

BILL SUMMARY AND ANALYSIS

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A. SUMMARY OF THE BILL

The bill creates a freestanding act, to be known as the Mapping and Geographic Information Services Act. It establishes the Mapping and Geographic Information Services Council, the Mapping and Geographic Information Services Investment Fund, designates the State Geographer, and provides for their powers and duties.

B. THE MAPPING AND GEOGRAPHIC INFORMATION SERVICES COUNCIL

Composition of the Council

12 State level appointees.

4 appointed by the Governor without consent of the Senate

4 appointed by the General Assembly

1 each appointed by the Chief Justice, Attorney General, Auditor General and Treasurer

12 Appointees from organizations representing political subdivisions, industry or academe. The governor must appoint individuals designated by the organizations.

1 designated by the County Commissioners Association

1 designated by the State Association of Boroughs

1 designated by the League of Cities and Municipalities

1 designated by the State Association of Township Commissioners

1 designated by the State Association of Township Supervisors

1 designated by the School Boards Association

1 designated by the Municipal Authorities Association

1 designated by PaMAGIC

1 designated by the Society of Land Surveyors

1 designated by the Association of Colleges and Universities

1 designated by the Chamber of Business and Industry

1 designated by the Pennsylvania One Call System, Inc.

1 member, ex officio, from the United States Geological Survey.

1 member, ex officio, from the Pennsylvania Historical and Museum Commission (adopts and records official names of topographic features in the Commonwealth).

Quorum and Voting Rules

Thirteen voting members constitute a quorum. A majority of voting members present, but at least nine votes, is required for the Council to take official action.

General Powers of the Council

The Council is empowered to:

- **Serve as steward of the Commonwealth's state, county and municipal boundaries.** In so doing, the Council is empowered to promote the preservation of original boundary documents and monuments, create and maintain electronic databases of images of legal descriptions and supporting documents of boundaries of the state and its political subdivisions, and of boundary segments that are in dispute or unknown, and to provide technical assistance to facilitate resolution of boundary disputes. Development of the databases would be a long-term endeavor relying heavily on the cooperation of the associations of political subdivisions that are members of the Council.

The Council is empowered to impose a mandatory boundary reestablishment fee to cover the cost of resetting boundary monuments that have been destroyed after the effective date of the act, and to use surplus funds from these fees to reestablish boundary monumentation destroyed prior to the act.

- **Develop, approve, maintain and update standards for sharing geospatial data and for interoperable geographic information systems and services.** These standards would apply to the jurisdictions, offices and organizations within the Council, as determined by policy established by the Council.
- **Develop policies based upon strategic planning and investment to support data sharing and interoperability among members of the Council.**
- **Grant licenses and impose royalties and fees for the sale and distribution by private firms of value-added products developed from data and services supplied by members of the Council.** The Council would establish policy covering licensing and royalties. All royalties and fees would be deposited in the fund.
- **Create and administer a grant program from the Mapping and Geographic Information Services Investment Fund to establish and maintain interoperable geographic information services and data.** The program would be directed to members of the Council, and would be funded by royalties, fees and other funds, as available.
- **Create and administer a grant program from the Fund for private firms and individuals to support development and marketing of value-added geospatial products using data and services supplied by members of the Council.** This grant program is intended to stimulate the Commonwealth's industries that have geospatial or locational elements, create new businesses and jobs, and replenish and recycle monies in the fund by creating new royalties and fees.
- **Use the Fund as a pass-through to pool investment earmarked for purchase of specific imagery, equipment, services or other geospatial products.** Such pooling is used, for example, to upgrade the resolution of imagery provided at no cost by the PAMap Program to counties. Some counties or municipalities add funds to upgrade their imagery. At present, there

is no straightforward mechanism to pool funds and pooling causes lengthy delays. This arrangement would greatly speed the process. The Council could charge up to 2% of pooled funds to cover administrative costs.

C. THE MAPPING AND GEOGRAPHIC INFORMATION SERVICES INVESTMENT FUND

The Investment Fund is a permanent fund administered by the Council. The bill defines the sources of monies that can be deposited in the fund, the purposes for which monies can be disbursed from the fund, and accounting and reporting requirements for the fund.

Sources of Monies in the Fund

The bill defines the following sources of monies for the fund and specifies that separate accounts be set up for each:

- **Appropriations from the General Assembly and other governmental entities.** These funds may be general appropriations or earmarked for specific purposes within the purview of the Council.
- **Pooled pass-through funds earmarked for purchase of specific imagery, etc.** These funds may not be used for any other purpose.
- **Grants or gifts from private industry, not-for-profit organizations, institutions of higher education or private foundations.** These funds may be general grants or gifts, or earmarked for specific purposes within the purview of the Council.
- **Fees charged for the administration of pooled accounts.**
- **Mandatory geodetic boundary monument replacement fees.**
- **Royalties for products licensed by the Council.**

Uses of the Fund

The bill specifies that monies from the fund may be used to cover the following costs:

- **Administrative, data base management, and boundary reestablishment costs associated with the stewardship of boundaries.**
- **Costs of strategic planning, administration and development of standards, and of grants to maintain and expand geospatial capabilities and interoperability among members of the Council.**

- **Costs of strategic planning and administration, and of grants to support development of new value-added geospatial products and services by private industry.**
- **Expenditures of pooled funds for earmarked purposes, plus administrative costs.**

DISCUSSION OF COUNCIL AND INVESTMENT FUND: *The 24-member Council provides a governance structure for geospatial policy in the Commonwealth. It would be established as an independent board empowered to make and administer policy in matters under its jurisdiction. The Council is divided evenly between state and non-state appointees. At the state level, voting members are drawn in equal numbers from the executive agencies, the legislature, and the judiciary/statewide elected offices. The remaining 12 voting members are drawn from associations representing political subdivisions, from users groups, surveyors, academe, the Chamber of Business and Industry, and Pennsylvania One Call System, Inc. The Council is diverse by design so that action requires full deliberation and accommodation. As structured, it is very unlikely that any single group or coalition of groups could either dominate or stymie the Council. In other words, the Council has been designed to be a mini-Commonwealth, with all of the positive and negative features of such a decentralized system.*

The quorum and voting rules accommodate instances where a large number of members may be absent, and prevents action without at least nine affirmative votes. If 18 or more members are present, a simple majority is required. If 17 through 13 members are present, nine votes are required for official action to occur.

Council functions involve boundary stewardship, establishing and maintaining geospatial data sharing and interoperability standards, and administering two grants programs, one to enhance the capabilities of members of the Council and the other to help expand industries in the Commonwealth that use or market geospatial data or technologies. The Council also would provide pass-through funding services to facilitate pooling of resources. The Council would be empowered to impose a range of fees and royalties to support its activities.

ALTERNATIVES TO THE COUNCIL AND INVESTMENT FUND: *This bill would establish an independent Council. The same arrangement could be created by Executive Order of the Governor. Under this arrangement, the Council could exercise only those powers already granted to the Executive by law. It is not clear that a permanent fund could be established, fees charged, licenses granted or royalties imposed by Executive Order. However, some of the boundary stewardship functions, strategic planning and the creation and maintenance of standards could be assumed by the board. The voting rules could be the same, and conceivably the membership could be the same, although participation by any entity not under the Governor's jurisdiction would be discretionary. Establishing the Council or a similar arrangement by Executive Order is much simpler procedurally and could likely happen much more quickly. However, as with any arrangement established by Executive Order, it could be modified or abolished by subsequent administrations, independent of the wishes of other participants. Establishing an entity by statute is much more difficult and would likely take longer, but would create a more permanent and predictable arrangement.*

Clearly, there are still other ways to set up a governance structure for the Commonwealth. Some might involve the Governor bringing in selected parties not under the governor's jurisdiction (e.g. counties, USGS, etc.) in advisory roles. Others might involve parsing out the Council's functions by

establishing a series of committees, councils or other arrangements, each focusing on a narrowly defined function. For example, an entity to serve as steward of boundaries might be created, another to create and maintain data and/or interoperability standards, still another to provide pass-through funding, etc. All of these could be created relatively quickly by Executive Order. However, they, too, could be substantially modified or abolished by subsequent administrations despite the wishes of participants not under the jurisdiction of the Governor.

The bill was developed assuming that only limited funds, if any, would be available from general state appropriations and/or from participating political subdivisions to support Council functions. If state and local funds are available, the Council can move ahead more quickly. However, independent funding streams were sought that might serve dual purposes rather than relying on general fund appropriations or designated special taxes. Therefore, the geodetic boundary monument reestablishment fee was incorporated to support the boundary stewardship functions, the pass-through fee was added to support pass-through fund administration as well as general administration, and licensing fees and royalties for value-added products were incorporated to support grant programs for council members, and to partially recycle funds to support product development by private industry. Such funds could also be used to hire Council staff as warranted.

Licensing of value-added products and imposition of royalties raises several issues. This bill was developed assuming that data created primarily using taxpayer monies belongs to the public and should be easily accessible to the public in its original form. It also assumed that government should not be in the business of competing with business in the case of products for which reasonable business models exist.

Some counties and municipalities support a component of their GIS operations through sale of data they create, as well as value-added products in some instances. Empowering the Council to issue licenses and impose royalties may conceivably supersede these arrangements, although they need not. The bill is not intended to eliminate funding streams on which some municipal governments or counties rely to support their GIS operations. Council policy applies to the associations that are the formal members of the Council, not to the individual members of these associations. The associations and other groups that belong to the Council may seek compliance by their own members using whatever mechanisms exist, if any, in their bylaws and procedures, and at their discretion. More generally, it may be possible to distinguish the form and/or timeliness in which data are sold from the same data at a later point in time. For example, selling access to real-time data, or daily summaries of geospatially related transactions may be different from providing the same data on a monthly or quarterly basis as a Council resource.

D. THE STATE GEOGRAPHER

The bill creates the position of State Geographer and spells out the administrative arrangements for the Council:

- **The Director of the Department of Conservation and Natural Resources Bureau of Topographic and Geologic Survey is named the State Geographer.**

- **The State Geographer is designated as the Executive Director of the Council for administrative purposes.** The Director wears two hats. In the State Geographer role, the Director serves the Council. In the Bureau Director role, the Director serves the Bureau and the agency.
- **The Council is empowered to use staff from the Bureau within the limits of the budget of the Bureau.** Initially, at least, the activities of the Council will be limited to periodic meetings standards development, fund pooling, and strategic planning in which the Bureau staff is already involved.
- **The Council is empowered to hire its own staff in addition to Bureau staff, using monies from the Fund.** As the activities of the Council expand, and as funds allow, the Council is permitted to hire its own employees and to contract for services. These employees and contractors would be under the supervision of the Executive Director of the Council.

DISCUSSION OF STATE GEOGRAPHER AND ADMINISTRATIVE ARRANGEMENT FOR COUNCIL:

Historically, state Surveyor General and County Surveyor positions existed. These positions ensured proper management of monuments for public boundaries and maintained official records for state and county boundaries. The last of these positions was abolished in the late 1970's. Subsequently, some of the public boundary monuments have been lost over time, and the location of some official boundary survey descriptions are unknown, misplaced, or lost. The current state of affairs for systematically managing and maintaining official public boundary records and monumentation in Pennsylvania is in disarray. The State Geographer, by virtue of the boundary stewardship functions of the Council, would become the focus for boundary preservation and reestablishing boundary monumentation that has been destroyed. Although the State Geographer is empowered to offer technical assistance in the case of boundary disputes, the position is not empowered to be an arbiter.

The State Geographer also would be responsible for providing information to members of the Council, other states, the national government, private industry, academe and the public concerning matters under the purview of the Council.

The administrative functions of the Council are embedded in an existing state agency, and the bill provides that within limits, the agency is to provide staffing to the Council.

ALTERNATIVE ARRANGEMENTS: *A State Geographer could still be named if an arrangement other than the Council is chosen, or if another administrative arrangement is adopted for the Council. The Office of State Geographer could focus information dissemination concerning government geospatial activities in the Commonwealth.*

The State Geographer might be placed in another state agency. For example, at present two other state agencies have statutory responsibilities that involve mapping in addition to the Department of Conservation and Natural Resources. The Historical and Museum Commission has responsibility by law over the official naming of topographic features in the Commonwealth, working with the United States Board on Geographic Names. The Pennsylvania Department of Transportation has responsibility by statute for maintaining the National Geodetic Network (NGN) reference

monumentation in the Commonwealth. This system of monumentation is the key geodetic infrastructure in the Commonwealth from which all spatial referencing is derived.

The choice of the Director of the Bureau of Topographic and Geologic Survey in DCNR to simultaneously be designated as State Geographer is based upon the broader basis of mapping conducted by that Bureau. The field of geography involves studying the spatial arrangement of people, places and things. PennDOT primarily maps roads, usually to engineering standards. Clearly, PennDOT's NGN responsibility is critical to the state's geospatial infrastructure. However, it is not clear where in PennDOT that responsibility resides and what efforts are underway to maintain and restore the NGN monumentation in the Commonwealth. The Historical and Museum Commission has limited geospatial capabilities. It was judged that the Bureau has responsibility more in keeping with the people, places and things aspect of a geographer role, particularly in the layers involved with the PAMap Project.

If the Council and its staff were fully funded from government general fund appropriations, the State Geographer position might be created as an employee of the Council alone.

The State Geospatial Technologies Director might assume those responsibilities outlined for the State Geographer that do not require new statutory authorization. This could be done by Executive Order. However, the State Geospatial Technology Director position is a broad management position. The functions of the State Geographer position are probably more appropriately classified as staff rather than management.