Central Pennsylvania GIS Day 2016

Wednesday, November 16, 2016 HACC Midtown 2 Campus 1500 N. 3rd Street, Harrisburg, PA

8:00 – 4:00pm Sign-in Area Open 2nd Floor Main stairway 9:00 – 2:00pm Soul Burrito Food truck in Faculty Lot 9:30 – 4:00pm Exhibitor Hall Open in Room 206



10:00-10:45am Welcome and Keynote Speaker at Midtown Cinema located at 250 Reily Street James L. Querry Jr. – GeoDesign Director, Philadelphia University

| Concurrent Sessions 1- 11:00 – 11:50pm | | | | |
|--|---------------|--|--|--|
| Room | Time | Title | | |
| 202 | 11:00-11:50am | Using the nation's vegetation data, models and descriptions for land management and GIS, The Nature Conservancy (Randy Swaty) | | |
| 211 | 11:00-11:20am | Working with Survey 123, GeoDecisions (Timothy Cooley) | | |
| 211 | 11:30-11:50am | Pictometry (Steve Benner) | | |
| 220 | 11:00-11:50am | Building StoryMaps Using the New CascadeTemplate, PA Department of Environmental Protection (Carrie Tropasso) | | |
| 226 | 11:00-11:20am | Center for Land Use and Sustainability: High-Resolution Land Cover Mapping of the Chesapeake Bay Watershed and Delaware River Basin, Shippensburg University (Dr. Scott Drzyzga) | | |
| 226 | 11:30-11:50am | Preparing for the GISP Exam, Harrisburg Area Community College (Nicole Ernst) | | |

11:00- 1:00pm State Police Mobile Command Center outside exhibit in Faculty Lot

11:00- 1:00pm National Geographic Initiative Map of Pennsylvania, PA Alliance for Geographic Education

in 2nd Floor Back Hallway near Room 202

| Concur | Concurrent Sessions 2- 12:00 – 12:20pm | | | | |
|--------|--|---|--|--|--|
| Room | Time | Title | | | |
| 202 | 12:00-12:20pm | Cartographic Resources of the PA State Archives (Jonathan Stayer) | | | |
| 211 | 12:00-12:20pm | The New PASDA Site, Applications, and Services, PA Spatial Data Access (Maurie Kelly) | | | |
| 220 | 12:00-12:20pm | An Introduction to GeoJSON, Cumberland County GIS / PAMAGIC (Patrick McKinney) | | | |
| 224 | 12:00-12:20pm | Insights for ArcGIS, Esri (Krithica Kantharaj) | | | |

12:30 – 1:00pm Visit the Mobile Command Center, Big PA Map & Grab Some Lunch at the food truck

1:00 – 1:30 pm Exhibitor Hall Room 206– Lightning Talks

| Concurrent Sessions 3- 1:30 – 1:50pm | | | | |
|--------------------------------------|-------------|--|--|--|
| Room | Time | Title | | |
| 202 | 1:30-1:50pm | CAT Bus Stop Curb Ramp GIS Inventory, Tri-County Regional Planning Commission (Tom Edinger & Alexa Korber) | | |
| 220 | 1:30-1:50pm | PennDOT's Traffic Signal Asset Management System, Michael Baker International (Steve Gault) | | |
| 224 | 1:30-1:50pm | Species Distribution Modelling for Pennsylvania Agriculture, PA Department of Agriculture (Bradley Austin) | | |
| 226 | 1:30-1:50pm | Building a GeoMentor Community in Central Pennsylvania, Harrisburg Area Community College (Nicole Ernst) | | |

| Concurrent Sessions 4- 2:00 – 2:50pm | | | | |
|--------------------------------------|-------------|---|--|--|
| Room | Time | Title | | |
| 202 | 2:00-2:50pm | NextGen 9-1-1, What is it?; What does it have to do with GIS?; and Who is involved in PA? Lycoming County (Barry Hutchins) | | |
| 220 | 2:00-2:50pm | Automating Workflows with ArcPy, Cumberland County GIS / PAMAGIC (Patrick McKinney) | | |
| 224 | 2:00-2:50pm | ArcGIS Pro, Esri (Krithica Kantharaj) | | |
| 226 | 2:00-2:50pm | DEP Oil and Gas Program GIS Endeavors: Solving Regulatory Matters that Have Spatial Components, PA Department of Environmental Protection | | |

| Concurrent Sessions 5- 3:00 – 3:50pm | | | | |
|--------------------------------------|-------------|---|--|--|
| Room | Time | Title | | |
| 202 | 3:00-3:50pm | PA State Geospatial Coordinating Board - What is it? (Stephen Aux) | | |
| 211 | 3:00-3:50pm | DEP BOGM Legacy Well and Emissions Study, PA Department of Environmental Protection | | |
| 220 | 3:00-3:50pm | Getting Started with Survey 123, Harrisburg Area Community College | | |
| | | (Kate Bresaw, Chelsea Gordon, Andrew Sechrist) | | |
| 224 | 3:00-3:50pm | Opensource GIS Stack, Richtechpro (Richard Augenti) | | |

^{4:00 – 6:00}pm GIS Day Networking Mixer at Café 1500 located on the corner of 6th Street and Reily Street.

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8:00am-4:00pm

Sign-in Area Open 2nd Floor Main Stairway

9:00am- 2:00pm

Soul Burrito food truck in faculty lot

9:30am-4:00pm

Exhibitor Hall Open in Room 206

10:00am-10:45am - Welcome and Keynote Speaker

Midtown Cinema located at 250 Reily Street

Welcome: Dr. John J. "Ski" Sygielski – President, Harrisburg Area Community College

Keynote Speaker: James L. Querry Jr. – GeoDesign Director and Associate Professor, Philadelphia University

Biography: Jim Querry is a Senior Geographic Information Systems (GIS) executive, educator and professional landscape architect with over 25 years of experience in a broad range of related disciplines including GIS, landscape architecture, civil engineering, planning, and information technology. He has extensive experience managing complex programs and projects requiring strong leadership, problem solving, design, planning, communication and organizational skills. Jim Querry directs the MS in GeoDesign program within the Philadelphia University College of Architecture and the Built Environment (CABE). He oversees program content, development, growth, and direction. He has established and directed studio projects, manage faculty, collaborate with other Philadelphia University programs, and has represented the University at local, regional, national and international events. Oversee implementation of University-wide enterprise vision for GIS and GeoDesign aimed at making PhilaU a spatial university. He also is involved in developing curriculum and teaches in the accredited undergraduate program in Landscape Architecture also within the University's College of Architecture and the Built Environment.

Abstract: "Visualizing and Measuring the Success of Sustainable Urban Design in 3D"

The use of advanced 3D geospatial technologies (GIS) to help solve complex urban design and planning problems (Geodesign) offers a unique opportunity to pursue holistic, ethical, measurable and sustainable design solutions. GIS, traditionally used for mapping and analysis, has evolved in new ways that make it invaluable for designers and community stakeholders to better understand and test design scenarios that are economically viable, environmentally responsible, socially equitable, and aesthetically pleasing. This is an important part of the global mission of the United Nations' Agenda for the 2030 Goals for Sustainable Development and at Philadelphia University's College of Architecture and the Built Environment, we are working hard to advance the application of geospatial technologies, particularly in 3D, to better understand, visualize, and measure potential changes in the urban landscape.



11:00am-1:00 pm

State Police Mobile Command Center

Outside Exhibit in Faculty Lot

Abstract: The PA State Police Mobile Command Post was purchased in 2011. It is just short of 40 feet long and 11.6' in height. The interior is configured into three sections: a forward command/conference area, a center equipment control and hospitality area (includes microwave, coffee maker, refrigerator) and a rear three position dispatch area. The MCP is equipped with cellular and satellite communication services. The MCP is also equipped with Aviation video down link capabilities which enables us to receive video feeds from our PSP Aircraft in high definition. The MCP is utilized mainly in larger scale type events where communications are needed. Some examples of events we have participated in include: Hurricane Sandy Relief Effort in New Jersey, Baltimore City, MD. Support Detail, and most recently the PAPAL Visit in Philadelphia, PA.

National Geographic Initiative Map of Pennsylvania, PA Alliance for Geographic Education

2nd Floor Back Hallway near Room 202

Abstract: The National Geographic Giant Map of Pennsylvania is a 22 x 14 ft. floor map created by National Geographic and donated to the PA Alliance for Geographic Education for the purpose of facilitating the instruction of geographic concepts related to Pennsylvania in an exciting, interactive way. With the Pennsylvania Giant Map, students and adults can develop spatial thinking skills, gain a new perspective on the geography of our state, and engage with a huge map! The National Geographic Giant Map of PA is free to borrow for any school, museum, or non-profit organization.

11:00am-11:50 pm Concurrent Sessions 1

Using the nation's vegetation data, models and descriptions for land management and GIS

Presenter: Randy Swaty, The Nature Conservancy

Room: 202 – 45 min presentation

Abstract: Beyond what the name suggests the nation's LANDFIRE program characterizes vegetation past and present so you can manage for the future. Used to assess landscapes, model wildlife habitat, teach GIS and understand our ecosystems LANDFIRE delivers more than 2 dozen spatial datasets, 1, 1700 ecosystem descriptions and models and support to boot. I'll explore some of the key products, hopefully inspiring you to give them a go for your next land management or GIS exercise!

Building StoryMaps Using the New Cascade Template

Presenter: Carrie Tropasso, PA Department of Environmental Protection

Room: 220 – 45 min presentation

Abstract: Story Maps combine intelligent web maps that incorporate text, photos, and interactive maprelated functions. ESRI has provided many templates to easily and quickly deploy Story Maps, and they allow you to download all of the code for a more customized experience. This session will highlight all of the steps necessary to create and customize a story map from scratch using the new Cascade template. This format is especially useful for annual reports, general websites, and overall stories and sharing information.

11:00am-11:20 am

Working with Survey 123

Presenter: Timothy Cooley, GeoDecisions

Room: 211 – 20 min presentation

Abstract: Survey123 for ArcGIS is a mobile data collection app from Esri that has an emphasis on smart responsive forms. This presentation will highlight the differences, both positive and negative, between Survey123 and Collector, general use and setup, and then ways to customize and expand upon the app.

The Center for Land Use and Sustainability: High-Resolution Land Cover Mapping of the Chesapeake Bay Watershed and Delaware River Basin

Presenter: Dr. Scott Drzyzga, Shippensburg University

Room: 211 – 20 min presentation

Abstract: The Center for Land Use and Sustainability (CLUS) at Shippensburg University is a collaborative effort to develop science-based solutions to sustainability challenges. One of the CLUS's current projects is the Delaware River Basin (DRB) Project, which is developing high-resolution land cover products; evaluating population, employment, and urban growth scenarios; and planning for water resource challenges in the basin. The CLUS/DRB Project recently released a high resolution (1m x 1m) LiDAR-based land cover dataset for all the counties that touch the Delaware River and the Chesapeake Bay watersheds. Twelve land cover classes were mapped. The primary sources used were best-available LiDAR data, best-available leaf-off orthoimagery, and 2013 leaf-on orthoimagery. Ancillary breaklines for roads and hydrology were used to augment land-cover classification and mapping. These data represent the most detailed and consistent land cover map for the portion of Pennsylvania that intersects the Delaware River and Chesapeake Bay watersheds. The data for Delaware and Pennsylvania can be downloaded now from PASDA. The data for New Jersey and New York are coming soon.

11:30am-11:50 am

Increasing GIS Use in PA Counties by Leveraging Pictometry

Presenter: Steve Benner, Pictometry

Room: 211 – 20 min presentation

Abstract: Over 40 Pennsylvania counties use Pictometry imagery in Assessment, 9-1-1, GIS, and – increasingly – in departments that are non-traditional users of imagery and GIS. We'll discuss how PA

counties are using Pictometry oblique imagery and the Connect platform to extend the use of imagery - and GIS data – into departments throughout the courthouse and in the field.

11:30am-11:50 am

Preparing for the GISP Exam

Presenter: Nicole Ernst, Harrisburg Area Community College

Room: 226 – 20 min presentation

Abstract: The GISP certification process now includes an exam and many are eager for a study guide to help prepare for the exam. This session will discuss a Personal Assessment Tool that was developed by the National Geospatial Center for Excellence and how it can be used to identify strengths in weaknesses so that test takers know where to focus their attention. Additionally, this session will discuss the overall results of the Personal Self Assessment.

12:00pm-12:20 pm Concurrent Sessions 2

Cartographic Resources of the PA State Archives

Presenter: Jonathan Stayer, PA State Archives

Room: 202- 20 min presentation

Abstract: Among its 250 million pages of records, the Pennsylvania State Archives in Harrisburg holds thousands of maps. In addition to a significant map collection of over 1000 items, the Archives houses warrantee township maps showing the relative locations of original land warrants, Melish-Whiteside maps of early-nineteenth-century county and township boundaries and roads, and drafts of the proposed routes and surrounding terrain of the Pennsylvania Main Line canal. Other transportation-related cartographic materials include original surveys of state roads and turnpikes, 1706-1873, and maps and plans of the Pennsylvania Turnpike. The W.P.A. survey of Pennsylvania's frontier forts and trails included a collection of historic map copies as part of its documentation efforts. Digital copies of some of these resources are available on the Archives website (www.pastatearchives.com). Using that site, a thirty-year veteran of the staff will describe these cartographic materials and provide instruction for accessing them online.

The New PASDA Site, Applications, and Services

Presenter: Maurie Kelly, PASDA

Room: 211 – 20 min presentation

Abstract: Pennsylvania Spatial Data Access (PASDA--http://www.pasda.psu.edu) is the official geospatial data clearinghouse for the Commonwealth of Pennsylvania. This year, PASDA marked its 20th year of providing free access to data and services to the agencies and citizens of Pennsylvania. PASDA currently houses more than 60,000 data sets including data from PA DEP, PennDOT, PA Department of Environmental Protection, PA Fish and Boat Commission, PA Game Commission, and more as well as data from federal, local, and non-profit organizations. This presentation will feature a

live demo of the new PASDA website, its latest features, data, and applications. Attendees will have an opportunity to interact with the PASDA staff, ask questions, and provide feedback.

An Introduction to GeojSon

Presenter: Patrick McKinney, Cumberland County GIS / PAMAGIC

Room: 220 – 20 min Presentation

Abstract: There are many ways to share geographic data across the web. GeoJSON is an increasingly popular option for spatial databases, web APIs, and open data platforms. GeoJSON objects can be of the same geometry type, or a mix of geometry types (point, line, and polygon). This session will provide a broad introduction to the GeoJSON data format, with tips on how to use it in web applications.

Insights for ArcGIS

Presenter: Krithica Kantharaj, Esri

Room: 224- 20 Minutes

Abstract: Insights for ArcGIS brings fast, powerful data discovery to everyone. It allows you to Explore, Analyze, Iterate, Use maps, charts, and tables to visualize, analyze, and tell your story like never before. Insights blends spatial and non-spatial data, so you're free to bring in spreadsheets, enterprise databases, and ArcGIS data. Come see what Insights for ArcGIS can do for you.

12:30pm-1:00 pm Break

Visit the GIS Exhibit Hall, Big PA Map, Mobile Command Center & Grab Some Lunch at the food truck outside in faulty lot

1:00pm -1:30 pm Lightning Talks

Exhibitor Hall Room 206

Exhibitors will talk for a few minutes about their latest work.

1:30pm-1:50 pm Concurrent Sessions 3

CAT Bus Stop Curb Ramp GIS Inventory

Presenters: Tom Edinger and Alexa Korber, Tri-County Regional Planning Commission

Room: 202-20 min presentation

Abstract: Tri-County Regional Planning (TCRPC) created a CAT bus stop curb ramp inventory to identify ramp issue areas in the Harrisburg region for potential improvements. The main goal of the inventory is to help provide Capital Area Transit (CAT) bus riders safe and efficient curb ramp access to bus

stops. Google Street view and field views served as the basis for GIS data collection using both Esri's ArcGIS Online web application and Collector for ArcGIS mobile application. The presentation will review data collection and analysis efforts.

PennDOT's Traffic Signal Asset Management System (TSAMS)

Presenter: Steve Gault, Michael Baker International

Room: 220 – 20 min presentation

Abstract: PennDOT has created a new web application as a consolidated resource for traffic signal information with the goal of improving management of traffic signals. Data for about 8700 traffic signals on state roads has been prepopulated including geo-coordinates for every signal housing, structure, and sign associated with a traffic signal. The system is available to municipalities, planning partners, contractors, and consultants free of charge. The presentation will focus on what information is available and how to access the information within TSAMS.

Species Distribution Modelling for Pennsylvania Agriculture

Presenter: Bradley Austin, Ph.D., PA Department of Agriculture

Room: 224 – 20 min presentation

Abstract: Invasive plants and insects present numerous challenges and potential impacts to the health and prosperity of various agricultural products within the Commonwealth of Pennsylvania. This discussion covers attempts to model current and projected distributions of invasive species in support of Department of Agriculture operations. Through the use of remotely sensed data, vegetation indices, and other spatial data sets, this presentation shows how GIS can provide support to biological field surveys and add depth to existing knowledge of known invasive species.

Building a GeoMentor Community in Central Pennsylvania

Presenter: Nicole Ernst, Harrisburg Area Community College

Room: 226 – 20 min presentation

Abstract: In 2014 as a result of President Obama's ConnectEd initiative, Esri provides ArcGIS Online for Organizations (AGOL) for free for K-12 institutions. To support this initiative, the Association of American Geographers (AAG) started the GeoMentor program which was designed to assist K-12 with implementing ArcGIS Online. This session will provide an overview of the ConnectEd initiative and the GeoMentor program with the hope of establishing and building a strong GeoMentor community in central Pennsylvania to help grow the next generation of geospatial professionals.

2:00pm-2:50 pm Concurrent Sessions 4

NextGen 9-1-1, What is it?; What does it have to do with GIS?; and Who is involved in PA?

Presenter: Barry Hutchins

Room: 202 – 45 min presentation

Abstract: Next Generation 9-1-1 is being developed and implemented to meet the goal of ensuring that everyone has access to emergency services, "anytime, anywhere, from any device". This presentation will present a high level overview of how NextGen 9-1-1 is intended to function and will contrast how the current 9-1-1 system works vs. the vision of NG9-1-1. Included in the overview will be how GIS fits into NG9-1-1.

There are many facets to NG9-1-1; however this presentation will primarily focus on the GIS element and how it will impact local municipalities, counties, and state agencies.

Representatives from the County GIS Professional Association and the State Geospatial Coordinating Board will also be on hand to provide an update on their respective activities in regard to NG9-1-1.

Automating Workflows with ArcPy

Presenter: Patrick McKinney, Cumberland County GIS / PAMAGIC

Room 220 – 45 min workshop

Abstract: Do you find yourself completing the same desktop GIS tasks over and over again? From replicating data to rebuilding cached map services, regularly occurring tasks can be automated with Python scripting and Windows Task Scheduler. In this workshop, you'll learn the basics of the ArcPy Python site package for ArcGIS, how to create a scheduled task, and some general tips for writing Python scripts. Cumberland County has been using these techniques to automate weekly data replication, rebuild tiles for cached services, and rebuild address locators used in web applications. This session is being sponsored/provided by PAMAGIC.

ArcGIS Pro

Presenter: Krithica Kantharaj, Esri

Room: 224 – 45 min presentation

Abstract: ArcGIS Pro has reinvented desktop GIS and transforms the way you work as a GIS professional. ArcGIS Pro allows you to store multiple data views- maps, scenes, layouts, and more- in a single project and keep them open at the same time. It also responds contextually to your work. Tabs on the ribbon change depending on the view and data you are working with. Come see an overview of the main components of the ArcGIS Pro user interface- the ribbon, views, and panes- and their interactions.

DEP Oil and Gas Program GIS Endeavors: Solving Regulatory Matters that Have Spatial Components

Presenters: Stewart Beattie, Lindsay A. Byron, Seth Pelepko and Harry Wise, PA Department of Environmental Protection

Room: 226 –45 min presentations

Abstract: The Bureau of Oil & Gas Planning and Program Management, Well Plugging and Subsurface Activities Division manages a significant number of regulatory issues that require advanced statistics and spatial analysis. Current key initiatives include an evaluation of resources available to successfully

administer the Abandoned and Orphan Well Plugging Program (Plugging Program), the development of risk assessment tools to facilitate implementation of a recent regulatory change aimed at mitigating the occurrence of hydraulic fracturing communication incidents with offset wells (Area of Review or AOR), and spatial analyses designed to better understand what factors control induced seismicity.

Cost control during plugging projects enables DEP to carefully manage budgets and complete key projects even when funding levels for the Plugging Program are less than favorable. Multivariate statistics have been used to assess plugging contract data assembled over a ten-year period to understand what factors control costs and the spatial distribution of those factors. These analyses have provided insight during the project development phase, enabling DEP to utilize GIS while working with Commonwealth Financing Authority Orphan and Abandoned Well Plugging (CFA OAWP) Program grant applicants to package wells together in a way that ensures a low likelihood of grant-ceiling overruns.

The intersection of legacy and modern development in Pennsylvania brings with it hydraulic fracturing communication risks, or incidents when a stimulation of a new well is expressed by fluid incursion at an offset well. In some cases these incidents result in water supply impacts or other safety issues. The risk of communication, however, is not equal across the footprint of the Appalachian basin in the state and is driven by historical patterns of oil and gas development. DEP has completed GIS analyses to best understand the distribution of risk, both laterally and vertically in support of the AOR regulation.

Finally, conversations related to the top of induced seismicity, or tectonic earthquakes triggered by human activities inclusive of hydraulic fracturing and deep well waste injection, are prevalent in certain areas of oil and gas development. Scientific studies have revealed a connection between both hydraulic fracturing and waste disposal and earthquake activity at magnitudes that can not only be felt at the surface, but in some cases have the potential to cause structural damage. Although no induced seismic events above the level of microseismicity (M 3.0) have been noted in Pennsylvania, and only one documented event associated with hydraulic fracturing has been recorded in the state, DEP and its research partners (DCNR and the Pennsylvania State University) have been taking steps to upgrade the commonwealth's seismic monitoring network. Further, DEP has begun to evaluate portions of the Appalachian basin with regard to induced seismic potential using GIS.

3:00pm-3:50pm Concurrent Sessions 5

PA State Geospatial Coordination Board- What is it?

Presenter: Stephen Aux, PA Department of Conservation and Natural Resources

Room: 202- 45 min presentation

Abstract: The State Geospatial Coordinating Board is established to provide advice and recommendations to the Governor and the citizens of this Commonwealth on geospatial issues and provide uniform data standards, coordination and efficiency in geospatial policy and technology issues among Federal, State and local government agencies, academic institutions and the private sector.

DEP BOGM Legacy Well and Emissions Study

Presenter: Stewart Beattie, Lindsay A. Byron, Seth Pelepko, PA Department of Environmental Protection

Room: 211 – 45 min presentation

Abstract: The Bureau of Oil & Gas Planning and Program Management, Well Plugging and Subsurface Activities Division is conducting a study to assess Agency legacy oil and gas well plugging liability.

Oil and gas development has been ongoing in Pennsylvania for over 150 years. Regulatory standards for the industry have evolved with technological advancements and environmental interest. Materials and techniques used for well plugging in the past are inadequate by today's standards. Additionally, because oil and gas development was taking place for nearly a century prior to permitting requirements enacted in 1955, an estimated 200,000 abandoned wells are yet to be accounted for in the state.

DEP Oil and Gas Staff have analyzed and evaluated the integrity of a random selection of abandoned, orphan, and plugged conventional wells. The study aims to identify any potential issues with the integrity of plugged wells with regard to the date plugged, well type (oil, gas, other), the location of the well, and whether the well was plugged by industry or the DEP Plugging Program. The study also aims to identify if there are any potential methane emission issues from abandoned, orphan and plugged wells. The spatial components of this study leant itself to GIS to help develop this study.

It is anticipated that the results of this study will provide insight into any potential greenhouse gas implications associated with methane emissions from legacy wells, and assist Oil and Gas staff in identifying any needed changes in plugging regulations. Agency plugging liability will also be better quantified as a result of this study, which will allow bonding amounts and permit surcharges to be adjusted commensurate with risk.

Getting Started with Survey 123

Presenters: Kate Bresaw, Chelsea Gordon, Andrew Sechrist, Harrisburg Area Community College

Room: 220–45 min presentation

Abstract: This demo and workshop will provide an overview of Survey 123 and how it applies to MS4 asset mapping. Participants will have the opportunity to create their own survey.

OpenSource GIS Stack

Presenter: Richard Augenti, Owner & Senior Technologist at Richtechpro

Room: 224–45 min presentation

Abstract: This presentation will provide attendees with a high overview of the OpenSource GIS Stack which will mainly focus on the Geospatial Web Server and OpenSource libraries used for application development. We will cover solutions for more advanced developers and provide a review of solutions for non-developers and beginners. This is an excellent seminar for those looking to get a compressed explanation of what OpenSource GIS is all about and how to get started.

4:00pm-6:00pm

GIS Day Networking Mixer at Café 1500 located on the corner of 6th Street and Reily Street.

Exhibitors

Esri

Harrisburg Area Community College

PA Department of Conservation and Natural Resources (DCNR)

PA Department of Environmental Protection (DEP)

PA Historical Museum Commission (PHMC)

PA State Archives

PA Office of Administration (OA)

Pennsylvania Turnpike Commission

Commonwealth of PA, Department of Corrections

PA Alliance for Geographic Education

PAMAGIC

Pennsylvania Spatial Data Access (PASDA)

The Nature Conservancy, Pennsylvania Chapter (TNC)

Tri-County Regional Planning Commission

County GIS Professionals Association of Pennsylvania

Herbert, Rowland & Grubic, Inc.

McCormick Taylor

Michael Baker International

GeoDecisions, A Division of Gannett Fleming

Precision Laser & Instrument, Inc.

Pictometry

Wallace Montgomery

GIS Day Planning Committee

Nicole Ernst, co-chair, Harrisburg Area Community College

Rachel Ralls, co-chair, The Nature Conservancy

Noel Strattan, Pennsylvania Historical and Museum Commission

Stewart Beattie, Pennsylvania Department of Environmental Protection

Dan Egan, Pennsylvania Office of Administration

Bruce Fields, Esri

Sarah Gettys, Pennsylvania Department of Agriculture

Maurie Kelly, Penn State University, PASDA

Zalak Patel, Pennsylvania Department of Environmental Protection

Robin Wallace, Harrisburg Area Community College

Emily Fox - Harrisburg Area Community College

Joyce Thompson – Lehigh Carbon Community College

Kristin Byers - PA Alliance for Geographic Education

Dan Snyder - Michael Baker International

Matthias Miziorko - Montgomery County, MD Office of Emergency Management