MN GIS/LIS 2013 CONFERENCE

October 9 to 11, 2013

Rochester, MN
Mayo Civic Center

www.mngislis.org

Preliminary Program

Conference Highlights

This program announces the **23rd Annual Minnesota GIS/LIS Consortium Conference and Workshops** October 9 to 11, 2013 in Rochester, Minnesota. The event will feature instructor-led workshops, technical sessions, panel discussions, technology demonstrations, project updates and national speakers. All are geared toward professionals interested in learning more about geographic information systems and land information systems technology in Minnesota and beyond.

Highlights include:
- Robust selection of instructor-led workshops, both hands-on and lecture style.
- Full tracks of conference sessions covering a wide range of topics including environmental applications, GIS for transportation & utilities, GIS in government, mobile GIS, emergency management, web development, open source, vendor product demonstrations, and fast paced "Lightning Round" presentations.
- A competition among GIS/LIS scholarship winners with substantial cash prizes awarded. Both undergraduate and graduate student competitors will give project presentations during a dedicated student track.
- Nationally recognized, dynamic, and inspirational keynote speakers.
- An exhibit hall featuring a variety of exhibitors showcasing their latest GIS/LIS related hardware, software, products and services.
- A vendor reception featuring complimentary hors d'oeuvres, a cash bar and a variety of prizes.
- Industry specific Birds of a Feather meetings.
- Entertainment events and the always popular Thursday Night Networking Event.
- New for 2013: The Geolounge! A place to sit back, review sessions, check e-mail, or talk GIS with fellow attendees.

Please join us – and spread the word far and wide – because the 2013 MN GIS/LIS Conference and Workshops will be packed with quality learning, networking and socializing experiences!

Who should attend?

The conference program is designed to address the needs of:

- Government officials who implement GIS/LIS for a variety of applications

- Surveyors, engineers and land management specialists who use GIS/LIS technology

- People who want to utilize and/or publish GIS/LIS data over the Web

- Business, real estate, banking and insurance specialists who need to understand and access GIS/LIS data

- Public and private utility representatives who use GIS/LIS technology for infrastructure management

- Consultants who provide GIS/LIS services, hardware or software

- People in precision agriculture, health care and other fields just starting to use GIS/LIS

- University faculty and students interested in new GIS/LIS technology and research applications

- Individuals or organizations concerned with homeland security or emergency preparedness

- Managers who supervise GIS/LIS technology or staff

- GIS/LIS professionals in any discipline

Exhibitors to date *(as of July 30, 2013)*

- Aerial Services, Inc.
- Aero-Metric, Inc.
- Applied Imagery
- Ayres Associates, Inc
- ESRI
- Frontier Precision, Inc.
- Minnesota Geospatial Info. Office
- North Point Geographic Solutions
- Primordial
- Pro-West & Associates, Inc
- Rowekamp Associates, Inc.
- WSB & Associates, Inc.

About the MN GIS/LIS Consortium

The Minnesota GIS/LIS Consortium is a forum for communicating information to and improving cooperation among those interested in Geographic Information Systems (GIS) and Land Information Systems (LIS) in the state of Minnesota. Members include GIS users in local, state and federal government agencies, educational institutions, business and industry. Membership is FREE. The Consortium hosts a statewide conference each year and establishes committees that are responsible for specific GIS/LIS-related issues in Minnesota. Opportunities to participate in Consortium activities are available through volunteer work with committees, conferences and workshops.

For more information on current Consortium activities and volunteer opportunities, please visit our Web site, www.mngislis.org, or stop by our booth during the conference.

2013 MN GIS/LIS Annual Conference and Workshops

Register online at www.mngislis.org.

To access the conference registration site, please go to the GIS/LIS Web site at www.mngislis.org and look for the "MN GIS/LIS Annual Conference" link. Registration may be completed by credit card, purchase order or check.

For Payment by Credit Card:
The registration process will allow you to enter credit card information directly into a secure system for payment. Both Visa and MasterCard are accepted.

For Payment by Purchase Order or Check:
Alternately, you can include a purchase order number with the registration or pay by check separately. Upon completion of the registration process, an invoice will be prepared based on your registration selections. For purchase order registrations, please provide a copy of this invoice to your accounts payable department. Also include a copy of the registration invoice with your check or signed purchase order (made payable to MN GIS/LIS) and mail it to:

MN GIS/LIS Consortium
1000 Westgate Drive, Suite 252 • St. Paul, MN 55114

Please note: Registrations based on purchase orders are considered complete when the purchase order number is received.

Registration fees will be as follows:

Half-day Workshops
Payment received by Sept. 16..........................$120
Payment received after Sept. 16 ....$150

Full-day Workshops
Payment received by Sept. 16..........................$200
Payment received after Sept. 16 ....$230

Conference
Payment received by Sept. 16..........................$250
Payment received after Sept. 16 ....$280

Presenter
Payment received by Sept. 16..........................$215
Payment received after Sept. 16 ....$280

Student
Payment received anytime...............................$65

Important Deadlines and Dates:

- Online conference registration begins 8/16
- Early registration rate ends 9/16
- Hotel block rates end 9/17
- Online registration closes 10/7
- Workshops day: 10/9
- Conference days: 10/10 and 10/11

Refunds: Full refunds (less $40 administrative charge) will be issued with a written cancellation notice received by Sept. 7. Fax notice of cancellation to the MN GIS/LIS Consortium at 651-290-2266. Notifications received after this date will NOT receive a refund, nor will no-shows at the conference.

Problems with Registration:
If you encounter problems registering for this event via the Web site, please contact us at conference2013@mngislis.org or call 651-203-7242.

On-site registration will be available at the conference.

Outstanding and Informative Keynote Speakers!

Our speakers this year will bring you to new worlds.

Will Steger

Explorer, Educator, Photographer

9:00 a.m. Thursday, Oct. 10, 2013

Witness to Global Warming

Will Steger, world renowned polar explorer, educator, photographer, writer and lecturer will present a retrospective of a life in the arctic regions of the world. He has logged thousands of miles of travel by dogsled and has become a voice calling for understanding and the preservation of the arctic. The presentation "Eyewitness to Global Warming," is his vivid account of the changes that he's witnessed firsthand, caused by global warming pollutants, in Arctic regions over four decades of polar exploration. Steger shares stunning photographs from his expeditions along with compelling data and satellite imagery to document the deterioration in the polar ice caps. While the issue is critical, and the presentation is dramatic, Steger's message is one of hope and empowerment. An understanding of our role in the causes and effects of global warming make this personal. But as Steger explains, solutions are readily available and by making economically and environmentally smart choices people can make a difference.

J.J. Kelley

Adventure, Traveller, Filmmaker

12:00 p.m. Friday, Oct. 11, 2013

Adventures Far Away

J.J. Kelley is a distinguished filmmaker and adventurer. A producer at National Geographic Television (NGT), Kelley has been contributing to the production of original content for The National Geographic Channel, NOVA, and PBS. Some of his shows include The President's Photographer, Darwin's Darkest Hour, and an upcoming one-hour special investigating the illicit trade in elephant ivory, Battle for the Elephants.

He is also the co-creator of the adventure production company, Dudes on Media. His award winning feature documentaries have aired NBC Universal Sports, PBS, Outside TV and 10 international television networks, in addition to winning over 20 film festival awards including The Spirit of Independence at the 2012 Fort Lauderdale Internationl Film Festival. Paddler Magazine called his Emmy-nominated second film, Paddle to Seattle "the best feature film about paddling produced in the past decade."

Kelley is an Appalachian Trail Thru-hiker, biked across Alaska, kayaked from Alaska to Seattle, and traveled the length of The River Ganges. He regularly stops in the studios as a guest on National Geographic Weekend to share his most recent adventures.

2013 GIS/LIS CONFERENCE AT-A-GLANCE

7:30 a.m.	Conference registration and materials pickup; refreshments in lobby
8:30 a.m.	Opening Keynote Session: Witness to Global Warming, Will Steger
10:00 a.m.	Refreshment break/exhibit hall opens and poster display begins
10:30 a.m. - 12:00 p.m.	Concurrent sessions:

Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Session 6A
Lightning Round I	Hydrology	Government I	Web Services I	Parcel Fabric	Student Competition I	LiDAR Introduction

| 12:00 p.m. | Awards Luncheon |
| 1:30 p.m. - 3:00 p.m. | Concurrent sessions: |

Session 7	Session 8	Session 9	Session 10	Session 11	Session 12
Product Demonstration I	LIDAR I	Government II	Web Services II	Education I	Student Competition II

| 3:00 p.m. | Refreshment break |
| 3:30 p.m. - 5:00 p.m. | Concurrent sessions: |

Session 13	Session 14	Session 15	Session 16	Session 17	Session 18	Session 19
GIS Application Demonstrations	Mobile	Government III	GIS Applications I	Addressing	Student Competition III	LIDAR II

5:00 p.m.	Poster Session (Voting for Member Favorite Poster), North Lobby
5:00 p.m.	Exhibitor reception, Exhibition Hall
6:30 p.m.	Birds-of-a-Feather sessions
7:30 p.m.	Networking Event

6:30 a.m.	Fun Run
7:30 a.m.	Conference registration and materials pickup
8:00 a.m.	Exhibit hall opens: Refreshments served
8:30 a.m. - 10:00 a.m.	Concurrent sessions:

Session 20	Session 21	Session 22	Session 23	Session 24	Session 25
Lightning Round II/ Mobile	Emergency Management	Government IV	GIS Applications II	Open Source	Education II

| 10:00 a.m. | Refreshment break, Exhibit hall closes at 10:30 a.m. |
| 10:30 a.m. - 12:00 p.m. | Concurrent sessions: |

Session 26	Session 27	Session 28	Session 29	Session30	Session 31
Demonstration	LIDAR III	Government V	GIS Applications III	Utilities	Environment/GIS Applications

12:00 p.m.	Closing Luncheon: Adventures Far Away, JJ Kelly
1:45 p.m.	MN GIS/LIS Consortium business meeting and year-end review
2:00 p.m.	Scholarship raffle drawing and door prizes (must be present to win); adjournment

WEDNESDAY WORKSHOPS

- All workshops will be held on Wednesday, Oct. 9, at the Mayo Civic Center Suites.
- Check-in for workshops begins at 7:30am Wednesday morning in the North Lobby of the Mayo Civic Center. Refreshments will be provided.
- The morning workshops begin at 9:00am and will conclude by 12:15pm; the afternoon workshops begin at 1:15pm and will conclude by 4:30pm. Workshop registration fee includes lunch. Lunches for all workshop attendees will be provided at the Mayo Civic Center at 12:15pm.
- All data and materials for the workshops will be provided by the instructors.
- All hands-on workshops in 2013 will be Bring Your Own Laptop (except for Managing Parcels in ArcGIS), if you would like to attend one of these workshops you will need to have a laptop that you can bring to the class. We will be working closely with the instructors of the hands-on workshops to make the materials for those workshops available before October 9th for installation on attendee's laptops.

Green workshops are **Hands-on**, **Blue** workshops are **Lecture** style.

FULL-DAY WORKSHOP

Managing Parcels in ArcGIS — *Karen Lizcano, Esri; Lisa Schaefer, Pro-west*
Audience: Intermediate

The management of land records information is a critical component to workflows across all levels of government. The accurate representation of parcels and maintenance of changes to property dimensions, ownership and value over time are important pieces of information that governments need to conduct their work. The ArcGIS system provides a platform for managing parcel information that meets the modern demands local governments have for maintenance of and access to important land records information.

This workshop will educate users about the best practices for management of parcel information in ArcGIS, specifically, the parcel fabric. Attendees will be introduced to the fabric and learn about the structure it employs for managing parcels and editing parcel dimensions. There will also be significant focus on steps for migrating to the parcel fabric model including preparation steps for the feature geometry and attribute data in the staging environment, descriptions of the tools used, and what to review once the data is loaded. Finally, there will be discussion about available methods for delivery of information managed in the fabric for use by organizational staff and the public.

This will be a hands on workshop that allows attendees plenty of opportunity to gain relevant experience migrating to the fabric and editing within the fabric utilizing the automated workflows. There will be ample time allotted and Esri/ProWest staff available to help attendees work with their data on both bringing it into the fabric and utilizing the editing tools once migrated. As such, we'd like users to bring a small subset of their parcel data to the workshop to work with. Additional instructions/direction will be provided to registered attendees prior to the workshop. Based on the topic and content, familiarity with the parcel management process at your organization and with the ArcGIS platform will be important for this workshop.

Basics of LiDAR — *Joel Nelson, UM Dept of Soil Water and Climate*
Audience: Intermediate

The workshops are designed for GIS-users who address natural resource issues. Watershed Districts, Soil and Water Conservation Districts, counties, cities, not-for-profit organizations, private firms, and state and federal agencies are the target audience.

Before attending any of the workshops, participants are expected to have at least basic skill levels with ArcGIS applications, including and not limited to importing and managing files and layers, processing geographic data, and a general understanding of raster data processing and management.

AM WORKSHOPS

Introduction to GIS using ArcGIS 10.1 — *David Brandt, Washington County*
Audience: Beginner

This half-day workshop will provide a foundation for understanding what GIS is and what you can do with the technology. After a brief GIS overview, you will learn the basics of navigating and using ArcGIS software to explore geographic data through queries, basic spatial analysis and creation of simple maps. Audience: Those with little or no experience with ArcGIS or GIS education. Topics include: What is a GIS? What are the different types of GIS data? What is a coordinate system, and why should I care? How to use ArcGIS to add data, query data and symbolize features based on their attributes. How to perform proximity and spatial analysis to answer questions. How to create a map to show your results. The students will work primarily with parcel-level data.

Tips & Tricks with Maplex — *Catherine Hansen, University of St. Thomas*

Audience: Intermediate

This half-day hands-on workshop will provide the intermediate ArcGIS 10 user more insight into the labeling properties in ArcMap. The workshop will concentrate most on tips and tricks for using the label manager and the Maplex label engine.

Web Development & Interactive Cartography – ESRI ArcGIS for JavaScript API — *Vikrant Krishna, WSB & Associates*
Chris Cantey, WSB & Associates

Audience: Advanced

This course will introduce users to the ArcGIS development environment and provide information on best practices for design and coding web mapping applications. The project will instruct users on the map development work flow, from the map services to the document object model (DOM). Participants should be familiar with HTML, CSS, and JavaScript. Demonstration templates will be provided.

ArcGIS Server 10.1 and Beyond — *Justin Hansen, WSB & Associates*

Audience: Advanced

This workshop will serve as an advanced look into ArcGIS Server 10.1 from both the IT and GIS management perspective. Existing users of ArcGIS Server will find the most benefit from this workshop as topics will range from installation recommendations, system architecture guidelines, security best practices, load testing and more. In addition, we will discuss the advantages and disadvantages of running ArcGIS Server in Amazon's Cloud. Also, we'll look at where Esri's is going with the ArcGIS Platform and how ArcGIS Server fits within Esri's ever changing ecosystem including ArcGIS Online. This workshop will benefit both IT professionals and GIS Managers seeking to understand how to best manage their ArcGIS 10.1 deployment or existing infrastructure. While this workshop is target at advanced users with ArcGIS Server experience, it will provide a solid introduction to core ArcGIS Server concepts.

Mobile Applications: Harnessing ArcGIS Online — *Jesse Adams, North Point Geographic Solutions*

Audience: Intermediate

This workshop will explore mobile application development options available for publishing GIS data including how to harness ArcGIS Online via mobile devices.

PM WORKSHOPS

ArcGIS 10.1 Tips and Tools — *Jennifer Ward, Pro-West & Associates, Inc.*

Audience: Intermediate

This workshop will highlight a variety of ArcGIS for Desktop tips and tools to assist users in enhancing productivity in day-to-day tasks. Topics will focus on ArcMap editing environment and properties, creating and editing spatial features and attributes, common errors that occur during editing, making the most of feature templates, maximizing snapping features and utilizing Editor Tracking.

Working knowledge of ArcGIS Desktop 10.1 and basic editing experience is helpful. A manual with instruction will be provided. Software Specifications: ArcGIS Desktop 10.1 Standard (ArcEditor) OR ArcGIS Desktop 10.1 Advanced (ArcInfo).

*Please note some of the tools and editing procedures that will be covered in the workshop are not available for use with an ArcGIS Desktop 10.1 Basic (ArcView) license level

Creating Add-Ins for ArcGIS 10.1 and Beyond — *Chris Pouliot, MN.IT MN DNR*

Audience: Intermediate

Starting with ArcGIS 10.0, add-ins have provided developers a convenient way of creating and sharing customizations (toolbars, buttons, tools) for ArcMap using .NET and ArcObjects. ArcGIS 10.1 now allows developers to create add-ins using Python as well. This hands-on class will cover strategies for creating and deploying effective add-ins. Questions we'll tackle include: What is an add-in? Should I use Python or .NET (or both)? How do I create one using Python? Using .NET? How do I deploy/share an add-in? You do not need to be a programming wizard to take this class but a background knowledge of Python or a .NET language (VB.NET, C#.NET) is recommended.

An Introduction to the Geospatial Data Resource Site (GDRS) — *Hal Watson, MN.IT MN DNR*
Audience: Advanced

The Geospatial Data Resource Site (GDRS) is a structured way to organize, document, publish, access and share geospatial data. The GDRS also includes a set of tools that provide easy access to publish and access this data using ArcMap. In this class students will learn the essential concepts to build and use a GDRS of their own. Topics to be covered in this workshop include: An overview of the GDRS, Creating a local GDRS from the DNR Public GDRS and setting up ArcMap, Accessing GDRS data using QuickLayers and LandView, Creating new data and adding it to a local GDRS, Sharing local GDRS data with other GDRS users.

GIS On the Go: Configuring ArcGIS for the Office and the Field — *Nathan Aamot, Esri*
Audience: Beginner

Having access to GIS information on any device, at any time, and in any place whether in the office, board meetings, the field, or at home has become a new expectation of many organization's stakeholders. Bringing mobility to your GIS fosters collaboration, better communication, operational efficiency, and the ability to make decisions anywhere your work brings you. ArcGIS provides a complete integrated system for delivering your authoritative information to and getting updates back from the field in new and easier ways. This workshop will provide an overview of how to deliver GIS throughout your organization leveraging the latest capabilities of the ArcGIS system. Topics will include how to configure ArcGIS Online for broader use in the office and field, utilizing the ArcGIS Collector and Operations Dashboard apps, leveraging ready-to-deploy ArcGIS for Local Government applications, and more.

Understanding Geodatabases — *Rebecca Cooper, Rowekamp Associates, Inc.*
Audience: Beginner

This half-day workshop will introduce the different types of geodatabases and how editing geodatabase feature classes differ from editing shapefiles. Learn how to migrate from shapefiles and personal geodatabases to file geodatabases and create a new geodatabase feature class with different field data types. Workshop will also cover editing attributes using geodatabase domains and subtypes. Beginner with some prior experience using ArcGIS and the Catalog window.

CONCURRENT SESSIONS

- All concurrent sessions will be held Thursday, Oct. 10 and Friday, Oct. 11, at the Mayo Civic Center.
- Check-in for the conference begins at 7:30am. During this time refreshments will be served in the North Lobby.
- Concurrent sessions on Thursday are from 10:30am-12:00pm; 1:30pm-3:00pm; and 3:30pm-5:00pm.
- Concurrent sessions continue Friday morning at 8:30am and conclude at 12pm.

THURSDAY, 10:30 AM

Lightning Round I (12 Minute Lighting Talks)
- An overly complicated GIS Model for Finding Your Stuff — *Paul Lorah and David Kelley, UST Department of Geography*
- Call Analysis of Cardiac Related Events — *Meredie Sexton, Mayo Clinic*
- ArcGIS Online in Rice County — *Michelle Trager, Rice County*
- Dakota County GIS Web Infrastructure — *Joe Sapletal, Dakota County Office of GIS*
- The Statewide Centerline Initiative — *Geoff Maas, MetroGIS; Dan Ross, Minnesota Geospatial Information Office*
- Digitally Canoeing 100,000 Miles of Minnesota's Waterways: The Altered Watercourse Project (Expedition) — *Jim Krumrie, Minnesota Geospatial Information Office; Benjamin Lundeen, Minnesota Pollution Control Agency*

Hydrology (Individual Presentations)
- Building a Better Model: The role of GIS in Developing Continuous HSPF Watershed — *Paul Senne and Seth Kenner, P.E., RESPEC Consulting Services*
- Automating a Hydrogeomorphic (HGM) Classification for the National Wetlands — *Robb Macleod, Ducks Unlimited, Inc.; Steve Kloiber, Minnesota Department of Natural Resources*
- Carver County Water Quality: Educating Citizens by Telling the 'Story' of our Lakes — *Chad Riley and Charlie Sawdey, Carver County*

Government I (Individual Presentations)
- City of Moorehead: Workflow Manager for Server Experience — *Brad Anderson, City of Moorhead*
- Free and Open Data- MetroGIS Cities — *Randy Knippel, Dakota County*
- USGS Geospatial Data Updates: Revised Topo Maps and Program Changes — *Ron Wencl, USGS*

Web Services I (Individual Presentations)
- A Walk in the Cloud- Washington County's Experience — *David Brandt, Washington County; Jeremy Moore, Elevated GIS Solutions*
- Goodhue County Survey Web Application — *Sarah Schrader and Lisa Hanni , Goodhue County*
- Adding Web Based GIS Capabilities to the Cultural Resource Information System — *John Mackiewicz, WSB & Associates Inc.; Laura Kling, Minnesota Department of Transportation*

Parcel Fabric (Individual Presentation and 60 Minute Panel Discussion)
- Next Generation GIS: Managing a Fistful of Data —— Ramsey County Enterprise Log — *Matt Koukol and Jessica Fendos, Ramsey County*
- Parcel Fabric: Challenges/Benefits/Workflows — *Jeff Storlie and Jake Rodel, Saint Louis County*

Student Competition: Undergraduate Student Competition

LiDAR Introduction
- Accessing and Viewing Minnesota LiDAR Data Online — *Tim Loesch, Minnesota Department of Natural Resources*
- Help Me Use LiDAR Data! — *Nancy Rader, Minnesota Geospatial Information Office*

THURSDAY, 1:30 P.M.

Product Demonstration I
- Collector and Operations Dashboard for ArcGIS — *Tyler Prahl, Esri*
- ArcGIS 10.2- What's New? — *Tyler Prahl, Esri*
- ArcGIS for Imagery — *Tyler Prahl, Esri*

LiDAR I (Individual Presentations)
- Wetland mapping in Minnesota: An object-based approach to integrate lidar and multispectral imagery — *Lian Rampi and Joseph Knight, University of Minnesota*
- Getting Data Under Control: Mapping and Exploiting Your Imagery and Point Clouds — *Frank Obusek, Intergraph*
- Rooftop Solar Capacity Modeling Using MN LiDAR Data — *David Brandt, Washington County*

Government II (Individual Presentations)
- Using GIS to Facilitate Septic System Data Collection and Making it Accessible — *Nate Christ and Kim Jopp, Carver County*
- Integrating GIS with Microsoft Dynamics CRM to Support County Permitting — *Peter Henschel, Carver County*
- Managing Permit Workflows: The Permit Application Process in Chisago County, MN — *Beth Johnson, Chisago County; Jennifer Ward, Pro-West & Associates, Inc.*

Web Services II (Individual Presentations)
- Using Web GIS Applications for Flood Planning in the Red River Basin — *Brian Fischer, Houston Engineering, Inc.*
- Red River Basin Project Planning-Applying Light Detecting and Ranging (LiDAR) — *Henry Van Offelen, Minnesota Department of Natural Resources; Mark Deutschmann, Houston Engineering*
- Water Quality Decision Support Tool- Using Light Detecting and Ranging (LiDAR) — *Grit May and Mark Deutschmann, Houston Engineering*

Education (90-Minute Panel Discussion)
- K-12 GIS Educator Support- Developments and How to Get Involved — *Stacey Stark, MN GIS/LIS Consortium Education Committee; Scott Freburg, State of Minnesota; others to be determined*

Student Competition II: Undergraduate Student Competition

THURSDAY, 3:30 P.M.

GIS Application Demonstrations (Product Demonstrations and Demonstration)
- Primordial Ooze: A Platform to Crowd-Source Your Own GIS — *David Hemphill, Primordial*
- AutoDesk Map 3D 2014 — *Scott Mizsak, Cad Technology Center*
- Guide to the ArcGIS Applications — *Kyle Heideman, Pro-West & Associates Inc.*

Mobile (Individual Presentations)
- On the Road with GeoDesign — *Len Kne and Kris Johnson, University of Minnesota*
- City of Red Wing Mobile Web Mapping Apps — *Leanne Knott, City of Red Wing*
- Utilizing ArcGIS Online to Create Efficiencies in Managing Transportation Data — *Perry Clark, Carver County Public Works*

Government III (Individual Presentations)
- The Market Impact of Minnesota's Investment in Foreclosure Remediation, a Spatial Analysis — *Jessica Deegan, Minnesota Housing Finance Agency*
- Update on MnGeo and PRISM Parcel Projects — *Fred Logman, MnGeo @MN.IT, State of Minnesota; Heather Bester, Minnesota Department of Revenue*
- ArcGIS Server Architecture at the DNR — *Chris Pouliot and Mike Tronrud, MN DNR*

GIS Applications I (Individual Presentations)
- Mapping Multimodal Connections to the Mississippi National River Recreation Area — *Carol Sersland, HDR Engineering Inc.; Rory Stierler, National Park Service*
- A Study of the Societal and Environmental Effects of the Fukushima Power Plant — *Jessica Sweet and Gayatri Alapati, University of Minnesota*
- ModelBuilder to GPSServices: Geoprocessing Services Put to Use — *Jim Dickerson, MnGeo*

Addressing (Individual Presentation)
- Hennepin County GIS Address Standardization Project — *Gary Swenson and Ann Houghton, Hennepin County*
- Building an Address Point Dataset from the Ground Up — *Todd Lusk, Dakota County*
- MetroGIS Address Points Web Editing Tool- It's Free — *Joe Sapletal, Dakota County; Mark Kotz, Metropolitan Council*

Student Competition III: Graduate Student Competition

LiDAR II (Individual Presentation and 60-Minute Panel Discussion)
- Using LIDAR to Assess the Effects of Open Lands and Young Forest on in-channel stream erosion for North Shore Tributaries — *John Jereczek, Mn DNR; Tom Hollenhorst, US EPA*
- Hydrologically conditioning LiDAR derived Digital Elevation Models (DEMs) for Minnesota: Building an understanding of landscape connectivity for modern hydrologic modeling — *Sean Vaughn, MN.IT MN DNR; Mark Reineke, Widseth Smith Nolting*

FRIDAY, 8:30 A.M.

Lightning Round II/Mobile (12 Minute Lighting Talks/Individual Presentation)
- Enterprise Open Source Mobile App in the Cloud: Making Buzzwords a Reality for Mosquito Control — *Nancy Read, Metropolitan Mosquito Control District*
- Designing Mobile Maps with TileMill and CartoCSS — *Paul Wickman, Flat Rock Geographics*
- Geography and History of Nonferrous Metallic Minerals State Leasing and Exploration Drilling in Minnesota — *Kevin Hanson, Minnesota Department of Natural Resources, Division of Lands and Minerals*
- LiDAR for Archeology Site Identification — *Paul Wickman, Flat Rock Geographics*
- The MN DNR MacGyver Mapping Approach to Aid in Posting Hunter Walk-in Access (WIA) Sites — *Chris Scharenbroich and Julie Hines, MN.IT DNR, Division of Fish and Wildlife*

Emergency Management (Individual Presentations)

- NAPSG — U.S. National Grid Implementation Guide — *Randy Knippel, Dakota County*
- GIS and NG9-1-1- Data Above and Beyond Dispatch Mapping — *Deb Rozeboom, GeoComm, Inc.*
- Getting the Best Return on Your GIS Investment — *Anthony Haddad, Intrado Inc.*

Government IV (Individual Presentation and 60 Minute Panel Discussion)

- The Challenge of Standardized Address Data In a Non-Standard World — *Michael Terner, Applied Geographics, Inc.*
- Arrowhead Regional Collaboration: A Way to Improve Land Records and Sharing — *Ryan Stovern, Lake County; Tom McCann, USDA Forest Service; Kyle Oberg, Cook County; Jake Rodel, St Louis County; Clint Little, MN DNR*

GIS Applications II (Individual Presentations)

- Enterprise GIS Data Inventory Techniques — *Michael Juvrud, Resource Data, Inc.*
- Map It Once; Use It a Bunch — *Brad Henry, University of Minnesota*
- Experiences Using Current Metadata Catalogs to Drive Dynamic Discovery and Addition to Web Mapping Application — *James Klassen, SharedGeo*

Open Source (Individual Presentation)

- We Know Where You Were Last Summer — *Bob Basques and Cory Karsten, City of Saint Paul*
- 3D Mapping On the Web: The Time Has Come — *Bob Basques and Jim Klassen, SharedGeo*
- Adding to the Leaf Pile: js Plugin Development — *Michael Moore, Flat Rock Geographics*

Education II (90 Minute Panel Discussion)

- Finding, Applying for and Interviewing for Jobs in GIS — *Stacey Stark, MN GIS/LIS Consortium Education Committee; Chad Martini, Stearns County; Heather Bergen, WSB and Associates Inc.; others to be determined*

FRIDAY, 10:30 A.M.

Demonstration (Individual Presentations)

- Enabling Enterprise Geospatial Applications for Public Works Asset Management — *Jeff Tomlinson, Intergraph*
- Building a Configurable Web Viewer with Editable Layers Using the ArcGIS API for Javascript — *Paul Hedlund, Houston Engineering Inc.*
- Cloud-Based GIS Success: A Case Study of Collaboration in Shale Play — *Angela Remer, DDMS, Inc.*

LiDAR III (Individual Presentation)

- New Opportunities for Extracting and Analyzing Green and Gray Infrastructure Using LiDAR Point Clouds and Intensity in Minnesota — *Keith Pelletier and Dr. Joseph Knight, University of Minnesota*
- Regression Model of LiDAR Height and Site Index For Mapping Forest Age — *Molly Martin and Curtis Vanderschaaf, MN DNR*
- Integrating Landsat Imagery with Lidar and Object-based Image Analysis for Land — *Leif Olmanson and Margaret Voth, University of Minnesota*

Government V (Individual Presentation and 60 Minute Panel Discussion)

- Practical Application of ArcGIS Mobile- Traffic Sign Inventory — *Todd Halvorson and Scott Kiley, MSA Professional Services*
- Perspectives on using ArcGIS Online in Government — *Matt McGuire, Metropolitan Council; Jessica Deegan, Minnesota Housing Finance Agency; Michael Tronrud, MN DNR; Norm Anderson, MNGEO; Mark Benishek, City of Minneapolis*

GIS Applications III (Individual Presentation)

- Web Based Design Optimization for Water Sanitation Infrastructure in a Developing World — *Glenn Vorhes, Natural Resources Engineering/Peace Corps*
- Using ArcGIS Online with Custom Applications — *Kyle Heidemann, Pro-West & Associates Inc.*
- Placing SQL Server Spatial Data on the Web Using GeoJSON and Web Services — *Will Jensen, Resource Data, Inc.*

Utilities (Individual Presentations)

- Managing Assets with GIS, GPS & Cartegraph — *Heather Hegi, City of Golden Valley*
- The Role of GIS in planning the future of drinking water in Dickinson, SD — *John Wirries and Justin Sailer, KLJ*
- Updating Minnesota's Telephone Exchange Boundaries using ArcGIS Online — *Norman Anderson, Minnesota Geospatial Information*

Environment/GIS Applications (Individual Presentations)
- Updating MnModel: The Pros and Cons of Better Data — *Elizabeth Hobbs, Minnesota Department of Transportation*
- Northeast Minnesota Archaeology Partnership Projects — S*tacey Stark, University of Minnesota Duluth; Sue Mulholland, Duluth Archaeology Center*
- Teaching Old Maps New Tricks: How Paper Maps and Mashups Can Evolve Together — *Ryan Mattke, University of Minnesota Libraries*

POSTER GALLERY, OPEN THROUGHOUT CONFERENCE

A Project Poster Gallery will be located near the entrace to the Terry Haws Center. Posters will be exhibited both days of the conference. Poster authors will be available during the Vendor Reception Thursday evening to field questions and discussion from viewers.

- Evaluating Urban Tree Canopies with LiDAR — *Benjamin Gosack, University of Minnesota (MGIS)*
- 3D Sand Modeling for Characterizing Aquifer and Aggregate Resources — *Jacqueline Hamilton and Richard Lively, Minnesota Geological Survey- University of Minnesota*
- The MN DNR MacGyver Mapping Approach to Aid in Posting Hunter Walk-In (WIA) Sites — *Chris Scharenbroich and Julie Hines, MN.IT@ DNR, Division of Fish and Wildlife*
- Rice County Historic Places- Telling a Story Online — *Michelle Trager, Rice County*
- Mapping Minnesota's Wildfire Risk — *Josh Dunsmoor*
- Social and Environmental Justice Mapping: Considerations from Practice — *Geoff Maas, Tessera Design*

ENTERTAINMENT

WEDNESDAY WELCOME RECEPTION, OCT. 9

Welcome Reception at the Rochester Art Center: 6:30 p.m.
Come join your colleagues for a relaxing and engaging networking opportunity. Peruse the Art Gallery or take in the scenic river and city views from this spectacularly-designed building with floor to ceiling windows. Free hors d'oeuvres and a cash bar will be provided. The Rochester Art Center is located at 40 Civic Center Drive SE and is connected to the Rochester Civic Center.

THURSDAY EVENTS, OCT. 10

Exhibitor Reception: 5:00–7:00 p.m.
Location: Exhibit Hall

Birds of a Feather Sessions: 6:30 p.m.
Location: Doubletree Hotel Conference Rooms
Birds of a Feather (BOF) sessions provide a gathering place and discussion forum for those interested in the same issues and concepts. Attendees who want to get together with others who share their interests, goals, technologies, environments, or backgrounds are invited to organize a BOF event. The GIS/LIS Conference organizers have made arrangements to provide complimentary meeting space for the BOF sessions. BOF session spaces are limited and will be granted on a first-come, first-serve basis. If you'd like to organize a BOF session, please respond by email to Jacqueline Brost at jacqueline.brost@state.mn.us.

Networking Event: 7:30 p.m.
Location: Exhibit Hall
The purpose of the Networking Event is twofold; to raise money (all proceeds from this event will go to the GIS/LIS Scholarship Program) and to provide a social networking event for the GIS/LIS community. This event is free to all and will feature an assortment of casino games, such as Black Jack, Roulette, and Craps, and includes prizes and fun. Complimentary food and a cash bar will be available. The casino games will be run by the Sertoma 700 Club of Rochester.

CONFERENCE PLANNING COMMITTEE

Thank you to everyone who helps make this conference a success — and a special thanks to the Conference Planning Committee; without their help, this event would not be possible.

- Derek Lorbiecki
- Kitty Hurley
- Gerry Sjerven
- Andrea Grygo
- Naoko Meyer
- Ashley Ignatius

- Michelle Trager
- Ryan Stovern
- Doug Hansen
- Chad Martini
- Heather Bergen
- Ann Houghton

- Sarah Schrader
- Josh Gumm
- Jacqueline Brost
- Andy King-Scribbins
- Ben Verbick
- Mark Kotz

- Stacey Stark
- Adam Snegosky
- Zeb Thomas
- Jasper Kruggel

JOB FAIR BOARD

Are you an employer with an open GIS position or are you an individual looking for a job in GIS?

A job fair board will be located next to the registration desk at the conference where employers can post job descriptions and individuals can post their résumés. Bring several copies and check the board throughout the conference for updates.

MINNESOTA GIS/LIS CONSORTIUM

1000 Westgate Drive, Suite. 252, St. Paul, MN 55114
Phone: 651-203-7242 • Fax: 651-290-2266
Register for the conference online at www.mngislis.org!

LODGING ACCOMMODATIONS

Rooms are availble at the hotels below. The Hilton Garden Inn is the conference hotel headquarters. Make reservations online or by calling the phone numbers below. You can visit the MN GIS/LIS website at www.mngislis.org and follow the Annual Conference link for more information.

Hilton Garden Inn Rochester Downtown
225 South Broadway
Rochester, MN 55904
Reservations: 507-280-8888
Rates: $102 king room or 2 double room
Cut off date: Sept. 17, 2013.

DoubleTree by Hilton Hotel Rochester, Mayo Clinic Area
150 South Broadway
Rochester, MN 55904
Reservations: 507-281-8000
Rates: $104 king room or 2 double room
Cut off date: Sept. 17, 2013

Holiday Inn Downtown
220 South Broadway
Rochester, MN 55904
Reservations: 507-252-8200
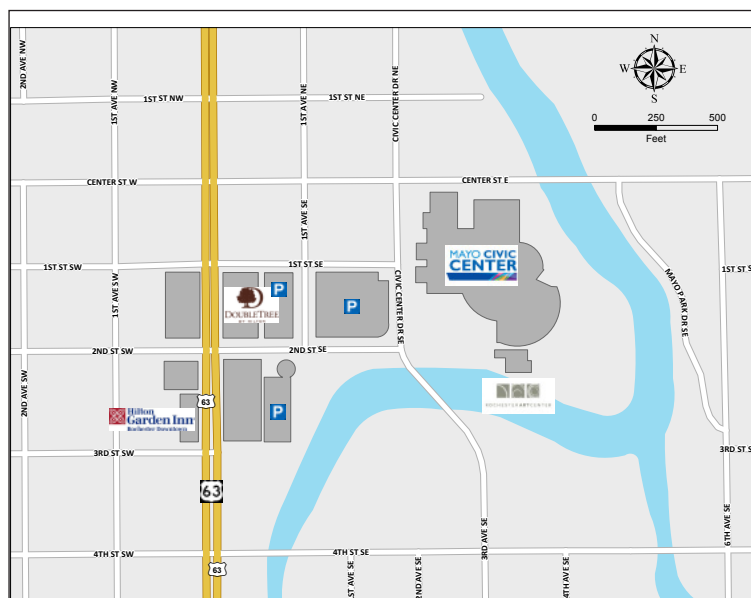Rates: 98$ Double Room
Cut off Date: Sept. 8, 2013

GENERAL INFORMATION

Location: The conference will be held at the Mayo Civic Center in Rochester, Minnesota

30 Civic Center Drive SE
Rochester, MN 55904-3701
Tel: 507-328-2220 or 800-422-2199

Meals: Conference registration includes lunch and refreshment breaks on Thursday and Friday and the vendor reception on Thursday night. Workshop registration includes lunch and refreshment breaks on Wednesday. All conference and workshop attendees are invited to Wednesday evening's welcome reception.

Materials: Conference attendees will receive a copy of the conference proceedings, which will include abstracts for all presentations. Workshop attendees will receive workshop materials for each workshop attended. *The information contained in this program should be considered preliminary and as such, could be subject to change in the final proceedings.*

DIRECTIONS

From Duluth
Follow I-35 S
Continue on I-35E S
At Exit 242 (Downtown St. Paul)
follow signs to US 52 S
Take US 52 S to Exit 56A
Civic Center Dr NW
Continue E on Civic Center Dr
Turn Right on Civic Center Dr NE

From Twin Cities
Take US 52 S to Exit 56A
Civic Center Dr NW
Continue E on Civic Center Dr
Turn Right on Civic Center Dr NE

A big thank you to the staff at Ewald Consulting, who skillfully help manage the MN GIS/LIS Consortium and this conference.

REGISTER ONLINE NOW AT WWW.MNGISLIS.ORG!