

Pennsylvania Data Access PASDA 2017-2018 Annual Report

July 1, 2017-June 30, 2018

Completed
by

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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 23rd year in 2018. 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 **2.4 million** files were downloaded from the PASDA FTP site; while usage on the entire site topped **143 million** hits. The PASDA Internet Map Services and applications were accessed almost **124 million** times. The Pennsylvania Imagery Navigator, an application used for viewing and downloading aerial photography, topographic data, DEMs, and LIDAR was accessed almost **6.3 million** times in FY 2017/2018. 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 **5.4 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 than5.8 million** views, PennDOT mapservice over **2.4 million views**, the PA Game Commission received **7 million** hits and the PA Fish and Boat Commission with almost 1 **million views**.

PASDA FY 2017/2018 Activities

PA GeoBoard

PASDA was an active participant in the PA GeoBoard again this year.

PASDA supported the development of both the Strategic Plan and 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, Lidar Working Group, Procedures Subcommittee, Strategic Plan Subcommittee.

PASDA staff created draft PA Base Map data access pages for the Data Task Force.

As part of a Services Task Force Initiative, PASDA held multiple user focus group sessions: 2 County sessions, Non Profit session, surveyors, education/academic representatives.

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 3D Nation Initiative.

- Served as reviewer for proposals from vendors for PEMA Imagery Contract.
- Member, PA GIS Day Committee, brought in keynote speaker for PA GIS Day
- Member, PA GIS Conference Planning Committee, brought in two keynote speakers NY GIO and Indiana GIO
- Exhibited and presented at NW PA GIS Conference
- Exhibited and presented at PA GIS Day
- Exhibited and presented for PASDA and with Services Task Force lead at PA GIS Conference
- Presented at PA Society of Land Surveyors Conference
- Member, Delaware River Watershed Initiative Work Group. Participate in quarterly workgroup meetings.
- Served as State Champion for 3D Nation Survey
- Presented at PA Utility Cooperative Conference

- Poster a PSU ICS Day
- 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
- Weekly Geospatial status meetings
- Weekly Software CAB meetings
- Weekly PASDA staff meetings
- Monthly meetings with system administration staff including ACI ICS and EMS computing
- Alerted users that Penn Pilot application is down (this is not hosted by PASDA). Penn
 Pilot data had already been integrated and searchable via the PA Imagery Navigator.
 PASDA will now also be hosting the original data and has initiated the process of
 moving the data from the current host site to PASDA storage and archiving. It is
 likely the Penn Pilot site will no longer be accessible due to a lack of funding.
- Helped authors from Carnegie Mellon who are publishing the latest ESRI ArcGIS Probook. They used PASDA as a resource for data and map services for the book.
- Met with PEMA regarding imagery data management and access. Provided PAMAP
 ancillary data and project process documents to PEMA for use in preparing for their
 imagery acquisition project. PASDA will be providing storage and data access for this
 imagery.
- Corresponded with NSGIC GIS Inventory technical staff to ensure PASDA is still active in their new release. Discussed metadata best practices and persistent URLs.
- Corresponded with USGS about integration of USGS data sets on PASDA into ScienceBase.
- Call with NSGIC GIS Inventory technical staff.
- Provided PEMA with 1) Project boundary shapefiles land area and political boundaries; (with 1000 feet buffer around commonwealth of PA); 2) The existing geodetic network shapefile; 3) The existing (2006-2008) tile layout with attributes.
- Created a beta penn pilot imagery application. Worked with penn pilot programmers to identify issues with old application.
- Conference call with Marita Kelly deputy secretary of DCED regarding flood mapping application.
- Meetings with PA Utilities Commission

Data Acquisitions

July 2017:

NOTE: The PASDA contract was not completed due to delays in the commonwealth contracting process. The PASDA contract did not being until August. PASDA continued to run and serve data during the month of July despite not having funding.

August 2017

Data

• Updated DEP Mine Data (loaded in July):

DEP_California\Active
DEP_California\Abandoned
DEP_NewStanton
DEP_Pottsville
DEP_WilkesBarre
DCNR_Middletown
Outside_Collections\CONSOL_Hardbacks
Outside_Collections\Larson_Design_Group
Outside_Collections\PITT_Archive_Services
Outside_Collections\R_P_Hardbacks

Outside Collections\RGGS Collection

Updated shapefiles:

Index Shapefile to update the Atlas (dated 6/23/2017). WPA Index Shapefile to update the Atlas (dated 2/17/2017). Master Index Shapefile for the FTP (dated 6/23/2017).

• DEP Monthly Update: Oil and Gas Locations, Mined Out Areas, Longwall Mining Panels, Underground Mining Permit, Oil and Gas wells conventional/unconventional

Full DEP quarterly update for July: 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 Fish and Boat Commission: Class A Streams, Wild Trout Streams, Regional Headquarters, Law Enforcement Regions, PFBC Commissioner Districts, WCO Districts, Cooperative Nurseries
- Data from PA Dept of Military and Veterans Affairs Ft. Indiantown Gap: Lidar, LAS, DEMs
- Data updates from FEMA NFHL Program: PA state and Counties: Adams, Allegheny, Berks, Bucks, Centre, Clinton, Dauphin, Delaware, Elk, Erie, Fayette, Jefferson, Lancaster, Lebanon, Lycoming, Mercer, Monroe, Montgomery, Northumberland, Warren, York
- Data from the City of Philadelphia: 2017 Imagery

September 2017

• Updated DEP Mine Data (loaded in September):

DEP_California\Active

DEP_California\Abandoned

DEP_Pottsville

DEP_NewStanton

DEP_WilkesBarre

DCNR Middletown

DCNR_Penfield

Outside Collections\PITT Archive Services

Updated shapefiles:

PASDA Index Shapefile to update the Atlas (dated 9/5/2017). Master Index Shapefile for the FTP (dated 9/5/2017).

- DEP Monthly Update: Oil and Gas Locations, Mined Out Areas, Longwall Mining Panels, Underground Mining Permit, Oil and Gas wells conventional/unconventional
- Updated data from the PA Game Commission: Chronic Wasting Disease Management Areas (new layer), GAME_GATES (new layer), GAMELAND_TRAILS (new layer), Elk Management Areas, Elk Management Zones, Office locations, Game Regions, District Boundaries, Gameland Roads, Wildlife Management Units, Parking Areas, Land Management Groups, Public Shooting Range, Pennsylvania State Gamelands
- Data updates PA Department of Health: Hospitals, Ambulatory Surgical Centers
- Tom Tom Data Update
- Began migration of Penn Pilot data to PASDA storage. Penn Pilot application went offline.

October 2017

- DEP Update: 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 Allegheny County: Address points, Building Footprints, Street Centerlines, Parcels
- Updated data from PA Fish and Boat Commission: Access boating and fishing access points, Class_A wild trout water, Trout_NaturalReproduction natural reproduction trout waters
- Completed migration of Penn Pilot Data.

November 2017

• DEP Update: Oil and Gas Locations Mined Out Areas

Longwall Mining Panels

Underground Mining Permit

Oil and Gas wells conventional/unconventional

- Penn State Imagery and LIDAR
- Updated data from Allegheny County: Address points, Building Footprints, Street Centerlines, Parcels
- Data from PA DEP Mine Map: DEP_California\Active

DEP_California\Abandoned

DEP_Pottsville

DEP NewStanton

DEP_WilkesBarre

DCNR_Middletown

DCNR_Penfield

Outside_Collections\Carnegie Library

Updated shapefiles:

- PASDA Index Shapefile to update the Atlas (dated 11/3/2017).
- Master Index Shapefile for the FTP (dated 11/3/2017).
- Updated data from PA Fish and Boat Commission: Access boating and fishing access points, Class_A - wild trout water, Trout_NaturalReproduction - natural reproduction trout waters

December 2017

• DEP Update: Oil and Gas Locations Mined Out Areas

Longwall Mining Panels

Underground Mining Permit

Oil and Gas wells conventional/unconventional

• Updated data from Allegheny County: Address points

Building Footprints

Street Centerlines

Parcels

• Updated data from Allegheny County: LiDAR

Imagery

• Updated data from PSU: DRASTIC data

January 2018

- DEP Data Updates: 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 Allegheny County: Address points

Building Footprints

Street Centerlines

Parcels

- Updated data from USGS:
 Catchments Delaware River Basin
- Updated data from Lancaster County: Municipal Boundaries

Road center lines

Urban and Village growth boundaries

 Updated data from University of Vermont Delaware River Basin Project: Delaware River Basin Land Cover

February 2018

 DEP Update: Oil and Gas Locations Mined Out Areas Longwall Mining Panels Underground Mining Permit

Oil and Gas wells conventional/unconventional

 Updated data from Allegheny County: Address points
 Building Footprints
 Street Centerlines
 Parcels

• Updated data from DEP Mining:

DEP_California\Active
DEP_California\Abandoned
DEP_NewStanton
DEP_WilkesBarre
DCNR_Penfield
Outside_Collections\Blue Coal

Updated shapefiles:

PASDA Index Shapefile to update the Atlas (dated 1/26/2018). Master Index Shapefile for the FTP (dated 1/26/2018).

• Updated data from PSU:

Buildings, Crosswalks (line and poly), Misc_paved, Parking, Parking Stripes, Planting Beds, PSU boundary, Recreation (line and poly), Roads (major and minor and unpaved), Sidewalks, Walls

 Updated data from PennDOT: Bridges, Facilities, PA_RMSPOSTED, Rail, Congressional boundaries, County boundaries, Engineering District boundaries, Interstate Highway Exits, Mile Markers, Local Roads, State Roads, Administrative Roads, School Districts, Senatorial boundaries, PA State boundary, House boundaries, Traffic Counts, MPO/RPO boundaries

March 2018

Updated data from DEP:

This is an update to an existing data sets: 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 Fish and Boat Commission:

Approved_Trout_Waterbodies - Stocked Trout Water Bodies (Polygons)

Approved_Trout_Waterbodies_pt - Stocked Trout Water Bodies(Points)

Approved_Trout_Waters - Stocked Trout Waters(Flowing Waters)

BestFishingWaters_LakesFeb2018- Best Fishing Waters - Lakes

BestFishingWaters_StreamsFeb2018- Best Fishing Waters – Streams

ClassA_Streams - Class A Wild Trout Streams

ClassA_Streams_pt - Class A Wild Trout Streams-points

Fishing_SpecReg_Lakes - Fishing Special Regulation Lakes (Points)

Fishing_SpecReg_Lakes_Point - Fishing Special Regulation Lakes (Polygons)

Fishing_SpecReg_Streams - Fishing Special Regulation Streams

Trout_NaturalReproduction - natural reproduction trout waters

TroutStockedSections_2018 - Trout Stocked Streams

WarmwaterCoolwaterLakeFisheries_Feb2018 - Warmwater/Coolwater Fisheries - Lakes points

WarmwaterCoolwaterStreamFisheries_Feb2018 - Warmwater/Coolwater Fisheries - Streams

• Updated data from Allegheny County:

Address points Building Footprints Street Centerlines Parcels

• Updated data from DEP Mining:

DEP_California\Active
DEP_California\Abandoned
DEP_NewStanton
DEP_WilkesBarre
DCNR_Penfield
Outside_Collections\Blue Coal

Updated shapefiles:

PASDA Index Shapefile to update the Atlas (dated 1/26/2018). Master Index Shapefile for the FTP (dated 1/26/2018).

Updated data from Lancaster County:

Municipal Boundaries Road center lines Urban Growth Area Polygons

Updated data from USDA:

April 2018

• Updated data 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 Fish and Boat Commission:

Approved_Trout_Waterbodies - Stocked Trout Water Bodies (Polygons)

Approved_Trout_Waterbodies_pt - Stocked Trout Water Bodies(Points)

• Updated data from Allegheny County:

Address points

Building Footprints

Street Centerlines

Parcels

• Updated data from DEP Mining:

DEP_California\Active

DEP_California\Abandoned

DEP NewStanton

DEP_WilkesBarre

DEP_Pottsville

Outside_Collections\IMAPS

Updated shapefiles:

PASDA Index Shapefile to update the Atlas (dated 3/26/2018).

Master Index Shapefile for the FTP (dated 3/26/2018).

May 2018

• DEP Update:

Oil and Gas Locations

Mined Out Areas

Longwall Mining Panels

Underground Mining Permit

Oil and Gas wells conventional/unconventional

• Updated data from Allegheny County:

Address points

Building Footprints

Street Centerlines

Parcels

- Data from Crawford County:
 - o Address points
 - Address locations
 - o ALS Zones
 - o BLS Coverage
 - o Cemeteries
 - o Fire Depart Coverage
 - o ID Point OD
 - o Landmarks
 - o Muni election district
 - o Police Dept. Coverage
 - o Polling Places.
 - o Public Safety departments
 - o QRS department
 - o Railroads
 - o Rec Trails

- o Rescue Dept coverage
- o Rivers/Streams
- School districts
- Street center lines
- o Tax Parcels
- Updated data from DEP Mining:

DEP_California\Active

DEP_WilkesBarre

DEP_Pottsville

Outside_Collections\IMAPS

Updated shapefiles:

PASDA Index Shapefile to update the Atlas (dated 4/20/2018).

Master Index Shapefile for the FTP (dated 4/20/2018).

• Updated data from DCNR:

Explore PA Trails

• Updated data from Susquehanna River Basin Commission: Topographic Wetness Index for Adams, Franklin, York and Lancaster Counties

<u>Iune 2018</u>

- Acquired photos from 1950s (18 PA Counties) and all of 1964 from PA Topo Geo for scanning and inclusion into penn pilot historic imagery collection.
- DEP Update:

Oil and Gas Locations

Mined Out Areas

Longwall Mining Panels

Underground Mining Permit

Oil and Gas wells conventional/unconventional

• Updated data from Allegheny County:

Address points

Building Footprints

Street Centerlines

Parcels

• Updated data from Fish and Boat Commission:

Class A Streams - Class A Wild Trout Streams

ClassA_Streams_pt - Class A Wild Trout Streams - points

 $Trout_Natural Reproduction \ - \ Stream \ Sections \ that \ Support \ Wild \ Trout \ Production$

Lakes_PFBCDatabase - PFBC Database Lakes (Polygons)

Lakes_Point - PFBC Database Lakes (Points)

- Updated data from Eastern PA Coalition for Abandoned Mine Reclamation: Mine Drainage Discharges from the Anthracite Coal Fields
- Updated data from PA Land Trust Association:

Federal – federally owned land
State – state parks, state forests, game lands, PHMC properties, and F&B properties
Local – county or municipal-owned lands like local parks
Privately_owned – land trust fee properties such as nature preserves
Conservation easements

• Updated data from Lancaster County:

Updated data from Lancaster County: Municipal Boundaries Road center lines Urban Growth Area Polygons

• Updated data from SRBC:

30 year precipitation data for Susquehanna River Basin

- Updated data from PA Dept of Health: Nursing Homes
- Updated data from SRBC:

Area Underlain by Natural Gas Shales in the Susquehanna River Basin

• Updated PennDOT data:

Bridges, Facilities, PA_RMSPOSTED, Rail, Congressional boundaries, County boundaries, Engineering

District boundaries, Interstate Highway Exits, Mile Markers, Local Roads, State Roads,

Administrative Roads, School Districts, Senatorial boundaries, PA State boundary, House

boundaries, Traffic Counts, MPO/RPO boundaries.

GISADMIN_MPMSPROJECTSVIEW_LINES

GISADMIN MPMSPROJECTSVIEW POINTS

GISUSER_RMSHPMSSAM

GISUSER_RMSINTERSECTION

GISUSER RMSPIPE

GISUSER_RMSRRX

GISUSER RMSSHLD

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): Delaware Valley Regional Planning Commission, Normandeau Associates, Temple University, TeleNav, PUC, York County Planning Commission, esri, DDC Public Affairs, Millersville University, National Trust for Historic Preservation, AGES Inc, Riparia, Clearwater Conservancy, Shippensburg University, Delaware River Watershed Initiative, MidAtlantic Engineering, Pennsylvania General Energy, Jim Borbeau Land Service, National Aviary, Cumberland County, DRS and Associates, Edgewood Software, EPA Region 3, Buzzfeed.com, Temple University, Pennsylvania State Police Troop A Greensburg Criminal Investigation Unit, Central Electric Cooperative Inc., KSA Inc, Telenay, DataNerds.com, HACC, Crawford County, Range Resources, PEMAIndivisible Berks, City of Philadelphia, eads group, esri, US dept of defense, PA Fish and Boat Commission, University of Maryland Center for Environmental Science, Office of Open Data and Digital Transformation (Phila), Riparia Wetlands Center, DEP Moshanon District Office, Dawood Engineering, Lucky Productions, Lancaster County, Centre County, PA Dept of Health, Chivers Construction, USGS, PA state police, EQT Corporation, Temple University, PPL, University of Vermont, Research for Action, PA Utilities Commission, Urban Engineers, PA Topo Geo, United States Department of Agriculture, Trout Unlimited, Northeastern PA Alliance, Amec/Foster/Wheeler, University of Maryland center for environmental science, PA Game Commission, Range Resources, Kreamer Survey Associates, Dauphin County, Bourbeau Land Service, 5 Ms Mineral Management, USGS, NSGIC, Skelly and Loy, HHDS Architects and Engineers, Bohler Engineering, Carnegie Mellon University, Franklin County, City of Philadelphia, WHM Group, Fractracker.org, North Central PA Regional Development and Planning Commission, DDS Companies, Nature Conservancy, RepSol, Scherbarth, LLC, Shippensburg University, Mott MacDonald Inc, Urban Engineers, PA Fish and Boat Commission, University of Florida Center for Aquatic and Invasive Plants, Susquehanna River Basin Commission, Crawford County, USGS, Epic Road Trips, Allegheny College, Maser Consulting, Urban Engineers, PA DCNR, Arcadis US, Range Resources, City of Pittsburgh Department of Innovation and Services, EPA Region 3, The Town Hall Project, Cumberland County, National Aviary, DrillingInfo Inc, PA Land Trust Association, SynerGIS, UniTec Consulting Engineers, Hershey Surveying, National Park Service (Gettysburg), Wayside Exhibits, Land Base Systems, PEMA, Tenld, PA Rural Water Association, EPCAMR, City of Philadelphia, US Army Corps of Engineers, Pittsburgh District, University of Pennsylvania, Drive Engineering, KSA Inc, GAI Consultants, College of Natural Resources University of Wisconsin-Stevens Point, Uni-Tec Consulting Engineers, US Fish and Wildlife Service, Army Corps of Engineers, Gilmore and Associates, Cantania Engineering Associates, Rettew Engineers, US Office of Surface Mining, PEMA, Evans Mill Environmental, Pennsylvania Association of Conservation Districts, RGA Incorporated, Tioga County, PA DEP, Site Design Concepts Inc, Berks County, Mackin Engineering, York County, Carbon County,

Austin Community College, Natural Lands Trust, West Virginia University, Browne Design Group Landscape Architecture, Tetra Tech, GAI consultants, NSGIC, EDR, Philadelphia Cricket Club, Hampton Technical Associates, PA One Call, Shoup Engineering, PA DEP, Langan Engineering, PA Dept of Health, PA Game Commission, PennDOT Engineering District 5, PennDOT Engineering District 10, Ted Oman and Associates, Bohler Engineering, Young and Associates Consulting Engineers, PEMA, Allegheny County, PennDOT Cultural Resources Unit, US Office of Surface Mining, The Thrasher Group, US National Weather Service, PA Office of Legislative Services,): Evans Mill Environmental, LLC, Office of Legislative Services, PennDOT Engineering District 4, AD Marble Inc, Bloomsburg University, Florida Atlantic University, Department of Environmental Protection | Bureau of Abandoned Mine Reclamation Cambria District Office, Pennsylvania Venture Capital Inc, Eric Waterworks, PennDOT Engineering District 6, Landdmark Forestry LLC, PA Fish and Boat Commission, DCED, Clarion County Office of Emergency Services, NPACC, Alta Planning and Design, Lancaster County, PA Fish and Boat Commission, TransAssociates, AKRF Environmental Planning, Clarion County, NPACC, PA State Historic Preservation Office, PennDOT District 5, EPACMR, USGS, HDR Associates, Shippensburg University, PAGeologic Survey, Tetra Tech, University of Delaware, Range Resources, Susquehanna School District, State Info Services, DEP Moshannon District Office, DEP Cambria District Office, Game Commission, California University, PEMA, PSU Geography, Corelogic, Tioga Environmental Consulting, National Map USGS, StateInfoServices, DEP, Delaware River Basin Commission, Tetratech, CNX, Venango County, Cabot Oil and Gas, Bloomsburg University, CH Planning, Natural Lands Trust, Allegheny County, Carnegie Mellon University, GeoDecisions, Harden Engineering, Eric County, City of Philadelphia, Range Resources Appalachia Division, Census Bureau, Natural Lands Trust, University of Vermont, USGS, Delaware River Basin Commission, PA AFL-CIO, Chester County, PennDOT, CHPlanning, LGG Tech, Langan Engineering, Advanced Treatment Inc, MASSGIS, CoreLogic, Riverview Homes Inc, Robinson Aerial Surveys, AECOM, National Aviary, US Census Bureau, Reading Eagle, Echelon Applied Geosciences, Murraysville Township, RES, Susquehanna River Basin Commission, Consulting Engineer Services, Range Resources, Symmetry Software, University of Vermont, PA Sea Grant, University of Alabama, Robinson Aerial Surveys, City of Philadelphia Water Department, Shippensburg University, Erie County, PennDOT, Reading Eagle, Keystone College, Atlantic Broadband, Broadhead Creek Regional Authority, Kutztown University, Arora and Associates, Allegheny College, Rand Corporation, Tioga County, Vox.com, Vetro Fibremap, Geodecisions, Crawford County Planning Commission, Urban Engineers, Symmetry, Pittsburgh Water and Sewer Authority, Scout Clean Energy, Bradford County Planning, Digital Real Estate Asset Management, Delaware Valley Regional Planning Commission, Groundwater and Environmental Services Inc, National Aviary, Susquehanna River Basin Commission, University of Pittsburgh, Ernst Conservation Seeds, Thrasher Group, National Trust for Historic Preservation, EMHT Engineers, Schnabel Engineering, Pennsylvania General Energy, ARM Group INC, Allegheny Professional Services, Harrisburg University, **Cumberland County**