just for the community of water professionals – water impacts each and every one of our lives.

Today I typed "Illinois groundwater" into the Google News search engine. Here is what I learned:

- Some government and business officials in Wisconsin are resisting the
 approval of the Great Lakes Compact, the comprehensive water-supply
 management agreement for the Great Lakes that was signed in 2005 by the
 governors of the 8 states bordering the lakes. As of this writing, six of the
 states' legislatures have approved the compact. See the March 9 article
 posted on the Milwaukee Journal Sentinel web site.
- The Pantagraph reported that voters of DeWitt County turned down the opportunity to have a solid waste landfill in Clinton to be allowed to accept PCB waste. The issue of its location over the Mahomet Aquifer was not lost on the voters, who apparently tied this issue to the State's Attorney race in the county as well. See the February 6 article.
- My home, Geneva, is having problems starting up its state-of-the-art reverse-osmosis (RO) drinking water plant. Originally scheduled to be on-line in December, the next target date is late March or early April. Meanwhile, Orange County, CA is using RO along with UV disinfection and microfiltration to clean up its wastewater before putting it directly back into the aquifer used for its water supply. See the Feburary 29 article

FROM THE CHAIR (CONTINUED)

- The Beacon News reported that Prairie Rivers Network (PRN), an umbrella organization concerned with lobbying on behalf of the region's natural resources, especially as they relate to our rivers and watersheds, has asked the Illinois EPA to hold public hearings on proposed ethanol plants. PRN has indicated a concern that, "These facilities... will use approximately 5-6 gallons of high quality groundwater and discharge between 1-2 gallons of wastewater for every gallon of ethanol produced." See the March 4 article.
- <u>Law.com</u> reported a federal judge in Philadelphia has granted preliminary approval of a \$2 million partial settlement by Modine Manufacturing Company. At issue is a class action medical monitoring suit brought by residents of McCullom Lake Village, Illinois, who claim that groundwater contamination has caused a cluster of brain cancer cases. See the <u>February 25 article</u>.
- Illinois' nuclear plants made it into the presidential campaign. After Barack Obama said he stood up to the nuclear power industry, Hillary Clinton called his statements into question (See the February 14 article on CNN.com). She referred to a 2006 bill that Obama drafted after an Illinois nuclear power plant released tritiated water into surrounding groundwater. Obama's original bill would have required power plants to notify the public and government officials when any radiation was released, but subsequent versions had less stringent reporting requirements, the New York Times reported (in this February 3 article). The bill was never voted on by the full Senate. (Meanwhile, Braidwood sprung another leak last month.)
- The city of Springfield is looking for its next source of water. The decision between
 constructing another lake and using water in sand pits and a series of water supply
 wells to maintain Lake Springfield's water levels is becoming a politically charged
 topic as the estimated price tag nears \$90 million. See the March 1 article on sj-r.com.
- And, in a story close to my heart since my master's research was conducted in Sheffield, Illinois, some of the town's residents are concerned that the low-level radioactive waste site that operated outside of town for a decade may be causing cancers through the water supply. The site was closed in 1978 when leaks were discovered and remains surrounded by chain-link fencing. See the <u>February 16 article</u> on wqad.com.

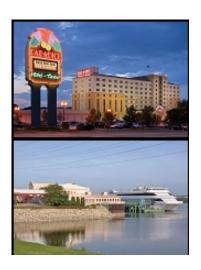
As Google demonstrates, groundwater quality and quantity issues are found in every corner of our state. The members of the IGA continue to assist all of the stakeholders in these issues by providing sound science and informed opinion to ensure that this precious resource is available for future residents of Illinois. It is my goal as the 2008 IGA Chair to continue and expand these efforts so that the people of Illinois can depend on their water resources for years to come.

IGA NEWS

SPRING 2008 IGA MEETING IN PEORIA

Each year the IGA splits two meetings between central Illinois and northern Illinois. We recognize that Illinois is a big state and that IGA members live in many areas, and varying our meeting locations gives our members who live throughout the state the opportunity to attend and participate.

It's been seven years since we've been in Peoria, Illinois so the IGA Executive Committee determined it is high time we returned. Our Spring 2008 venue is the *Par-A-Dice Hotel* in East Peoria, Illinois. We had our last Peoria meeting at the *Par-A-Dice Hotel* and were pleased with the accommodations, which cater to the casino crowd (obviously!) and also to business meetings. For those staying overnight, there should be no shortage of very nice accommodations with upscale amenities.



The *Par-A-Dice* is centrally located and easy to get to. Directions to the hotel are at the <u>Par-A-Dice</u> web site. You can get more information by calling their reservations desk at 1-800-547-0711. Meeting registration starts at 8:30 AM, with opening remarks at 9:15 AM. More details on the agenda are on page 14 of this newsletter, and an updated agenda will be provided at the meeting. A continental breakfast in the morning, lunch, and an afternoon snack are included with the meeting registration cost. Meeting and IGA membership information is on page 11 of the newsletter. Send in registration information via snail mail or e-mail to <u>Diane Lamb</u>.

We have a terrific agenda, and we hope to see you there!

FALL 2007 IGA MEETING AT THE NIU-NAPERVILLE CAMPUS

The October 4, 2007 IGA spring meeting was held at a new venue last year – the Northern Illinois University extension campus in Naperville, Illinois. We've come to expect the best from university-hosted events, but frankly the NIU extension campus is one of (or



perhaps the) best venues we've ever had. Even better, it was easy to get to and centrally located. Suffice to say that we were more than pleased. Our agenda was first rate, too, with presentations on groundwater modeling, fens, water supply analysis for Wisconsin, and ever-valuable updates on on-going regulatory issues. If you missed the Fall 2007 IGA meeting please remember that all is not lost – the <u>abstracts</u> are on the IGA web site and the next meeting is in Peoria on April 8th!

IGA NEWS

2008 IGA DUES REMINDER

It is time to renew your membership for 2008. Please complete and mail your renewal information along with your registration fee to Diane Lamb at the address below. IGA membership dues are \$25, and the student membership is \$5. Membership renewal for each calendar year is payable at the time of the Spring Meeting and is open to anyone interested in groundwater resources in Illinois. **Please make checks payable to the Illinois Groundwater Association.**

COST

| | | Name: | | |
|------------------|------|-----------|------|--|
| Renew Membership | \$25 | Position: | | |
| New Membership | \$25 | Employer: | | |
| Student | \$5 | Address: | | |
| | | Phone: | Fax: | |
| | | E-mail: | | |

Clip this form & mail or send via e-mail to:

<u>Diane Lamb</u>, IGA Secretary Andrews Engineering, Inc. 3300 Ginger Creek Drive Springfield, IL 62711 (217)787-2334 phone (217)787-9495 fax

IGA SPRING 2008 MEETING – CEUS FOR ATTENDEES

Continuing education units (CEUs) are required for many Illinois licensed professionals. The IGA is pleased to announce that our Spring 2008 program has been approved by the Department of Public Health as meeting the annual three-hour training requirements for local health department water program personnel as specified in the Local Health Department Grant Protection Rules, Section 615.320 (c) 2. Interested Sanitarians only need attend and have one of the IGA's officers sign their program agenda as proof of attendance.

Other professions also can use the IGA's meetings for CEUs. For instance, Illinois Professional Engineers (PEs) can also get CEUs by attending the IGA's meetings. Prior approval of the program by an Illinois official is not required. An Illinois PE can obtain proof of their attendance of the Spring IGA conference by having their program signed by an IGA officer.

IGA NEWS

2007 IGA STUDENT RESEARCH GRANT RECIPIENT

The IGA is pleased to announce that Joyce Harris of *Illinois State University* has been awarded an IGA research grant for fall 2007. Joyce had an excellent proposal and our student grant coordinator, Ed Mehnert, and the grant review committee were happy to award her \$500 to help fund her thesis work: *A Recovery of Hyporheic Function in Modified Agricultural Streams Over Time, Headwaters of the Mackinaw River, Illinois.*

We were even more pleased when Joyce agreed to join the IGA Executive Committee as our 2008 Student Director. Welcome Joyce!!

The IGA encourages all students who are pursing groundwater-related research to apply for a grant (see below). We have some periods when we have no applicants and it is hard to believe that there are no worthy groundwater-related student projects in Illinois. The IGA grant program is a great way to obtain support for an undergraduate or graduate project and get involved with a professional organization. Our only requirement is that the grant awardees present the results of their research at an IGA meeting, which is a great opportunity to brush up on your presentation skills in front of a friendly and knowledgeable audience.

2008 IGA STUDENT GRANTS

A primary goal of the Illinois Groundwater Association is to foster scholarship in the science of groundwater. One way we support this effort is through our IGA Student Grant Program, and the IGA is pleased to devote our entire yearly surplus from dues or meeting fees (less a small amount to keep the IGA going) to student grants. Student grant applications are accepted in the spring and fall of each year. The IGA often awards one to three grants (typically \$150 to \$500) in the spring and fall each year to help support student research in groundwater in Illinois. Any undergraduate or graduate student registered for full- or part-time study at an accredited college or university in Illinois is eligible to apply. The application deadline for the spring grant period is April 25, 2008 and we encourage any eligible student to submit their applications early. Application forms and guidelines can be obtained from the student grants section of the IGA web site or from:

Edward Mehnert

IGA Grants Coordinator Illinois State Geological Survey 615 East Peabody Drive Champaign, IL 61820 217/244-2765 Fax 217/244-2785

GROUNDWATER SCIENCE AWARDS

The IGA Groundwater Science Awards Program recognizes Illinoisans who have made outstanding contributions to groundwater science in the spirit of the *Illinois Groundwater Protection Act*. For the purposes of these awards, groundwater science is broadly defined to include research, education, consulting service, water well construction, or public service as related to the scientific management, protection, and/or utilization of groundwater.

The program was originally co-sponsored by the Illinois Groundwater Protection Education Program developed under the *Illinois Groundwater Protection Act*, but is now managed by the IGA. The IGA has presented two types of awards starting in 1993, and the list of honorees reads as a who's-who of Illinois groundwater professionals. The <u>Achievement Award</u> recognizes singular and life-long contributions to groundwater science, and the <u>Public Information/Education Award</u> is given to people or organizations that have fostered groundwater-related education in Illinois. IGA members and interested parties are welcome to recommend people, programs, or organizations for a Groundwater Science Award. Recipients are honored at one of the semi-annual IGA meetings.

Groundwater Science Awards for 2008

The IGA is pleased to announce that **Mr. Jerry Dalsin** has been selected to receive the *Illinois Groundwater Science Achievement Award* for his long service to the Illinois groundwater community. The **Mahomet Aquifer Consortium** (MAC) will be awarded the 2008 *Illinois Groundwater Education Award* for the group's dedication to the study and management of this valuable resource while striving to educate the communities that rely on the aquifer's continued viability.

Mr. Dalsin and a representative of the MAC will be honored for their achievements during the Spring 2008 IGA meeting on April 8th in Peoria. A very brief summary of Mr. Dalsin's accomplishments and the mission of the MAC are below. Please join us in recognizing Mr. Dalsin and the MAC!

Mr. Jerry Dalsin

Mr. Dalsin's education includes an undergraduate degree in Forestry from Southern Illinois University/Carbondale and graduate study in hydrogeology at the University of Southern Mississippi. His first 12 years of professional experience were as a hydrologist with the <u>United States Geological Survey</u>, during which time he authored 13 <u>water supply publications</u>. These publications, primarily based upon studies oriented toward industrial and agricultural water supplies, include aquifer mapping and watershed analysis with particular emphasis on the potential yields and water quality from both surface and groundwater sources.

In the early and mid 1980s, Mr. Dalsin was self-employed as a consultant. Since 1988, he has been employed as water program manager for the <u>Illinois Department of Public Health</u>, Environmental Engineering Section. His duties with the Department include water program training, publications, licensing of water well and pump installation contractors, source water

GROUNDWATER SCIENCE AWARDS (continued)

Mr. Jerry Dalsin (continued)

assessments, surface water treatment standards and keeping the Illinois Water Well and Pump Installation codes up to date with current water-industry technology. Mr. Dalsin is a Certified Forester (Forest Hydrology) and an Illinois Licensed Professional Geologist. He has a long history with the IGA as a member since 1988 and has made regular contributions to the IGA membership on water well regulations, training and education. Mr. Dalsin was also a member of the IGA Executive Committee as a Director in 1997, Vice Chair in 1998, and IGA Chair in 1999.

Mahomet Aquifer Consortium

The Mahomet Aquifer Consortium (MAC) was formed in November 1998 to develop an approach to better study and understand the Mahomet aquifer. The Mahomet Aquifer is a glacial-alluvial aquifer system in a now-buried bedrock valley that is present in approximately 13 counties in the Peoria-Decatur-Champaign area. It is one of the largest groundwater resources in Illinois. Those with an interest in the aquifer - either because they use groundwater from the aquifer or are interested in using the aquifer in the future - came together to discuss ways to study it in a comprehensive manner.

The MAC has members from water authorities; water companies; local, county, state, and federal government; professional groups; and the general public. The MAC currently has over 70 members and membership is open to any individual or organization with an interest in the Mahomet aquifer. The goal of the MAC is to study the aquifer so that informed decisions can be made about meeting future water demand as populations increase and extreme weather events occur. A better understanding of the Mahomet aquifer will provide a mechanism to identify and resolve water quality issues that may threaten the aquifer.

The MAC also provides the knowledge necessary to allow for the proper management of the aquifer using science, not litigation. The MAC has a very simple structure in that all members are voting members and everyone has an equal voice. In order to facilitate the setup and startup of the group, and to provide initial direction, a steering committee was agreed upon to provide the necessary leadership to work with outside groups and funding sources.

In addition to the steering committee, five standing committees were put in place that will concentrate on specific areas of interest regarding the study of the Mahomet aquifer and delivery of gained knowledge to constituents that together will allow the MAC to attain their goals.

Currently the MAC also represents the Regional Water Supply Study Group under Illinois' Executive Order 2006-1. Its work under this program includes further developing its groundwater flow model of the aquifer for use in evaluating the region's water needs between the present and the year 2050. The model development will include detailed geological mapping as well as geophysical exploration in Champaign County and is being conducted with the assistance of the ISGS and the ISWS.

The Tragedy at NIU - February 14, 2008

By Colin Booth, Professor of Geology, Northern Illinois University

Sincere thanks to the IGA members who sent messages of support to me or my colleagues in the Northern Illinois University geology department after the events of February 14. The support we received from the geoscience community throughout the nation, and beyond, was a much-appreciated morale boost in a difficult time. We also had many messages from former students: thanks -- you are still part of our family and always welcome to visit.

The facts: On the afternoon of February 14, a former NIU sociology student entered a general-education geology class (GEOL 104, Oceanography), shot and killed five students, and injured several others, including the instructor, a geology Ph.D. student, and the TA, a geology M.S. student. He then killed himself. There was no apparent reason for the act and nothing to link the killer with either Geology or with anyone in that class. Most likely he simply chose the one location on campus, Cole Hall, where he was certain of finding a large class and direct entry from outside.

This only happens to somebody else, somewhere else. You sympathize, and then move on. Except that when it happens here, it is different. It becomes the new framework. Everything else takes second place. Reactions vary for different people: students, perhaps with friends in the class; worried parents; faculty and staff; administrators–initial confusion and perhaps fear; concern for the injured (especially our own students); sadness for those who died; sympathy for their families; anger that this could happen. In the week following the shootings, I was not the only one who found it hard to stay in my office and focus, but kept wandering down to the department office just to be with other people.

The counselors tell us that students and others will be going through stages of grief or anxiety for a considerable time. At this point, however, the strongest impression I have is a heightened sense of unity throughout the university community. The evening before classes restarted, the returning students and NIU community joined in a huge memorial service - 12,000 people in the convocation center, thousands more at satellite centers or watching on the Internet – that despite the size, and some institutional speeches, really did produce a strong feeling of togetherness.

Geology departments are traditionally close-knit, but since this tragedy we have been knit much closer. Even in the surreal atmosphere of the week after, in place of our usual Friday afternoon colloquium we had a sizeable informal gathering of staff, faculty, and students with pizza, pop, and fieldwork slides - followed by the traditional meeting at a downtown pub. This helps. The tragedy is awful and incomprehensible, too much to think of directly. But it makes me realize more how much I value my field, my department, my colleagues, and our students. I hope I can hang on to that as the immediacy of this event fades.

AGENCY UPDATE

PROFESSIONAL GEOLOGIST INTERN BILL UPDATE



The Professional Geologist intern bill was introduced to the Illinois House of Representatives as HB 4762 by Angelo Saviano. As defined by the bill, a geologist intern is a geologist that does not yet meet the requirements to be a Licensed Professional Geologist, has geologic knowledge (as defined by the existing law), has passed the geologic fundamentals exam, and has applied to the Department of Financial and Professional Registration to be a geologist intern. The

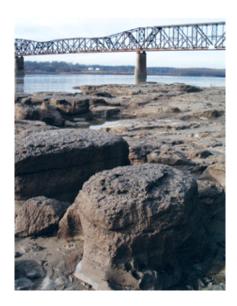
internship is patterned on the Engineer in Training program. For more information and to keep current on the bill's status see <u>HB4762</u>.

FUTURE GEN PROJECT RESTRUCTURED

As cited on the <u>ISGS web site</u>, the FutureGen project, which is a consortium led by the US Government Department of Energy (DOE), state agencies, and industry to evaluate carbon sequestration technologies, is being restructured. The DOE has pulled its funding during the restructuring period, which effectively puts the project on hold. The ISGS will continue research into the potential of the Mt. Simon Sandstone for carbon sequestration through a separate grant from the DOE. The ISGS, the Geological Sequestration Consortium, and Archer Daniels Midland Company will also continue work on carbon sequestration technologies.

ISGS FIELDTRIPS

The ISGS hosts four field trips each year, two in the spring and two in the fall. The trips are designed to acquaint participants with the geology, landscape, resources, and biodiversity in Illinois. ISGS trips for 2008 will be to Horseshoe Lake Conservation Area, Thebes and surrounding areas, and Alexander County. Spring trips will be held on April 26th and May 31st. The field trips will be led by geologists or other experts and there will be frequent opportunities to collect rocks, minerals, and fossils. A guidebook will be provided for each field trip participant.



AGENCY UPDATE

FOSSIL FOREST

Scott Elrick of the ISGS has studied an enormous and well preserved 300-million year old fossil forest. This possibly unique find was discussed in a recent article in Discover Magazine. The four-square-mile area in a now-closed coal mine was preserved by what Mr. Elrick surmised was a fault, which lowered part of the forest approximately 15 feet. The resulting sedimentation preserved an extraordinary collection of plant fossils. Because the subsequent influx of sediment was "not a catastrophic tsunami thing but more of a slow-motion event, all the small itty-bitty plants are in place." The slow pace at which that mud flowed in preserved an incredible diversity of flora. "We had lycopod trees 6 feet wide and 100 feet long, ground cover things, sphagnum moss, delicate little ferns next to these big, huge, honking trees. It's crazy—we haven't seen anything like this before," Elrick said.

FRIENDS OF THE PLEISTOCENE FIELD TRIP

Interested in Pleistocene geology in northeastern Illinois? If so, then you'll want to attend the 54th Midwest Friends of the Pleistocene <u>field trip</u> on May 16-18, 2008 in DeKalb, Illinois. The field trip is sponsored by the ISGS and with help from the Northern Illinois University, Illinois State Museum, and the University of Illinois-Chicago. The theme of the field trip is the deglacial history of the Lake Michigan Lobe including such topics as glaciotectonics (folding of bedded clastic sediment) and till genesis. Sites in the Mastodon Gallery at Phillips Park, Aurora, and new fossiliferous sediments at Wedron Quarry will be featured, among others.

ISGS OPEN HOUSE

The Illinois State Geological Survey held its 2008 Open House on Friday March 7th for the general public, students, and teachers. There were 30 displays, exhibits, demonstrations and activities that are designed to highlight geology and Illinois. A special emphasis was on kid's activities, such as Stump The Geologist, a drill rig demonstration, and a kid's fossil dig. Although the Open House has passed, be sure to keep your eyes peeled for an ISGS Open House next year!

NATIONAL GROUND WATER AWARENESS WEEK

The National Ground Water Association (NGWA) sponsored National Ground Water Awareness Week on March 9-15, 2008. The purpose of Ground Water Awareness Week is to spotlight groundwater as a valuable and renewable resource, and to highlight the fact that about half the U.S. population relies on ground water for its drinking water supply. As part of its annual Ground Water Awareness Week promotion, NGWA stresses the importance of yearly water testing and well maintenance by a licensed water well contractor to help ensure problem-free service and prolong the life of water well-related equipment.

Ethanol and Water Use

By Erik Spande, IGA Newsletter Editor

The Minneapolis-St. Paul Star Tribune reports growing concern over groundwater supplies needed for the ethanol industry. While estimates vary, converting corn to ethanol takes about 5 gallons of water for every gallon of ethanol produced. Most of the water is used for boiling and cooling (the process is similar in some ways to making beer) and some water is lost through evaporation in the cooling tower or as part of waste discharge (*The Economist*, March 1st 2008 print issue; article also on the web). Water use and in particular groundwater demand is expected to



spike since the number of ethanol factories has tripled in the last eight years (from 50 to 140) and another 60 plants are under construction. Federal legislation signed by President Bush in 2007 mandated a 5-fold increase in biofuels production by 2022.



The Minneapolis-based Institute for Agricultural and Trade Policy cites a backlash against the increased water demand by the ethanol industry, stating that 'water could be the Achilles heel' of ethanol. Minnesota state agencies estimate that the industry uses 2 billion gallons of water per year, and that amount could quintuple if the state's ethanol production more than doubles, as is expected.

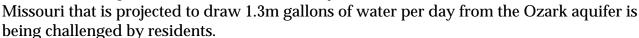
Commissioner Brad Moore of the Minnesota Pollution Control Agency (MPCA) (which regulates ethanol plants) characterizes the concern as two-fold: how to allocate groundwater in the next 10 years and how to best determine groundwater needs in the next 30 years. In many areas, there is considerable uncertainty on how much groundwater is available.

Moreover, depleting groundwater levels by the extraction of water by ethanol plants reduces the quantity of groundwater available for drinking water and potentially damages surface water bodies (Jeff Broberg, a PG and president of the Minnesota Trout Association).

Ethanol and Water Use (continued)

Stream flow could be reduced if groundwater levels are reduced, and growing water needs may require diversion of surface water as the water supplies for ethanol plants. Mr. Broberg comments that some groundwater is 5000 years old and that state agencies have no idea what level of groundwater use is sustainable.

The Economist reports that there are a growing number of legal challenges to ethanol plants. Projects are being challenged in Minnesota, Iowa, Nebraska, Kansas and in central Illinois where eight ethanol plants are situated over the Mahomet Aquifer. A \$165M ethanol facility in





A beaker of 200 proof ethanol outside the Adkins Energy ethanol plant near Lena, Illinois

Another unintended consequence is that the increased demand for corn – which has pushed corn to record prices in the last few years – results in more land in dry areas being allocated for corn, requiring irrigation and leading to further demand on water sources. Land diverted from wheat production to corn is partially attributed to the 25 percent rise in wheat prices in the last month. Some calculations show that the production of corn-based ethanol takes about as

much energy as it produces, which calls into question how viable corn-based ethanol is as an alternate energy source. Moreover, the increases in food prices due to ethanol production and the taxpayer subsidy to ethanol investors are further highlighted by concerns that ethanol may not have as much ecological and economic justification as originally thought.

Water use by ethanol plants is being debated. Proponents note that ethanol plants are becoming more efficient. They now use about half the water they did 10 years ago and new technology may be able to halve the water use again, according to ethanol industry engineers (Mike Fatigatie, Delta-T Corp). Others (Paul Greene, Siemens Water Technology) are skeptical that efficient (e.g. – closed loop) technology can be applied to the ethanol process.

As *The Economist* comments at the end of their article, perhaps ethanol isn't as bio-friendly as it looks.

MEETING REGISTRATION

Please return a form for each person attending. Registration includes a continental breakfast, a catered lunch and afternoon refreshments. **If you aren't a member yet, become one and save \$45 on meeting registrations this year!** To qualify for early registration, send this information to Diane Lamb, IGA Secretary, by Tuesday April 1st, 2008 by mail, e-mail, or fax (see information below). Make checks payable to the Illinois Groundwater Association if registering by mail, or pay at the conference if registering by email or fax. Early registration is encouraged.

| Early Registration | n | |
|---------------------|----------|--|
| (received by 4/1/2) | 008) | |
| Member: | \$65.00 | |
| Non-Member: | \$100.00 | |
| Student: | \$20.00 | |
| Late Registration | | |
| Late Member | \$75.00 | |
| Late Non- Member | \$110.00 | |
| Late-Student | \$20.00 | |

Contact Information

| Name: | |
|-----------|------|
| Position: | |
| | |
| Address: | |
| | |
| Phone: | Fax: |
| T 4 | |
| E-mail: | |

IGA MEMBERSHIP

Annual dues are \$25.00 and membership is available to anyone interested in the groundwater resources of Illinois. Dues for each calendar year are payable at the time of the spring meeting. Send this information to Diane Lamb (see information below). Make checks payable to the Illinois Groundwater Association.

| Membership Dues | | Contact Information (if same as above, check here □) | |
|--|---------|--|--|
| Renewal or New Member: | \$25.00 | Name: | |
| Student: | \$5.00 | Position: | |
| Send registrations and memberships to: <u>Diane Lamb</u> , IGA Secretary Andrews Engineering, Inc. | | Employer:Address: | |
| 3300 Ginger Creek I Springfield, IL 6271 | | Phone: Phone: | |
| (217)787-9495 fax | | E-mail: | |

Provisional Agenda Illinois Groundwater Association 2008 Spring Meeting April 8, 2008

Par-A-Dice Hotel Peoria, Illinois

| 8:30-9:15 | Registration |
|-------------|--|
| 9:15-9:45 | Opening Remarks, Presentation of Awards: Dan Horvath, IGA Chair |
| | MORNING SESSION |
| 9:45- 10:15 | Bill White , <i>Illinois State Water Survey</i> , Status of Watershed Assessment in the Illinois River Basin |
| 10:15-10:45 | John Keller , <i>Southern Illinois University</i> , Creation of a Highly Accurate Axisymmetric Numerical Model for the Analysis of Aquifer Tests |
| 10:45-11:15 | BREAK |
| 11:15-11:45 | Rick Twait , <i>City of Bloomington</i> , Regional Water Supply System for the City of Bloomington |
| 11:45-12:15 | Dominic Strezo , Illinois State University, Quantifying the Effects of Beaver Dams on Hyporheic Nitrogen Cycling |
| 12:15-1:45 | Lunch |
| 1:45-2:00 | Update from Jerry Dalsin on IDPH and regulations; also Open Mike |
| | AFTERNOON SESSION |
| 2:00-2:30 | Samantha Lax, <i>Illinois State University,</i> Creating a Model to Estimate Stream Chloride Concentrations as a Function of Land Use Change for Two Small Watersheds in Central Illinois |
| 2:30-3:00 | Greg Dunn, Illinois Environmental Protection Agency, Indoor Vapor Inhalation (TBD) |
| 3:00-3:30 | Walt Kelly, Illinois State Water Survey, Chloride and Groundwater (TBD) |
| 3:30-4:00 | Closing Remarks: Dan Horvath, IGA Chair |
| | PUBLIC EVENING SESSION |
| 4:00-5:00 | PUBLIC MEETING: Water Resources Planning for the Peoria Area. |
| Part 2 | : Water Resources in Central Illinois : Water Use in the Region : Current Water Management Planning Process |

Part 4: Question and Answer Session