

GIS *in Illinois*

2004 Spring Conference

“Responding to a Dynamic World”

Conference Program

April 13-14, 2004

WELCOME!

Welcome to the tenth annual ILGISA conference in central Illinois. This year's conference features six workshops on Tuesday. There will be an exhibitor's reception Tuesday evening. Be sure to use the reception and extended break periods to visit our exhibitors, view the poster displays by your colleagues, and network with each other. People's Choice awards will be given to the creators of posters, so be sure to register your vote! On Wednesday, there will be twelve concurrent sessions that are sure to please. Have a great time!



**We're celebrating the 10th
anniversary of the
Illinois GIS Association
Cajun Style!**

2004 Spring Conference Planning Committee

Kingsley Allan, Co-Chair

Ken Lovett

Dawn McWha

Becky Motor

Robert Krumm, Co-chair

Sheryl Oliver

Mike Koutnik

Shane McDermott

Evaluations: There will be evaluations passed out at each workshop, along with conference evaluations at lunch on Wednesday. Please do fill these out and provide any comments on the various aspects of the conference. Each year, the planning committee goes through the evaluations to determine better ways to serve the attendees. While not all suggestions can be implemented, they are all given serious consideration. Your input is important since these conferences are for your benefit. Thank you.

OUTSTANDING STUDENT AWARDS

Scott Gass has been nominated by Heather K. Conley, Visiting Assistant Professor for the Department of Geography-Geology at Illinois State University. Scott is currently a junior at Illinois State University and plans to graduate in May 2005 with a major in Geography and minor in Computer Science. He completed the Introduction to Geographic Information Systems course last Fall, and is currently enrolled in the Advanced GIS course. His enthusiasm for GIS is reflected in his plans to pursue a minor in Computer Science to complement his Geography degree. Scott has also discussed pursuing a graduate degree somewhere he can continue his GIS education. He initiated a project that investigates whether increased childhood leukemia rates occur around nuclear power plants in Illinois. His project is informed by studies of childhood leukemia in other areas in the Midwest and in Europe. While Scott's research proposal clearly shows his understanding of the strength of GIS in addressing spatial problems, it also illustrates his awareness of the process of completing a project using GIS. He has discussed weaknesses associated with the type of data he has access to and how that data may impact his findings. Additionally, this project shows that he is able to take concepts from other areas of knowledge and apply it in a GIS environment to evaluate a problem. Scott has been encouraged to present this project at the Illinois Geographical Society meeting in April, 2004.

Peter Stewart has been nominated by James A. Clark, Professor of Geology at Wheaton College. Peter is a junior with an Environmental Studies major - Geological Concentration. Peter is an excellent overall student with a GPA of 3.69. He also holds a National Merit Scholarship. For the GIS Practicum class Peter worked effectively on a group project related to water supply problems in Honduras. His individual project for that class involved the initiation of a GIS for the Wheaton College campus - a project that was of great interest to the campus architect. Peter worked last summer as a research assistant on a project dealing with satellite sea level altimetry and global warming. Although that particular work was computer intensive, it involved little GIS work. However a spin-off of that work involved Peter in a GIS project that extended into the school year as an independent study. He has used my existing model of glacial isostatic deformation of the earth to predict paleo-DEM's of Wisconsin during the past 15,000 years. Peter has been able to predict the past hydrology of the region and the changing lake levels of glacial Lake Oshkosh as ice sheets retreated and the land surface rebounded. He will report his results at the North-Central Section of the Geological Society of America in St. Louis on April 1, 2004. His paper, "A GIS reconstruction of glacial Lake Oshkosh and ancient hydrology of eastern Wisconsin from models of glacial isostatic adjustment", will be in the special session on *Remote Sensing and GIS Application to Geology* at that meeting. Based largely upon his work, I was able to submit a proposal to the National Science Foundation for funding to extend Peter's studies to the entire Great Lakes Region.

Cameron Rex has been nominated by Erick Howenstine, PhD, Professor, G&ES at Northeastern Illinois University. In his GIS course Cameron took each assignment to a new level. When I asked students to demonstrate heads-up digitizing skills, he found an orthogonal aerial image of a West Virginian town, located its platt map for reference, then digitized in proper lat/long hundreds of parcels and all the roads in a half-dozen subdivisions; then he delivered these on-line with user-toggled layers using not one SVG solution, but two. This was almost entirely independent work. Some of his other work is available on his web site: <http://GIS.rustyplanet.com>. Fall 2003 he created a university-wide discussion board, with an array of security measures and management control so tight that it received university approval *even though users may choose to be anonymous*. The phenomenal amount programming that this required - all unpaid - speaks to his willingness to get elbows deep in code and his ability to come out of it smiling. It also shows his ability to undertake a complex project which, in this case, has required meeting the interests of users, satisfying the long-term requirements of board managers, and addressing the security and liability concerns of the University Administration. All of these skills will be invaluable in the GIS environment, which he has chosen as a career goal. The board, public since Jan.12, 2004 and steadily gaining popularity, is at bughouse.neiu.edu.

Martin Arnold has been nominated by Andrew J. Krmeneč, Professor and Chair of the Department of Geography, Northern Illinois University. Martin is majoring in geography with an emphasis in GIS/mapping science and is scheduled to graduate this May. Martin has achieved an overall GPA of 3.36 at NIU, and a perfect 4.0 in GIS and mapping coursework. Martin Arnold is one of those few ideal students who has the ability to transfer excellence in the classroom to excellence in the practice of GIS and mapping science while still a student. For the past two years he has worked as a student intern in the department's Advanced Geospatial Lab, participating in several major public sector GIS projects. Martin is meticulous in his work approach and habits, and produces some of the highest quality GIS and spatial data of any student having interned in the Lab. His enthusiasm for learning and his understanding of the value of the spatial perspective is without par. In fact, he was the only undergraduate invited to participate in the development of our "Virtual GIS Notebook," a web based introduction to GIS co-sponsored by Intergraph Corporation. Martin also participated in the development of our campus Web Map, volunteering extra time to field map recent landscape changes to campus grounds and verify database information. His dedication to his studies and coursework and his enthusiasm for the value of GIS to society has earned him widespread respect, among both faculty and professional staff.

CONFERENCE AT A GLANCE

Tuesday, April 13 8:00 A.M. — 9:00 A.M. Registration and Continental Breakfast

9:00 A.M. — 12:00 P.M.	12:00 P.M. — 1:00 P.M.	1:00 P.M. — 4:00 P.M.	4:00 P.M. — 7:00 P.M.	6:30 P.M. — 7:30 P.M.
<i>Workshops: Mobile and Wireless GIS</i>	Lunch (buffet)	<i>Workshops: Successful Techniques for Implementing ArcSDE</i>	Poster Display and Exhibitor Reception	ILGISA Open Board Meeting (open to all)
<i>Introduction to GIS</i>		<i>GIS and Farmland Assessment</i>		7:30 P.M. — 9:00 P.M.
<i>Parcel Geodatabase Implementation</i>		<i>Introduction to GIS</i>		ILGISA Business Board Meeting
<i>Beyond Tables and Graphs (Offsite at Capital Area Career Center)</i>		<i>Parcel Geodatabase Implementation</i>		
		<i>Beyond Tables and Graphs (Offsite at Capital Area Career Center)</i>		

Wednesday, April 14

8:00 A.M. — 9:00 A.M.	9:00 A.M. — 10:00 A.M.	10:30 A.M. — 11:45 P.M.	11:45 P.M. — 1:15 P.M.	1:15 P.M. — 2:30 P.M.	2:30 P.M. — 3:00 P.M.
Registration	Opening Session	Concurrent Sessions	Lunch	Concurrent Sessions	Break in Exhibit Hall Poster Prizes Awarded
Continental Breakfast	10:00 A.M. — 10:30 A.M.				3:00 P.M. — 4:00 P.M.
	Break in Exhibit Hall				Concurrent Sessions

8:00 A.M. — 3:00 P.M.

Exhibits and Poster Displays

TUESDAY, APRIL 13

Parcel Geodatabase Implementation Workshop - Full Day - Emerald Ballroom

Presenter: Jason Grootens, ESRI Minneapolis

Moderated by: Dave Parizon, Madison County Government

Successful ArcSDE Implementation - Afternoon Session - Plaza A & B

Presenters: Tom Dewitte, ESRI Minneapolis and invited individuals from various government agencies

Moderated by: Heather Ryan, Illinois Department of Natural Resources

Introduction to GIS - Full Day - Ruby Ballroom

Presenter: Rob Krumm, ISGS and Carmi Neiger, ESRI

Mobile and Wireless GIS - Morning Session - Plaza A & B

Presented by: Paul Braun, Varion Systems

Moderated by: Kathy Hadler, Village of Rantoul

GIS & Farmland Assessment - Afternoon Session - Plaza C & D

Presenter: Bill Wetzel and Associates from The Sidwell Company

Moderated by: Joye Baker, Adams County Highway Department

Beyond Tables and Graphs: Mapping the Census - Full Day Offsite Location

Presenter: Courtney Sullivan, GIS³ (GIS Cubed)

Moderated by Rand Briggs, United States Department of Agriculture

TUESDAY EVENING - 4:00 TO 7:00 PM

Exhibitor Reception – Exhibit Hall in Plaza E & F

Take some time to visit various exhibitors from all over the country with specialties from aerial photography to data storage. The exhibit hall will be open through 7:00 p.m., with an open bar, and plenty of passed hors d'oeuvres and a snack bar. This will also be a great opportunity to view the posters created by the attendees and vote for your favorites! Your ballot can be found in your folder.

WEDNESDAY, APRIL 14

Poster Session – Foyer area and Exhibitor Hall

The poster displays will be open all day on Wednesday. ILGISA will inaugurate the People's Choice Award for the "Best Map" and the "Best Poster" during the last break on in the vendor hall.

9:00 AM - 10:00 AM

The day will begin with an opening session that includes introductory remarks by the ILGISA President, Rob Krumm, and a keynote address by Mr. Kerry St. Pé (pronounced "pay"). Mr. St. Pé will present information on coastal erosion and land loss issues along the Louisiana coast, including the role of geospatial mapping technologies to address these issues. There will be a break after the keynote address to allow you to visit the exhibit hall and view the posters on display.

Kerry St. Pé is currently the Director of the Barataria-Terrebonne National Estuary Program, a nationally recognized effort dedicated to preserving and restoring the 4.2 million-acre area between the Mississippi and Atchafalaya Rivers. Kerry grew up near the mouth of the Mississippi River in Port Sulphur, Louisiana with his 3 brothers and one sister during the '50s and '60s where the vast coastal marshes surrounding his home inspired him to major in Marine Biology at Nicholls State University. He graduated from Nicholls State University in 1973.

Following graduation, Kerry worked for 23 years as a field biologist and regional coordinator for the Louisiana Departments of Wildlife and Fisheries and Environmental Quality. His work allowed him frequent encounters with the people, marshes, and swamps of the area now known as the Barataria-Terrebonne National Estuary. Under the DEQ, he investigated water pollution incidents and conducted studies of shell dredging impacts in Lakes Maurepas and Pontchartrain as well as studies on the impacts of oilfield brine in coastal La.

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Mr. St. Pé has directed hundreds of oil spill clean-ups in the coastal marshes of southeast Louisiana and has developed nationally used training courses on diagnosing fish kills. He has provided expert testimony to the United States House of Representatives and the United States Department of Justice as well as to the Louisiana Legislature. He serves on numerous national, state, and local advisory boards and is a frequent public speaker.

Mr. St. Pé has also received several Outstanding Publication Awards from the Louisiana Wildlife Biologists Association and was the recipient of the first Annual Coastal Stewardship Award from the Coalition to Restore Coastal Louisiana. Most recently, Kerry was honored as an Outstanding Alumni of Nicholls State University and was appointed as the Interim Administrator of the Louisiana Universities Marine Consortium, a marine research institute in Cocodrie, La.

To honor Mr. St. Pé and to celebrate the 10th Anniversary of ILGISA, the day will be enjoyed "Cajun style!" If you have yet to try a crawfish, now is the opportunity. Although, for the less adventurous, there will be other selections available!

10:30 AM - 11:45 AM

Municipal Web Applications – Plaza A

Moderated by: Kim Swisher, GE Energy

Internet GIS for Survey Monument Location

Presenter: Kurt Roloff, City of Naperville

The City of Naperville has created a survey monument locator Internet application to better assist the local engineering & surveying professionals with their planning and development needs. The application allows users to locate and obtain the necessary information from the closest survey monuments to their specific location. This application accomplishes both lessening the workload of city staff and also better introduces the professional public to the city's GIS data. In addition, this application exhibits the use of GIS's spatial search capabilities, eliminating distance approximation from paper maps.

Skill Level: General, but presentation deals with Internet and survey-related terms

Taking GIS to the Streets: The City of Chicago Automated Vehicle Tracking Project

Presenter: Scott Stocking, GeoAnalytics

This presentation will discuss the technical details of providing a Web based mapping and reporting system within ArcIMS. Key operational considerations during the initial roll out of the project and how the system has been received within City departments will be discussed.

Additional insight will be provided on how to provide the system in an incremental fashion, and how technical considerations were addressed as the system evolved over time during the project's implementation.

Other points of interest will include technology enhancements that provide tangible benefits in key functional areas such as: monitoring key vehicle maintenance items; insuring personnel operate City fleet vehicles in a secure manner; and providing access into department applications and Citywide operations (such as the 311 citizen compliant system) to vehicle computers.

Skill Level: General

Chicago Property Finder

Presenter: Larry Hanson, City of Chicago

City of Chicago's "Chicago Property Finder" allows users to search a database of city owned and market rate industrial properties within the City. Used to market city sites to the outside world.

Skill Level: Internet Users

Supplying Our Food - Plaza B

Moderated by: Kathy Brown, Illinois State Water Survey

New Website Helps Producers Go to Market

Presenter: Darlene Knipe, UI Extension, Rey de Castro and Jim Conlon, GIS Solutions

Producers, buyers, sellers, and distributors in Illinois now have an online marketing tool. MarketMaker is an interactive website designed to find supply chain partners and to improve knowledge of where food consumers are located, and how they make food related purchasing decisions. The website, which is located at www.marketmaker.uiuc.edu, is a collaboration between the University of Illinois Initiative for the Development of Entrepreneurship in Agriculture (IDEA), the Illinois Department of Agriculture and C-FAR (Illinois Council on Food and Agricultural Research). The MarketMaker website includes demographic and business data that the user can query. A link to the mapping page enables users to map business location or display detailed information incorporating Census Tract information. Users can view summarized details on a map to show concentrations of consumer markets and strategic business partners. For example, a user can request lists of federally inspected packing plants along with a map that identifies their locations. If you are a grocery store looking for the closest producer of organic vegetables, you can query the website to find the names and contact information.

Skill Level: All levels using GIS

GIS Applications in Agriculture: Extending How-To Techniques to Producers and Crop Consultants

Presenter: Quentin Rund, PAQ Interactive

This presentation will summarize GIS initiatives to help farmers and their crop consultants to include GIS in their business management and planning. The initiatives were developed by FAR, in part, from USDA CSREES funding for precision agriculture projects. We will showcase several training modules on yield and soil test data, and one on on-farm research.

Skill Level: Beginner/Intermediate

Media, Public Health, and Environment - Plaza C

Moderated by: Doug Roberts, System Development Integration, Inc.

A Newspaper Reporter's Perspective on Data Access Issues

Presenter: Michael Howie, News-Gazette

As more reporters acquire the skill to use mapping software, there will be more interest among reporters in the data and files prepared by people like the members of ILGISA.

Skill Level: All levels

Geospatial Analysis of Low Birth Weight Births in Lake County, IL

Presenter: Marty Du Bois, Lake County Health Dept.

This study assessed the geospatial variability in the relationship between low birth weight and specific factors known to be significantly associated with it, using a geographically weighted regression statistical procedure. In addition, the geographic distribution of mothers giving birth to low birth weight babies was assessed for significant spatial clustering.

Skill Level: Working knowledge of GIS and geospatial analysis

Using Satellite Images to Monitor Conservation Reserve Practice (CRP) Land Tracts

Presenter: Shailu Verma, Forest One, Inc. and Steve Sobaski, Illinois Department of Natural Resources

The presentation would share details of a NASA funded project using satellite images to monitor the status of conservation practices in CRP and CREP tracts in 4 counties in Illinois. The project was conducted in close co-operation with the Illinois Department of Natural Resources. The presenters will share details of procedures used to analyze the satellite data, results from the analysis, ground assessment conducted by the Farm Service Agency and USDA; and the promise/pitfalls a satellite-based procedure has for monitoring large conservation practices.

Skill level: Beginning to advanced. We will be presenting advanced concepts but will make it simple to understand.

GIS Past and Future - Plaza D

Moderated by: Richard Hilton, Lake County

Twenty Years of GIS at the Illinois State Scientific Surveys

Presenters: Rob Krumm ISGS, Dawn McWha ESRI, and Bob Lindquist, GIS Solutions

The State of Illinois officially began its GIS implementation in 1983. The Lands Unsuitable For Mining Program, funded by the U.S. Office of Surface Mining, provided the funding and an initial focus for GIS in Illinois. Several agencies were involved initially the Illinois Natural History Survey, Illinois State Water Survey, Illinois State Geological Survey, Illinois State Museum and the Illinois Department of Energy and Natural Resources (now, the IL Dept. of Natural Resources). A multi vendor selection process resulted in the State of Illinois selecting ESRI for software and contractual services and ArcInfo rev. 2.4 was initially installed on a Prime minicomputer in 1983. GIS has changed in the past 20 years in scope, technology and venue. The use of GIS at the State Scientific Surveys and within many state agencies has also changed

dramatically. This presentation will highlight many of these aspects as they were then and how they are now in Illinois. Along the way, we'll pay tribute to some of the people who made it happen.

Creating a Solid Terrain Model of Lake County using LIDAR

Presenter: Brian Luman, Lake County

Lake County (IL) experiences in designing and creating a solid terrain model of the county using LIDAR data. Discussion of the data used, design considerations and the process of preparing data to generate the model.

Using Lake County LIDAR Data as a Base to Create a Revised Map of Illinois Beach State Park

Presenter: Curtis Abert, Illinois State Geological Survey

The Illinois State Geological Survey has begun work on a new publication series that focuses on the unique geology of various Illinois state parks. Illinois Beach State Park was chosen as one of the parks to develop a prototype model of the publication and mapping processes. One of the goals of the publication series is to create high-quality maps and graphics that captures the attention of the reader. The recently acquired LIDAR data of Lake County provides for a useful base for the production of such maps and figures.

1:15 PM - 2:30 PM

Environmental Applications – Plaza A

Moderated by: Stephen Sochotsky, Town of Normal

Ozone Episode Analysis

Presenter: Matthew Harrell, IEPA

My presentation will detail how we use GIS software to analyze episodes of bad ozone air quality. I will discuss our use of the Spatial Analyst, Tracking Analyst, and 3D analyst extensions to visualize ambient air quality and meteorological data collected at surface stations and by aircraft. The presentation will focus on the June 2002 ozone episode that pushed the Lake Michigan basin back into non-attainment status with the ozone National Ambient Air Quality Standard (NAAQS).

Skill level: Intermediate (presentation will discuss the use of ArcView/ArcGIS extensions)

Integration of GIS with Air Quality Modeling

Presenter: Pamela Brooks, Illinois Environmental Protection Agency

This is a presentation on how GIS software and data is used to assist in the creation of dispersion modeling parameters for input into the Industrial Source Complex model. This presentation will also focus on the analysis of air pollution impacts derived through modeling and how the output is used to assist in Regulatory Programs such as Prevention of Deterioration.

Skill level: Intermediate

Illinois EPA Source Water Protection Map Server

Presenter: Wade Boring, IEPA

An overview of Illinois EPA's secure web-based ArcIMS application developed in cooperation with USGS. This application gives the user access to well data, water quality data, well logs and source water protection data.

Skill level: Any and all levels

Transportation Applications – Plaza B

Moderated by: Joye Baker, Adams County Highway Department

GIS Applications at Illinois Dept of Transportation

Presenter: Cecil Renshaw, Wendy Sheppard, Barbara Knox, Ken Batsell, Rob Robinson, IDOT and Travis Gorrie and Bob Lindquist, GIS Solutions

The IDOT GIS enterprise encompasses a wide range of users and applications within the Central office and the nine district offices.

This presentation will highlight many applications including: crash analysis, Internet and intranet mapping, roadway data analysis, field data collection with handheld devices, and the automated production of high quality cartographic products.

Skill Level: Users and Managers

Consuming ArcIMS Services with .NET Web Services

Presenter: Curt Reynolds of IDOT

IDOT Division of Traffic Safety is improving reporting systems for crashes on roadways in Illinois. A new Crash Information System required a system for retrieving details of crash locations. One of the requirements is an enterprise system that minimizes client software requirements. A VB.NET application is being developed that consumes ESRI ArcIMS map services using .NET web services. The result is a "lightweight" GIS client. The architecture for this system will be used for future GIS applications at IDOT.

Skill Level: Developers and Managers

Vertical Datums Used for Water Level and Survey Measurements on the Mississippi, Illinois and Ohio Rivers in Illinois Applications For Real Time Monitoring of Flood Hazards

Presenter: Christopher Pearson the Illinois State Geodetic Advisor

Using levee top surveys, accurate DEM's available from LIDAR data and real time water level measurements from river gages it is possible to automate flood warnings. Unfortunately water levels on the Mississippi Ohio and Illinois Rivers have been measured on a mixture of different datums making it difficult to compare land survey and water level measurements. This paper reviews datum planes used for water level measurements on the Mississippi and Illinois Rivers and develops approximate datum transformation relationships to convert heights measured in these datums to NAVD88.

GIS and Preservation – Plaza C

Moderated by: Tom Huber, Illinois State Library

History in the GIS-ing

GIS gives historians, librarians, and archivists a powerful reason for offering historic content on the Web. This session will emphasize two on-going projects: one to make historic aerial photography available on the web from the Illinois Natural Resources Geospatial Data Clearinghouse, and the other a GIS database of historic properties.

Expanding ILHAP (Illinois Historical Aerial Photography) at the Illinois State Library

Presenters: Joe Natale & Alyce Scott, Illinois State Library

The Illinois State Library (ISL) proposes to digitize, establish an archive, and provide Internet access for an estimated 11,500

individual frames of Illinois black-and-white, historical aerial photography acquired by the U.S. Department of Agriculture during the period of 1936-1941. The objectives of this project are to contribute to the development and application of the preservation and archival digitization of valuable and deteriorating collections, and to provide efficient and effective access to the collection by posting the images on the Internet. Building on a presentation at last fall's conference, this demonstration will discuss aspects such as preparation of materials, grant writing, and creation of metadata.

HAARGIS - The Historic Architecture and Archaeological Geographic Information System

Presenter: Amy Easton, National Register & Survey
HAARGIS is a recent GIS system created by the Illinois Historic Preservation Agency to enable the public to locate and retrieve information about Illinois' cultural resources. The State Historic Preservation Office maintains an inventory of properties with historic, architectural, and/or archaeological significance. This inventory has been computerized along with survey data about these properties. The project expanded to include a geographic information system (GIS) component, and HAARGIS was born. The presentation will discuss how these tasks were accomplished, the features included in HAARGIS, and how it can be used by the public.

Facilities and 911 - Plaza D

Moderated by: Shannon Armstrong, The Sidwell Company

Why GIS Mapping is Having Trouble in 911 Applications

Presenter: Sam Wallace, Digital Data Technologies
A good Telco ALI database does not mean that caller locations will map correctly, and conversely, a great map does not guarantee success either. Various techniques have various success rates, and the result has been a national trend of poor GIS performance in the face of high expectations and sales promises. Understanding the complexity and interplay of making sure data is up to snuff and that everything is synchronized becomes a real eye opener once one attempts to implement digital mapping in the dispatch center. This presentation, from the people who have been in the trenches, will enlighten the audience as to the "Big Picture" of what must be understood when undertaking such an endeavor. A must see for any anyone whose agency has implemented or is looking to implement GIS mapping technology for aiding wireless and wireline distress call dispatching. Much of the discussion and examples will draw from the massive interaction/feedback of the 2003 National Emergency Number Association (NENA) National Conference, and the Ohio GIS 2003 Best Practices Award Winning project.
Skill level: Anyone with interest in GIS applications for 911

The Role of GIS in a Regional Watershed-based Facilities Plan

Presenters: Jeff Siegel & Mike Benedict, HNTB and David Misun, MMSD
The Metropolitan Milwaukee Sewerage District (MMSD) is conducting a regional watershed-based facility planning effort for the Greater Milwaukee Region, called the MMSD 2020 Facilities Plan. In conducting this project, a significant amount of GIS resources are being used and developed; including regional data,

standardized workflows, applications, and strategic visioning. This presentation will illustrate some of the data and tools that have been developed to help manage this major environmental planning effort and describe MMSD's strategies for leveraging these investments in their agency for other purposes.
Skill Level: Any; may be of special interest to persons in the environmental or regional planning industries.

3:00 PM - 4:00 PM

Government Update - Plaza A

Moderated by: Heather Ryan, Illinois Department of Natural Resources

Broadly Speaking: GIS Consolidation and Coordination at the State and National Level

Presenter: Sheryl G. Oliver, Department of Natural Resources & ILGIC
Governor Blagojevich has ordered the consolidation of the state's IT service, which includes GIS, into the Department of Central Management Services. He has tasked the agency with rationalizing and improving this system. Jim Matthews, the IT Architect, will address the goals, principles, roles and framework of this sweeping initiative.

The National Map

Presenter: Dick Vraga, USGS
Dick Vraga is the geography liaison for Wisconsin and Illinois. He will provide an update of 'The National Map,' which is a coordination of the highest magnitude to provide a consistent framework for geographic knowledge needed by the Nation.

Visualizing Data - Plaza B

Moderated by: Cody Buhrmeister, Western Air Maps, Inc.

GIS to 3D Visualization: Illinois River Examples

Presenter: Kingsley Allan, GIS Manager, Illinois State Water Survey
Software advancements allow for very life like rendering of landscapes based on GIS data including landcover and elevations. These visualizations are especially important when the landscape no longer exists, but is instead captured from century old maps. Examples along the Illinois River show time lapse animation of Peoria Lake getting larger, but shallower. A fly over of a river section near Havana, Illinois shows historic lakes, which were drained decades ago. These visualizations were created for the Illinois River Decision Support System using ESRI and 3D Nature software. <http://www.sws.uiuc.edu/chief/gis/gallery.htm>

Rapid Geomorphic Assessment of Illinois Watersheds

Presenter: Jennifer Sharpe, U.S. Geological Survey
Restoration of stream and floodplain ecological systems requires real-time data acquisition of stream instability resulting from channel modification and land-use conversion. The rate and extent of channel instability also is dependent upon the highly variable surface geology resulting from multiple glaciations throughout most of Illinois. Even small watersheds contain a variety of geological materials within short stream lengths. The lack of data sets on the

degree of channel instability within Illinois physiographic regions is one of the limiting factors in effective watershed management. The U.S. Geological Survey developed a Digital Versatile Disc (DVD) based watershed-assessment tool combining aerial and ground video with geographic information system (GIS) mapping to address this limitation. The DVD format allows individual stream locations within the entire watershed to be located and visually evaluated by engineers, county agency staff at NRCS, and local landowners. This session will explain in further detail what was involved in the process.

Skill Level: All levels

Environmental Health – Plaza C

Moderated by: Steve Wilson, Illinois State Water Survey

Introduction to the Environmental Public Health Tracking Program - An Environmental Health Perspective

Presenter: Ken McCann, IDPH

This session will introduce and discuss the CDC Environmental Public Health Tracking program and how to use GIS as a primary tool to evaluate human health outcomes and environmental data. This will be presented from an environmental health perspective.

Skill Level: Minimal skills

Illinois Children & Youth Coordinated Data System: Opportunities, Challenges, and Solutions

Presenter: Donna Camp and Carolyn White, University of Illinois

An improved data coordination system for information about Illinois children and youth has been a long-time vision for many individuals and groups at the state and community levels. Illinois is very data rich but each state agency provides limited information beyond their own state agency needs. The prototype Illinois Children & Youth Coordinated Data System, under development at the University of Illinois, is an effort to begin placing information into a common data system for state and community use. The overarching goal for the system is to create a user-friendly web database and GIS system that provides up-to-date data for all Illinois communities to use for planning, monitoring, and tracking outcomes for children and youth. State and local government and community agencies will also be able to identify essential outcomes and indicators for their programs and initiatives. The issues, both technical and data sharing related, are quite different from those encountered in many GIS systems. This presentation will cover these issues, their solutions, and an opportunity for discussion among presenters and attendees about how data could be better shared among agencies.

Skill Level: All

GeoProcessing – Plaza D

Moderated by: Steve Sobaski, Illinois Department of Natural Resources

Introduction to Geoprocessing in ArcGIS 9

Presenter: Jason Grootens, ESRI Minneapolis

Geoprocessing is a term that encompasses a wide variety of powerful GIS tasks, and means many things to many people. This session will introduce you to new capabilities included with ArcGIS 9 desktop applications (ArcView, ArcEditor and ArcInfo) that are intended to make geoprocessing tasks more efficient and effective. You will see highlights of three new geoprocessing capabilities. Model Builder is a visual design environment for creating analysis models and automating geoprocessing tasks. A new command-line interface allows users to run batch-oriented geoprocessing tasks quickly. New scripting support allows you to develop batch geoprocessing routines that can be used in Model Builder and at the command line.

NOTES

