



COMMONWEALTH OF
PENNSYLVANIA

**STATE GEOSPATIAL
COORDINATING
BOARD**

BOARD MEETING
AUGUST 10, 2023

[STATE GEOSPATIAL COORDINATING BOARD WEBSITE](#)

MEETING AGENDA

- Welcome and Opening Remarks
- Leadership Team Updates
- Policy Recommendation – State Plane Coordinate System`
 - *Discussion*
- Progress Report on BaseMap 2030 Roadmaps
 - *Discussion*
- Expanding Data Sharing Workshop Report
 - *Discussion*
- New Business
- Adjourn



WELCOME AND INTRODUCTIONS

- Welcome and Opening Remarks - Kevin Eaton, Eric Jespersen
- Member Roll Call



GEOBOARD LEADERSHIP TEAM UPDATES

Task Force Leaders

DATA TASK FORCE

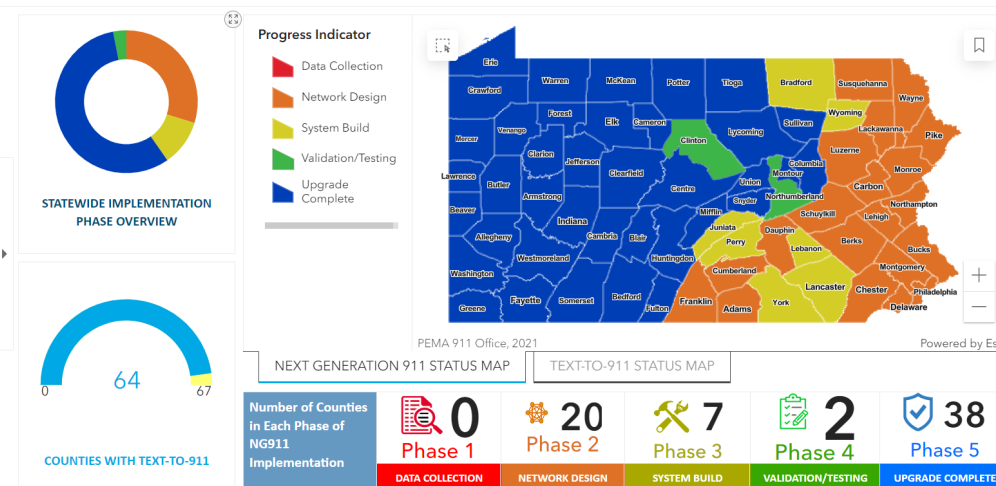
DISCUSSION ITEMS

➤ NG911 Data Development

- 38 counties: NG911 Implementation upgrade complete
- Close to true statewide coverage of GIS Data Model for NG911
 - August 2024 target

➤ Addressing/NG911 Working Group

- 2023 Goals/Activities
 - Interoperable 911 data
 - SSAP Best Practices Guide
 - PEMA aggregated SSAP is the state standard
 - Data synchronization targets
 - Standard addressing assignment plan



DATA TASK FORCE

DISCUSSION ITEMS

➤ Civic Boundary Working Group

- US Census Boundary Quality Project initiated
 - Compare US Census and PennDOT data
 - Clearfield County selected

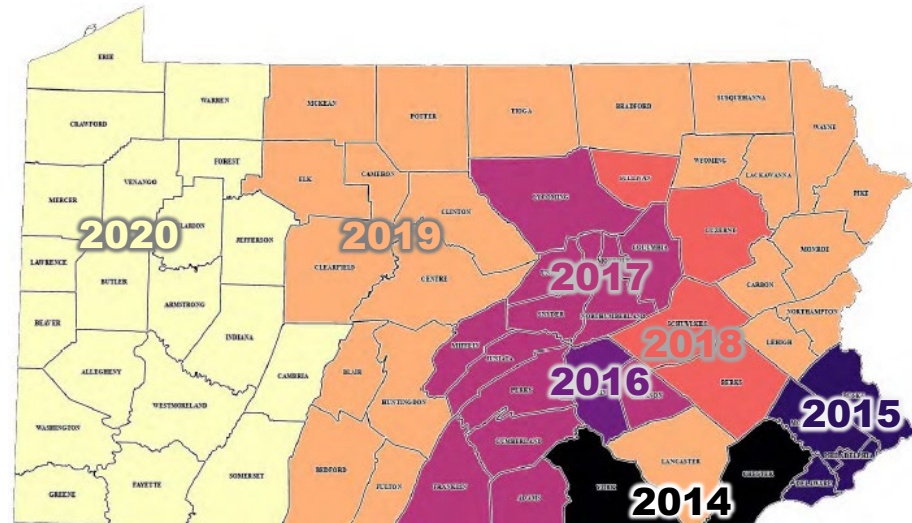
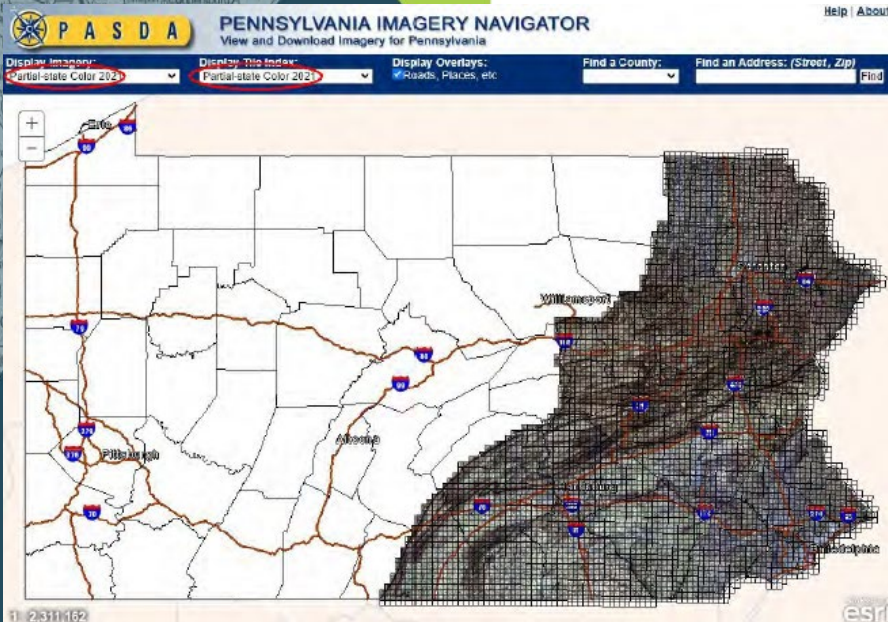


DATA TASK FORCE

DISCUSSION ITEMS

➤ Elevation Working Group

- PEMA Imagery Program Concludes imagery collect cycle
 - 28 counties have had their aerial imagery delivered
- 3DEP – 3D Elevation Program
 - USGS Releasing call for action - 5 year update cycles
 - NGAC – Assessment of 3DEP “ecosystem” concept
- Remote Sensing Goals
 - Imagery and topography program with predictable update cycles and data access

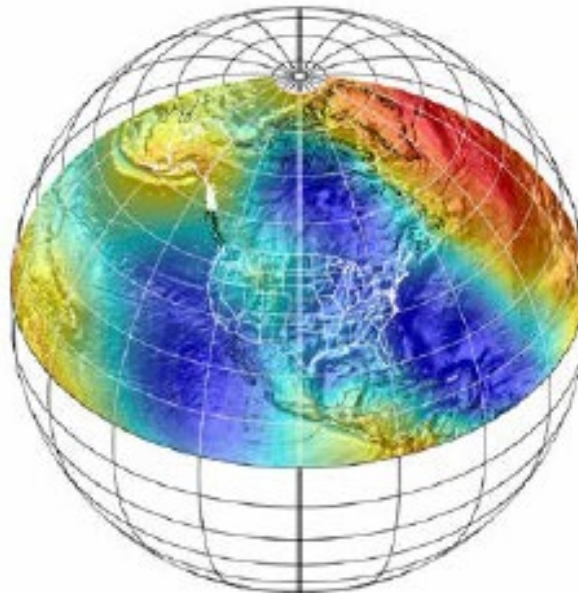


DATA TASK FORCE

DISCUSSION ITEMS

➤ Geodetic Working Group

- Policy Recommendation on State Plane Coordinate System (SPCS) of 2022
 - Discussion and acceptance vote to follow

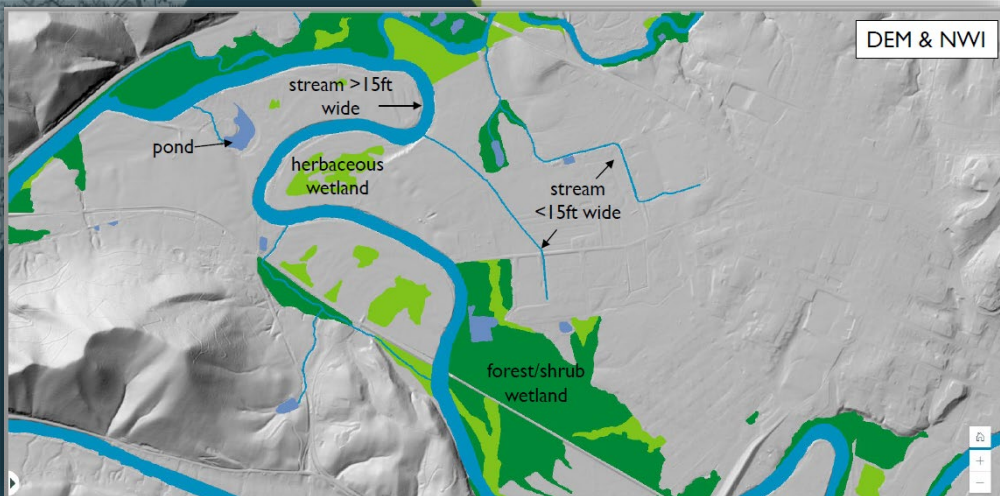


DATA TASK FORCE

DISCUSSION ITEMS

➤ Hydrography Working Group

- 3DNTM Data Collaboration Announcement (DCA)
 - DCA replaces the Broad Agency Announcement (BAA) and is intended to include partnerships for both 3DEP and 3DHP
- USFWS Wetland Pilot in progress
 - Enhancing NWI through improved interoperability with 3DEP
 - ~1.5M acres project area in Pennsylvania

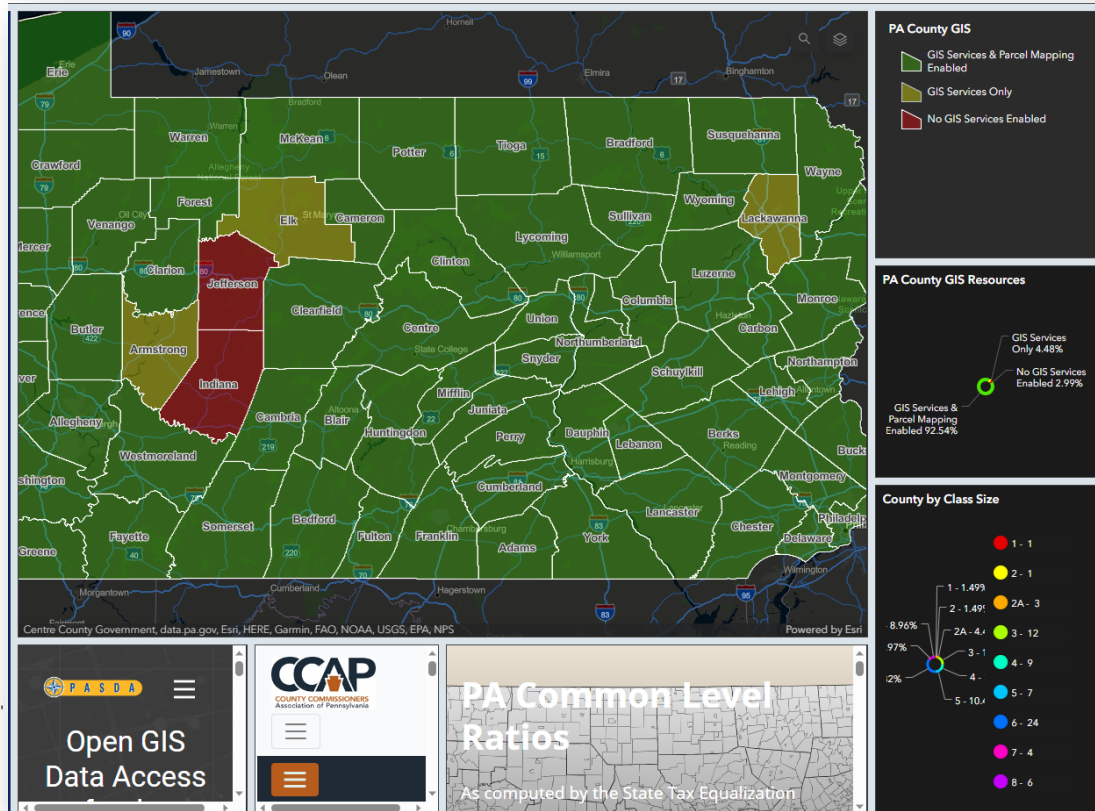


DATA TASK FORCE

DISCUSSION ITEMS

➤ Parcel Working Group (County Pro LRC)

- Goal towards standardized aggregation
- Creating a sample metadata template
- Needs assessment at State agencies



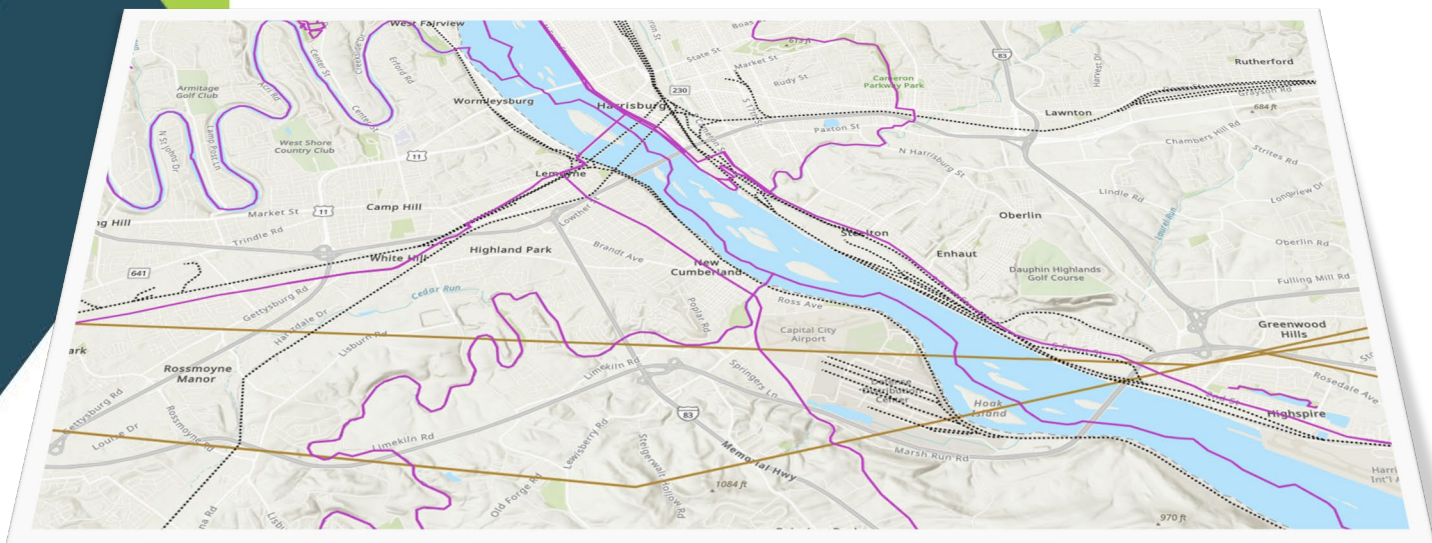
Jason Shellhammer

DATA TASK FORCE

DISCUSSION ITEMS

➤ **Transportation Working Group (?)**

- Assessing need for a new working group
 - Roads
 - Trails
 - Railroads
 - Pipelines



SERVICE DELIVERY TASK FORCE

Discussion Items:

- ▶ SDTF members prepared for the July JTF meeting which focused on identifying practical and timely solutions for expanding data sharing for Basemap 2030
 - ▶ Discussed findings from a summer 2022 working group created to explore data and service needs related to Basemap 2030 initiatives. Results were reviewed from these meetings and a draft report is available. A survey to geospatial users followed these meetings. Over 270 individuals responded.
 - ▶ Received updates from Dave Partsch about data sharing and access, open data and new developments in the commonwealth
- ▶ Center for Immersive Experiences has a new director. Possible presentation for the GeoBoard at November meeting
- ▶ Planning a metadata workshop for November
- ▶ Counties sending data updates for the PA Basemap are Bradford, Bedford, Venango, Chester, Montgomery, Bucks and Centre
- ▶ PA Basemap 3D Report - Cambria County sent images for the report. A “county focus” section will highlight what Cambria is doing. Report should be completed soon.
- ▶ PASDA Updates:
 - ▶ Received Cambria, Warren and Greene county PEMA imagery
 - ▶ Also received data from SRBC (signed data sharing agreement) as well as from the Kittatinny Ridge project

GOVERNANCE TASK FORCE

➤ **GeoBoard Reauthorization update**

- Minor changes transmitted to OA legislative liaison
- Identifying sponsor for late 2024 introduction

➤ **Communications**

• **Initial review of Communications Plan**

- Update Sharepoint
- Consolidate long-term records
- Master Contacts list

➤ **Strategic Plan Update**

- Recruiting committee
- Spring 2024 requirement

GOVERNANCE TASK FORCE

➤ **Procedures Subcommittee**

- Revising “*Official Procedures*” document.
- Realign the document’s contents based on post-COVID operations.
- Summary of revisions:
 - Executive Director position description modified.
 - Simplify the processing of business items.
 - Remove “Status Designation System.”
 - References Strategic Plan
 - Focus on Implementation Tasks as work plan
 - New “Section E” was created
 - Minor edits and document clean-up reflecting changes.

BUREAU OF GEOSPATIAL SERVICES

➤ The National Address Database (NAD)

- The US DOT has published a new release of the NAD. Thank you to all counties who submitted data to BGS to send up! If you can share your address points, please email [OA Geospatial Services \(RA-OAGEOSPATIALSERV@pa.gov\)](mailto:OA.Geospatial.Services@pa.gov)

➤ **BGS Initiatives for 2023**

- Strategic & Tactical Plan ETA DEC 2023
- State Government ArcGIS Hub Site Kickoff SEP 2023

➤ **Geospatial Center of Excellence (GCoE) Committee**

- GCoE is OA OIT's Geospatial Governance Committee
 - Currently drafting standards & governance
 - Publication upon completion ETA DEC 2023
- If you are a state agency, county, or municipality and would like to learn more about BGS, our Enterprise GIS Service Offerings, or need coordination of data/services please reach out to me – Scottie Wall – State GIS Coordinator - scwall@pa.gov

BUREAU OF GEOSPATIAL SERVICES

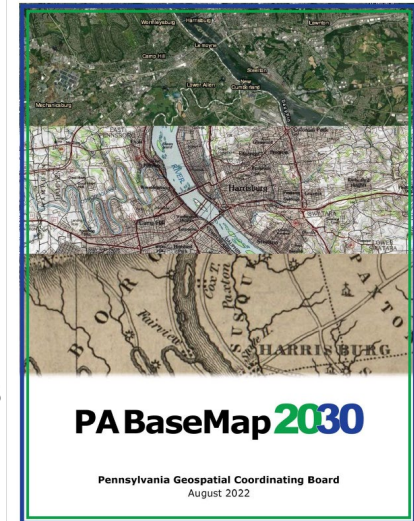
➤ **Future Lidar & Imagery Program**

- Q1 Lidar AOIs in Pennsylvania – see SeaSketch
- Due to state budgeting cycles, there will be a pause in new data after PEMA and before we can request FY24-25 funding for a future contract
- OA Geospatial Services Survey will be sent to all counties and agencies to assess:
 - Who is the point of contact in your entity for BGS planning and future programming
 - Which technical requirements for lidar and imagery they have
 - What they currently use
 - How much of their budget is currently spent on those products
 - If vendor provided, what vendor

EXECUTIVE DIRECTOR

➤ Implementation Tasks

- Data layer roadmaps push
- BaseMap 2030 frame
 - One year since acceptance
 - Chance to unify Data TF Working Groups
 - More universal messaging
- Document Data Sharing practices
 - July 13 workshop
 - Increased involvement w/ SDTF leadership
- 3DPA Demonstration Program



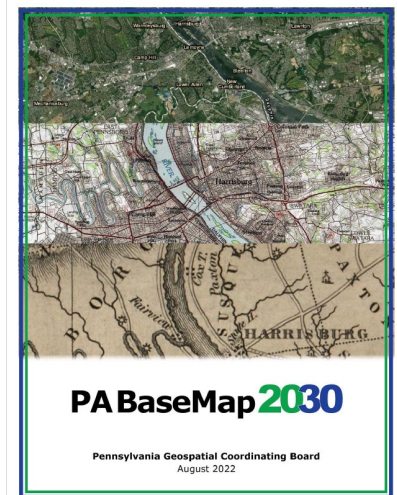
[geoboard-strategic-plan-implementation-approach.pdf \(pa.gov\)](https://www.pa.gov/geoboard-strategic-plan-implementation-approach.pdf)

EXECUTIVE DIRECTOR

➤ **Communications Plan**

- Two-prong approach
 - Internal
 - Sharepoint and longitudinal records
 - External
 - Official Products
 - Joint Task Force meetings
 - Member roles

- Taking longer than hoped
 - *"Why is having a BaseMap so important to all the people that are participating and for the residents of PA?"*





POLICY RECOMMENDATION ON STATE PLANE COORDINATE SYSTEM

Scott Drzyzga
Eric Jespersen



State Plane 2022

Where Things Stand and the Road Ahead



Michael L. Dennis, PhD, RLS, PE
SPCS2022 Project Manager

December 9, 2021

Existing SPCS83 zone designs (CONUS), with 2-zone layer for Kentucky

125°W 120°W 115°W 110°W 105°W 100°W 95°W 90°W 85°W 80°W 75°W 70°W

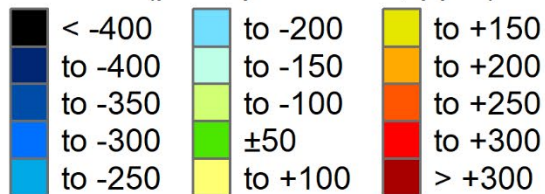
106 zones

45°N
40°N
35°N
30°N
25°N

45°N
40°N
35°N
30°N
25°N

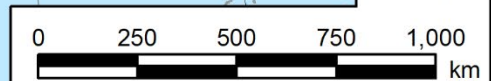
**Distortion increment 50 ppm
(1:20,000 = 0.26 ft/mile)**

Linear distortion at topographic surface (parts per million, ppm)

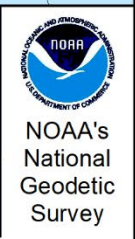


Percent area within:

- ±20 ppm = 6%**
- ±50 ppm = 17%**
- ±100 ppm = 41%**
- ±400 ppm = 91%**

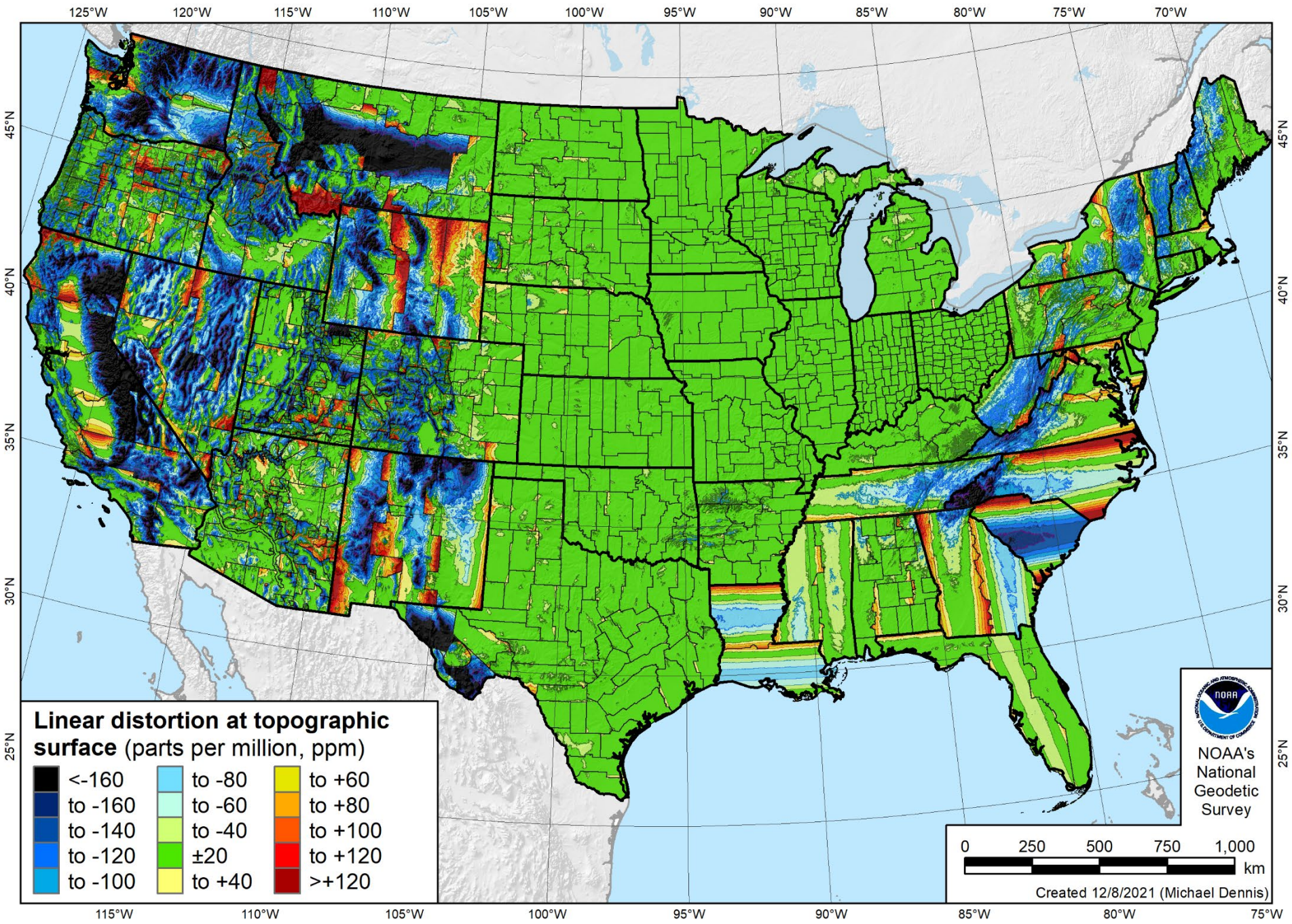


Created 12/8/2021 (Michael Dennis)



115°W 110°W 105°W 100°W 95°W 90°W 85°W 80°W 75°W

Preliminary SPCS2022 complete and partial coverage designs (CONUS)

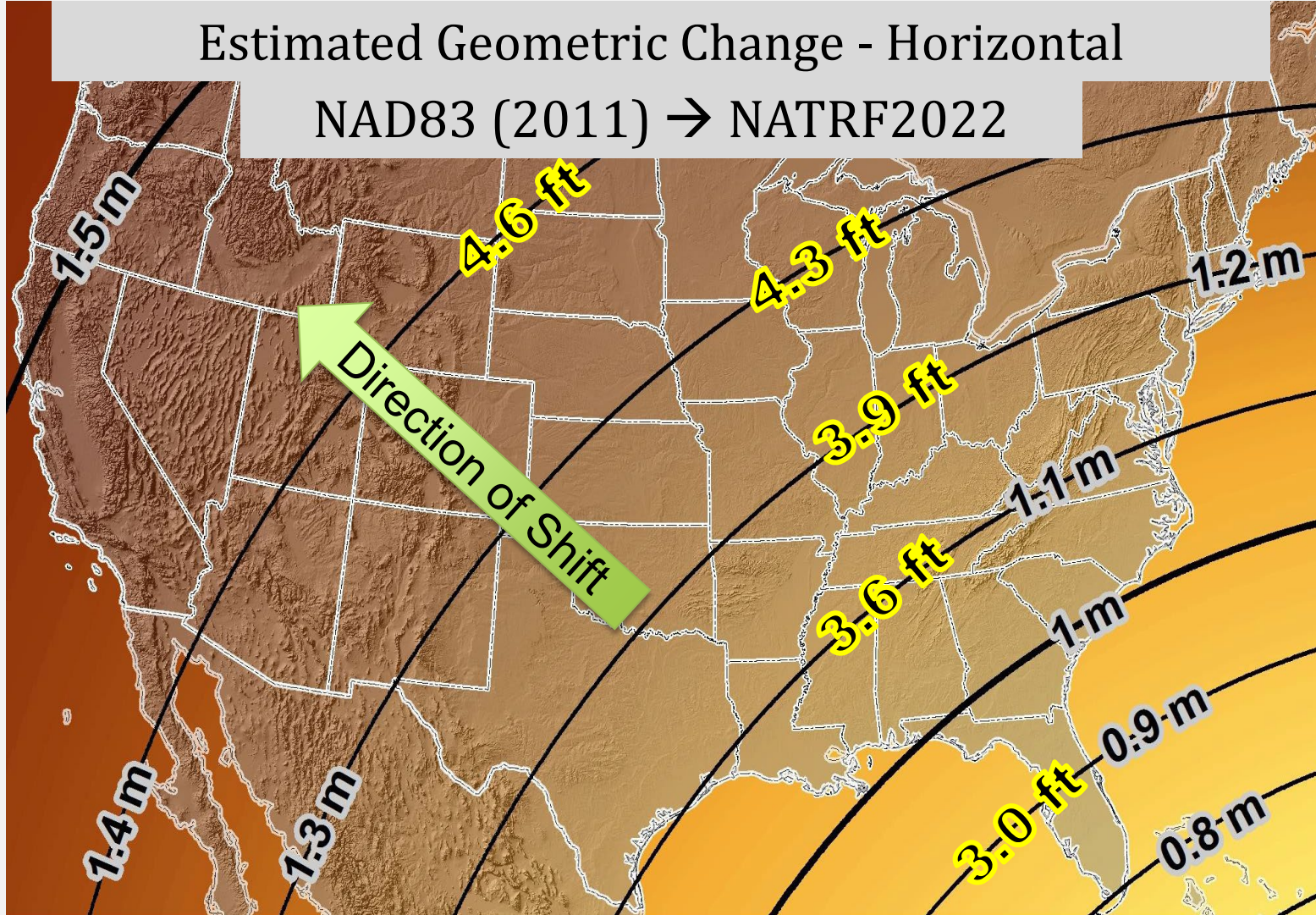


Linear distortion at topographic surface (parts per million, ppm)

Black	<-160	Light blue	to -80	Yellow	to +60
Dark blue	to -160	Light green	to -60	Orange	to +80
Medium blue	to -140	Light yellow	to -40	Red	to +100
Blue	to -120	Green	±20	Dark red	to +120
Light blue	to -100	Yellow	to +40		>+120

Estimated Geometric Change - Horizontal

NAD83 (2011) → NATRF2022



POLICY RECOMMENDATION

Timeline

- 2019** – Subcommittee established in Governance Task Force
 - NGS guidance
 - PSLS, DOT primary drivers
- 2020** – PA preferences relayed to NGS
 - Datum shift delayed to 2025
- 2022** – Geodetic Working Group reactivated to drive SPCS legislation and educational plan
 - PSLS, DOT, SSHE, NGS, others
- 2023** – Policy Recommendation

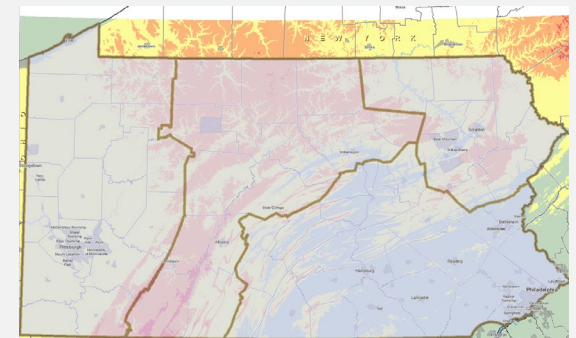
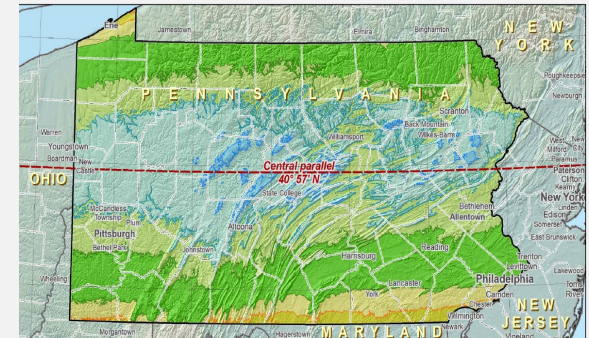
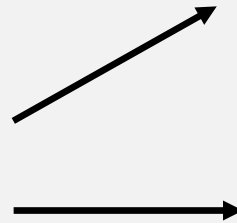
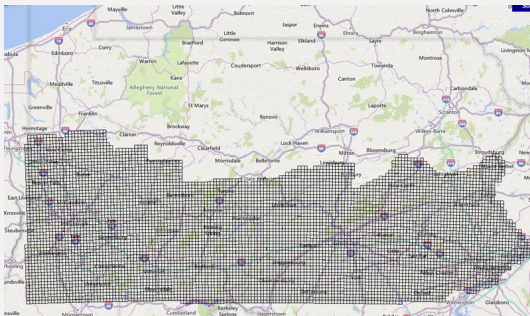
Additional Factors

Based upon National/International Standard

Federal leadership and rigorous process

Mostly transparent to users; mathematics and transformation routines will be embedded in all competent GIS and CAD software

Opportunity to increase metadata use; time component always required!



POLICY RECOMMENDATION

Rationale

The Pennsylvania Coordinate System Law (1992, P.L. 1224, No. 161, Cl. 76.) defines “a system of coordinates for designating the positions of points on the surface of the earth within the Commonwealth of Pennsylvania.”

The Law needs to be updated.

POLICY RECOMMENDATION

Rationale

If left unchanged, the Law from 1992 will, in effect, compel mapping professionals working on Pennsylvania projects to continue developing and maintaining maps and geographic datasets that are tied to outdated geodetic concepts, outdated positioning technologies, and a legacy unit of measure.

POLICY RECOMMENDATION

Summary

The purpose of the Pennsylvania GeoBoard is to: “Provide advice and recommendations ... on geospatial issues and provide uniform data standards, coordination and efficiency in geospatial policy and technology issues ...

Accordingly, the GeoBoard recommends the Pennsylvania Coordinate System Law (1992, P.L. 1224, No. 161, Cl. 76.) be updated to provide the Commonwealth with a much-improved digital framework of Pennsylvania State Plane Coordinates that is aligned with the new NSRS and finally redresses the confusing “dual foot” problem. The GeoBoard is offering the attached ideas and language to serve as the basis for upcoming legislation.

POLICY RECOMMENDATION



DISCUSSION

POLICY RECOMMENDATION



VOTE



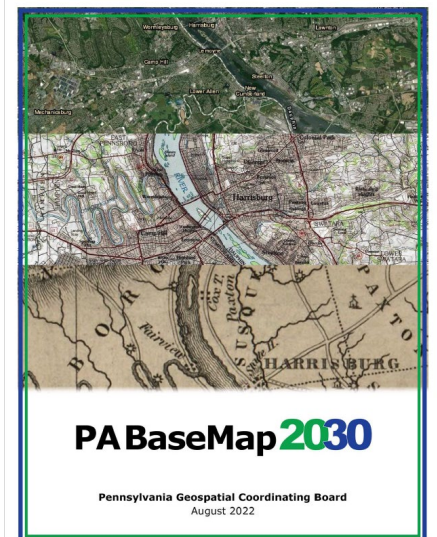
PROGRESS REPORT ON DATA LAYER ROADMAPS

DATA TASK FORCE WORKSHOP

Implementation Tasks

Each Working Group will create and publish a road map for data layer planning that informs data development and maintenance decisions by agencies and organizations in that working group and reflects the functional requirements and the integration of each dataset as a component in PA BaseMap 2030.

Convene a series of meetings where representatives of all data working groups present...



DATA TASK FORCE WORKSHOP

Decisions

Each working group will create an annual update known as its roadmap. The roadmap will include at least the following information:

- **Goal(s)** describing the desired end state of the dataset by 2030, in plain language, including:
 - o data stewardship plans
 - o update cycles and accuracy goals
- **Stretch goal** to be sought if modernization is ahead of schedule.
- **Linkages to other datasets** and related opportunities.
- **Obstacles and strategies for overcoming them.**
- Contact information for working group leadership.

DATA TASK FORCE WORKSHOP

Decisions (cont'd)

On the GeoBoard website we will create a blank library for each working group to populate with key documents about their dataset.

*Working groups will present their draft roadmaps to each other at the **October 12, 2023 Joint Task Force meeting**.*

A group consisting of representative(s) of each working group will create an overall roadmap for PA BaseMap 2030 for discussion at the GeoBoard's November 16, 2023 quarterly meeting.

PROGRESS ON DATA LAYER ROADMAPS

Significant activity

SSAP Secondary Use

Parcels/County Pro Land Records Committee

Hydrography

Discussions and movement

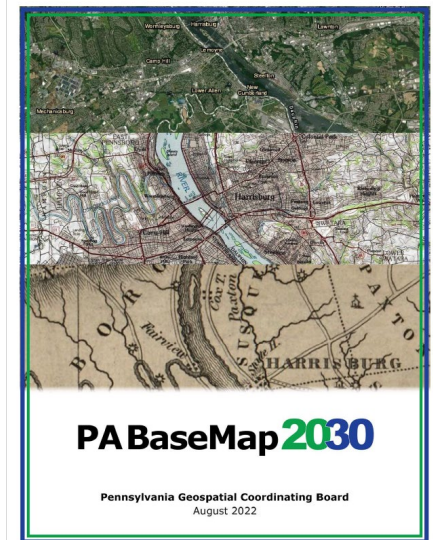
Civic Boundary

Geodetic

Elevation/Remote Sensing

No discussions

Roads/Transportation



PROGRESS ON DATA LAYER ROADMAPS

Planning for October 12 Joint Task Force presentations

- Designing hybrid Joint Task Force meeting
- Encouraging live presentations
- Expecting/allowing diverse approaches
- **Change in time or venue needed**

Seeking consolidation team members

- Participate in October 12 JTF
- Concentrate on integration of data layers
- Prepare summary PA BaseMap roadmap for November 16 GeoBoard

DATA LAYER ROADMAPS



DISCUSSION



EXPANDING DATA SHARING WORKSHOP

Joint Task Force
July 13, 2023

EXPANDING DATA SHARING

Implementation Task

Document current data sharing practices and expectations among state agencies and signatories of the Statewide Data Sharing Agreement and propose changes that would promote increased collaboration and agility in sharing among governments.

EXPANDING DATA SHARING

Goal:

Identify practical and timely solutions for expanding data sharing related to PA BaseMap 2030.

Method:

Review Service Delivery Task Force 2022 BaseMap 2030 Workshop results

Review of lessons learned about data sharing, specific to each data layer, to inform and expand sharing for all data, and from new partners.

EXPANDING DATA SHARING

Findings from the 2022 SDTF Workshop include:

- We have a broad spectrum of users and there are still a lot of needs and restrictions on users and how they can consume spatial data.
- What they want is for us (someone) to make and provide access to data.
- Access to current and regularly updated 3D data will be increasingly important.
- “PA BaseMap can be defined as a coordinated series of data sets that work seamlessly together, require minimal processing, so everyone is working off the same data.”

EXPANDING DATA SHARING

The actual nature of how to share and how we modernize workflows and set goals are integral components of PA BaseMap 2030.

Experience shows that processes for interagency sharing can be simplified.

- Other states have created a classification of enterprise data that is shareable by definition.
- Perhaps spatial data is a specific class of Commonwealth data.

EXPANDING DATA SHARING

Use for most spatial data goes far beyond what it was created for.

If we want to expand upon data use for other purposes, we can't just assume that the original use justifies or satisfies requirements for other uses.

Uniform statewide address data collected for NG911 call routing is the prime example. Lessons include:

1. There is a need for consistent and pointed outreach to counties,
2. Early definition of data standards is necessary,
3. Financial assistance to comply with standards helps.

EXPANDING DATA SHARING

There are other examples of state-level programs where data is created and collected for a single purpose by one agency that could serve as basemap inputs:

- County Hazard Mitigation Plans
- State Tax Equalization Board
- MS4 compliance
- Public utility customer location data

EXPANDING DATA SHARING

Reasons we refer to Basemap 2030 (rather than BaseMap 2025) include:

- Requires engagement and information from all levels of government.
- Workflow change takes time.
- We have partners and technological backwaters that need real support and encouragement.

EXPANDING DATA SHARING

Action Items

1. Identify existing programs - HMP, Official Map, MS4, DOT 3D2025 are examples - as possible roadmap strategies, building upon the example of addresses from NG911.
2. County data sharing agreements should be examined and revisited in the light of new interagency sharing and its heightened executive support.
3. Study the potential benefits and logic of BaseMap 2030 designation as Commonwealth Data as that initiative develops.

DATA LAYER ROADMAPS



DISCUSSION

NEW BUSINESS

- **PEMA NG911 GIS Strategic Plan *draft***
 - Updates 2019 plan
 - 3D, GIS staffing, legal authority for addressing are some focal points

- **Topics for November 16 meeting**
 - PA BaseMap 2030 roadmap
 - Communications Plan
 - GeoBoard Reauthorization
 - More?

- **Other?**

FUTURE MEETINGS

Joint Task Force Meetings

- October 12
- February and May 2024 TBD

GeoBoard Quarterly

- November 16, 2023
- March and June 2024 TBD
- *Expect invitations*

LOCATION

Virtual Conference and 1 Technology Park-
Commonwealth Technology Center (CTC) , Harrisburg,
PA 17110

Reminder: new business agenda topics are finalized
five (5) weeks prior to Board meetings.



Motion to Adjourn