Pennsylvania Data Access PASDA 2016-2017 Annual Report

OVERVIEW

Pennsylvania Spatial Data Access (PASDA—http://www.pasda.psu.edu), the official public geospatial data clearinghouse for the Commonwealth of Pennsylvania marked its 21st year in 2016. 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 **2.7 million** files were downloaded from the PASDA FTP site; while usage on the entire site topped **126 million** hits. The PASDA Internet Map Services and applications were accessed almost 93 **million times**.   The Pennsylvania Imagery Navigator, an application used for viewing and downloading aerial photography, topographic data, DEMs, and LIDAR was accessed over 5 million times in FY 2016/2017.   The Pennsylvania Mine Map Atlas service which is an application that provides users with both viewing and downloading capabilities for 80,000 underground mine maps was accessed over 1 million times.

The statistics this year demonstrate more than any other that there is a wide range of data that is of great interest to the user community. Data from our partners at the PA Department of Environmental Protection, PennDOT, PA Department of Conservation and Natural Resources, Allegheny County, the DCNR PAMAP Program, the Delaware Valley Regional Planning Commission, and the received phenomenal use**.**   In addition, PASDA has created highly significant applications and services that dramatically increase the value of the data available. The DEP map service **more than 4 million** views, PennDOT mapservice over **1.6 million views**, and the PA Fish and Boat Commission with over **1.2 million views**.

PASDA FY 2016/2017 Highlights

Substantial initiatives in the past year included work with the PA Geospatial Advisory Board, acquisition and integration of additional imagery and data, and moving all PASDA FTP and data storage operations to the new Research Science Data Center on the Penn State campus. and ongoing data preservation efforts.

PA GeoBoard Activities

PASDA was an active participant in the PA GeoBoard this year. In addition to presenting at the September 2016 GeoBoard meeting, PASDA provided support to all three of the GeoBoard's task forces. PASDA worked on the GeoBoard Strategic Plan, brought in several guest speakers and GIOs from other states to help guide its development, participated actively in the Data Task Force's LIDAR working group, and supported the initiatives of the Services Delivery Task Force by planning a user feedback session for PASDA services.

Research Science Data Center Facility (ICS_ACI)

PASDA moved most of its operations from the PSU computing facility to the new Research Science Data Center at PSU. The Institute for CyberScience Advanced CyberInfrastructure (ICS-ACI) is Penn State's high-performance computing (HPC) infrastructure. The name also refers to the services associated with this system. ICS-ACI provides secure, high-quality advanced computing and storage resources to the Penn State research community. ICS-ACI provided a variety of services, including operations, backup, and technical consulting. In general it offers over 1000 servers with more than 23,000 processing cores, 6 Petabytes (PB) of disk parallel file storage, 12 PB of tape archive storage, high-speed Ethernet and Infiniband interconnects, and a large software stack. ICS-ACI is also compliant with specific NIH and NIST security controls. PASDA's storage, back up, nearline storage, and archival storage are all located at the ICS-ACI.

Data Preservation

PASDA has been actively working on long term preservation of data that we store. Our first effort was related to developing and deploying a long term preservation system for the PAMAP Program data. This is both for the derived products and the raw PAMAP data and project information. Of particular urgency this coming year will be acquiring and preserving the Penn Pilot historic imagery data.

In addition, we are preserving data for the long term by implementing the BagIt data storage specification within the Institute for CyberScience infrastructure. BagIt is a hierarchical file packaging format used by organizations such as the Library of Congress.

Data Acquisitions

July 2016

• Updated data from PA DEP California Office:

    1)   DEP_California-Active: 31 Archive Tiffs, 31 Ungeoreferenced Sids, and 31 new Georeferenced Sids (plus existing ones).
    2)   DEP_California-Abandoned: 175 Archive Tiffs, 179 Ungeoreferenced Sids, and 144 Georeferenced Sids.
    3)   DEP_NewStanton: 762 Archive Tiffs, 788 Ungeoreferenced Sids, and 626 Georeferenced Sid.
    4)   DEP_WilkesBarre: 180 Archive Tiffs, 180 Ungeoreferenced Sids, and 13 Georeferenced Sids.
    5)   Other_Collections\Blue_Coal: 244 Georeferenced Sids.
    6)   Other_Collections\IMAPS_Collection: 20,2086 Ungeoreferenced Sids.
    7)   Updated PASDA Index Shapefile for the Atlas(dated 7/1/2016).
    8)   Updated Master Index Shapefile for the FTP(dated 7/1/2016).

• Updated Data Sets from DEP: : AML points, AML polys, AML sites, Air Emission Plants, Beneficial Land Uses, Captive Hazardous Waste Operations, Coal Mining Operations, Coal Pillar Location Mining, Coal Pillar Location Oil and Gas, Commercial Hazardous Waste Operations, Encroachment Location, Encroachment Locations Oil Gas, Erosion and Sediment Control Facilities, Industrial Mineral Mining Operations, Integrated List Attaining, Mine Drain Treat Land Recycling Project Locations, Municipal Waste Operations, Oil Gas Locations, Oil Gas Water Pollution Control Facilities, Radiation Facilities, Residual Waste Operations, Storage Tank Locations, Total Maximum Daily Load, Total Maximum Daily Load Lakes, Unpaved Roads, Water Pollution Control Facilities, Water Resources, Conservation Wells, Conservation Wells Plugged, Stormwater 167, Mined Out Areas, Longwall Mining Panels, Underground Mining Permit, Public Water Supplier's (PWS) Service Areas, Water Management Plans (WMP) - Marcellus Shale

• Updated data from Lancaster County: Municipal Boundary, Road Centerlines and types, Urban Growth Area

August 2016

• Updated data from PA DEP California Office:

    1)   DEP_California-Active: 28 Archive Tiffs, 28 Ungeoreferenced Sids, and 28 new Georeferenced Sids (plus existing ones).

2)   DEP_California-Abandoned: 240 Archive Tiffs, 240 Ungeoreferenced Sids, and 225 Georeferenced Sids.

3)   DEP_NewStanton: 1417 Archive Tiffs, 1463 Ungeoreferenced Sids, and 3 Georeferenced Sid.

4)   DCNR_Middletown: 600 Archive Tiffs, and 600 Ungeoreferenced Sids.

5)   DCNR_Penfield: 1 Georeferenced Sids.

6)   Other_Collections\Larson_Design_Group: 39 Archive Tiffs, and 39 Ungeoreferenced Sids.

7)   Other_Collections\OSM_Anthracite_Folios: 7 Archive Tiffs, and 7 Ungeoreferenced Sids.

8)   Updated PASDA Index Shapefile for the Atlas(dated 8/8/2016).

9)   Updated Master Index Shapefile for the FTP(dated 8/8/2016).

• Updated Data Sets from DEP: : Integrated List Attaining, Oil Gas Locations, Mined Out Areas, Longwall Mining Panels, Underground Mining Permit, Public Water Supplier's (PWS) Service Areas, Water Management Plans (WMP) - Marcellus Shale, Oil and Gas wells conventional, Oil and gas wells unconventional, Attaining Non Attaining Lakes

• Updated data from the PA Breeding Bird Atlas Project: 2nd PA Breeding Bird Atlas Survey data

• Updated data from PennDOT: Local Roads

• Updated LIDAR from Delaware Valley Regional Planning Commission: LiDAR data for DVRPC region--Quality Level 2 (QL2), full point cloud (LAS 1.4 format) and a tiled bare Earth, hydro-flattened, 1-meter grid DEM. All LiDAR data is in UTM Zone 18N meters.

• Updated data from PA Fish and Boat Commission: Class A Streams, Access Points, Approved Trout Waterbodies, Fishing Special Regulation Lakes, Fishing Special Regulation Streams, Law Enforcement Regions, WCO Districts, Trout Natural Reproduction, Class A Streams Points

• Updated data from City of Philadelphia: 2015 Digital Elevation Model

• Updated data from University of Vermont: Statewide Tree Canopy data

September 2016

• Updated Data Sets from DEP: : Integrated List Attaining, Oil Gas Locations, Mined Out Areas, Longwall Mining Panels, Underground Mining Permit, Public Water Supplier's (PWS) Service Areas, Water Management Plans (WMP) - Marcellus Shale, Oil and Gas wells conventional, Oil and gas wells unconventional, Attaining Non Attaining Lakes

• Updated data from the Delaware Valley Regional Planning Commission: Delaware Valley Regional Planning Commission LIDAR Hurricane Sandy Supplemental QL2 LIDAR

• Updated data from the University of Vermont: Chesapeake Bay Watershed or Delaware River Basin Land

•Updated data from Allegheny County: Street centerlines, parcels, municipalities, addresses

• Updated data from the US National Park Service: National Park Service Upper Delaware Scenic and Recreational River Boundaries

• Updated data from Lancaster County: Boundaries, center lines, urban growth area

October 2016

• Updated Data Sets from DEP: AML points, AML polys, AML sites, Air Emission Plants, Beneficial Land Uses, Captive Hazardous Waste Operations, Coal Mining Operations, Coal Pillar Location Mining, Coal Pillar Location Oil and Gas, Commercial Hazardous Waste Operations, Encroachment Location, Encroachment Locations Oil Gas, Erosion and Sediment Control Facilities, Industrial Mineral Mining Operations, Integrated List Attaining, Mine Drain Treat Land Recycling Project Locations, Municipal Waste Operations, Oil Gas Locations, Oil Gas Water Pollution Control Facilities, Radiation Facilities, Residual Waste Operations, Storage Tank Locations, Total Maximum Daily Load, Total Maximum Daily Load Lakes, Unpaved Roads, Water Pollution Control Facilities, Water Resources, Conservation Wells, Conservation Wells Plugged, Stormwater 167, Mined Out Areas, Longwall Mining Panels, Underground Mining Permit, Public Water Supplier's (PWS) Service Areas, Water Management Plans (WMP) - Marcellus Shale

• Updated data from PA Department of Health--Birth Centers, Community Mental Health Centers, Intermediate Care Facilities, and Psychiatric Residential Treatment Facilities

• Updated data from DEP California Mine Office:

> DEP_California-Active: 39 Archive Tiffs, 39 Ungeoreferenced Sids, and 35 new Georeferenced Sids (plus existing ones).
> DEP_California-Abandoned: 88 Archive Tiffs, 88 Ungeoreferenced Sids, and 66 Georeferenced Sids.
> DEP_Pottsville: 3 Archive Tiffs, and 3 Ungeoreferenced Sids.
> DEP_NewStanton: 6 Archive Tiffs, 6 Ungeoreferenced Sids, and 593 Georeferenced Sid.
> DEP_WilkesBarre: 237 Georeferenced Sids.
> Other_Collections\Larson_Design_Group: 58 Archive Tiffs, and 58 Ungeoreferenced Sids.
> Other_Collections\Blue_Coal: 546 Archive Tiffs, 546 Ungeoreferenced Sids, and 113 Georeferenced Sids.
> Updated PASDA Index Shapefile for the Atlas(dated 9/23/2016).
> Updated Master Index Shapefile for the FTP(dated 9/23/2016).

• Updated data from Southeast PA Transportation Authority (SEPTA): Fall routes and stops

• Updated data from National Aeronautics and Space Administration (NASA) and Univ of Vermont Spatial Analysis Lab: Pennsylvania statewide high-resolution tree canopy dataset

• Updated data from PennDOT: Bonded Routes, Posted Routes

• Updated data from Allegheny County: Street centerlines, parcels, addresses

November 2016

• Updated Data Sets from DEP: Integrated List Attaining, Oil Gas Locations, Mined Out Areas, Longwall Mining Panels, Underground Mining Permit, Public Water Supplier's (PWS) Service Areas, Water Management Plans (WMP) - Marcellus Shale, Oil and Gas wells conventional, Oil and gas wells unconventional, Attaining Non Attaining Lakes

• Updated data from DEP California Mine Office:

> 1) DEP_California-Active: 41 Archive Tiffs, 41 Ungeoreferenced MrSids, and 40 new Georeferenced MrSids (plus existing ones).
> 2)   DEP_California-Abandoned: 442 Archive Tiffs, 444 Ungeoreferenced MrSids, and 334 Georeferenced MrSids.
> 3) DEP_NewStanton: 1253 Archive Tiffs, 1360 Ungeoreferenced MrSids, and 739 Georeferenced MrSid.
> 4) Other_Collections\Blue_Coal: 6 Archive Tiffs, and 6 Ungeoreferenced MrSids.
> 5) Other_Collections\CONSOL_Hardbacks: 1 Georeferenced MrSid.
> 6) Other_Collections\Larson_Design_Group: 10 Archive Tiffs, and 10 Ungeoreferenced MrSids.
> 7)DCNR_Middletown: 2227 Archive Tiffs, and 2227 Ungeoreferenced MrSids.
> 8) Updated PASDA Index Shapefile for the Atlas(dated 10/26/2016).
> 9) Updated Master Index Shapefile for the FTP(dated 10/26/2016).

• Updated data from PA Fish and Boat Commission: Natural Trout Reproduction, Class A Streams (point), Class A Streams (line), Access Points, Best Fishing Water Lakes - points, Best Fishing Water Streams – lines, Warmwater/Coolwater Fisheries – Streams, Warmwater/Coolwater Fisheries – Lakes points

December 2016

- Updated Data Sets from DEP: Integrated List Attaining, Oil Gas Locations, Mined Out Areas, Longwall Mining Panels, Underground Mining Permit, Public Water Supplier's (PWS) Service Areas, Water Management Plans (WMP) - Marcellus Shale, Oil and Gas wells conventional, Oil and gas wells unconventional, Attaining Non Attaining Lakes

- Updated data from DEP California Mine Office:

1) DEP_California-Active: 47 Archive Tiffs, 47 Ungeoreferenced MrSids, and 47 new Georeferenced MrSids (plus existing ones).

2) DEP_California-Abandoned: 44 Archive Tiffs, 44 Ungeoreferenced MrSids, and 44 Georeferenced MrSids.

3) DEP_NewStanton: 964 Archive Tiffs, 1016 Ungeoreferenced MrSids, and 178 Georeferenced MrSids.

4) DEP_WilkesBarre: 68 Archive Tiffs, 68 Ungeoreferenced MrSids, and 274 Georeferenced MrSids.

5) Other_Collections\Blue_Coal: 535 Archive Tiffs, 535 Ungeoreferenced MrSids, and 2 Georeferenced MrSids.

6) Other_Collections\Larson_Design_Group: 11 Archive Tiffs, 11 Ungeoreferenced MrSids, and 80 Georeferenced MrSids.

7) Updated PASDA Index Shapefile for the Atlas(dated 12/8/2016).

8) Updated Master Index Shapefile for the FTP(dated 12/8/2016).

9) Other_Collections\PITT_Archive_Services: 2925 Archive Tiffs, 2925 Ungeoreferenced MrSids, and 51 Georeferenced MrSids.

- Updated data from Bureau of Mining: Updated data from PA DEP: Anthracite Coal Mine Permits, Bituminous Coal Mine Permits, and Industrial Minerals Mine Permits

January 2017

• Updated Data Sets from DEP: Integrated List Attaining, Oil Gas Locations, Mined Out Areas, Longwall Mining Panels, Underground Mining Permit, Public Water Supplier's (PWS) Service Areas, Water Management Plans (WMP) - Marcellus Shale, Oil and Gas wells conventional, Oil and gas wells unconventional, Attaining Non Attaining Lakes

• Updated data from DEP California Mine Office:

1) DEP_California-Active: 47 Archive Tiffs, 47 Ungeoreferenced MrSids, and 47 new Georeferenced MrSids (plus existing ones).
2) DEP_California-Abandoned: 44 Archive Tiffs, 44 Ungeoreferenced MrSids, and 44 Georeferenced MrSids.
3) DEP_NewStanton: 964 Archive Tiffs, 1016 Ungeoreferenced MrSids, and 178 Georeferenced MrSids.

4) DEP_WilkesBarre: 68 Archive Tiffs, 68 Ungeoreferenced MrSids, and 274 Georeferenced MrSids.

5) Other_Collections\Blue_Coal: 535 Archive Tiffs, 535 Ungeoreferenced MrSids, and 2 Georeferenced MrSids.

6) Other_Collections\Larson_Design_Group: 11 Archive Tiffs, 11 Ungeoreferenced MrSids, and 80 Georeferenced MrSids.

7) Updated PASDA Index Shapefile for the Atlas(dated 12/8/2016).

8) Updated Master Index Shapefile for the FTP(dated 12/8/2016).

9) Other_Collections\PITT_Archive_Services: 2925 Archive Tiffs, 2925 Ungeoreferenced MrSids, and 51 Georeferenced MrSids.

• Updated data from Bureau of Mining: Updated data from PA DEP: Anthracite Coal Mine Permits, Bituminous Coal Mine Permits, and Industrial Minerals Mine Permits

• Updated data from PA Fish and Boat Commission: Approved_Trout_Waterbodies , BestFishingWaters_StreamsJan2017, Fishing_SpecReg_Lakes_Point, Fishing_SpecReg_Lakes_Point, Fishing_SpecReg_Streams, TroutStockedSections_for_2017, Approved_Trout_Waterbodies_pt, Approved_Trout_Waters, BestFishingWaters_LakesJan2017

February 2017

• Updated Data Sets from DEP: Integrated List Attaining, Oil Gas Locations, Mined Out Areas, Longwall Mining Panels, Underground Mining Permit, Public Water Supplier's (PWS) Service Areas, Water Management Plans (WMP) - Marcellus Shale, Oil and Gas wells conventional, Oil and gas wells unconventional, Attaining Non Attaining Lakes

• Updated data from the PA Department of Health: Hospices, Physical Speech Therapists, Portable X-Ray, and Rural Health Clinics

• Updated data from PennDOT:
PennDOT - Facilities Locations
PennDOT - Intermodal
PennDOT - Pennsylvania Roads with Posted Weight Restrictions
Pennsylvania Airports Part 77 Surface Areas
Pennsylvania Airports Part 77 Surface Areas - Line
Pennsylvania congressional boundaries (Act 34)
Pennsylvania county boundaries
Pennsylvania engineering district boundaries
Pennsylvania Interstate Highway Exits
Pennsylvania Interstate Mile Markers
Pennsylvania local roads
Pennsylvania municipality boundaries
Pennsylvania school districts
Pennsylvania senatorial boundaries
Pennsylvania state boundary
Pennsylvania state house district boundaries
Pennsylvania state roads

Pennsylvania state roads administrative
Bridges
Pennsylvania traffic counts
Pennsylvania Turnpike
Pennsylvania urban area boundary
Planning Agencies Boundaries (MPO/RPO)
Rail Lines

March 2017

• Updated Data Sets from DEP: Integrated List Attaining, Oil Gas Locations, Mined Out Areas, Longwall Mining Panels, Underground Mining Permit, Public Water Supplier's (PWS) Service Areas, Water Management Plans (WMP) - Marcellus Shale, Oil and Gas wells conventional, Oil and gas wells unconventional, Attaining Non Attaining Lakes

• Updated data from PennDOT: Driver and Vehicle Services locations

• Updated data from PA DEP Mining:

> 1) DEP_California-Active: 61 Archive Tiffs, 61 Ungeoreferenced MrSids, and 54 new Georeferenced MrSids (plus existing ones).

> 2)   DEP_California-Abandoned: 168 Archive Tiffs, 176 Ungeoreferenced MrSids, and 129 Georeferenced MrSids.

> 3) DEP_NewStanton: 889 Archive Tiffs, and 959 Ungeoreferenced MrSids.

> 4) DEP_WilkesBarre: 275 Archive Tiffs, 275 Ungeoreferenced MrSids, and 219 Georeferenced MrSids.

> 5) DCNR_Penfield: 1 Archive Tiffs, and 1 Ungeoreferenced MrSids.

> 6) Other_Collections\Blue_Coal: 6 Archive Tiffs, and 6 Ungeoreferenced MrSids.

> 7) Other_Collections\ PITT_Archive_Services: 211 Archive Tiffs, and 215 Ungeoreferenced MrSids.

> 8) Updated PASDA Index Shapefile for the Atlas(dated 2/17/2017).

> 9) Updated Master Index Shapefile for the FTP(dated 2/17/2017).

• Updated data from PA Fish and Boat Commission: Natural Trout Reproduction, Class A Streams (point), Class A Streams (line)

• Updated data from Southwest PA Commission: Landslides in Southwestern Pennsylvania

• Updated data from the PA DCNR: ExplorePATrails trails, water trails and points; State Forest districts, boundaries, wild/natural areas, and offices; State Park boundaries

• Updated data from USGS and Delaware River Basin Commission: Delaware River Basin Catchments Based on Strahler Stream Order 1 from National Hydrography Dataset (NHD), Stream Centerline Features for 8-digit HUC
Delaware River Basin Catchments Based on Strahler Stream Order 1 Determined from a 900-cell Flow Accumulation Raster in Areas Not Covered by NHD Catchments for 8-digit HUC

• Updated data from Dauphin County:
- Raw LiDAR point cloud data swaths in LAS 1.4 format
- Classified LiDAR data, tiled, in LAS 1.4 format
- 2.5-foot bare earth raster DEMs, tiled, in ERDAS .IMG format
- Hydro-flattened breaklines in Esri file geodatabase format
- 2.5-foot intensity images, tiled, in GeoTIFF format
- 2-foot continuous contours in Esri file geodatabase format

April 2017

• Updated Data Sets from DEP: Environmental Justice Areas, AML points, AML polys, AML sites, Air Emission Plants, Beneficial Land Uses, Captive Hazardous Waste Operations, Coal Mining Operations, Coal Pillar Location Mining, Coal Pillar Location Oil and Gas, Commercial Hazardous Waste Operations, Encroachment Location, Encroachment Locations Oil Gas, Erosion and Sediment Control Facilities, Industrial Mineral Mining Operations, Integrated List Attaining, Mine Drain Treat Land Recycling Project Locations, Municipal Waste Operations, Oil Gas Locations, Oil Gas Water Pollution Control Facilities, Radiation Facilities, Residual Waste Operations, Storage Tank Locations, Total Maximum Daily Load, Total Maximum Daily Load Lakes, Unpaved Roads, Water Pollution Control Facilities, Water Resources, Conservation Wells, Conservation Wells Plugged, Stormwater 167, Mined Out Areas, Longwall Mining Panels, Underground Mining Permit, Public Water Supplier's (PWS) Service Areas, Water Management Plans (WMP) - Marcellus Shale

• Updated data from PA DEP Mining:

1) DEP_California-Active: 30 Archive Tiffs, 30 Ungeoreferenced MrSids, and 30 new Georeferenced MrSids (plus existing ones).

2) DEP_California-Abandoned: 469 Archive Tiffs, 469 Ungeoreferenced MrSids, and 381 Georeferenced MrSids.

3) DEP_Pottsville: 401 Archive Tiffs, 401 Ungeoreferenced MrSids, and 196 Georeferenced MrSids.

4) DEP_NewStanton: 1022 Archive Tiffs, 1030 Ungeoreferenced MrSids, and 1073 Georeferenced MrSids.

5) DEP_WilkesBarre: 581 Archive Tiffs, 581 Ungeoreferenced MrSids, and 267 Georeferenced MrSids.

6) DCNR_Middletown: 25 Archive Tiffs, 27 Ungeoreferenced MrSids, and 11 Georeferenced MrSids.

7) Other_Collections\Blue_Coal: 2 Georeferenced MrSids.

8) Other_Collections\PITT_Archive_Services: 1 Archive Tiff, 1 Ungeoreferenced MrSid, and 56 Georeferenced MrSids.

9) Other_Collections\CONSOL_Hardbacks: 2 Archive Tiffs, and 3 Ungeoreferenced MrSids.

10) Updated WPA Index Shapefile for the Atlas (dated 2/27/2017).

11) Updated PASDA Index Shapefile for the Atlas (dated 3/22/2017).

12) Updated Master Index Shapefile for the FTP (dated 3/22/2017).

• Updated data from Lancaster County: LancasterCountyMunicipalBoundaries, LancasterCountyRDCLINE, LancasterCountyUGA_poly

• Tana Data Updated

May 2017

• Updated Data Sets from DEP: oil and gas locations, mined out areas, longwall mining panels, underground mining permits, oil and gas wells conventional/unconventional, chapter 93 existing use, chapter 93 designated use.

• Updated data from PA Department of Health: nursing homes

• Updated data from PA DEP Mining:

1) DEP_California-Active: 61 Archive Tiffs, 61 Ungeoreferenced MrSids, and 54 new Georeferenced MrSids (plus existing ones).

2) DEP_California-Abandoned: 168 Archive Tiffs, 176 Ungeoreferenced MrSids, and 129 Georeferenced MrSids.

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8) Updated PASDA Index Shapefile for the Atlas(dated 2/17/2017).

9) Updated Master Index Shapefile for the FTP(dated 2/17/2017).

• Updated data from PA Fish and Boat Commission:PFBC Properties, Class A Streams and Wild Trout Streams, Class A Streams (point), Class A Streams (line)

• Updated data from the City of Philadelphia: 2016 Imagery, Impervious Surface, street centerlines

• Updated data from USGS and Delaware River Basin Commission: Delaware River Basin Land Cover

June 2017

• Updated data from City of Philadelphia: Building Footprints

• Updated Data Sets from DEP: oil and gas locations, mined out areas, longwall mining panels, underground mining permits, oil and gas wells conventional/unconventional, chapter 93 existing use, chapter 93 designated use.

• New data from NHAP Program: National High Altitude Photography (NHAP) imagery covering the period 1980-1987 for PA.

• Updated data from PA DEP Mining:

1) DEP_California-Active: 30 Archive Tiffs, 30 Ungeoreferenced MrSids, and 30 new Georeferenced MrSids (plus existing ones).

2) DEP_California-Abandoned: 469 Archive Tiffs, 469 Ungeoreferenced MrSids, and 381 Georeferenced MrSids.

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10) Updated WPA Index Shapefile for the Atlas (dated 2/27/2017).

11) Updated PASDA Index Shapefile for the Atlas (dated 3/22/2017).

12) Updated Master Index Shapefile for the FTP (dated 3/22/2017).

• New data from PA DEP: Imagery and Lidar from DEP grantee PA Sea Grant

Outreach & Meetings

Finally, PASDA has continued to give back to the GIS community. As in past years, PASDA staff have participated in numerous meetings including PA GIS Day planning meetings, the PA GIS conference planning meetings (for both of which PASDA developed sessions, obtained speakers, and also presented), PAView meetings, Northwest PA GIS conference, PAGeoboard Task Force meetings. PASDA has also provided support and guidance for counties and local governments, regional entities, other states and federal agencies in particular supporting the USGS Hydrology Survey and the FGDC/Library of Congress Historical Data Users Group.

- 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)
- Weekly Geospatial status meetings
- Weekly Software CAB meetings
- Weekly PASDA staff meetings
- Monthly meetings with system administration staff including ACI ICS and EMS computing
- Monthly conference calls for the PA GIS conference
- Monthly conference calls for Central PA GIS Day
- Presented and exhibited at Central PA GIS Day
- Exhibited and presented at the Northwest PA GIS Conference
- Monthly WebEx Library of Congress/FGDC Geospatial Data Preservation Group
- Meeting with new PSU representatives from esri
- Meeting with Clery Act representatives about using GIS for mapping incidents
- Participated in PSU, PEMA, FEMA, DHS Blue White Game Emergency Response meeting
- Completed updated metadata harvest for NSGIC GIS Inventory

- Exhibited and presented (PASDA presentation and keynote panel on behalf of Stephen Aux) at PA GIS Conference
- Created document that addresses current status and desired end state (statewide and regional) for remote sensing (imagery) base map layer and elevation base map layer for the data task force.
- Identified and provided GIO/GIS coordinator position descriptions for Indiana, Georgia, Arkansas, and Virginia to Governance, Services, and Data Task force chairs.
- Provided goals to data task force chair for draft strategic plan.
- Created tutorial on how to use PASDA services with ArcGIS Online to support PA AGOL High School Maps and Apps conest (award presented at PA GIS Conference)
- Conference call with ICPSR about federal gis data
- Multiple calls with GeoDecisions about information for strategic plan
- Conference calls for Federal data rescue effort with University of Pennsylvania
- Participated in Skype meeting for new change management system
- Security training
- Conference calls with Hershey Medical center about available data
- Participated in security meeting with Local/County/State & FEMA Regional Stakeholders related to security of THON
- Data sharing agreement group meetings
- Contacted GIS directors in several PA counties to discuss data sharing agreements.
- Coordinated opportunity for GIO of Indiana to speak with the data governance strategic planning task force.
- Provided metadata harvest for Big Ten Alliance Geospatial Data Project.
- Sent Geoboard survey to: PA Alliance for Geographic Education, contacts at U of Pitt, Carnegie Mellon, California University of PA, Natural Lands Trust, William Penn Foundation (sent to grantees), Eastern PA Coalition for Abandoned Mine Reclamation, CCAP, DVRPC, SPC, NW PA Commission, North Central Planning Commission, PLSS, multiple utilities and energy related PASDA users, multiple business related users.
- Presented at PA GeoBoard meeting in September.

User Support & Assistance

NOTE: PASDA provides user support via email, phone, and in person. It is not always 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): Brickhouse Environmental, Cabot Oil and Gas, Forsyth County NC GIS Coordinator, US Census Bureau, Carroll Engineering, PA Society of Land Surveyors, Tilson Tech, Wilkes University, DEP Bureau of Mining Programs, Shippensburg University, Range Resources, PA Utility Commission, Clearwater Conservancy, E Education Institute, USGS Science Base, DuBois Area Historical Society, Dauphin County, Westmoreland Coal Company, City of Philadelphia, GeoDecisions, Carnegie Mellon University, PA state police, Woods and Waters Consulting, PennDOT Engineering District 4-0, Kreamer Survey Associates, Allegheny College, Michael Baker

International, Harrisburg University, US Office of Surface Mining, Riverview Homes Inc, Blashak Coal Company, BlocPower, Liberty Environmental, Creek Run Environmental Engineering, PA Sea Grant, AECOM, Power Engineering, PennDOT Engineering District 9-0, PennDOT DMV Locator Map Project, Snyder Associated Companies, YSM Landscape Architects, PA DEP Southwest Regional Office, University of Pittsburgh, Hess Fisher Engineering, Marshall Miller and Associates, Wireless Applications Corp, PennDOT New Stanton, PA One Call, WHM Group, US Army Corp Pocono Office, Myriad Development Inc, Penn E&R, PA One Call, US Army Corps Baltimore, Delaware River Basin Commission, Bohler Engineering, EQT Production, Adams Outdoor Advertising, University of Pittsburgh, Philadelphia Water Department, University of Virginia, USGS, PA Game Commission, Power Engineers, Chesapeake Conservancy, PA Dept of Health, Ten LD LLC, BankNorth, PA DEP, US Office of Surface Mining, Susquehanna Township High School, Prime Engineering, Vaisala Inc, DWS Professional Land Surveying, Pennsylvania Interactive, Boyles, Smyth, and Associates, Indiana University, WHM Group, Tetra Tech, Dawood Engineering, Patriot News/PennLive, City of Phila, PennDOT, PA DEP, PA DCNR, Geosearch, University of Maryland, WHM Group, PA DEP, PA Department of Health, Dauphin County, City of Allentown, Greene Environmental Consultants, DEP Bureau of Abandoned Mine Reclamation, Venango County, onXmaps, Leight-Heigle and Associates, Southern Alleghenies Planning and Development Commission, Uni Tech Consulting, North Carolina State University, SAP & DC, Woods and Waters Consulting, Southwest PA Commission, Liberty Property Trust, USGS, PennDOT, FandM, Dewberry, KBA Engineering, Hoffman Planning and Design, US Forest Service Allegheny National Forest, Ramboll Environ, KBAPC, Hoffert Surveying, Cornell University Extension, Marcellus Shale Center, TriState Infrastructure Council, Fodors, Berks County Planning Commission, Seneca Resources, PA Department of Human Services, Office of Surface Mining, Wegmans, Mott MacDonald, NRCS, Cesium, The Trust for Tomorrow, GeoDecisions, PA Fish and Boat Commission, Lancaster County, EPA region 3, Tri county regional planning commission, Lycoming county, Patton Engineering, Bedford County, center for rural PA, Mott MacDonald Engineering, Navitus Energy Engineering, PA DEP, Michael Baker International, City of Philadelphia, Apple Inc, CoreLogic, Hershey Medical Center, K&W Design, FEMA, AT&T, Dewberry, Hampton Tech, Christine Davis Consultants, Alion Science and technology, Marcellus Shale Center for Research and outreach, Lancaster County, Drexel University, PA Game Commission, Tamimi Consulting Group, Baldwin Wallace University, Oman and Associates, Lafayette College, University of Rhode Island, Portland State University, Wallace Montgomery Inc, US Office of Surface Mining, Tri County Regional Planning Commission, McTish, Kunkle, and Associates, PA Department of Health, McCormick Taylor, Target X, Lafayette College, Shippensburg University, City of Philadelphia, PA Fish and Boat Commission, City of Philadelphia, Chesapeake Bay Program, PA department of banking and securities, West Virginia University, Lafayette College, PA Game Commission, Fishing Hot Spots Inc, Delaware Water Resources Center, University of Pittsburgh, Bloomsburg University, US Department of Agriculture, Drexel University, PEMA, Academy of Natural Sciences, Lancaster County, DMVA, Gateway Engineers, Chesapeake Conservancy, Corelogic, Pennsylvania Department of Banking and Securities, GeoPath, WAZE, National Park Service, PA DEP Mine Map Office, PA Fish and Boat

Commission, DVRPC, EarthRES, Woods and Waters Consulting, PennDOT District Office 4-0, Penn E&R, Reading Health System, AEC Solutions Group, Green Valleys Watershed Association, Big Ten Alliance Geospatial Data Project, PEG Office of Landscape & Architecture, Tristate Infrastructure Council, Watchtower, HACC, McCormick Taylor, PA Dept of Health, Ben Franklin Technology Center, Potter County, DRW Engineers, Outdoor Writers Association of PA, Dallen Museum, Wolpert Inc, Jefferson County, Susquehanna County, Milltech Energy Services, PHMC, Fish and Boat Commission, CCAP, Delaware River Watershed Inititiave, Shippensburg University, DEP Acid Mine Drainage Division, DEP California Office, Whitehorse Excavating, Ecology and Environment Inc, PennDOT, Center for Land Use and Sustainability, USDA, Pennsylvania General Electric, University of Vermont, Flood Risk Solutions LLC, EPCAMR, Delaware Valley Regional Planning Commission, Ragan Technical Solutions, Rangan Technical, University of Pittsburgh, Patton Engineering, US Army Corps of Engineers Louisville, Light Heigel & Associates, Herbert, Rowland, & Grubic, Allegheny County, Klaber Group, Deiss Halmi Engineering, PA Game Commission, Waze, National Park Service, geopath.