PA State Geospatial Coordinating Board

2022 Annual Report

Table of Contents

Michael Newsome,
Secretary

I am pleased to present the State Geospatial Coordinating Board (GeoBoard) annual report for 2022.

The GeoBoard was established to improve coordination and collaboration on geospatial policy and technical issues. The volunteer members of the GeoBoard represent a variety of stakeholders, experiences, and perspectives to promote this mission. In the GeoBoard, they have a forum to share their views and collaborate on ideas that further Geographic Information Systems (GIS) in Pennsylvania.

A significant outcome of the Geoboard's collective efforts in 2022 was the approval of the PA BaseMap 2030 vision for authoritative maps of the key features of Pennsylvania, including boundaries, roads, and topography. The vision recognizes the challenges of change, and will shape the future through small, positive actions taken together.

The GeoBoard anticipates many changes in 2023. I thank the members who have served throughout my tenure as Secretary for their service and the example they have set for those who will follow.

Michael Newsome

Governor's Office of Administration

About the GeoBoard

The Pennsylvania State Geospatial Coordinating Board (GeoBoard) was established in 2014 under Act 178 to:

> "Provide advice and recommendations to the Governor and the citizens of this commonwealth on geospatial issues and provide uniform data standards, coordination and efficiency in geospatial policy and technology issues among Federal, State and local government agencies, academic institutions and the private sector"

In June 2020, the operations of the GeoBoard were re-authorized through the enactment of Act 37 of 2020.

The GeoBoard has the following powers and duties under Act 178:

1. Recommend data development priorities and interoperability standards for data sharing across agencies and different units of government across this Commonwealth.

2. Monitor national and state trends, identify issues of potential interest and concern to the Commonwealth, and submit annual reports to the Governor and the General Assembly and other reports as necessary.

3. Define and prioritize strategic opportunities where maps and spatial analysis activities could enhance the business of government and provide more cost-effective services to citizens. This may include recommendations of specific geospatial technology investments in the Commonwealth.

4. Develop task forces as needed to formulate recommended positions or actions. The task force membership may be comprised of board members or designees appointed by the board. The board shall consider any task force recommendations at its next meeting.

Current and accurate maps benefit citizens every day—wayfinding, 911 dispatch, environmental monitoring, voting and tax administration, grant allocation, human services delivery, and planning land development are just a few examples. Our maps and information are notably better when state, local, and federal data and resources are integrated. The GeoBoard is the forum where these interests can come together.

Vision

Through the work of the GeoBoard and its partners, geospatial activities throughout Pennsylvania will be enhanced through open communication, collaborative efforts, unified planning, and coordinated implementation, resulting in effective and efficient use of geospatial resources.

Executive and Administrative Actions

The quarterly meetings of the GeoBoard document activities and decisions of the various GeoBoard task forces and working groups, which identify opportunities and share ideas for collaboration throughout the year. Key agenda items and decisions made by the GeoBoard in each meeting include:

March 17, 2022

- 2021 annual report approved by email vote and published online
- Acknowledged three Senate appointments to the GeoBoard
- Tracking of new business topics summarized for archiving

May 26, 2022

- Report on BaseMap 2030 kickoff workshop held March 30
- Report on executive director briefings to agency sponsors
- Forward focus on 3D aspects of spatial data development and use

August 11, 2022

- Update on Next Generation 911 (NG911) migration and data hub
- Report on National Address Database inclusions from Pennsylvania
- Service Delivery update on BaseMap 2030 data management directions
- PA BaseMap 2030 vision accepted; approved August 30 by email vote

November 17, 2022

- Acknowledged GeoBoard membership changes:
    - Pennsylvania Emergency Management Agency (PEMA)
    - Office of Administration
- Approved Special Report on the Importance of Broadband Access to the Commonwealth's Geospatial Community
- Approved Special Report on PA GIS Data Sharing
- Established 2023 meeting schedule

Details about the 2022 board meetings, reports, and supplemental material are available on the official State Geospatial Coordinating Board website.

The Leadership Team meets biweekly to provide continuity and direction, and is comprised of the GeoBoard chair, vice chair, task force chairs, executive director, and the state GIS coordinator. The Leadership Team strives to ensure GeoBoard operations comply with the intent of its authorizing legislation and requirements for state government advisory boards.

The executive director facilitates communication across and within the GeoBoard member organizations, task forces, subcommittees, and working groups by developing communications, status updates, reports, and performing data analysis where needed; and acts in good faith to promote the activities and objectives of the GeoBoard.

Task Force Activities

As identified in its authorizing legislation, the GeoBoard may develop task forces as needed to formulate recommendations and perform actions. Task force meetings occur as needed, with certain task forces meeting as frequently as monthly. Task force members from within and outside of the GeoBoard, including members from local, county, federal, and state government agencies, academia, and the private sector, contribute their time without compensation from the board.

Task forces can choose to form one or more working groups or subcommittees to focus on key goals and objectives. This section highlights the activities and important accomplishments of the three standing task force groups associated with the GeoBoard.

Service Delivery Task Force

The Service Delivery Task Force (SDTF) focuses on outreach and collaboration activities to improve spatial data and data sharing.

2022 PA GIS Data Sharing Special Report

Over the last two years, members of the SDTF worked extensively to compile information for and publish the Pennsylvania GIS Data Sharing 2022 Report. This comprehensive report presents a detailed account of the long-standing and rich history of geospatial data sharing in Pennsylvania as well as future opportunities and challenges. Since the birth of Pennsylvania Spatial Data Access (PASDA), the Commonwealth's data clearinghouse, data sharing has grown tremendously to include millions of data files that are openly accessible to geospatial users everywhere. Collaborative efforts to continue and advance data sharing throughout our communities remains a priority for the GeoBoard.

Data and Services Working Group Formation and Survey

Professionals with different geospatial expertise and backgrounds participated in a working group over the summer of 2022. This group operated in conjunction with the SDTF to explore Pennsylvania's data and service needs in greater depth. Discussions involved data updates, data access, and funding challenges as well as opportunities that include the use of newer technologies and the value of statewide data for our residents and communities. A survey was created and shared to gain greater insight into continual data and service challenges and expected opportunities. With 270 individuals responding to the survey, the feedback will greatly help the SDTF and the GeoBoard plan how to meet current needs and prepare for future opportunities.

Center for Immersive Experiences Partnership

Members of the SDTF had the exciting opportunity to tour the Center for Immersive Experiences (CIE) at the Pennsylvania State University. The CIE is using innovative technologies like virtual reality (VR) to advance education and outreach throughout the university. Potential partnerships with the CIE exist to promote future sharing of more complex datasets across Pennsylvania.

Pennsylvania Land Record Database

Ongoing collaboration with the Land Records Subcommittee of the County GIS Professionals Association of PA (County GIS Professionals) is helping to identify a champion that will coordinate statewide land record data and pave the way for increased data sharing. Involvement from interested stakeholders that embrace a variety of land record interests and backgrounds will help achieve the goal of attaining a seamless and comprehensive parcel and land record database for the PA BaseMap 2030 initiative.

Data Program Task Force

The Data Program Task Force (DPTF) fosters interactions among stakeholders with interests or responsibilities in specific data layers that comprise the PA BaseMap. For most data layers, individual working groups meet to improve data quality, increase knowledge and acceptance of data standards, promote shared stewardship, and decrease duplication in data development and management.

NG911 GIS Working Group

This team is responsible for standardization and aggregation of datasets necessary for NG911, and its data development and coordination activities are proving valuable for many other applications across Pennsylvania. Members include PEMA, County GIS Professionals, PennDOT, Office of Administration, and the County Commissioners Association of Pennsylvania (CCAP).

Imagery

- PEMA statewide high-resolution Orthoimagery, second cycle data capture is ongoing.

- PEMA reported the end of the Orthoimagery contract in 2023 and continued discussions with the Elevation Working Group to consolidate future data acquisition planning.

Addresses

- Supported and updated best practices for Site/ Structure Address Points for NG911 core functions. PEMA provided financial assistance in the form of grants to standardize and enhance address data already available in each county.

- The working group's monthly meeting provided opportunities for updates and technical discussions among members.

- The working group actively supported activities led by the Office of Administration to promote and populate the National Address Database (NAD); seven counties contributed their address data.

- A subcommittee studying secondary uses of standardized address data and long-term resolution of addressing challenges in some counties began meeting in mid-2022.

Road Centerlines

- Members helped PennDOT define a study to assess integration of county road information standardized and aggregated for NG911 with statewide Highway Performance Management System data. The study included 10 counties' road data and suggests increased efficiency in integrating local road data when compared to the current practice.

Hydrography Working Group

Members include Department of Conservation and Natural Resources (DCNR) Bureau of Geological Survey, County GIS Professionals, U.S. Geological Survey (USGS), Keystone GIS, Natural Resources Conservation Service (NRCS), and the Federal Emergency Management Agency (FEMA).

- Held regular technical calls about the Pennsylvania Hydrography Dataset (PAHD) and presented a virtual session on progress in stream data modernization for a national 3D Hydrography Program (3DHP) Forum in April.

- Provided state inputs to the 3,400 sq. mi. Raystown Elevation-derived Hydrography Pilot Project managed by USGS and a related National Wetland Inventory pilot project managed by the U.S. Fish and Wildlife Service (USFWS).

- Outlined a pilot study on integration of accurate stream alignments with civic boundary files maintained by PennDOT.

- Worked with the NRCS office in Pennsylvania to define the location for an additional 5,000 sq. mi. of new 3D hydrography and actively promoted integration of Chesapeake Bay hydrography data in that project area to reduce costs and operationalize integration across the rest of the Susquehanna River basin.

- Held an informational session for interested state agencies to provide updates on the deprecation of the National Hydrography Dataset (NHD) and planned development of 3DHP as its successor.

Civic Boundary Working Group

Members include PennDOT, Department of Community and Economic Development (DCED), County GIS Professionals, Pennsylvania Society of Land Surveyors (PSLS), PA One Call System, Local Government Commission, U.S. Census Bureau, and the PA State Data Center.

- Held quarterly working group conference calls.

- Advised Local Government Commission (LGC) on successful legislation to unify boundary change reporting and institute additional boundary change procedures (Act 41 of 2022).

- Supported LGC development of a report to the General Assembly on difficulties that arise from having multiple data sets that depict boundaries differently for different official purposes.

- Supported the Statewide Boundary and Annexation Survey (BAS) agreement between DCED and the U.S. Census Bureau.

Elevation Working Group

Members include Keystone GIS, DCNR, County GIS Professionals, USGS, Pennsylvania State System of Higher Education (PASSHE) – GIS Consortium, PASDA, Susquehanna River Basin Commission (SRBC), PennDOT, and Office of Administration.

- Held quarterly informational sessions, which were planned for and guided by an eight-member steering team.

- Pennsylvania's representation on the National 3DEP Working Group by DCNR is informed by the working group discussions and vice-versa.

- Hosted presentations on the value of considering imagery and lidar technologies together when planning for data acquisition, given the rapid development of tools and technologies that make combined processing and analysis practical.

- Curated technical discussions on future topographic data needs, which resulted in a draft white paper entitled "Remote Sensing Stewardship – Exploring Alternatives to Current Practice".

Geodetic Working Group

Members include SSHE – GIS Consortium, PSLS, PennDOT, and National Geodetic Survey.

- Revived the successful Geodetic Working Group from 2020 and began monthly meetings to prepare for the datum shift expected in 2025; key topics included needed legislation and GIS community education.

Governance Task Force

The Governance Task Force (GTF) focused on the future of geospatial activity in Pennsylvania through communications and coordinated implementation of the Strategic Plan by the individual task forces. Most other activity is managed in smaller subcommittees and their work is reviewed by the GTF as a whole.

Strategic Plan Implementation

The GTF worked with the other task force leaders to develop a list of tasks and short-term goals outlining their approach to achieving the strategic goals. This approach not only provides more details on priorities and manageable steps to achieving the strategic goals, but it also acts to enhance coordination among the task forces.

GeoBoard Communications

The GTF initiated periodic updates to the GeoBoard website that included a revamped website home page and development of expanded document libraries and internal working repositories.

Subcommittee Activities

Legislative Review Subcommittee

The Legislative Review Subcommittee (LRS) refocused efforts on monitoring the progress of geospatially focused bills in the legislature and communicating updates to GeoBoard membership on a recurring basis. Additionally, the LRS implemented a keyword search to assist in identification of newly introduced
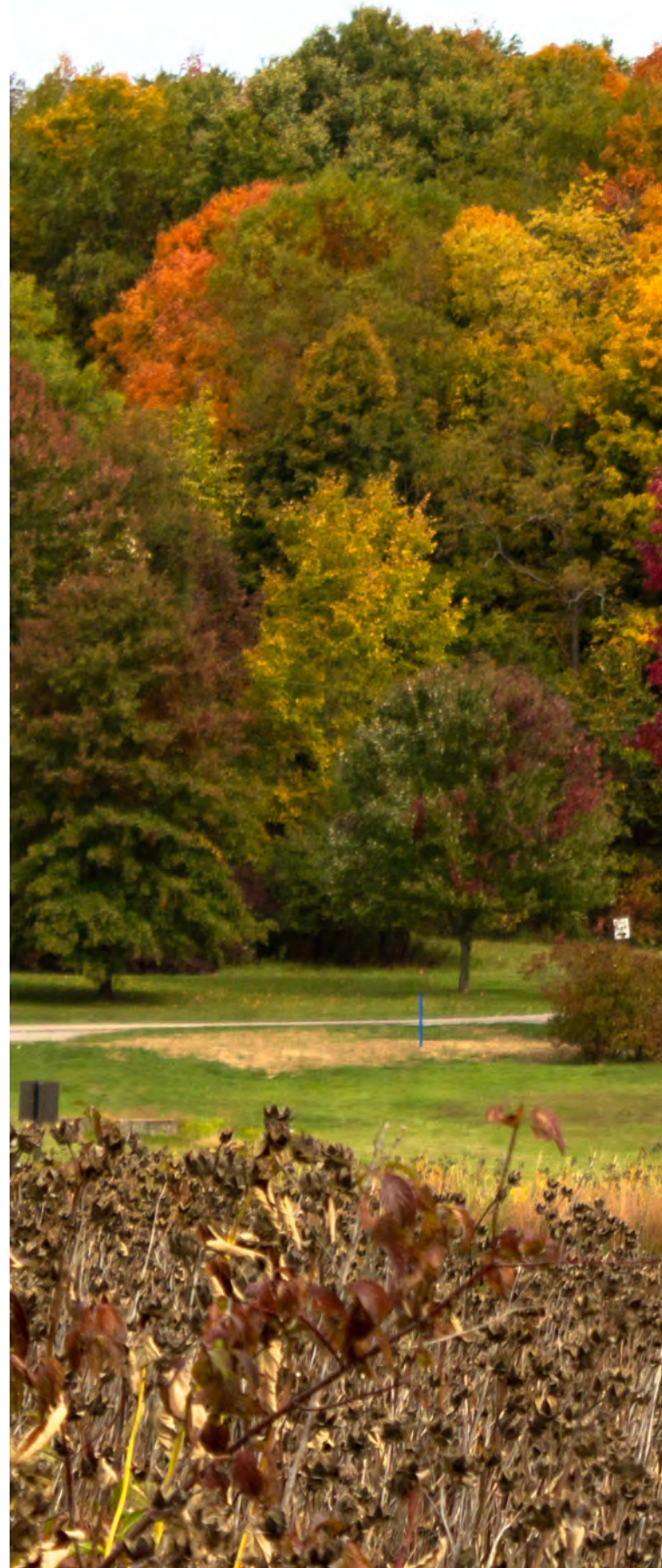
legislation that might affect geospatial activities. The combination of these efforts has increased legislative awareness among GeoBoard members so they can respond to the legislation according to their individualized needs rather than as a singular "GeoBoard level" response.

Broadband Subcommittee

A new short-term subcommittee was formed in response to the national and state level broadband development efforts. The Broadband Subcommittee focused its efforts on conveying the reliance of modern geospatial solutions on robust broadband access. The subcommittee generated a special report on the "Importance of Broadband Access to the Commonwealth's Geospatial Community" which can be accessed on the GeoBoard website.

GIS Census Subcommittee

A new short-term subcommittee was formed based on suggestions from the geospatial community. The GIS Census Subcommittee began exploring ways to increase understanding of geospatial resources, namely how many geospatial professionals operate in Pennsylvania, where these resources are employed (government, private, non-profit), and understanding the articulation between projected need and actual workforce development taking place in the state.

APPENDIX: Membership

The designees, alternates, and volunteers make the GeoBoard possible and successful.

State Geospatial Coordinating Board		
VOTING MEMBERS		
Organization Member	**Member Name**	**Formal Designee**
Secretary of Administration	Michael Newsome	John MacMillan Mike DeMatt (11/22)
Secretary of Environmental Protection	Ramez Ziadeh (Acting)	Kevin Eaton
Secretary Conservation and Natural Resources	Cindy Dunn	Gale Blackmer
Director of Pennsylvania Emergency Management Agency	Randy Padfield	Jeff Thomas Jeff Boyle (11/22)
Secretary of Transportation	Yassmin Gramian	Frank DeSendi
Secretary of General Services	Curtis Topper	Matt Bembenick
Secretary of Agriculture	Russell Redding	Cheryl Cook
SENATE: Municipal Authority	William Campbell	—
SENATE: Elected Local Government Official - Rural Community	Jason Aucker	—
SENATE: Elected Local Government Official - Suburban Community	Bethany Blackburn	Joseph Livoti
HOUSE: Elected Local Government Official - Urban Community	—	—
HOUSE: Employee of County Emergency Management Agency	Phil Colvin	Glenn Mohler
HOUSE: Individual with Expertise in Geospatial Technology	—	—
County Commissioners Association of Pennsylvania (CCAP)	Kevin Boozel	Scott Zubek
Pennsylvania Society of Land Surveyors	Michael Krieger, PLS	Matthew Warner, PLS
Individual with Expertise in Data Development and Sharing	Kenneth Juengling PA Turnpike Commission	—
County GIS Professionals Association of Pennsylvania	Laura Lettiere	Seth Kerr
Pennsylvania Mapping and Geographic Information Consortium	Dave Gilbert	—
Pennsylvania Chapter of the Management Association for Private Photogrammetric Surveyors	Howard Hodder	—

State Geospatial Coordinating Board		
NON-VOTING EX-OFFICIO MEMBERS		
Organization Member	**Member Name**	**Formal Designee**
United States Geologic Survey Mapping Liaison	Eliza Gross	—
Pennsylvania One-Call System	Bill Kiger	—
Public Utility Commission - Chairman	Gladys Brown	Damon Anderson
Pennsylvania State System of Higher Education - GIS Consortium	Scott Drzyzga	—
Pennsylvania Municipal Authorities Association	—	—
American Planning Association, Pennsylvania Chapter	—	—
Pennsylvania Spatial Data Access - Director	Maurie Kelly	—
Pennsylvania State Police Commissioner	Colonel Robert Evanchick	Lindsay Manning
Executive Director	Eric Jespersen	—

State Geospatial Coordinating Board	
TASK FORCE CHAIRS	
Task Force	**Task Force Chair Name**
Service Delivery	Laura Lettiere
Data Program	Jeff Boyle
Governance	Kevin Eaton

PA State Geospatial Coordinating Board