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
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 http://www.pasda.psu.edu
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

PASDA http://www.pasda.psu.edu
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)
Search Results

View Your Data Cart

Return to Search Page

<table>
<thead>
<tr>
<th>Title</th>
<th>Originator</th>
<th>Date</th>
</tr>
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<tbody>
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<td>National Average vertical column smoke from fires Forecasts - NDGD -- Air Quality</td>
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<td>National Precipitation Amount Forecasts - NDFD</td>
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<td>2010</td>
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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.
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.

Why focus on the Chesapeake Bay?

Our Partners

- AmericaView
- MarylandView
- New YorkView
- PennsylvaniaView
- VirginiaView
- West VirginiaView

Upcoming Events

- EPA Meetings on the Chesapeake Bay
- Science for the Future of the Bay
- ASPRS 2010 Fall Conference
- ASPRS 2011 Annual Conference
Data Search

Search for datasets using one of the following options:

- **Search by Keyword(s):**
  
  To combine multiple keywords, type the words below and select one of the following options: □ AND □ OR

- **Search by Data Provider:**

- **Search By Region:**

- **Search by Map:**

Browse All Data

List datasets available via [Internet Map Services](#)
## Search Results

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<td>Landcover - Howard County, Maryland</td>
<td>University of Vermont Spatial Analysis Laboratory</td>
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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
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.
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.