



Illinois Groundwater Association Newsletter

Volume 21, No. 2

Fall 2005

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2005 Officers

- Chair:** Erik Spande, CH2M Hill
- Vice Chair:** Steve Van der Hoven, Illinois State University
- Director:** Dan Horvath, Resource Consulting
- Director:** Don Keefer, Illinois State Geological Survey
- Secretary:** Danielle Wallin, Farnsworth Group, Inc.
- Treasurer:** Steve Bennett, Western Illinois University
- Editor:** Erik Spande, CH2M Hill
- Student Director:** John Keller, Southern Illinois University

FROM THE CHAIR

Earlier this year, I received an e-mail from Bill Dixon and Jon Goodwin. These gentlemen have been heavily involved with various advisory Illinois Professional Geologist boards for the last 10-odd years and they had some alarming news: the reauthorization of the Illinois Professional Geologist (PG) state licensure had failed to make it out of the Illinois Senate Rules Committee (see article on Page 7 of the newsletter for details). The reauthorization bill had been passed in the House, but if it failed to come to a vote in the Senate then that meant that the PG would cease to exist on January 1, 2006. There was a flurry of letter writing, e-mails, and phone calls to Senate representatives and members of the Senate Rules Committee, but in the end...nothing. There was not action by the Senate Rules Committee. The PG was dead.

But Bill and Jon assured me that all was not lost. There is a window of opportunity to get the bill out of committee for a vote on the floor of the Senate in the fall Veto Session. The Veto Session is very short (measured in days), and they asked if the IGA would be willing to publish information on the Illinois PG and what interested parties might do to make their voice heard to save the PG. Of course, the IGA was only too happy to oblige. After all, one of our prime missions is education, and while the IGA's bylaws prohibit us from being an advocate we can certainly provide information to members of the community. Bill and Jon did a great job with their summary of the PG, and have even provided some ideas for personalized letters and communications with members of the Illinois Senate.

The unfortunate news on the PG sunset is tempered by the anticipation of the IGA's next meeting. We've chosen a new venue that I'm really excited about - the Morton Arboretum. I have to say this beats the daylight out of your typical Holiday Inn Convention Center. What can you say to great facilities and spectacular scenery, all centrally located in the western Chicago suburbs? More details on the meeting, the Morton Arboretum, and the meeting agenda are in the later parts of this newsletter and at the [IGA web site](#). So, join us at Morton!

Erik Spande, Illinois LPG 786
Illinois Groundwater Association 2005 Chair

IGA NEWS

FALL 2005 IGA MEETING AT THE MORTON ARBORETUM

The IGA is always looking for new and interesting venues for semi-annual meetings. We've had stunning luck at [Starved Rock State Park](#) and [Lodge](#) (Spring 2004), and are always pleased with the facilities and warm welcome at [Fermi National Accelerator](#) (Fall 2004). Universities are gracious hosts ([ISU](#) Spring 2005) that provide terrific access for students to our meetings. This fall we're trying someplace new - a hidden gem in the near western Chicago suburbs: the [Morton Arboretum](#).

Who would have guessed that the Arboretum had a conference center? You don't know until you ask, and it turns out theirs had been renovated in the last year and is perfectly suited for business and professional meetings. Of course the grounds are majestic, and we just happen to have scheduled our meeting at what promises to be the height of fall color on October 27th. Imagine the coincidence. The main problem may be getting a little time after the IGA meeting to be able to explore the grounds. Although, with 1,700 acres of woodland, prairie, ponds, and streams, we'll have to be choosy.



The challenge will be having a program that will be appropriate for this venue, and we think we've hit the mark (see page 18-20 of this newsletter) and at the [IGA web site](#). Of course, you'll have to attend to find out!

SPRING 2005 IGA MEETING A ROUSING SUCCESS

The Spring 2005 IGA was at a venue we hadn't been to for a long time - Illinois State University (ISU). We were hosted at the Bone Student Center, which is roughly in the center of the ISU campus. ISU has the advantage of being in the rough center of Illinois, so it is accessible to those throughout Illinois without too long of a commute. The meeting was attended by over 50 professionals and students.



We had a diverse program including presentations covering topics the new advanced water treatment system in West Chicago and the Illinois Basin Hydrologic Initiative. With a good mix of applied, theoretical, and research topics, there were presentations that piqued every interest.

If you couldn't attend the meeting, you missed a great time. But, there is no time for regrets - come to the Fall 2005 IGA meeting at the Morton Arboretum!

IGA NEWS

2005 IGA STUDENT RESEARCH GRANT RECIPIENTS

The Illinois Groundwater Association has awarded grants for 2005 to two deserving graduate students from Illinois universities. Both grant proposals were excellent, and they were awarded the full amount requested. The IGA is pleased to offer student grants for Illinois groundwater research, and hopes to increase this support as our budget permits.

Student	School	Project Title
Samuel Gillet Grant - \$450	Northern Illinois University	Field-based estimation and characterization of shallow aquifer recharge in DeKalb County: A pre-urbanization baseline study
Katrina Hall Grant - \$500	Southern Illinois University	Surfactant enhanced remediation of a LNAPL spill

Congratulations Samuel and Katrina! The IGA is also thankful to Ed Mehnert for his continuing work in coordinating the student grant proposals!

2006 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 Research 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. Applications are invited for IGA student research grants for 2006. The IGA annually awards one to three grants (typically \$150 to \$500) 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 2006 application deadline will be posted in the Spring 2006 IGA Newsletter. The deadline is typically in late April and we encourage any eligible student to submit their applications early. Application forms and guidelines can be obtained [online](#) 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
mehnert@isgs.uiuc.edu

IGA NEWS

IGA FALL 2005 MEETING – CEUs FOR ATTENDEES

Continuing education units (CEUs) are required for many Illinois licensed professionals. The IGA is pleased to announce that our Fall 2005 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 an attending IGA officer 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 IGA meetings. Prior approval of the program by an Illinois official is not required. An Illinois PE can get proof of attendance by getting their program signed by an attending IGA officer.

2005 IGA DUES REMINDER

Please pay your 2005 dues if you haven't done so already. At the same time, plan ahead to renew for 2006. Please print, complete, and mail this information along with your registration fee to Danielle Wallin at the address below. IGA membership dues are \$15, and the student membership is \$5. Membership renewal for each **calendar** year is payable at the time of the spring meeting and is available to anyone interested in groundwater resources in Illinois. **Please make checks payable to the Illinois Groundwater Association.**

COST

Renew Membership	\$15	Name: _____
New Membership	\$15	Position: _____
Student	\$5	Employer: _____
		Address: _____

		Phone: _____ Fax: _____
		E-mail: _____

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

Danielle Wallin, IGA Secretary
Farnsworth Group, Inc.
2709 McGraw Drive
Bloomington, IL 61701
(309) 663-8435 Fax (309) 663-1571
dwallin@f-w.com

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IGA OFFICER CANDIDATES FOR 2006

CANDIDATE FOR CHAIR OF IGA: **DR. STEPHEN J. VAN DER HOVEN** is currently an assistant professor at Illinois State University. He received a B.S. from Southampton College, an M.S. from the University of Arizona, and a Ph.D. from the University of Utah. His current research interests include using dissolved helium as a groundwater dating technique, nitrate cycling in the shallow subsurface, geochemical controls on dissolved arsenic, and groundwater-surface water interactions.

CANDIDATE FOR VICE-CHAIR OF IGA: **MR. DON KEEFER** is a geologist and the Director of the Geologic Mapping and Hydrogeology Center at the Illinois State Geological Survey. He received a M.S. in soil water quality and a B.S. in geology from the University of Illinois at Urbana. In his 20 years with the ISGS, his research interests have focused on the impact that geologic materials have on contaminant fate and transport, the importance of heterogeneities and preferential flow paths on contaminant fate and transport, and the application of geologic information to groundwater resource protection. Don's current research interests focus on methods for characterization and modeling heterogeneous geologic deposits, particularly for addressing problems of groundwater management, protection or remediation.

CANDIDATE FOR DIRECTOR OF IGA: **DR. MELISSA LENCZEWSKI** is an Assistant Professor of Contaminant Hydrogeology in the Department of Geology and Environmental Geosciences at Northern Illinois University. She obtained her B.S. in microbiology from University of Arizona and stayed there to receive her M.S. in soils, water and environmental science. After working in industry for four years, she went back and got her Ph.D. at the University of Tennessee. Currently her research focuses on fate and transport of organic contaminants (BTEX, MTBE, TCE, pharmaceuticals, etc.) in fine-grained materials.

CANDIDATE FOR SECRETARY OF IGA: **MS. DANIELLE WALLIN** has a B.S. degree in geology from Eastern Illinois University (1999) and a M.S. degree in geology from Northern Arizona University (2001). She currently is employed as an environmental geologist with Farnsworth Group, Inc. in Bloomington, Illinois where she specializes in water supply and resource evaluation, well design, environmental assessments, environmental remediation, hydrology, permitting and project management.

CANDIDATE FOR TREASURER OF IGA: **DR. STEVE BENNETT** received his B.S. in geology in 1988 from University of Northern Iowa, his M.S. in geology in 1990 from Indiana University, and his Ph.D. in geology in 1994 from Indiana University. After completing his Ph.D. he became an Assistant Professor in the Department of Geology at Western Illinois University in August of 1994. Dr. Bennett teaches courses in introductory physical geology, mineralogy, oceanography, hydrogeology, and at the Western Illinois University summer geology field camp. Dr. Bennett is formerly a Director and Chair of the IGA.

CANDIDATE FOR STUDENT DIRECTOR OF IGA: **MR. SAMUEL P. GILLET** is a graduate student in the Department of Geology and Environmental Geosciences at Northern Illinois University. As part of his master's research, he is currently working on a groundwater recharge study in DeKalb County. He received his B.S. in geology from Beloit College in 2000. His professional experience includes conducting stream surveys for the Stormwater Management Commission in Lake County Illinois, and working as a GIS technician for the Bureau of Land Management in Oregon from 2002 to 2004, on a project to create a regional clearinghouse of digital hydrologic data.

Fall 2005 Illinois Groundwater Association Newsletter

Illinois Groundwater Association

BALLOT FOR THE ELECTION OF 2006 OFFICERS

- Chair** () **Dr. Steve van der Hoven**
 Illinois State University
 Normal, Illinois
 () _____
- Vice-Chair** () **Mr. Don Keefer**
 Illinois State Geological Survey
 Champaign, Illinois
 () _____
- Director** () **Dr. Melissa Lenczewski**
 Northern Illinois University
 DeKalb, Illinois
 () _____
- Secretary** () **Ms. Danielle Wallin**
 Farnsworth Group, Inc
 Bloomington, Illinois
 () _____
- Treasurer** () **Dr. Steve Bennett**
 Western Illinois University
 Macomb, Illinois
 () _____
- Student** () **Mr. Samuel P. Gillet**
Director Northern Illinois University
 DeKalb, Illinois
 () _____

Instructions: Place an "x" in the box opposite to the candidate of your choice. If you prefer to vote for a candidate not listed, write the name and business affiliation of the candidate of your choice in the space provided and mark with an "x". Write-in candidates must be members of the IGA. Mail or e-mail the completed ballot to

Danielle Wallin, IGA Secretary
Farnsworth Group, Inc.
2709 McGraw Drive
Bloomington, IL 61701
(309) 663-8435 Fax (309) 663-1571
dwallin@f-w.com

SPECIAL FEATURE

SUNSET OF PROFESSIONAL GEOLOGIST LICENSING ACT

by Jon Goodwin and Bill Dixon

The Professional Geologist Licensing Act (Public Act 89-366; 225 Illinois Compiled Statutes 745) became effective on July 1, 1996. Under the provisions of the Illinois Regulatory Sunset Act (5 ILCS 80), every law enacted to regulate an industry or profession must sunset (expire) every 10 years so that the need for continued regulation can be considered by the General Assembly. The Professional Geologist Licensing Act will sunset on January 1, 2006 unless a bill is passed to extend the sunset date for another 10 years. House Bill 3158 (as amended), which is the bill to extend the sunset provision of the Professional Geologist Licensing Act to January 1, 2016, passed unanimously in the House on April 13 but, since being introduced on the floor of the Senate on May 5, the bill has remained in the Rules Committee. The senate sponsor of the bill, Senator Kirk W. Dillard (R - Westmont), sent a letter to the President of the Senate, Emil Jones, Jr. (D - Chicago), on August 16th requesting that the bill be moved out of the Rules Committee for action during the fall veto session.

To help ensure that action is taken to pass this bill, geologists, engineers, scientists, and other interested citizens from across the state must write or call their senators to urge passage of HB 3158. Copies of the letters should also be sent to Senator Jones's office as well (see address, below). To achieve maximum impact, letters and phone calls from constituents to senators should begin about the last week in September. Addresses and telephone numbers of senators can be found at www.ilga.gov, the site of the Illinois General Assembly.

You can find out everything you need to know about the status of this bill by going to the Illinois General Assembly web site. You can even use the "Legislator Lookup" under the "Additional Resources" on that web page to find out the names of your senator and representative. Clicking on your senator's name on the list of senators will bring up his or her picture and the addresses and telephone numbers of the district and Springfield offices. If you want to review the provisions of the LPG act, go to the website of the Illinois Department of Financial and Professional Regulation at <http://www.idfpr.com/dpr/WHO/gegy.asp>.

The fall veto session opens with a perfunctory session on October 19 and, after the opening business on that day, things will move very quickly. The fall session lasts only 6 days, October 25-27 and November 2-4.

SPECIAL FEATURE

SUNSET OF PROFESSIONAL GEOLOGIST LICENSING ACT (continued)

Senators of special significance to contact, especially if you are a constituent, include the following:

Rules Committee

Chairperson	Louis S. Viverito	D - Burbank (11 th)
	John J. Cullerton	D - Chicago (6 th)
	Rickey R. Hendon	D - Chicago (5 th)
Minority Spokesperson	Edward Petka	R - Plainfield (42 nd)
	Peter J. Roskam	R - Wheaton (48 th)

Licensed Activities Committee

Chairperson	Deanna Demuzio	D - Carlinville (49 th)
Vice-Chairperson	William R. Haine	D - Alton (56 th)
	M. Maggie Crotty	D - Oak Forest (19 th)
	Antonio Munoz	D - Chicago (1 st)
	Ira I. Silverstein	D - Chicago (8 th)
Minority Spokesperson	John O. Jones	R - Mt. Vernon (54 th)
	Kirk W. Dillard	R - Westmont (24 th)
	John J. Milner	R - St. Charles (28 th)
	William E. Peterson	R - Buffalo Grove (26 th)

Emil Jones' Office Address

Senator Emil Jones, Jr.
237 Capitol Building
Springfield, IL 62706

A warning for nine years in the future to our fellow PGs would be to initiate companion renewal bills in both the house and senate simultaneously so as to be less likely to be caught in our present position again.

An example letter containing some of the main arguments for renewing the Act is presented on the following page.

Fall 2005 Illinois Groundwater Association Newsletter

FORMAT OF EXAMPLE PG SUNSET LETTER

Month XX, 2005

Name
Address
City, IL 6XXXX
Telephone:

Senator XXXX
Address
City, IL 6XXXX

Dear Senator XXX:

As your constituent, I ask that you work vigorously in the fall session to pass HB3158, which extends the sunset of the Professional Geologist Licensing Act to January 1, 2016. The bill passed the House with no opposition on April 13, but has remained in the Rules Committee since its first reading in the Senate on May 5. Any assistance you can provide to Senator Dillard, the bill's sponsor, in moving the bill through the committees to final consideration will be greatly appreciated.

In this paragraph, if you are a P.G., we suggest that you replace the underlined words with some specific examples of services from your own practice. If you are an engineer, scientist, professional, or interested citizen this text includes some examples of how P.G.s serve the Illinois community – choose what you like, or provide your own examples. The proper application of the science of geology by licensed Professional Geologists (P.G.s) is vital to the public health, safety, and welfare of Illinois citizens. P.G.s help businesses and individuals throughout the state avoid or reduce the impacts of natural hazards such as landslides, karst subsidence, coastal erosion, and flooding. They also help citizens and municipalities find groundwater resources and protect them from contamination, find the best locations for infrastructure facilities such as tunnels, advise citizens and businesses that may be affected by mine subsidence, perform environmental assessments of properties to be sold and perform a myriad of other services that require special training and experience in the principles and practice of the science of geology. Two parts of the Illinois Environmental Protection Act have been revised to designate P.G.s as competent to perform certain specific activities at contaminated sites. Currently there are nearly 800 P.G.s in Illinois. A total of 29 states license persons who provide professional geology services.

As a *(licensed professional geologist in Illinois; professional engineer; concerned citizen)*, I urge you to work diligently during the fall veto session to ensure that action is taken on HB 3158. Illinois' citizens need to know for another 10 years that those who offer their services as geologists in the state are truly qualified by experience and training.

Please contact me if you have any questions or wish additional information.

Sincerely,

Illinois Licensed Professional Geologist (or other Illinois licensure, as applicable)
Number 196-XXXX (Illinois license number, as applicable)

AGENCY UPDATE

THE ISGS CELEBRATES ITS CENTENNIAL YEAR

The Illinois State Geological Survey (ISGS) will observe its [Centennial Celebration](#) in a series of events during the year 2005-2006. The current geological survey was founded on May 12, 1905, re-establishing a geological survey that had existed from 1851-1875. Questions concerning the Centennial may be directed to: gross@isgs.uiuc.edu.

ISGS CENTENNIAL FIELD TRIPS

The ISGS is sponsoring a special field trip to [Starved Rock](#) and [Matthiessen State Park](#) in honor of the ISGS' [Centennial Celebration](#). These are two of Illinois' most scenic state parks, and each trip will acquaint attendees with the geology, landscape, biodiversity and mineral resources of these areas. Field trips will be led by ISGS geologists and other experts, and to reach the maximum number of people they will be held four times in fall 2005 (September 17 and October 22) and spring 2006 (April 29 and May 20). More details are available at the [ISGS web site](#).

The ISGS has released a first publication about Starved Rock and Matthiessen State Parks, two of the Illinois' most scenic, and popular state parks, entitled **Time Talks : the Geology of Starved Rock and Matthiessen State Parks**. It contains 48 pages and numerous colored photographs. It's available from the ISGS for \$12.00.

ISGS HOSTS FIELD TRIP FOR MIDWEST GLACIAL GEOLOGISTS

Summarized from the [ISGS Web Site](#)

The ISGS hosted the 51st Annual Midwest Friends of the Pleistocene field trip May 13 to 15, 2005. As the host, the ISGS was responsible for all aspects of this successful trip. The trip was the lead-off event in the year-long celebration of the ISGS [Centennial Celebration](#). Using Streator as its base, field trip participants made 11 stops in one and a half days in the Illinois Valley area between Chillicothe and Henry. They examined river and glacial sediments and buried soils that record the past 500,000 years of history of the Ancient Mississippi River, which once flowed through north-central Illinois, following roughly along the course of the modern Middle Illinois River. The trip was attended by 130 geologists, professors, and students from across the U.S. and Canada. The field trip guidebook, entitled Quaternary Deposits and History of the Ancient Mississippi River Valley in North-central Illinois, is published as ISGS OFS 2005-7.



AGENCY UPDATE

THE ISGS CELEBRATES ITS CENTENNIAL YEAR (cont.)

ISGS HOSTS MEETING OF STATE GEOLOGISTS

Summarized from an [ISGS Press Release](#)

The ISGS hosted the 97th annual meeting of the Association of American State Geologists (AASG) At Pheasant Run Resort in St. Charles on June 11–15th. Meeting participants included 34 active state geologists, 9 honorary and retired state geologists, deputy state geologists from 13 states, and representatives of 6 federal agencies and 8 non-governmental agencies or foundations. The officials gather annually to discuss problems of mutual concern, coordinate research and service programs with officials of sponsoring federal agencies, and conduct Association business. A total of about 100 people, including spouses and other guests, attended the meeting. On Sunday, June 12, Illinois Department of Natural Resources Director Joel Brunsvold welcomed the assembled officials to Illinois on behalf of Governor Blagojevich and the Department. Several ISGS staff members participated in the meeting, which included a tour of U.S. Silica Company's mine and plant at Ottawa, Illinois, followed by a buffet dinner in the lodge at Starved Rock State Park and a field trip of the Lake Michigan shoreline from Illinois Beach State Park to downtown Chicago. The meeting was another of the events being held in honor of the Geological Survey's [Centennial Celebration](#). The origin of the AASG is closely intertwined with the early history of the ISGS.

ISGS OPEN HOUSE

As part of the ISGS Centennial Celebration, an Open House will be held on March 10-11, 2006. The Hydrogeology Section will participate in the educational exhibits and building tours.

ISGS STAFF CHANGES

The IGA is pleased to recognize active IGA members who have been recognized for their achievements. Bev Herzog, long-time supporter and former Chair of the IGA, was appointed as Assistant to the Chief for Environmental Initiatives. Dave Larson, another former IGA Chair, has been appointed as Head (acting) of the Hydrogeology Section. Finally, the current IGA Vice-Chair nominee Don Keefer has been appointed as Director (acting) of the Geologic Mapping and Hydrogeology Center. Congratulations to all of you!

AGENCY UPDATE

CO₂ SEQUESTRATION UPDATE

The Midwest Geological Sequestration Consortium (MGSC), led by the ISGS, has been awarded funding for the Phase II Regional Carbon Sequestration Partnership to determine the ability, safety, and capacity of geological reservoirs to store carbon dioxide (CO₂) in the subsurface of the Illinois Basin. With funding of \$14.25 million over the next four years from the U.S. Department of Energy and \$600,000 over the next two years from the Illinois Office of Coal Development, MGSC will focus on testing the ability of mature oil fields, deep brine-filled rock units, and coal seams to serve as sinks for some of the 276 million tons of annual CO₂ emissions from fixed sources in the Illinois Basin. CO₂ emissions are widely believed to be the cause of a component of human-induced climate change, specifically global warming, that may accelerate in coming decades if not controlled.

A series of six small-scale field tests are proposed. They include the testing of deep, unminable coal seams to adsorb gaseous CO₂, the ability to coax more oil from old fields by CO₂ flooding, and the injection of CO₂ into salt-water filled rock units some 7,000 to 9,000 ft below the surface. Injection into deep coals may help produce methane to augment natural gas supplies. Injection into old oil fields will help recover some of the approximately 10 billion barrels of oil remaining in Illinois Basin reservoirs. These activities will accomplish sequestration while also helping to meet the nation's need for fossil fuels. Successful sequestration capability is a prerequisite for Illinois' bid for FutureGen, the innovative near-zero emissions coal-fired power plant that the Department of Energy plans to develop beginning in about two years, and this award will move Illinois forward as a potential FutureGen site.

The MGSC Phase II is a consortium of the Illinois, Indiana, and Kentucky geological surveys and are joined by industry, government, and business associations who will assess all aspects of geological CO₂ storage in the Illinois Basin. During Phase I, existing data have indicated that the geology of the Basin is favorable for CO₂ storage, or sequestration. In some localities, two or more potential CO₂ sinks are vertically stacked. The MGSC will continue the investigations into the methods and economics of CO₂ capture at facilities such as coal-fired power plants and examine the costs of transportation of large quantities of CO₂ via pipeline. The project is particularly focused, however, on the properties of the rock units that control injectability of CO₂, the total capacity for storage near major CO₂ sources, the safety of injection and storage processes, and the security of the overlying rock units that act as seals for the reservoirs. The overall integrity of the storage and sealing rock units is critical from the viewpoint of safety and of effectiveness in isolating CO₂ from the atmosphere and thereby avoiding the potential for adverse climate change.

AGENCY UPDATE

CO₂ SEQUESTRATION UPDATE (cont.)

Each of the field tests will have an extensive monitoring program for air, shallow ground water, oil and water produced from oil reservoirs, and saline water produced from deep reservoirs to understand the fate of injected CO₂ at our test sites. The integrity of the entire process will be scrutinized in detail to understand what contributions Illinois Basin geological sinks can make to national and international goals in accomplishing carbon sequestration and what technology developed here can be extrapolated to other regions.

The MGSC Phase II Partnership will carry out extensive public outreach with regard to its activities and to carbon sequestration generally. The Partnership will arrange presentations to industry, government, and the general public to provide information of the progress of the program's research and the importance of the Phase II field tests. To date eleven companies that have nominated 34 potential field test sites in the Basin for Phase II, and sixteen companies, trade associations, and government agencies from Illinois, Indiana, Kentucky, and across the nation will serve on the MGSC's Project Advisory Group. There is a growing body of information at the [CO₂ Sequestration web site](#), that the project will continue to add information in order to keep our sponsors, team members, and the general public informed of Phase II progress.

NEW IEPA DIRECTOR

Summarized from the [IEPA's web site](#)

Governor Rod Blagojevich has named Doug Scott as Director of the Illinois Environmental Protection Agency (IEPA) effective July 1, 2005, which is 35 years after the founding of the nation's oldest state environmental agency. Mr. Scott is a Rockford Illinois native, and returned to Illinois after getting his B.S. from University of Tulsa and his law degree from Marquette University in 1985. He served as a City of Rockford attorney from 1985 to 1995, and as an Illinois State Representative from 1995 to 2001. Mr. Scott was elected as the Mayor of Rockford in 2001 for a single four year term.

While working as an attorney for the City of Rockford Mr. Scott began the city's recycling programs that are still in practice today. As an Illinois legislator he championed working families and urban renewal, and served on task forces and lead efforts for school funding, HMO reform, campaign ethics, and crime initiatives. During his tenure as Rockford Mayor he worked on industrial development, airport and rail expansion, biotechnology, and education issues.

He is committed to maintaining and enhancing the Agency's key role in protecting our air, land and water and carrying out Governor Blagojevich's pledge to make government more accountable and accessible to citizens and the regulated community, including local governments and business.

REGULATORY UPDATE

ILLINOIS' RIGHT-TO-KNOW LAW

Submitted by [Richard P. Cobb](#), P.G., Deputy Manager, Division of Public Water Supplies and Manager of the Groundwater Section, Illinois EPA

Gov. Rod Blagojevich signed a [bill](#) (Public Act 94-3143, Senate Bill 0241) on July 27, 2005 that requires Illinois residents be notified if they live near polluted sites and gives state environmental regulators more power to order polluters to clean up the sites.

The [law](#), which goes into effect immediately, requires those responsible for the pollution to pay for both the cleanup of the sites and the cost of notifying residents that they live near polluted sites. It also gives the IEPA the authority to issue "administrative orders" to compel responsible parties to clean up sites or contain hazardous contaminants. Until now, the IEPA did not have the administrative authority to issue the orders directly, and had to ask the state's attorney general's office to sue or ask for help from federal regulators. This law gives the IEPA the long overdue authority it needs to order polluters to clean up contamination quickly.

The law was prompted in part by the experience of a group of DuPage County homeowners. One of them, Ann Muniz, learned that her well was polluted with cancer-causing chemicals two years after she moved into the area and waited two more years before she and about 750 others were hooked up to pipes carrying treated Lake Michigan water.

The IEPA and the Groundwater Advisory Council will work with the public and other members of the regulated community on how residents should be notified about pollution. The methods could include phone calls, community meetings, door-to-door visits and public service announcements.

CONTINUED HEARINGS ON PROPOSED LUST PROGRAM CHANGES

The Illinois Pollution Control Board (IPCB) has held [public hearings](#) on the IEPA's proposed amendments to Petroleum Leaking Underground Storage Tanks (LUST) regulations (35 Ill. Adm. Code 732) (IPCB case number R2004-022). The IEPA [proposed modifications](#) to LUST regulations are specified in the initial filing to the IPCB in January 2004.

LUST program amendments were proposed in response to [Public Act 92-0554](#), which amended the LUST Program's response requirements for underground storage tank (UST) releases reported on or after June 24, 2002, and [Public Act 92-0735](#), which allows Licensed Professional Geologists (see IGA feature article on the PG Sunset) to certify

REGULATORY UPDATE

CONTINUED HEARINGS ON PROPOSED LUST PROGRAM CHANGES (cont.)

certain information submitted to the IEPA. In addition, the IEPA is proposing amendments designed to streamline the process for obtaining payment from the UST Fund by setting a 'fee schedule' for basic services provided by environmental consultants for LUST Program projects.

The IEPA also submitted a separate proposal for a new Part 734 to Title 35 of the Illinois Administrative Code ("Part 734") for UST owners and operators subject to the new requirements of Public Act 92-0554. The proposed new Part 734 is identical to Part 732, as amended in this proposal, except for the changes resulting from the enactment of Public Act 92-0554: different corrective action requirements and increased caps on the total amount owners and operators can be paid from the UST Fund. Because Parts 732 and 734 both apply to UST releases, and their applicability depends only upon the date the release was reported, or whether the UST owner or operator elected to proceed under Part 734, the IEPA requested and the ICPB has approved that the dockets for this proposal and the Part 734 proposal be combined.

All [case details](#) relating to LUST Program changes listed by date at the ICPB's web site and the public comments provided to date are found at the ICPB's site. The ICPB is mandated to complete the rulemaking by February 2006.

GROUNDWATER IN ILLINOIS

MIDWEST GROUND WATER CONFERENCE

The annual [Midwest Ground Water Conference](#) returns to Champaign on November 1-3, 2005, the place where it all began 50 years ago. More than 100 groundwater professionals will gather to discuss and present papers in four sessions - Ground Water Quality and Monitoring, Ground Water Quantity, Water Use, Government Data, and the History of Hydrogeology. Two keynote speakers will address the conference. Dr. Henry Vaux, Jr. will speak on *Our Growing National Water Problem: Is Research the Answer?*; Tom Prickett will speak on *50 Years of Groundwater Modeling*. More details on registration and accommodations are available at the MGWC web site.

GROUNDWATER IN ILLINOIS

IEPA REPORT: ILLINOIS DRINKING WATER IMPROVING

Summarized from an [IEPA](#) press release

Illinois has 10.6 million users of tap water and the 2004 [IEPA report](#) to the US EPA shows that over 91.4 percent of these users are served by community water supplies that meet all [state and federal requirements](#). Annual reports on drinking water supplies compliance with the U.S. EPA's [Safe Drinking Water Act](#) were first required in 1995. The Illinois compliance rate reflects a more than 3 percent improvement in compliance since reporting began.

In Illinois, water supplies providing drinking water to consumers are regulated either as community or non-community water supplies, based chiefly on the number of users they serve. During 2004, there were 5,880 public water supplies in the state; of those, 1,808 are defined as community water supplies, which fall under IEPA regulation. Campgrounds and highway rest stops are considered non-community water supplies, for instance, as are day care centers, schools and factories. These are regulated by the Illinois Department of Public Health.

A total of 574 out of the 5,880 public water supplies in the state had violations of regulations during 2004. These 574 systems accumulated a total of 2,354 violations. As in the past, most violations were monitoring or reporting violations (failure to collect samples or provide documentation) were short in duration, and the public water supply returned to compliance by the next reporting period. The overall potential risk to public health was minimal. When even a potential of a health risk was present, the public water system was required to issue public notification to all consumers.

U.S. EPA and states evaluate compliance on the basis of both acute (short term) and chronic (long term) health requirements with standards that usually differ for the two categories. The latest IEPA figures show that 98.6 percent of the population served by community water supplies received water that met all acute standards, and 92.7 percent received water that was in compliance with chronic requirements. Standards for acute requirements are usually stricter than chronic standards. For most contaminants, the latter is based on projected health risks from daily consumption of large amounts (approximately two liters) of water on a daily basis over an extended period of time.

In most cases, when contaminant levels exceed maximum allowable limits, treatment is required to be installed in the shortest amount of time taking into consideration the cost, health effects (acute vs. long-term), and size of the project. All of the public water supplies with violations during 2004 have either returned to compliance, entered into an enforceable agreement to take the necessary steps to return to compliance, or are in the formal enforcement process involving the Illinois Attorney General. Enforcement cases involving the office of the Illinois Attorney General could result in monetary penalties as well as the water supply being required to achieve compliance with the regulations.

GROUNDWATER IN ILLINOIS

USGS REPORTS STATES' GROUNDWATER USE

Summarized from the [USGS](#)

The United States Geological Survey (USGS) has published the report [Estimated Withdrawals from Principle Aquifers in the United States, 2000](#) (USGS Circular 1279, available on-line) that examines the United State's dependence on groundwater by providing details of groundwater withdrawals and use from principle aquifers in each state.

The USGS found that more than 90 percent of ground-water withdrawals are used for irrigation, public supply (deliveries to homes, businesses, and industry), and self-supplied industrial uses. Each day 76.5 billion gallons are used for these three purposes with irrigation accounting for nearly three-quarters of this amount. California and Nebraska use more ground water for irrigation than any other states; 8,910 million gallons per day in California and 7,050 million gallons per day in Nebraska.

The report shows that more than half of the combined ground-water withdrawals for irrigation, public supply and self-supplied industrial water uses are coming from four principal aquifers: the High Plains aquifer, the Central Valley aquifer, the Mississippi River Valley alluvial aquifer along the lower Mississippi River, and the Basin and Range aquifers predominantly located in the desert Southwest. Irrigation is overwhelmingly the largest use of the water from each of these aquifers. Aquifers that produce the most water for public supply are the glacial sand and gravel aquifers in a large region that extends from Maine to Montana and southward toward Kentucky; the California Coastal Basin aquifers; and the Floridian aquifer system.

WORLD WATER MONITORING DAY

America's Clean Water Foundation (ACWF) and the International Water Association (IWA) have coordinated the World Water Monitoring Day (WWMD) since 2002. The WWMD was created with two goals in mind: provide an educational platform on the importance of water monitoring and to gather basic water quality parameters from rivers, lakes, estuaries, and other water bodies. Each year the WWMD builds on the success of previous years and capitalizes on the experience of WWMD leaders, and the training and guidance they provide others. Volunteer monitoring groups, water quality agencies, students, and the general public conduct tests of four key indicators of water quality: temperature, pH, dissolved oxygen, and turbidity using easy-to-use sampling kits.

WWMD registration begins in mid July, and monitoring continues from September 18 to October 18, 2005. Partners in the WWMD are the U.S. EPA, U.S.G.S., U.S. Department of Agriculture, U.S. Army Corps of Engineers, and a few private companies (including the IGA Editor's company, CH2M Hill). If you are interested in participating in the 2005 WWMD or in getting more information on the effort go to the [WWMD web site](#).

Fall 2005 Illinois Groundwater Association Meeting on October 27 at the Morton Arboretum in Lisle, Illinois

The Fall Meeting of the Illinois Groundwater Association will be held at the [Morton Arboretum](#) in Lisle, Illinois on Thursday, October 27, 2005. On-site registration with coffee and rolls begins at 8:15 a.m. and the technical program will begin at 9:00 a.m.

Meeting Agenda

The provisional agenda is on the last page of this newsletter. We've scheduled some decent sized breaks since there never seems to be quite enough time for discussions with colleagues, and at the end of the meeting there will be time for a tour of the Morton Arboretum grounds. There will not be time to see it all, of course, but the helpful Morton staff can identify a few sights you won't want to miss.

Location Information

The [Morton Arboretum](#) is located in Lisle, a western Chicago suburb, on the north side of I-88. From I-88 take the Rt. 53 exit north. The entrance to the Arboretum will be the first left. Be sure to tell the gate keeper you are with the IGA Conference at the Thornhill Education Center so you can get in free. Keep to the right and pass the parking area by the new Visitor Center. The road will go underneath Rt. 53 to the west side of the Arboretum. Follow this road until you reach the next parking lot for the Thornhill Education Center near the top of the low hill. The Center is on the west side of the parking lot. See the map at the above link for more details.

Additional Information:

Lunch will be catered and is included in the cost of attending the conference. If you have any dietary needs please contact the IGA at least three days ahead of time. For those needing overnight accommodations, a list of local hotels with rates is available at the [Lisle, Illinois](#) web site.

Please share this announcement with your colleagues. We would love to see them, too! Send in registration information via snail mail or e-mail to:

Danielle Wallin, IGA Secretary
Farnsworth Group, Inc.
2709 McGraw Drive
Bloomington, IL 61701
(309) 663-8435 Fax (309) 663-1571
dwallin@f-w.com

Fall 2005 Illinois Groundwater Association Newsletter

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 for only \$15 and save \$5 on meeting registration this year!** To qualify for early registration, send this information to Danielle Wallin by Thursday, October 13, 2005, 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.

<i>Early Registration (received by 10/13/2005)</i>	
Member:	\$55.00
Non-Member:	\$75.00
Student:	\$30.00
<i>Late Registration</i>	
Late Member	\$70.00
Late Non-Member	\$90.00
Late-Student	\$35.00

Contact Information

Name: _____

Position: _____

Employer: _____

Address: _____

Phone: _____ Fax: _____

E-mail: _____

IGA MEMBERSHIP

Annual dues are \$15.00 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 Danielle Wallin (see information below). Make checks payable to the Illinois Groundwater Association.

<i>Membership Dues</i>	
Renewing or	\$15.00
New Member:	
Student:	\$5.00
Send registrations and memberships to:	
Danielle Wallin	
Farnsworth Group, Inc.	
2709 McGraw Drive	
Bloomington, IL 61701	
309-663-8435 Fax 309-663-1571	
dwallin@f-w.com	

Contact Information

(if same as above, check here)

Name: _____

Position: _____

Employer: _____

Address: _____

Phone: _____ Phone: _____

E-mail: _____

Fall 2005 Illinois Groundwater Association Newsletter

PROVISIONAL AGENDA Illinois Groundwater Association 2005 Fall Meeting October 27, 2005

Morton Arboretum, Lisle, Illinois

- 8:15-9:00 Registration with refreshments
- 9:00-9:15 Opening Remarks: **Erik Spande**, IGA Chair
- Morning Session**
- 9:15-9:35 **Brian Hacker**, Leggette, Brashears & Graham, *Conversion of Farmland to Residential Properties: Pesticides and Drinking Water Quality Concerns*
- 9:35-9:55 **Nick Fromm**, Illinois State University, *Modeling of the Flux of Water and Nitrogen Cycling Beneath a Stream Meander*
- 9:55-10:15 **Maria Lemke**, The Nature Conservancy, *Effectiveness of BMPs on Restoring Water Quality, Hydrology, and Biological Resources from Agricultural Runoff*
- 10:15-10:40 **Break**
- 10:40-11:00 **Business meeting and time for announcements**
- 11:00-11:20 **Doug Cherkauer**, University of Wisconsin Milwaukee, *Integrating groundwater resource information with community planning: Successes and failures from Richfield, Wisconsin*
- 11:20-11:40 **Robert Kohlase and Danielle Wallin**, Farnsworth Group, *Regional Water Supply Planning for McLean County, IL Communities*
- 11:40-12:00 **Erik Spande**, CH2M Hill, *Waukegan Manufactured Gas and Coke Plant Site Remediation*
- 12:00-1:10 **Lunch**
- Afternoon Session**
- 1:10-1:30 **Craig Allen**, Meadow Well and Pump Service, *The Benefits of Down-hole Television Surveys*
- 1:30-1:50 **Amy Schwarz**, Northern Illinois University, *TBA*
- 1:50-2:20 **Break**
- 2:20-2:50 **Steve Van Hook**, Patrick Engineering, *TBA*
- 2:50-3:20 **TBA**
- 3:20 **Adjourn and IGA Executive Committee Meeting**