

Legislative Review Subcommittee Recommendation PA House Bill 1106 (HB1106) should not be endorsed by the PA State Geoboard in its current form (Printer’s No. 1931). Several components of the language introduced in HB1106 could have adverse consequences for the Commonwealth’s geospatial community. The PA State GeoBoard should advocate for the language of HB1106 to be altered in a manner which mitigates these consequences and provides clarity on the purpose and scope of proposed changes. Recommended alterations are detailed below.

Number LRS2018Q1 - 1
Sector(s) Public Safety General Government Private Industry Engineering and Surveying
Cost No Cost
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Background On March 8, 2017 PA House Bill 1106 (HB1106) was introduced by prime sponsor Joe Emrick. The genesis of the bill was to amend language in the Engineer, Land Surveyor and Geologist Registration Law of May 23, 1945 (P.L.913, No.367) to allow for continuing professional competency requirements and for exemption from licensure and registration. HB1106 was further modified at the request of the request of the Pennsylvania State Land Surveyors organization to include new language aimed at clarifying the duties and responsibilities of land surveyors within the State. The bill has passed the Pennsylvania House with a vote of 188-1 on June 13, 2017. As of June 16, 2017 the bill was referred to the PA Senate Committee on Consumer Protection and Professional Licensure where it currently sits for consideration.

Adverse Consequences While the language presented in the current version of HB1106 was not necessarily intended to be disruptive to the Commonwealth’s geospatial community, it could be interpreted in a manner to cause detrimental effects on daily geospatial operations. Through input from government, private, and academic stakeholders, the Subcommittee has determined nearly every GIS activity sampled (*Supporting Document A*) could be affected in some manner by the language of HB1106. These adverse effects include unfeasible resource allocation, forced outsourcing / involvement of consultants for unnecessary projects, time to completion increases, financial and budgetary concerns, unnecessary oversight and regulations, etc. Simply put, the language set forth in the current version of HB1106 could cause a monumental shift in the manner geospatial operations are performed, impacting the effectiveness and efficiency of current operations (many of which cannot endure such impacts i.e. public safety / 911 operations).

Financial Impact The fiscal note accompanying HB1106 indicating there will be “...no adverse fiscal impact on Commonwealth [PA State Government] funds...” was found by the Subcommittee to inaccurately reflect the potential financial impact to the Commonwealth as a whole. The Subcommittee found HB1106 could result in potentially significant impacts to State funds, particularly in the public safety and environmental sectors. Additionally, the Subcommittee performed a cursory assessment on financial implications of other geospatial stakeholders throughout the Commonwealth where it was found local government operations could see significant increases in operational costs if surveyors were required to perform and/or review GIS activities. Details regarding the financial impacts found by the Subcommittee are found in *Supporting Document B*.

Geospatial Community Response Several geospatial organizations throughout the Commonwealth (including those whom are members of the GeoBoard) have voiced their concerns over the language in HB1106 including: PAMAGIC (publicly via *PaMAGIC Position Statement regarding HB 1106*), PA County GIS Professionals (internally & private communications), County Commissioners Association of Pennsylvania (internally & private communications).

Nationally, similar situations (summarized in the next section) to HB1106 have occurred prompting the response from national organizations.

Similar Situations Many states have struggled with similar language in amendments to their own surveying licensure laws. Some of the attempts to amend licensure legislation were rejected due to definitions being too broad or all-inclusive as to bring all geospatial activities under surveyor licensure; others that were successful included language that specified what specific activity was to be included in surveyor licensure and what activities were beyond the scope of surveying and as such were excluded from licensure.

Two examples stood out to the Legislative Review Subcommittee as quality examples during our review.

1. The West Virginia Association of Geospatial Professionals drafted a resolution of endorsement for §210.25 of the National Council of Examiners for Engineering and Surveying (NCEES) Model Rules "Inclusions and Exclusions of Surveying Practice" (*Supporting Document C*) in 2009. This resolution was drafted to serve as a distinction between surveying and general geospatial practices, and thereby limit the extent to which surveyor certification is required. This prompted West Virginia's legislature to include exceptions in their West Virginia Code (*Supporting Document D*) as enumerated in § 30-13A-10 (c).
2. Kentucky incorporated specific accuracy standards within their legislation; the Kentucky State Board of Licensure for Professional Engineers & Land Surveyors, the Kentucky Association of Mapping Professionals, the Kentucky Association of Professional Surveyors issued an ADVISORY OPINION on EXCLUSIONS TO THE PRACTICE OF SURVEYING (*Supporting Document E*) which in addition to their version of the NCEES Model Rules, includes language which states activity having accuracy less than the standard proscribed by 201 KAE 18:150 Sections 7 and 8 shall not be considered as the practice of land surveying with the additional requirement of a specific written disclaimer.

Recommended Alterations The Legislative Review Subcommittee recognizes the need for clarification in regards portions of language found in the Engineer, Land Surveyor and Geologist Registration Law of May 23, 1945 (P.L.913, No.367). Unfortunately, the current language set forth in the current iteration of HB1106 is often overly general and at some times outright confusing. To alleviate these issues, the following alterations are recommended by the Legislative Review Subcommittee for endorsement by the GeoBoard:

1. The definitions section should be expanded in the bill. Several references within HB1106 have unclear meanings and can be interpreted in very different manners. Wording used in the current definitions section create confusion in regards to the terms they are defining. By expanding the definitions section, it alleviates the confusion caused by such words, while making the true intentions of the bill clear. Those crafting the Bill should meet with geospatial stakeholders to determine locations of confusion. Some examples of confusing wording used within and in reference to HB1106 include:

- a. Asset inventories
 - b. Modification and alternation
 - c. Retracement
 - d. Mapping
 - e. Professional understanding
 - f. Authoritative
2. Incorporation of the NCEES Model Rules (which complement the NCEES Model Law on engineering and surveying); with particular emphasis on inclusions and exclusions found in §210.25. The Model Rules set forth specific mapping activities considered included within the surveying practice and excluded from surveying practice to provide distinction and clarity on which activities require professional surveyors. These rules were developed and approved jointly by a collection of national organizations representing the general bodies of GIS/LIS, surveyor, and engineering practitioners across the United States. Each rule has been fully researched and weighed by these organizations and thus can be considered vetted and ready for implementation.

The National States Geographic Information Council (NSGIC) believes that “every state adopting the NCEES Model Law [HB1106 incorporates language similar to portions of the Model Law] should also adopt the Model Rules document to provide a thorough understanding of the respective roles of GIS professionals and licensed land surveyors and to make the appropriate distinctions between their responsibilities and job functions.”

The NCEES Model Rules document can be found in *Supporting Document F*.

3. Incorporation of “mapping grades” or accuracy classification standards to create clear distinctions of operations that require the use of Professional Engineers and Professional Land Surveyors. A large number of statements in HB1106 preclude GIS professionals from performing activities as there is no accuracy standard provided. For instance, “...determination of the configuration or contour of the earth’s surface...” which can be determined by GIS professionals by analysis conducted with LIDAR data at a non-survey accuracy level, but since no distinction is made, it is precluded by this language. Example GPS mapping accuracy classifications as defined by USGS are shown in *Supporting Document G*, a more detailed grading scale has been developed the California Department of Transportation and should be considered for future consideration.
4. Advocate for the development of a standardized, legally sound, and universally agreed upon disclaimer to be used on all Commonwealth geospatial products which do not require survey grade accuracy. A disclaimer of this nature would provide immediate education that the product is not to be used for situations where survey / engineering grade data is required.