

GIT GOVERNANCE

State Models and Best Practices

Pennsylvania

Prepared for
Wisconsin Geographic Information Office
Wisconsin State Cartographer's Office

Prepared by
L. Shanley
Land Information & Computer Graphics Facility
University of Wisconsin-Madison

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The **Wisconsin Geographic Information Office (GIO)** has the responsibility to coordinate Wisconsin's geospatial information activities, to implement standards to facilitate interoperability of information related to homeland security, to make recommendations on awarding grants to fund geospatial data, and to create information sharing agreements with state, local and tribal governments.

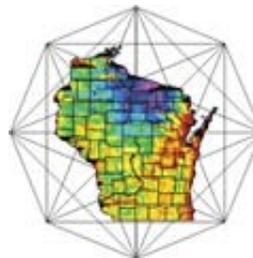
The **Wisconsin State Cartographer's Office (SCO)** is a unit within the Department of Geography at the University of Wisconsin-Madison. With an outreach mission, the SCO gathers, maintains and disseminates information about mapping and geo-spatial data in the state.

The **Land Information & Computer Graphics Facility (LICGF)** of the University of Wisconsin-Madison provides research, training, and outreach in the use of land and geographic information systems while focusing on land records modernization, land and natural resource management applications, and the use of information for land-use decision-making.

The **US Geological Survey (USGS)** has realigned its spatial programs into a National Geospatial Program Office (NGPO), bringing The National Map, Geospatial One-Stop, and the Federal Geographic Data Committee into a single program office. With the creation of the NGPO, the essential components of delivering the National Spatial Data Infrastructure (NSDI) and capitalizing on the power of place will be managed as a unified portfolio that benefits the entire geospatial community.

This state GIT governance profile was compiled as part of *GIT Governance: State Models and Best Practices*, a summary report in support of a proposal for a geographic information council for the State of Wisconsin (April 2007), and was prepared by L. Shanley, Land Information & Computer Graphics Facility, University of Wisconsin-Madison, and National Consortium for Rural Geospatial Innovations (RGIS), with assistance from Jim Knudson, Director, Pennsylvania State Geospatial Technologies, and with additional assistance from D. David Moyer, and Stephen J. Ventura, Director, Land Information & Computer Graphics Facility, University of Wisconsin-Madison. This report was funded by a "50 States Initiative" grant award through the Federal Geographic Data Committee's (FGDC) 2006 National Spatial Data Infrastructure (NSDI) Cooperative Agreement Program (CAP). This CAP grant – Agreement Number 06HQAG0109 – was administered through the Wisconsin Geographic Information Office (GIO), in cooperation with the Wisconsin State Cartographer's Office (SCO).

Wisconsin Department of Administration
Wisconsin Geographic Information Office
101 East Wilson Street, 8th Floor
Madison, WI 53707-7844
Website: http://www.doa.state.wi.us/section_detail.asp?linkcatid=568
Email: david.mockert@wisconsin.gov
Phone: (608) 261-5042



Project Team

David Mockert	Principal, State GIO, WI Geographic Information Office
Lea Shanley	Research Analyst & Project Coordination, LICGF, UW-Madison
Steve Ventura	Project Consultant, LICGF, UW-Madison

Interview Participants and Co-contributors

Dennis Goreham	Manager, UT Automated Geographic Reference Center
Gary Irish	Program Manager, AZ Land Resource Information System
Christian Jacques	Director, MA Office of Geographic and Environmental Information
Shelby Johnson	State GIO, Arkansas Geographic Information Office
William Johnson	Manager, NY GIS & Critical Infrastructure Coordination
Jim Knudson	Director, PA State Geospatial Technologies
Zsolt Nagy	Manager, NC Center for Geographic Information & Analysis
Anthony Spicci	GIS Supervisor, RSD, MO Department of Conservation
Gene Trobia	State Cartographer, AZ Geographic Information Council

Collaborating Organizations and Key Contacts

Ted Koch	State Cartographer, Wisconsin State Cartographer's Office (SCO)
Dick Vraga	Wisconsin Geography Liaison, U.S. Geological Survey (USGS)
Jason Grueneberg	President, Wisconsin Land Information Association (WLIA)
Damon Anderson	President, Wisconsin Land Information Officers Network (LION)

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Pennsylvania GIT Governance

GEOSPATIAL COORDINATION STRUCTURES AND PROCEDURES

The Department of Transportation (PennDOT), the Emergency Management Agency (PEMA), and the Department of Agriculture (PDA) were among the first to make investments in GIS development in Pennsylvania. Throughout the mid-to-late 1980s, they fostered GIS coordination through a series of pilot projects and a statewide study, and cultivated political support within the Governor's Office and General Assembly. These efforts lead to the formation of two policy-level groups: the GIS Interagency Working Group, created in 1988 and staffed by the Governor's Office; and, subsequently, the GIS Subcommittee, created in 1991 under the Automated Technology Steering Committee. Key individuals departed in the mid-1990s, and as a result, official interagency coordination declined and the GIS Subcommittee disbanded.¹

Nonetheless, GIS coordination efforts were renewed in 1996. The Department of Environmental Protection (DEP) contracted with Pennsylvania State University to develop and maintain a statewide GIS clearinghouse, now known as the Pennsylvania Spatial Data Access (PASDA). Contemporaneously, the Pennsylvania Mapping and Geographic Information Consortium (PaMAGIC) emerged as a forum for professionals interested in GIS, and served as an initial point of contact for the Federal Geographic Data Committee (FGDC) and the National States Geographic Information Council (NSGIC) outreach activities.²

¹ Warnecke et al., 2000. State Geographic Information and Related Technology (GI/GIT) Profiles: Pennsylvania. (Maryland: National States Geographic Information Council), p. 2

² History of GIS Coordination in the Commonwealth, PaMAGIC Best Practices Manual, PaMAGIC Website: http://www.oit.state.pa.us/bgt/lib/bgt/appendix_x_history_of_gis_coordination_in_the_commonwealth.doc

As part of his initiative to increase administrative and programmatic efficiency, the Governor, in his 1999-00 Budget, allocated funding for GIS implementation for five state agencies, in conjunction with the development of common management practices.³ In addition, in 1999 the Governor issued Executive Order 1999-1 titled “Land Use Planning,” which directed the Department of Environmental Protection to “establish a statewide geospatial data clearinghouse which would provide for the sharing of common geospatial data among state agencies and local governments,” thereby strengthening the role of DEP and PASDA in statewide GIS coordination (PA Administrative Code § 7.775; see Appendix). The Governor’s initiative culminated in a 1999 Memorandum of Agreement between seventeen state agencies, the General Assembly, and outside partners, which established the Pennsylvania Geographic Information Council (PAGIC), later renamed the Geospatial Technologies Council (GTC), under DEP to coordinate state agency GIS data sharing and distribution.

In 2001, the newly appointed Director of the Bureau of Topographic and Geologic Survey (BTGS) proposed a collaborative mapping partnership between local, state, and federal agencies known as “PAMAP,” the purpose of which is to build and maintain a seamless, digital base map of Pennsylvania by establishing standardized, statewide imagery and elevation data for county basemaps and leveraging the mapping investments of local governments and ensuring county-state data sharing.⁴ PAMAP also serves as pilot project of the USGS National Map Program. The Bureau of Topographic and Geologic Survey, commonly referred to as the Pennsylvania Geological Survey, is located within the Department of Conservation and Natural Resources (DCNR), and was authorized by the General Assembly in 1919 and again in 1995 (Act 18 Section 305).

Before the Bureau of Geospatial Technologies (BGT) formed, agencies coordinated geospatial activities internally and amongst themselves. The Legislative Office for Research Liaison (LORL) was instrumental in organizing the annual GIS Day activities for the Commonwealth. Both of these factors were instrumental in the hiring of a state coordinator. Had it not been for

³ Warnecke et al., 2000. State Geographic Information and Related Technology (GI/GIT) Profiles: Pennsylvania. (Maryland: National States Geographic Information Council), p. 3

⁴ Pennsylvania Geological Survey Website, PAMAP: <http://www.dcnr.state.pa.us/topogeo/pamap/index.aspx>

the unified voices of the existing geospatial community, the Geospatial Technologies Office (GTO) might not exist today. By 2003, executive support for enterprise GIS coordination had grown considerably. The Administration, which took office in January 2003, and the CIO recognized the need for a GIS coordinator for the state. Accordingly, the first Pennsylvania Geospatial Technologies Coordinator was hired on October 20, 2003. BGT was created, and an initial ‘start-up’ budget of \$130K was set up in Fiscal Year 2003⁵ to purchase several servers, GIS hardware and software, and online GIS training for state agencies.

In April 2004, the Governor issued Executive Order 2004-8, which authorized the Enterprise Information Technology Governance Board to oversee and manage the state’s IT systems and initiatives, and “directed the Office for Information Technology in the Governor’s Office of Administration (OA/OIT) to establish a Communities of Practice planning process, to establish an Enterprise Architecture, and ... To develop and deploy GIS and Geospatial Technologies (GT) investments, including establishing data development priorities, interoperability and architecture standards for data sharing across agencies and with extended enterprise partners.”

⁶ The Governor amended EO 2004-8 in December 2005, which was then incorporated into PA Administrative Code § 6.244 (see Appendix).

In response, the Bureau of Geospatial Technologies (BGT) – now known as the Geospatial Technologies Office (GTO) – was authorized in April 2004 under OA/OIT as the GT/GIS coordination agency for Pennsylvania. In August 2004, the Geospatial Technologies Manager was hired, bringing the total staff of BGT to two full time employees. The BGT assumed administrative responsibilities for the state’s GIS clearinghouse, PASDA, which is maintained through a contract with Penn State University.

To accomplish one of its first priorities, BGT developed a geospatial governance structure with a focus on state agencies. BGT created two new committees, which began meeting in the spring of 2004, to facilitate interagency GIS development and coordination: 1) the policy-oriented Geospatial Technologies Advisory Committee (GTAC), which works with the BGT on setting

⁵ Fiscal Year 2003 began July 1, 2003 and ended June 30, 2004.

⁶ GTO Strategic Plan 2005-2006, Executive Overview, p. 1. GTO Website:
http://www.oit.state.pa.us/bgt/lib/bgt/template_executive_overview.doc

annual program goals and objectives and on strategic and tactical planning; and, 2) the Geospatial Technologies Steering Committee (GTSC), which advises GTAC and the BGT on the technical implications of its policy decisions. The governance structure also incorporated the existing Pennsylvania Geospatial Information Consortium (PAGIC) organization, representing the GIS user community, which is discussed later in this document. However, as noted in the *2005-2006 Strategic Plan Initiative – GIS Council*, this “governance structure does not include federal and local government, the legislature, business, non-profits, or academia in decision making.”⁷

Secondly, OA/OIT, BGT and other Commonwealth geospatial stakeholders participated in a year-long geospatial study, as conducted by the Statewide Technology and Electronic Commerce Advisory Council, and at the request of the House of Representatives Intergovernmental Affairs Committee. The result of this study, published as House Resolution No. 882 (HR822) in November 2004, was a consensus-based document indicating important Commonwealth geospatial issues and identifying areas for potential legislative action (see Appendix). HR882 affirmed the General Assembly of Pennsylvania support for the BGT and the PAMAP program, and encouraged “the Governor and the State Geospatial Technologies Director to engage in strategic planning of geospatial technologies”. HR882 directed the Governor and State Geospatial Technologies Director “to establish collaborative technical working groups, including interagency, intergovernmental and other stakeholder groups not under the Governor’s jurisdiction, to improve the interoperability of ... geospatial technologies and to minimize duplication and maximize sharing of geospatial data collected and maintained by State-level entities.” Notably, it also instructed them “to establish a governance mechanism to develop policy and oversee strategic planning for geospatial technology interoperability and data sharing...that involves an equitable partnership among Federal agencies, State entities, including those not under the Governor’s jurisdiction, and the Commonwealth’s local governments and authorities.”

As directed in Executive Order 2004-8, executive agencies and boards that share overlapping missions and business practices are organized into one or more “Communities of Practice”

⁷ GTO Strategic Plan 2005-2006, Initiative – GIS Council, p. 1. GTO Website: http://www.oit.state.pa.us/bgt/lib/bgt/template_enterprisegiscounciln.doc

(CoP), many of which rely on the use of GIS data and technologies for specific projects. The four established IT Communities of Practice are:

- Environmental,
- General Government Operations,
- Health and Human Services, and
- Public Safety,

Additional information on the IT Communities of Practice can be found at the OIT website at www.oit.state.pa.us.

In June 2005, the Bureau for Geospatial Technologies (BGT) incorporated the Communities of Practice philosophy into its coordination with Commonwealth agencies and created a Geospatial Community of Practice for Pennsylvania (GeoCoPa) structure in order to consolidate its coordination and outreach efforts with state agencies as well as external entities.⁸ The four business communities meet to discuss geospatial items of interest to their combined agencies as well as to identify joint projects, standards, and priorities for their community. The following table indicates the 2006 priority for each Geospatial Community of Practice group:

- Environmental – Land Records, Land Management Practices
- General Government Operations – Address Geocoding
- Health and Human Services – Address Geocoding Generalization to protect HIPAA records
- Public Safety – GPS Tracking (prisoners, vehicles)

In 2004 and 2005, the Pennsylvania Mapping and Geographic Information Consortium (PaMAGIC) conducted a series of eight regional meetings to discuss the PA Geospatial Data Sharing Standards (PGDSS). In addition to discussing PGDSS, PaMAGIC conducted two

⁸ GTO Strategic Plan 2005-2006, Initiative – Agency GT Coordination and Governance, p. 1. GTO Website: http://www.oit.state.pa.us/bgt/lib/bgt/template_enterprisegtcoordinationandgovernance.doc

surveys, as part of a process to develop a “Common Vision”⁹ for an Enterprise-GIS strategic plan and statewide GIS governance. The regional meetings were funded by an FGDC CAP grant with matching funds from BGT and BTGS. Included in the Common Vision surveys were questions about the role and composition of a possible GIS Council.¹⁰ Overall, PaMAGIC’s membership thought that:

- “The most logical role of a GT governing board should be to establish policies and budgets to implement the strategic plan and common vision for the extended enterprise; [and,]
- Representation on a GT governing board should be shared between state, county, and municipal governments in proportion to their annual investments in our base map data.”¹¹

In an independent effort to develop an equitable and sustainable GIS governance structure, staffers from the House Intergovernmental Affairs Committee and the Legislative Office for Research Liaison (LORL) presented a “strawman legislative bill” for a geospatial coordination council during the Pennsylvania GIS Conference in May of 2005.¹² The draft language accomplished the goal of soliciting comments from geospatial stakeholders in the Commonwealth.

Subsequently, staff from the House Intergovernmental Affairs Committee (IAC), in cooperation with the Legislative Office for Research Liaison (LORL), met with a broad range of stakeholders to solicit ideas and feedback on how a statewide GIS governance council might be structured

⁹ PaMAGIC Website, Common Vision:
<http://www.PaMAGIC.org/PaMAGIC/cwp/view.asp?a=2022&q=502680&PaMAGICNav=|>

¹⁰ Common Vision Questions Related to a GIS Council, PaMAGIC Website:
http://www.PaMAGIC.org/PaMAGIC/lib/PaMAGIC/common_vision_questions_related_to_gis_council.doc

¹¹ GTO 2005-2006 Strategic Plan, Initiative -- GIS Council. GTO Website:
http://www.oit.state.pa.us/bgt/lib/bgt/template_enterprisegiscounciln.doc

¹² Memorandum to the Board from the Executive Directors of the House Intergovernmental Affairs Committee, October 25, 2005. PaMAGIC Website, GIS Legislation Workshop:
http://www.PaMAGIC.org/PaMAGIC/lib/PaMAGIC/PaMAGIC_materials1.doc

and operated. In October 2005, they met with the PaMAGIC Board.¹³ From these discussions, it became evident that the larger GIS community needed background information on GIS coordination councils and the National State Geographic Information Council's (NSGIC) national coordination efforts, as well as information about the legislative process in Pennsylvania. In response, PaMAGIC offered a GIS Legislation Workshop in November 2005 and provided supporting documents and materials on their website.¹⁴ In December 2005, several stakeholders from Pennsylvania, including the Legislative Office for Research Liaison (LORL), a staffer from the House Intergovernmental Affairs Committee (IAC), a representative of County Commissioner's Association of PA (CCAP), and several county GIS coordinators visited North Carolina at their invitation to discuss the NC Geographic Information Coordinating Council (GICC), and to participate in one of their GICC meetings.

Prior to this meeting, BGT conducted a national survey of NSGIC State Coordinators to determine which states had councils, determine the membership makeup, and to determine whether councils had been formed by Executive Order (EO) or Legislative Statute. Pennsylvania was determined to be one of 8 states that did not have a statewide, inclusive council. The survey indicated that 18 state councils were formed by EO, 18 by Legislation, 6 initially by EO followed by legislation.

In October 2005, OA/OIT reorganized and realigned much of its structure along the lines of the Community of Practice organizations. As part of this reorganization, the former BGT Director was promoted to become the Deputy CIO (DCIO) for the Environmental Community of Practice (EnviroCoP), and the Bureau of Geospatial Technologies (BGT) was reorganized to become the Geospatial Technologies Office (GTO), reporting directly to the Deputy CIO, EnviroCoP (see Figure 7). The former BGT Manager, in turn, was promoted to become the Director for the GTO.

In late January 2006, the House IAC and LORL presented a new legislative draft for a Pennsylvania Geospatial Coordinating Council (PGCC) to the Geospatial Technologies Office,

¹³ PaMAGIC GIS Legislation Workshop, PaMAGIC Newsletter, October 26, 2006, PaMAGIC Website: <http://www.PaMAGIC.org/PaMAGIC/lib/PaMAGIC/10-26.doc>

¹⁴ PaMAGIC Website, GIS Legislation Workshop: http://www.PaMAGIC.org/PaMAGIC/lib/PaMAGIC/PaMAGIC_materials1.doc

the County Commissioner's Association of Pennsylvania (CCAP), and the new County GIS Professionals Association. Feedback on the draft indicated concern about the cost required to staff and support the PGCC, creation of a new geospatial governance organization with no connection to the existing governance organizations, large number of members, lack of recognition of GTO and the PAMAP project, and concern about overlap and duplication with other Commonwealth initiatives and governance.

Nineteen representatives in Pennsylvania's General Assembly introduced a modified legislative draft as House Bill No. 2871 (HB2871) to the Intergovernmental Affairs Committee on June 30, 2006 (see Appendix).¹⁵ The introduced legislation was not reviewed with any geospatial stakeholders outside of LORL, the IAC, and The Pennsylvania State University (PSU) prior to being introduced, and most of the concerns previously raised were not addressed.

HB2871 was never raised to a vote on the House floor and died as the 2-year legislative session ended in November 2006.

The Secretary of Administration and Deputy Secretary for Information Technology recognized the value that GTO brought to the Commonwealth. As a result, a total of seven new staff positions will be created under GTO in 2007 to make the office sustainable. To address this new staffing level, GTO defined a new organizational structure under the Director that includes four primary areas of responsibility:

- Project Management,
- Coordination and Policy,
- Architecture and Data Management, and
- Application Development.

One strategy GTO used to raise awareness of the value of geospatial technologies to the Administration and Executive Offices was to implement a useful geospatial application in the Governor's Office. GTO provided this web-based application in early 2006 to assist the

¹⁵ Pennsylvania Geospatial Coordinating Council and Pennsylvania Mapping and Geospatial Technologies Fund Proposed Legislation. Pennsylvania General Assembly Website:
<http://www.legis.state.pa.us/cfdocs/billinfo/billinfo.cfm?year=2005&ind=0&body=H&type=B&BN=2871>

Governor's Legislative Affairs staff with notification of Representatives and Senators when the Governor will be stopping for a visit in their district. GTO worked with the Legislative Office staffers and created the District Geocoder application that reduced the time required by staff to determine which districts an address is in from several hours to several minutes, available 24/7, and that can be used at their convenience from home or office.

Geospatial Technologies Coordinator

The State Geospatial Technologies Coordinator, who also serves as the Deputy CIO Environmental Community of Practice (EnviroCoP), was appointed by the Deputy Secretary for Information Technology/CIO, Governor's Office of Administration, Office for Information Technology (OA/OIT), in October 2003. As noted above, Pennsylvania Administrative Code § 6.244 and Executive Order 2004-8 makes OA/OIT responsible for "[d]eveloping and deploying geographic information system and geospatial technology investments, including establishing data development priorities, interoperability and architecture standards for data sharing across agencies and with extended enterprise partners (see Appendix)."

The State Geospatial Technologies Coordinator administers the geospatial governance organization for Pennsylvania's state agencies, under the direction of the State CIO and the Information Technology Governance Board. The position of State GT Coordinator is not legislatively enabled and, as of January 2007, is staffed at 0.5 Full Time Equivalent (FTE), with 0.5 FTE as EnviroCoP DCIO. The EnviroCoP DCIO's GTO responsibilities and level of effort should decrease this year as new staff is added to the GTO, and is expected to drop to 0.25 FTE as GT Coordinator and 0.75 FTE as EnviroCoP DCIO after the 7 new staff are hired this year. The responsibilities and level of effort of the GTO Director have likewise increased as this transition has occurred and with the added responsibility of personnel management for new GTO staff FTEs.

Geospatial Technologies Office Director

The GTO Director reports directly to the Deputy CIO, Environmental Community of Practice (EnviroCoP), and is responsible for GTO operations, establishing and implementing policies and

standards that govern geospatial technologies, statewide coordination, geospatial enterprise architecture, data management, application development, and project management.

Pennsylvania Geospatial Technologies Office

The Pennsylvania GTO¹⁶ is located within the Office for Information Technology, Governor's Office of Administration. As per its stated mission, the Pennsylvania GTO "develops the Geospatial Enterprise Architecture for Pennsylvania, enhances the Commonwealth's geospatial preparedness, coordinates Executive agency and enterprise geospatial initiatives, and facilitates geospatial interoperability and data sharing across all levels of government in support of defined Pennsylvania priorities and the National Spatial Data Infrastructure (NSDI)."¹⁷ To this end, GTO coordinates and oversees GT/GIS activities for all executive agencies, including geospatial strategic planning, data and standards development, software and hardware procurements, applications and training. In addition, the GTO coordinates the efforts of individual agencies, cross-agency teams, and works with the Department of Conservation and Natural Resource's PAMAP initiative, described below, to create and maintain the digital geospatial data assets needed to conduct government business in Pennsylvania and to support the National Spatial Data Infrastructure (NSDI).

In particular, the GTO was charged by Executive Order 2004-8 with defining the Geospatial Enterprise Architecture (GEA) for the Commonwealth, in cooperation with the Office for Information Technology Enterprise Architecture and EA Domain Teams. As stated in the GTO's *2005-2006 Strategic Plan Initiative – Statewide Data Access*, "[t]he development of the Geospatial Enterprise Architecture (GEA) is one of the key elements of leveraging the investments made in GIS data creation and maintenance because it consolidates all geospatial data holdings that need to be shared into a single enterprise geospatial data repository that all agencies and external government business partners and first responders" can access. GTO calls the enterprise database and application hosting environment the Geospatial Enterprise Server Architecture (GESA).

¹⁶ GTO Website: <http://www.oit.state.pa.us/bgt/site/default.asp>

¹⁷ Pennsylvania GTO Website, Mission, Vision and Guiding Principles: <http://www.oit.state.pa.us/bgt/cwp/view.asp?a=643&q=185769&bgtNav=|8505|>

Public access to non-secure geospatial datasets may be achieved through the Pennsylvania Spatial Data Access (PASDA)¹⁸ system, which was created as a joint venture in 1995 by the Department of Environmental Protection (DEP) in conjunction with The Pennsylvania State University, as directed by Pennsylvania Administrative Code § 7.775. As of June 2004, GTO assumed administration of PASDA through a collaborative effort with the Penn State Institutes of the Environment (PSIE) of the Pennsylvania State University. PASDA also serves as Pennsylvania's node on the National Spatial Data Infrastructure, Geospatial One-Stop, and National Biological Information Infrastructure. Through the creation of data and metadata in the GESA enterprise geospatial database, GTO hopes to eventually automate refreshes of shareable agency geospatial data from the GESA enterprise geospatial database to PASDA using ArcSDE replication technologies.

Finally, GTO administratively supports the current GT/GIS governance committees, described below, and also provides technical support to the Pennsylvania Homeland Security IT Governance Committee and the Geospatial Technology Training Workgroup.

As of January 2007, the GTO is actively staffed by 2.5 FTEs, including the GT Coordinator (0.5 FTE), the GTO Director (1 FTE), and a Senior Application Developer (1 FTE). A third full-time FTE was hired in early January to provide Database/Architecture support, but is stationed in Iraq until May 2007.

In order to organize the 7 new staff positions that will be added to the organization this year to make it sustainable, GTO will be organized into the four new divisions previously identified. The division of the 7 new positions across the 4 divisions in 2007 will be: Project Management (1 FTE); Policy and Coordination (1 FTE); Architecture and Data Management (2 FTEs); and Application Development (3 FTEs). The total 8.25 FTE positions for the GTO are funded through annual general funds provided by OA/OIT.

¹⁸ Pennsylvania Spatial Data Access Website: <http://www.pasda.psu.edu/>

Current Governance Structure¹⁹

Geospatial Technologies Advisory Committee

The Geospatial Technologies Advisory Committee (GTAC), which is comprised of executive and policy-level representatives from fourteen (14) state agencies, makes policy decisions regarding the implementation of geospatial technologies in state government. It sets direction, conducts strategic planning, and formulates geospatial policy for all state agencies. The GTAC is advised by the Geospatial Technologies Steering Committee (GTSC) and the PAMAP Advisory Committee, among others, on the technical implications of its policy decisions.²⁰ GTAC has met bi-monthly since March 2004. GTAC is located within the OA/OIT/GTO governance structure and is administratively supported by GTO.

Geospatial Technologies Steering Committee

The Geospatial Technologies Steering Committee (GTSC) is comprised of representatives from twenty-seven (27) state agencies, including CIOs, CTOs, and agency GIS Coordinators. GTSC meets monthly to conduct tactical planning, to implement the goals and objectives set by GTAC, to identify and oversee deliverables, and to oversee GIS data clearinghouse activities, among other things. GTSC is chaired by the Geospatial Technologies Office Director and is administratively supported by GTO.

Geospatial Technologies Council

As discussed earlier, a 1999 Memorandum of Agreement between seventeen (17) state agencies, the General Assembly, and outside partners established the Pennsylvania Geographic Information Council (PAGIC), later renamed the Geospatial Technologies Council

¹⁹ For an organizational chart of the current governance structure, refer to the Pennsylvania Geospatial Technologies Office Website, Geospatial Technologies Governance, accessed August 2006:
<http://www.oit.state.pa.us/bgt/cwp/view.asp?a=3&q=183746&bgtNav=|8505|>

²⁰ GTO Strategic Plan 2005-2006, Initiative – GIS Council, p. 1. GTO Website:
http://www.oit.state.pa.us/bgt/lib/bgt/template_enterprisegiscounciln.doc

(GTC),²¹ to coordinate state agency GIS data sharing and distribution. GTC addressed data and mapping standards, training needs, enterprise assets, and GIS data clearinghouse issues. While PAGIC started as an executive level geospatial policy making body, by 2004 the group membership was comprised of technical users representing their agencies. In early 2006, the GTC, when challenged to be productive and active or to terminate, voted to disband.

Pennsylvania Geological Survey/Bureau of Topographic and Geologic Survey

The Bureau of Topographic and Geologic Survey (BTGS),²² also known as the Pennsylvania Geological Survey, is located within the Department of Conservation and Natural Resources (DCNR). Its mission is “[t]o serve the citizens of Pennsylvania by collecting, preserving, and disseminating impartial information on the Commonwealth’s geology, geologic resources, and topography in order to contribute to the understanding, wise use, and conservation of its land and included resources.” Although the Survey has existed since 1836, its present organization was authorized by the General Assembly in 1919.²³ The Survey’s duties are mandated by Act 18 Section 305a of 1995.

In order to meet its responsibilities, the Survey administers the PAMAP Program, which replaces maintenance of the printed USGS topographic quadrangle maps in Pennsylvania. The purpose of this program is to build and maintain a seamless, digital statewide base map at a scale of 1:2400 by acquiring geospatial data from local governments in exchange for statewide true color high-resolution digital orthophotography and elevation data.²⁴ As noted in *A PAMAP Leadership Plan* (2005), “the detailed mapping scales of local governments, combined with the frequency with which they update their maps to accommodate new land development for taxing

²¹ Geospatial Technologies Council, GTO Website:
<http://www.oit.state.pa.us/bgt/cwp/view.asp?a=3&q=184908&bgtNav=|8140|>

²² Pennsylvania Geological Survey Website: <http://www.dcnr.state.pa.us/info/ata glance/fstopogeo.aspx>

²³ Pennsylvania Geological Survey Website, About the Survey:
<http://www.dcnr.state.pa.us/topogeo/about/index.aspx>

²⁴ Pennsylvania Geological Survey Website, PAMAP: <http://www.dcnr.state.pa.us/topogeo/pamap/index.aspx>

purposes, can support the map maintenance needs of most state and federal government agencies.”²⁵ The Survey’s agreements with partner counties state:

- DCNR and partner counties will make their geospatial data publicly available on the Internet;
- DCNR will assist counties “by funding a total value not to exceed \$40.00 per square mile...for the creation or modification of 1:2400 county data layers as available in conformance with the standards set forth by the Pennsylvania Geospatial Data Sharing Standard (PGDSS)”; [and,]
- DCNR will assist partner counties “on GIS technical issues for the use of their product in specific regional and locally focused projects, such as establishing a mechanism for transporting/transforming locally acquired and scaled data sets into data sets effectively and efficiently useable at state levels.”²⁶

Pennsylvania Mapping and Geographic Information Consortium

Formed in 1996, the Pennsylvania Mapping and Geographic Information Consortium (PaMAGIC)²⁷ is an organization comprised of public, private, and academic professionals interested in the statewide coordination and development of geospatial technologies. Its mission is “to provide leadership, coordination, and guidance to enhance the development, use, and access to spatial information and related services in Pennsylvania PaMAGIC is governed by a nine-member Board of Directors, which operates under a set of adopted by-laws. Some of PaMAGIC’s initiatives include: efforts to increase state inputs to FEMA’s Map Modernization, developing interoperability standards for core GIS data sets, compiling a set of recommended

²⁵ Advanced Technology Solutions, 2005. A Leadership Plan for PAMAP, June 18, 2005. (Lancaster, PA: DCNR BTGS and PAMAP Advisory Committee). DCNR Website: <http://www.dcnr.state.pa.us/topogeo/pamap/leaderfinal.pdf>

²⁶ DCNR Website, PAMAP Brochure: <http://www.dcnr.state.pa.us/topogeo/pamap/leaderfinal.pdf>

²⁷ PaMAGIC Website: <http://www.pacounties.org/PaMAGIC/site/default.asp?PaMAGICNav=|>

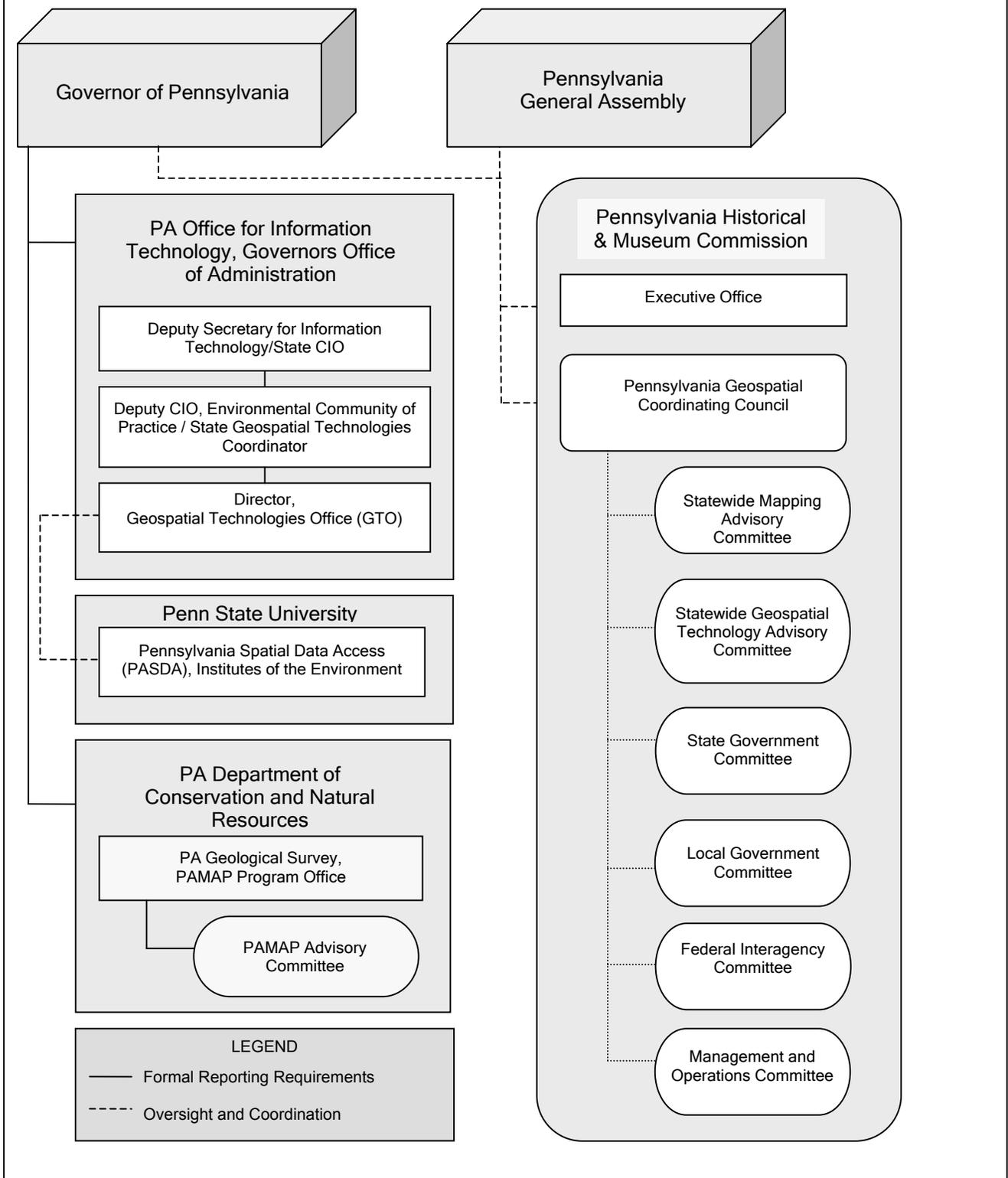
best practices, along with case studies,²⁸ conducting a series of regional meetings in support of data sharing standards and a statewide strategic planning effort, and actively supporting the creation of a statewide GIS coordination council, as noted above. As a non-profit, volunteer organization PaMAGIC'S primary role is increasing communication among disparate interests.

Other Coordinating Groups

Many regional organizations and user groups in Pennsylvania coordinate GIS activities on a regional or local level, including but not limited to: the PA GIS Consortium, SEDA-COG, Delaware Valley Regional Planning Commission, Southwest PA Commission, and the Pennsylvania K-12 GIS Alliance. In addition, several state and regional entities coordinate GIS activities with regards to homeland security, including nine regional counter terrorism task forces around the state.

²⁸ PaMAGIC, 2002. GIS Best Practices Handbook. PaMAGIC Website, PaMAGIC Initiatives Menu: http://www.PaMAGIC.org/PaMAGIC/lib/PaMAGIC/DataStandards_intro_05-22-02.pdf

Figure 1. *Proposed* Pennsylvania GIS State Council Organizational Structure under HB2871, 2006



FUNDING AND SUPPORT

The GTO is funded by general revenue through the Office for Information Technology in the Governor's Office of Administration, which covers administrative costs, coordination activities, and maintenance of the Pennsylvania Spatial Data Access (PASDA).

PASDA, the state's public GIS clearinghouse, is a cooperative project of the Governor's Office of Administration, Office for Information Technology, Geospatial Technologies Office and The Pennsylvania State University (PSU) Institutes for the Environment. Funding and support is provided by the GTO. The annual operating cost for PASDA is estimated at an average of \$375K per year.

CHALLENGES AND OPPORTUNITIES

Pennsylvania has a long history of GIS development and coordination. However, a prior lack of enterprise geospatial coordination at the state level resulted in considerable duplication in data creation and maintenance activities among state agencies. For example, the lack of a central data repository resulted in confusion over which agency was the designated data steward for specific data sets. Consequently, multiple agencies created and claimed primacy for these duplicate data themes. To address this issue, the GTO is engaged in the development of the Geospatial Enterprise Architecture, including the identification of data stewards for geospatial data creation and maintenance, the development of data models and standards, and the continued administration of the Pennsylvania Spatial Data Access (PASDA) State GIS Clearinghouse Internet portal.

Furthermore, as noted in the GTO's 2005-2006 Strategic Plan Initiative – GIS Council, “the current [GIS] governance structure [in Pennsylvania] does not include federal and local government, the legislature, business, non-profits, or academia in decision making.” Specifically, this lack of representation has resulted in a lack of awareness on the part of county and state policy-makers regarding geospatial technologies and the need for statewide GIS coordination. To implement a more equitable GIS governance structure, Pennsylvania's General Assembly proposed HB2871 on June 30, 2006, which would have established the Pennsylvania

Geospatial Coordinating Council and Pennsylvania Mapping and Geospatial Technologies Fund. This legislation was intended to provide an inclusive governance structure that will prioritize geospatial needs across all stakeholder groups in Pennsylvania. However, HB2871 did not move forward in the 2005-2006 legislative session, and the possibility remains that the Rendell Administration could create a Statewide Geospatial Advisory Council through Executive Order as an evolution of the current effective and active state agency geospatial governance organization.

The DCNR PAMAP Program has been successful in filling a need for statewide imagery and elevation data in the Commonwealth since 2003. The goal of the PAMAP Imagery project is to generate a “statewide, standardized, current and accurate, seamless aerial photography product for Pennsylvania, which will be kept up-to-date on a three year cycle.” This effort was initiated in 2003 with the collection of high resolution imagery for ten counties in south central Pennsylvania, and was continued in 2004 for three counties, and in 2005 for twenty-eight counties. The collection of twenty-one counties completed the first statewide PAMAP imagery in spring 2006, and the PAMAP program also flew 22 of 67 counties in a LiDAR elevation program in spring 2006, with a goal of completing LiDAR statewide by 2008, resulting in a statewide 2’ contour data set and other new and updated elevation products, and to coordinate the use of this new elevation data with the FEMA Map Modernization program.

The acquisition of statewide imagery and elevation data will potentially be used to assist, among other things, the creation of a statewide parcel data layer. The role of GTO in the PAMAP Program is to provide oversight and policy review and to seek sustainable funding for the program.^{29,30}

A new professional association called the PA County GIS Professionals was organized by the County Commissioner’s Association of PA (CCAP) in late 2005, with funding from the

²⁹ GTO’s 2005-2006 Strategic Plan Initiative – Statewide High Resolution Imagery, GTO Website: http://www.oit.state.pa.us/bgt/lib/bgt/template_sda_statewidehigh-resolutionimagery.doc

³⁰ A Growing Greener Grant, for example, is providing \$7 million to acquire 1:2400 scale, leaf-off, true color ortho-imagery in twenty-one counties over two years; and, another grant will be used to acquire LiDAR (Light Detection and Ranging) data to support two foot topographic contours and high resolution digital terrain models for twenty-two counties over five years.

Governor's Center for Local Government Services in the Department of Community and Economic Development (DCED), with sponsorship by GTO. This group has been successful in organizing the county GIS coordinators across the state to help identify and prioritize county GIS technological needs and to work with other parties in the formulation of strategies to identify statewide geospatial priorities and the formulation of a successful statewide GIS council.

Professional geospatial companies in Pennsylvania have organized as the PA Professional Geospatial Organizations (PAPGO), potentially as a local MAPPs franchise in an effort to garner support for a statewide GIS council and to prioritize geospatial stakeholder business community needs in the Commonwealth.

PaMAGIC, GTO, PAMAP, CCAP, County GIS Professionals, and other geospatial stakeholders are working together to plan and prioritize Commonwealth needs for FEMA and the Map Modernization Program.

Appendices

A. PROPOSED ENABLING LEGISLATION FOR A GEOSPATIAL COORDINATION COUNCIL

Pennsylvania General Assembly Website:

<http://www2.legis.state.pa.us/WU01/LI/BI/BT/2005/0/HB2871P4455.pdf>

PRINTER'S NO. 4455

THE GENERAL ASSEMBLY OF PENNSYLVANIA

HOUSE BILL

No. 2871 Session of
2006

INTRODUCED BY FAIRCHILD, CAWLEY, THOMAS, BELFANTI, CALTAGIRONE,
CAPPELLI, CLYMER, CREIGHTON, DeWEESE, MUSTIO, MYERS, PALLONE,
PHILLIPS, RUBLEY, SATHER, SONNEY, STURLA, TIGUE AND
YOUNGBLOOD, JUNE 30, 2006

REFERRED TO COMMITTEE ON INTERGOVERNMENTAL AFFAIRS,
JUNE 30, 2006

AN ACT

1 Amending Title 27 (Environmental Resources) of the Pennsylvania
2 Consolidated Statutes, establishing the Pennsylvania
3 Geospatial Coordinating Council; providing for the powers and
4 duties of the Pennsylvania Geospatial Coordinating Council
5 and for the Pennsylvania Mapping and Geospatial Technologies
6 Fund.

7 The General Assembly of the Commonwealth of Pennsylvania
8 hereby enacts as follows:

9 Section 1. Title 27 of the Pennsylvania Consolidated
10 Statutes is amended by adding a chapter to read:

11 CHAPTER 64

12 PENNSYLVANIA GEOSPATIAL COORDINATING COUNCIL

13 Sec.

14 6401. Short title of chapter.

15 6402. Definitions.

16 6403. Pennsylvania Geospatial Coordinating Council.

17 6404. Creation and general powers of council.

18 6405. Discretionary powers.

1 6406. Reports.

2 6407. Creation and general powers of committees.

3 6408. Composition and duties of committees.

4 6409. Pennsylvania Mapping and Geospatial Technologies Fund.

5 § 6401. Short title of chapter.

6 This chapter shall be known and may be cited as the

7 Pennsylvania Geospatial Coordinating Council Act.

8 § 6402. Definitions.

9 The following words and phrases when used in this chapter
10 shall have the meanings given to them in this section unless the
11 context clearly indicates otherwise:

12 "Council." The Pennsylvania Geospatial Coordinating Council
13 established in section 6403 (relating to Pennsylvania Geospatial
14 Coordinating Council) as an agency independent of the executive
15 branch.

16 "Fund." The Pennsylvania Mapping and Geospatial Technologies
17 Fund established in section 6409 (relating to Pennsylvania
18 Mapping and Geospatial Technologies Fund).

19 § 6403. Pennsylvania Geospatial Coordinating Council.

20 (a) Establishment.--The Pennsylvania Geospatial Coordinating
21 Council is hereby established.

22 (b) Membership.--The council shall consist of up to 35
23 members who shall serve until the expiration of their terms,
24 membership or employment or until their successors are
25 appointed. The following persons shall serve on the council:

26 (1) The Secretary of Environmental Protection of the
27 Commonwealth.

28 (2) The Secretary of Conservation and Natural Resources
29 of the Commonwealth.

30 (3) The Secretary of Transportation of the Commonwealth.

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1 (4) The Director of the Pennsylvania Emergency
2 Management Agency.

3 (5) Three persons nominated by the Governor who shall be
4 appointed without the advice and consent of the Senate. The
5 persons nominated by the Governor shall be selected from
6 either the Governor's Office or other State agencies under
7 the Governor's jurisdiction and shall serve three-year terms.

8 (6) A designee of the President pro tempore of the
9 Senate who shall serve a three-year term.

10 (7) A designee of the Minority Leader of the Senate who
11 shall serve a three-year term.

12 (8) A designee of the Speaker of the House of
13 Representatives who shall serve a three-year term.

14 (9) A designee of the Minority Leader of the House of
15 Representatives who shall serve a three-year term.

16 (10) A designee of the Chief Justice of the Pennsylvania
17 Supreme Court who shall serve a three-year term.

18 (11) A designee of the Pennsylvania Historical and
19 Museum Commission who shall serve a three-year term.

20 (12) Six persons nominated by the County Commissioners
21 Association of Pennsylvania to serve three-year terms. The
22 nominees shall be appointed by the Governor without the
23 advice and consent of the Senate. At least four of the six
24 nominees shall be current or former county commissioners.

25 (13) A designee of the Statewide organization
26 representing school boards who shall be appointed by the
27 Governor without the advice and consent of the Senate. The
28 designee shall serve a three-year term.

29 (14) A designee of the Statewide organization
30 representing authorities who shall be appointed by the

1 Governor without the advice and consent of the Senate. The
2 designee shall serve a three-year term.

3 (15) A designee of the Statewide organization
4 representing boroughs who shall be appointed by the Governor
5 without the advice and consent of the Senate. The designee
6 shall serve a three-year term.

7 (16) A designee of the Statewide organization
8 representing cities who shall be appointed by the Governor
9 without the advice and consent of the Senate. The designee
10 shall serve a three-year term.

11 (17) A designee of the Statewide organization
12 representing first class townships who shall be appointed by
13 the Governor without the advice and consent of the Senate.
14 The designee shall serve a three-year term.

15 (18) A designee of the Statewide organization
16 representing second class townships who shall be appointed by
17 the Governor without the advice and consent of the Senate.
18 The designee shall serve a three-year term.

19 (19) A designee of the Pennsylvania Society of Land
20 Surveyors who shall be appointed by the Governor without the
21 advice and consent of the Senate. The designee shall serve a
22 three-year term.

23 (20) A designee of the Pennsylvania Association of
24 Colleges and Universities who shall be appointed by the
25 Governor without the advice and consent of the Senate. The
26 designee shall serve a three-year term.

27 (21) A designee of the Pennsylvania Chamber of Business
28 and Industry who shall be appointed by the Governor without
29 the advice and consent of the Senate. The designee shall
30 serve a three-year term.

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1 (22) A designee of the Pennsylvania One Call System who
2 shall be appointed by the Governor without the advice and
3 consent of the Senate. The designee shall serve a three-year
4 term.

5 (23) A designee of a Federal agency with an office in
6 this Commonwealth from the Federal Geographic Data Commission
7 or its successor who shall be appointed by the Governor
8 without the advice and consent of the Senate. The designee
9 shall serve a three-year term.

10 (24) Up to five persons who shall be nominated by the
11 council and appointed by the Governor. The nominees shall be
12 appointed without the advice and consent of the Senate and
13 shall serve three-year terms. Members may be nominated from
14 State executive agencies or independent boards, commissions
15 or legislative service agencies not otherwise represented on
16 the council, State row offices, county or local governments,
17 regional counterterrorism task forces, local law enforcement,
18 professional organizations, the Pennsylvania Mapping and
19 Geographic Information Consortium or other interested private
20 citizens and groups.

21 (c) Executive director.--The Management and Operations
22 committee shall nominate an executive director to be approved by
23 the council. The executive director shall appoint staff to any
24 position created and funded by the council.

25 (d) Vacancies.--Vacancies on the council shall be filled by
26 the appointment of a successor in accordance with the procedures
27 set forth in this chapter.

28 (e) Meetings.--The council shall meet quarterly and at other
29 times at the call of the chair. The Secretary of Transportation
30 shall call the first organizational meeting of the council and

1 preside until a chair is elected.

2 (f) Officers.--The council shall elect a chair and vice
3 chair from among its membership at the first organizational
4 meeting to serve until the first quarterly meeting of the
5 following year. Thereafter, the council shall elect a chair and
6 vice chair from its membership at the first quarterly meeting in
7 each calendar year to serve one-year terms. No person may serve
8 as chair for more than two consecutive terms or for more than a
9 total of four full one-year terms.

10 (g) Quorum and bylaws.--A simple majority of the members
11 appointed on the council shall constitute a quorum. The council
12 shall establish bylaws to govern its proceedings as required for
13 the council to take official action. The bylaws shall provide
14 for the duties of the executive director regarding personnel,
15 accounting, budgeting and other matters necessary to the
16 functioning of the council.

17 (h) Reimbursement for expenses.--Members of the council
18 shall serve without compensation and shall be reimbursed by the
19 council for reasonable expenses actually incurred in connection
20 with official duties of the council in accordance with this
21 chapter and the bylaws of the council.

22 (i) Organization.--The council shall be organized within the
23 Pennsylvania Historical and Museum Commission for
24 organizational, budgetary and administrative purposes.

25 § 6404. General powers of council.

26 (a) Cooperation.--The council shall encourage cooperation
27 and cost-sharing among Federal, State and local government
28 agencies, academic institutions and the private sector to
29 improve the quality, access, cost-effectiveness and utility of
30 Pennsylvania's geospatial information and to promote geospatial

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1 information and technology as a strategic resource in this
2 Commonwealth.

3 (b) Forum for policy and technology.--The council shall
4 serve as a forum on geospatial policy and technology issues
5 within this Commonwealth to enhance cooperation and coordination
6 among the governments, associations and organizations
7 represented on the council.

8 (c) Strategic planning.--The council shall engage in
9 strategic planning on geospatial issues and on the coordination
10 and sharing of geospatial data and technology across this
11 Commonwealth.

12 (d) Policy development.--The council shall develop and
13 propose policies concerning the substance, documentation,
14 standards and sharing of geographic data, geospatial technology
15 systems and other related technologies and advise elected
16 officials regarding needed directions, priorities,
17 responsibilities and funding of geospatial information and
18 technology in this Commonwealth.

19 (e) Technical assistance program.--The council shall
20 administer, within the limits of available resources, a
21 technical assistance program for political subdivisions,
22 authorities and regional planning agencies to develop geospatial
23 technology capabilities that are consistent with the council's
24 overall plan.

25 (f) Fundraising.--The council shall seek public and private
26 grants, donations, appropriations and contributions from its
27 members and from foundations and other external entities in
28 furtherance of the purposes of the council.

29 (g) Final approval.--The council shall have final approval
30 of all policy recommendations proposed by any committee and

1 working group established by the council.

2 § 6405. Discretionary powers.

3 (a) Staff and administrative expenses.--The council may make
4 expenditures for staff and administrative expenses of the
5 council and for other council purposes from funds designated by
6 the council for such purposes.

7 (b) Contracting.--The council may enter into contracts to
8 purchase products and services required for council operations
9 and to further the purposes of the council.

10 (c) Study of specific topic.--The council may designate one
11 or more additional nonvoting, ex officio members of the council
12 on a temporary, ad hoc basis to assist with the council's study
13 or deliberation of a specific topic.

14 § 6406. Reports.

15 The council shall report at least annually to the Governor,
16 the President pro tempore of the Senate, the Speaker of the
17 House of Representatives and its membership on the status of
18 recommended improvements of geospatial technology in this
19 Commonwealth.

20 § 6407. Creation and general powers of committees.

21 (a) Duty of council.--The council shall oversee the standing
22 committees created in this subsection.

23 (b) Creation of committees.--The council may establish,
24 abolish and oversee working groups and additional standing
25 committees as needed with the exception of the Management and
26 Operations Committee.

27 (c) Bylaws.--The following committees are hereby created:

28 (1) State Government Committee.

29 (2) Local Government Committee.

30 (3) Federal Interagency Committee.

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1 (4) Statewide Mapping Advisory Committee.

2 (5) Statewide Geospatial Technology Advisory Committee.

3 (6) Management and Operations Committee.

4 Each standing committee shall adopt bylaws, subject to the
5 council's approval, to govern its proceedings.

6 § 6408. Composition and duties of committees.

7 (a) State Government Committee.--Membership shall consist of
8 representatives from all interested State government entities.
9 The committee shall annually elect one of its members serving
10 pursuant to section 6403(b)(1), (2), (3), (4), (5), (6), (7),
11 (8), (9), (10) and (11) (relating to Pennsylvania Geospatial
12 Coordinating Council) to serve as chair of the State Government
13 Committee and as its representative on the council.

14 (b) Local Government Committee.--Membership shall consist of
15 representatives from organizations and professional associations
16 that currently serve or represent local government geospatial
17 technology users and other groups. The committee shall annually
18 elect one of its members serving pursuant to section
19 6403(b)(12), (13), (14), (15), (16), (17) and (18) to serve as
20 chair of the Local Government Committee and as its
21 representative on the council.

22 (c) Federal Interagency Committee.--Membership shall consist
23 of representatives from all interested Federal agencies with an
24 office located in this Commonwealth. The appointed Federal
25 representative serving pursuant to section 6403(b)(23) shall
26 serve as the chair of the Federal Interagency Committee.

27 (d) Statewide Mapping Advisory Committee.--Membership shall
28 consist of interested members of the council and representatives
29 of other organizations and professional groups with an interest
30 in Statewide mapping issues. The committee shall consolidate

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1 Statewide mapping requirements and attempt to gain Statewide
2 support for financing cooperative programs. The committee shall
3 also advise the council on issues, problems and opportunities
4 relating to Federal, State and local government geospatial data
5 and technology programs. The committee shall annually elect one
6 of its members serving pursuant to section 6403(b) to serve as
7 chair of the Statewide Mapping Advisory Committee and as its
8 representative on the council.

9 (e) Statewide Geospatial Technology Advisory Committee.--
10 Membership shall consist of interested members of the council
11 and representatives of other organizations and professional
12 groups with an interest in Statewide issues concerning
13 geospatial technology. The committee shall advise and make
14 recommendations on the Statewide technical infrastructure for
15 geospatial technology and anticipate and respond to geospatial
16 technology technical opportunities and issues affecting State,
17 county and local governments in this Commonwealth. The committee
18 shall annually elect one of its members serving pursuant to
19 section 6403(b) to serve as chair of the Statewide Geospatial
20 Technology Advisory Committee and as its representative on the
21 council.

22 (f) Management and Operations Committee.--The Management and
23 Operations Committee shall consider management and operational
24 matters related to geospatial technology and other matters that
25 are formally requested by the council. The committee membership
26 shall consist of the chair of the council, the executive
27 director, the chair of each of the standing committees of the
28 council and other members of the council appointed by the chair
29 of the council and approved by the council.

30 § 6409. Pennsylvania Mapping and Geospatial Technologies Fund.

1 (a) Establishment.--The Pennsylvania Mapping and Geospatial
2 Technologies Fund is hereby established in the Treasury
3 Department.

4 (b) Source of funds.--The fund shall be comprised of public
5 and private grants, donations, appropriations and contributions
6 from members of the council and from foundations and other
7 external entities.

8 (c) Purposes of fund.--Moneys from the fund shall be used
9 for administrative and personnel costs of the council and its
10 staff and in furtherance of the purposes of the council.

11 (d) Investment.--The State Treasurer shall invest money in
12 the fund not currently needed to meet the obligations of the
13 fund in the same manner as other public money may be invested.
14 Interest that accrues from these investments shall be deposited
15 in the fund.

16 (e) No lapsing of moneys.--Money remaining in the fund at
17 the end of each fiscal year shall remain in the fund and shall
18 not lapse to the General Fund.

19 Section 2. This act shall take effect in 90 days.

B. PENNSYLVANIA CODE (RULES AND REGULATIONS) – RESPONSIBILITY FOR GIS AND STATEWIDE CLEARINGHOUSE

The Pennsylvania Code Website:

Chapter 6: <http://www.pacode.com/secure/data/004/chapter6/s6.244.html>

Chapter 7: <http://www.pacode.com/secure/data/004/chapter7/s7.775.html>

§ 6.244. Responsibilities of the Governor’s Office of Administration, Office for Information Technology.

“The Governor’s Office of Administration, Office for Information Technology (IT) will be responsible for: ...(12) Developing and deploying geographic information system and geospatial technology investments, including establishing data development priorities, interoperability and architecture standards for data sharing across agencies and with extended enterprise partners.” (Incorporated from Executive Order 2004-8, “As Amended, Enterprise Information Technology Governance Board”, Issued on December 19, 2005)

§ 7.775. Geographic information system.

“The Department of Environmental Protection (Department) shall establish a Statewide geospatial data clearinghouse which would provide for the sharing of common geospatial data among State agencies and local governments. The Department shall use this clearinghouse to provide information to local governments on how land use decisions may impact air quality, water quality and quantity, soil erosion and other natural resources.” (Incorporated from Executive Order 1999-1, “Land Use Planning”, Issued on January 7, 1999)

**C. HOUSE RESOLUTION NO. 882 – ENCOURAGING GEOSPATIAL
TECHNOLOGY STRATEGIC PLANNING, ADOPTED NOVEMBER 17, 2004**

Pennsylvania General Assembly Website:

<http://www2.legis.state.pa.us/WU01/LI/BI/BT/2003/0/HR0882P4555.pdf>

PRIOR PRINTER'S NO. 4486

PRINTER'S NO. 4555

THE GENERAL ASSEMBLY OF PENNSYLVANIA

HOUSE RESOLUTION

No. 882 Session of
2004

INTRODUCED BY McILHINNEY AND THOMAS, OCTOBER 6, 2004

AS RE-REPORTED FROM COMMITTEE ON INTERGOVERNMENTAL AFFAIRS,
HOUSE OF REPRESENTATIVES, AS AMENDED, OCTOBER 19, 2004

A RESOLUTION

1 Encouraging the Governor and the State Geospatial Technologies
2 Director to engage in strategic planning of geospatial
3 technologies.

4 WHEREAS, Geospatial technologies are a growing and
5 significant part of Pennsylvania's economy; and

6 WHEREAS, Geospatial technologies include computer software,
7 satellite imagery, global positioning systems, geographic
8 information systems (GIS) and other technologies used to create,
9 maintain, display and analyze geospatial information; and

10 WHEREAS, Geospatial technologies help manage critical assets
11 and identify and describe street addresses, political, school
12 district and zoning boundaries, natural and environmental
13 resources, transportation networks, infrastructure, census data,
14 centers of economic activity and other data that are critical to
15 the health, safety, homeland security, emergency management,
16 economic vitality, environmental management and quality of life
17 in this Commonwealth; and

1 WHEREAS, Pennsylvania's local governments are the primary
2 sources of critical data about building locations, street
3 addresses, infrastructure, roadways, land use, real estate and
4 jurisdictional boundaries as well as other information
5 supporting key functions of local government such as planning,
6 emergency services, property taxation, road and other utility
7 maintenance and voter registration; and

8 WHEREAS, Public and private utilities that manage public
9 infrastructure, such as telephone, water, gas and electric, are
10 critical sources of geospatial data; and

11 WHEREAS, Pennsylvania's colleges and universities are
12 important sources of geospatial technologies and data and
13 conduct geospatial analysis and research that contribute to the
14 health, safety and welfare of this Commonwealth; and

15 WHEREAS, The geospatial technology business sector represents
16 a growing part of the Commonwealth's new economy and is an
17 essential service provider to all levels of government; and

18 WHEREAS, Coordination and partnerships between the public and
19 private sectors have the synergistic result of stimulating
20 Pennsylvania's geospatial technology business sector while
21 enhancing governmental effectiveness; and

22 WHEREAS, The Governor recently created the Bureau of
23 Geospatial Technologies to foster and coordinate interoperable
24 geospatial technologies, data standards and data sharing among
25 State agencies and between and among levels of government; and

26 WHEREAS, When fully implemented, the Pennsylvania Map (PAMAP)
27 will be a modern, accurate, multipurpose geospatial initiative
28 about this Commonwealth, coordinated and maintained by a
29 partnership among the Federal partners, State agencies and
30 counties; and

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1 WHEREAS, PAMAP requires uniform data sharing standards so
2 that essential map data can be collected once by the appropriate
3 level of government and used many times by all levels of
4 government and by business, academia and individual citizens;
5 and

6 WHEREAS, Coordinated Federal, State and local initiatives
7 such as PAMAP improve geospatial planning and coordination among
8 and between the Federal Government, State agencies and counties,
9 facilitate data sharing, reduce redundant data collection
10 efforts and encourage a common vision to guide investment; and

11 WHEREAS, No State-level office in Pennsylvania is responsible
12 for comprehensive archiving and preservation of local government
13 boundary records, cataloging the location of monuments and other
14 boundary markers, maintaining official boundary maps and
15 identifying gaps, errors and inconsistencies in State, county
16 and local boundaries, making the creation of an official
17 boundary layer accurate enough for PAMAP impossible; and

18 WHEREAS, Individual State agencies and local governments
19 differ greatly in their expenditures on personnel, computer and
20 data resources and in their capabilities; and

21 WHEREAS, It is essential that all State and local governments
22 have a minimum level of managerial, technical and financial
23 capabilities in geospatial technologies; and

24 WHEREAS, Pennsylvania State agencies and local governments
25 currently have difficulty creating and sustaining programs
26 capable of supporting a Statewide PAMAP program due to
27 restrictions on funding, training of personnel and computer
28 infrastructure; and

29 WHEREAS, The State Geospatial Technologies Director and State
30 agencies assist local governments to defray the costs of

1 maintaining their geospatial capabilities and data by providing
2 aerial photography and other geospatial data to the counties in
3 exchange for county data; and

4 WHEREAS, Conflicting and incompatible Federal, State and
5 local geospatial data requirements and standards create
6 potential data gaps, duplication and inaccuracies which reduce
7 data quality and foster inconsistent or incomplete data, thereby
8 hampering efforts to address many critical issues; and

9 WHEREAS, The State Geospatial Technologies Director works
10 with Federal, State and local governments and other stakeholders
11 to limit and reduce duplication, gaps and inconsistencies in
12 data coverage by developing and implementing the Pennsylvania
13 Geospatial Data Sharing Standards (PGDSS) that enable data
14 sharing within and between levels of government; and

15 WHEREAS, The overall financial impact of Federal geospatial
16 technology requirements and their embedded technology
17 investments on State government and the financial impact of the
18 combined Federal and State geospatial technology requirements on
19 local governments are unknown; and

20 WHEREAS, Opportunities exist to leverage Federal and
21 Commonwealth funds to support mandated mapping requirements on
22 local governments; therefore be it

23 RESOLVED, That the House of Representatives support efforts
24 to ensure that interoperable geospatial technologies and data
25 exist among and between Federal, State, local governments,
26 regional entities, authorities, public schools, colleges and
27 universities and business interests in this Commonwealth and
28 recognize the State's historic role in providing sustained
29 guidance and resources in mapping; and be it further

30 RESOLVED, That the House of Representatives support the
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1 private sector working with the public sector to fund and
2 develop a robust geospatial infrastructure and expanding
3 economic base; and be it further

4 RESOLVED, That the House of Representatives support the
5 assignment of responsibility to a new or existing State-level
6 office that would serve as the official steward of political
7 boundaries for the Commonwealth and work in collaboration with
8 local governments to develop and maintain an archive of official
9 documents and survey records that would define State, local and
10 other official boundaries; catalog existing boundary markers and
11 monuments; maintain a seamless digital database of State, local
12 and other official boundaries; and identify cases where the
13 locations of local boundaries are unknown, inconsistent or
14 otherwise inaccurate; and be it further

15 RESOLVED, That the House of Representatives support the
16 development of programs and initiatives to minimize duplication
17 of effort and maximize cooperation and sharing of geospatial
18 data within and among levels of government; and be it further

19 RESOLVED, That the House of Representatives encourage the
20 Governor and the State Geospatial Technologies Director to
21 establish collaborative technical working groups, including
22 interagency, intergovernmental and other stakeholder groups not
23 under the Governor's jurisdiction, to improve the
24 interoperability of this Commonwealth's geospatial technologies
25 and to minimize duplication and maximize sharing of geospatial
26 data collected and maintained by State-level entities; and be it
27 further

28 RESOLVED, That the House of Representatives encourage the
29 Governor and the State Geospatial Technologies Director to
30 establish a governance mechanism to develop policy and oversee

1 strategic planning for geospatial technology interoperability
2 and data sharing, including, but not limited to, PAMAP, that
3 involves an equitable partnership among Federal agencies, State
4 entities, including those not under the Governor's jurisdiction,
5 and the Commonwealth's local governments and authorities; and be
6 it further

7 RESOLVED, That the House of Representatives strongly
8 encourage and expect Federal agencies to collaborate and
9 coordinate with the State Geospatial Technologies Director for
10 all geospatial initiatives, including data collection, imagery
11 and elevation data product development or projects being
12 conducted within or across the Commonwealth of Pennsylvania, to
13 openly share with the Commonwealth all geospatial data products
14 created with tax dollars and to communicate with the State
15 Geospatial Technologies Director prior to starting any projects
16 or initiatives in this Commonwealth that will involve data
17 exchange with State agencies or local governments; and be it
18 further

19 RESOLVED, That the House of Representatives encourage local
20 governments and agencies to support PAMAP and PGDSS in order to
21 enhance interoperability of their geospatial technologies and
22 compatibility of their geospatial data; and be it further

23 RESOLVED, That the House of Representatives encourage the
24 Governor, the State Geospatial Technologies Director, the United
25 States Geological Survey and Pennsylvania's local governments to
26 collaborate in PAMAP, administered through the Department of
27 Conservation and Natural Resources' Bureau of Topographic and
28 Geologic Survey as part of the National Mapping Program of the
29 Federal Government, as a critical and sustainable means of
30 achieving geospatial technology interoperability and geospatial

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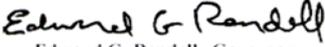
1 data sharing within and across levels of government; and be it
2 further
3 RESOLVED, That copies of this resolution be transmitted to
4 the Governor, the Governor's Cabinet, the Joint State Government
5 Commission, the Local Government Commission, the Pennsylvania
6 Congressional Delegation, the Pennsylvania Commission on
7 Sentencing, the County Commissioners Association of
8 Pennsylvania, the Pennsylvania State Association of Township
9 Supervisors, the Pennsylvania State Association of Boroughs, the
10 Pennsylvania Chamber of Business and Industry, the Association
11 of Independent Colleges and Universities of Pennsylvania, the
12 State-related universities, the Pennsylvania State System of
13 Higher Education, the University of Pennsylvania, the
14 Pennsylvania Commission for Community Colleges, the Pennsylvania
15 Mapping and Geographic Information Consortium, the Eastern
16 Technology Council, the Pittsburgh Technology Council, the
17 Technology Council of Central Pennsylvania, the Technology
18 Council of Northeastern Pennsylvania, the ~~League of Cities,~~ <—
19 ~~First Class Townships,~~ PENNSYLVANIA LEAGUE OF CITIES AND <—
20 MUNICIPALITIES, PENNSYLVANIA STATE ASSOCIATION OF TOWNSHIP
21 COMMISSIONERS, PENNSYLVANIA SOCIETY OF LAND SURVEYORS,
22 PENNSYLVANIA MUNICIPAL AUTHORITIES ASSOCIATION FOR PENNSYLVANIA
23 MUNICIPAL MANAGEMENT, PENNSYLVANIA STATE MAYOR ASSOCIATION, nine
24 regional counterterrorism task forces AND regional planning <—
25 organizations ~~and first class, second class and second class A~~ <—
26 ~~cities.~~

D. EXECUTIVE ORDER 2004-8 AS AMENDED, ENTERPRISE INFORMATION TECHNOLOGY GOVERNANCE BOARD – RESPONSIBILITY FOR GIS, DECEMBER 19, 2005

Pennsylvania Office for Information Technology Website:

<http://www.oa.state.pa.us/oac/cwp/view.asp?A=351&Q=185706>

COMMONWEALTH OF PENNSYLVANIA GOVERNOR'S OFFICE EXECUTIVE ORDER

Subject:	Enterprise Information Technology Governance Board	Number:	2004-8 As Amended
Date:	December 19, 2005	By Direction of:	 Edward G. Rendell, Governor

- WHEREAS, historically, the Commonwealth's information technology (IT) policy for the governance of IT initiatives throughout the Enterprise has been largely decentralized; and
- WHEREAS, Commonwealth offices under the Governor's jurisdiction invest approximately one billion dollars annually to create and support IT infrastructure and systems; and
- WHEREAS, *The Administrative Code of 1929* requires administrative departments and several independent and departmental administrative boards to coordinate their work and activities with other departments, boards, and commissions; and
- WHEREAS, IT investments and development efforts should be prioritized across the Commonwealth and coordinated across agencies to enhance information sharing, standardization, and cost-effectiveness; and
- WHEREAS, coordinated technology standardization across Commonwealth agencies will increase the effectiveness of product development projects, reduce research and development investments, enable volume hardware and software purchases, and enhance system compatibility and data sharing; and
- WHEREAS, an integrated IT strategy will improve organizational efficiency, streamline data collection and data sharing, and enhance the security of the Commonwealth IT infrastructure from cyber attacks; and
- WHEREAS, no central IT organization currently exists to govern, evaluate, and monitor agency IT planning, research, project prioritization, investment, and effectiveness. Therefore, it is imperative to establish an Enterprise IT Governance Structure to facilitate a cost-effective, coordinated technology investment strategy that effectively leverages IT resources and data systems across Commonwealth agencies.

NOW, THEREFORE, I, Edward G. Rendell, Governor of the Commonwealth of Pennsylvania, by virtue of the authority vested in me by the Constitution of the Commonwealth of Pennsylvania and other laws do hereby establish an **Enterprise Information Technology Governance Board** (hereinafter referred to as the "Board") and order and direct as follows:

1. Purpose. The purpose of the Board is to establish an Enterprise IT Governance Structure to oversee the investment and performance of information solutions across the Commonwealth's agencies and to advise and counsel the Governor on the development, operation, and management of the Commonwealth's IT investments, resources, and systems.

2. Powers and Duties. The Board will define a strategic vision for Commonwealth IT operations; establish program priorities; approve IT planning; direct IT investments; and oversee IT purchasing and policy. The Board will have the authority to resolve interagency disputes, make and implement recommendations on staffing and operational issues, monitor project performance, assign Project Management and Business Process reengineering resources from the Office of Administration, Office of Information Technology to critical agency projects, and perform all other such duties as assigned by the Governor.

3. Composition. The Governor will designate one person from the Board to serve as chair for the purposes of convening meetings and conducting business. The Board will be composed of the:

- a. Secretary of Administration;
- b. Secretary of the Budget;
- c. Secretary of General Services;
- d. Governor's Chief of Staff;
- e. Deputy Secretary for Information Technology/Office of Administration, who will serve as the Commonwealth's Chief Information Officer; and
- f. Other members as deemed necessary by the Governor.

4. Responsibilities of the Governor's Office of Administration, Office for Information Technology (OA/OIT). The OA/OIT will be responsible for:

- a. Implementing policy, planning, and budget directives adopted by the Board, including monitoring projects approved by the Board.
- b. Making recommendations to the Governor through the Board on IT-related budget requests; monitoring annual enterprise-wide IT spending; and reviewing and approving, prior to submission to the Department of General Services, all IT sole source requests as well as providing pre-issuance approval for all agency Requests for Proposal (RFPs), Invitation to Qualify (ITQ) scopes of work greater than an amount specified by the Board, and IT Emergency Contracts.
- c. Assisting in drafting IT procurement documents, participate in procurement review and evaluation processes, and assist in negotiating final IT contracts. This must adhere to the Commonwealth procurement and technology policy directives.
- d. Providing Project Management resources as directed by the Board to oversee and manage agency IT projects.

- e. Providing Business Process Reengineering resources as directed by the Board to facilitate the analysis of business process changes prior to the initiation of an IT project.
- f. Reviewing and approving all aspects of the project implementation including change order management, deliverable payments and final acceptance for projects determined by the IT Governance Board.
- g. Creating and maintaining a current Enterprise IT inventory.
- h. Managing a Communities of Practice planning process.
- i. Reviewing and approving all agency and central IT senior management appointments through the Deputy Secretary for Information Technology, who will provide a recommendation through the established senior level appointment process to the Governor's Office for all appointments to Chief Information Officer or Information Technology Manager positions.
- j. Assisting in the performance appraisal of IT senior management appointments through the Deputy Secretary for Information Technology, who will co-evaluate the performance of CIOs in collaboration with the appropriate, responsible agency official.
- k. Establishing an Enterprise Architecture (EA) and deploy enterprise-wide technology, including establishing product standards, technical reviews of agency systems, and establishing security procedures and protocols.
- l. Developing and deploying Geographic Information System (GIS) and Geospatial Technology (GT) investments, including establishing data development priorities, interoperability and architecture standards for data sharing across agencies and with extended enterprise partners.
- m. Establishing and facilitating a process for the identification of information technology shared services and where approved and requested by the Board, providing such shared services.
- n. As part of the shared services program, establishing and leading an Enterprise Telecommunications Governance Board to ensure consolidation of Commonwealth telecommunications policy, services and infrastructure, where appropriate, and to review and authorize requests for new services. This Board will focus on telecommunications as it related to the Commonwealth operations.
- o. As directed by the Governance Board, establishing a single Information Technology budget within each agency. When directed establish a single IT budget for each Community of Practice.
- p. Performing other IT-related activities as directed by the Board.

5. Communities of Practice (CoP). The OA/OIT will establish a CoP planning process that will bring together agencies that share program and policy objectives, serve common populations, or have compatible data collection and management needs. The CoP process will focus on enterprise IT planning and project prioritization to:

- a. ensure that the IT projects funded in the Governor's budget are the most critical and are aligned with enterprise goals; and
- b. identify similar projects being addressed across multiple agencies and plan for the development of these initiatives in a collaborative, non-redundant manner.

6. Agency Information Technology Requirements. Each executive agency under the Governor's jurisdiction shall:

- a. establish a central IT organization within their agency to manage IT processes;
- b. submit an annual strategic plan to the OA/OIT;
- c. comply with all enterprise hardware and software standards established by the Board;
- d. comply with enterprise security policy and conduct periodic security audit;
- e. participate in the identification and recommendation of information technology shared services for review and approval by the IT Governance Board; and
- f. provide shared services as requested by the Board.
- g. comply with the creation of a single IT budget by agency and Community of Practice as directed by the IT Governance Board through the Deputy Secretary for Information Technology.

7. Effective Date. This *Executive Order*, as amended, shall take effect immediately.

- **8. Termination Date.** This Executive Order shall remain in effect unless revised or rescinded by the Governor.

E. PENNSYLVANIA GEOSPATIAL TECHNOLOGIES COUNCIL BY-LAWS

Pennsylvania Office for Information Technology Website:

<http://www.oit.state.pa.us/bgt/cwp/view.asp?a=643&q=189465&bgtNav=|8140|>

Adopted date: 06/17/2004

ARTICLE I. NAME

The name of this council shall be the Pennsylvania Geospatial Technologies Council, hereafter referred to as the GTC.

ARTICLE II. PURPOSE

The purpose of the GTC is to advise and support the PA Office of Administration's Bureau of Geospatial Technologies and the Geospatial Technologies Steering Committee on technical and procedural geospatial issues and in support of the Governor's agenda.

This organization shall abide by the policies and procedures set forth in these bylaws.

ARTICLE III. OBJECTIVES

The objectives of the GTC are as follows:

Sec. 1 To formulate and recommend technical and procedural standards for geospatial issues such as data architecture, quality, accuracy, resolution and maintenance to the Bureau of Geospatial Technologies.

Sec. 2 To address requests from the Geospatial Technologies Steering Committee for information and analysis on geospatial issues in the Commonwealth and provide recommendations.

Sec. 3 To assess training needs for geospatial technologies among Commonwealth agencies and provide recommendations to the Bureau of Geospatial Technologies.

Sec. 4 To provide input and make recommendations to the Advisory Council for the Statewide Data Clearinghouse regarding the needs of Commonwealth agencies.

Sec. 5 To foster cooperation and standardization of the acquisition and exchange of spatially-referenced geographic information among Commonwealth agencies, boards and commissions and across all levels of government and recommend management approaches to data development and sharing.

Sec. 6 To develop partnerships with public and private sector organizations, local, other state, and Federal agencies for the cost-effective acquisition of geospatial data and its general use as a shared resource for the Commonwealth.

ARTICLE IV. MEMBERSHIP

Sec. 1 Membership is open to all Commonwealth agencies, boards and commissions. A primary representative for each Agency/entity shall be appointed by their respective agencies. There is no limit to the number of agency personnel who may participate as non-voting members of the GTC.

Sec. 2 Each member agency/entity shall have 1 vote on issues brought before the Council.

Sec. 3 It is the responsibility of each member agency/entity to be active in the GTC and ensure agency representatives attend scheduled meetings.

Sec. 4 Ad-hoc members from entities and organizations not under the Governor's jurisdiction, such as PA Mapping and Geographic Information Council (PAMAGIC), Legislative Office for Research Liaison (LORL), County Commissioners Association of PA (CCAP), regional councils of government, regional planning organizations, etc. may be added or removed as approved by the Executive Committee.

ARTICLE V. OFFICERS

Sec. 1 The elected officers of the GTC shall be the Chairperson, Vice Chairperson and Secretary. These officers together with ex-officio Past-President will make up the Executive Committee.

Sec. 2 Elected officers shall assume their official duties as of July 1st and shall serve one fiscal year term ending June 30th or until a successor is elected. The Chairperson and Vice Chairperson shall not be retained in office more than two consecutive terms in the same office, but may reassume an office after one term out of office.

Sec. 3 Officers shall be elected by the voting members of GTC, as hereinafter provided. Upon recommendation of the Executive Committee, officers may be removed by a majority vote of the membership.

Sec. 4 The immediate past Chairperson will serve in an advisory capacity to the Executive Committee for 1 year after term has ended.

ARTICLE VI. DUTIES OF OFFICERS

Sec. 1 The Chairperson shall preside at all meetings of the GTC and shall be responsible for the implementation of the Council's decisions. The Chairperson shall also serve as the Vice-Chairperson of the Office of Administration's Geospatial Technologies Steering Committee. The Chairperson and Vice Chairperson, or person specifically appointed in writing by the Chairperson, are authorized to represent the GTC with other organizations.

Sec. 2 The Vice Chairperson will assist the Chairperson in the discharge of the Chairperson's duties as requested and, in the absence or inability of the Chairperson to act, shall perform the Chairperson's duties.

Sec. 3 The Secretary shall perform duties usually incumbent upon such an officer including preparing minutes of each Council meeting, coordinate any newsletters, meeting notices and locations and shall keep a record of names and contact information of the membership.

ARTICLE VIII. GENERAL COUNCIL MEETINGS

Sec. 1 It is the intent of these bylaws that general Council meetings be scheduled on a monthly basis. Frequency of meetings may be changed in consultation with the Geospatial Technologies Director and by a majority vote of Council members.

Sec. 2 General Council meetings will be conducted to discuss enterprise projects, data creation and sharing, application development, standards, technology changes/enhancements, and focus on agency business.

ARTICLE VII. COMMITTEES, PROJECT TEAMS and LIAISONS

Sec. 1 The GTC Executive Committee will meet at least quarterly at a time and location selected by the officers. Notice of meetings shall be announced by email at least 7 days prior to the meeting.

Sec. 2 Committees and project teams may be created, directed or dissolved by majority vote of those in attendance at an GTC Executive Committee.

Sec. 3 The Executive Committee shall appoint a Committee/Team Chairperson to organize the group and to act as a spokesperson representing the committee/team. The Chairperson shall have a 1-year term of office.

Sec. 4 The Executive Committee shall appoint liaisons to ad hoc member entities to enhance communication and coordination with those organizations. Liaisons will serve for 1-year terms.

Sec. 5 Committee/Team Chairpersons shall be responsible for maintaining membership on the committees, calling meetings, keeping records of committee activities and tasking the committee to address questions/issues at the request of the GTC Executive Committee.

Sec. 6 Committees shall meet, discuss, study and/or resolve assigned issues as needed to carry out the business of GTC. If physical presence is not feasible, then written, facsimile, electronic or telephonic communications shall substitute for a group meeting.

ARTICLE IX. NOMINATION AND ELECTION OF OFFICERS

Sec. 1 There shall be an Elections/Nominating Committee appointed by the Chairperson to create a list of nominees for election as officers and to conduct the GTC election process.

Sec. 2 The Elections/Nominating Committee shall provide to the membership a slate of officers for consideration via email or at a general Council meeting at least 30 days prior to the June meeting when elections are to be held.

Sec. 3 The Elections/Nominating Committee will tally the results of the election, notify the newly elected and incumbent officers and announce the results.

Sec. 4 Elections shall be conducted by paper ballot, with officers selected by a majority of votes cast. Each member agency has 1 vote.

Sec. 5 The Vice Chairperson will ascend to the office of Chairperson at the end of the Chairperson's term and a new Vice Chairperson will be elected to fill the vacancy.

ARTICLE X. ADMINISTRATION

Sec. 1 GTC shall be administered by its elected officers.

Sec. 2 The current Chairperson shall keep the official current and complete books and records of the decisions, actions and obligations of GTC. All books and records may be inspected by any member of the Executive Committee at a reasonable time and location.

Sec. 3 The Bureau of Geospatial Technologies will provide resources for GTC administrative and programmatic activities, as possible.

ARTICLE XII. QUORUM AND AMENDMENT OF BY-LAWS

Sec. 1 A Quorum is established when representatives for more than one-half of the GTC's member agencies are present in a Council meeting.

Sec. 2 A majority of affirmative votes on any issue will establish GTC decision.

Sec. 3 Repeal or amendment of these bylaws and to adopt additional by-laws may be executed at any meeting of GTC provided that notice is first given to the Executive Committee at least 15 days prior to the meeting. These bylaws may be amended by a 2/3 vote of Council members voting.

ARTICLE XIII. PARLIAMENTARY PROCEDURE

Sec. 1 Meetings may be conducted in an informal manner by the Chairperson, but Robert's Rules of Order (Revised) may be invoked at any time by a majority vote of the members present.

ARTICLE XIV. OBLIGATIONS AND EXPENSES

Sec. 1 It is the intent of these bylaws to set a basis for cooperation between member agencies.

Sec. 2 All GTC Executive Committee members will cooperate with the Bureau of Geospatial Technologies Office in efforts to develop funding for GTC activities.

ARTICLE XV. TERMINOLOGY AND DEFINITIONS

Sec. 1 All references to Fiscal Year relate to the Commonwealth of Pennsylvania Fiscal Year; July 1, through June 30, inclusively.