Penn State Institutes of Energy and the Environment

Data Repositories

Maurie Caitlin Kelly November 18th 2010 Pennsylvania Spatial Data Access: PASDA
Fisheries and Aquatic Resources Node: FAR
Mid Atlantic Information Node: MAIN
ChesapeakeView
Penn State Geospatial Commons



URL: http://www.pasda.psu.edu

About the Program: Pennsylvania Spatial Data Access is Pennsylvania's official public access geospatial data clearinghouse. PASDA started in 1996 with 35 data sets and metadata records. Currently, PASDA houses thousands of data sets and 30 terabytes of data from federal, state, local, regional, academic, and non-profit data partners.

PASDA Facts & Background...

- PASDA started in 1996 w/ 35 data sets and metadata records
- PASDA currently maintains:
 - thousands of data sets, associated metadata, IMS, apps, etc
 - 30 terabytes of data contributed from partners in Federal, state, local, regional, & non-profit organizations
- PASDA participates in Geospatial One Stop and the National Biological Information Infrastructure—our metadata is harvested by both

PASDA Facts & Background...

Statistics over last 12 Months

- 12+ million uses accessing data, services, educational information
- More than 14 terabytes of data downloaded
- Over 7000 user support interactions (phone and e-mail)
- Over 4 million users of Internet Map Services and applications such as the PA Navigator

How we Acquire Data

➢Donuts, beer, wine, promises to create metadata...after beer and wine

PASDA Data Acquisition

Work directly with data partners to identify and acquire data
Data is acquired based on:

≻Framework layers

≻Requests from users—weather and energy data

Specific important events (Hurricane Ivan flood event)

≻Legally mandated

Development of partnerships—local and regional governments

≻Was developed using state funds (Growing

Greener or Rivers Conservation Programs)

PASDA Data Appraisal

Data creators are subject experts

>However, input from the community of users is always welcome. If a question or problem arises with the data, we bring it to the attention of data creators. This is one of the most effective ways of creating better data.

>Sometimes user comments will result in changes or updates. Other times, users may be using data that is not really meant to be used in a certain way. Data Retention Approach

Though storage is not necessarily cheap...We keep everything!
All imagery is stored and access is provided
For other data sets, most recent is provided but we will provide access to archived data sets (PennDOT roads for example)

Data Access Approach

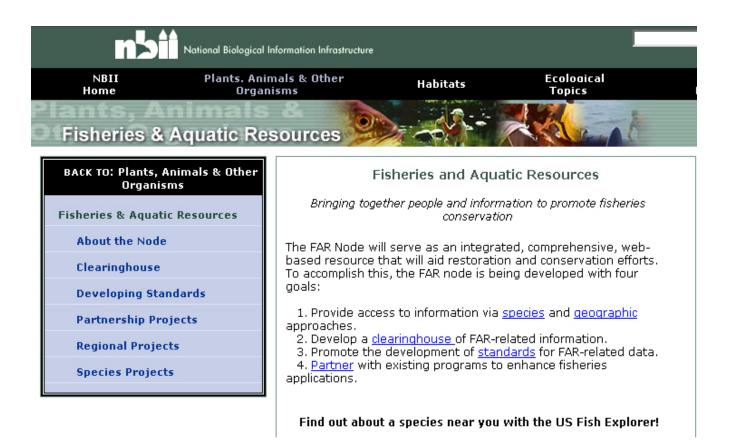
Stored on FTP site for direct download of original files

➢Included in data viewing and download apps like the PA Imagery Navigator or PA Atlas (have search, identify, viewing, and download functions.

Develop Internet Map Services for all data—data can be imported directly into desktop software

Develop KML files for all data—for viewing in Google Earth
All data is also "viewable" in our Data Previewer (an open layers app focused on the non GIS user)

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National Biological Information Infrastructure Fisheries and Aquatic Resources Node (FAR)

URL: <u>http://far.nbii.gov</u>

About the Program: The FAR node is a part of the USGS National Biological Information Infrastructure which is comprised of thematic and regional data nodes. FAR works with partners across the US and abroad to develop data sharing agreements, create unique applications, and promote education and conservation of fisheries and aquatic environments.



National Biological Information Infrastructure Mid-Atlantic Information Node (MAIN)

URL: http://main.nbii.gov

About the Program: MAIN began in 2004 and serves as a regional node for five states and the District of Columbia. MAIN is an effort to integrate biological information by region covering numerous themes, species, and habitats.

MAIN/FAR Data Acquisition & Appraisal

≻Works directly with data partners to identify and acquire data

≻Data is acquired based on:

Scientific projects funded by USGS/NBII

≻Requests from users or data producers

Specific important initiatives—Eastern Brook Trout

Development of partnerships

≻No legal mandate

➢Data is appraised by scientists, biologists—the data creators

Some is shared, some in closed systems due to sensitivity (sturgeon)



Welcome to ChesapeakeView



ChesapeakeView is a collaborative project of the AmericaView program. **AmericaView** (AV) is a nationwide program that focuses on satellite remote sensing data and technologies in support of applied research, K-16 education, workforce development, and technology transfer.

ChesapeakeView is the first regional **AmericaView** initiative. The purpose of the **ChesapeakeView** project is to facilitate access to remotely sensed data related to the Chesapeake Bay region. This effort seeks to highlight the data resources of the **AmericaView** partners in the Chesapeake Bay region including Maryland, New York, Pennsylvania, Virginia, and West Virginia.

Our Partners

<u>AmericaView</u> <u>MarylandView</u> <u>New YorkView</u> <u>PennsylvaniaView</u> <u>VirginiaView</u> <u>West VirginiaView</u>

Upcoming Events

EPAMeetingsontheChesapeake BayScience for the Future of theBayASPRS 2010 Fall ConferenceASPRS2011AnnualConference

Why focus on the Chesapeake Bay?



Data Search

Data Search

Search for datasets using one of the following options:

Use the Data Search to discover and access spatial (GIS) data!

To get started, perform a search and then explore the ways you can access the data you find...

• Download Data.

 Add multiple datasets to your data cart for processing and download.

 Access datasets via online maps, WMS services, or direct connections in ArcGIS. <u>■ Search by Keyword(s):</u>

■ <u>Search by Data Provider:</u>

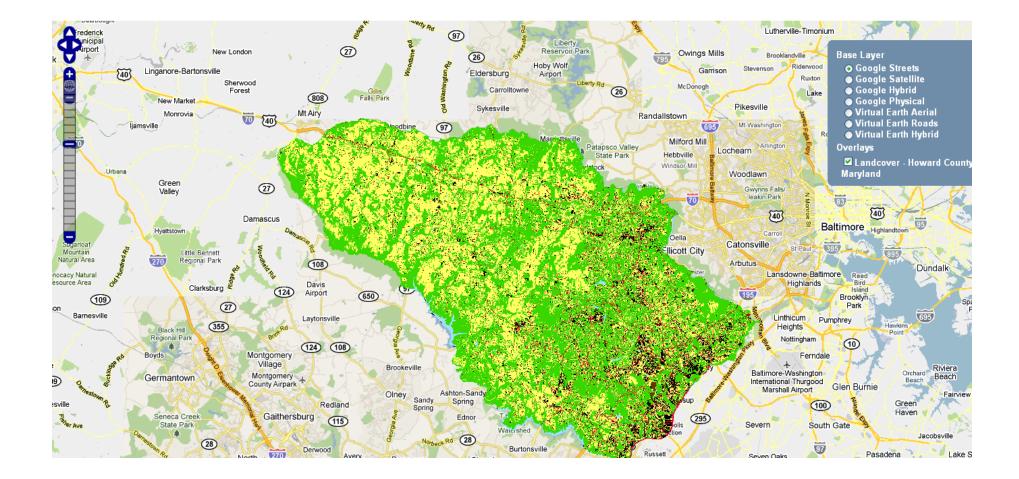
⊞ <u>Search By Region:</u>

⊞ <u>Search by Map:</u>

Browse <u>All Data</u>

List datasets available via Internet MapServices

	chesapeakeview		
Search Results	Search Results		FTP Download Data Applications & Viewers Add To Your Data Cart For Download
2 datasets matched your search criteria.	Return to Search Page		MapServices (ArcGIS/WMS)
	Title	Originator	
Click a dataset's title to view	Land Cover Jefferson County, West Virginia	University of Vermont Spatial Analysis Laboratory	2007 🗒
its metadata	Landcover - Howard County, Maryland	University of Vermont Spatial Analysis Laboratory	2007 📙
Click one of the icons described below to access the data (not all options are available for every dataset)			
 Download data directly to your computer. 			
 View or learn more about the dataset in a separate Website. 			



ChesapeakeView Data Acquisition

ChesapeakeView was a collaborative effort.
PSU, Cal U of PA, West Virginia U, Virginia Tech, Suny Syracuse, AmericaView program, and Towson worked together to identify data that should be included
These AmericaView partners have frequent team calls to keep info up to date and identify new data or collections to include. Penn State Geospatial Commons

≻Effort spanning about 5 years

≻Focused on

- ➤ continuation of existing geospatial data resources
- Acquiring new data to benefit the university
- Address issues and needs related to NSF and other funding agency data requirements
- >Document research activity at PSU
- >Provide a jumping off point for major geospatial efforts



Pennsylvania Energy Data Portal ... the portal to energy data for exploration, research, workforce development, and education for Pennsylvania

Home Fossil Fuels Data BioMass Data Wind Energy Data Solar Energy Data PA Energy Atlas Workforce Development Contact Us

Welcome!

Energy is a critical issue for many Pennsylvanians today and will likely continue to be in the foreseeable future. The Pennsylvania Energy Data Portal supports access to energy related data, provides data storage for data from research to workforce development and education, and offers visualization capabilities via Google Earth and Google Maps.

Data Highlights

National Renewable Energy Lab Data Solar potential, biomass resource assessment, wind resource maps, and wind potential.

PAMAP LIDAR Digital Elevation Models, contour enhancement lines, and topographic contours.

Pennsylvania Department of Environmental Protection Coal mined areas, oil & gas well locations, and industrial mining operations.

NOAA--NWS Wind speed, wind gusts, and wind direction.

Online Mapping

The Pennsylvania Energy Atlas View data, create energy and workforce related maps...and more

Energy Data Map Services RBring data to your desktop with our map services

View Data in Google Earth See data in the Google Earth interface

URL: http://www.energydata.psu.edu (in development)

About the Project: The PA Energy Data Portal is an pilot effort to highlight existing and future energy related data for the state. The portal can also highlight Penn State data related to energy research and development.

Aviation Noise Information & Resources.



- > About NoiseQuest
- > About Airports
- > Noise Basics
- > Sources of Aviation Noise
- Sources of Non-Aviation Noise
- > What does Noise Affect?



NOISEQUEST

URL: http://www.noisequest.psu.edu

About the Program: NoiseQuest is a research based educational website that provides information to the public on issues related to sound and airports. The goal of NoiseQuest is to develop and maintain a website that is a resource for both airports and communities, and that provides educational information on aviation noise. Our goal is to have a user friendly, informative site that is readily accessible to the public and that enhances airport and community relationships.