

GIS for Utilities

MEGUG Winter Meeting 2012

Hilton Garden Inn | Bangor, Maine
January 20, 2012

8:30 to 9:00

Registration

9:00 to 9:15

Welcome - Aimee Dubois, MEGUG Chair

9:20 to 9:50

Population Density tools for Natural Gas Pipelines

Michael White, Global Information Systems LLC

Michael White graduated with a BS in 1984 and a MS in 1987 from the University of Maine. He is currently a Surveying Engineer with Global Information Systems LLC in Lexington Kentucky.

Gas transmission lines present unique challenges for GIS. Federal regulations in the US and Canada require gas transmission companies to monitor population density along their corridors as a key component of operational safety. The densities calculated for these Class Location Studies impact nearly every aspect of pipeline operations. This presentation provides an overview of the spatial data and tools used to collect and calculate these population densities.

9:55 to 10:25

Migration from Company Developed GIS to COTS GIS - using ESRI Technology and Telvant

Glenn Gagne, Central Maine Power and
Chuck Gerry, Tilson Technology Management

Glenn Gagne is employed at CMP (Iberdrola USA) for 30 years. Glenn worked in the Engineering Department for 10 years as a control designer for Substations/Hydro Stations. For 6 years Glenn worked in the Distribution Engineering group as a standards designer. For 14 years Glenn Supervised and then became the Manager of the GIS/CADD department at CMP. Currently Glenn is a Project Manager for GIS and Mapping Group providing project support for both Gas and Electric throughout Iberdrola USA with ties to the Global Company Iberdrola Spain.

Chuck Gerry is Director Utilities Practice at Tilson Technology Management in Portland. He is a Senior Consultant and member of Tilson's Wireless and Telecommunication Group, with over 15 years of experience in information technology, marketing, sales and operational support. He is currently working on the smart grid network in Maine.

A strategic, multi-phased solution for the OMS Project which will address immediate AMI specific requirements while preparing for future implementation of the corporate integrated control center strategy:

- Complete replacement across all OPCO's of GIS platform utilizing ESRI ArcGIS technology and web services
- Utilize industry standard electrical model for initial distribution-only conversion and implementation
- Replace Smart Map Viewer (CMP Design) with modern browser-base viewer (SM Web)

- Keep Smart Map OAS logic and interfaces, but rewrite them using Dot Net so the programs can be managed as true services
- OMS enhancements to include: Dynamic Switching, Incident Management, CAIDI/SAIFI calculation of EMS data.

10:30 to 10:45

Break

10:50 to 11:50

Using ArcGIS tools with Water Utilities

Michael Miller, ESRI

Michael Miller is an experienced information technology professional with expertise programming and designing enterprise GIS solutions with Esri software. He has worked at Esri for 10 years, initially supporting a wide of variety of industries ranging from Cadastral to Public Safety. For the past 6 years, Michael has focused on GIS deployments in the water/wastewater industry. Currently serving as the Technical Manager for Esri's Water/Wastewater Practice, Michael is responsible for the technical efforts to create industry specific templates for Esri customers. Michael has specialized experience developing mobile applications and rich internet applications with Flex and JavaScript.

As budgets get tighter, organizations are looking at ways to streamline different workflows around the utility. They are looking at their investment and GIS and asking how they can use that in other areas to increase efficiency. ArcGIS for Water Utilities provides a foundation or a configuration of ArcGIS to expand the GIS in these areas. During this session we will explore and demonstrate the 5 key areas where GIS can modernize a Water Utility and unlock the power of the ArcGIS System.

12:00 to 1:00

Lunch – Sponsored by James W. Sewall Company

1:10 to 1:40

GIS and Outage Management at Bangor Hydro

Steve Severance, Bangor Hydro

Steve Severance has a BS in Electrical Engineering Technology from UMO and is employed by Bangor Hydro.

The presentation will cover the basic requirements needed in a GIS for outage management. It will cover the specific software and processes used by Bangor Hydro. Additionally it will cover the use of other technology that uses spatial data to assist in outage management.

1:45 to 2:15

The Maine Orthoimagery Program

Dan Walters, USGS

Dan Walters, US Geological Survey, chaired the committee which developed the program recommendations. Representatives from the following Stakeholder organizations served on the committee: Town of Bethel, ME, DOT, Town of York, Maine Forest Service, City of Rockland, ME, Office of GIS, James W. Sewall Company, Northern Maine Development Corporation and the City of Bangor. Meetings with county commissioners are taking place across the state to explain the program and to find out if the counties are interested in partnering with state and federal sources to fund the base program. Education BS degrees from Penn State University in Forest Science and Agronomy, BS degree in Civil Engineering from University of Rhode Island, MS degree in Environmental Chemistry from University of Rhode Island Experience Program Manager Rhode Island GIS from 1988 to 1990 GIS Administrator, Maine Office of GIS 1990 to 2007 Geospatial Liaison, USGS, 2007 to present.

The Maine Geolibrary has developed a program that will leverage federal, state, and county funding to provide a base program of high resolution orthoimagery (aerial photography process to have the characteristics of a map) on an ongoing, and statewide basis. Groups of local organizations can leverage the program further through "buy ups" to higher resolution products if they choose. The Geolibrary's goal is to establish a program that will provide this valuable data resource at a lower per square mile cost, at higher resolution and on a more regular schedule than could be accomplished by ad hoc projects of limited geographic area and funding.

2:20 to 2:35

Break

2:40 to 3:40

Visual Assessment of Windpower

Judy Colby-George, Spatial Alternatives

Danielle MatKoskey, Terrence J DeWan and Assoc

Judy Colby-George formed Spatial Alternatives ten years ago with the goal of helping communities use GIS technology to enhance public participation in planning issues. She has extensive experience working with municipal and environmental GIS application. Judy has specialized in using GIS to communicate land use planning issues in a variety of forums. Spatial Alternatives provides full service GIS consulting, from data creation and maintenance to designing public participation processes with clients, to training and software customization.

Danielle Matkoskey began working for Terrence J DeWan & Associates (TJDA) as an intern while attending West Virginia University. She completed her BS in Landscape Architecture there and returned to work full time at TJDA in 2007. Danielle's experience includes computer generated modeling, photo-simulations, rendering, assisting with visual impact assessments, site planning and planting design.

This presentation will show the importance of visual assessment and the multiple tools used to create both good data and visually appealing output. We will look at Maine Office of GIS data, Arc GIS Model Builder, Global Mapper, Wind PRO, and Google Earth as tools to provide various parts of the whole analysis.

3:45 to 4:00

Wrap-up

