



PA State Geospatial Coordinating Board

2023 Annual Report





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Message from the Secretary

I am pleased to present the State Geospatial Coordinating Board (GeoBoard) annual report for 2023.

The mission of the GeoBoard is to strengthen partnerships and open channels for collaboration between federal, state, and local stakeholders to work together to address geospatial policy and technical issues.

The all-volunteer GeoBoard represents people and entities from across the Commonwealth with a particular interest in geographic information systems (GIS). This diverse group brings a variety of experiences and viewpoints to an open forum where their unique and varied perspectives contribute to collaborative approaches, fresh ideas, and exciting innovations. The comprehensive representation of the board ensures that the unique challenges facing each stakeholder are addressed and room for growth is recognized across the Commonwealth and down to a hyper-local level.

One of the great successes of the GeoBoard during 2023 has been the continued work on the PA BaseMap 2030 initiative. The board's ingenuity has contributed to a unified vision for authoritative mapping of Pennsylvania's key features, including boundaries, roads, and topography. Multiple work groups are collaborating to advance this exciting initiative, while recognizing and addressing challenges that are specific to all parties.

GIS is rapidly advancing the availability of resources and services for Pennsylvanians, including improved responses to weather events, public health and safety concerns, transportation, and more of the everyday issues that affect us all.

I'd like to recognize the dedicated board members and participants in the various working groups and thank them for contributing their energy and enthusiasm to advance GIS in Pennsylvania for the collective benefit of all.

Neil R. Weaver

Secretary, Governor's Office of Administration

About the GeoBoard

The Pennsylvania State Geospatial Coordinating Board (GeoBoard) was established within the Office of Administration by [Act 178 of 2014](#) 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.

Membership defined in the original Act includes public, private, and academic interests. Board members represent the extended community of those who create and use geospatial data. Members cede no control to the GeoBoard and it has no authority over their actions. As it has developed since 2014, the outlook of the GeoBoard is long-term with the goal of collaboration for shared benefit and improvement.

Executive and Administrative Actions

Leadership

The GeoBoard Leadership Team is comprised of the chair, vice-chair, task force chairs, and executive director, and is advised by the state GIS coordinator. It meets biweekly 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,

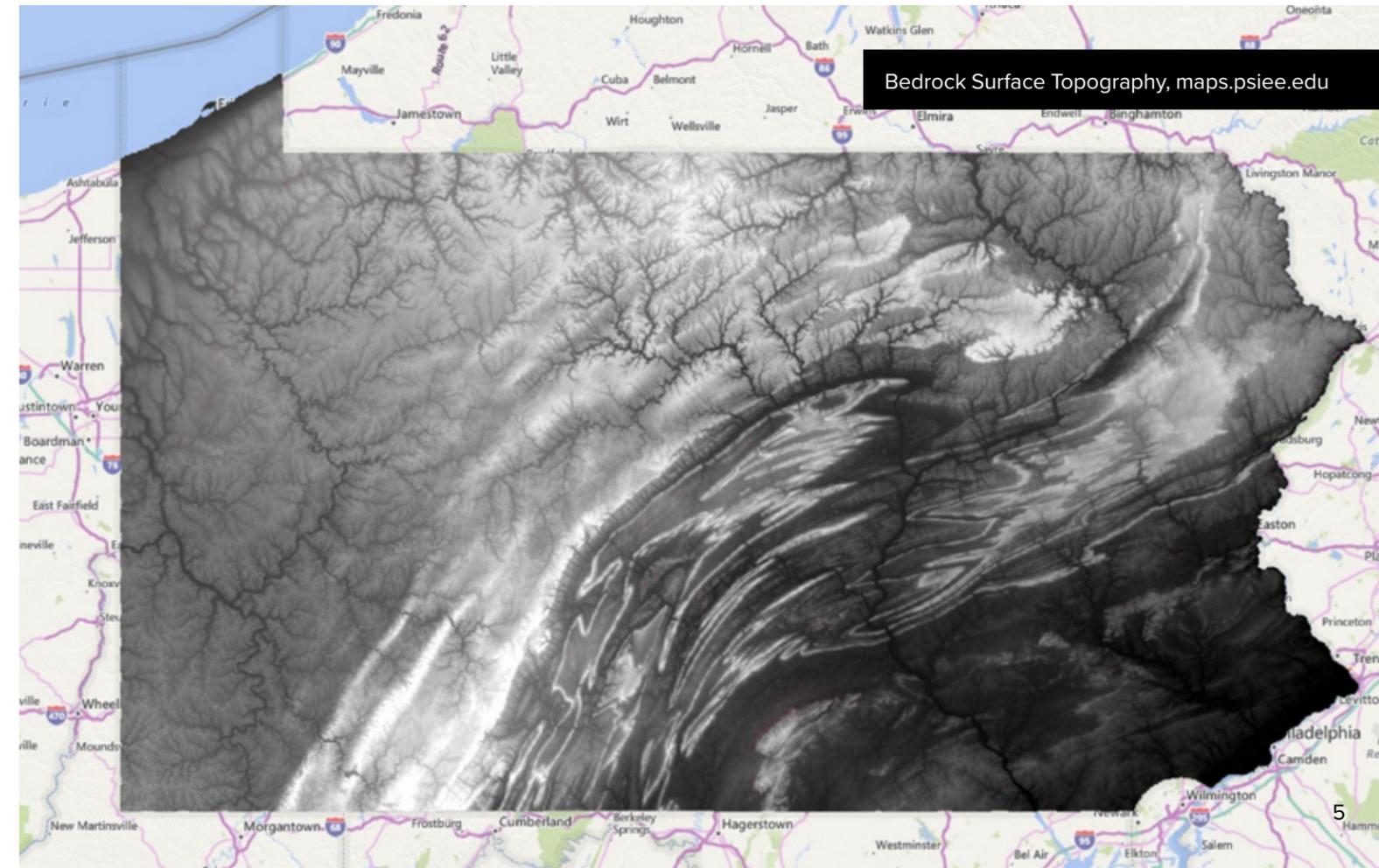
and performing data analysis where needed, and acts in good faith to promote the activities and objectives of the GeoBoard.

Quarterly Meetings

The quarterly meetings of the GeoBoard document activities and decisions of the various GeoBoard task forces and working groups. Key agenda items and decisions made by the GeoBoard at each meeting include:

March 16, 2023

- Approved 2022 annual report by incumbent members for publication online
- Reviewed strategic plan implementation approach for the year
- Summarized status and plans for new member appointments expected from the Shapiro Administration



June 8, 2023

- Welcomed newly appointed board members
- Received report of Data Program Task Force workshop on individual data layer roadmaps
- Discussed the Remote Sensing Opportunity Brief presented by the Elevation Working Group

August 10, 2023

- Received report of Service Delivery Task Force workshop on expanding data sharing
- Discussion of potential policy recommendation on State Plane Coordinate System legislation

November 16, 2023

- Received report of Data Program Task Force workshop on an integrated BaseMap roadmap
- Approved Update of Official Procedures of the GeoBoard
- Approved Special Report on PA State Plane Coordinate System
- Established 2023 meeting schedule

Details about the 2023 board meetings, reports, and the strategic plan are available on the official [State Geospatial Coordinating Board](#) website.

Task Forces

As identified in its authorizing legislation, the GeoBoard may develop task forces as needed to formulate recommendations and perform actions. 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.

Each task force develops an annual *Strategic Plan Implementation Approach* that identifies priorities and guides volunteers. Progress is highly dependent on volunteer interest and tasks are updated regularly to remain fresh and maintain momentum.

Service Delivery Task Force

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

Activities

In addition to quarterly meetings, the SDTF steadily encouraged and expanded data access through the clearinghouse at [Pennsylvania Spatial Data Access \(PASDA\)](#) and took the lead in emphasizing the shift from 2D to 3D data and analytics. The 3D focus ranged from exploration of the Center for Immersive Experience at Penn State University to monitoring the progress of the PEMA-supported demonstration project in Cambria County.

The task force sponsored a workshop in July on expanding data sharing, which generated the following action items:

1. Identify existing programs – Hazard Mitigation Planning, MS4, and DOT 3D2025 are examples – as homes for possible data improvement initiatives, building upon the example of Site Structure Address Points for NG911.
2. County data sharing agreements should be examined and revisited in light of new interagency sharing and its heightened executive support.
3. Study the potential of designating BaseMap 2030 layers as data that can be shared without reservation, provided that no personally identifiable data is exposed.

The SDTF supported the monthly meetings of the County GIS Pros Land Record Committee to identify sponsors and methods for the statewide aggregation of county parcel data for agency use.

Reports

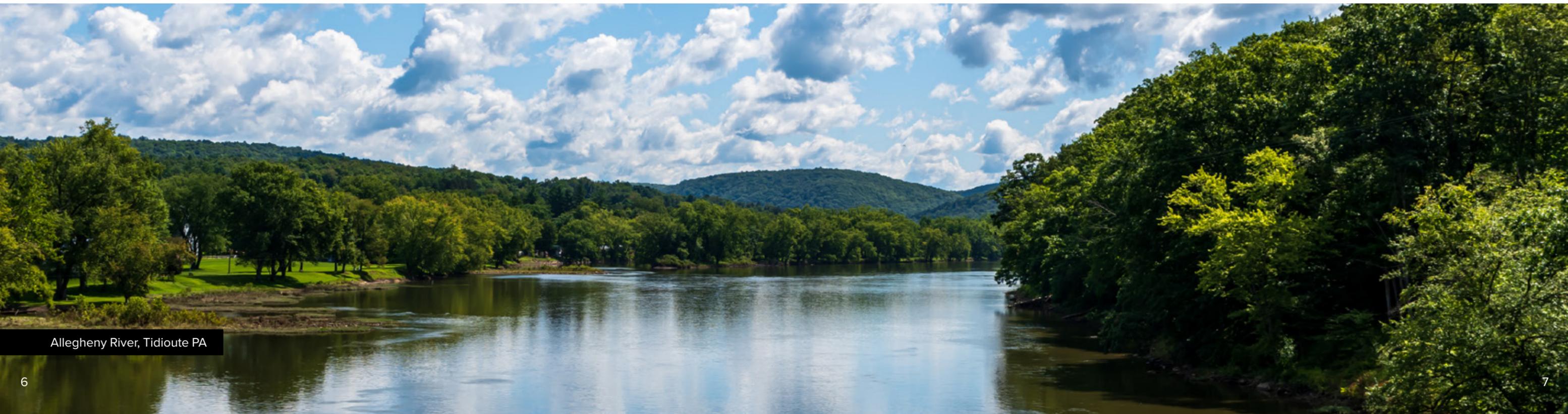
- COVID-19 Special Report Follow Up – completed February 2023
- PA Basemap 2030 and 3DPA Report – in final review

Plans

First quarter 2024 efforts will include meetings to explore:

1. How do counties and the state build better working and data sharing relationships? What are the limitations of the current data sharing environment and data sharing agreements?
2. What examples do we have of effective bi-directional data sharing between counties and state agencies?

How can we use BaseMap 2030 as a vehicle to fortify geospatial skills and technology in local governments and state agencies simultaneously?



Allegheny River, Tidioute PA



Appalachian Trail, PA

The SDTF will continue efforts to highlight 3D data and analytics, including promotion of demonstration projects and exploration of online services through PASDA that serve data and services related to PA BaseMap 2030.

The task force plans to sponsor a metadata workshop in February 2024.

Governance Task Force

The Governance Task Force (GTF) focuses on the future of geospatial activity in Pennsylvania through communications and coordinated implementation of the strategic plan by the individual task forces.

Activities

The GTF evaluated progress on the published implementation tasks during each quarterly joint task force meeting.

In anticipation of the GeoBoard’s potential sunset on June 30, 2024, the GTF recommended several minor changes in structure upon reauthorization and monitored progress on reauthorization.

A subcommittee reviewed and revised the Official Procedures of the GeoBoard to reflect the evolution in GeoBoard operations since 2015. The entire task force approved the changes for discussion by the leadership team and vote of acceptance by the GeoBoard membership in November.

The GTF reviewed and advised on updates and improvements to GeoBoard communications as recommended by the executive director. The task force is monitoring progress on the updates.

Reports

- Comments on Reauthorization to Leadership Team, May 2023
- GeoBoard Official Procedures

Plans

A task force subcommittee will review and update the 2021 Geoboard Strategic Plan for discussion and approval at the March 2024 quarterly meeting.

The task force will guide the publication of an updated *Strategic Plan Implementation Approach* for the coming year.

The GTF will monitor progress on reauthorization of the GeoBoard and work through members’ legislative liaisons in support as appropriate.

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. 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.

Activities

Meeting as a whole in May, the DPTF reviewed the functions and successes of the GeoBoard with the individual working groups in light of the need to integrate the individual datasets into *PA BaseMap 2030*. Participants agreed on the basic format of a roadmap for their datasets and to prepare one for sharing by October.

For the October Joint Task Force meeting, the DPTF organized presentations by individual working groups in order to:

- Compare roadmaps to refine them for each working group.
- Fortify the Data Program Task Force as a whole.
- Gather information for a unified/integrated PA BaseMap 2030 roadmap.

Individual Working Group Activities

Geodetic Working Group

- Produced the *State Plane Coordinate System Special Report*, which was accepted for publication at the November GeoBoard meeting.

Hydrography Working Group

- The United States Geologic Survey (USGS) delivered final products for the 3,400 sq. mi. Raystown Elevation-derived Hydrography Pilot Project.
- USGS began a Natural Resources Conservation Service (NRCS) funded project to create an additional 5,000 sq. mi. of 3D hydrography that will integrate Chesapeake Bay hydrography data to reduce costs and operationalize integration across the rest of the Susquehanna River Basin.

Civic Boundary Working Group

- Supported the Statewide Boundary and Annexation Survey (BAS) agreement between the Department of Community and Economic Development and the U.S. Census Bureau; the agreement was signed in February.
- Supported the Local Government Commission in development of a report to the General Assembly entitled *Drawing Lines—Variance in Municipal Boundary Maps* on difficulties that arise from having multiple datasets that depict the same boundaries differently.
- Began supporting a pilot project to understand processes for aligning the Department of Transportation and Census boundary datasets in collaboration with local governments.

NG911 GIS Working Group

Imagery

- PEMA completed statewide high-resolution orthoimagery second cycle data capture, and that data quality control is ongoing. The program ends March 31, 2024.
- PEMA stated support for the OA Geospatial

Services Remote Sensing Program as a possible successor to its imagery program.

Addresses

- Approximately 50% of addresses in the state are now covered by NG911 Core Services.
- A subcommittee studying secondary uses of standardized address data and long-term resolution of addressing challenges met monthly; its case study can guide data management activities for other datasets.

Road Centerlines

- PennDOT tested the utility of using standard road centerlines from the GIS Data Hub to update the Roadway Management System database.

Elevation Working Group

- Hosted presentations at quarterly meetings on technical developments in remote sensing, focusing in particular on 3D mesh and modeling and applications of drones and other field technologies.

- Curated technical discussions on future topographic data needs and produced an opportunity brief entitled, Remote Sensing Stewardship – Exploring Alternatives to Current Practice. After presentation and discussion at the June GeoBoard meeting, OA Geospatial Services agreed to the challenge of leading the future remote sensing program.

Reports

- Remote Sensing Stewardship – Exploring Alternatives to Current Practice
- *State Plane Coordinate System Special Report*
- Data Task Force Joint Working Group Workshop Summary
- PA Basemap Roadmap Workshop Summary

Plans

Continue development and promotion of the PA BaseMap 2030 roadmap, focusing on specific opportunities where individual working groups might formalize collaboration with one another.

Support PA Geospatial Services as needed in the development of a new statewide remote sensing program.

Conclusion

Now in its 10th year, the GeoBoard will undergo its second legislative reauthorization in 2024 with a track record of progress and success.

The PA BaseMap 2030 initiative has opened pathways to single, authoritative sources of data for the locations of boundaries, roads, buildings, and geographic features. This achievement demonstrates the capacity for the GeoBoard to help drive meaningful change to address issues that were previously intractable. Meanwhile, the ongoing research and discussion of 3D geospatial data is helping to ensure that a new spirit of cooperation is integrated into GIS initiatives going forward.

The incredible impact of location data on our society, economy, and daily lives is well understood by GIS professionals. Yet, this impact remains largely unknown to the public and even many policy makers.

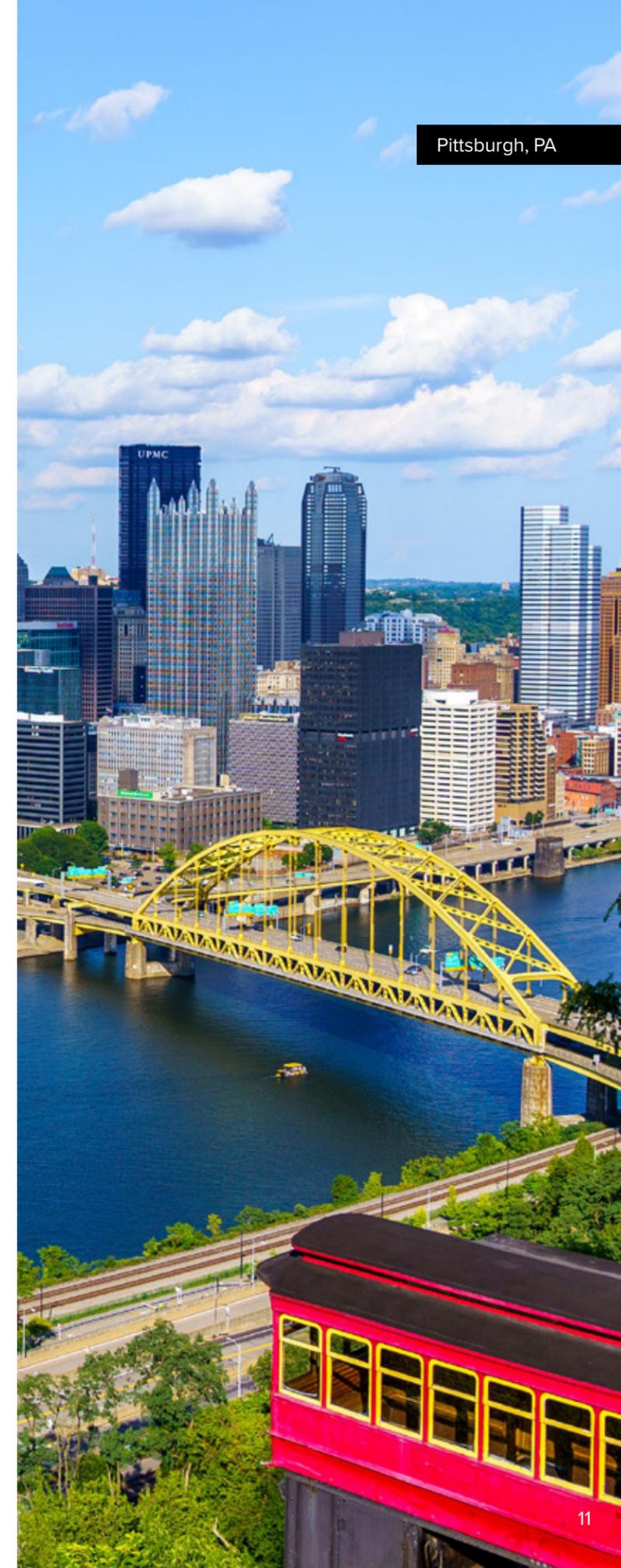
Geospatial Did That

One GeoBoard participant drafted the following message to everyone who benefits from GIS, in the hope of raising awareness and ensuring this critical asset has continued support in the future.

The quiet underpinning of all we do is geospatial data and technology. Every bit of ground under our feet has a unique location identification, and there is no other place exactly like it. From navigational support to emergency response, we depend upon information derived from current and accurate data. We now have the capability and the capacity to create a digital twin or representation of our surroundings and environment, one that enables better development planning and citizen support. Although citizens easily access information through digital products sold by businesses, it really begins with government at all levels.

Geospatial elements have enriched nearly all professions with greater accuracy and complex analysis for the betterment of all. We work steadily to ensure high quality data for public safety. We provide accurate locations for property boundaries and transportation networks. We build interactive construction models with input for all trades in order to recognize and solve issues before the first shovel hits the ground. We have knowledge of geology and geography that informs our choices for land uses. We go to the fields and streams to collect data for the protection of endangered species. We provide maps for citizens to explore parks and waterways for recreation. We can interact with our environment using geofences to alert family members of wandering children or pets. We can see an image of our own home that was captured from space.

Geospatial technologies did that. It requires time and technical resources, employees and funding, dedication and organization, awareness and recognition, and commitment and prioritization. Most importantly, it requires your support.



Membership and Organization

To fulfill its duties, the GeoBoard has numerous working groups of people with common interests and related missions. They meet often, share ideas, and develop common visions and understanding. In addition to the members named in legislation, there are about 30 professionals who contribute their time, talent, and ideas on a regular basis. There are as many as 200 professionals who participate occasionally in working groups where their expertise and interests are served.

Overarching task forces foster interaction among these teams and consolidate ideas and information. Their activities in 2023 are outlined in this report.

State Geospatial Coordinating Board		
VOTING MEMBERS		
Organization Member	Member Name	Formal Designee
Secretary of Administration	Neil Weaver	Mike DeMatt (Chair)
Secretary of Environmental Protection (Interim Acting)	Jessica Shirley	Kevin Eaton (Vice Chair)
Secretary Conservation and Natural Resources	Cindy Adams Dunn	Gale Blackmer
Director of Pennsylvania Emergency Management Agency	Randy Padfield	Jeff Boyle
Secretary of Transportation	Mike Carroll	Gregory Dunmire
Secretary of General Services	Reggie McNeil	Matthew Bembenick
Secretary of Agriculture	Russell Redding	Cheryl Cook
SENATE APPOINTEE: Municipal Authority	William Campbell	—
SENATE APPOINTEE: Elected Local Government Official - Rural Community	Jason Aucker	—
SENATE APPOINTEE: Elected Local Government Official – Suburban Community	Bethany Blackburn	Joseph Livoti II
HOUSE APPOINTEE: Elected Local Government Official – Urban Community	Rashaad Bates	—

State Geospatial Coordinating Board		
VOTING MEMBERS		
HOUSE APPOINTEE: Employee of County Emergency Management Agency	Justin Smith	—
HOUSE APPOINTEE: Individual with Expertise in Geospatial Technology	Scott Zubek	—
GOVERNOR APPOINTEE: County Commissioner	Kevin Boozel	—
GOVERNOR APPOINTEE: Pennsylvania Society of Land Surveyors	Matthew Warner	—
GOVERNOR APPOINTEE: Individual with Expertise in Data Development and Sharing	James Whitacre	—
County GIS Professionals Association of Pennsylvania	Laura Lettiere	Seth Kerr
Pennsylvania Mapping and Geographic Information Consortium (dba Keystone GIS)	Dave Gilbert	—
County Commissioners Association of Pennsylvania	David Glass	—

State Geospatial Coordinating Board		
NON-VOTING MEMBERS		
Organization Member	Member Name	Formal Designee
United States Geologic Survey (USGS) Mapping Liaison	Eliza Gross	—
Pennsylvania One-Call System	Bill Kiger	—
Public Utility Commission - Chairperson	Stephen M. DeFrank	VACANT
Pennsylvania State System of Higher Education - GIS Consortium	Scott Drzyzga	—
Pennsylvania Municipal Authorities Association	VACANT	—
American Planning Association, Pennsylvania Chapter	William Hunt	—
Pennsylvania Spatial Data Access - Director	Maurie Kelly	—
Pennsylvania State Police Commissioner	Colonel Christopher Paris	Michael Hill

**PA State Geospatial
Coordinating Board**