



PASDA

PENNSYLVANIA SPATIAL DATA ACCESS

The Pennsylvania Geospatial Data Clearinghouse

Pennsylvania Data Access
PASDA
2019-2020 Annual Report

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Completed

by

Maurie Caitlin Kelly

Penn State Institutes of Energy and the Environment

The Pennsylvania State University

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OVERVIEW

Pennsylvania Spatial Data Access (PASDA—<http://www.pasda.psu.edu>), the official public geospatial data clearinghouse for the Commonwealth of Pennsylvania marked its 25th year in 2020. PASDA, which has grown from a small website offering 35 data sets in 1995 to the expansive user-centered open data portal that it is today, has become a staple of the GIS community in Pennsylvania.

PASDA is a cooperative project of the Governor's Office of Administration, Office for Information Technology, and Penn State Institutes of Energy and the Environment of the Pennsylvania State University. Funding and support is provided by the Pennsylvania Office for Information Technology. Penn State provides significant contributions to PASDA including system administration support and infrastructure from the Institute for CyberScience and the College of Earth and Mineral Sciences.

PASDA was developed as a service to the citizens of the Commonwealth of Pennsylvania. The purpose of PASDA is to serve as the Commonwealth's comprehensive and coordinated open geospatial data portal that provides free public access to geospatial data and information by, for, and about the Commonwealth of Pennsylvania.

PASDA provides access to credible and authoritative source data. Maintaining PASDA as a coordinated and comprehensive open data portal eliminates the creation of Data Silos that can frustrate and complicate public access to data.

One of the primary purposes of PASDA is to facilitate data sharing in a streamlined environment, making the process fast and easy for data sharing stakeholders. Any state, local, or federal government, non-governmental agency, or academic institution can freely share its geospatial data through PASDA. PASDA serves as Pennsylvania's node on the NSDI and works at the national level to ensure that we meet national and international standards for metadata and data delivery. PASDA provides access to thousands of data files, terabytes of data, and hundreds of Internet Map Services, Google Earth KML files, metadata, mapping applications, and other information like guides and tutorials.

Users come from a broad spectrum of organizations and backgrounds, from teachers and citizens to businesses and government agencies--PASDA provides free access to data, applications, and customization tools to meet the needs of every user.

PASDA saw an increase of use in almost every sector driven in part by factors such as Marcellus Shale exploration, environmental conservation, economic development initiatives, expanded use of geospatial data in universities, non-profits, and the private sector, and the increased interest from average citizens who are able to access geospatial information via PASDA's data previewer and KML files without the need for specialized GIS software.

The PASDA staff include:

- Maurie Kelly, Director
- Ryan Baxter, Information Technology Coordinator
- James Spayd, Database Systems and Data Specialist
- Scott Dane, Data Manager

PASDA Services

PASDA provides a number of key services to the Commonwealth. For more detail, please see Appendix A at the end of this report.

PASDA services include:

- Data Storage
- Data Management and Curation
- Metadata Development
- Metadata Training
- Data Search and Retrieval
- Data Download (in multiple formats)
- Map Services/APIs/KMLs
- Data Preservation and Archiving
- Online Mapping Apps
- Data Previewer
- PA Imagery Navigator
- PA Atlas
- PA Mine Map Atlas
- User Support
- Offline Data Access
- Integration with Additional Resources

The Keystones of PASDA

The success of PASDA is based on a long-term vision that incorporates the ideas of free access to data, outreach, and community service. The keystones in the success of the program are:

- **Collaboration**--PASDA understands that collaboration among the geospatial community benefits everyone in the Commonwealth. Collaboration saves money, time, and makes the most of the limited resources of data providers.

- **Cooperation**--PASDA cooperates with all levels of government, non-profits, academia, business, and citizens to support the geospatial data infrastructure and access to data.
- **Innovation**—PASDA continues to be the leader in geospatial data portal operations and services.
- **Continuity**--PASDA works with data providers to ensure continuity of data access and storage.
- **Active Engagement**--PASDA engages the geospatial community to foster understanding and data sharing.
- **Efficiency**--PASDA's streamlined processes make data sharing fast and easy for our partners.
- **Free Access**--PASDA provides data storage, data access and retrieval, and metadata services free of charge.
- PASDA will continue to provide free storage of geospatial data, as well as build partnerships that enhance ease of access and benefit the data provider, and to develop data access resources and innovative tools to enhance the use and benefits of geospatial data for all citizens of the Commonwealth and geospatial community.
- The data made available through PASDA is provided by our data partners to encourage the widespread sharing of geospatial data, eliminate the creation of redundant data sets, and to further build an inventory (through the development and hosting of metadata) of available data relevant to the Commonwealth.
- PASDA serves as a resource for locating data throughout the Commonwealth through its data storage, interactive mapping applications, and metadata/documentation efforts.

PASDA Stats

In the past year, more than **1.8 million** files were downloaded from the PASDA FTP site; while usage on the entire site topped **205 million** hits from over **4 million** visitors. The PASDA Internet Map Services and applications were accessed almost **186 million** times. The Pennsylvania Imagery Navigator, an application used for viewing and downloading aerial photography, topographic data, DEMs, and LIDAR was accessed almost **7.9 million** times in FY 2019/2020. The Pennsylvania Mine Map Atlas service which is an application that provides users with both viewing and downloading capabilities for 100,000 underground mine maps was accessed over **6.1 million** times.

The statistics this year show an increasing use of data and map services and a dramatic increase in the use of long time data providers. **The statewide imagery cached serviced was hit over 48 million times.** The DEP map service **more than 8.8 million** views, PennDOT mapservice almost **11 million views**, the PA Game Commission received **14.9 million** hits and the PA Fish and Boat Commission with **1.3 million views**.

PASDA FY 2019/2020 Activities

PEMA Imagery

The PEMA Statewide Aerial Imagery Program continued throughout 2019/2020. There were 31 deliveries from Quantum Spatial to Penn State which conveyed 80 partial or full county data deliveries. The PASDA team acquired 6 large WD external drives to store data, 20 2TB external drives to ship data, and 3 128GB USB drives to ship partial data. There were 83 full or partial shipments from Penn State to counties. In addition, one of the challenges of the project was identifying who should receive the data. Using information we had at PASDA and some information from PEMA, the team was able to create a full, up to date list of county contacts who should receive the data (see excel spreadsheet for complete list). Some counties received a delivery to the 911 office and the GIS office. In many counties, the GIS program was also the 911 program so only one delivery was required to meet their needs. A special request was filled for Luzerne 911, which included Luzerne County plus an expanded area into surrounding counties and therefore included a large number of tiles plus seven sets of county mosaics.

Data received: Allegheny, Franklin, Cameron, McKean, Elk, Philadelphia, Monroe, Washington, Perry, Clearfield, Cambria, Bucks, Northampton, Montgomery, Lancaster, Lebanon, Lehigh, Schuylkill, Carbon, Columbia (partial), Luzerne (partial), Northumberland counties.

PA GeoBoard

PASDA continued to be an active member of the PA GeoBoard in 2019/2020. PASDA supported the development of the Annual Report of the GeoBoard by contributing both content and design support. PASDA staff also served as members of all of the task forces and several of the working groups and subcommittees including: Governance Task Force, Data Task Force, Services Delivery Task Force, and Elevation Working Group.

PASDA staff continued to support and update the PA Parcel Mapping service. PASDA staff also worked with the Services Task Force to encourage sharing among state and county entities. The chair of the STF, Laura Simonetti, and PASDA staff contacted and met with many counties during FY 19/20 including: Franklin, Mercer, Montgomery, Lebanon, Washington, Venango, Cambria, Elk, Berks, McKean, Northumberland, Lehigh, Bedford, Fulton, Somerset, Fayette, Potter, Susquehanna, Bradford, Warren, Monroe, Columbia, Cameron, Sullivan, Schuylkill, Bucks, Mercer, Chester, Tioga, Erie, York, Dauphin, Union, Snyder, Forest, Indiana, Northampton, Cumberland, Fulton, Greene, and Potter.

LIDAR Acquisition

PASDA acquired a significant USGS/Wyoming Valley Authority: Luzerne County Lidar

Outreach & Meetings

The first half of the fiscal year saw ongoing engagement in events and meetings across the state. When the COVID pandemic hit in the winter of 2020, many events and meetings were cancelled or held virtually. Despite this, PASDA staff continued to participate in various events, PA GeoBoard sessions, and to help support virtual events.

- Weekly Geospatial status meetings
- Weekly PASDA staff meetings
- Monthly meetings with system administration staff including ACI ICS and EMS computing
- Presented at the esri International Users Conference (2019)
- Member, PA GIS Day Committee
- Exhibited and presented at NW PA GIS Conference (2019)
- Exhibited and presented at PA GIS Day (2019)
- Presented virtually for PASDA and the Services Task Force at the PA GIS Conference (2020)
- Presented and exhibited at PSU Data Day
- Exhibited and presented at PSU GIS Day
- Participated in PA Geospatial Advisory Board meetings (multiple)
- Participated in GeoBoard Governance Task Force (multiple)
- Participated in GeoBoard Services Delivery Task Force (multiple)
- Participated in GeoBoard Data Task Force (multiple)
- Participated in joint task force meetings (multiple)
- Participated in Governance Task Force Procedures subcommittee
- Participated in Governance Task Force Strategic Plan subcommittee
- Helped Sullivan with LIDAR data request
- Hosted PA Basemap Meeting
- Meeting with Turnpike Commission regarding data sharing and the portal to portal connection
- Sent metadata requirements for NG911 to Lycoming County
- Working with Data.gov on reharvesting PASDA data
- Meetings with data center
- Conference call with Jere Matthews PA Open Data Portal
- Meeting with National Weather Service
- PA GeoBoard Meeting
- Meeting with DCNR Joe Petroski
- Meetings with data center
- Conference call with Jere Matthews PA Open Data Portal
- Delaware River Watershed Initiative Meeting
- PA GIS Conference Call
- Joint Task Force Meeting
- NW PA GIS Conference
- LIDAR working group meeting
- Conference Call with Susquehanna River Basin Commission
- 3D Nation follow up meeting

- Prepared for portal to portal with Cumberland County
- Presentation for Turnpike Commission

New Data Partners

Adams, Bucks, Crawford, Franklin, Indiana, Mercer, Monroe, Montgomery, Venango, Warren, Washington, are all new data sharing partners with PASDA.

The Pennsylvania State Police also began sharing data with PASDA in FY 2019/2020.

Data Acquisitions: Highlights

2019/2020 was a busy data sharing year. In addition to the PEMA imagery and county data sharing initiative, many new and updated data sets came in. These included:

- PA DEP: Monthly and quarterly updates
- PA State Police: new data sets
- Allegheny county: Monthly Updates
- Erie County: Monthly updates
- FEMA: NFHL county updates
- Adams County: Quarterly updates
- Franklin County: Monthly updates
- PA Fish and Boat Commission: Monthly updates
- PA Game Commission: Quarterly updates
- PA DEP Mine Maps: New data monthly
- Dauphin County: Monthly updates
- PennDOT: Quarterly updates
- Lancaster County: Quarterly updates
- Chester County: Annual updates
- DVRPC: Imagery updates
- SEPTA: Quarterly updates
- York County: Quarterly updates

User Support & Assistance

NOTE: PASDA provides user support via email, phone, and in person. It is often not possible to identify the organization from which assistance is requested (for example, if a user emails us with a @gmail.com account). The following list is examples of those organizations we were able to identify. For most organizations listed, there were multiple contacts throughout the year.

Assistance provided to the Following (some examples):

CH Planning Limited, Gerhardt Engineering, Langan Associates, Harshman CE Group, Chesapeake Bay Foundation, Carnegie Museum of Natural History, USGS, Turnpike Commission, Kellar Williams, Oya Solar, PA Health and Human Services Delivery Center, Interface, Tetrattech, Wikimedia Commons,

Delaware Valley Regional Planning Commission, Spotts, Stevens, and McCoy, Jim Lambert Surveying, Rand organization, DEP mining, Taylor Engineering, Sullivan County, Massachusetts Institute of Technology, Key Log Economics, NRCS, Symmetry, Uni-Tec, Gerhart Engineering, Dauphin County, PennDOT, PA GeoBoard, Dewberry, AECOM, KBA Engineering, Rambalt Environ, Hoffert Surveying, Berks County, Seneca, Allegheny National Forest, Green Environmental Consulting, Zephyr, Liberty Property, Dawood Engineer, EQT, Erie County, Range Resources, DEP bureau of oil and gas, Nature Conservancy, AECOM, Dauphin County, National Aviary, Butler County, Aikens Engineering, Lockard Surveying, Oman and Associates, Temple University, PA Bureau of Geological Survey, PA Turnpike Commission, FWH Associates, Millersville University, Civic Mapper, Gannett Fleming, EADS Group, Lockard Surveying, Tetra Tech, Rosebud Mining Company, York County Planning Commission, University of Vermont, Carnegie Mellon University, Chester County Planning Commission, Montgomery County, Vanderbilt University, Fishbeck Engineers, Ramboll Corp, Gannett Fleming, Trimble Maps, PennDOT, PA Game Commission, Clearwater Conservancy,): Western PA Conservancy, Mercer County, Dauphin County, Clearfield County, Perry County, Cambria County, City of Philadelphia, University of Vermont, AMT Engineering, KMA Consulting Engineers, Gallas Surveying Group, Tetra Tech, City of Pittsburgh Planning Commission, GeoDecisions, Erie County, Butler County, University of Pennsylvania, Adams County, Agile Networks, PA DCNR Topographic Survey, Southwestern PA Commission, USGS NGTOC, PennDOT Engineering District 8-0, Glenn Engineering and Associates, AE7, PA Open Data Portal, Lancaster County, Erie County, ADT Security Services, Juniata valley Land Surveying, WHM Group, JHA Companies, Curry and Associates, University of Illinois, HBK Engineering, Remington and Vernick Engineers, R&R Engineering , Dubois and King, PA Land Trust, Adams Electric Cooperative, Mercer County, Dauphin County, PA Fish and Boat Commission, esri, KU resources, HGAC Barn Preservation Project, AH Green Design, Lycoming College, Northeastern PA Alliance, City of Philadelphia, HGAC Barn Preservation Project, K. Pledger Designs, PEMA, Bucks County, Tom Tom, Mifflin County, Turnpike Commission, Clearfield County, Tilson Tech, City of Harrisburg, PennDOT Engineering District 12, Indiana County, Union County, Control Point Associates, Schuylkill County, Lebanon County, KCF Tech, Michael baker, PEMA, Lancaster County , York County Planning Commission, Perry County, Montgomery County, Delaware County, GeoDecisions, Mercer County, Dauphin County, Mifflin County, Lycoming County, PA Fish and Boat Commission, PA Open Data Portal. DCNR Oil and Gas program, EADS group, Coleman Environmental Engineering, GARVIN BOWARD BEITKO ENGINEERING, INC., Capital Region Water, Larson Design Group, USGS, National Weather Service, FEMA, Derck and Edson Inc, Arcadis, PA Department of Conservation and Natural Resources Bureau of Geological Survey, Turnpike Commission, Rettew Assoc, DEP, Dewberry, Department of Environmental Protection | Bureau of Mining Programs, Chesapeake Bay Foundation, Lock Haven University, Center for Children & Youth with Special Health Care Needs | St. Christopher's Hospital for Children, Stiffler McGraw, Capital Region Water, University of Miami, Professional Engineering Group , Howard Hanna Realty, Merino Engineering Associates, American Geotechnical & Environmental Services, Inc., Air Management Services, Dept. of Public Health, City of Philadelphia, Bucks County Planning Commission, Lancaster County, Northeastern Pennsylvania Alliance, Montgomery County, Adams Electric Cooperative, Inc., CeasefirePA, Capital Region Water, USDA NRCS, EnviroSure, DigiMap, Worley Parsons Inc, Quantum Spatial, Great Valley Consultants, Cedar Crest College, OA/Conservation and Environment, Temple University, California University, USGS, Dewberry, 3D nation program, US Department of Transportation, National Weather Service.

