

# Interactive Digital Technology Open House

## Moderators

**Andrew Phillips**, *Illinois State Geological Survey, Prairie Research Institute, University of Illinois at Urbana-Champaign*

**Gary Johnson**, *Illinois Water Science Center, U.S. Geological Survey*

## Presenters

**Dee Lund** - *Illinois State Geological Survey, Prairie Research Institute, University of Illinois at Urbana-Champaign*

### ***NEW at the Geospatial Clearinghouse—LiDAR, Water Wells, Orthoimagery and Much More...***

The Illinois Geospatial Data Clearinghouse hosted on the Illinois State Geological Survey website has a wealth of geospatial data from around the State of Illinois. The Clearinghouse has recently had several updates in regards to new data availability and visually in the display and accessibility of the data. Stop by and learn how to access LiDAR data, water well data, orthoimagery and more.

**Phil Graff** - *Illinois State Water Survey, Prairie Research Institute, University of Illinois at Urbana-Champaign*

### ***The Illinois River Decision Support System (ILRDSS)***

Abstract not available at time of publishing

**Carolyn White** - *University of Illinois at Urbana-Champaign*

### ***Resource Management Mapping Service (RMMS): A Tool for Watershed Stakeholders***

Public and governmental watershed stakeholders will find RMMS the GO-TO place for data on water quality issues. RMMS combines data from the Illinois State Geological Survey data clearinghouse (<http://www.isgs.uiuc.edu/nsdihome>) with data published by the Census Bureau, FEMA, ESRI, USDA-NRCS and data created at IDNR and IEPA in one location and in one coordinate system. The user can choose from over 70 data layers to view multiple layers in their web browser. [(IE is the preferred browser in the current version.)]

Over the past two years the IEPA Bureau of Water has expended great effort to expand the number of data layers at RMMS which are created via RMMS, as well as including data from other entities – other state agencies as well as consortiums such as Conservation Easements from NCED. Open the Resource Protection Layers tab at RMMS to see this expanded set of data.

The number of reports the user can generate has also been expanded to reflect the increased number of layers IEPA is now creating at RMMS. These reports can be aggregated at different levels – such as 10 or 12 digit watershed, county, legislative district, Illinois or Kaskaskia River basin, watershed-based plan, Watersheds TMDL, AUID, TMDL Watersheds. The tool to generate these reports is labeled

Public Reports on the tool bar.

A new tool has been added that allows the user to query 305(b) lakes or streams for specific – or a combination of – water contaminants or sources. This tool is labeled Causes/Sources.

The area calculation tool has been revised so that more information is available in the reports.

RMMS provides the user many other tools to assist in decision support and communication. A few of these tools include creating a buffer of a specified length, a drill-down identify tool displaying the attributes of each layer at a given point, finding all records with a specific attribute, annotating a map with text and symbols, saving the map created for inclusion in a document, emailing the map and comments to others.

During the sessions at the Interactive Digital Technologies Open House, we will provide informal demonstrations to help maximize the experience with RMMS to meet your needs.

**Zoe Zaloudek** - *Illinois State Water Survey, Prairie Research Institute, University of Illinois at Urbana-Champaign*

### ***Interactive Technology from the Midwestern Regional Climate Center***

Abstract not available at time of publishing.

**Kingsley Allan** - *Illinois State Water Survey, Prairie Research Institute, University of Illinois at Urbana-Champaign*

### ***Using Augmented Reality (AR) in Scientific Outreach***

Augmented Reality (AR) refers to the creation of a digital layer that appears overlaid onto the real world when viewed through a digital device such as a smart phone, or Google Glass. Marketers are adopting AR, but the scientific community has hardly begun to image the applications and benefits. This exhibit will provide a brief overview of the technology, show the AR enhancements made to a poster, and demonstrate the process associated with creating an AR layer using the Aurasma platform. Anyone who engaged with public outreach and education will find this interesting.

**Joe Konczyk** - *Illinois Environmental Protection Agency*

### ***Illinois' Source Water Protection Program GIS Update***

The 1996 amendments to the federal Safe Drinking Water Act (SDWA) required states to develop and implement a source water assessment program (SWAP). Source water protection (SWP) is a proactive approach to protecting our critical sources of public water supply and assuring that the best source of water is being utilized to serve the public. It involves implementation of pollution prevention practices to protect the water quality in a watershed or wellhead protection area serving a public water supply. Along with treatment, it establishes a multi-barrier approach to assuring clean and safe drinking water to the citizens of Illinois.

Pollution prevention, like preventive medicine, starts with awareness. Thus, source water assessment is the cornerstone essential to the development and implementation of source water protection plans and includes the following:

- Delineating the source water protection area (e.g., watersheds and wellhead protection areas);
- Inventorying potential contamination sources;
- Determining the susceptibility of the source water to contamination
- Providing recommendations to protect the source water; and
- Providing this information to the public.

The Source Water Assessment Program, as implemented by Illinois EPA, will help communities make important decisions about how to protect their drinking water. By working to ensure safe drinking water supplies, the health and economy of the community, as well as the preservation of natural resources, will be greatly improved. In addition, investments in drinking water treatment will be sustained for a longer time period.

**Eric Miller - Tri-County Regional Planning Commission**

### ***Managing Geospatial Data in the Cloud***

ArcGIS Online is a collaborative, cloud-based mapping and GIS platform that lets members of an organization create, share, and access maps, applications, and data. It allows users to create web based maps quickly and without application development (programming) skills. In addition, it provides base map information that can be combined with existing organizational data to provide access to users within and external to an organization. It also provides a powerful mobile component that allows users to access maps and data on phones and tablet devices in the field for data collection projects. TCRPC uses ArcGIS Online to complement and extend its current GIS environment to serve the needs of local government in the region and to provide information to the general public.

**Curt Reynolds - Illinois Department of Transportation**

### ***Demonstration of GIS Data and Functions used by Illinois Department of Transportation Facilities, Offices, and Bureaus***

IDOT uses GIS for various lines of business applications. Web based GIS systems provide information to the traveling public and businesses using roadways for transportation in Illinois. IDOT offices and bureaus statewide use GIS for analysis and visualization of all types of information. GIS is an essential component for managing data and processes for traffic safety, roadway inventory, planning, environment roadway operations, and many other functions within the agency.

During the open house, an IDOT GIS specialist will be available to answer questions and demonstrate some of the GIS data and functions used by IDOT facilities, offices, and bureaus.

**Dennis Latto and José Alarcón - *South Suburban Mayors and Managers Association***

***Green Infrastructure Planning through the South Suburban Mayors and Managers Association  
GIS Atlas***

Abstract not available at time of publishing.