WLIA 24th Annual Conference – 2011
Monona Terrace Convention Center, Madison, WI
Feb. 16-18, 2011
Conference Program
Welcome to the WLIA 2011 Annual Conference!

We are excited to hold our 24th Annual Conference in Madison at the Monona Terrace Convention Center February 16-18, 2011!

This year’s theme — Embracing the Wisconsin Idea, Integrating Our Efforts, Extending Our Reach — is timely in that many of the tenets of the Wisconsin Idea philosophy that have supported Wisconsin’s prosperity over the last century are reflected in the industrious spirit and innovative thinking of Wisconsin’s land records and GIS community over the last 25 years. While the State moves toward a renewed commitment to innovative ideas that allow us to do more with less and leverage our existing investments to enhance productivity and employment, so we too must begin charting our course over the next decade. Our community is strong. Through professional development, shared best practices, and innovative partnerships, we have much to look forward to in the 2010s!

While land records modernization and maintenance continues to be a priority for our community, increasingly mature systems across Wisconsin now support integrated citizen-oriented functions for our counties, municipalities, state agencies and non-profits. With economic uncertainties and the ever-changing dynamics of many industries, we are challenged with re-educating ourselves and informing others of changing technologies, new resources, and evolving critical applications of land information systems. Streamlining information maintenance, integrating systems and services for efficiency, providing high quality citizen-oriented applications, and communicating effectively with the public and/or our clients … these are our essential challenges.

This conference will provide you with the educational opportunities you need to make your organization a success in meeting the challenges that lay ahead. The program includes educational workshops, technical and topical break-out sessions, a legislative reception, the annual map poster contest, the exhibit hall, and the WLIA Town Forum. The conference venue on the shores of beautiful Lake Monona will make this a truly spectacular WLIA event!

The program includes plenary keynote speaker panels that will inspire, motivate, and provide insight into activities across our State and the Nation. On Thursday we’ll hear from our Association founders on WLIA’s significant accomplishments since its inception and how we can re-invest in a vision for the Association. On Friday, we’ll hear from a distinguished panel of leaders in geospatial coordination from other Midwest states, who will share their ideas and experiences.

I appreciate your involvement in WLIA. Your attendance at this and other conferences is the reason WLIA has been such a successful organization all these years. I would like to personally thank the WLIA Board members, the Conference Committee, presenters, and exhibitors for their dedication, hard work and time given to this Association.

As your incoming President, I look forward to communicating with as many of you as possible both at the Conference and throughout the coming year. This is your Association and the initiatives undertaken by your Board of Directors are intended to benefit all of you. If you have ideas or concerns you wish to see addressed, please do not hesitate to contact me at lwortley@wisc.edu or 608-265-8106. In addition, our website, www.wlia.org, and presence on social networking sites like LinkedIn and Facebook provide additional forums for member-to-member interaction and exchange of ideas!

I hope you will join us in attending this annual conference and I look forward to seeing you in Madison!

Most sincerely,

Aj Wortley,
2011 WLIA Conference Chair
President-Elect, Wisconsin Land Information Association
Wisconsin Land Information Association  
24th Annual Conference  
Feb. 16-18, 2011  
At the Monona Terrace Convention Center & Hilton Hotel

Schedule of Events  
**Wednesday, Feb. 16, 2011**  
- 9:30 a.m.-4:30 p.m. — Workshops  
- 12:30 p.m.-1:30 p.m. — Lunch  
- 4:30 p.m. — Speed Networking  
- 5:30 p.m. — Social Night  

**Thursday, Feb. 17, 2011**  
- 8 a.m. — LION Meeting  
- 9:30 a.m. — Opening Remarks & Grand Opening of Exhibit Hall  
- 10 a.m. — Educational Tracks  
- 10 a.m. — Exhibits Open  
- 11:30 a.m. — Lunch, PLENARY SESSION — WLIA Founder’s Panel: LIS 2.0 — Wisconsin in the Next Decade & Town Meeting on the WLIA Strategic Plan  
- 1:35 p.m. — Educational Tracks  
- 3:05 p.m. — Break in Exhibit Area  
- 3:30 p.m. — Educational Tracks  
- 5-6:30 p.m. — Legislative Reception  
- 5:30-7:30 p.m. — Exhibitor’s Reception, Poster Competition & Silent Auction  

**Friday, Feb. 18, 2011**  
- 8:15 am – Opening General Session Welcome  
- 8:30 am – Midwest State Leaders’ Panel: Coordination Trends – Wisconsin in the Next Two Years  
- 9:45 am – Break in Exhibit Area  
- 10:45 am – Educational Tracks  
- 12:45 pm – Lunch with Awards and Town Meeting Part 2: Annual Committee Reports  
- 2 pm – Incoming WLIA Board Meeting
2011 Conference Highlights

Embracing the Wisconsin Idea, Integrating Our Efforts, Extending Our Reach

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 three-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...

- 75 presentations in 12 tracks covering a myriad of topics
- 5 specialized workshops for managers through Analysts — Census, Redistricting, Mobile Applications, ArcHydro and more!
- Educational sessions from General to Technical — learn about Cooperative Land Information Management Efforts or fine-tune your GIS Server knowledge!
- Information on new Data and Applications — All-day tracks on Natural Resources, Coastal Management and LIDAR/Elevation data acquisition and application
- Networking and fun-filled activities
- A Land Information Officers Network (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 2011 conference will include five pre-conference workshops. The topics range from Census, Redistricting, Mobile Applications, ArcHydro and more! Returning this year by popular demand 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.
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 to 5:30 p.m. The event is free with a cash bar and snacks. Join us!

Exhibit Hall

The exhibit area 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 a.m. to 7:30 p.m. on Thursday and 9 to 11 a.m. on Friday. Refreshment breaks during the conference will be offered in the exhibit hall, and on Thursday night you can visit the Legislative reception, see Exhibitor’s latest offerings or bid on silent auction items.

Silent Auction and Fun Night

A silent auction will be held again this year in the exhibit area. The auction raises money for the Damon Anderson Memorial Scholarship program via the WLIA Foundation, Inc. All donations are tax deductible. 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 footsteps. The exhibit hall reception on Thursday evening is also a 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 demonstrating quality cartographic products. 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 76 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.
WLIA Town Meeting
A town meeting will be conducted during the lunch break on Thursday and Friday. This meeting will afford the opportunity to discuss Association activities, advocacy and future directions. We’ll hear status reports from committee chairs on activities of the Association. This year’s winners of Damon Anderson Memorial scholarship awards from the WLIA Foundation will also be announced.

LION Meeting
The annual Land Information Officer Network (LION) meeting will be held within the WLIA Conference on Thursday morning from 8-9:30 a.m.

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

Social Night
This year’s spin on Social Night will be Spirits of Madison... On Wednesday evening, after a day of expanding your knowledge at the workshops, join your colleagues for WLIA’s Social Night. Transportation from the hotel will take you to three of Madison’s known locations for spirited fun and relaxation. The first stop will be a distillery tour at Yahara Bay with free samples, second stop will be at The Great Dane, and the last stop will be at the Essen Haus — easy walking distance to the hotel if the night is getting late. Plenty of appetizers will be included at each stop... so bring your appetite.

Transportation from the hotel will take you to these events and back so you can enjoy your favorite beverage, socialize with your peers, and best of all... leave the driving to us. This event will start at 5:30 pm (directly following “Speed Networking”), and end approximately at 11 p.m. This event will fill up fast as always; please register early to save a spot!

Cost: $25 (members) $35 (non-members) — price includes enough appetizers to easily take the place of a full meal, distillery tour, and pool and shuffleboards at the Great Dane. Alcoholic beverages are not included within this price at these establishments except for free sampling at the distillery.

Social Night Sponsors
Applied Data Consultants, Inc.
Esri
MSA Professional Services
North Point Geographic Solutions
Positioning Solutions Co.
Ruekert-Mielke
SEH
WLIA Workshops
Wednesday, Feb. 16, 2011
Monona Terrace Convention Center,
UW-Madison LICGF and Legislative Reference Bureau

<table>
<thead>
<tr>
<th>Workshops 1</th>
<th>Workshops 2</th>
<th>Workshops 3</th>
<th>Workshops 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 a.m.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:30 a.m.</td>
<td>Workshop 1A</td>
<td>Workshop 2A</td>
<td>Workshop 3A</td>
</tr>
<tr>
<td></td>
<td>Anthony Knapp, Monica Smith, Martin Byrne U.S. Bureau of the Census Room E, Monona Terrace</td>
<td>Mike Koutnik, ESRI Room F, Monona Terrace</td>
<td>with LIDAR data Tom McClintock, UW-Madison LICGF</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12:30 p.m.</th>
<th>Workshop 1B</th>
<th>Workshop 2B</th>
<th>Workshop 3B</th>
<th>Workshop 4B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Workshop 1B</td>
<td>Workshop 2B</td>
<td>Workshop 3B</td>
<td>Workshop 4B</td>
</tr>
<tr>
<td></td>
<td>2011 Boundary and Annexation Survey (BAS) Workshop</td>
<td>Managing GIS Data and Field Inventory Information with GPS and ArcGIS Mobile</td>
<td>Using Archydro</td>
<td>Local Redistricting in Wisconsin</td>
</tr>
<tr>
<td></td>
<td>Anthony Knapp, Monica Smith, Martin Byrne U.S. Bureau of the Census Room E, Monona Terrace</td>
<td>Scott Kiley, MSA Professional Services Room F, Monona Terrace</td>
<td>Jeremy Freund, Outagamie County</td>
<td>Dana Wolff, Wisconsin Legislative Reference Bureau</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>UW LICGF, Room B120 Steenbock Library, 550 Babcock Drive</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4:30 p.m.</th>
<th>Speed Networking – Olive Lounge at the Hilton Hotel</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>5:30 p.m.</th>
<th>Social Night – Buses will pick up participants at the front of the Hilton Hotel</th>
</tr>
</thead>
</table>

Directions to UW LICGF from Monona Terrace:
- Head southwest on West Wilson Street toward South Carroll Street for .3 mile
- Turn right at South Broom Street and continue .5 miles
- Turn left at West Gorham Street and continue .1 mile. West Gorham Street curves slightly right and becomes University Avenue.
- Continue .8 mi and take a soft right at Babcock Drive for .2 mile.

Directions to Legislative Bureau from Monona Terrace:
- Walk north towards the State Capitol on Martin Luther King, Jr. Avenue.
- At corner of Main Street and MLK Jr. Avenue (Starbucks on one corner, M&I Bank on the other corner), turn left (west) on Main Street.
- The Legislative Bureau is in the Risser Justice Building (in between Candina’s Chocolates and Subway).
- Take the elevator to the second floor and exit to the right.
WLIA Workshops
Wednesday, Feb. 16, 2011
Monona Terrace Convention Center, Madison, WI

Room E

WORKSHOP 1A (HALF DAY MORNING) AND 1B (HALF DAY AFTERNOON)

2011 Boundary and Annexation Survey (BAS) Workshop
Anthony Knapp, Monica Smith, Martin Byrne; U.S. Bureau of the Census
Time: 9:30 a.m.-12:30 p.m. and 1:30-4:30 p.m.
Cost: Free
Audience: General Audience, Managers
The U.S. Census Bureau conducts the Boundary and Annexation Survey (BAS) annually to collect information about the legal boundaries and names of all governmental units in the United States. The Census Bureau uses the boundary information collected in the BAS to tabulate data for the decennial and economic censuses, and annual estimates and surveys such as the Population Estimates Program and the American Community Survey. This workshop will provide an overview of the 2011 BAS, a review of procedures for submitting digital and paper returns to the BAS, an explanation of relationships between different types of geographic boundaries, and information on why correct boundaries are important for the census programs and surveys. The Digital BAS portion of the training will include demonstrations on how to complete the BAS using ArcGIS and the MAF/TIGER Partnership Software (MTPS). MTPS is a PC-based software application provided by the Census Bureau for participants to digitally update the Census Bureau maps and forms. We encourage you to bring laptops along with your boundary data so we may clarify any questions you may have. The Paper BAS portion of the training will include a detailed review of how to read and update paper maps and the BAS forms. Participants will learn how to properly annotate legal boundary updates and feature changes on the Census Bureau maps. We request you bring your annexation information with you to the workshop since there will be an opportunity to update your boundaries on-site.

Room F

WORKSHOP 2A (HALF DAY MORNING)

Leveraging the Power of Mobile GIS
Mike Koutnik, ESRI
Time: 9:30 a.m.-12:30 p.m.
Cost: $40 for members, $50 for non-members and lunch is not included but can be purchased for $20 member, $25 non-member
Audience: Any organization with personnel who work in the field and use maps or who need to use or capture geographic information
As fuel prices rise, and budgets get tighter, many organizations are looking for ways to increase the efficiency and effectiveness of their field staff. Meanwhile, hardware options are expanding daily, price points have come down, batteries last longer, and cellular service can be an effective alternative to radio service for real time connections with administrative offices. This workshop is designed to introduce you to “shrink-wrapped” mobile GIS technology and how it can easily be implemented on tablet PCs, vehicle mounted laptops, and a variety of hand-held devices and advanced smartphones. We will address what the technology can do for you, how you deploy it, and discuss how it can be incorporated into your overall GIS efforts. We will also discuss options for customizing these ready-to-use mobile GIS technologies.
WORKSHOP 2B (HALF DAY AFTERNOON)
Managing GIS Data and Field Inventory Information with GPS and ArcGIS Mobile
Scott Kiley, MSA Professional Services
Time: 1:30-4:30 p.m.
Cost: $40 for members, $50 for non-members and lunch is not included but can be purchased for $20 member, $25 non-member
Audience: Technical-Beginner, Technical-Intermediate
MSA Professional Services and Seiler Instruments are leading a mobile GIS workshop. It will be a detailed, hands-on demonstration of workflow processes between existing GIS data and Trimble GPS units, running ArcGIS Mobile. We will demonstrate updating and adding information to existing inventories, focusing more on data maintenance than data collection. The workshop will have three main parts: 1) Demonstration of using ArcGIS Desktop to Author and Deploy a mobile project to a handheld GPS from ArcGIS Server and a multi-user geodatabase for a mobile cache. 2) Hands-on field use of a GPS unit running a mobile project that uses ArcGIS Services for data update. 3) Hands-on field use of a GPS unit running a mobile project that uses a Mobile Cache for data update, and demonstrate bringing the updated mobile cache back into the source. Seiler and MSA will provide GPS units for the field portions of the workshop.

WORKSHOP 3A (HALF DAY MORNING)
Visual Impact Assessment using Viewshed Analysis with LIDAR data
Tom McClintock-UW Madison LICGF
Time: 9:30 a.m.-12:30 p.m.
Cost: $40 for members, $50 for non-members and lunch is not included.
Audience: Planners or GIS technicians or anybody interested in viewsheds
NOTE: This workshop will be held on campus at
UW LICGF, Room B120 Steenbock Library, 550 Babcock Drive
This “hands-on” half-day workshop will teach students how to use the Spatial Analyst extension for ArcGIS to do viewshed analysis enhanced with LIDAR data. LIDAR data provides the opportunity for more realistic modeling of our 3d environment and more accurate viewsheds. We will focus on methods to create viewsheds using traditional 10-30m DEMs and then enhanced with tree canopy and structures derived from LIDAR and compare the difference. The viewsheds can represent either what can be seen from an observation point or series of points along a trail, or, from where in the landscape can you see a feature, like the capital or a transmission line. Methods for quantifying or characterizing the visual impacts associated with viewsheds will be explored and will use census data, landuse, parcel data, roads etc. We will then look at methods for comparing the impacts from different development scenarios so that planners or citizens can make better informed choices regarding future land use changes.

WORKSHOP 3B (HALF DAY AFTERNOON)
Using ArcHydro
Jeremy Freund, Outagamie County
Time: 1:30-4:30 p.m.
Cost: $40 for members, $50 for non-members and lunch is not included but can be purchased for $20 member, $25 non-member
Audience: Technical-Intermediate
NOTE: This workshop will be held on campus at
UW LICGF, Room B120 Steenbock Library, 550 Babcock Drive
This workshop will demonstrate how to begin with LiDAR data, generate a surface, make the surface hydro-correct and then compute peak flows for typical design storm events. A WI DNR engineer will co-present.
WORKSHOP 4A (HALF DAY MORNING)

What’s New in ArcGIS 10 Desktop
Kyle Heideman, Pro-West & Associates
Time: 9:30 a.m.-12:30 p.m.
Cost: $40 for members, $50 for non-members and lunch is not included
    but can be purchased for $20 member, $25 non-member
Audience: Technical-Intermediate
This workshop will highlight some of the newest functionality in ArcGIS 10 as well as modifications made to
the editing environment. Topics will include the Advanced Search and ArcCatalog tools, changes and latest
tool additions to the Editor, Advanced Editor, Annotation and Topology toolbars. Additional content will include
creating features with templates, new topology rule options and changes to the snapping environment. With
the introduction of new tools and features in ArcGIS 10, guided demonstrations will be provided through some
common processes and editing techniques to assist you in becoming a proficient ArcGIS 10 user. Handouts
will be provided. ArcGIS experience is helpful.

WORKSHOP 4B (HALF DAY AFTERNOON)

Local Redistricting in Wisconsin
Dana Wolff, Wisconsin Legislative Reference Bureau
Time: 1:30 p.m.-4:30 p.m.
Cost: $40 for members, $50 for non-members and lunch is not included
    but can be purchased for $20 member, $25 non-member
Audience: Any organization working with redistricting
NOTE: This workshop will be held at the Legislative Reference Bureau’s office:
    17 W. Main St., Suite 200 (2 blocks from Monona Terrace)
This workshop will help local officials, planners, and WLIA members learn everything they need to know to get
prepared for the local redistricting process that will begin in April 2011. The workshop will focus primarily on
the nuts and bolts of local redistricting in Wisconsin. Included in the workshop is an overview of the how and
why of redistricting for counties and municipalities, including discussions of procedures, guidelines and laws
which shape redistricting in Wisconsin. A discussion of Census 2010 data — how to access and use the new
census data, with particular emphasis on the data used for redistricting will be touched upon. Lastly, we’ll
show a “hands-on” demonstration of WISE-LR, one of the tools available to help in the redistricting process.
WISE-LR is an online internet application created jointly by the Wisconsin State Legislature and the UW-
Madison Applied Population Laboratory. WISE-LR will allow local officials & users to build wards or voting
districts by tracking population totals and displaying on-screen maps. Planned presenters include staff from
the Applied Population Laboratory at UW-Madison, the Wisconsin Legislative Reference Bureau, the
Wisconsin Legislative Technology Services Bureau, and other state or university agencies.
### Educational Sessions
#### Thursday, Feb. 17

<table>
<thead>
<tr>
<th>Track 1: County/Municipal</th>
<th>Track 2: Natural Resources</th>
<th>Track 3: Coastal Zone/ Hazards</th>
<th>Track 4: Elevation / LiDAR</th>
<th>Track 5: Technology - Mobile &amp; Services</th>
<th>Track 6: Technology - Server GIS</th>
<th>Exhibits Grand Terrace</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 a.m.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 9:30 a.m. Opening Remarks and Grand Opening of Exhibit Hall — Grand Terrace

#### 10 a.m.
- **1A - Citizen Planners: Shaping Communities with Spatial Tools (30 min)**
- **2A - GIS and Mapping for the Working Lands Program (30 min)**
- **3A - The 2011 Boundary and Annexation Survey (BAS): An Introduction & Overview of the BAS Digital and MTIPS Submission Methods (45 min)**
- **4A - Elevation Data in Wisconsin - Past, Present and Future (90 min)**
- **5A - Design, Development & Deployment of Wisconsin DNR mapping Services (45 min)**
- **6A - Do It Yourself (DIY) Flex (45 min)**

#### 10:30 a.m.
- **1B - Integration & Workflow in Property Listing (30 min)**
- **2B - Applied GIS for Managing Wisconsin’s Working Lands (30 min)**
- **3B - Bayfield County: Using Science to Determine Appropriate Parcel Level Setbacks in Erosion Prone Areas (45 min)**
- **5B - Geospatial Tile Cache Creation and Management: Exploring Options for Basemap Caching (30 min)**
- **6B - WisDOT ArcGIS Server Implementation (30 min)**

#### 11 a.m.
- **1C - Integrating Register of Deeds and Property Records Data Together with WIDOR eRETR Data to Streamline Property Transactions (30 min)**
- **2C - Farmland Loss in Dane County (30 min)**
- **3C - Identifying and Listing (30 min)**
- **4C - Floodplain Mapping - What’s the Risk? What’s the Value? (15 min)**
- **5C - Serving Weather Data with WMS and Tile services for Desktop and Mobile Devices (15 min)**
- **6C - Proposed Bench Test For GIS Servers (15 min)**

#### 11:30 a.m. Lunch, PLENARY SESSION – WLIA Founder’s Panel: LIS 2.0 – Wisconsin in the Next Decade & Town Meeting on the WLIA Strategic Plan — Ballroom AB

#### 1:35 p.m.
- **1D - Participating in the ArcGIS.com Community Map Program (30 min)**
- **2D - WI DNR Watershed Planning (15 min)**
- **3C - Identifying and Representing Changes in Wisconsin’s Great Lakes Shoreline (15 min)**
- **4B - Modern Technology for Ancient Analysis: LiDAR at Aztalan State Park (15 min)**
- **5D - Zooming Map Series: Data Driven Pages (15 min)**
- **6D - Lessons learned: ArcGIS Server capacity, performance, and other design considerations (15 min)**

#### 2:05 p.m.
- **1E - NAVTEG Initiatives for Intelligent Transportation Systems and Real-time Decision Support (30 min)**
- **2F - Surface Water Data Viewer: A Tool for Water Data Display and Integration (15 min)**
- **3E - The Wisconsin Coastal Atlas: Building the Coastal Spatial Data Infrastructure to Promote Sustainable Management of the Great Lakes (60 min)**
- **4D - Floodplain Modeling and Mapping with LiDAR (30 min)**
- **5F - Integrating Photo Images in the Field to Enhance your GIS (30 min)**
- **6F - Practical Experiences with ArcGIS Server: Transitions, Configurations, and Capabilities (30 min)**

#### 2:35 p.m.
- **1F - Improving Local Government Transparency Using Google Maps project (45 min)**
- **2G - WI DNR Forestry’s Wisconsin Forest Inventory & Reporting System project (45 min)**
- **3D - It’s the Buildings Stupid - What’s the Buildings Stupid - What’s the Value? (15 min)**
- **4E - High Density Lidar (30 min)**
- **5G - Collecting Field Data using a Relational Database without the large investment (30 min)**
- **6G - Lessons from the Path to Production: Launching apps on the OpenGeo platform (30 min)**

#### Break in Exhibit Hall 3:05-3:30 p.m. — Grand Terrace

#### 3:30 p.m.
- **1G - Bringing Waupaca County Zoning into the 21st Century (30 min)**
- **2H - A Web-based Mapping Application for Drainage Districts (30 min)**
- **3F - Managing Coastal Hazard Risks in Wisconsin’s Changing Climate (30 min) - LiDAR Quality Control (Part 1)**
- **4F - LiDAR Project Specifications & LiDAR Quality Control (Part 1)**
- **5H - Designing an Effective ArcGIS Mobile Project (30 min)**
- **6H - Lincoln County Data & Database Re-design (30 min)**

#### 4 p.m.
- **1H - How to Implement a GIS at a small municipality: City of Hartford, WI (30 min)**
- **2I - Accessing and Using Statewide Aggregated Soil Survey Data (30 min)**
- **3G - Wisconsin Hazard Assessment & Mapping (WHAM) (30 min)**
- **4I - Accessing and Using Statewide Aggregated Soil Survey Data (30 min)**
- **5I - An Introduction to Windowsphone 7 (30 min)**
- **6I - GIS Integration: Extending the value of GIS data to Business Intelligence and Enterprise Content Management (30 min)**

#### 4:30 p.m.
- **1J - Rich Interactive GIS for Comprehensive Management & Communication (30 min)**
- **2J - Does Your County Need A Geologic Resource Analysis? (30 min)**
- **3H - Innovation in LiDAR Feature Extraction (30 Min)**
- **5J - iPhone Development for ArcGIS Server (30 min)**

#### 5-6:30 p.m. Legislative Reception — Grand Terrace
Educational Sessions
All to be held at the Monona Terrace Convention Center

Thursday, Feb. 17 Breakout Session 1 — 10-11:30 a.m.

Track 1: County/Municipal Applications

1A - CITIZEN PLANNERS: SHAPING COMMUNITIES WITH SPATIAL TOOLS

Bernard (Ben) Niemann, D.D Moyer, S.J. Ventura, R.E. Chenoweth and D.A. Miskowiak; University of Wisconsin-Madison

This presentation is about the role of geospatial technologies in land planning, design, and management, and environmental problem solving. It is also about civic engagement in planning the future and how to encourage and enhance such engagement. Our approach will be to share with the audience our ideas, observations, experiences, and outcomes as they have evolved over more than three decades. This effort is embodied in Planning Analyst, a term we use to describe a set of off-the-shelf technology based tools and procedures that attract and engage citizens in the comprehensive land planning process. We demonstrate how Planning Analyst operates through four modules we believe are critical to any planning process that relies on land information: The ability to EXPLORE information about your environment and society; ANALYZE factors relevant to choices about land and its uses; ALLOCATE land for different uses in the future, and EVALUATE the impact of your allocation. We present conclusions: ONE. Geospatial and other information technologies have worked well in the service of land planning and management, and will continue to do so. TWO. It is possible to forge cultural, institutional, and economic foundations and build the supporting information infrastructure required for successful, well-functioning, place based planning support systems. THREE. Information can help engage citizens and gain support from elected and appointed officials in land planning. FOUR. Multiple tools and approaches are making it possible to tailor the use of information technologies to varying circumstances: places, problems, institutions, and local culture.

1B - INTEGRATION & WORKFLOW IN PROPERTY LISTING

Steve Moore, Transcendent Technologies, LLC

In partnership with Columbia and Fond du Lac Counties, we will demonstrate a solution that was implemented to automate workflow in the Real Property Listers office. The use of integrated software applications made it possible to automate the notification of pertinent documents and deeds recorded in the Register of Deeds office. Thereby, allowing us to create a robust workflow environment that allows the Property Lister to access images and data from the Register of Deeds to update parcel records easily. This workflow system also notifies other interested parties, such as GIS and treasurer, if they need to make changes for their records.

1C - INTEGRATING REGISTER OF DEEDS AND PROPERTY RECORDS DATA TOGETHER WITH WIDOR eRETR DATA TO STREAMLINE PROPERTY TRANSACTIONS

Troy Everson, Dane County/Planning and Development

Dane County Register of Deeds and Planning and Development have partnered with Fidlar Technologies, Integration Division to create a user interface to streamline property sales transfers. This program presents the user with a queue of document types that either convey ownership or affect property dimensions or value as recorded in the ROD office. Seller and Buyer names, along with parcel number(s) (as recorded) and indexed legal description(s), are brought into this program. The scanned images are displayed for verification purposes. This already digital data is combined with the digital sale price and tax bill address from the WIDOR eRETR form to allow for the streamlined update of ownership information in Dane County's GCS system. In a partnership with WIDOR, parcel information is also automatically updated in the State system upon processing the transfer.
Track 2: Natural Resources

2A - GIS AND MAPPING FOR THE WORKING LANDS PROGRAM

Brian Loeffelholz, Wisconsin Department of Agriculture, Trade and Consumer Protection

The newly enacted WI Farmland Preservation Law (Chapter 91) established the Working Lands Program. This program, administered by the WI Department of Agriculture, Trade and Consumer Protection (DATCP), has five major components each of which has specific guidelines required for mapping and spatial data. This presentation will instruct GIS professionals on the mapping and spatial data requirements of each of the Working Lands Program components. These include: Farmland Preservation Plans, Farmland Preservation Ordinances, Agricultural Enterprise Areas (AEA), Purchase of Agricultural Conservation Easements (PACE), and Farmland Preservation Agreements. Discussion will include the process for developing maps and spatial data, techniques for analysis of spatial relationship between program components, examples of acceptable maps and spatial data, and common problems seen by DATCP.

2B - APPLIED GIS FOR MANAGING WISCONSIN’S WORKING LANDS

Douglas Miskowiak, UW-Stevens Point, GIS Center

The Wisconsin Working Lands Initiative (WLI), passed in the 2009 Biennial Budget Bill, provides key updates to Wisconsin’s 30-year-old Farmland Preservation Law. Key provisions of the Initiative include updating farmland preservation plans and designating protection areas that include Farmland Preservation Areas, Farmland Preservation Zoning Districts, Agricultural Enterprise Areas, and areas eligible for the Purchase of Agricultural Conservation Easements (PACE). Fulfilling provisions outlined in the WLI requires the utility of Wisconsin’s modern land information system and geographic information systems. This session breaks down the fundamental tasks of the WLI and how GIS is used to address them.

2C - FARMLAND LOSS IN DANE COUNTY

Bridgit Van Belleghem, Capital Area Regional Planning Commission

Dane County is also one of the fastest growing regions in the State. This growth is anticipated to add about 50,000 persons to Dane County every 10 years. If agricultural lands are developed to accommodate this projected growth, the county’s potential for continued excellence in agricultural production and environmental quality might be compromised. Dane County towns, villages, and cities are challenged to accommodate population growth while ensuring a productive and viable agricultural economy and the integrity of ecological services lands provide. Recognizing this, the charter resolution of local governments charged the Capital Area Regional Planning Commission to efficiently provide services to support development and farmland preservation. To address this responsibility, the Commission adopted a goal to protect agricultural lands and non-farm developments to maintain productive agriculture throughout the county and is completing research to form the basis for preservation policies and programs. The Commission published Farmland Loss in Dane County, the first of a series of issue papers identifying farmland losses, farmland characteristics, existing farmland preservation efforts, and new opportunities to preserve agricultural lands.
Track 3: Coastal Zone/Hazards

Thursday, Feb. 17

10 a.m.

Track 3: Coastal Zone/Hazards


Monica Smith, U.S. Bureau of the Census

The U.S. Census Bureau conducts the Boundary and Annexation Survey (BAS) annually to collect boundary updates and other information about selected legally defined geographic areas. The BAS is the only nationwide source of information documenting changes to approximately 40,000 governmental units across the country, including incorporated municipalities, minor civil divisions (MCDs), counties and equivalent areas, and federally recognized American Indian areas (AIAs). BAS information is used to provide an appropriate geographic framework for reporting results of the decennial census, the annual American Community Survey, and other Census Bureau data collection and tabulation programs. To effectively manage the collection and processing of boundary updates for about 40,000 entities, the Census Bureau is increasingly encouraging the exchange and collection of digital updates to legal boundaries through geographic information system (GIS) files. This presentation provides an introduction to the BAS for 2011, as well as an overview of the digital and MTPS methods for submitting boundary change information.

3B - BAYFIELD COUNTY: USING SCIENCE TO DETERMINE APPROPRIATE PARCEL LEVEL SETBACKS IN EROSION PRONE AREAS

Scott Galetka and Karl Kastrosky, Bayfield County

Bayfield County, working with scientists from the University of Wisconsin (Madison), has tackled the problem of bluff erosion along Lake Superior. Much of the shoreline in Bayfield County is comprised of high bluffs that sit above the beach. These bluffs have experienced erosion over a long period of time, is expected to continue. However, since erosion is intermittent, landowners sometimes do not see bluff recession over the span of a number of years. There can be periods with little or no erosion, followed by periods of extensive erosion. This is especially a problem because there is development pressure from new, often seasonal residents from out-of-state. For this reason, Bayfield County recognized the need to determine and establish legally defensible setbacks for new development in order to plan for this recurring hazard. This session will demonstrate how Bayfield County applied scientific principles to 1) analyze bluff composition materials, 2) use aerial photography to determine shoreline recession rates, 3) develop a stability line based on bluff geology, properties of bluff materials, recession rates, bluff height & angle (from LIDAR data), and 4) develop setback rules for new construction based on the derived stability line. These new standards are considered more realistic and defensible than the present setback of 75 feet from the bluff top required by state law. Stability lines, as well as newly determined setback lines, are being incorporated into the County’s GIS, and will soon be available to the public. The updated GIS will provide a property owner with quick and easy access to see how his/her parcel is expected to be affected by future erosion, as well as by new setback distances. Bayfield County is presently preparing new setback ordinances to be presented to their Zoning Board in early 2011.
Track 4 - Room H
Thursday, Feb. 17
10 a.m.

Track 4: Elevation/LiDAR

4A - ELEVATION DATA IN WISCONSIN - PAST, PRESENT, AND FUTURE

This session will include a series of presentations on Elevation Data in Wisconsin with a review of past and present projects and activities, and will end with a panel discussion on future efforts in the State.

Part 2A: Present - Current Status of Elevation Data in Wisconsin
Part 2B: Present-Statewide Elevation Programs
Part 3A: Future-National Enhanced Elevation Assessment
Part 3B: Future-Panel Discussion on Options for Wisconsin Going Forward


Kent Pena, USDA NRCS and David Hart, UW Sea Grant Institute (15 minutes)
Historically, earth elevation data was portrayed as contour information on topographic maps. The advent of GIS and other technologies resulted in the transition to digital elevation data with different characteristics resulting in new applications. Speakers in this session will provide an overview of the 2002 Elevation Data Task Force, the findings and recommendations of that activity, and the current relevance of that effort. This will provide background information on elevation data in Wisconsin.

Part 2A: Present - Current Status of Elevation Data in Wisconsin

Amanda Schwoegler, WI DNR; Kirk Contrucci, Ayres Associates; Ron Wencl, USGS (15 minutes)
Speakers from various organizations and agencies will provide an overview on recent or current elevation data projects and activities in the state. Topics will include data sources and characteristics, coverage, and status of Elevation data, with emphasis on high resolution elevation data.

Part 2B: Present-Statewide Elevation Programs

Tim Loesch, MnDNR (15 minutes)
Several states have undertaken statewide programs involving Light Detection and Ranging (LiDAR) technology. The Minnesota Elevation Mapping Project was designed to develop and deliver a seamless, high-accuracy digital elevation map of the State of Minnesota, based on data collected using LiDAR technology. Tim Loesch, Minnesota DNR, is the project manager for that effort and will provide an overview of that program.

Part 3A: Future-National Enhanced Elevation Assessment

Ron Wencl, USGS (15 minutes)
As a planning basis for a potential national program, this assessment has been initiated to document and refine requirements, benefits, and costs associated with various program implementation scenarios. The scenarios will be evaluated with respect to their ability to balance costs and benefits to meet priority Federal, State and other national information needs. The assessment will address fundamental questions as a prerequisite to detailed program planning. The assessment is being sponsored by member agencies of the National Digital Elevation Program (NDEP) to improve the availability of three-dimensional data that describe topographic, vegetative, and built-up features. Although NDEP has leveraged limited federal and State agency resources to make progress toward an improved national elevation data resource, the majority of U.S. elevation data are more than 30 years old, coarser than 10-meters in resolution, and do not support current and emerging requirements.

Part 3B: Future-Panel Discussion on Options for a Wisconsin Statewide Elevation Program

Panelists: Kent Pena, USDA NRCS; David Hart, UW Sea Grant Institute; Amanda Schwoegler, WI DNR; Kirk Contrucci, Ayres Associates; Ron Wencl, USGS; Tim Loesch, MnDNR.
24TH ANNUAL CONFERENCE

WISCONSIN LAND INFORMATION ASSOCIATION

Track 5: Technology — Mobile & Services

Thursday, Feb. 17

10 a.m.

5A - DESIGN, DEVELOPMENT & DEPLOYMENT OF WISCONSIN DNR MAPPING SERVICES

Jeff Shaw, John Laedlein, Jerry Sullivan; Wisconsin DNR, GIS Services
This presentation shares experiences using ArcGIS Server 9.3.1 and 10 to build cached basemap services within an applications development framework. As ArcIMS reaches the end of its lifecycle, all WDNR web mapping will be ported to the new development environment. Initially, four types of cached services are being rolled out: terrain services (NED hillshades), imagery services (Landsat ETM+, NAIP 2008); feature basemap services (ESRI Streetmap, DNR, and others); and a public lands layers service (WDNR, PADS CBI, ESRI). The talk will explore guiding concepts, technical design issues, map rendering and labeling, caching considerations and tips, and integration within an overall applications framework.

10:45 a.m.

5B - GEOSPATIAL TILE CACHE CREATION AND MANAGEMENT: EXPLORING OPTIONS FOR BASEMAP CACHING

Jeremy Holt, Applied Data Consultants, Inc.
This discussion will explore the topic of map caches in use for web applications and desktop viewing. Topics to include benefits of building cached basemaps, when to utilize them and when to avoid them, updating a cache, and consumption/requests for tiles, as well as an overview of the cache creation process from the viewpoint of multiple caching applications. The caching applications discussed consist of ArcGIS Server, GeoWebCache, TileCache, and MapProxy.

11:15 a.m.

5C - SERVING WEATHER DATA WITH WMS AND TILE SERVICES FOR DESKTOP AND MOBILE DEVICES

Sam Batzli, WisconsinView - UW-SSEC
Professional desktop software (such as ArcMap, qGIS, and McIDAS-V) offer support for reading geospatial web services such as WMS, WFS, and WCS. However, popular geospatial visualization clients (such as Google Maps, Bing Maps, and Google Earth and mobile devices) depend on tile services to efficiently display the same kinds of data. WisconsinView and the UW Space Science & Engineering Center are developing the capability to serve both kinds of clients with geospatial web services that include the animation of weather data such as NEXRAD radar loops. This presentation will describe and demonstrate current capabilities.
Track 6: Technology — Server GIS

6A - DO IT YOURSELF (DIY) FLEX

Ian Grasshoff, Waupaca County Land Information; Dan McFarlane, UWSP Center For Land Use Education (CLUE); Jon Galloy, UWSP GIS Center.

The number of GIS web applications has exploded on the internet over the last several years. It has become the new medium for displaying geospatial data. The Adobe Flex software development kit (SDK) was originally released in March 2004. Since then it has been widely adopted as the tool of choice for creating rich internet applications (RIA). With ESRI’s release of their Flex Application Programming Interface (API) and Sample Flex Viewer template, it has become much easier for GIS professionals with little or no programming experience to publish their own Web applications. The presentation will focus on the benefits of creating your own custom Flex applications, either by modifying ESRI’s Sample Flex Viewer template or by creating a new site template from the ground up. This presentation is intended to be a guide for getting started with the ESRI Flex API. Attendees can hope to come away with valuable resources and lessons learned in regards to ArcGIS Server paired with the Flex interface.

6B - WISDOT ARCGIS SERVER IMPLEMENTATION

Mitchell Moline, WisDOT

WisDOT has recently implemented ESRI’s ArcGIS Server (AGS) Technology. This presentation will go over the research, technology choices, and implementation strategy to bring AGS Technology Solutions to WisDOT.

6C - PROPOSED BENCH TEST FOR GIS SERVERS

Erik Sandin, Wisconsin DNR

The GIS community needs a benchmark test for GIS servers. Serving dynamic map services requires plenty of RAM, CPU cycles, megabits of network bandwidth, and fast storage. All these things cost money, so the question “How much is ‘plenty’?” is relevant to anyone planning their mapping infrastructure. Tests are dependent on such parameters as the map services used, number of layers, and geometric complexity. Individual requests are dependent on scale and extent, image size, format, and color depth. We need a battery of GIS-specific tests representative of what a public Web mapping system might be called upon to do. One model is the Standard Performance Evaluation Corporation’s (SPEC) CPU 2006 benchmark suite. We propose one possible structure for such tests. This is intended to spark discussion that might lead to standard benchmark tests for ArcGIS Server, or even better, for disparate Web mapping platforms.
Thursday, Feb. 17 Breakout Session 2 — 1:35-3:05 p.m.

Track 1: County/Municipal Applications

1D - PARTICIPATING IN THE ARCGIS.COM COMMUNITY MAP PROGRAM

Mike Koutnik, ESRI
The concept of a “community map” offers many potential benefits. Users gain access to a consistent cartographic product. Emergency managers and planners gain easy access to context outside their jurisdiction. You get more use of your GIS data without consuming resources from your IT infrastructure. The purpose of this session is to introduce you to the ArcGIS.com Community Map Program. We will cover what the program is, how it works, and how you can prepare to participate.

1E - NAVTEQ INITIATIVES FOR INTELLIGENT TRANSPORTATION SYSTEMS AND REAL-TIME DECISION SUPPORT

Travis Franz, Keith Hangland; NAVTEQ
NAVTEQ delivers data to the transportation industry at many different levels and strives to revolutionize the way people find their way to people, places, and opportunities. Already, NAVTEQ’s map has changed how millions of people travel on a daily basis. NAVTEQ is currently making several strategic investments to help support initiatives for a highly advanced transportation system backed by robust navigation tools, real-time traveler information, and improved access to location sensitive information. The wide availability of powerful handheld devices, faster and more extensive networks, and improved data collection techniques are now fueling the next generation of geospatial technologies and industry advancements. This session will present some of NAVTEQ’s current projects and initiatives as a roadmap of what we can expect to see in the not so distant future. In addition to this, some of NAVTEQ’s government partnerships will also be discussed as well as the new NGA agreement.

1F - IMPROVING LOCAL GOVERNMENT TRANSPARENCY USING GOOGLE MAPS

Erik Voight and Mike Falkofsk, MGP, Inc.
This presentation focuses on development and execution of a plan to go from a collection of static data to a dynamic web application. It also focuses on local government use cases for developing Google Map-based products and the development process, successes and failures.
Track 2: Natural Resources

2D - WISCONSIN DNR WATERSHED PLANNING

Lisa Helmuth, Wisconsin DNR
Watershed planning requirements exist at both the federal level (Clean Water Act Section 208) and State level (NR121). WDNR has conducted Water Quality Management Planning since the 1970’s when plans were first instituted to identify wastewater treatment plants for federal grants and low-cost loans. Today, federal and State required watershed planning is moving to electronic Watershed Planning to provide flexibility in format, reduced costs (no paper), and use of the agency’s relational databases and website to provide real-time information. This presentation will provide an overview of the WDNR’s watershed planning process and the GIS databases that support it.

2E - WISCONSIN DNR HYDROGRAPHY GIS LAYER – NEWS AND NOTES

Ann Schachte, Brad Duncan Wisconsin DNR
The WDNR completed the conversion of the 1:24,000 scale hydrography GIS layer to geodatabase in 2009. Since then, Water Division programs have been actively building new, related datasets such as stream segment and lake catchments to support stream and lake assessments and watershed planning. This presentation will provide information about current data development activities related to the new hydrography geodatabase and give status on the current effort to consolidate the WDNR hydro and federal NHD geodatabase models for Wisconsin.

2F - SURFACE WATER DATA VIEWER: A TOOL FOR WATER DATA DISPLAY AND INTEGRATION

Matt Rehwald, Wisconsin DNR
Wisconsin DNR’s 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 the different datasets that are available, and will touch on the host datasystems in which they reside.

2G - WISCONSIN DNR FORESTRY’S WISCONSIN FOREST INVENTORY & REPORTING SYSTEM PROJECT

Janel Pike Wisconsin DNR/Forestry Division
WisFIRS (Wisconsin Forest Inventory & Reporting System) is a system that will enable foresters to store data collected in the field, plan for and track completed practices (e.g. timber sales), report accomplishments, calculate financial aspects of the programs (e.g. millions of dollars collected and dispersed to towns and counties), and tracking Managed Forest Law (MFL) lands open to hunting and recreation, to name a few. This application manages core business functions for public and private forest management in Wisconsin, serving hundreds of DNR staff as well as our partners [county forests and cooperating (consulting) foresters]. Due to the importance of knowing where on the landscape practices are being done, geographic information systems (GIS) are being integrated throughout the system. WisFIRS is being developed to encompass the business functions of 3 existing applications, which are running on old technology. The WisFIRS project is taking the time to not only re-write existing applications into new, current technology, but also re-design workflows to gain efficiencies in the field, allow for easier reporting, and increase access to the data.
**Track 3: Coastal Zone/Hazards**

**Thursday, Feb. 17**

**1:35 p.m.**

**3C - IDENTIFYING AND REPRESENTING CHANGES IN WISCONSIN’S GREAT LAKES SHORELINE**

Jeff Stone, Association of State Floodplain Managers (ASFPM); David Mickelson, Geo-Professional Consultants, LLC

Low level oblique 1976 and 2007 aerial photos covering the Lake Michigan and Lake Superior shorelines in Wisconsin were used for qualitative mapping of conditions along the shoreline in a GIS database to support comparative analysis between the two time periods. Three components of the shoreline were captured for each time period: (1) beach/nearshore zone; (2) backshore zone; and (3) structure type (points), for non-linear or perpendicular structures (e.g. groins, jetties). This presentation will highlight some of the changes that did take place on the shoreline between 1976 and 2007. We will also present the processes and issues associated with capturing shoreline features using oblique photos within a GIS environment as well as issues related to storing, viewing and distributing these datasets. Finally, we will describe the applications and tools that are being developed to make the datasets and related information available to the public through a web-based mapping portal and its planned integration into the Wisconsin Coastal Atlas.

**1:50 p.m.**

**3D - IT’S THE BUILDINGS STUPID - WHAT’S THE RISK? WHAT’S THE VALUE?**

Jason Hochschild SK1 Consulting, LLC

For floodplain managers dealing with hazard mitigation or regulatory compliance, there are two things that matter - structures and elevation. The non-profit ASFPM (Association of State Floodplain Managers) thinks the US could benefit from a National building footprint/centroid dataset for performing flood hazard risk assessment and mitigation planning. By defining relevant attributes and data (both data that may or may not currently be collected/available), a building footprint dataset could be the basis for a National Floodplain Management Data Model. This talk looks at some data lessons learned from a User Defined Facilities flood analysis in HAZUS-MH that can be applied to this data model. ASFPM is looking for participation in this discussion from municipal, county, state and other organization stakeholders on how to accomplish this goal.

**2:05 p.m.**

**3E - THE WISCONSIN COASTAL ATLAS: BUILDING THE COASTAL SPATIAL DATA INFRASTRUCTURE TO PROMOTE SUSTAINABLE MANAGEMENT OF THE GREAT LAKES**

David Hart, University of Wisconsin Sea Grant Institute

A coastal web atlas is defined as a collection of digital maps and datasets with supplementary tables, illustrations, and information that systematically illustrate the coast, oftentimes with cartographic and decision-support tools, and all of which are accessible via the Internet. While Wisconsin has long been applying geospatial technologies to coastal issues, the process of building a Wisconsin Coastal Atlas has just begun. This session will share the strategy used to build the atlas, examine different ways the atlas can be used, and explore how coastal constituencies can help shape design and implementation of the atlas. The first half of the session will be dedicated to presentation of information about the atlas project and the second half to discussion and feedback among the GIS technical and atlas user communities.
Track 4: Elevation / LiDAR

4B - MODERN TECHNOLOGY FOR ANCIENT ANALYSIS: LIDAR AT AZTALAN STATE PARK

Colleen Hermans, Wisconsin DNR
This brief presentation will discuss how LiDAR is useful in archaeology, particularly at Aztalan State Park. Aztalan State Park is one of the most important archaeological sites in Wisconsin, with numerous types of mounds dotting the landscape. I will explore how LiDAR data provides fun and exciting options for illustrating this wondrous site.

4C - FLOODPLAIN MAPPING STATUS IN WISCONSIN

Amanda Schwoegler, Wisconsin DNR
Wisconsin DNR has been working with FEMA to update and create digital floodplain maps throughout Wisconsin since 2003. The presenter will provide an update on the status of GIS floodplain mapping data and will highlight the recent FEMA transition from Map Modernization to Risk MAP.

4D - FLOODPLAIN MODELING AND MAPPING WITH LIDAR

Katie McMahan and Chris Olds, Wisconsin DNR
WI DNR has partnered with FEMA to update floodplain maps throughout the State. In many cases they are incorporating LiDAR into the final Flood Insurance Rate Maps (FIRMs) to increase the accuracy of floodplain locations. The presenters will go through the process that they use to model and delineate floodplains using LiDAR information as the base terrain product, and will also talk about some of the challenges that they have encountered when working with LiDAR.

4E - HIGH DENSITY LIDAR

Jason Krueger, Ayres Associates
Recent technological advancements in sensors and software are driving new applications for aerial LiDAR. Very high density LiDAR from helicopters and fixed-wing aircraft is now being used in very specialized applications by municipal engineers, utility companies, and for a broad range of environmental studies. We will examine several ongoing efforts and discuss a broader spectrum of other potential uses.
Track 5: Technology - Mobile & Services

1:35 p.m.

5D - ZONING MAP SERIES: DATA DRIVEN PAGES
Brett Budrow, Saint Croix County
This session will focus on fighting map publishing inertia. With twenty one towns in St. Croix County, maintaining an mxd file for each zoning map is difficult and can cause errors when editing and changing legends and map format. Data driven pages in ArcGIS 10.0 can reduce the number of MXD files to one and Automate map changes.

1:50 p.m.

5E - YOUR PROJECTION MEANS MORE THAN JUST MAP DISPLAY
Jesse Wickizer, Maps.com
The choice of map projection is an important decision when planning your map layout. However it is also very important to consider when performing certain geoprocessing tasks. Using ArcGIS, I’ll demonstrate some cases where projection choice can greatly affect the outcome of spatial analysis.

2:05 p.m.

5F - INTEGRATING PHOTO IMAGES IN THE FIELD TO ENHANCE YOUR GIS
Travis LeMoine, Seiler Instrument
This presentation will highlight the process of moving GIS data into the field and then linking a digital image to the feature. This can be accomplished with or without GPS measurements. This results in a very powerful combination of location and image that can be integrated back into your GIS. In the past, it was necessary to manually link these two, which is a tedious and error-prone process. Now, with wireless technology, it is possible to send the image directly to your data collector or GPS receiver while out in the field. The link is made automatically in the field. This can be accomplished with a variety of configurations and cameras. The discussion will also highlight some integrated camera options and reasons this option may be appropriate. Equipment will be available for demonstration of the technology.

2:35 p.m.

5G - COLLECTING FIELD DATA USING A RELATIONAL DATABASE WITHOUT THE LARGE INVESTMENT
Jesse Adams, North Point Geographic Solutions
North Point Geographic Solutions (NPGS), in partnership with GIS Rangers, was tasked with developing a field application for sign data collection running on the Trimble YUMA. The client’s largest concern was the cost of the required software for deploying and developing related tables in a geodatabase. NPGS approached the project by developing an ArcPad application for the Trimble YUMA allowing field data collection directly to a relational database in the field. Using ArcPad data extraction tools and a license of ArcView, NPGS’s client was able to exact field data from a geodatabase for use in ArcPad. The field crew is able to collect sign data using the same methodology and software they are accustomed to while writing directly to a SQL Server Database on the YUMA. Once the fieldwork is complete, they are able to post the database back to their enterprise servers for inclusion in other workflows and applications. This presentation will summarize the process NPGS went through to develop the application, as well as a project overview and demonstration.
Track 6 – Room J

Thursday, Feb. 17

1:35 p.m.

6D - LESSONS LEARNED: ARCGIS SERVER CAPACITY, PERFORMANCE AND OTHER DESIGN CONSIDERATIONS

Erik Sandin, Wisconsin DNR
The Wisconsin Department of Natural Resources has invested considerable time and effort in planning the next generation of our ArcGIS Server environment. We have conducted numerous tests and experimented with various designs. These tests have allowed us to halve our number of servers and reduce costs while quadrupling our ArcGIS Server capacity with predicted improvements in availability and performance. Some tests included a load-test for consistent metrics such as mean response time and throughput in maps / second. We also evaluated performance and system demands of various types of data and ArcGIS Server operations. We experimented with at least two major architecture options. We compared physical versus VMWare hosts. We evaluated ArcGIS Server demands on CPU, RAM, network, and storage resources. We hope to share some of the lessons we have learned and to open discussion with the Wisconsin GIS community.

1:50 p.m.

6E - CREATING EFFECTIVE WEB APPLICATIONS WITHOUT BEING A PROGRAMMER

Mike Vander Sanden, Washington County
This 15-minute presentation will cover how Washington County has utilized the free ArcGIS Viewer for flex and widgets to create focused web applications. I will cover the relative ease to configure the viewer for your organization’s GIS data, as well as some pitfalls such as limited customization.

2:05 p.m.

6F - PRACTICAL EXPERIENCES WITH ARCGIS SERVER: TRANSITIONS, CONFIGURATIONS AND CAPABILITIES

Jeremy Holt, Applied Data Consultants, Inc.
An overview and summary of scenarios, lessons learned, techniques, and workarounds regarding ArcGIS Server (9.3.1/10). Includes discussion of migration from ArcIMS services to AGS map services, using AGS for serving WMS to 3rd party clients, REST query capabilities, tweaks and configuration settings for single and multi-tier configurations. This session will touch on benefits and some limitations of optimized services (MSDs) and WMS capabilities.

2:35 p.m.

6G - LESSONS FROM THE PATH TO PRODUCTION: LAUNCHING APPS ON THE OPENGEO PLATFORM

Woody Wallace, EarthIT; Doug Ahl, Energy Center of Wisconsin; Steve Ventura, UW-Madison LICGF
Facebook® and many of the largest applications on the Web are running on open source platforms. Dead is the myth that open source Web applications are not scalable. OpenGeo Suite is one open source platform for deploying mapping applications on the Web. It is intended to provide a full stack for deployment of enterprise-ready scalable Web applications based on PostGIS (the database), Geoserver (the map server), GeoWebCache (an image cache), and GeoExt (a javascript-based map viewer). But, how does it stack up, when held to the candle of a real production deployment? EarthIT helped the Energy Center of Wisconsin migrate their bio-energy mapping application from the University of Wisconsin-Madison, where it was developed, to their in-house production server. We provide a summary of our lessons learned in the deployment of real Web applications on that platform from both a professional web application developer and the project’s business manager’s perspective.
Thursday, Feb. 17 Breakout Session 3 — 3:30-5 p.m.

Track 1: County/Municipal Applications

**1G - BRINGING WAUPACA COUNTY ZONING INTO THE 21ST CENTURY**

Jason Buck, Waupaca County Land Information

In the past, Waupaca County GIS zoning data was based on old, inaccurate, hand drawn maps which were hard to use and harder to maintain. The maps were open to interpretation, often making enforcement of the county zoning ordinance a difficult task.

Over the last seven years, the county has undertaken a grassroots effort to bring the zoning ordinance into the 21st Century. Three key changes occurred during this effort. First, a completely new set of zoning codes was created, consistent with comprehensive planning preferred land use. Second, each township had the ability to "customize" overlays on top of the base zoning codes, essentially creating 22 different zoning codes. Third, the new zoning codes included development densities, to better control how and where development would occur within the county.

This presentation will offer insight into the processes and procedures used to modernize Waupaca County’s GIS zoning data.

**1H - HOW TO IMPLEMENT A GIS AT A SMALL MUNICIPALITY: CITY OF HARTFORD, WI CASE STUDY**

Eric Helwig, GeoDecisions; Justin Drew, City of Hartford

The City of Hartford, WI is in the middle of a 5-year plan to implement an enterprise based GIS that meets requirements of all city departments. The implementation is seeking to break down data silos and move the city from CADD only mapping to a fully integrated ESRI enterprise GIS. This presentation will focus on how ESRI software is being utilized to make the city more efficient on a day-to-day basis, the implementation process, and challenges (both technical and non-technical).

**1I - RICH INTERACTIVE GIS FOR COMPREHENSIVE MANAGEMENT & COMMUNICATION**

Jason Bass, StrataPoint, Inc.

StrataPoint, Inc introduces Rich Interactive GIS that keeps mapping and field data up-to-date in a state-of-the-art, comprehensive management information system (MIS), designed specifically for municipalities, park/rec, and golf courses. An overview of StrataPoint will feature ground assets management, ease of use, and a modular approach with mobile connectivity. Add assets and control your data in “real-time” and get the answers to questions now. The web-based, online demonstration will be enhanced by using the new “living-map” MIS. Demonstration includes:

- standard functions of a high-level GIS made for the everyday user
- robust MIS with base map; query; photo/notes; measurement; spatial capabilities; report functionality
- range of modules: streets, parks/playgrounds, forestry, water/sewer, equipment/labor, irrigation and chemicals
- administration rights and control in the hands of the user demonstrating the Rich Interactive on-line GIS participants will be given the opportunity to see how transparency within departments can open communication, reduce redundancy, save time, and introduce the masses to a new level of friendly GIS.
Track 2: Natural Resources

2H - A WEB-BASED MAPPING APPLICATION FOR DRAINAGE DISTRICTS

Seth McClure, Wisconsin DATCP

The presentation will cover the process our agency followed to develop and deploy a public facing web site that provides a mechanism to locate Drainage Districts by using spatial data available through ArcGIS server and Gecortex Essentials. Drainage districts are local governmental districts organized to drain lands for agricultural or other purposes. Landowners who benefit from drainage must pay assessments to cover the cost of constructing, maintaining, and repairing the district drains. The majority of existing drainage districts in the State were formed in the early 1900’s. Laws governing drainage districts are Ch. ATCP 48, Wis. Admin. Code and statute Ch. 88, Wis. Stats. Prior to this tool’s creation, there was no comprehensive catalog of state drainage districts. This mapping application was built to provide a way to provide accurate and timely maps of State drainage districts for State agencies, engineering consultants, county land conservation staff, realtors, and landowners.

2I - ACCESSING AND USING STATEWIDE AGGREGATED SOIL SURVEY DATA

Jesse Turk, USDA-NRCS

The Natural Resources Conservation Service has developed a suite of web services and applications to deliver soil survey data in formats that are not met with the soil data mart and Web Soil Survey. This presentation will focus on obtaining soil attribute information on a statewide basis that is aggregated for use with the soil spatial data. Topics covered will be: a brief introduction to soil survey tabular data, overview of aggregation methods, and accessing soil tabular data with Wisconsin NRCS’s custom soil data queries.

2J - DOES YOUR COUNTY NEED A GEOLOGIC RESOURCE ANALYSIS?

Bruce A. Brown, Pete Schoephoester, Wisconsin Geological Survey

Infrastructure rebuilding and new construction require a local source of quality aggregate. The growing interest in natural gas exploration has energy companies interested in Wisconsin’s sand and sandstone resources. High metal prices have revived interest in iron, base metals (copper, zinc), and precious metals (gold, platinum). Does your county have an adequate picture of existing and potential mineral and water resources to deal with an application to open a new metallic or nonmetallic mining site? Do you know where historic mine sites are located? The Wisconsin Geological Survey has accumulated a wealth of resource data over the past century, and we are currently looking at ways to package this information in ways that are directly applicable to planning and resource management at the county level. An analysis can range from a comprehensive new geologic or groundwater study to a compilation of known resources and historical data. By adding recent well construction data, we can both improve older geologic maps and produce useful derivatives such as bedrock elevation, depth to bedrock, and water table maps. We will present a variety of options that may be adapted to the needs of your county.
Track 3: Coastal Zone/Hazards

3F - MANAGING COASTAL HAZARD RISKS IN WISCONSIN’S CHANGING CLIMATE

Alan Lulloff, Association of State Floodplain Managers
Coastal hazards include flooding, storm waves, shoreline erosion, ice heaving, bluff recession, storm surge and rare, large-edge waves (seiches) usually associated with low-pressure systems or cold fronts. Storm surges and damaging wave action and run-up are a function of wind speed, direction, duration, and fetch. There are recent indications that climate change may be causing an increase in frequency or severity of major precipitation events and an associated risk of increased flooding. This presentation will focus on coastal hazards and how coastal erosion and coastal flooding are being impacted by Wisconsin’s changing climate. Land information data useful for mapping coastal hazards will be highlighted.

3G - WISCONSIN HAZARD ASSESSMENT & MAPPING (WHAM)

Andrew Faust, North Central Wisconsin Regional Planning Commission;
Jeremy Holt, Applied Data Consultants, Inc.
The North Central Wisconsin Regional Planning Commission worked with a team of volunteers to develop the frameworks for an application for mapping and assessing natural hazards in Wisconsin. The application will be designed to be web-based and flexible for all types of users. There is a mapping component to visualize the area impacted by the hazard. Summary reports are created to estimate the amount of damage to provide to FEMA.

3H - INNOVATION IN LIDAR FEATURE EXTRACTION

James Young, Robert Merry, Aerometric Inc.
LiDAR feature extraction has been conducted using traditional LiDAR algorithms and the results of these processes vary based on terrain, vegetation, and man-made characteristics. Photogrammetric processes use different approaches and these approaches have been established for some time. The process discussed will use a combination of LiDAR and Photogrammetric approaches to yield better efficiencies in the LiDAR feature extraction. This process only uses the captured LiDAR data and manipulates the data so that some of the photogrammetric processes can be applied to the LiDAR feature extraction process. The methodology of this process was developed to use the current LiDAR feature extraction process and improve on the process to yield significant improvements in the automated process.
Track 4: Elevation/LiDAR

4F - LiDAR Project Specifications & LiDAR Quality Control (Part 1)

LiDAR Quality Control (Part 2)

PART 1 Ron Wencl, USGS, Amanda Schwoegler, WiDNR and Tim Loesch, MnDNR
Part 2 Todd Thies, Ayres Associates
Part 3 Tim Loesch, MnDNR

Part 1 - When planning to acquire LiDAR, there are a number of factors to consider. In this presentation, we will discuss the current elevation data specifications from USGS and FEMA, and we will follow that up with a discussion on other key items that should be included in a Request For Proposals.

Part 2 - Contour-based accuracy standards have long been the yardstick for photogrammetry. But, as we’ve gained powerful desktop computers and sophisticated remote sensing techniques, datasets like DEMs and TINs are being used far more frequently. These datasets are not only being used to generate contours, they are being used for analysis as well. Contour-based standards are not designed to gauge the accuracy of these surfaces, so new standards have been developed. This presentation will explore the foundations of modern accuracy tests and standards. A familiarity with LiDAR, survey, and statistics would be helpful, but not necessary.

Part 3 - Your vendor has finished collecting and processing the LiDAR you purchased and suddenly you have received a massive amount of data. What should you do now? The presenter will discuss tips for managing LiDAR datasets and reviewing deliverables for accuracy.
Track 5: Technology - Mobile & Services

5H - DESIGNING AN EFFECTIVE ARCGIS MOBILE PROJECT

Kyle Heideman, Pro-West & Associates Inc.

ArcGIS Mobile provides a framework for distributing GIS resources and capabilities to and from the field. This framework makes it easy for organizations to design and deploy mobile field editing projects. A successful mobile project requires a workflow that streamlines the deployment, utilization, synchronization, and quality control of mobile data and resources. This presentation will review ArcGIS Mobile workflows, including map cache creation, field deployment, synchronization, and quality control of data collected in the field.

5I - AN INTRODUCTION TO WINDOWS PHONE 7

Mark Cheyne, Wisconsin DNR

Windows Phone 7 (WP7) is the new mobile operating system from Microsoft, with 9 handsets being released in October and November 2010. WP7 replaces Windows Mobile and unlike Windows Mobile, it is targeted squarely at the same consumers as the iPhone and Android. It is garnering mostly rave reviews for its slick interface and smooth performance. Market reception remains to be seen, but early indications are positive, and the platform is getting strong support from OEMs and developers. Equipped with GPS, accelerometer, compass, wifi, 3G, and a high-resolution daylight-readable capacitive touchscreen, WP7 handsets are well equipped for field use. The software development stack for WP7 will be familiar to Microsoft developers - the Visual Studio, Silverlight and XNA, and the .NET framework. ESRI has released an API for WP7 that allows access to ArcGIS Online map services, Bing Maps, or your own ArcGIS Server map or geoprocessing services. Open source alternatives also exist for accessing OGC services or OpenStreetMap tile services with a mix of server and client rendering of map content. This talk will introduce the new WP7 platform, developer tool stack, and demonstrate some simple GIS capabilities on WP7. Perhaps more important, we hope to stimulate discussion with attendees regarding opinions of WP7, iPhone, and Android, available devices, and what place these cheap, powerful, but arguably fragile consumer devices have for GIS field data collection. What use do you wish to put your phone to?

5J - IPHONE DEVELOPMENT FOR ARCGIS SERVER

Brian Jensen, GeoDecisions

Loudon Water is developing iPad and iPhone applications on top of ArcGIS Server as part of their day-to-day operations. This presentation will focus on requirements, process, and lessons learned regarding development within the ArcGIS Server platform utilizing the iPhone API.
Track 6: Technology - Server GIS

6H - LINCOLN COUNTY DATA & DATABASE RE-DESIGN

Audrey Jensen and Tim Tarras, Lincoln County Land Information & Conservation Department

After reviewing the database design and data structure, Lincoln County decided to re-design the GIS data structure to remove duplicate data, improve data security, and create more efficient workflows. During the review of existing data, we found the database server and software needed to be upgraded to accomplish some needed tasks—preventing accidental data deletion, similar data being updated in multiple locations, and not knowing where the most up-to-date data was located. While working to remove duplicate data fields, we were able to streamline the number of datasets being maintained while continuing to provide all the information needed for County projects. While we are not finished with all of the data that Lincoln County maintains, some of the largest datasets are complete and we continue work on the remaining data.

We’ll show you where we started, what we went through, and what these data sets look like now. You’ll find out about some of the “sticky” situations and our solutions to them, as well as why we made these decisions.

6I - GIS INTEGRATION: EXTENDING THE VALUE OF GIS DATA TO BUSINESS INTELLIGENCE AND ENTERPRISE CONTENT MANAGEMENT

David Lapp, Oracle Corp.

Since the introduction of database management systems, database technology has been used to address the unique problems encountered when managing large quantities of unstructured data, including GIS data. This presentation will provide information on how GIS data can be integrated with web services, enterprise content management systems, and business intelligence applications to allow knowledgeable workers to easily find and share critical enterprise information.
### Educational Sessions

**Friday, Feb. 18**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Room E</td>
<td>Room F</td>
<td>Room G</td>
<td>Room H</td>
<td>Room I</td>
<td>Room J</td>
<td></td>
</tr>
</tbody>
</table>

**7 a.m.**  
Past Presidents Breakfast – 7-8 a.m. — Dane Room

**8:15 a.m.**  
Plenary Session – 8:15 a.m. — Midwest State Leaders Panel: Coordination Trends – Wisconsin in the Next Two Years — Ballroom AB

**9:45 a.m.**  
Break in Exhibit Area and Silent Auction ends – 9:45-10:45 a.m. — Grand Terrace

<table>
<thead>
<tr>
<th>10:45 a.m.</th>
<th>11:15 a.m.</th>
<th>11:45 a.m.</th>
<th>12:15 a.m.</th>
<th>12:45 p.m.</th>
<th>2 p.m.</th>
</tr>
</thead>
<tbody>
<tr>
<td>12B - Winnebago County GIS Applied at the Experimental Aircraft Association (E.A.A.) Convention (30 min)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10B - Enhanced Web-based delivery of Wisconsin control data (30 min)</td>
<td>11B - Strengthening the Food Web through Public Participation GIS (30 min)</td>
<td>11C - GEO SPATIAL Predictions Of Wolf Attacks on Bear-Hunting Dogs (30 min)</td>
<td>12C - FAA - Airports GIS (15 min)</td>
<td>12D - Drive Time Analysis (15 min)</td>
<td></td>
</tr>
<tr>
<td>12E - Routing a Path to Saving Time and Money (30 min)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10C - Putting Survey Records and Maps Online when on a tight budget (30 min)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11D - Interoperability: Call for Engagement and Use Cases (30 min)</td>
<td>12E - Routing a Path to Saving Time and Money (30 min)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10D - A New Point of Beginning (30 min)</td>
<td>11D - Interoperability: Call for Engagement and Use Cases (30 min)</td>
<td>12E - Routing a Path to Saving Time and Money (30 min)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9C - An Update On National Imagery Programs (15 min)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9D - Developing a Statewide Digital Basemap For Wisconsin (15 min)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9E - Wisconsin Regional Orthophotography Consortium Update and Status Report (30 min)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8D - Lost Buildings - Using GIS and online Maps to Geolocate Historic Structures (30 min)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8C - Geospatial Data Preservation &amp; Access: Raising Awareness in Wisconsin (15 min)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7B - Following the Yellow Brick Road (30 min)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7A - &quot;Get Moving&quot; Washington County (30 min)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7C - The Art of Stress-Free Productivity: Getting Things Done (GTD) in GIS ... and your life in general (30 min)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7D - A New Point of Beginning (30 min)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**2 p.m.**  
Lunch with Awards — Ballroom AB

**2 p.m.**  
2 p.m. – Incoming WLIA Board of Directors Meeting — Dane Room
Friday, Feb. 18 Breakout Session 4 — 10:45 a.m.-12:45 p.m.

Track 7: Cooperative Efforts

10:45 a.m.

7A - “GET MOVING” WASHINGTON COUNTY
Karen Long, Deb Sielski, Eric Damkot, Washington County
An active living website for Washington County was created to promote healthy lifestyles, by allowing users easy access to the parks and trails system. The County, Cities, Villages, Towns, WDNR, and other organizations worked together to compile data needed to create this outstanding site. The site allows users to search for dozens of activities, with the “Choose Your Activities” link. The site includes an interactive mapping component built using ArcGIS Server’s Flex API. This presentation will cover funding, coordination, functionality, and a demonstration of the finished product.

11:15 a.m.

7B - FOLLOWING THE YELLOW BRICK ROAD
Cristina Richards, Ozaukee County; Roger Ahles, City of Cedarburg; Thomas Tym, Ruekert-Mielke
On the path to see the Budget Wizard in the Land of Oz, we have trotted down the yellow brick road. Along the way, we have gathered travelers in our quest to optimize efficiency, cost effectiveness, and data sharing. Ozaukee County has teamed up with the City of Cedarburg and the Village of Theinsville to create an all encompassing GIS website, which holds not only County data, but allows local municipalities to add data and applications to the County GIS website and maintain datasets specific to their needs. This session will discuss the coordination, the lions, tigers and bears (OH MY!) we have encountered, demonstrate the system, and finally, discuss the success and potential we see, just over the rainbow.

11:45 a.m.

7C - THE ART OF STRESS-FREE PRODUCTIVITY: GETTING THINGS DONE (GTD) IN GIS ... AND YOUR LIFE IN GENERAL
Jeff DuMez, Brown County GIS Coordinator / Land Information Officer
As GIS has matured, more people now understand your value, and so you are continually being asked to do more. Your job has grown to the point where it’s almost overwhelming: Requests for your services are piling up, and you’re also trying to stay on track with the big projects too. And like most GIS professionals, you have to remember a dizzying array of technical functions, work flows, contacts, software codes, program code, and so on. Even if you have a great knack to keep all of this information stored up in your head, the “information overload” can lead to stress. So you keep notes. But whether you use paper notes or computer notes, there are some serious limitations to your note keeping system (scattered notes, hard-to-retrieve notes, notes that are not easily updated, etc). There’s got to be a better way!

This presentation will summarize key principles of David Allen’s “Getting Things Done” (aka “GTD”) methods. GTD is advertised as “the art of stress-free productivity” and Jeff will explain why he thinks this is an accurate description. Although GTD works well within many different note systems (even paper), Jeff will demonstrate this system within his tool of choice: free software called “Evernote”. Jeff will show how he has incorporated GTD and Evernote into his life as a GIS professional (and in his life in general). He will show how the GTD process is used to most effectively collect, organize, prioritize, keep reference materials, document your work, and more with the GTD methods and the Evernote tool. Jeff will demonstrate how to easily search and retrieve your notes based on key words (Evernote will even recognize words within pictures of such as screen shots, white boards, document scans, etc). Jeff will show how he uses tags and other features within this system to sort information by date or even by location of where you took them (Evernote will automatically place a lat-lon on your notes so you can view where you took the note on a map).
Track 8: History, Preservation, Humanities

8A - 1937-1941 HISTORIC AERIAL PHOTOGRAPHS OF WISCONSIN: DISCOVERY & ACCESS

Jaime Stoltenberg, Howard Veregin, University of Wisconsin-Madison

From 2008-2010 the Robinson Map Library, the Wisconsin State Cartographer’s Office, and the University of Wisconsin Digital Collections Center collaborated on a project focused on improving access to a valuable set of historic aerial photographs of the state dating from 1937-41. Photograph collections from the Robinson Map Library and the Wisconsin Department of Transportation were combined to produce over 38,000 digital images. Metadata were collected for each scanned image to provide search and cataloging capabilities. We developed a web interface based on the open source GeoMoose/OpenLayers application framework for display and distribution of the digital imagery. The system includes a commercial tiled basemap, on which are superimposed necessary reference layers along with photo center points and footprints. This presentation briefly describes our efforts to build the digital archive and design the interface for web-based search and retrieval. We will discuss our plans for both formal and informal user testing and will showcase special features during a live demonstration. Attendees will learn how to access the system for photo discovery and access.

8B - SERVING 125 YEARS OF TOPOGRAPHIC MAPS AS PART OF THE NATIONAL MAP

Greg Allord, U.S. Geological Survey

The U. S. Geological Survey (USGS) has published more than a quarter of a million different editions of topographic maps of the USA during the past 125 years. These maps, pre-dating computers and geographic systems, were the only available instruments for integration and analysis of place-based information. Copies of these historic maps are found in numerous libraries, but the most complete collection known to exist is in the map library in the headquarters of the USGS, located in Reston, Virginia. The USGS has a continuing commitment to supply topographic maps to the Nation and recognizes its responsibility as custodians of its historic topographic map collection. This presentation describes the process underway to scan all topographic maps in the Reston Library. Recognizing there is a common expectation everything of value or required for reference and research needs to be available through the Internet, all maps will be accessible through the Web in either GeoTIFF or GeoPDF format. This discussion includes metadata captured and technical processes developed to spatially reference maps.

8C - GEOSPATIAL DATA PRESERVATION & ACCESS: Raising Awareness in Wisconsin

Jaime Stoltenberg, University of Wisconsin-Madison

After years of producing digital data with a focused effort on providing the most effective and efficient services to consumers, the GIS community has discovered the value of having access to older geospatial datasets used to analyze change over time. A systematic and well-organized preservation plan is the key to ensuring that access and usability of ‘at-risk’ and temporally significant geospatial content remains consistent and reliable though time. However, there are many challenges that face us in our quest for preservation. This presentation describes Wisconsin’s involvement in national efforts aimed at promoting preservation awareness, providing best practice recommendations, and generating necessary tools needed to create and execute stable preservation plans. The discussion will be focused on our involvement with GeoMAPP (the Geospatial Multistate Archiving and Preservation Partnership), the NDSA (National Digital Stewardship Alliance), and plans for raising awareness and generating support for geospatial preservation in Wisconsin.
8D - DISCOVERING LOST BUILDINGS - USING GIS AND ONLINE MAPS TO GEOLOCATE HISTORIC STRUCTURES

Michael Bricknell, Wisconsin Historical Society
The Wisconsin Historical Society (WHS) maintains the Wisconsin History and Architecture Inventory (AHI), consisting of approximately 120,000 properties surveyed by architectural historians or preservation consultants. The inventory has been assembled over a period of more than 25 years from a wide variety of sources. In many cases, the information is dated and properties may be altered or demolished. After 25 years of data collection, there are numerous difficulties with inaccurate addresses. Nearly 10,000 properties have errors, which do not allow the use of a geocoder and each record is entered manually and validated with primary and secondary online sources. I will share how Historic Preservationists are using GIS and what online resources I use to validate and find the location of historic structures.

8E - MAPPING THE FAMILY TREE

JoAnn Parks, Applied Data Consultants, Inc.
This presentation is about tips in using maps in genealogy research. From using old maps to find an ancestral village, to understanding family stories with GoogleEarth, and the latest tool in genealogy research — mapping the human DNA.
Track 9: Federal Partnerships; Orthoimagery

9A - REMOTE SENSING FOR THE GREAT LAKES RESTORATION INITIATIVE

Brian Huberty, U.S. Fish & Wildlife Service
The Great Lakes Restoration Initiative (GLRI) is a new opportunity driven by the President and funded by Congress to help improve one of the most unique freshwater systems in the world. Multiple universities, tribes, states, local governments, non-profits, and international and federal agencies are addressing many of the restoration needs through a variety of grants and projects. This presentation will focus on reviewing many of the remote sensing applications started this year to help improve our understanding of the Great Lakes habitats for improved management and restoration. There are many partners across the basin directly involved with GLRI. The presenter will highlight a few of the state-of-the-art applications, as well as to seek input from the audience for future needs.

9B - PARTNERING FOR SPATIAL DATA NEEDS — SHARING DOLLARS, SHARING DATA

Ulf Gafvert National Park Service
The National Park Service-Great Lakes Network conducts ecological monitoring in and around nine parks in the Great Lakes region. Geospatial data is vital in supporting these programs. Numerous agencies and organizations increasingly recognize that spatial data are essential in carrying out land use planning, emergency response, parcel data mapping, forestry, transportation and agriculture.

Emerging federal, state and regional programs are beginning to address the need for imagery, elevation data, hydrography, and updated transportation networks and parcel data, promoting alliance of financial resources to achieve mutual goals. These include programs such as the National Agricultural Imagery Program (NAIP), or the recent Wisconsin Regional Orthophotography Consortium (WROC), which closely models the Imagery for the Nation concept.

The Great Lakes Network provided funding toward the WROC program last year, and is working toward a similar cooperative agreement with the Indiana Geographic Information Council this coming year, for aerial photography and lidar elevation data at Indiana Dunes National Lakeshore. We continue to seek awareness of and participation in these programs, in order to build partnerships, and benefit from sharing resources toward common goals of data collection and availability.
9C - AN UPDATE ON NATIONAL IMAGERY PROGRAMS
Jim Lacy, State Cartographer’s Office/University of Wisconsin-Madison
2010 was a huge year for imagery collection in Wisconsin, but what does the future hold? In this presentation I’ll describe recent developments in national aerial imagery programs, both federal and private, and what they could mean to you and your organization in the future.

9D - DEVELOPING A STATEWIDE DIGITAL BASEMAP FOR WISCONSIN
Howard Veregin, Timothy Kennedy, State Cartographer’s Office/University of Wisconsin-Madison
One element of the State Cartographer’s Office (SCO) 2010-13 strategic plan is the development of a statewide digital basemap for Wisconsin. This initiative seeks to create data, maps, and services to support mapping at scales of 1:500,000 and smaller. Possible products include hardcopy rendered maps, raw data layers, rendered layers, rendered map tiles, and web services. The goal is to produce maps, data, and services needed by the State’s geospatial community. The initiative will potentially tie in to other efforts at the state and national level, including ongoing work with the National Map, enhancements to GNIS (Geographic Names Information System) and the new US Topos, contributions to the ESRI Community Map program, and initiatives to develop statewide data layers. In addition there are potential synergies with other Wisconsin state agencies conducting statewide mapping. The goal of this presentation is to briefly outline our goals for the project, to solicit input on desired features, products and services, and to begin requirements analysis by identifying interested partners and stakeholders for the initiative.

9E - WISCONSIN REGIONAL ORTHOPHOTOGRAPHY CONSORTIUM UPDATE AND STATUS REPORT
Kirk Contrucci, Ayres Associates; Andy Faust, North Central Wisconsin Regional Planning Commission
The Wisconsin Regional Orthophotography Consortium (WROC) represents one of the largest federal-state-local partnerships in the country. With participation from more than 100 local governments and dozens of state and federal agencies, the consortium was designed and organized with the intent of completing orthoimagery, mapping, and LiDAR projects under a single unifying program — saving the participants time and money while encouraging inter-governmental data sharing and cooperation. WROC is now in full swing, with many projects completed and delivered and several projects currently being completed. This presentation will focus on the current status of the WROC program and the projects it entails.
Track 10: Land Surveying

10A - WISCORS: A RESOURCE WORTH THE MONEY
Paul Hartzheim, Wisconsin Department of Transportation
This presentation will focus on the operational status and proposed fee structure for the active network (Wisconsin Continuously Operating Reference Stations - WISCORS). Discussion will also cover updates on survey operations, funding, adjustments, and publication of data for the passive network of the Wisconsin Height Modernization Program.

10B - ENHANCED WEB-BASED DELIVERY OF WISCONSIN CONTROL DATA
Howard Veregin, Brenda Hemstead, State Cartographer’s Office/University of Wisconsin-Madison
In 2010, the Wisconsin State Cartographer’s Office (SCO) began migrating its web-based control applications, ControlFinder and PLSSFinder, to a new geospatial platform. The new platform is based on the open source GeoMoose/OpenLayers application framework, and makes use of a commercial tiled basemap with additional layers provided by SCO web map services. The new applications provide enhanced features, such as better search capabilities, as well as improved cartographic rendering and display. In this presentation we will describe our efforts to build and design the new applications. We will explain how users can access applications and will highlight their features and enhancements. We will also describe mechanisms for users to provide feedback on system features and performance.

10C - PUTTING SURVEY RECORDS AND MAPS ONLINE WHEN ON A TIGHT BUDGET
Andrew Faust, North Central Wisconsin Regional Planning Commission
and Michael Romportl, Oneida County Land Information Office
The Oneida County Land Information Office (LIO) contacted the North Central Wisconsin Regional Planning Commission (NCWRPC) for assistance with putting their survey and miscellaneous maps online in a simple to use .pdf format. The Oneida County LIO has over 42,000 records totaling 14 gigabits of data. NCWRPC converted all the .tif images into Portable Document Files (PDFs). Once the documents were converted to PDF they were posted on NCWRPC's website. An online database application allows the public to search through records. The public can now find survey, parcel, recreation, zoning, address, and voting ward maps all with a simple search, without having to go to the courthouse. Surveyors can search for Public Land Survey System (PLSS) corner certificates and future plans will be to create an index for survey notes from the 1880’s to present. Data can be accessed at http://www.ncwrpc.org/Oneida_data/.

10D - A NEW POINT OF BEGINNING
Jason Grueneberg, Wood County
In 2008, the part-time Wood County Surveyor position was changed from an elected position to an appointed position. A new County Surveyor was appointed in January 2009, and in two short years a significant amount of improvements have taken place in the County Surveyor’s Office. Recent changes have created a more user-friendly office environment, improved organization and access to survey records, and have taken advantage of cost-sharing and competitive bidding for implementation of land records modernization projects. Some of the successful projects include imaging of PLSS tie sheets, development of a PLSS maintenance program, more thorough review of survey documents submitted to the County, and internet access to survey records. This presentation will share Wood County’s experiences in the transition so far, as well as plans for future land records modernization efforts.
Track 11: Applied Research

11A - SUSTAINABLE BUSINESS DEVELOPMENT, GIS, AND THE WEB
Eric Compas, University of Wisconsin-Whitewater

In this unconventional session, we will give a brief presentation about potential uses of the region’s GIS infrastructure to promote sustainable business development and then spend most of the session’s time in an open discussion. The goal of the discussion will be to identify ways in which land information could better support business decisions and to identify specific gaps in providing this information: what data, what tools, what training, or what connections are needed to better facilitate such a decision-support system?

11B - STRENGTHENING THE FOOD WEB THROUGH PUBLIC PARTICIPATION GIS
Mark Caldwell, University of Wisconsin-Milwaukee

I will present a Javascript API utilizing map mash-ups for the Milwaukee Food Council, a consortium of managers from non-profit organizations whose main goal is to improve the efficiency of food access and availability in predominately poor neighborhoods. This mapping service allows Council members to see where their organization’s sites are located, and add content to these locations such as images, videos, and text. As well as html links to Facebook, Google docs, flickr, and twitter enable Council members to manage location sites, strategically plan for future locations, and cross collaborate with other food organizations. Lastly, this creates priority lists for other employees of their organization.

11C- GEOSPATIAL PREDICTIONS OF WOLF ATTACKS ON BEAR-HUNTING DOGS
Erik Olson, University of Wisconsin-Madison

Wolf-human conflict has increased as wolf populations have recovered within their historic range in much of the USA. The number of depredations, wolf attacks on domestic animals, has increased significantly with the increasing wolf population. These conflicts increase negative attitudes towards wolves and enhance the complexity of wolf management and conservation. Bear-hunting dog (hereafter, bear dog) depredations are the second most common type of depredation in the state and typically the most costly, in terms of compensation per depredation. Understanding the geospatial context in which these depredations occur could promote alternative hunting practices and management strategies that could reduce the number of wolf-human conflicts. Therefore, we aimed to characterize and predict bear dog depredations within Wisconsin, USA. The probability of bear dog depredation increased as: percent of public access land increased, nearest wolf pack size increased, distance to the nearest wolf pack decreased, and as the percent of developed land cover decreased. National and county forest lands had significantly higher numbers of bear dog depredations than all other land-ownership types whereas private lands had significantly fewer. These results could be used by bear hunters to avoid particular areas of high risk or by a natural resource agency to reduce wolf-human conflict or to modify depredation compensation policy.

11D - INTEROPERABILITY: CALL FOR ENGAGEMENT AND USE CASES
Nancy Wiegand, University of Wisconsin-Madison

This talk describes a new geospatial INTEROP project funded by the National Science Foundation to work on geospatial data interoperability regarding semantics. As part of doing this talk, we are interested in engaging users and gathering use cases for data having semantic differences. An example is the differing land use coding systems used in Wisconsin. In general, re-using geospatial data across agencies or jurisdictions remains difficult because different terms are used. This lack of semantic interoperability has been recognized as a stumbling block to collaboration needed by government and other communities. It would be beneficial to add semantics to spatial data infrastructures. Our initial INTEROP Network consists of SOCoP (the Spatial Ontology Community of Practice, www.socop.org), which is a core group from academia, government, and industry. We now want to broaden the Network to include local and state participants and cover more domains.
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker</th>
<th>Abstract</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:45 a.m.</td>
<td><strong>12A - CREATING AN ADDRESS POINT FILE. DATA MODELS, QUALITY CONTROL AND USES</strong></td>
<td>Andy Swartz, City of Sun Prairie</td>
<td>In this session I will present on address point data — creation, evolution, uses, maintenance, etc. I will talk about the many steps and data sources used to create the address point file at the City of Sun Prairie, provide a good look at the data model, and discuss maintenance and quality control methods and challenges.</td>
</tr>
<tr>
<td>11:15 a.m.</td>
<td><strong>12B - WINNEBAGO COUNTY G.I.S. APPLIED AT THE EXPERIMENTAL AIRCRAFT ASSOCIATION (E.A.A.) CONVENTION</strong></td>
<td>Dave Levine, Winnebago County Planning/G.I.S.</td>
<td>Learn how the Winnebago County G.I.S. is used before and during the world known Experimental Aircraft Association (E.A.A.) Convention. Addressing and Geocoding hundreds of moveable and stationary buildings, and maintaining multiple layers of infrastructure of the E.A.A. grounds, will be explained for emergency purposes and other federal, local and state G.I.S. applications.</td>
</tr>
<tr>
<td>11:45 a.m.</td>
<td><strong>12C - FAA - AIRPORTS GIS</strong></td>
<td>Ryan Meyer, Mead &amp; Hunt</td>
<td>The Federal Aviation Administration (FAA) is migrating multiple types of projects and data through its new Airports GIS system. A standardized GIS data model will ultimately be used for every public airport in the country. The presentation will detail the data model, how airports use the Airports GIS, and how airport owners can incorporate the information into existing local GIS.</td>
</tr>
<tr>
<td>12 p.m.</td>
<td><strong>12D - DRIVE TIME ANALYSIS</strong></td>
<td>Janice Poehlman, Wisconsin DNR</td>
<td>Using Network Analyst, ArcMap, and python coding to deliver population counts for 30, 60, 90, and 120 minute travel times from recreation properties. This analysis includes the populations of Iowa, Minnesota, Michigan, and Illinois for a more reliable population count.</td>
</tr>
<tr>
<td>12:15 p.m.</td>
<td><strong>12E - ROUTING A PATH TO SAVING TIME AND MONEY</strong></td>
<td>Levi Felling, Applied Data Consultants, Inc.</td>
<td>Routing, scheduling, and dispatching are critical in keeping operations running smoothly and at lowest cost. Providing optimal drive routes between a set of locations is a key factor in reducing operating costs for numerous industries (fleet vehicles, transportation, currier services, home delivery). In this session, we’ll discuss routing technology, demonstrate routing applications, and discuss how advances in mobile technology have enabled a cost effective routing and real-time asset tracking solution. tags: postgis, pgrouting, arcgis server, arcinfo</td>
</tr>
</tbody>
</table>
WLIA 2011 Exhibitors & Sponsors

AERO-METRIC, INC. — SPONSOR OF THE OPENING LUNCHEON!

Booth 19
Richard Wohler, Account Manager
4020 Technology Parkway
Sheboygan, WI 53083
920-457-3631
920-457-0410 fax
rwohler@aerometric.com
www.aerometric.com

AERO-METRIC, INC. is a nation-wide full service photogrammetric and geospatial data solutions consultant with corporate headquarters located in Sheboygan, WI. Services include Zeiss DMC digital and conventional film-based aerial image capture, geodetic control surveys, photogrammetric mapping, Light Detecting and Ranging (LiDAR) terrain model processing, and geospatial data products.

AMERICAN SOCIETY FOR PHOTOGRAMMETRY AND REMOTE SENSING

Booth 13
Dave Hart, President
121 South Bristol Street, Suite 201
Sun Prairie, WI 53590
608-834-9823
dhart@continentalmapping.com
www.asprs.org/wgl

Founded in 1934, the American Society for Photogrammetry and Remote Sensing (ASPRS) is a scientific association serving over 5,000 professional members around the world. Our mission is to advance knowledge and improve understanding of mapping sciences to promote the responsible applications of photogrammetry, remote sensing, geographic information systems (GIS), and supporting technologies.

Don’t miss this once in a lifetime opportunity to attend the ASPRS Annual Conference in Milwaukee, WI; May 1-5, 2011. This is the first time this conference has been held in the Midwest. Form more information go to: www.asprs.org/milwaukee2011/index.html

Who are our members? ASPRS members-individuals from private industry, the government, and academia are analysts/specialists, educators, engineers, managers/administrators, manufacturers/product developers, operators, technicians, trainees, marketers, and scientists/researchers. Employed in the disciplines of the mapping sciences, our members work in the fields of Agriculture/Soils, Archeology, Biology, Cartography, Ecology, Environment, Forestry/Range, Geodesy, Geography, Geology, Hydrology/water Resources, Land Appraisal/Real Estate, Medicine, Transportation, and Urban Planning/Development.

APPLIED DATA CONSULTANTS, INC. — SPONSOR OF SOCIAL NIGHT

Booth 18
Sue McDonald, WI Business Coordinator
2985 58th St.
Eau Claire, WI 54703
715-874-4397
715-874-4387 fax
sue.mcdonald@adc4gis.com
www.applieddataconsultants.com

ADC provides a complete range of services, including GIS solutions, web services, application development and enterprise development. With more than 15 years of proven experience and now one of the largest web and GIS firms in the Midwest, ADC serves all levels of government and private industry throughout Wisconsin and the nation. Our products include the award-winning WebGUIDE, an on-line mapping tool for displaying land data on the web. The newest generation — WebGUIDE Xtreme — is now available. www.applieddataconsultants.com
APPLIED POPULATION LAB - UW MADISON

Booth 37
Sarah Kemp, Associate Researcher
1450 Linden Drive
Madison, WI 53706
608-265-6189
608-262-6022 fax
kemp@wisc.edu
www.apl.wisc.edu

APL is a group of research and outreach professionals within the University of Wisconsin-Madison specializing in population studies and geographically referenced data analysis. We provide information solutions to individuals and organizations, issue reports, give presentations, provide online access to data, and conduct research on current demographic and economic topics.

AYRES ASSOCIATES — SPONSOR OF THE GRAND OPENING RECEPTION!

Booths 12 and 17
Kirk Contrucci, Vice President of Geospatial Services
1802 Pankratz St.
Madison, WI 53704
608-443-1213
608-443-1250 fax
contruccik@ayresassociates.com
www.ayresassociates.com

Ayres Associates is working with various organizations to complete Wisconsin’s first-ever statewide leaf-off orthoimagery project. We’re also developing thousands of miles of LiDAR data for floodplain modeling and other applications. Through personalized attention, clients throughout Wisconsin are receiving tailored products to meet a range of vital land information needs.

CONTINENTAL MAPPING CONSULTANTS, INC.

Booth 9
David Hart, President
121 South Bristol St., Suite 201
Sun Prairie, WI 53590
608-834-9823
608-834-8534 fax
dhart@continentalmapping.com
www.continentalmapping.com

Continental Mapping Consultants provides photogrammetric mapping, lidar and geospatial data development services. From low altitude helicopter imagery to regional scale imagery analysis from satellite sources, our remote sensing expertise meets a wide range of needs. Our experienced staff in Wisconsin, Indiana, and Oregon serves private and public sector clients world-wide.

CRISPPELL SNYDER, INC.

Booth 30
Greg Nichols, GIS Manager
700 Geneva Parkway, P.O. Box 550
Lake Geneva, WI 53147
262-348-5600
262-348-9979 fax
nicholsg@crispell-snyder.com
www.crispell-snyder.com

We are a professional consulting firm with over 100 engineers, planners, landscape architects, GIS/IT professionals, surveyors, technicians and support staff serving communities throughout Wisconsin and northern Illinois. For over 30 years Crispell-Snyder, Inc., has worked closely with rural and suburban communities focusing on specific needs and budget constraints of each community. We believe strongly in building relationships through attention to detail, maintaining clear communication and earning our client’s trust.
EDOCS AMERICA CORP

Booth 24
Jim Canfield, Imaging Consultant
6418 Normandy Lane, P.O. Box 44576
Madison, WI 53744
866-573-3627
jmc@edocsamerica.com
edocsamerica.com

For more than 20 years, the staff at eDOCS America has been providing superior technology services across the nation. We provide the highest quality electronic document and data entry services, in our offices or onsite in (or near) yours. eDOCS America can create any type of images you need, including full-text searchable, and can provide the images and data to you in a variety of ways. In addition, we can help your organization select the correct imaging or image-enabled business system.

ESRI — SPONSOR OF SOCIAL NIGHT

Booth 46
Mike Koutnik, Account Manager
380 New York St.
Redlands, CA 92373
909-793-2853
909-307-3072 fax
mkoutnik@esri.com
www.esri.com

Esri® leads the international geographic information system (GIS) software industry with innovative solutions that help more than 300,000 organizations create, manage, visualize, and analyze information. ArcGIS® software is an integrated family of products for use in desktops, servers, or custom applications; in the field; or over the Web. www.esri.com

GATHERING WATERS CONSERVANCY

Booth 36
Kate Zurlo-Cuva, Land Trust Program Director
211 South Paterson St., Suite 270
Madison, WI 53703
608-251-9131 x12
608-663-5971
kate@gatheringwaters.org
www.gatheringwaters.org

Gathering Waters is a nonprofit organization whose mission is to help land trusts, landowners, and communities protect the places that make Wisconsin special. Our goal is to increase the amount of protected land in Wisconsin through private voluntary action. We accomplish our mission by strengthening Wisconsin’s land trusts.

GEODECISIONS

Booth 3
Brian Jensen, Project Manager
8025 Excelsior Drive
Madison, WI 53717
608-836-1500
608-215-9743 fax
bjensen@geodecisions.com
www.geodecisions.com

GeoDecisions is an information technology company specializing in geospatial solutions. We deliver strategic geographic information systems (GIS) and information technology (IT) solutions and applications to empower government, military, transportation, and private/commercial clients to make smarter, more-informed decisions. For more information, visit: www.geodecisions.com.
HOUSTON ENGINEERING

Booth 44
Kiah Sagami, GIS Technician
6901 East Fish Lake Road, Suite 140
Maple Grove, MN 55369
763-493-4522
763-493-5572 fax
ksagami@houstoneng.com
www.houstoneng.com

Houston Engineering is a full-service engineering consulting firm. Founded in 1968, the firm has a long history of providing exceptional engineering, surveying, GIS services and environmental consulting services to clients in the private and public sectors. Our GIS services have been experiencing continuous growth with each year — we know GIS and we know how to make it work for you. Data development, GIS analysis, map production, spatial database design, and web applications are just a few of our GIS capabilities. Our success lies in our technical expertise, responsive staff and long-standing relationships.

IMAGINIT TECHNOLOGIES

Booth 28
Robert Rendek, Account Executive
3601 Algonquin Road
Rolling Meadows, IL 60008
630-408-7171
brendek@rand.com
imaginit.rand.com

IMAGINiT Technologies, a RAND Worldwide Company, is a globally diversified engineering group and the world’s largest independent provider of enterprise solutions to the engineering industry. IMAGINiT was formed from a number of smaller companies that represented the best in the industry. Having 20+ year’s experience in the engineering and design community, all these individual companies were chosen because they provided superior customer service and developed strong, long-term customer relationships. We are now a part of a worldwide corporation, and all our locations are supported by a vast pool of engineering resources focused on developing real-life business solutions. This provides you the opportunity to utilize the support of a larger group of resources focused on developing current industry solutions!

LATITUDE GEOGRAPHICS

Booth 14
Jason Close, Account Manager
200-1117 Wharf St.
Victoria, BC V8W 1T7
250-381-8130
250-381-8132 fax
jclose@latitudegeo.com
www.geocortex.com

A division of Latitude Geographics Group Ltd., Geocortex provides a suite of proven products, services and knowledge that organizations can use to deliver effective, successful web-based mapping using ESRI’s ArcGIS Server and ArcIMS. With success stories across North America, we help clients create top-notch web-based GIS implementations.
MANATRON, INC. — SPONSOR OF THE 2011 WLIA LANYARDS!

Booth 16
Andrew Berg, Account Manager
510 East Milham Ave.
Portage, MI 49002
612-208-0234
andrew.berg@manatron.com
www.manatron.com

Manatron is a global leader in providing enterprise-level, integrated property software systems and services for state and local government. With a rich history in property recording, tax assessment, billing and collection, Manatron has been at the forefront of innovative product and service development since 1969. Manatron's software and services currently provide our 1500+ customers with the power to manage over 45 million parcels. Most importantly, over the last forty years, our software has helped government jurisdictions collect over one trillion dollars in revenue.

MGP, INC

Booth 35
Mike Falkofske, GIS Specialist
701 Lee St., Suite 1020
Des Plaines, IL 60016
847-656-5698 x709
847-579-4699
mfalkofske@mgpinc.com
www.mgpinc.com

Municipal GIS Partners, Inc (MGP) is a full service GIS consulting firm that focuses on small & medium size local governments. MGP has engineered its services to meet the special challenges that these organizations face. MGP is particularly proud of its relationship with GIS Consortium. GIS Consortium is a public organization of communities that are working together to reduce the cost and risk of developing GIS. Please visit MGP at www.mgpinc.com and GIS Consortium at www.gisconsortium.org.

MPOWER INNOVATIONS

Booth 33
Greg Calcari, VP Business Development
10501 North Lyndale Drive, Suite 2A
Appleton, WI 54914
877-269-6971
920-955-4057 fax
gcalcari@mpowerinnovations.com
www.mpowerinnovations.com

mPower Innovations is a technology consulting, developer, and service company that draws upon more than 30 years experience in the geospatial industry. They empower their clients by eliminating costly consultation and proprietary development that many other consultants and software providers require. mPower Innovations has the unique capability of blending technical design expertise with practical business process modeling to meet the goals of our clients. They work with their clients to ensure they are the most productive with all available and potential resources.
MSA PROFESSIONAL SERVICES — SPONSOR OF SOCIAL NIGHT

Booth 10
Todd D. Halvorson, GIS Services Manager
1230 South Blvd.
Baraboo, WI 53913
608-356-2771
608-356-2770 fax
thalvors@msa-ps.com
www.msa-ps.com

MSA Professional Services is a full-service engineering, surveying, and planning firm with public and private clients throughout the Midwest. Our GIS team helps communities develop web-based asset management systems. We also provide municipal, transportation, land development, and environmental services. Professionals include engineers, planners, funding specialists, surveyors, and environmental scientists.

NORTH POINT GEOGRAPHIC SOLUTIONS — SPONSOR OF SOCIAL NIGHT

Booth 23
Jesse Adams, Owner
31 West Superior St., Suite 100D
Duluth, MN 55802
218-720-6747
218-720-9382 fax
jesse@northpointgis.com
www.northpointgis.com

North Point Geographic Solutions (NPGS) specializes in GIS from data conversion, to custom GIS application development. NPGS works with a variety of technologies and programming languages, including, ArcGIS Desktop, ArcGIS Server, Flex, Visual Basic. NET, Python, SQL Server, ArcSDE, ArcPad Customizations, and Access Customization. Please visit our website at: www.northpointgis.com for examples and more details.

POSITIONING SOLUTIONS CO. — SPONSOR OF SOCIAL NIGHT

Booth 20
Tom Walrath, Branch Manager
2236 Bluemound Road, Unit A
Waukesha, WI 53186
262-798-5252
262-798-5253 fax
tomw@1psc.com
www.1psc.com

Positioning Solutions Co. (PSC) is your full service partner for all your GIS needs. From GPS, Hardware, Software, Training, Rentals, PSC is poised to fill your requirements for all GIS solutions. We are a proud partner with Topcon Positioning Systems, Laser Technology, Carlson Software. Call us at 262-798-5252 or visit www.1psc.com

PRO-WEST AND ASSOCIATES

Booth 4
Kyle Heideman, GIS Consultant
8239 State 371 NW, P.O. Box 812
Walker, MN 56484
218-547-3374 x128
218-547-3375 fax
kheideman@prowestgis.com
www.prowestgis.com

For more than 23 years, Pro-West & Associates has been providing GIS integration services to federal, state, and local governments and private industry. Our services include technical advising, customized computer programming and database design, software training and support, aerial photography and photograph interpretation, conversion of aerial photos to digital data, and GIS design. PWA is an ESRI business partner, developer and reseller.
RUEKERT-MIELKE

Booth 5
Scott Daniel, Senior GIS Analyst
W233 N2080 Ridgeview Parkway
Waukesha, WI  53188
262-542-5733
262-542-5631 fax
sdaniel@ruekert-mielke.com
www.ruekert-mielke.com

Ruekert/Mielke’s Technology Services Department has assisted with the design and implementation of GIS programs for more than 60 municipal or county government clients since 1987. GIS services include needs assessments, database design, data collection and conversion, property and centerline addressing, custom applications, and web hosting and maintenance services.

SANBORN MAP COMPANY

Booth 26
Kevin Kuhlmann, Director, Strategic Accounts
18421 Edison Ave.
Chesterfield, MO 63005
636-449-0189
636-449-0197 fax
kkuhlmann@sanborn.com
www.sanborn.com

Leveraging a 140-year history, Sanborn provides superior geospatial products and services. From LiDAR: mobile, aerial and static, aerial surveys, photogrammetry and imagery analysis, to advanced web mapping application services and state of the art 3D visualization systems—Sanborn provides total geospatial solutions for customers worldwide. Visit www.sanborn.com for more information.

SEH — SPONSOR OF SOCIAL NIGHT

Jon Schwichtenberg, Regional GIS Leader

SEILER INSTRUMENT COMPANY

Booths 6 and 11
Travis LeMoine, Mapping Sales
9755 Airways Court
Franklin, WI 53132
877-444-6515
314-218-6139 fax
mapping@seilerinst.com
http://solutions.seilerinst.com

Seiler Instrument provides the right tools and technology for those wishing to populate their GIS and CAD field data and get their work accomplished efficiently, productively and within budget. We work with products from the most well-established manufacturers and software developers in the field such as Trimble®, ESRI, Autodesk®, CartoPac Field Solutions, and Laser Technology. The Seiler mapping professionals are industry experts and want to work with you and your organization to provide the best integrated solutions available for your success. Seiler Mapping is your complete Field-to-GIS solution.
STATE CARTOGRAPHER’S OFFICE

Booth 2
Howard Veregin, State Cartographer
550 North Park St., 384 Science Hall
Madison, WI 53706
608-262-6852
608-262-5205 fax
veregin@wisc.edu
www.sco.wisc.edu

The State Cartographer’s Office has been Wisconsin’s source for information about maps and the mapping sciences since 1974. Housed at the University of Wisconsin-Madison, the SCO publishes a newsletter, special guides and fact sheets, maintains large and diverse web sites including its own SCO site and WISCLINC, the Wisconsin Land Information Clearinghouse, and participates in a wide range of organizations.

SURDEX CORPORATION

Booth 45
Tim Donze, Business Development Representative
520 Spirit of St Louis Boulevard
Chesterfield, MO 63005
636-368-4400
636-368-4401 fax
timd@surdex.com
www.surdex.com

Surdex has been recognized as a premier geospatial data provider since 1954, supplying accurate and precise information to a diverse client base. Surdex provides orthophotography; planimetric and topographic maps; LiDAR; and geographic information solutions. We are committed to providing clients timely delivery of quality products.

TRANSCENDENT TECHNOLOGIES, LLC

Booth 8
Tarek Ghazi, Director of Technology
3405 Commerce Court, Suite G
Appleton, WI 54911
920-750-5892
920-750-5897 fax
tghazi@transcendenttech.com
www.transcendenttech.com

Transcendent Technologies is a provider of solutions and services for state, county and local government entities. Our software packages include applications that support parcel management, property taxation, tax payment, general receipting, and permitting activities. Each software package is designed to integrate seamlessly with other government systems including tract indexes, document imaging, geographic information, and financial systems. This design greatly enhances the land management process, improving efficiency and reducing errors.
USGS

Booth 29
Ronald Wencl, Geospatial Liaison
2280 Woodale Drive
Mounds View, MN 55112
763-783-3207
763-783-3103 fax
rwencl@usgs.gov

The U.S. Geological Survey (USGS) National Geospatial Program provides leadership for geospatial coordination, production and service activities. The Program engages partners to develop standards and produce consistent and accurate data through its Geospatial Liaison Network. Operational support is provided by the National Geospatial Technical Operations Center. These and other Program activities that are essential to the National Spatial Data Infrastructure (NSDI) are managed as a unified portfolio that benefits geospatial information users throughout the Nation. Links of interest include the USGS National Geospatial Program (NGP) — www.usgs.gov/ngpo/ and The National Map — http://nationalmap.gov/.

UW-MADISON LICGF

Booth 7
Tom McClintock, Outreach Manager
550 Babcock Drive, Room B102
Madison, WI 53706-1293
608-263-0009
608-262-2500 fax
tlmcclin@wisc.edu
www.lic.wisc.edu

The overall mission of the Land Information and Computer Graphics Facility (LICGF) is to provide research, training, and outreach in the use of land and geographic information systems (LIS/GIS). Our mission focuses on land records modernization, land and natural resource management applications, and the use of information for land-use decision-making.

UWSP GIS CENTER

Booth 15
Douglas Miskowiak, GIS Education Specialist
University of Wisconsin-Stevens Point
Stevens Point, WI 54481
715-346-4789
715-346-3372 fax
doug.miskowiak@uwsp.edu
www.uwsp.edu/gis

The GIS Center at UW-Stevens Point conducts and disseminates leading edge GIS research and education. The Center provides educational opportunities to traditional and non-traditional students, offering a major and a minor in geography with an emphasis in GIS, professional certificate programs, and continuing education courses and workshops. The Center also conducts applied research projects that engage our students with the community.
**WI REAL PROPERTY LISTERS ASSOCIATION**

Booth 22  
Michelle Schultz, Real Property Lister  
51 S. Main St.  
Janesville, WI 53545  
608-757-5607  
608-757-5539 fax  
schultz@co.rock.wi.us  
www.wrpla.org  

A Real Property Lister (RPL) is responsible for keeping an accurate listing of all the property in a county (village or city) and its ownership, as per SS 70.09. To carry out the duties the RPL will review every recorded land conveyance to assess its validity for assessment and taxation purposes. The RPL records are the core records of GIS parcel mapping. The RPL also oversees the assessment and taxation process to ensure equity and accuracy. The Wisconsin Real Property Listers Association was founded in 1952.

**WISCONSIN GEOLOGICAL SURVEY**

Booth 27  
Peter Schoephoester, GIS Coordinator  
3817 Mineral Point Road  
Madison, WI 53705  
608-262-2320  
608-262-8086 fax  
schoephoeste@wisc.edu  
http://WisconsinGeologicalSurvey.org  

The Wisconsin Geological and Natural History Survey conducts earth-science surveys, field studies, and research. We provide objective scientific information about the geology, mineral resources, water resources, soil, and biology of Wisconsin. Maps, records, and reports—including interpretations and recommendations—produced by WGNHS provide data for resource, land-use, and environmental management.

**WISCONSIN REGISTER OF DEEDS ASSOCIATION**

Booth 25  
John Burke, Chairman Public Relations Committee  
202 S. K St., Room 2  
Sparta, WI 54656  
608-269-8714  
608-269-8715 fax  
John.Burke@co.monroe.wi.us  
www.wrdaonline.org/  

The Wisconsin Register of Deeds Association (WRDA) is a very active professional association committed to the education and professional advancement of its members. WRDA membership consists of all 72 county Register of Deeds. Through annual seminars and district meetings held in eight regions throughout the state, members are informed of statutory and administrative code changes, communicate with state agency representatives, receive educational presentations on new trends and topics, and participate in discussions for the purpose of promoting fairness and uniformity of policies and procedures in register of deeds offices across the state.
WISCONSIN SOCIETY OF LAND SURVEYORS
Booth 31
Francis R. Thousand, Executive Director
5113 Spaanem Ave.
Madison, WI 53716
608-770-9759
608-222-6152 fax
fthousand@charter.net
www.wsls.org
The Wisconsin Society of Land Surveyors (WSLS) is a professional organization of 1,010 members, organized in 1952, and whose purpose is to promote and maintain the highest possible standards of professional ethics and practices, to promote professional uniformity, and to promote public faith and dependence in registered surveyors and their work.

WISDOT
Booth 32
Tiffany Novinska, Engineering Specialist
3502 Kinsman Blvd.
Madison, WI 53704
608-246-5397
608-245-8959 fax
tiffany.novinska@dot.state.wi.us
www.dot.wi.gov/
The Wisconsin Department of Transportation provides leadership in the development and operation of a safe and efficient transportation system. In support of these activities, the Surveying and Mapping Section provides centralized activities resulting in products and services depicting the location of features on the earth’s surface.

WOOLPERT
Booth 21
Steve Root, Photogrammetry Project Manager
4454 Idea Center Blvd.
Dayton, OH 45430
608-835-6887
608-835-7876 fax
steve.root@woolpert.com
www.woolpert.com
Woolpert is the premier national geospatial, engineering, and architecture firm providing innovative enterprise information management, remote sensing, and surveying services to utilities, local governments, and institutions throughout the U.S. and around the world.
WLIA Foundation Inc.

The WLIA Foundation Inc. is a non-profit IRC Section 501(c)(3) organization setup to administer private funding for the advancement of education in Land Information, working with the Wisconsin Land Information Association (WLIA).

WLIA is a grassroots nonprofit organization representing a collection of concerned professionals working to develop, maintain, and apply a network of statewide land information systems. Members include staff and elected officials from all levels of government, academics, consultants and private sector users of geographic information systems (GIS).

In 2004, WLIA created a scholarship fund that has been used to help Wisconsin students further their goals in the land records profession. Through the WLIA Foundation, the association awards scholarships typically ranging between $500 and $1,000 for students who demonstrate their dedication to Land Information related studies. The scholarship program is the Damon Anderson Memorial Scholarship Fund, named after a man who was a leader in the land record profession dedicated to the education of students of all ages.

Mission Statement

The mission of the WLIA Foundation, Inc. is to provide educational opportunities, materials and scholarships that further promote the development and use of integrated land information systems.

Funding

The WLIA Foundation is funded privately through activities associated with the Wisconsin Land Information Association. These activities include two funding mechanisms, as follows:

WLIA Annual Conference Silent Auction

The WLIA holds a silent auction during its annual conference. Of the funds raised, 100 percent are used towards the scholarships. We are hoping that you personally or your organization would participate by making a donation to our auction for our scholarship effort. We will place the item on display at the auction with appropriate signage so it stands out to our conference attendees. Typical items donated include, hotel packages, unique local items, signed memorabilia, industry related hardware and software, tickets to events and gift baskets. Each year we set our goals to raise $3,000. While it seems like a large amount, we are confident that with your generous donation we can make it happen. If you choose to donate an item for the Silent Auction, please fill out the attached form so we can properly recognize your support.

Direct Monetary Donations To The Foundation

The WLIA Foundation also encourages monetary donations. Monetary donations can be of any denomination, chosen by the donor. As with the Silent Auction, 100 percent of the funds directly donated to the foundation go into the scholarship fund.

If you would like more information on our Association, please contact Ann Barrett at 800-344-0421 or abarrett@uniontel.net or go to www.wlia.org.
Poster Competition

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.

Use the URL at the below to enter the Poster Competition.

On-line submission deadline is Monday, Feb. 14.
On-site registration is Feb. 17, 8 a.m. to 12 p.m.

Awards will be presented for the best entry in each category below, as well as awards for Best Student, People’s Choice and President’s Choice.

Judging will take place on Thursday, Feb. 17 from 5-7 p.m.

Categories

____ Base Map: a standard product for over-the-counter users, complete, documented, not flashy
____ Small Format Map: any size B or smaller (17” x 11”), any theme, any scale or extent
____ Thematic Map: great cartography - design, layout, labeling, annotation, color, and appeal
____ Map Poster: informative, eye-catching, colorful, interesting, shows analysis (not just a map, tells a story)
____ Black and White Map: any format and theme, but no hue ... a special problem in design
____ Brochure: any format and theme, used for public information or marketing purposes
____ Interactive Web-Based Mapping Site: Provide URL below, no additional digital submission required (Deadline Feb. 10)
____ Map Books and Atlases: must be bound, spiral or otherwise

Entries require a digital (.pdf, .tif, .png, .jpg, .gif) and hard copy of the map in order to be eligible for an award, submitted at the conference or emailed prior. Files need to be less than 5 MB in size, can be emailed to posters@wlia.org, or uploaded to a URL provided below. Hard copies should be brought to the poster registration table Thursday morning.

Entry form and upload link at:
http://wlia.org/displayemailforms.cfm?emailformnbr=151378
Monona Terrace Convention Center
& Hilton Madison Monona Terrace in Madison, Wisconsin

Hotel Information

The WLIA conference will be held at the Monona Terrace Convention Center, which is connected by skywalk to the Hilton Madison Hotel, 9 East Wilson St., Madison, WI 53703. WLIA has two blocks of rooms at $109 for single occupancy, and $70 single for those who qualify for the government rate. That rate will apply upon check-in for one person with proper identification. You can reserve a room online or call the hotel directly at 866-403-8838 or 608-255-5100 for reservations.

WLIA Non-Government Room Block
Your Web page address is:
Group Name: WLIA 2011 Annual Conference
Group Code: WLIA
Hotel Name: Hilton Madison Monona Terrace
Phone Number: 866-403-8838

WLIA Government Room Block
Your Web page address is:
Group Name: WLIA 2011 Annual Conference
Group Code: WLIAGV
Hotel Name: Hilton Madison Monona Terrace
Phone: 866-403-8838

Directions

FROM MILWAUKEE: Take I-94 West to I-30 HWY 151 (East Washington Avenue). Take East Washington Ave for three miles to Blair Street. On Blair Street, turn left. Go down Blair Street for two blocks and then turn right on Wilson Street. The hotel is located on this street.

FROM MSN-DANE COUNTY REGIONAL AIRPORT: Travel International Drive for one mile, turn left on Packers Avenue. Packers becomes Pennsylvania, travel 1.5 miles to First St. turn left. Turn right onto E. Washington for one mile. Turn left on Blair, turn right onto Wilson. Continue 1/4 mile up, hotel will be on left-hand side.
Hilton Hotel Parking

Covered and secure parking is available, managed by CPS and is beneath the hotel. Entrance to the parking ramp is next to the entrance of the hotel on Wilson Street.

Self Parking: $13 per evening
$2 per hour (not to exceed $13 per night)
Valet Parking is an additional $4 service charge per usage.
In/Out Privileges: Available
Parking Information: 6’ 10” clearance

Monona Terrace Parking

Parking at Monona Terrace is for days only for $12 maximum per day or $1.40 per hour/$.70 per half hour.

Additional Parking can be found at:
www.cityofmadison.com/parkingutility/maps/Downtown.cfm
General Conference 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 member rates! You can do that on the conference registration form or go to www.wlia.org to renew online.

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 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 website. 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. 11, 2011 will receive full refund of the conference registration fee less a $25 processing fee. No refunds will be made after Feb. 11, 2011.
Thank you to Aerometric
as a Sponsor of the 2011 Annual Conference
Thank you to Ayres Associates as a Sponsor of the 2011 Annual Conference


We’ve built our reputation on providing quality services tailored to the needs of each client.

- Film-based and digital aerial photography
- Airborne GPS
- Analytical aerotriangulation
- Planimetric and topographic mapping
- Digital terrain modeling (DTM)
- Digital aerial imagery
- Remote sensing
- Photogrammetric scanning
- GIS consulting
- GPS survey
- LiDAR

800.800.5191
www.AyresAssociates.com

A proud sponsor of WLIA

Hope to see you next year for the 2012 WLIA Annual Conference at the Holiday Inn in Stevens Point, WI
Feb. 15-17, 2012