

Wisconsin Land Information Association 2009 Annual Conference



GIS: THE CIRCLE OF LIFE the natural balance of teamwork & cooperation

Final Program

Feb. 18 - 20, 2009

Kalahari Resort

Wisconsin Dells,
Wisconsin

Wisconsin Land Information Association 2009 Annual Conference



Welcome

Well, we have *circled back around* to the Kalahari Resort and Conference Center for the 22nd Annual WLIA Conference and what an exciting conference this will be!!

This year's theme: GIS: The Circle of Life - The Natural Balance of Teamwork and Cooperation is fitting to the conference. Over the years, the underlying theory has always been that through teamwork and cooperation, we can accomplish the vision of the Wisconsin Land Information Association. Presentations scheduled throughout this conference show just how much teamwork and cooperation have contributed to a wealth of land information available to all walks of life.

Networking, fun-filled activities, the exhibitors showcase, the WLIA town forum, and business and board meetings are sure to help continue evolving the WLIA into a creative, efficient, effective, and exciting organization! You are sure to take many wonderful ideas back home with you at the end of this conference to assist in evolving your own land information programs.

Our keynote speakers will provide insight to activities across the State, as well as adding a little motivation to all of us as we continue to work together to develop the next generation of uses for Wisconsin Land Information.

I appreciate your involvement in the WLIA. Your attendance at this conference is the reason the WLIA has been such a successful grassroots organization. I want to thank the Board members, the Conference Committee, presenters, and exhibitors for all their hard work and dedication to the WLIA.

Enjoy!

Cristina D. Pearson
President-Elect
Wisconsin Land Information Association



Wisconsin Land Information Association 2009 Annual Conference Information

GIS: THE CIRCLE OF LIFE

the natural balance of teamwork and cooperation

About the Conference

The WLIA Conference is the premier GIS conference in Wisconsin, with emphasis on local, regional, statewide, and federal trends, issues, and applications. This 3-day conference is packed with hands-on workshops, demonstrations, and technical presentations. This is the ideal opportunity to meet others in the GIS profession and interact, learn, and network.

There will be:

- 51 technical presentations covering a myriad of topics
- 10 specialized workshops including hands-on training
- Networking and fun-filled activities
- A LION meeting
- Poster competition
- Exhibitors Showcase, featuring the latest in GIS technology
- WLIA town forum, business and board meetings
- Job Board

Who Should Attend?

The conference is designed to appeal to a broad spectrum of participants interested in GIS and related technologies. You should attend the conference if...

- You are thinking about incorporating GIS into your activities
- You are a current GIS user and want to further leverage the power of this technology
- You would like to know more about upcoming improvements to technology
- You are a manager or commissioner who oversees GIS and want to increase your exposure to and knowledge of the technology.

Who We Are

WLIA is a grassroots organization representing a collection of concerned professionals working to develop, maintain, and apply a network of statewide land information systems. WLIA members include staff and elected officials (from all levels of government), academics, consultants, and other private sector users of geographic information systems. We are united by an interest in land records modernization, GIS and related technologies, and by the need for government policies and programs that support their efficient and effective application. WLIA membership is open to individual, student, business, and association members.

Pre-Conference Workshops

The 2009 conference will include 10 pre-conference workshops. The Topics range from LIDAR 101 to Enterprise GIS For GIS Managers, with one offering Certified Public Manager Credit (CPM). New this year is a free event: "Speed Networking for GIS Professionals", which will be a prelude to the Social Night kick off. Space is limited and the workshops will fill up fast, so register early to guarantee your seat.



WLIA 2009 Annual Conference Highlights



Thursday, Feb. 19

Social Night

On Wednesday evening, join your colleagues for a family style dinner at River's Edge Restaurant and then dancing at the Caribbean theme night club Marley's where plenty of appetizers will be included and specials like 2-4-1 will be offered to our group. Beverages are on your own, with the exception of a vendor sponsored beverage ticket from HNTB at Gillner's. Transportation from the hotel will take you to Gillner's and then to Marley's so you can enjoy your favorite beverage, socialize with your peers, and best of all... leave the driving to us. Marley's will use their own transportation to take you back to the hotel in shifts up to closing time. This event will start at 6:00 pm ending officially at 11:00 pm. Register early to save a spot! Ruekert/Mielke and ADC have sponsored the transportation! Cost: \$25

Speed Networking

New to WLIA or too busy to meet your WLIA colleagues? Try WLIA speed networking for GIS professionals. We'll break the ice for you and introduce you to some of our 500 successful, knowledgeable members. There will be a series of face-to-face 2 minute speed chats. Wow - meet up to 50 different WLIA members in less time than it takes to explain GIS to your relatives! The event will run from 4:30 - 6:00 pm. The event is free with a cash bar and snacks. Join us!

Keynote Sessions:

Kelli Trumble

Governor Jim Doyle appointed Kelli A. Trumble to Secretary of Tourism in February 2007. The Wisconsin Department of Tourism is charged by the Governor and Legislature with promoting travel to and within the state. In her first year in the cabinet position, she's made brand development and strategic business planning her focus, following the Department's mission to inspire people to love the Wisconsin experience by effectively marketing the state and its tourism offerings. Ms. Trumble has a long career in Wisconsin's travel and hospitality industry.

Friday, Feb. 20

Thomas Thibodeau

The 2009 conference will include one of the area's most dynamic and effective speakers and motivators. Thomas Thibodeau will be a thought-provoking, energetic, witty, and inspiring start to Friday morning's general session.

Exhibit Hall

The exhibit hall is a great place to meet our business partners and other exhibitors. The latest in technology and services will be demonstrated and on display. Exhibit hours are 10:00 am to 7:00 pm on Thursday and 9:00 am to 11:00 am on Friday. Refreshment breaks during the conference will be offered in the exhibit hall, and on Thursday night you can be a part of game night or bid on silent auction items to benefit the Association's scholarship program.

Silent Auction and Fun Night

A silent auction will be held again this year in the exhibit hall. The auction raises money for the Association's Damon Anderson Memorial Scholarship program. Last year many items were donated, ranging from hotel gift certificates and publications to electronics and gift baskets. Please help us fund the education of those who follow in our foot steps. The exhibit hall reception on Thursday evening is also fun night. Many prizes will be won!

Poster Competition

It's always fun and interesting to see what others have been working on in the past year. The poster competition is a great opportunity to share your best work with others who appreciate quality cartography and beautiful maps. Start thinking now about what work you can enter in the poster competition. Awards will be presented for the best entries in several categories.

Closing Luncheon Awards

Many of your colleagues and Association members put in countless hours and go above and beyond what is expected of them to further the cause of what we do with GIS and land records modernization in the State. On Friday, at the closing luncheon, many of these individuals and their achievements will be recognized. Information on nominating a deserving individual is available, so please take the time to nominate them for an award.

Technical Sessions

This year's conference features 51 technical sessions across five tracks. While session presenters have indicated in their submittal the target audience – beginning, intermediate and expert - attendees can expect that attending a track outside their skill set will provide them with knowledge about the subject they may not have had previously.

GIS Education and Awareness - *NEW*

New this year is the GIS Education and Awareness Track. From beginners to the world of GIS to novices, this track will present useful ideas on how GIS is used in the education of students, citizens, elected officials, and other disciplines.

A Special Welcome Session for First-Time Conference Attendees

Two of the Association's seasoned veterans will lead an orientation session for those who are new to the WLIA and our annual conference. New members and first-time attendees can get a fast start on what we are all about.

WLIA Town Meeting

A town meeting will be conducted during the lunch break on Thursday. The meeting will contain reports from committee chairs on activities of the Association and task forces. The meeting will also afford the opportunity to discuss Association activities and future directions. Winners of the scholarship awards will also be announced.

LION Meeting

The annual Land Information Officer Network (LION) meeting will be held on Thursday evening immediately following the Exhibitor's Reception from 7:00 pm to 9:00 pm.

Job Board

Post your job opening or look for a new opportunity. The job board will be located near the registration area.



WLIA Pre-Conference Workshops

Wednesday, Feb. 18, 2009

This year there are many opportunities for inexpensive training on Wednesday, February 18th with the pre-conference workshops. Workshops are not included in the conference registration fee, so when registering please note the cost.

Lunch is included with full day workshops or two half day workshops. You may also register separately for lunch, if you register for one half day workshop. WLIA reserves the right to cancel and refund registration fee for any workshop.

Workshop 1 (Full Day) - Tamboti Room

Targeting Working Lands and Operations for GIS Managers, Planners, or Local Officials

Douglas Miskowiak – University of Wisconsin – Stevens Point and Tom McClintock – University of Wisconsin - Madison, Land Information and Computer Graphics Facility

Time: Wed. 9:00 AM – 4:30 PM

Cost: \$80 member/\$100 non-member and lunch is included

This workshop will share procedures refined over a two-year pilot project using GIS, the Land Evaluation and Site Assessment (LESA) system, and citizen input to target priority working lands for protection. This successful pilot involved local officials, citizens, educators, professional planners, and GIS analysts in a process to prioritize working lands. Part 1 of this workshop will:

1. Describe LESA methodologies and how they can be applied to achieve various agricultural and land use goals and objectives.
2. Explain how to *GIS Enable* local comprehensive or farmland preservation plans.
3. Walk participants through the steps of the LESA process using GIS
4. Share how GIS can be used effectively to educate and facilitate the process to laypersons. Part 1 is appropriate for GIS managers, local officials, and professional planners.

Part 2 of the workshop will detail how ArcGIS and Community Viz software was applied to develop a customized LESA system for both La Crosse and Calumet Counties. In each county, committee members developed unique and sophisticated scoring criteria to evaluate working lands. Tom McClintock will share approaches for customizing LESA with GIS. GIS Analysts and Technicians will learn GIS techniques for customizing a LESA system for their locality. Part 2 topics will include:

1. Overview of CommunityViz software components that are added to ArcGIS including, Assumptions, Formulas, Indicators, Dynamic Attributes, and Charts.
2. Factors considered for each LESA model.
3. Importance of evaluating data quality for completeness and accuracy prior to analysis.
4. Preprocessing data using Overlay Analysis (Union) and Buffer versus on the fly CommunityViz spatial functions.
5. Creating Assumptions that allow participants to modify preferences, rankings and weights.
6. Efficient model design and use of formulas that allow scenario changes to be seen in real time.
7. How to assign, normalize and weight suitability scores so multiple LESA factors can be combined appropriately.
8. Comparing and contrasting different scenarios using maps and charts.
9. Calibrating model results using field observations.
10. How a dynamic LESA model in CommunityViz can be used for multiple planning objectives.

Part 2 is appropriate for GIS managers/Analysts, local officials, and professional planners.



Workshop 2 (Full Day) - Aloeswood Room

The Wisconsin Certified Public Manager Program (WCPM) Records Management

Harold D. Coltharp – Department of Administration

Time: Wed. 9:00 AM – 4:30 PM

Cost: \$80 member/\$100 non-member and lunch is included

This course provides participants with tools to manage critical information in their organizations.

Desired Learning Outcomes

By the end of this course, participants will be able to:

1. Identify what records are, what are not records, vital records and electronic records.
2. Identify how to conduct a records inventory and records analysis.
3. Define a record series and learn how to develop retention schedules.
4. Identify how to develop a disaster recovery plan for records and record recovery.
5. Identify and explain record laws and how they affect records management.

Workshop 3 (Full Day) - Marula Room

The National Hydrography Dataset

Elizabeth McCartney, NHD Stewardship POC, USGS

Time: Wed. 9:00 AM – 4:30 PM

Cost: \$80 member/\$100 non-member and lunch is included

The National Hydrography Dataset (NHD) is the surface water component of The National Map, which provides the United States with access to basic geographic information that describes the landscape of the nation. The NHD is a comprehensive set of digital spatial data that represents the surface water using common features such as lakes, ponds, streams, rivers, canals, and oceans. This data is designed to be used in general mapping and in the analysis of surface water systems using GIS. In mapping, it is also used with other data such as elevation, boundaries, and transportation. In analysis, the NHD is used by scientists study surface water using geographic information system technology. This takes advantage of a rich set of embedded attributes that can be processed to generate specialized information largely possible because the NHD contains a flow direction network that traces the water downstream or upstream. It also uses an addressing system to integrate specific information, i.e. discharge, water quality, and fish population. Using this information, it is possible to study cause and affect relationships, such as how a source of poor water quality upstream might affect a fish population downstream.

Workshop 4 (Half Day, Morning) - Aralia Room

Enterprise GIS Implementation Strategies

Walter Potts - ESRI

Time: Wed. Morning 9:00 AM – 12:00 PM

Cost: \$40 member/\$50 non-member and lunch is a separate fee

Many organizations are facing challenges implementing GIS technology to support organizational business goals within enterprise systems. This movement to server-based GIS requires a dependency on the IT infrastructure that relies more and more on services-oriented-architectures for the web-delivery of applications while also supporting desktop GIS clients. This means additional considerations for the creation of GIS applications and GIS system sustainability. This workshop will deal with three of these considerations. First is the GIS implementation process to develop a general plan that considers all aspects of the implementation. For the GIS implementation to be successful, it is critical that this plan address the organization's business needs, infrastructure, and readiness.



Wednesday
February 18

Workshop 5 (Half Day, Afternoon) - Aralia Room

Using ArcGIS Server to Build Citizen Mapping Applications

Brian Jensen, GISP, GeoDecisions, Inc. and Adam Conner, GeoDecisions, Inc.

Time: Wed. Afternoon 1:30 PM – 4:00 PM

Cost: \$40 member/\$50 non-member and lunch is a separate fee

The release of the JavaScript and Flex APIs for the ESRI ArcGIS Server platform has opened up new opportunities in internet mapping. One opportunity is the ability to easily create and deploy web mapping solutions that provide the general public with a user-friendly and visually pleasing experience. Our half-day workshop will teach you the basics for developing with and deploying the API technologies and also provide some tips and pointers for enhancing existing sites. Topics to be covered include the basics of the APIs and creating dynamic and cached optimized services for ArcGIS Server. We will also discuss creating viewers using the JavaScript API, including discussions on map displays, layer types, and queries.

Workshop 6 (Half Day, Morning) - Mangrove Room

Advanced Editing in 9.3 (Intermediate Level)

Kyle Heideman, GIS Consultant - Pro-West & Associates, Inc.

Time: Wed. Morning 9:00 AM – 12:00 PM

Cost: \$40 member/\$50 non-member and lunch is a separate fee

This workshop will concentrate on utilizing the editing tools and functions that are incorporated in the standard ArcGIS ArcEditor software. Several advanced editing exercises will be completed utilizing the advanced editing, COGO, editor, and topology toolbars. Tools such as traverse, construct 2-point line, rotate, extend/trim, proportion, and construct features will be covered. Instruction and exercises in creating, populating, and using COGO fields will also be included. Note: ArcGIS ArcView or ArcInfo experience is required.

Workshop 7 (Half Day, Afternoon) - Mangrove Room

Booze, Bar Fights and GIS: Crime Mapping and Analysis for Problem-Oriented Policing

(Beginner)

Nicole DeMotto, Crime and Intelligence Specialist, Milwaukee Police Department

Time: Wed. Afternoon 1:30 PM – 4:30 PM

Cost: \$40 member/\$50 non-member and lunch is a separate fee

The presentation will explore Problem-Oriented Policing and methods for analyzing crime data for those new to crime analysis and GIS. The presentation will begin with a discussion of Problem-Oriented Policing and the important role GIS plays in the analytical process. Topics covered include geocoding police data and issues associated with geocoding police data, as well as simple GIS methods for analyzing crime patterns. Students will be able to try their hand at analyzing crime data during the practical exercise, which examines alcohol related disorder. By the end of the exercise students will know how to geocode police data, create frequency pin maps, conduct kernel density estimation analysis and will know where all of the good bars in Madison and Milwaukee, Wisconsin are located.

Workshops will all be held on Wednesday at the Kalahari Resort. Workshops are not included in the Conference registration fee. WLIA reserves the right to cancel and refund registration fee for any workshop.

- Workshop fees:
Full Day Workshops are \$80 member/
\$100 non-member
and include lunch
- Half-day workshops are \$40 member/
\$50 non-member each —
two half-day workshops
include lunch
- You may also register
separately for lunch, if you
register for one half-day
workshop.



Workshop 8A (Half Day, Morning) - Guava Room

LIDAR 101

Kirk Contrucci, Vice President; Todd Thies, Photogrammetric Tech; Jason Krueger, Project Manager; Matt Vinopal, Supervisor - Ayres Associates

Time: Wed. Morning 9:00 AM – 12:00 PM

Cost: \$40 member/\$50 non-member and lunch is a separate fee

This class is intended to provide a basic and intermediate understanding into LIDAR technology from project planning to final processing of the data. Topics such as collection/processing technologies and techniques, project specifications and accuracies, and LiDAR QA/QC procedures will be covered. This will include discussions on the use of ground control and airborne GPS information, timing of the collection effort, and format of the raw data. Additionally, the class will explore customizing LIDAR acquisition platforms and processes based on the specific needs of the end-user. The class will conclude with a discussion on typical LIDAR product deliveries.

Workshop 8B (Half Day, Afternoon) - Guava Room

LIDAR 301

Kirk Contrucci, Vice President; Todd Thies, Project Manager; Jason Krueger, Project Manager; Matt Vinopal, Supervisor - Ayres Associates

Time: Wed. Afternoon 1:30 PM – 4:00 PM

Cost: \$40 member/\$50 non-member and lunch is a separate fee

So you have some LIDAR sitting around the office and you don't know what to do with it other than to make a cool 3 dimensional map. This class will give you some insight into the many varied applications for LiDAR data, such as floodplain mapping, engineering and construction design, vegetation analysis, and urban modeling, to name just a few. In addition to providing insight into the many applications for LiDAR data, this class will also demonstrate the use of LiDAR data for more specific analytical techniques including contour generation, determining slope aspects, calculating steepest path analysis, cutting cross sections, and building advanced 3D visualization.

Workshop 9 (Half Day, Morning) - Room to be announced

Geoprocessing with Python

David Haines, GIS Project Manager - R. A. Smith National

Time: Wed. Morning 9:00 AM – 12:00 PM

Cost: \$40 member/\$50 non-member and lunch is a separate fee

Python is a simple, but powerful tool. This workshop will introduce GIS users to the Python scripting language within ArcGIS. The workshop will consist of both a lecture session followed by hands-on exercises. The topics covered include: How to create a Python script, Python syntax and functionality, running geoprocessing operations in a Python script, error checking, and an introduction to geoprocessing cursors. This session is intended for GIS staff who are familiar with simple programming concepts and wanting to automate and standardize processes. Attendees should be familiar with ArcGIS Desktop and ArcToolbox.



WLIA 2009 Annual Conference Overview

Wednesday, Feb. 18

9 a.m.-12 p.m.	1:30-4:30 p.m.
<p style="text-align: center;">Workshop 1 Targeting Working Lands and Operations for GIS Managers, Planners, or Local Officials Presenter: Doug Miskowiak (UW-Stevens Point) & Tom McClintock (UW Madison) Tamboti Room</p>	
<p style="text-align: center;">Workshop 2 The Wisconsin Certified Public Manager Program (WCPM) Records Management Presenter: Harold D. Coltharp – Department of Administration Aloeswood Room</p>	
<p style="text-align: center;">Workshop 3 The National Hydrography Dataset Presenter: Elizabeth McCartney, US Geological Survey Marula Room</p>	
<p style="text-align: center;">Workshop 4 Enterprise GIS Implementation Strategies Presenter: Walter Potts - ESRI Aralia Room</p>	<p style="text-align: center;">Workshop 5 Using ArcGIS Server to Build Citizen Mapping Applications Presenter: Brian Jensen and Adam Conner, GeoDecisions, Inc. Aralia Room</p>
<p style="text-align: center;">Workshop 6 Advanced Editing in 9.3 (Intermediate Level) Presenter: Kyle Heideman, Pro-West & Associates Mangrove Room</p>	<p style="text-align: center;">Workshop 7 Booze, Bar Fights and GIS: Crime Mapping and Analysis for Problem-Oriented Policing (Beginner) Presenter: Nicole DeMotto, Milw Police Dept Mangrove Room</p>
<p style="text-align: center;">Workshop 8A LIDAR 101 Presenters: Kirk Contrucci, Todd Thies, Jason Krueger, Matt Vinopal, Ayres Associates Guava Room</p>	<p style="text-align: center;">Workshop 8B LIDAR 301 Presenters: Kirk Contrucci, Todd Thies, Jason Krueger, Matt Vinopal, Ayres Associates Guava Room</p>
<p style="text-align: center;">Workshop 9 Geoprocessing with Python Presenter: David Haines, R.A. Smith Tamarind Room</p>	
<p style="text-align: center;">4:30 - 6 p.m. and 6 p.m. - 11 p.m. Speed Networking (4:30 p.m.-6:00 p.m.) Location to be announced Social Night at Essen Haus and Marley's (6:00 p.m.-11:00 p.m.)</p>	

WLIA 2009 Annual Conference Overview

Thursday, Feb. 19

	Track 1: Surveying, Mapping and Data Development Tamboti Room	Track 2: Data Integration and Distribution Aloeswood Room	Track 3: Politics, Policy and Administration Marula Room	Track 4: Innovative Applications and Technology Aralia Room	Track 5: GIS Education and Awareness Mangrove Room	Exhibits Salons 1,2,7 & 8
7 a.m.	Past President's Breakfast - Empress Room					
8 a.m.	Conference Opening and Keynote Speaker: Kelli Trumble, Secretary of the Department of Tourism - Salons 3, 4, 5 & 6					Exhibitor Setup
9 a.m.	GIS Based Groundwater Recharge Estimation	Using ArcGIS Server API's to Build Public Mapping Applications	Status of the National Map	A View of Wisconsin via the Ice Age Trail	Welcome to WLIA: Introduction to the Association	
9:30 a.m.	More Than Basics - Advanced GPS Data Collection	Web-Based GIS Simplified	A Successful Land Records Portal	Presenting Your 3D Design	All About WIGICC	
10:30 a.m.	Refreshments in the Exhibit Hall - Salons 1, 2, 7 & 8					Exhibits Open
11:15 a.m.	Wisconsin Height Modernization Program & CORS Network	Oh Crap, What Do I do with this ArcIMS Investment?	GIS Lessons from the Targeting Lands Project	Health Care Responsibility to "Heal The Earth"	Mapping California Wildfires	
12 p.m.	Lunch, Town Meeting, and Scholarship Awards - Salons 3, 4, 5, & 6					
2 p.m.	Identification of Areas Suitable for Surface Applications	Tracking Data Utilizing Web-Based Services - NR 151	Communicating Effectively with Your Elected Officials	Madison Neighborhood Indicators Pilot Project	ArcGIS Server Improves Mapping Milwaukee Public Schools	Exhibits Open
2:45 p.m.	Refreshments in the Exhibit Hall- Salons 1, 2, 7 & 8					
3:30 p.m.	Brown County Fire Dept GIS Analysis	Developing BioFuels Facility Siting Application for WI	Wisconsin Regional Orthophotography Consortium	Engaging Lake Community to Prioritize Shore Land Resources	Using GIS for Safe Routes to School Programs	
4 p.m.	The Lake Eau Claire Mapping Project	Web-Based GIS: Integrating with WebFusion		Recorded Document Sales Through Web Mapping: Application Integration	Decoding User Needs to Max. Return on GIS Investment	
4:30 p.m.	Decimeter Accuracy GPS for Mapping Applications	Wisconsin Statewide Flood Risk Assessment Project	Regional Data Sharing Project	A Review of Geospatial Open Source Solutions for Local Gov't	Geospatial Data Issues in Wisconsin Public Planning	
5 p.m.	Exhibit Hall Reception, Poster Competition, Game Night, Silent Auction - Salons 1, 2, 7 & 8					
7 p.m.	LION Meeting - Mangrove Room					

WLIA 2009 Annual Conference Overview

Friday, Feb. 20

	Track 1: Surveying, Mapping and Data Development Tamboti Room	Track 2: Data Integration and Distribution Aloeswood Room	Track 3: Politics, Policy and Administration Marula Room	Track 4: Innovative Applications and Technology Aralia Room	Track 5: GIS Education and Awareness Mangrove Room	Exhibits Salons 1,2,7 & 8
8 a.m.	Keynote Speaker: Thomas Thibodeau - Salons 3, 4, 5 & 6					
9 a.m.	Complete SQL Based GIS	Understanding Mashups & API's	The National Geospatial Advisory Committee NGAC- An Update on Federal Activities	Using Home Mortgage Disclosure Data to Measure Subprime Loans	GIS Training Backgrounds and Needs in Public Agencies	Exhibits Open
9:30 a.m.		Exploring ArcGIS Server API's	Where Can I Obtain a Copy of a Real Estate Document?	Zoning and Planning Made Easy	Using Student Interns for your GIS Project	
10 a.m.	Refreshments in the Exhibit Hall, Silent Auction Final Bids, and Winners Announced - Salons 1, 2, 7 & 8					
11 a.m.	Creation and Use of Nutrient Management Restriction Maps in GeoPDF's	Green Bay Metro Google Transit	Beyond Pretty Maps: A Necessity Not a Luxury	Developing GIS and GPS Projects for Elementary School Students	City of Superior/Douglas County Enterprise Geospatial Data Infrastructure	Exhibit Takedown
11:30 a.m.	Advancements in Survey and GIS Instrumentation	Surface Water Viewer: A Tool for Water Data Display	Geospatial Response to the June 2008 Floods	The Geospatial Community and Ontology Support in Relational DBMSs		
12 p.m.	Lunch: Awards and Prizes- Salons 3, 4, 5 & 6					
2 p.m.	New Board Meeting - Mangrove Room					

Thursday, February 19, 2009

WLIA 2009 Annual Conference

Thursday, Feb. 19, 2009

7-8 a.m. — Past President's Breakfast - Empress Room

8-9 a.m. — Opening General Session and Keynote Speaker -

Salons 3, 4, 5 & 6

Welcome and Opening Remarks, WLIA President,
Jodi Helgeson, Register of Deeds - Adams County
Keynote Speaker, Kelli Trumble

9-10:30 a.m. — Technical Sessions

TECHNICAL SESSIONS: Target Audience: While session presenters have indicated their target audience — beginning, intermediate and expert — attendees can expect that attending a track outside their skill set will provide them with knowledge about the subject they may not have had previously.

TRACK 1: SURVEYING, MAPPING AND DATA DEVELOPMENT — 9-10:30 a.m. - Tamboti Room

GIS Based Groundwater Recharge Estimation for Southeastern Wisconsin

David Hart, Hydrogeologist and Peter Schoephoester, GIS Specialist - WI Geological and Natural History Survey (30 minutes)
Intermediate

Groundwater is an invaluable resource in Wisconsin. That resource can be managed for the future by maintaining its source, recharge. A soil-water balance (SWB) recharge model was constructed for the seven-county SEWRPC Region. The SWB model uses GIS inputs for land cover, soil type, and topography to calculate spatially-distributed recharge through time. Baseflow and the ecological health of surface waters can be protected by identifying the recharge areas of those waters. Recharge areas can be delineated by using a groundwater flow model or, with less effort but also less accuracy, by combining water table maps and surface water basin maps with the recharge potential map. The strength of the SWB model is its high resolution useful in land-use planning. The model results show how land-use practices and soil characteristics affect the spatial distribution of recharge, and how climate variability affects recharge from year to year, informing land use planning decisions.

More Than The Basics: Advanced GPS Data Collection Techniques

Holly Urbain, Sales Representative – Seiler Instrument (60 minutes)
Intermediate

This presentation will cover some of the available time-saving techniques for GPS data collection. This will include: accuracy-based logging, carrier phase data collection, working with H-Star technology for subfoot/decimeter accuracy, continuing line and area features,

Keynote Sessions:

THURSDAY, FEB. 19

- Kelli Trumble

FRIDAY, FEB. 20

- Thomas Thibodeau

Sessions, Meetings and Events:

- Exhibit Hall
- Silent Auction and Game Night
- Poster Competition
- Closing Luncheon Awards
- Technical Sessions
- GIS Education Track
- A Special Welcome Session for First-Time Conference Attendees
- WLIA Town Meeting
- LION Meeting
- Job Board
- Speed Networking



nesting points, using offsets, repeating features, segmenting line features, recording averaged vertices, filtering of data in the field, custom configuration files using VRS corrections, setting up and using web map servers, loading shapefiles as backgrounds, performing a local site calibration, sending and receiving e-mails in the field, using a survey grade RTK Rover with a mapping-grade GPS, and attaching files to features, pictures, sketches and sounds.

TRACK 2: DATA INTEGRATION AND DISTRIBUTION — 9-10:30 a.m. - Aloeswood Room

Using ArcGIS Server APIs to Build Public Mapping Applications

Brian Jensen, Project Manager - GeoDecisions (30 minutes)

Beginner

GeoDecisions assisted Carver County, MN with the development of a Parks and Trails Web Mapping Application. The application was created to promote active living within Carver County by providing citizens with an interactive web map application highlighting the County's parks and trails system. The application was built using ArcGIS Server 9.3 technology, utilizing the new JavaScript API and tiled map caches. This presentation will focus on the experiences we gained in developing the application using ArcGIS Server 9.3 and the JS API and to provide attendees with lessons learned during the project development process. Topics will include targeted audience expectations, performance, customization, geoprocessing services, and map caches.

Web GIS Simplified

Scott Hameister, Director of Product Development – mPower Innovations and Tim Oestreich, GIS Coordinator and John Lefebvre, LIO Director - Marinette County (60 minutes)

Intermediate

Come find out how Marinette County is doing more with less using mPower Integrator. Communication and data distribution are often problems for all levels of government. Marinette County needed help distributing GIS data to their municipalities via the web. They wanted to find a way to make web GIS a reality for all municipalities within the County, large or small. Find out how mPower Integrator and Mapguide have given Marinette County the tools needed to take their GIS to the next level for everyone involved.

TRACK 3: POLITICS, POLICY AND ADMINISTRATION — 9-10:30 a.m. - Marula Room

Status of the National Map

Dick Vraga, Geospatial Liaison - U.S. Geological Survey and Don Dittmar, National Geospatial Advisory Committee (30 minutes)

Beginner

The USGS has placed renewed emphasis on The National Map. This presentation will review some of the outcomes from that emphasis and related organizational changes. Don Dittmar will discuss how the National Geospatial Advisory Committee views The National Map and suggested improvements. Presenters will also report on USGS geospatial activities and plans within the state.



A Successful Land Records Portal

Jim O'Loughlin, President – Allied Information Solutions, Inc. (60 minutes)

Intermediate

Allied's Land Records and Public Safety Portal, (LRP) built upon our award winning CivXplorer™ Internet Mapping Service allows counties to realize the value of their GIS. Our LRP allows counties to share their valuable data with those that need it and to generate revenues to offset the cost of building and maintaining the GIS. With ever decreasing budgets and increasing demands, counties are asked to do more with less, often a lot less. To meet this challenge, Allied has created a No-Pay Portal option that allows our customers to provide world-class IMS and generate revenues from the sale of valuable land records data. Allied also offers a Public/Private Partnership program where we pay a portion of the cost of new orthophotography, parcel, centerline and address point layer creation and maintenance. We look forward to continuing to support our Wisconsin friends and valued customers with affordable products and services, and creative solutions to their funding challenges.

TRACK 4: INNOVATIVE APPLICATIONS AND TECHNOLOGY — 9-10:30 a.m. - Aralia Room

A View of Wisconsin via Ice Age Trail

JoAnn Parks, Sr. GIS Project Manager - Applied Data Consultants (45 minutes)

Beginner

We live in Wisconsin, but have we really seen it? This is about hiking 1,000 miles across Wisconsin on the Ice Age Trail from a geographer's perspective. Along with her friend of 20 years, and her dog, Sadie, JoAnn Parks used her GIS expertise to navigate the Ice Age Trail. On the way, the trio met a few new friends and experienced Wisconsin in a way that only a few others before them have. It started as an adventure to hike a trail, but ended as a life-changing journey across Wisconsin.

Presenting Your 3D Design

Stephen Gabriel, Louisa Holland, Application Engineer – Mastergraphics, Inc. (45 minutes)

Intermediate

Fly-by and drive-through animations are becoming a more common presentation request. Understanding how to prepare your data, as well as the fundamentals of how the animations are created, will help reduce the time and cost of creation, resulting in better presentations with a greater impact. Current CAD tools are not sufficient to effectively handle the preparation of higher level presentations; the use of additional software or outside services is required. This presentation will show you some of the powerful tools that are available today, and give you tips on how to prepare your data so that it can be utilized in the most effective way possible.



Welcome to WLIA: An Introduction to the Association

Al Miller, Professor Emeritus Retired - UW Madison, and D. David Moyer, CEO, Senior Analyst - D.D. Moyer Associates (30 minutes)

Beginner

This discussion session is intended for new members, but is open to anyone interested in the WLIA. Learn about the origins of the “grass root” effort to modernize Wisconsin’s land records, the background that led to the formation of the association, and its vision to establish a network of geographic information systems throughout the state. Become aware of the Association’s mission and goals, the development of technical standards and guides, and major accomplishments during the past seventeen years. Find out how the association goes about its business, who the members of WLIA are, and how the committees are established and structured. Become acquainted with the 2005 Strategic Plan. Most importantly, learn how to get involved.

All About WIGICC

Ted Koch, WI State Cartographer- State Cartographer’s Office and Curtis Pulford, WI Geographic Information Officer (60 minutes)

Beginner

The interim Wisconsin Geographic Information Coordination Council (WIGICC) is a newly formed organization that serves as the primary forum and statewide coordinating body for geographic information and technology. The formation of a broad stakeholder network also will be a critical ingredient to successful statewide coordination. The Network will identify issues and make recommendations to the Council on actions and policies relating to statewide geospatial initiatives. We hope the Network will reach beyond the traditional geospatial community into areas such as emergency management, economic development, and education. Learn more about WIGICC, the stakeholder network, and how you too can have a voice in statewide coordination efforts.

10:30-11:15 a.m. — Refreshments in the Exhibit Hall - Salons 1,2,7 & 8

11:15 a.m.-12 p.m. — Technical Sessions



TRACK 1: SURVEYING, MAPPING AND DATA DEVELOPMENT — 11:15 a.m.-12 p.m. - Tamboti Room

Wisconsin Height Modernization Program & CORS Network

Paul Hartzheim, Program Manager – Wisconsin Department of Transportation (45 minutes)
Intermediate

This presentation describes the status and current plans for the Wisconsin Height Modernization Program (WI-HMP). The WI-HMP is a partnership among state and local governments, federal agencies, and educational institutions and is available for use by the general public. The latest developments in the WI-HMP relative to the survey operations, funding, adjustments, and publication of data for this groundbreaking program will be included. The current status and future plans for the Wisconsin Continuously Operating Reference Station (WISCORS) network will also be discussed. The CORS network is designed to provide real-time GPS correctors to mobile GPS users. This means that properly equipped GPS users can use these correctors while in the field to obtain 2-cm horizontal and vertical accuracies in real-time. Applications and uses of information from the WI-HMP and the CORS network, both realized and potential, will also be discussed.

TRACK 2: DATA INTEGRATION AND DISTRIBUTION — 11:15 a.m.-12 p.m. - Aloeswood Room

Oh Crap, What Do I Do with this ArcIMS Investment? Utilizing Existing Infrastructure and Customization for a Staged Migration Off of Old Technology

David Mockert, Director State and Local Practice - GeoAnalytics (45 minutes)
Intermediate

Many organizations have a large investment in customized ArcIMS sites and customized data to support these mapping sites. The process of transition does not need to be a drastic overhaul of the map, tools, and data. The OnPoint Web Mapping product enables transition to a new web mapping interface, while consuming and mashing up data from ArcIMS, ArcGIS Server, WMS, Map Point, Pictometry, and ODBC data sources. Complete Administrative tools enable easy management and integration of new data and tools.

TRACK 3: POLITICS, POLICY AND ADMINISTRATION — 11:15 a.m.-12 p.m. - Marula Room

GIS Lessons from the Targeting Lands Project

Doug Miskowiak, GIS Education Specialist – Center for Land Use Education, UW Stevens Point (45 minutes)
Intermediate

The Targeting Working Lands and Operations (TWLO) Pilot Project utilized and refined methodologies to target priority working lands and operations to inform public policy and decision-making. Priority Working Lands are those that if protected or managed, meet agricultural and land use goals, objectives, and policy recommendations articulated in local comprehensive or farmland preservation plans. The Pilot Project utilized the Land Evaluation and Site Assessment (LESA) protocol developed by the Natural Resources Conservation Service and Geographical Information Systems (GIS) software.

The protocol was introduced to citizens of La Crosse and Calumet Counties. Committee



members worked with technical staff and facilitators to:

- 1) Define an appropriate purpose for prioritizing working lands
- 2) Select the defining characteristics of priority working lands
- 3) Formulate a scoring strategy that accurately targeted priority working lands

Over the course of ten months and six committee meetings, citizen participants made recommendations for how LESA and GIS can be effectively used to target the County's best working lands for further conservation, education, or management. This presentation will cover project methodologies and lessons learned.

TRACK 4: INNOVATIVE APPLICATIONS AND TECHNOLOGY — 11:15 a.m.-12 p.m. - Aralia Room

Health Care's Responsibility to "Heal the Earth", One Hospital's Journey

Corrine Vercauteren, Director of Environmental Services – St. Mary's Hospital Medical Center
(40 minutes)

Intermediate

What can one hospital do with plenty of creativity, lots of passion, and ongoing dedication to improve the environment for patients, employees, and community? For more than 25 years, St. Marys Hospital Medical Center in Green Bay, WI, has brainstormed and implemented significant projects to address the Hospital Sisters organizational goal of "having reverence for the Earth". Starting with a storm water management program that releases 98% pure water, to a springboard of other sustainable projects, you will see how one hospital did it. Join Corrine Vercauteren, Director of Environmental Services, as she shares how St. Marys removed mercury from the facility, evolved to recycle 41% of all waste, initiated a chemical rounding team that has eliminated 4,700 pounds of unused chemicals from the campus, developed ways to reduce energy consumption, and achieved a 81% recycle rate on demolition and construction projects. Learn what you can do today to begin a program to educate and implement very do-able sustainable projects to improve the health of our communities. Join St. Marys for their journey as you visit the past, present, and future of improving the health of the environment we share.

TRACK 5: GIS EDUCATION AND AWARENESS— 11:15 a.m.-12 p.m. - Mangrove Room

Mapping California Wildfires

Raquel Sanchez, GIS/IT Specialist – Wisconsin DNR (45 minutes)

Intermediate

Learn how you could go out west as a GIS Specialist to help on the effort to control Wildland Fires using GIS. I will also share my experience as a GIS Specialist mapping California Fires.

12 p.m -2:00 p.m. — Lunch, Town Meeting, and Scholarship Awards
Salons 3, 4, 5 & 6



2-2:45 p.m. — Technical Sessions

TRACK 1: SURVEYING, MAPPING AND DATA DEVELOPMENT — 2-2:45 p.m. - Tamboti Room

Identification of Areas Suitable for Surface Applications of Waste in Carbonate Bedrock Settings

Bruce Brown, Senior Geologist; Fred Madison, Soil Scientist; Michael Czechanski, Senior Cartographer; and Peter Schoephoester, GIS Specialist – Wisconsin Geological Survey
(45 minutes)

Intermediate

Surface application of animal manure and other types of waste can lead to serious groundwater quality problems in areas of shallow carbonate bedrock. This study uses GIS technology to integrate soil surveys, water well data, surficial and bedrock geologic mapping, and direct field sampling to estimate suitability for surface application of waste based on thickness and composition of materials overlying the bedrock. A pilot project is underway in Calumet County to develop a methodology for differentiating three categories of suitability; areas where an adequate thickness of surficial material is present, areas totally unsuitable, and areas where site specific studies are required before surface disposal can be permitted. This methodology will hopefully prove applicable in evaluating areas of shallow fractured bedrock throughout Wisconsin.

TRACK 2: DATA INTEGRATION AND DISTRIBUTION — 2-2:45 p.m. - Aloeswood Room

Tracking Data Utilizing Web-Based Services – NR 151

Cristina Pearson, GIS Coordinator– Ozaukee County and Justin Shell - DATCP (45 minutes)
Beginner

For an inexpensive cost-sharing solution to tracking the NR 151 compliance for the Land Conservation Department, Ozaukee County has promoted and is utilizing a software solution, which allows editing and tracking of compliance status directly from the web. It utilizes the County's existing GIS Website and data, and allows tracking without purchasing additional GIS Software. We will discuss the cooperation with DATCP and DNR, as well as input from other County Land Conservation Offices throughout the State.

TRACK 3: POLITICS, POLICY AND ADMINISTRATION — 2-2:45 p.m. - Marula Room

Communicating Effectively with Your Elected Officials

Peter Kammer – WLIA Lobbyist (30 minutes)

Beginner

Who has the most influence over our elected officials? You do! Attend this session to hear some practical tips and strategies for communicating with busy legislators. "Breaking the ice" isn't as scary as you might think, and you really can make a difference.

Thursday
February 19



Madison Neighborhood Indicators Pilot Project

James Beaudoin, Applications Developer; David Long, Spatial Data Analyst; and Dan Veroff, Director - Applied Population Lab/University of Wisconsin (45 minutes)

Intermediate

The Neighborhood Indicators Pilot project is an effort to quantify and represent visually the diverse and changing social conditions in a few Madison neighborhoods. The pilot study provides sample data for five Madison neighborhoods as a test of the feasibility and utility of a broader undertaking that would include all Madison neighborhoods.

The project staff has endeavored to provide neighborhood level measures for a single non-census year; bringing together data from a variety of sources and compiling them into a suite of indicators that comprise a neighborhood profile. It is our hope these profiles will provide insight into some key attributes of each neighborhood; attributes that can help to identify and highlight the presence of neighborhoods' assets and help guide their development when they are lacking.

The pilot project is also an attempt to "democratize," or make readily available, data that has already been collected but might otherwise remain difficult to use and access.

TRACK 5: GIS EDUCATION AND AWARENESS — 2-2:45 p.m. - Mangrove Room

ArcGIS Server Improves Mapping Milwaukee Public Schools (MPS)

Ron Bruder, Program Analyst/Application Developer – Applied Data Consultants (45 minutes)

Beginner

Beginning in November 2007, Applied Data Consultants (ADC) and Geographic Marketing Advantage (GMA) collaborated to provide GIS design and implementation services to the Milwaukee Public Schools (MPS) system. The primary focus of the effort was to utilize ESRI's ArcSDE Geodatabase technology and ArcGIS Server services and applications to enhance the district's existing "Mapping MPS" program. This improved Mapping MPS program has been the central vehicle in the district's Spatial Decision Support Professional Development efforts and will be at the center of the MPS Strategic Plan for improving the educational services provided across the district. The main design elements of the Geodatabase and of the ArcGIS Server mapping application will be the focus of this session. ADC/GMA team members will also share some of the lessons learned from the implementation.

2:45-3:30 p.m. — Refreshments in the Exhibit Hall - Salons 1,2,7 & 8

3:30-5 p.m. — Technical Sessions



Brown County Fire Department GIS Analysis

Jeff DuMez, GIS Coordinator/LIO– Brown County Land Information Office (30 minutes)

Beginner

Everyone expects fire departments to run efficiently and respond to fires as fast as possible. The Ritter Forum on Public Policy, sponsored by the Green Bay Area Chamber of Commerce and St. Norbert College, in conjunction with the Ritter Family Foundation, has been exploring a number of avenues to improve local government effectiveness and efficiency. For the past two years local elected officials, fire chiefs, and others have been exploring functional collaboration by fire departments throughout Brown County in order to help ensure the best fire service at the lowest possible cost. One element of this group's mission was to map out the fire stations from all jurisdictions in the county and analyze response times in relation to buildings and population density. ArcGIS with Network Analyst was used to map out the fire stations, estimate response times, and analyze various statistics such as how many addresses and what percentage of the population could expect reasonable fire response times. Various "What If's" were also modeled statistically analyzed using the GIS mapping. This presentation will show how GIS can be used to assist fire departments and elected officials on various "location matters" that are key elements of their operation.

The Lake Eau Claire Mapping Project

Paul Tweed, Director/Teacher – Wildlands Science Research School (30 minutes)

Beginner

In the fall of 2007, students from Wildlands Science Research School, part of the Augusta School District, teamed up with lake association volunteers to create a GPS/GIS bathymetric map of Lake Eau Claire. Students utilized hand held ArcPad/GPS technology and ArcGIS to collect and analyze depth data for a very accurate model of Lake Eau Claire. Over 96,000 data points were integrated into a map, and volumetric model of the lake. Data was published for public distribution as a map and volumetric data was used by the Wisconsin DNR and U.S. Army Corps of Engineers for water quality modeling and lake improvement projects. This session will focus on the history, development, and completion of the project as a project based learning opportunity for students.

Decimeter Accuracy GPS for Mapping Applications

Lanny Schnipper, Survey/Mapping GPS Sales Representative – Seiler Instrument (30 minutes)

Beginner

It's now possible to obtain decimeter (10cm/4in) horizontal and vertical accuracy using a mapping-grade receiver. This presentation will cover the techniques and equipment necessary to achieve this level of accuracy. Such accuracy can be obtained in the field or back in the office after data collection. Decimeter-level accuracy addresses the area in between the survey-grade and the traditional "submeter" where GIS accuracy is typically defined. It is now possible to map locations and navigate to underground facilities, critical infrastructure, and utility features when decimeter accuracy is appropriate. Learn about the progress of Wisconsin DOT's network of base stations, which will bring high-accuracy possibilities in a large part of the state.



Developing Biofuels Facility Siting Application for Wisconsin

Cassandra Garcia, Environmental Monitoring PhD candidate; Lea Shanley, Environmental Monitoring PhD candidate; Natalie Hunt, Environmental Monitoring PhD candidate; Steve Ventura, Professor; and Matt Kures, GIS State Specialist, – UW Madison (30 minutes)
Intermediate

Biofuel production has received a lot of attention lately in Wisconsin. The production of many of these fuels requires the construction of facilities, whose locations are based upon a number of land characteristics well suited for analysis in a GIS. Facility siting decisions focus on proximity of feedstock, infrastructure characteristics, and environmental constraints. Some of the potential post-construction effects of biofuel production facilities include land use changes, agricultural intensification, and air and water pollution. We have built a prototype online geospatial mapping and information website to provide stakeholders with access to the data needed for preliminary facility siting decisions. We faced a number of challenges, including serving the diverse needs of different stakeholders ranging from entrepreneurs to citizen activists, complying with data security restrictions, and addressing the technical complications of serving large amounts of data in an easily accessible way. We will present our application, discuss the challenges we faced, and present preliminary stakeholder evaluation data.

Web-based GIS: Integrating with WebFusion

Kyle Heideman, GIS Consultant – Pro-West (30 minutes)
Beginner

Pro-West & Associates WebFusion product, constructed on top of ESRI's ArcGIS Server platform, will be used to demonstrate how web-based GIS can integrate GIS with any number of vital City/County governmental functions. WebFusion utilizes AJAX (Asynchronous Java and XML) to create an intuitive user-friendly interface that gives the user the impression of running a localized rather than a web-based application. WebFusion is highly customizable and is a perfect solution for integrating spatial data with various external databases and other third party programs, such as Tax Parcel and CAMA databases, building permit and special assessment programs, one-call locate systems, wireless mobile applications, and infrastructure management systems

Wisconsin State-Wide Flood Risk Assessment Project

Tom McClintock, Outreach Program Manager Land Information and Computer Graphics Facility (45 minutes)
Intermediate

This statewide flood risk assessment is an initial step in identifying and quantifying flood risks throughout Wisconsin. The risk assessment analysis was done using FEMA's HAZUS-MH-MR3 (Hazards USA Multi-Hazard) software. This process reflected a Level 1+ approach to flood modeling, which uses default data while referencing additional data. 100-year flood return interval analysis for each county was done using either DFIRM, Q3, or Hazus generated flood boundaries performed at 1 square mile intervals on reaches generated from USGS 30 meter DEMs. Loss estimation included building stock and essential facilities damage, economic loss, and shelter requirements. This presentation will not only cover methods used and results, but also some of the problems encountered related to technology and data quality. The project was a partnership between the Wisconsin Emergency Management (WEM), the Land Information and Computer Graphics Facility (LICGF) at the University of Wisconsin - Madison, and the Polis Center at Indiana University Purdue University at Indianapolis.



Wisconsin Regional Orthophotography Constortium

Andy Faust, GIS Specialist, North Central Regional Planning Commission; Josh Schedler, GIS Specialist - Bay Lake RPC; and Kirk Contrucci, Vice President - Ayres Associates (60 minutes)
Beginner

The Wisconsin Regional Orthophotography Consortium (WROC) is a multi-entity group led by seven regional planning commissions (RPCs). The RPCs will assist in coordinating mapping services for participating members of WROC. The goal of the consortium is to build and sustain a multi-participant program to acquire digital orthoimagery and elevation data throughout Wisconsin. WROC is planning for imagery projects in 2010. This presentation will answer: What is digital orthophotography? What is it used for? How you can participate in WROC? What are your options? What are the benefits to join WROC? How much does it cost? A detailed timeline and status of the WROC program will be covered, including a question and answer session about the WROC program.

Regional Data Sharing Project

Andy Faust, GIS Specialist- North Central WI RPC; Trish Nau, GIS Coordinator and Mike Zuege, GIS Specialist - East Central WI RPC; Tony Bellovary, GIS Coordinator- Bay-Lake RPC; (30 minutes) Intermediate

How can we organize existing GIS data so that it is ready to be shared during a multi-county emergency response or for a multi-county/regional planning issue? RPCs have been organizing, creating and working with regional datasets for years. What role can RPC's play in maintaining data that can be current and readily available? Three RPCs did a pilot project to test what it would take to pull together data from multiple sources that could be used for a multi-county/regional issue.

This data could be used for an emergency response or planning issue. There are obstacles that would need to be addressed to make this a reality. By working with counties and other RPC's, this type of project can be accomplished.

Engaging a Lake Community to Prioritize Shore Land Resources Using GIS – The Moose Lake Legacy Initiative

Douglas Miskowiak, GIS Education Specialist - University of Wisconsin – Stevens Point (30 minutes)

Who owns the Moose Lake Shorelines and how are they being managed? A small group of interested citizens and the Couderay Waters Regional Land Trust set out to utilize GIS to address questions like this. The results were surprising. An inventory of the shoreline revealed 22 miles of additional shoreline and over 20 'lost' islands. Citizens inventoried and attached various indices as attributes to the near shoreline. These included: wildlife, aesthetic beauty, ecological integrity, development, aquatic macrophytes, woody structure, and invasive species. The value of GIS to map shore land resources was clear: Shore land resources cannot be effectively managed without knowing what resources exist, their condition, and who owns them. Equipped with this information and ArcGIS, these citizens have 1) outlined the ecological and aesthetic significance of Moose Lake shoreline and island resources, 2)



developed a protection strategy for the islands using such tools as conservation agreements, and 3) begun negotiating the management of island resources with Excel Energy and the United States Forest Service.

Recorded Document Sales Through Web-Mapping: Application Integration Provides a Source of Revenue for Counties

Ron Bruder, Director of GIS Technology – Applied Data Consultants (30 minutes)
Beginner

RODDirect is an application that has been implemented for county governments as they look to transition some of their traditionally 'counter-based' sales of recorded deed and other documents to web-based search and delivery mechanisms counties. Through this browser-based application, users can run conventional searches for indexed ROD documents, view select details about the returned documents, and then select and purchase the desired documents immediately. While this RODdirect query and purchase mechanism has quickly resulted in new revenue for counties, it is the integration of its retrieval system with county web mapping systems that allowed the counties to achieve unexpected financial returns via its implementation. By allowing users to access and purchase documents through a familiar, parcel-driven web mapping interface, counties have seen increased demand and usage of their services, further enhancing their document sales revenue stream. This session will provide an in depth review of the application.

A Review of Geospatial Open Source Solutions for Local Government

Levi Felling, Software Engineer - Applied Data Consultants (30 minutes)
Beginner

Significant additions have been made in recent years to the available toolsets for distributing, displaying, and integrating geographic data in online Web applications. Through these new toolsets, we are now able to distribute many organizational datasets more easily and in conjunction with, if desired, datasets maintained and stored outside of our organization. This "mash-up" trend has not only challenged the traditional single data source mindset, but has also established numerous software alternatives beyond more customary proprietary solutions. The open programming interfaces from Google (GoogleMaps) and Microsoft (VirtualEarth), as well as geospatial open source offerings like GeoServer and Openlayers, can have exciting implications for local governments concerned with budgets and return on investment. This talk will demonstrate many of the latest solutions that are being employed to provide GIS data to the web with these new toolsets.

TRACK 5: GIS EDUCATION AND AWARENESS — 3:30-5 p.m. - Mangrove Room

Using GIS for Safe Routes to School Programs

Melissa Kraemer-Badtke, Planning Specialist - East Central Regional Planning Commission
(30 minutes)
Beginner

The Safe Routes to School (SRTS) Program encourages schools and municipalities to provide safe routes for students (K-8) to use for walking or biking to school. East Central WI Regional Planning Commission is working with a number of schools and municipalities on their Safe



Routes to School Plans. SRTS task forces use GIS applications and tools to assess safety concerns and the walkability of their community. This presentation will discuss what GIS applications and tools were used and how GIS assisted in making recommendations for improving the safety at and around the schools.

Decoding User Needs to Maximize Return on GIS Investment

Adam Dorn, GIS Specialist and Rick Goding, Engineer/Deputy Director of Public Works – City of Fond Du Lac (30 minutes)
Intermediate

After testing the waters for many years, in 2007 the City of Fond du Lac jumped completely into GIS with the creation of a dedicated GIS position. With the difficult budget climate, it was a tall order to create this new position. The prevailing argument was GIS would enable staff to provide needed services at a lower cost than other methods. With return on investment playing such a significant role in the process, it was clear we could not simply focus on the immediate projects at hand. We needed to take a larger view of how GIS could benefit the City as a whole. Our GIS needed to be able to assist staff throughout the organization with essential and frequent tasks. This presentation will demonstrate the methods used to educate staff about GIS, assess needs, and create a plan for implementation.

Geospatial Data Issues in Wisconsin Public Planning

Asli Gocmen, Assistant Professor – UW Madison, Steve Ventura, Professor – UW Madison; and Amy Seenoth, Associate Planner - SEWRPC (30 minutes)
Beginner

This paper investigates geospatial data-related attitudes, practices, and challenges that practitioners in Wisconsin's public planning agencies have reported to a survey and in follow up interviews. Five hundred and twenty one practitioners from municipal, county, and regional planning agencies participated in this 2007 web-based survey. General survey results were reported last year; in this presentation, we present more detailed survey analysis and findings from interviews. While the survey findings suggest that geospatial data are available to practitioners and a majority of the departments shared geospatial data with other departments or organizations, data duplication persists. Overall, our findings indicate that geospatial data issues may be one of the largest hurdles Wisconsin local and regional governments face in successful implementation of GIS. The Wisconsin Geographic Information Coordinating Council and other statewide initiatives could be influential in many ways regarding data issues, including promoting and facilitating the creation and utilization of a data repository, cost-eliminated or cost-reduced data sharing structures, and statewide data standards.

5-7:00 p.m. — Reception in the Exhibit Hall - Salons 1, 2, 7 & 8

Don't miss this opportunity to see the latest and greatest the exhibitors have to offer. Also check out the poster competition entries, win prizes by participating in the game night competition, and bid on fabulous items in the silent auction.

7 p.m. — LION Meeting - Mangrove Room



WLIA 2009 Annual Conference

Friday, Feb. 20, 2009

8-9 a.m. — Opening General Session and
Keynote Speaker — Thomas Thibodeau - Salons 3, 4, 5 & 6

9-11 a.m. — Exhibit Hall Open - Salons 1, 2, 7 & 8

9-10 a.m. — Technical Sessions

TRACK 1: SURVEYING, MAPPING AND DATA DEVELOPMENT — 9-10 a.m. - Tamboti Room

Complete SQL based GIS

Chris Goutanis, Software/Network Engineer -IMAGINiT Technologies (60 minutes)
Intermediate

During this presentation you will learn how to integrate your GIS, CAD, and SQL Databases in a comprehensive database driven GIS. Begin with your engineering drawings, use AutoCAD® Map 3D 2009 to access your ESRI maps and AutoCAD® maps and transfer them into a Microsoft SQL 2008 spatial database. Once your maps are in a spatial SQL database, you may view and maintain all maps in one central SQL database. Autodesk MapGuide® Open Source (a free download) will also be reviewed.

TRACK 2: DATA INTEGRATION AND DISTRIBUTION — 9-10 a.m. - Aloeswood Room

Understanding Mashups & Web API's: What They Are and Their Usefulness to You

Aaron Stephenson, Systems Analyst – GeoAnalytics, Inc. (30 minutes)
Beginner

Over the last few years, the word “mashup” has found a prominent place in the vocabulary of GIS professionals, and many of us use them every day. But what exactly are they? Where did they come from? How do they work “under the hood”? In this presentation I will explore the history of mashups and the web APIs that are sometimes used to make them, their usefulness, and how you can make use of them through a live demonstration.



Exploring ArcGIS Server API's: Beyond the Web ADF

Aaron Stephenson, Systems Analyst – GeoAnalytics, Inc. (30 minutes)

Intermediate

At ArcGIS 9.3, ESRI unveiled several new APIs that open the door to a whole new world of GIS on the web. In this presentation I will explore several of these, including the ArcGIS API for JavaScript and its extensions for Google Maps and Virtual Earth, the ArcGIS API for Flex, and the ArcGIS REST API, and I will demonstrate examples for each. Finally, I will compare the relative merits of each of these APIs and how each might be best put into practice.

TRACK 3: POLITICS, POLICY AND ADMINISTRATION — 9-10 a.m. - Marula Room

The National Geospatial Advisory Committee NGAC – An Update on Federal Activities

Don Dittmar, GIS Coordinator – Waukesha County (30 minutes)

The National Geospatial Advisory Committee (NGAC) is a Federal Advisory Committee established to provide advice and recommendations related to management of Federal and national geospatial programs, the development of the National Spatial Data Infrastructure, and the implementation of Office of Management and Budget Circular A-16 and Executive Order 12906. The NGAC reviews and comments upon geospatial policy and management issues and provides a forum to convey views representative of non-federal stakeholders in the geospatial community. The NGAC reports to the Chair of the Federal Geographic Data Committee. Based on support by the WLIA, LION, State Cartographer's Office, Wisconsin GIO, and many others, Don Dittmar of Waukesha County was appointed as one of 3 County Representatives on the NGAC. In this presentation, Don will provide information regarding the activities of the NGAC, along with his impressions of working with Federal agencies and some very high profile members of the geospatial community.

Where Can I Obtain a Copy of a Real Estate Document?

Wisconsin Register of Deeds Association (30 minutes)

Beginner

It is an easy process to obtain a copy of a real estate document from your local Register of Deeds Office. Don't be fooled by national service companies who advertise they will provide homeowners with a certified copy of their deed for a fee. Last year, Kenosha County, Wisconsin residents received letters indicating a national service company would provide the important copies of their deed for a cost of \$59.50. Learn tips on how to find your records at your local Register of Deeds and obtain copies online at a reasonable cost.



Using Home Mortgage Disclosure Data to Measure Subprime Loans on Milwaukee Neighborhoods

Jeff Arp, GIS Certificate Student – UW - Milwaukee (30 minutes)

It is possible to calculate estimates of the economic impact that high interest or sub prime loans exert on inner city neighborhoods. Using Home Mortgage Disclosure Act (HMDA) data, added interest costs associated with higher interest rates were modeled for Milwaukee census tracts. Findings show that inner city neighborhoods have borne the brunt of the impact in Milwaukee. The Neighborhood Data Center program of the Nonprofit Center of Milwaukee is working with counseling agencies to assist prospective home buyers and decrease their likelihood of foreclosure.

Zoning and Planning Made Easy

Lisa White, Marketing/Sales Manager NSC, Inc., Software Solutions (30 minutes)

Beginner

Managing permits just got easier. Learn how to securely add, delete, search, scan, print, access and backup all the data and images from your IBM System I for your zoning and planning department directly from your Internet web browser. Linking permits with your GIS or IMS mapping system, or even creating new permits and other legal documents can be a breeze. Learn how to save time, money and how your zoning and planning department can go green with NSC, Inc. today!



GIS Training Backgrounds and Needs in Public Agencies

Asli Gocmen, Assistant Professor – UW Madison; Steve Ventura, Professor – UW Madison; and Amy Seenoth, Associate Planner - SEWRPC (30 minutes)

Beginner

This paper investigates GIS training backgrounds and needs among 521 practitioners in Wisconsin's municipal, county, and regional planning agencies. The training related views and backgrounds are based on a survey conducted in 2007. The survey found that more practitioners have informal GIS training than formal, and the majority of the respondents believed they were very aware of the capabilities of GIS for planning purposes. At the same time, practitioners stated issues around training and understanding of the technology to be major obstacles to effective GIS usage, and one-third of the practitioners believed that training they needed was not offered by their organizations. Moreover, few practitioners were familiar with planning support systems and other advanced analysis methods. The paper also reports on the findings about the venues used by organizations to disseminate GIS-related instruction and information, and the preference practitioners had for different venues for GIS education.

Using Student Interns for Your GIS Project

Karen Tuerk, GIS Certificate Program Manager – UW - Madison (30 minutes)

Beginner

The GIS Certificate Program at the UW-Madison requires its students to complete an internship project as a final certificate requirement. This talk will explain the GIS internship requirements and how organizations/agencies can use GIS Certificate students for their GIS projects. We will also give examples of successful GIS internship projects completed by our students over the past few years.

10-11 a.m. — Refreshments in the Exhibit Hall - Salons 1, 2, 7 & 8

Silent Auction Final Bids and Winners Announced



11 a.m.-12 p.m. — Technical Sessions

TRACK 1: SURVEYING, MAPPING AND DATA DEVELOPMENT — 11 a.m.-12 p.m. - Tamboti Room

Creation and Use of Nutrient Management Restriction Maps in GeoPDF's

Kent Pena, State Geographic Information Systems Coordinator – USDA-NRCS (30 minutes)
Intermediate

This presentation walks through the steps of creating section based maps using ArcGIS, the Developer Sample Mapbook extension, and the Map2Pdf software bundle. The ultimate goal is to explore the use and functionality of a GeoPDF map as a data and map delivery mechanism for planners.

Advancements in Survey and GIS Instrumentation

Greg Griffin, Territory Manager Survey and GIS Division – Positioning Solutions Company
(30 minutes)
Intermediate

Presentation of Topcons newest survey instrumentation revolving around hand-held GIS mapping systems. Discussion about attaching a digital image as an attribute to a particular coordinate location and advanced technology not found in other hand-held GPS units.

Many local units of government feel they are too small to be able to adopt an enterprise approach to GIS. In this session you will hear about the experiences of a small Wisconsin local government that is taking an enterprise approach to GIS. You will also learn about enterprise GIS best practices for small local units of government.



Green Bay Metro Google Transit

Tim Hennig, Planner/Transportation/GIS – Brown County Planning (30 minutes)
Intermediate

In a joint effort, the Brown County Planning Commission/MPO and Green Bay Metro created an online transit routing application that is powered by Google Maps. This application gives users the ability to search Green Bay Metros existing transit routes, bus stops, and pick-up times to help plan bus trips from beginning to end using the internet or mobile technologies. The Brown County Planning Commission developed the Google Transit Feeds (GTF) based on Google's specifications by incorporating tables and geospatial data within its existing transportation geodatabase schema. The GTF was developed using GPS, ArcMap, ArcSDE, SQL Server, DTS, and Google Transit open source software. The Brown County Planning Commission/MPO GTF presentation will provide information on how to get started in developing the GTF, advantages, disadvantages, future obstacles, and lessons learned throughout the Google Transit development experience. A live demo of the application will be shown following the presentation.

Surface Water Viewer: A Tool for Water Data Display

Matt Rehwald, Surface Water Data Analyst – WDNR – Watershed Management (30 minutes)
Beginner

Wisconsin DNRs Surface Water Data Viewer is a web-mapping application that integrates data from several different DNR water programs into a single portal for display and analysis. Since its inception in 2004, datasets in the SWDV have expanded to include water quality monitoring and assessments, wetlands, soils, dams, floodplains, fish, aquatic invasive species, monetary grant recipients, permits, and a wealth of hydrography and watershed data. This presentation will cover different datasets that are available, will touch on the host datasystems in which they reside, and will also explore some of the analytical capabilities of the SWDV.



Beyond Pretty Maps: A Necessity, Not A Luxury

David Haines, GIS Project Manager – R.A. Smith National (30 minutes)

Beginner

GIS is often used by planning departments for many “front counter” type questions such as: What is my property zoned or is it in a floodplain? While this is useful, it is not using GIS to its full potential. If this is all that GIS does, someone may ask whether a hardcopy map would work just as well. Find out how GIS can be fully integrated into a planning department’s workflows. Opportunities for GIS involvement in the planning permit, rezoning, land division process; in addition to neighborhood and comprehensive planning, will be discussed.

Geospatial Response to the June 2008 Floods

Chris Diller, GIS Coordinator - WI Department of Military Affairs (30 minutes)

In June of 2008 Wisconsin saw an unprecedented amount of rain fall on Southern Wisconsin for the second straight year in a row. Some areas of the state saw upwards of 17 inches of rain, thousands of homes were inundated with water and to everyone’s amazement we watched Lake Delton drain into the Wisconsin River on national television. GIS was a key piece of technology supporting the State Emergency Operation Center (EOC) response. This presentation will cover overall coordination from the EOC, the Lake Delton LIDAR acquisition, activation of the International Charter for satellite imagery acquisition and EOC mapping support, and finally lessons learned.

Developing GIS and GPS Projects for Elementary School Students

Larry Cutforth, State GIS Coordinator – USDA Farm Service Agency (30 minutes)

Intermediate

The objective of this presentation will be to share the process of developing GIS and GPS projects for students and teachers at a Madison elementary school. Practical geospatial projects for this audience will be described along with lessons learned.

The Geospatial Community and Ontology Support in Relational DBMSs

Nancy Wiegand, Research Scientist – UW - Madison LICGF (30 minutes)

Beginner

This talk discusses how the geospatial community might benefit from ontology subsystems that have been added to Relational Database Management Systems (RDBs). For example, Oracle now has the capability to store ontologies and perform queries using ontologies. This opens possibilities for controlled query expansion using domain specific terms. This capability could be useful in searching geospatial portals, for example. Time-permitting, this talk also summarizes the Terra Cognita Workshop, which was part of the International Semantic Web Conference 2008.



City of Superior/Douglas County Enterprise Geospatial Data Infrastructure

Jon Friskness, GIS Coordinator; Brad Theien, Assessor; City of Superior; Ben Klitzke, County Surveyor; Randy Jones, GIS Technician, Douglas County; and David Yapel, Planner II, St Louis County Planning and Development Dept. (60 minutes)

This presentation is designed for individuals with little or no GIS experience, as well as those individuals responsible for starting up GIS programs. The presentation will provide an overview of the Cooperative Agreement that is setup between Douglas County and the City of Superior. Such agreements can be used to establish GIS at a lower cost and create greater efficiencies. It will also cover the geospatial data infrastructure being utilized by St. Louis County, MN, Douglas County, WI, and the City of Superior.

Under a Cooperative Agreement, the City of Superior and Douglas County were able to enter into the Small Communities Enterprise Licensing agreement with ESRI, which provided the software, technical support, and training to make the next step in GIS data management to an enterprise GIS with unlimited user licensing that reduced GIS related costs significantly. Geospatial data is perhaps the most important component to a successful enterprise Geographic Information System (GIS). All analysis, research, mapping, and data integration starts with a high-quality set of geospatial data. The City of Superior and Douglas County have been investing in GIS and geospatial data since the early 1990's. While the city/county is rich in data, it lacks a coordinated infrastructure for managing that geospatial data in a most efficient and cost effective manner. Geospatial data can be difficult and costly to acquire and maintain, so it is imperative that the city/county establish a strong coordinated enterprise geospatial data infrastructure system. This infrastructure is intended to serve as a guide to organizing geospatial data types across Douglas County. It covers twelve categories of data that will be referred to as "Enterprise Geospatial Data Infrastructure." It follows national and state organizational standards, while recognizing Douglas County's unique differences. The City of Superior, Douglas County, and St. Louis County continue to strive to find cooperative efforts that can reduce the cost of government for the taxpayers. This presentation shows the cooperative efforts for sharing land records and geographical information systems resources for local units of government.



Thank you to our 2009 Conference Sponsors!

- Ayres Associates sponsored the entire Grand Opening Reception
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- Applied Data Consultants sponsored the 2009 Conference Logo and part of social night
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Thank you to our sponsors for their support! They help make it possible to provide a quality program. Opportunities for sponsorship are still available! Contact Ann Barrett at 800-344-0421

Map Gallery Competition/Poster Contest

2009 WLIA Poster Competition — ON-LINE SUBMISSIONS

It is always fun and interesting to see what others have been working on in the past year. The Poster Competition is a great opportunity to share your best work with others who appreciate quality cartography and beautiful maps. Start thinking now about what work you can enter in this year's poster competition. Awards will be presented for the best entrees in each category, as well as People's Choice and President's Choice.

This year we are adding one new category. Data Models will be judged as their own group. Other categories include: Base Maps, Small Format Map, Thematic Map, Map Poster, Orthophoto-based Map, Black & White Map, Brochure, Maps and Atlases, and Interactive Web-Based Mapping Site.

1. Base Map: a standard product for over-the-counter users, complete, documented, not flashy
2. Small Format Map: any size B or smaller (17" x 11"); any theme; any scale or extent
3. Thematic Map: great cartography - design, layout, labeling, annotation, color, and appeal
4. Map Poster: informative, eye-catching, colorful, interesting (not just a map; tells a story)
5. Orthophoto-based Map: now that we've got them, let's use them; show an innovative use
6. Black and White map: any format and theme, but no hue...a special problem in design
7. Brochure: any format and theme, used for public information or marketing purposes
8. Interactive Web-Based Mapping Site - Provide URL: _____
(no additional digital submission required for interactive category entries)
9. Map Books and Atlases - must be bound, spiral or otherwise
10. Geospatial Data Models & Geoprocessing Models - clearly diagrammed structures and/or processes.

Please submit your entry by going to <http://gis.rasmith.com/WLIA/wliaproposal.aspx> and filling out all required fields.

Entries will require a digital copy of the map be submitted at (or prior to) the conference in order to be eligible for award. Please provide digital submissions in Adobe Acrobat format; however, TIF, PNG, JPEG, and GIF are also acceptable. The resolution of the output file should be between 80-133 DPI. Files should be less than 5 MB in size.

Judging will take place on Thursday, Feb. 19 from 5-7:00 p.m.



Kalahari Resort in Wisconsin Dells

HOTEL INFORMATION

The WLIA conference will be held at the Kalahari Resort, 1305 Kalahari Drive, Wisconsin Dells, WI 53965. WLIA has a block of rooms at \$70 single room rate for those who qualify for State rate. That rate will apply upon check-in for one person with proper State ID. Prior to the guest arrival, the room rate quoted and confirmed will be \$119. For all other attendees, the rate is \$119 for single/double/triple or quad occupancy. This rate includes a waterpark pass for each registered guest. If you'd like to stay Friday night as well, the room rate is \$179 single/double/triple/quad. Call the resort directly at 877/254-5466 or 608/254-5466 for reservations.

DIRECTIONS

From Interstate 90-94, take exit 92 (Highway 12). Go west on Highway 12 to first stoplight and turn right on Meadow View Drive and then right on Kalahari Drive.

GENERAL INFORMATION

- Meals: The conference fee includes breaks and lunches on Thursday and Friday, and the reception on Thursday evening.
- Dress Code: Business casual is appropriate for the entire conference.
- Registration/Badges: Be sure to register when you arrive at the conference. You will need a name badge to attend all conference functions. A final program will be distributed at the conference.

NOTE

Conference fees do not include membership, but there is that option on the registration form. Be sure to join WLIA before the conference or with conference fees to receive the member rates! You can do that on the conference registration form or go to www.wlia.org to download an application to renew.

MEMBERSHIP CATEGORIES

- Individual: Available to anyone with an interest in the Association's mission.
- Business: For any for-profit organization with an interest in marketing to the other WLIA members. One person will receive all mailings. The organization will receive a list of members, be able to exhibit, advertise in the newsletter, and have a company description on the WLIA Web site. This is not a group rate.
- Association: For any non-profit organization or institution of higher education with an interest in marketing to other WLIA members. One person will receive all mailings. The organization will receive a list of members, be able to exhibit, advertise in the WLIA electronic newsletter, and have a company description on the WLIA Web site. This is not a group rate.
- Student: Available to any individual enrolled in a post-secondary educational institution.

CANCELLATION POLICY

Written cancellations received by Feb. 13, 2009 will receive full refund of the conference registration fee less a \$25 processing fee. No refunds will be made after Feb. 13, 2009.

2009 Conference Committee

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WLIA 2009 Annual Conference

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